# 7450 Ethernet Service Switch
# 7750 Service Router
# 7950 Extensible Routing System
# Virtualized Service Router

Release 24.10.R1

## MD-CLI Command Reference Guide

3HE 20100 AAAF TQZZA 01
Edition: 01
October 2024

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# 1 Getting started

## 1.1 About this guide

This document describes the commands available in the MD-CLI that can be used to manage the router.

For a list of unsupported features by platform and chassis, see the *SR OS R24.x.Rx Software Release Notes*, part number 3HE 20152 000*x* TQZZA.

Command outputs shown in this guide are examples only; actual output may differ depending on supported functionality and user configuration.

**Note:**
This guide generically covers Release 24.*x*.R*x* content and may contain some content that will be released in later maintenance loads. In addition, some SR OS features are platform-specific and may not be available or visible on all platforms. See the *SR OS R24.x.Rx Software Release Notes*, part number 3HE 20152 000*x* TQZZA, for information about the supported features and applicable platforms in each load of the Release 24.*x*.R*x* software.

To access the configuration statements within the MD-CLI, the MD-CLI engine must be enabled and the configuration mode must be **mixed** or **model-driven**. For information about using the MD-CLI, see the *7450 ESS, 7750 SR, 7950 XRS, and VSR MD-CLI User Guide.*

## 1.2 Platforms and terminology

**Note:**
Unless explicitly noted otherwise, this guide uses the terminology defined in the following table to collectively designate the specified platforms.

*Table 1: Platforms and terminology*

| Platform | Collective platform designation |
|---|---|
| 7450 ESS-7 | All |
| 7450 ESS-12 | |
| 7750 SR-1 | |
| 7750 SR-1-24D | |
| 7750 SR-1-46S | |
| 7750 SR-1-48D | |
| 7750 SR-1-92S | |
| 7750 SR-1x-48D | |


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| Platform | Collective platform designation |
|---|---|
| 7750 SR-1x-92S | |
| 7750 SR-7 | |
| 7750 SR-12 | |
| 7750 SR-12e | |
| 7750 SR-a4 | |
| 7750 SR-a8 | |
| 7750 SR-1e | |
| 7750 SR-2e | |
| 7750 SR-3e | |
| 7750 SR-1s | |
| 7750 SR-1se | |
| 7750 SR-2s | |
| 7750 SR-2se | |
| 7750 SR-7s | |
| 7750 SR-14s | |
| 7950 XRS-20 | |
| 7950 XRS-20e | |
| 7950 XRS-40 | |
| VSR | |
| VSR-NRC | |
| 7450 ESS-7 | 7450 ESS |
| 7450 ESS-12 | |
| 7750 SR-1 | 7750 SR |
| 7750 SR-1-24D | |
| 7750 SR-1-46S | |
| 7750 SR-1-48D | |
| 7750 SR-1-92S | |
| 7750 SR-1x-48D | |
| 7750 SR-1x-92S | |
| 7750 SR-7 | |


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| Platform | Collective platform designation |
|---|---|
| 7750 SR-12 | |
| 7750 SR-12e | |
| 7750 SR-1-24D | 7750 SR-1 (FP5) |
| 7750 SR-1-46S | |
| 7750 SR-1-48D | |
| 7750 SR-1-92S | |
| 7750 SR-1x-48D | |
| 7750 SR-1x-92S | |
| 7750 SR-7 | 7750 SR-7/12/12e |
| 7750 SR-12 | |
| 7750 SR-12e | |
| 7750 SR-7 | 7750 SR-7/12 |
| 7750 SR-12 | |
| 7750 SR-a4 | 7750 SR-a |
| 7750 SR-a8 | |
| 7750 SR-1e | 7750 SR-e |
| 7750 SR-2e | |
| 7750 SR-3e | |
| 7750 SR-1s | 7750 SR-s |
| 7750 SR-1se | |
| 7750 SR-2s | |
| 7750 SR-2se | |
| 7750 SR-7s | |
| 7750 SR-14s | |
| 7950 XRS-20 | 7950 XRS |
| 7950 XRS-20e | |
| 7950 XRS-40 | |
| VSR | VSR |
| VSR-NRC | |


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## 1.3 Conventions

This section describes the general conventions used in this guide.

### 1.3.1 Precautionary and information messages

The following information symbols are used in the documentation.

**DANGER:** Danger warns that the described activity or situation may result in serious personal injury or death. An electric shock hazard could exist. Before you begin work on this equipment, be aware of hazards involving electrical circuitry, be familiar with networking environments, and implement accident prevention procedures.

**WARNING:** Warning indicates that the described activity or situation may, or will, cause equipment damage, serious performance problems, or loss of data.

**Caution:** Caution indicates that the described activity or situation may reduce your component or system performance.

**Note:** Note provides additional operational information.

**Tip:** Tip provides suggestions for use or best practices.

### 1.3.2 Options or substeps in procedures and sequential workflows

Options in a procedure or a sequential workflow are indicated by a bulleted list. In the following example, at step 1, the user must perform the described action. At step 2, the user must perform one of the listed options to complete the step.

**Example: Options in a procedure**

1. User must perform this step.
2. This step offers three options. User must perform one option to complete this step.
   - This is one option.
   - This is another option.
   - This is yet another option.

Substeps in a procedure or a sequential workflow are indicated by letters. In the following example, at step 1, the user must perform the described action. At step 2, the user must perform two substeps (a. and b.) to complete the step.

**Example: Substeps in a procedure**

1. User must perform this step.
2. User must perform all substeps to complete this action.
   a. This is one substep.


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**b.** This is another substep.

## 1.4 MD-CLI command reference

### 1.4.1 MD-CLI tree hierarchy

*Table 2: Command syntax symbols*

| Symbol | Description |
|---|---|
| \| | A vertical bar represents an "or" condition, indicating that only one of the parameters in the brackets or parentheses can be selected. |
| ( ) | Parentheses indicate that one of the parameters must be selected. |
| [ ] | Brackets indicate optional parameters. |
| Bold | Commands in **bold** indicate commands and keywords. |
| Italic | Commands in *italics* indicate that you must enter text for the parameter. |

In the following examples, **location** and **graceful-shutdown** are command names. For the **location** command, *keyword* must be one of the keywords **cf1**, **cf2**, or **cf3**. For the **graceful-shutdown** command, *boolean* must be one of the keywords **true** or **false**, although explicitly using the keyword **true** is optional.

```
location keyword
keyword - (cf1 | cf2 | cf3)

graceful-shutdown boolean
boolean - ([true] | false)
```

The configuration branch of the MD-CLI shows the commands and parameters (also known as elements) that are available, shown in a hierarchical structure as in the following figure.


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*Figure 1: MD-CLI configuration tree example*

```
configure
  – cflowd
    – active-flow-timeout number
    – admin-state keyword
    – analyze-gre-payload boolean
    – analyze-l2tp-traffic boolean
    – analyze-v4overv6-traffic boolean
    – apply-groups reference
    – apply-groups-exclude reference
    – cache-size number
    – collector (ipv4-address-no-zone | ipv6-address-no-zone) port number
      – admin-state keyword
      – aggregation
        – as-matrix boolean
        – destination-prefix boolean
        – protocol-port boolean
        – raw boolean
        – source-destination-prefix boolean
        – source-prefix boolean
      – apply-groups reference
      – apply-groups-exclude reference
      – autonomous-system-type keyword
      – description string
      – export-filter
        – family
          – ipv4 boolean
          – ipv6 boolean
          – l2-ip boolean
          – mcast-ipv4 boolean
          – mcast-ipv6 boolean
          – mpls boolean
        – interface-list
          – router reference interface-name reference
          – service
```

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The **configure** context is the root level of the configuration branch within the configuration mode in the MD-CLI. Each chapter of this guide describes a configuration branch in the MD-CLI configuration tree.

Commands are linked to their command descriptions in the configuration tree with some exceptions (for example, to reduce repeated content), including the **apply-groups**, **apply-groups-exclude**, and **groups** commands. These commands are used to direct the use of configuration templates called configuration groups in the configure region at all configuration levels. The **apply-groups** command applies a configuration group at a configuration level and the **apply-groups-exclude** command excludes a configuration group at a configuration level. See "Using configuration groups" in the *7450 ESS, 7750 SR, 7950 XRS, and VSR MD-CLI User Guide* for more information.

Some commands require one or more keys to be entered with the command. For example, the **collector** command has two keys which must be entered: the IP address and the port number. The key name for the IP address (**ip-address**) is optional, however, the key name **port** must be entered before the port number.

```
- collector (ipv4-address-no-zone | ipv6-address-no-zone) port number
```

The command description indicates the required syntax for each command. See MD-CLI command descriptions for more information.

**collector [ip-address]** (*ipv4-address-no-zone* | *ipv6-address-no-zone*) **port** *number*

Italicized names after a command or parameter name indicate the parameter type. The parameter types include (but are not limited to):

- Boolean (true and false values)
- keyword (enumerated values)
- string


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- number
- IPv4 address
- IPv6 address
- MAC address

The **summary-only** parameter, for example, requires a Boolean value. The **autonomous-system** parameter requires a number. For more information about the input values, click the command or parameter name from the MD-CLI tree to be linked to the command description.

```
- summary-only boolean
- autonomous-system number
```

A parameter type may also be a combination of different base types. These parameters are displayed in the MD-CLI tree with the individual parameter types enclosed in round brackets (()), separated by a vertical bar (|). For example, the **indirect** parameter can be configured with either an IPv4 address or IPv6 address:

```
- indirect (ipv4-address-no-zone | ipv6-address-no-zone)
```

Allowed values in strings are printable, 7-bit ASCII characters. If the string contains special characters (#, $, spaces, and so on), the entire string must be enclosed within double quotation marks. Double quotation marks within a string are not supported.

### 1.4.1.1 Context path

In the CLI tree section, a contextual path at the top of a page refers to the full context of the first command on the page, as shown in the following figure.

*Figure 2: Command tree navigation*

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### 1.4.2 MD-CLI command descriptions

The command syntax is shown in the command description, where the command is displayed in bold, followed by any key names and a type. From the MD-CLI tree, the **configure log accounting-policy** command shows that the key for the command is a number:

```
- log
    - accounting-policy number
```

The command description for **accounting-policy** shows that the key for the command is a policy identifier:

**accounting-policy** [**policy-id**] *number*

The square brackets ([ ]) indicate that the **policy-id** key name is optional. From the **policy-id** command description, the range of the identifier is a number from 1 to 99. Therefore, when using the **accounting-policy** command, the following inputs are acceptable:

```
accounting-policy policy-id 15
accounting-policy 25
accounting-policy 1
accounting-policy policy-id 99
```

The following table describes the fields that may be displayed for a command. Not all fields are applicable for all commands.

*Table 3: Command descriptions fields*

| Field | Description |
|---|---|
| Element Name | Name of the element (command or parameter) and its syntax |
| Synopsis | Summary description of the element |
| Context | Full path to the command (with links to parent commands) |
| Tree | Link to the command in the CLI tree. For key elements, the link is to the parent element. |
| Description | Detailed description of the element, as needed |
| String length | For string elements, the range of the number of characters allowed |
| Range/Max. range | For number elements, the range of allowed values. A maximum range may be overridden by a platform-specific range. |
| Units | Base unit type of the element |
| Options | Enumerated values allowed for the element. Not all options are available on all platforms. |
| MD-CLI default | MD-CLI default value for the element |


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| Field | Description |
|---|---|
| Default | YANG default value when there is no MD-CLI default. Platform-specific defaults are not displayed. |
| Reference | Reference to an element instance in the configuration or state datastore |
| Min./Max. instances | For lists and leaf-lists, the minimum or maximum number of instances for this element |
| Notes | Information about special attributes of the element, including whether the element is:<br>• a key for an element<br>• mandatory<br>• ordered by the user (instead of by the system)<br>• part of a choice of elements |
| Introduced | Release in which the element was introduced |
| Deprecated | Release in which the element was deprecated |
| Platforms | Hardware platforms on which the element is available. See Platforms and terminology for more information about the platforms.<br>**Note:** Some SR OS features are platform-specific and therefore may not be available or visible on all platforms. See the *SR OS R24.x.Rx Software Release Notes*, part number 3HE 20152 000*x* TQZZA, for information about platform support. |

A description of the element is also available from the online help for the element. For information about using the online help in the MD-CLI, see the *7450 ESS, 7750 SR, 7950 XRS, and VSR MD-CLI User Guide*.

**Note:**
All options for enumerated types and numerical ranges are listed in the MD-CLI command descriptions, however, not all options or ranges are valid on all platforms.


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# 2 Operational commands

This section lists the commands available at the operation level of the MD-CLI.


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## 2.1 admin commands

The **admin** commands are used to perform administrative functions, such as displaying configuration that is not subject to AAA, manually saving the configuration, clearing user sessions, and rebooting the system.

```
admin
   –  application-assurance
      –  group reference
         –  url-list reference
            –  upgrade
      –  upgrade
   –  clear
      –  security
         –  lockout
            –  all
            –  user named-item
         –  password-history
            –  all
            –  user named-item
   –  disconnect
      –  address (ipv4-address-no-zone | ipv6-address-no-zone)
      –  op-table-bypass boolean
      –  session-id number
      –  session-type keyword
      –  username named-item
   –  ipsec
      –  show
         –  key
            –  gateway named-item
            –  ip-tunnel interface-name
            –  ipsec-tunnel named-item
            –  peer-tunnel-ip-address (ipv4-address-no-zone | ipv6-address-no-zone)
            –  peer-tunnel-port number
            –  type keyword
   –  nat
      –  save-deterministic-script
   –  reboot
      –  [card] keyword
      –  hold
      –  now
   –  redundancy
      –  force-switchover
         –  ignore-status
         –  now
      –  synchronize
         –  boot-environment
         –  certificate
         –  configuration
   –  satellite
      –  ethernet-satellite reference
         –  reboot
            –  now
            –  upgrade
         –  synchronize
         –  tech-support
            –  [url] url
   –  save
      –  bof
      –  configure
      –  debug
      –  li
```


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admin save [url]

```
      – [url] string
   – set
      – time
         – [system-time] date-and-time
   – show
      – configuration
         – bof
         – booted
         – cflash-id cflash-id
         – [cli-path] cli-path-type
         – configure
         – converted
         – debug
         – depth number
         – detail
         – differences
         – flat
         – full-context
         – inheritance
         – intended
         – json
         – li
         – model keyword
         – running
         – units
         – values
         – xml
   – support-mode
      – disable
      – kernel
         – password encrypted-leaf
      – shell
         – password encrypted-leaf
   – system
      – license
         – activate
            – [file-url] string
            – now
         – clear
            – now
         – validate
            – [file-url] string
      – management-interface
         – commit
            – confirmed
               – accept
               – cancel
         – operations
            – delete-operation
               – [delete-id] number
               – op-table-bypass boolean
            – stop-operation
               – op-table-bypass boolean
               – [stop-id] number
      – security
         – hash-control
            – custom-hash
               – algorithm keyword
               – key string
            – remove-custom-hash
         – image-digital-signature
            – validate
               – software-image cflash-and-url
         – pki
```


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admin system security pki clear-ocsp-cache

```
            – clear-ocsp-cache
              – [entry-id] number
            – cmpv2
              – cert-request
                – ca-profile reference
                – current-certificate pki-file-name
                – current-key pki-file-name
                – domain-name string
                – hash-algorithm keyword
                – ip-address (ipv4-address-no-zone | ipv6-address-no-zone)
                – new-key pki-file-name
                – save-as cflash-url
                – subject-dn string
              – clear-request
                – ca-profile reference
              – initial-registration
                – ca-profile reference
                – certificate pki-file-name
                – domain-name string
                – hash-algorithm keyword
                – ip-address (ipv4-address-no-zone | ipv6-address-no-zone)
                – key-to-certify pki-file-name
                – password string
                – protection-key pki-file-name
                – reference string
                – save-as cflash-url
                – send-chain
                – subject-dn string
                – with-ca reference
              – key-update
                – ca-profile reference
                – hash-algorithm keyword
                – new-key pki-file-name
                – old-certificate pki-file-name
                – old-key pki-file-name
                – save-as cflash-url
              – poll
                – ca-profile reference
            – convert-file
              – force
              – format keyword
              – [input-file] pki-file-name
              – [output-file] pki-file-name
            – crl-update
              – ca-profile reference
            – est
              – ca-certificates
                – est-profile string
                – force
                – output-url cflash-url
              – enroll
                – domain-name string
                – est-profile string
                – force
                – hash-algorithm keyword
                – ip-address (ipv4-address-no-zone | ipv6-address-no-zone)
                – key cflash-url
                – output-file pki-file-name
                – subject-dn string
                – validate-certificate-chain
              – renew
                – certificate cflash-url
                – est-profile string
                – force
```


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admin system security pki est renew hash-algorithm

```
                  - hash-algorithm keyword
                  - key cflash-url
                  - output-file pki-file-name
                  - validate-certificate-chain
            - export
               - format keyword
               - input-file pki-file-name
               - key-file pki-file-name
               - output-url cflash-url
               - password string
               - type keyword
            - generate-csr
               - domain-name string
               - hash-algorithm keyword
               - ip-address (ipv4-address-no-zone | ipv6-address-no-zone)
               - key-url cflash-url
               - output-url cflash-url
               - subject-dn string
               - use-printable
            - generate-keypair
               - dsa-key-size number
               - ecdsa-curve keyword
               - rsa-key-size number
               - [save-path] cflash-url
            - import
               - format keyword
               - input-url cflash-url
               - output-file pki-file-name
               - password string
               - type keyword
               - validate-certificate-chain
            - reload
               - application keyword
               - certificate pki-file-name
               - key pki-file-name
            - show
               - file-content
                  - [file-path] cflash-url
                  - format keyword
                  - password string
                  - type keyword
            - update-certificate
               - certificate reference
         - secure-boot
            - activate
               - card reference
               - confirmation-code string-not-all-spaces
               - serial-number string-not-all-spaces
            - revoke-key
               - card reference
               - confirmation-code string-not-all-spaces
               - serial-number string-not-all-spaces
            - update-key
               - card reference
               - confirmation-code string-not-all-spaces
               - serial-number string-not-all-spaces
               - software-image cflash-and-url
            - validate
               - software-image cflash-and-url
         - system-password
            - admin-password
      - telemetry
         - grpc
            - cancel
```


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admin system telemetry grpc cancel all

```
            - all
            - subscription-id number
  - tech-support
    - [url] url
```


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## 2.1.1 admin command descriptions

### admin

| | |
|---|---|
| Synopsis | Enter the administrative context for system operations |
| Context | admin |
| Tree | admin |
| Introduced | 16.0.R1 |
| Platforms | All |

### application-assurance

| | |
|---|---|
| Synopsis | Enter the **application-assurance** context |
| Context | admin application-assurance |
| Tree | application-assurance |
| Description | Commands in this context configure Application Assurance (AA) upgrade and AA group upgrade operations. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **group** [aa-group-id] *reference*

| | |
|---|---|
| Synopsis | Enter the **group** list instance |
| Context | admin application-assurance group *reference* |
| Tree | group |
| Description | Commands in this context configure the attributes of the group-specific upgrade. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**aa-group-id**] *reference*

| | |
|---|---|
| Synopsis | AA group ID |
| Context | admin application-assurance group *reference* |
| Tree | group |
| Reference | **state application-assurance group** *number* |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **url-list** [url-list-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **url-list** list instance |
| Context | admin application-assurance group *reference* url-list *reference* |
| Tree | url-list |
| Description | Commands in this context configure the URL list upgrade parameters. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**url-list-name**] *reference*

| | |
|---|---|
| Synopsis | AA URL list name |
| Context | admin application-assurance group *reference* url-list *reference* |
| Tree | url-list |
| Reference | **state application-assurance group** *number* **url-list** *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **upgrade**

| | |
|---|---|
| Synopsis | Upgrade the referenced URL list |
| Context | admin application-assurance group *reference* url-list *reference* upgrade |
| Tree | upgrade |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **upgrade**

| | |
|---|---|
| Synopsis | Upgrade to a new isa-aa.tim file |
| Context | admin application-assurance upgrade |


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| | |
|---|---|
| Tree | upgrade |
| Description | This command loads a new isa-aa.tim file as part of a router-independent signature upgrade. An AA ISA reboot is required for the upgrade to take effect. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## clear

| | |
|---|---|
| Synopsis | Enter the **clear** context |
| Context | admin clear |
| Tree | clear |
| Introduced | 19.10.R1 |
| Platforms | All |

## security

| | |
|---|---|
| Synopsis | Enter the **security** context |
| Context | admin clear security |
| Tree | security |
| Introduced | 19.10.R1 |
| Platforms | All |

## lockout

| | |
|---|---|
| Synopsis | Reset the lockout timer |
| Context | admin clear security lockout |
| Tree | lockout |
| Introduced | 19.10.R1 |
| Platforms | All |

## all

| | |
|---|---|
| Synopsis | Clear lockout of all users |
| Context | admin clear security lockout all |
| Tree | all |


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| | |
|---|---|
| Notes | The following elements are part of a mandatory choice: **all** or **user**. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **user** *named-item*

| | |
|---|---|
| Synopsis | User to be cleared of lockout |
| Context | admin clear security lockout user *named-item* |
| Tree | user |
| String length | 1 to 32 |
| Notes | The following elements are part of a mandatory choice: **all** or **user**. |
| Introduced | 19.10.R1 |
| Platforms | All |

## password-history

| | |
|---|---|
| Synopsis | Clear the password history |
| Context | admin clear security password-history |
| Tree | password-history |
| Introduced | 19.10.R1 |
| Platforms | All |

### all

| | |
|---|---|
| Synopsis | Clear password history of all users |
| Context | admin clear security password-history all |
| Tree | all |
| Notes | The following elements are part of a mandatory choice: **all** or **user**. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **user** *named-item*

| | |
|---|---|
| Synopsis | User to be cleared of password history information |
| Context | admin clear security password-history user *named-item* |


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| | |
|---|---|
| Tree | user |
| String length | 1 to 32 |
| Notes | The following elements are part of a mandatory choice: **all** or **user**. |
| Introduced | 19.10.R1 |
| Platforms | All |

### disconnect

| | |
|---|---|
| Synopsis | Disconnect a user session |
| Context | admin disconnect |
| Tree | disconnect |
| Introduced | 16.0.R1 |
| Platforms | All |

### address *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the session to disconnect |
| Context | admin disconnect address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | address |
| Introduced | 19.10.R1 |
| Platforms | All |

### op-table-bypass *boolean*

| | |
|---|---|
| Synopsis | Avoid operation ID allocation |
| Context | admin disconnect op-table-bypass *boolean* |
| Tree | op-table-bypass |
| Description | When configured to **true**, the system bypasses the YANG-based operations infrastructure and avoids the allocation of an operation ID. This is useful if the global operations table is full and a delete operation or **admin disconnect** is required. |
| Introduced | 21.5.R1 |
| Platforms | All |

### session-id *number*

| | |
|---|---|
| Synopsis | ID of the session to disconnect |


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| | |
|---|---|
| Context | admin disconnect session-id *number* |
| Tree | session-id |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **session-type** *keyword*

| | |
|---|---|
| Synopsis | Type of session to disconnect |
| Context | admin disconnect session-type *keyword* |
| Tree | session-type |
| Options | console, bluetooth, telnet, ssh, ftp, netconf, grpc, cron-ehs |
| Introduced | 19.10.R1 |
| Platforms | All |

### **username** *named-item*

| | |
|---|---|
| Synopsis | Username to disconnect |
| Context | admin disconnect username *named-item* |
| Tree | username |
| String length | 1 to 32 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **ipsec**

| | |
|---|---|
| Synopsis | Perform IPsec operations |
| Context | admin ipsec |
| Tree | ipsec |
| Introduced | 23.10.R1 |
| Platforms | All |

### **show**

| | |
|---|---|
| Synopsis | Display IPsec information |


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| | |
|---|---|
| Context | admin ipsec show |
| Tree | show |
| Introduced | 23.10.R1 |
| Platforms | All |

## key

| | |
|---|---|
| Synopsis | Display IPsec key history |
| Context | admin ipsec show key |
| Tree | key |
| Introduced | 23.10.R1 |
| Platforms | All |

## gateway *named-item*

| | |
|---|---|
| Synopsis | IPsec gateway name |
| Context | admin ipsec show key gateway *named-item* |
| Tree | gateway |
| String length | 1 to 32 |
| Notes | The following elements are part of a mandatory choice: (**gateway**, **peer-tunnel-ip-address**, and **peer-tunnel-port**), **ip-tunnel**, or **ipsec-tunnel**. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## ip-tunnel *interface-name*

| | |
|---|---|
| Synopsis | IPsec transport mode IP tunnel name |
| Context | admin ipsec show key ip-tunnel *interface-name* |
| Tree | ip-tunnel |
| String length | 1 to 32 |
| Notes | The following elements are part of a mandatory choice: (**gateway**, **peer-tunnel-ip-address**, and **peer-tunnel-port**), **ip-tunnel**, or **ipsec-tunnel**. |
| Introduced | 23.10.R1 |
| Platforms | All |


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### **ipsec-tunnel** *named-item*

| | |
|---|---|
| Synopsis | IPsec tunnel name |
| Context | admin ipsec show key ipsec-tunnel *named-item* |
| Tree | ipsec-tunnel |
| String length | 1 to 32 |
| Notes | The following elements are part of a mandatory choice: (**gateway**, **peer-tunnel-ip-address**, and **peer-tunnel-port**), **ip-tunnel**, or **ipsec-tunnel**. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **peer-tunnel-ip-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Dynamic tunnel IP address |
| Context | admin ipsec show key peer-tunnel-ip-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | peer-tunnel-ip-address |
| Notes | The following elements are part of a mandatory choice: (**gateway**, **peer-tunnel-ip-address**, and **peer-tunnel-port**), **ip-tunnel**, or **ipsec-tunnel**. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **peer-tunnel-port** *number*

| | |
|---|---|
| Synopsis | Dynamic tunnel port |
| Context | admin ipsec show key peer-tunnel-port *number* |
| Tree | peer-tunnel-port |
| Range | 0 \| 1 to 65535 |
| Notes | The following elements are part of a mandatory choice: (**gateway**, **peer-tunnel-ip-address**, and **peer-tunnel-port**), **ip-tunnel**, or **ipsec-tunnel**. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **type** *keyword*

| | |
|---|---|
| Synopsis | Key type |


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| | |
|---|---|
| Context | admin ipsec show key type *keyword* |
| Tree | type |
| Options | ike, child |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

## nat

| | |
|---|---|
| Synopsis | Enter the **nat** context |
| Context | admin nat |
| Tree | nat |
| Introduced | 21.2.R1 |
| Platforms | All |

## save-deterministic-script

| | |
|---|---|
| Synopsis | Save script that computes deterministic NAT map entries |
| Context | admin nat save-deterministic-script |
| Tree | save-deterministic-script |
| Introduced | 21.2.R1 |
| Platforms | All |

## reboot

| | |
|---|---|
| Synopsis | Reboot CPM or force an upgrade of system boot ROMs |
| Context | admin reboot |
| Tree | reboot |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**card**] *keyword*

| | |
|---|---|
| Synopsis | Card to reboot |
| Context | admin reboot [card] *keyword* |


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| | |
|---|---|
| Tree | [card] |
| Options | active, standby, upgrade |
| Introduced | 16.0.R1 |
| Platforms | All |

## hold

| | |
|---|---|
| Synopsis | Hold a rebooted standby CPM from coming back online |
| Context | admin reboot hold |
| Tree | hold |
| Introduced | 19.10.R1 |
| Platforms | 7750 SR-7s, 7750 SR-14s, VSR |

## now

| | |
|---|---|
| Synopsis | Reboot immediately without prompts or confirmation |
| Context | admin reboot now |
| Tree | now |
| Introduced | 16.0.R1 |
| Platforms | All |

## redundancy

| | |
|---|---|
| Synopsis | Enter the **redundancy** context |
| Context | admin redundancy |
| Tree | redundancy |
| Introduced | 16.0.R1 |
| Platforms | All |

## force-switchover

| | |
|---|---|
| Synopsis | Force a switchover to the standby CPM |
| Context | admin redundancy force-switchover |
| Tree | force-switchover |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### ignore-status

| | |
|---|---|
| Synopsis | Switch to the standby CPM regardless of its status |
| Context | admin redundancy force-switchover ignore-status |
| Tree | ignore-status |
| Introduced | 19.10.R1 |
| Platforms | 7950 XRS |

### now

| | |
|---|---|
| Synopsis | Force the switchover to the standby CPM immediately |
| Context | admin redundancy force-switchover now |
| Tree | now |
| Introduced | 16.0.R1 |
| Platforms | All |

### synchronize

| | |
|---|---|
| Synopsis | Synchronize the standby CPM |
| Context | admin redundancy synchronize |
| Tree | synchronize |
| Introduced | 20.10.R1 |
| Platforms | All |

### boot-environment

| | |
|---|---|
| Synopsis | Synchronize all files required for the boot process |
| Context | admin redundancy synchronize boot-environment |
| Tree | boot-environment |
| Notes | The following elements are part of a mandatory choice: **boot-environment**, **certificate**, or **configuration**. |
| Introduced | 20.10.R1 |
| Platforms | All |


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### certificate

| | |
|---|---|
| Synopsis | Synchronize imported certificate, key, and CRL files |
| Context | admin redundancy synchronize certificate |
| Tree | certificate |
| Notes | The following elements are part of a mandatory choice: **boot-environment**, **certificate**, or **configuration**. |
| Introduced | 23.3.R1 |
| Platforms | All |

### configuration

| | |
|---|---|
| Synopsis | Synchronize the configuration files |
| Context | admin redundancy synchronize configuration |
| Tree | configuration |
| Description | When specified, the system synchronizes the primary, secondary, and tertiary configuration files. |
| Notes | The following elements are part of a mandatory choice: **boot-environment**, **certificate**, or **configuration**. |
| Introduced | 20.10.R1 |
| Platforms | All |

### satellite

| | |
|---|---|
| Synopsis | Perform administrative operations for satellites |
| Context | admin satellite |
| Tree | satellite |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ethernet-satellite** [satellite-id] *reference*

| | |
|---|---|
| Synopsis | Enter the **ethernet-satellite** list instance |
| Context | admin satellite ethernet-satellite *reference* |
| Tree | ethernet-satellite |
| Introduced | 22.2.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### [**satellite-id**] *reference*

| | |
|---|---|
| Synopsis | Satellite ID |
| Context | admin satellite ethernet-satellite *reference* |
| Tree | ethernet-satellite |
| Reference | **state satellite ethernet-satellite** *number* |
| Notes | This element is part of a list key. |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### reboot

| | |
|---|---|
| Synopsis | Initiate an administrative reboot of the chassis |
| Context | admin satellite ethernet-satellite *reference* reboot |
| Tree | reboot |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### now

| | |
|---|---|
| Synopsis | Reboot immediately without prompts or confirmation |
| Context | admin satellite ethernet-satellite *reference* reboot now |
| Tree | now |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### upgrade

| | |
|---|---|
| Synopsis | Initiate a firmware image update during the reboot |
| Context | admin satellite ethernet-satellite *reference* reboot upgrade |
| Tree | upgrade |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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## synchronize

| | |
|---|---|
| Synopsis | Synchronize the chassis to the boot image |
| Context | admin satellite ethernet-satellite *reference* synchronize |
| Tree | synchronize |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## tech-support

| | |
|---|---|
| Synopsis | Save satellite technical support information |
| Context | admin satellite ethernet-satellite *reference* tech-support |
| Tree | tech-support |
| Description | This command creates a system core dump. If no file URL is specified and the **ts-location** command is configured in the **configure system security tech-support** context, the technical support file is automatically generated by the system with the file name based on the system name and the date and time, and is saved to the directory indicated by the **ts-location** configuration.<br><br>The format of the auto-generated file name is ts-XXXXX.YYYYMMDD.HHMMUTC.dat, where:<br>• XXXXX is the system name with special characters expanded to avoid problems with file systems (for example, a period (.) is expanded to %2E)<br>• YYYYMMDD is the date with leading zeros on the year, month, and day<br>• HHMM is the hours and minutes in UTC time (24 hour format, always 4 characters, with leading zeros on the hours and minutes)<br><br>**Note**: This command is not supported over non-interactive interfaces (for example, NETCONF).<br><br>**Note**: This command should only be used with authorized direction from the Nokia Technical Assistance Center (TAC). |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## [**url**] *url*

| | |
|---|---|
| Synopsis | URL to save technical support information |
| Context | admin satellite ethernet-satellite *reference* tech-support [url] *url* |
| Tree | [url] |
| String length | 1 to 180 |


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| | |
|---|---|
| Notes | This element is mandatory. |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## save

| | |
|---|---|
| Synopsis | Perform configuration save operations |
| Context | admin save |
| Tree | save |
| Introduced | 16.0.R1 |
| Platforms | All |

## bof

| | |
|---|---|
| Synopsis | Save the BOF region configuration |
| Context | admin save bof |
| Tree | bof |
| Notes | The following elements are part of a choice: **bof**, **configure**, **debug**, or **li**. |
| Introduced | 20.10.R1 |
| Platforms | All |

## configure

| | |
|---|---|
| Synopsis | Save the configure region configuration |
| Context | admin save configure |
| Tree | configure |
| Notes | The following elements are part of a choice: **bof**, **configure**, **debug**, or **li**. |
| Introduced | 20.7.R2 |
| Platforms | All |

## debug

| | |
|---|---|
| Synopsis | Save the debug region configuration |
| Context | admin save debug |
| Tree | debug |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **bof**, **configure**, **debug**, or **li**. |
| Introduced | 21.5.R1 |
| Platforms | All |

### li

| | |
|---|---|
| Synopsis | Save the LI region configuration |
| Context | admin save li |
| Tree | li |
| Notes | The following elements are part of a choice: **bof**, **configure**, **debug**, or **li**. |
| Introduced | 19.10.R1 |
| Platforms | All |

### [**url**] *string*

| | |
|---|---|
| Synopsis | Location to save the configuration |
| Context | admin save [url] *string* |
| Tree | [url] |
| Introduced | 16.0.R1 |
| Platforms | All |

### set

| | |
|---|---|
| Synopsis | Enter the **set** context |
| Context | admin set |
| Tree | set |
| Introduced | 19.10.R1 |
| Platforms | All |

### time

| | |
|---|---|
| Synopsis | System date and time |
| Context | admin set time |
| Tree | time |
| Introduced | 19.10.R1 |


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| | |
|---|---|
| Platforms | All |

### [**system-time**] *date-and-time*

| | |
|---|---|
| Synopsis | System date and time |
| Context | admin set time [system-time] *date-and-time* |
| Tree | [system-time] |
| Description | This command sets the system date and time. The time zone may optionally be specified. When the time zone is not specified, the system uses the configured system time zone. |
| Notes | This element is mandatory. |
| Introduced | 19.10.R1 |
| Platforms | All |

### show

| | |
|---|---|
| Synopsis | Enter the **show** context |
| Context | admin show |
| Tree | show |
| Description | The **admin show** commands display the same configuration as the **info** command but are not subject to command authorization and do not require configuration mode access. |
| Introduced | 16.0.R1 |
| Platforms | All |

### configuration

| | |
|---|---|
| Synopsis | Show the current configuration |
| Context | admin show configuration |
| Tree | configuration |
| Introduced | 16.0.R1 |
| Platforms | All |

### bof

| | |
|---|---|
| Synopsis | Show the BOF region configuration |


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| | |
|---|---|
| Context | admin show configuration bof |
| Tree | bof |
| Notes | The following elements are part of a choice: **bof**, **configure**, **debug**, or **li**. |
| Introduced | 20.10.R1 |
| Platforms | All |

### **booted**

| | |
|---|---|
| Synopsis | Show the booted BOF configuration |
| Context | admin show configuration booted |
| Tree | booted |
| Notes | The following elements are part of a choice: **booted** or **cflash-id**. |
| Introduced | 20.10.R1 |
| Platforms | All |

### **cflash-id** *cflash-id*

| | |
|---|---|
| Synopsis | Show the BOF configuration file on a compact flash |
| Context | admin show configuration cflash-id *cflash-id* |
| Tree | cflash-id |
| String length | 4 to 6 |
| Notes | The following elements are part of a choice: **booted** or **cflash-id**. |
| Introduced | 20.10.R1 |
| Platforms | All |

### [**cli-path**] *cli-path-type*

| | |
|---|---|
| Synopsis | Absolute path or relative path from '/' |
| Context | admin show configuration [cli-path] *cli-path-type* |
| Tree | [cli-path] |
| Introduced | 21.10.R1 |
| Platforms | All |


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## configure

| | |
|---|---|
| Synopsis | Show the configure region configuration |
| Context | admin show configuration configure |
| Tree | configure |
| Notes | The following elements are part of a choice: **bof**, **configure**, **debug**, or **li**. |
| Introduced | 20.7.R1 |
| Platforms | All |

## converted

| | |
|---|---|
| Synopsis | Include converted third-party model configuration |
| Context | admin show configuration converted |
| Tree | converted |
| Description | This option specifies the inclusion of converted configuration values from third-party models in the output and is only available when **configure system management-interface yang-modules openconfig-modules** is set to **true**.<br>This option should only be used in the **configure** region when third-party models are used. The output with this option is the same as **admin show configuration** when used in other configuration regions. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## debug

| | |
|---|---|
| Synopsis | Show the debug region configuration |
| Context | admin show configuration debug |
| Tree | debug |
| Notes | The following elements are part of a choice: **bof**, **configure**, **debug**, or **li**. |
| Introduced | 21.5.R1 |
| Platforms | All |

## depth *number*

| | |
|---|---|
| Synopsis | Depth limit from the pwc |
| Context | admin show configuration depth *number* |


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| | |
|---|---|
| Tree | depth |
| Range | 1 to 4294967040 |
| Introduced | 23.10.R1 |
| Platforms | All |

## detail

| | |
|---|---|
| Synopsis | Include default and unconfigured values |
| Context | admin show configuration detail |
| Tree | detail |
| Introduced | 20.7.R1 |
| Platforms | All |

## differences

| | |
|---|---|
| Synopsis | Show the different values each model sets |
| Context | admin show configuration differences |
| Tree | differences |
| Description | When specified, this command shows only the values that are different when multiple models set the same configuration element.<br>This option is supported only with the **converted** option and is available only when **configure system management-interface yang-modules openconfig-modules** is set to **true**. |
| Notes | The following elements are part of a choice: **differences**, **model**, or **values**. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## flat

| | |
|---|---|
| Synopsis | Show the context from the pwc on each line |
| Context | admin show configuration flat |
| Tree | flat |
| Notes | The following elements are part of a choice: **flat**, **full-context**, **json**, or **xml**. |
| Introduced | 20.7.R1 |
| Platforms | All |


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## full-context

| | |
|---|---|
| Synopsis | Show the full context on each line |
| Context | admin show configuration full-context |
| Tree | full-context |
| Notes | The following elements are part of a choice: **flat**, **full-context**, **json**, or **xml**. |
| Introduced | 20.7.R1 |
| Platforms | All |

## inheritance

| | |
|---|---|
| Synopsis | Include configuration inherited from configuration groups |
| Context | admin show configuration inheritance |
| Tree | inheritance |
| Description | This option specifies the inclusion of configuration inherited from configuration groups in the output.<br>This option should only be used in the **configure** region when configuration groups are used. The output with this option is the same as **admin show configuration** when used in other configuration regions. |
| Introduced | 24.3.R1 |
| Platforms | All |

## intended

| | |
|---|---|
| Synopsis | Show the intended configuration |
| Context | admin show configuration intended |
| Tree | intended |
| Notes | The following elements are part of a choice: **intended** or **running**. |
| Introduced | 20.7.R1 |
| Platforms | All |

## json

| | |
|---|---|
| Synopsis | Show the output in indented JSON format |
| Context | admin show configuration json |
| Tree | json |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **flat**, **full-context**, **json**, or **xml**. |
| Introduced | 19.10.R1 |
| Platforms | All |

## li

| | |
|---|---|
| Synopsis | Show the LI region configuration |
| Context | admin show configuration li |
| Tree | li |
| Notes | The following elements are part of a choice: **bof**, **configure**, **debug**, or **li**. |
| Introduced | 19.10.R1 |
| Platforms | All |

## model *keyword*

| | |
|---|---|
| Synopsis | Data model for which to display converted output |
| Context | admin show configuration model *keyword* |
| Tree | model |
| Description | This option specifies the data model for which to display the converted output.<br>This option is supported only with the **converted** option and is available only when **configure system management-interface yang-modules openconfig-modules** is set to **true**. |
| Options | all – All models<br>openconfig – OpenConfig models |
| Default | all |
| Notes | The following elements are part of a choice: **differences**, **model**, or **values**. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## running

| | |
|---|---|
| Synopsis | Show the running configuration |
| Context | admin show configuration running |
| Tree | running |
| Notes | The following elements are part of a choice: **intended** or **running**. |


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| | |
|---|---|
| Introduced | 20.7.R1 |
| Platforms | All |

## units

| | |
|---|---|
| Synopsis | Include unit types for applicable elements |
| Context | admin show configuration units |
| Tree | units |
| Introduced | 20.10.R1 |
| Platforms | All |

## values

| | |
|---|---|
| Synopsis | Show all the values each model sets |
| Context | admin show configuration values |
| Tree | values |
| Description | When specified, this command shows all the values that each model sets.<br>This option is supported only with the **converted** option and is available only when **configure system management-interface yang-modules openconfig-modules** is set to **true**. |
| Notes | The following elements are part of a choice: **differences**, **model**, or **values**. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## xml

| | |
|---|---|
| Synopsis | Show the output in indented XML format |
| Context | admin show configuration xml |
| Tree | xml |
| Notes | The following elements are part of a choice: **flat**, **full-context**, **json**, or **xml**. |
| Introduced | 20.7.R1 |
| Platforms | All |

## support-mode

| | |
|---|---|
| Synopsis | Enable the kernel and shell commands |


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| | |
|---|---|
| Context | admin support-mode |
| Tree | support-mode |
| Description | Commands in this context enable the **kernel** and **shell** commands.<br>These commands are used by Nokia support. |
| Introduced | 16.0.R4 |
| Platforms | All |

## disable

| | |
|---|---|
| Synopsis | Disable support mode |
| Context | admin support-mode disable |
| Tree | disable |
| Description | This command disables the **kernel** and **shell** commands.<br>This command is used only by Nokia technical support for troubleshooting. |
| Notes | The following elements are part of a choice: **disable**, **kernel**, or **shell**. |
| Introduced | 24.10.R1 |
| Platforms | All |

## kernel

| | |
|---|---|
| Synopsis | Kernel command password |
| Context | admin support-mode kernel |
| Tree | kernel |
| Description | This command allows Nokia technical support to access the **kernel** commands. **kernel** commands are used only by Nokia technical support for troubleshooting. |
| Notes | The following elements are part of a choice: **disable**, **kernel**, or **shell**. |
| Introduced | 24.10.R1 |
| Platforms | All |

## password *encrypted-leaf*

| | |
|---|---|
| Synopsis | Enter the kernel command password |
| Context | admin support-mode kernel password *encrypted-leaf* |
| Tree | password |
| Description | This command sets the password to access **kernel** commands. |


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| | |
|---|---|
| | This command is used only by Nokia technical support for troubleshooting. |
| String length | 1 to 199 |
| Introduced | 24.10.R1 |
| Platforms | All |

## shell

| | |
|---|---|
| Synopsis | Shell command password |
| Context | admin support-mode shell |
| Tree | shell |
| Description | This command allows Nokia technical support to access the **shell** commands. **shell** commands are used only by Nokia technical support for troubleshooting. |
| Notes | The following elements are part of a choice: **disable**, **kernel**, or **shell**. |
| Introduced | 24.10.R1 |
| Platforms | All |

## password *encrypted-leaf*

| | |
|---|---|
| Synopsis | Enter the shell command password |
| Context | admin support-mode shell password *encrypted-leaf* |
| Tree | password |
| Description | This command sets the password to access the **shell** commands.<br>This command is used only by Nokia technical support for troubleshooting. |
| String length | 1 to 199 |
| Introduced | 24.10.R1 |
| Platforms | All |

## system

| | |
|---|---|
| Synopsis | Enter the **system** context |
| Context | admin system |
| Tree | system |
| Introduced | 16.0.R6 |
| Platforms | All |


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## license

| | |
|---|---|
| Synopsis | Enter the **license** context |
| Context | admin system license |
| Tree | license |
| Introduced | 19.10.R1 |
| Platforms | All |

## activate

| | |
|---|---|
| Synopsis | Load and activate a system license |
| Context | admin system license activate |
| Tree | activate |
| Introduced | 19.10.R1 |
| Platforms | All |

## [**file-url**] *string*

| | |
|---|---|
| Synopsis | Location of the license file to activate |
| Context | admin system license activate [file-url] *string* |
| Tree | [file-url] |
| String length | 1 to 256 |
| Introduced | 19.10.R1 |
| Platforms | All |

## now

| | |
|---|---|
| Synopsis | Activate the license immediately |
| Context | admin system license activate now |
| Tree | now |
| Introduced | 19.10.R1 |
| Platforms | All |


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### clear

| | |
|---|---|
| Synopsis | Clear system license |
| Context | admin system license clear |
| Tree | clear |
| Description | This command removes the entitlements that were installed using a license file.<br>All the entitlements must be unallocated; otherwise, the command fails. |
| Introduced | 23.7.R1 |
| Platforms | All |

### now

| | |
|---|---|
| Synopsis | Clear license entitlements immediately |
| Context | admin system license clear now |
| Tree | now |
| Introduced | 23.7.R1 |
| Platforms | All |

### validate

| | |
|---|---|
| Synopsis | Load and validate a system license |
| Context | admin system license validate |
| Tree | validate |
| Introduced | 19.10.R1 |
| Platforms | All |

### [**file-url**] *string*

| | |
|---|---|
| Synopsis | Location of the license file to validate |
| Context | admin system license validate [file-url] *string* |
| Tree | [file-url] |
| String length | 1 to 256 |
| Introduced | 19.10.R1 |
| Platforms | All |


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## management-interface

| | |
|---|---|
| Synopsis | Enter the **management-interface** context |
| Context | admin system management-interface |
| Tree | management-interface |
| Introduced | 21.5.R1 |
| Platforms | All |

## commit

| | |
|---|---|
| Synopsis | Enter the **commit** context |
| Context | admin system management-interface commit |
| Tree | commit |
| Introduced | 23.10.R1 |
| Platforms | All |

## confirmed

| | |
|---|---|
| Synopsis | Enter the **confirmed** context |
| Context | admin system management-interface commit confirmed |
| Tree | confirmed |
| Description | Commands in this context accept or cancel a confirmed commit that is in progress and that was started by another configuration session. |
| Introduced | 23.10.R1 |
| Platforms | All |

## accept

| | |
|---|---|
| Synopsis | Accept commit confirmed and cancel automatic rollback |
| Context | admin system management-interface commit confirmed accept |
| Tree | accept |
| Introduced | 23.10.R1 |
| Platforms | All |


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## cancel

| | |
|---|---|
| Synopsis | Cancel commit confirmed and roll back changes |
| Context | admin system management-interface commit confirmed cancel |
| Tree | cancel |
| Description | When specified, the router rolls back the configuration and returns the changes to the candidate. |
| Introduced | 23.10.R1 |
| Platforms | All |

## operations

| | |
|---|---|
| Synopsis | Enter the **operations** context |
| Context | admin system management-interface operations |
| Tree | operations |
| Description | Commands in this context are used to manage YANG-based operations (for example, **admin reboot**, or **ping**) in model-driven interfaces. |
| Introduced | 21.5.R1 |
| Platforms | All |

## delete-operation

| | |
|---|---|
| Synopsis | Stop and remove an operation |
| Context | admin system management-interface operations delete-operation |
| Tree | delete-operation |
| Description | This command removes an operation and all status and data associated with it. If the operation was executing, it is stopped before removal. |
| Introduced | 21.5.R1 |
| Platforms | All |

## [**delete-id**] *number*

| | |
|---|---|
| Synopsis | ID of the operation to remove |
| Context | admin system management-interface operations delete-operation [delete-id] *number* |
| Tree | [delete-id] |
| Range | 1 to 10000 |


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| | |
|---|---|
| Notes | This element is mandatory. |
| Introduced | 21.5.R1 |
| Platforms | All |

### **op-table-bypass** *boolean*

| | |
|---|---|
| Synopsis | Avoid operation ID allocation |
| Context | admin system management-interface operations delete-operation op-table-bypass *boolean* |
| Tree | op-table-bypass |
| Description | When configured to **true**, the system bypasses the YANG-based operations infrastructure and avoids the allocation of an operation ID. This is useful if the global operations table is full and a delete operation or **admin disconnect** is required. |
| Introduced | 21.5.R1 |
| Platforms | All |

### **stop-operation**

| | |
|---|---|
| Synopsis | Stop the execution of an operational command |
| Context | admin system management-interface operations stop-operation |
| Tree | stop-operation |
| Description | This command stops the execution of an operational command.<br>An operation launched as "asynchronous" is not deleted from the system when it is stopped. Status and other data associated with the operation persist until the operation is explicitly deleted using the delete operation command or a retention timeout. |
| Introduced | 21.5.R1 |
| Platforms | All |

### **op-table-bypass** *boolean*

| | |
|---|---|
| Synopsis | Avoid operation ID allocation |
| Context | admin system management-interface operations stop-operation op-table-bypass *boolean* |
| Tree | op-table-bypass |
| Description | When configured to **true**, the system bypasses the YANG-based operations infrastructure and avoids the allocation of an operation ID. This is useful if the global operations table is full and a delete operation or **admin disconnect** is required. |


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| | |
|---|---|
| Introduced | 21.5.R1 |
| Platforms | All |

### [**stop-id**] *number*

| | |
|---|---|
| Synopsis | ID of the operation to stop |
| Context | admin system management-interface operations stop-operation [stop-id] *number* |
| Tree | [stop-id] |
| Range | 1 to 10000 |
| Notes | This element is mandatory. |
| Introduced | 21.5.R1 |
| Platforms | All |

### security

| | |
|---|---|
| Synopsis | Enter the **security** context |
| Context | admin system security |
| Tree | security |
| Introduced | 16.0.R6 |
| Platforms | All |

### hash-control

| | |
|---|---|
| Synopsis | Enter the **hash-control** context |
| Context | admin system security hash-control |
| Tree | hash-control |
| Introduced | 16.0.R6 |
| Platforms | All |

### custom-hash

| | |
|---|---|
| Synopsis | Custom encryption |
| Context | admin system security hash-control custom-hash |
| Tree | custom-hash |
| Introduced | 16.0.R6 |


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| | |
|---|---|
| Platforms | All |

### **algorithm** *keyword*

| | |
|---|---|
| Synopsis | Algorithm for custom encryption |
| Context | admin system security hash-control custom-hash algorithm *keyword* |
| Tree | algorithm |
| Description | This command configures the algorithm for custom encryption. The encryption uses ECB mode, PKCS#7 padding, and Base64 encoding. |
| Options | 3des – DES-EDE3-ECB with PKCS #5 padding<br>aes128 – AES-128-ECB with PKCS #7 padding<br>aes192 – AES-192-ECB with PKCS #7 padding<br>aes256 – AES-256-ECB with PKCS #7 padding |
| Notes | This element is mandatory. |
| Introduced | 16.0.R6 |
| Platforms | All |

### **key** *string*

| | |
|---|---|
| Synopsis | Key for encryption algorithm |
| Context | admin system security hash-control custom-hash key *string* |
| Tree | key |
| String length | 1 to 71 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R6 |
| Platforms | All |

### **remove-custom-hash**

| | |
|---|---|
| Synopsis | Remove the custom encryption |
| Context | admin system security hash-control remove-custom-hash |
| Tree | remove-custom-hash |
| Introduced | 20.10.R1 |
| Platforms | All |


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## image-digital-signature

| | |
|---|---|
| Synopsis | Perform digital signature actions on images |
| Context | admin system security image-digital-signature |
| Tree | image-digital-signature |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## validate

| | |
|---|---|
| Synopsis | Perform software digital-signature validations |
| Context | admin system security image-digital-signature validate |
| Tree | validate |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## software-image *cflash-and-url*

| | |
|---|---|
| Synopsis | Location of the target software image |
| Context | admin system security image-digital-signature validate software-image *cflash-and-url* |
| Tree | software-image |
| Description | This command specifies the URL where the following software image files are located: cpm.tim, both.tim, iom.tim, boot.ldr, support.tim, kernel.tim, hypervisor.tim, isa-aa.tim.<br>The signatures.txt file must be present in the same folder as the preceding files. To ensure the signatures.txt file is present on both the active and standby CF, see the "Upgrade procedure to a FIPS image" topic in the *7450 ESS, 7750 SR, 7950 XRS, and VSR Basic System Configuration Guide*. |
| String length | 1 to 180 |
| Notes | This element is mandatory. |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## pki

| | |
|---|---|
| Synopsis | Perform PKI related operations |
| Context | admin system security pki |


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| | |
|---|---|
| Tree | pki |
| Description | Commands in this context specify options for public key infrastructure operations. |
| Introduced | 23.3.R1 |
| Platforms | All |

## clear-ocsp-cache

| | |
|---|---|
| Synopsis | Clear the current OCSP response cache |
| Context | admin system security pki clear-ocsp-cache |
| Tree | clear-ocsp-cache |
| Introduced | 23.3.R1 |
| Platforms | All |

## [**entry-id**] *number*

| | |
|---|---|
| Synopsis | Local OCSP response cache entry ID to clear |
| Context | admin system security pki clear-ocsp-cache [entry-id] *number* |
| Tree | [entry-id] |
| Range | 1 to 2000 |
| Introduced | 23.3.R1 |
| Platforms | All |

## cmpv2

| | |
|---|---|
| Synopsis | Perform CMPv2 operations |
| Context | admin system security pki cmpv2 |
| Tree | cmpv2 |
| Description | Commands in this context specify options for Certificate Management Protocol v2 (CMPv2) operations. |
| Introduced | 23.3.R1 |
| Platforms | All |

## cert-request

| | |
|---|---|
| Synopsis | Request an additional certificate |


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| | |
|---|---|
| Context | admin system security pki cmpv2 cert-request |
| Tree | cert-request |
| Description | When specified, the system requests an additional certificate after the initial certificate has been obtained from the CA.<br>The request is authenticated by a signature signed by the current key, along with the current certificate. The hash algorithm used for the signature depends on the key type:<br>• DSA key - SHA1<br>• RSA key: MD5 \| SHA1 \| SHA224 \| SHA256 \| SHA384 \| SHA512 (default is SHA1)<br>• ECDSA key: SHA1 \| SHA224 \| SHA256 \| SHA384 \| SHA512 (default is SHA256)<br>CA may not return a certificate immediately, for example, if the request process requires manual intervention. The **poll** command can be used to poll the status of the request. |
| Introduced | 23.3.R1 |
| Platforms | All |

## **ca-profile** *reference*

| | |
|---|---|
| Synopsis | PKI CA profile name |
| Context | admin system security pki cmpv2 cert-request ca-profile *reference* |
| Tree | ca-profile |
| Description | This command configures the CA profile that contains the CMPv2 configuration like server URL. |
| Reference | **state system security pki ca-profile** *named-item* |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |

## **current-certificate** *pki-file-name*

| | |
|---|---|
| Synopsis | Existing imported certificate file to create request |
| Context | admin system security pki cmpv2 cert-request current-certificate *pki-file-name* |
| Tree | current-certificate |
| String length | 1 to 95 |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |


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### **current-key** *pki-file-name*

| | |
|---|---|
| Synopsis | Imported key file used to create the request |
| Context | admin system security pki cmpv2 cert-request current-key *pki-file-name* |
| Tree | current-key |
| Description | This command specifies the imported key file corresponding to the existing imported certificate file used to create the request. |
| String length | 1 to 95 |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **domain-name** *string*

| | |
|---|---|
| Synopsis | FQDNs for the Subject Alternative Name |
| Context | admin system security pki cmpv2 cert-request domain-name *string* |
| Tree | domain-name |
| Description | This command specifies the Fully Qualified Domain Names (FQDNs) for the Subject Alternative Name extension of the requesting certificate, separated by commas. |
| String length | 1 to 512 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **hash-algorithm** *keyword*

| | |
|---|---|
| Synopsis | Hash algorithm used for the certificate signature |
| Context | admin system security pki cmpv2 cert-request hash-algorithm *keyword* |
| Tree | hash-algorithm |
| Options | md5, sha1, sha224, sha256, sha384, sha512 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **ip-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address for the Subject Alternative Name |


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| | |
|---|---|
| Context | admin system security pki cmpv2 cert-request ip-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | ip-address |
| Description | This command specifies an IPv4 or IPv6 address for the Subject Alternative Name extension of the requesting certificate. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **new-key** *pki-file-name*

| | |
|---|---|
| Synopsis | New imported key file to create certificate request |
| Context | admin system security pki cmpv2 cert-request new-key *pki-file-name* |
| Tree | new-key |
| String length | 1 to 95 |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **save-as** *cflash-url*

| | |
|---|---|
| Synopsis | Full path to save the result certificate |
| Context | admin system security pki cmpv2 cert-request save-as *cflash-url* |
| Tree | save-as |
| String length | 1 to 200 |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **subject-dn** *string*

| | |
|---|---|
| Synopsis | Subject of the requesting certificate |
| Context | admin system security pki cmpv2 cert-request subject-dn *string* |
| Tree | subject-dn |
| Description | This command specifies the subject DN attributes used in the certificate request. The format is a comma separated list with the format attr1=val1, attr2=val2, where attrN={C \| ST \| O \| OU \| CN}. |


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| | |
|---|---|
| String length | 1 to 256 |
| Introduced | 23.3.R1 |
| Platforms | All |

## clear-request

| | |
|---|---|
| Synopsis | Clear pending CMPv2 requests |
| Context | admin system security pki cmpv2 clear-request |
| Tree | clear-request |
| Description | When specified, the system clears pending CMPv2 requests for the specified CA. If no requests are pending, the system clears the saved result of the previous request |
| Introduced | 23.3.R1 |
| Platforms | All |

## ca-profile *reference*

| | |
|---|---|
| Synopsis | PKI CA profile name |
| Context | admin system security pki cmpv2 clear-request ca-profile *reference* |
| Tree | ca-profile |
| Description | This command configures the CA profile that contains the CMPv2 configuration like server URL. |
| Reference | **state system security pki ca-profile** *named-item* |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |

## initial-registration

| | |
|---|---|
| Synopsis | Request initial certificate using the CMPv2 protocol |
| Context | admin system security pki cmpv2 initial-registration |
| Tree | initial-registration |
| Description | When specified, the system requests the initial certificate from the CA using the CMPv2 initial registration procedure.<br>The **ca-profile** parameter specifies a CA profile which includes CMP server information.<br>The **key-to-certify** parameter is an imported key file to be certified by the CA.<br>The request is authenticated via one of the following methods: |


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- A password and a reference number that pre-distributed by CA via out-of-band means. The specified password and reference number are not necessarily in the key-list configured in the corresponding CA-Profile. If key-list is not configured in the corresponding CA profile, the system uses the existing password to authenticate the CMPv2 packets from server if it is in password protection. If key-list is configured in the corresponding CA profile and the server does not send SenderKID, the system uses the lexicographical first key in the key-list to authenticate the CMPv2 packets from the server in case it is in password protection mode.
- A signature signed by the protection-key or key-to-certify, optionally with with the corresponding certificate. If the **protection-key** command is not specified, the system uses the **key-to-certify** configuration for message protection. The hash algorithm used for the signature depends on the key type. See the **cert-request** command for details. Optionally, the system may send a certificate or a chain of certificates in the extraCertsfield. The certificate is specified by the **certificate** parameter and must include the public key of the key used for message protection. Sending a chain is enabled by specifying the **send-chain** and **with-ca** command options.

The **subject-dn** command specifies the subject of the requesting certificate.

The **save-as** command specifies the full path name for saving the result certificate.

The CA may not return the certificate immediately, for example, if the request process requires manual intervention. In such cases, the **poll** command can be used to poll the status of the request.

| | |
|---|---|
| Introduced | 23.3.R1 |
| Platforms | All |

## **ca-profile** *reference*

| | |
|---|---|
| Synopsis | PKI CA profile name |
| Context | admin system security pki cmpv2 initial-registration ca-profile *reference* |
| Tree | ca-profile |
| Description | This command configures the CA profile that contains the CMPv2 configuration like server URL. |
| Reference | **state system security pki ca-profile** *named-item* |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |

## **certificate** *pki-file-name*

| | |
|---|---|
| Synopsis | Filename of the certificate for the protection key |
| Context | admin system security pki cmpv2 initial-registration certificate *pki-file-name* |


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| | |
|---|---|
| Tree | certificate |
| String length | 1 to 95 |
| Notes | The following elements are part of a mandatory choice: (**certificate**, **hash-algorithm**, **protection-key**, **send-chain**, and **with-ca**) or (**password** and **reference**). |
| Introduced | 23.3.R1 |
| Platforms | All |

### **domain-name** *string*

| | |
|---|---|
| Synopsis | FQDNs for the Subject Alternative Name |
| Context | admin system security pki cmpv2 initial-registration domain-name *string* |
| Tree | domain-name |
| Description | This command specifies the Fully Qualified Domain Names (FQDNs) for the Subject Alternative Name extension of the requesting certificate, separated by commas. |
| String length | 1 to 512 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **hash-algorithm** *keyword*

| | |
|---|---|
| Synopsis | Hash algorithm used for the certificate signature |
| Context | admin system security pki cmpv2 initial-registration hash-algorithm *keyword* |
| Tree | hash-algorithm |
| Options | md5, sha1, sha224, sha256, sha384, sha512 |
| Notes | The following elements are part of a mandatory choice: (**certificate**, **hash-algorithm**, **protection-key**, **send-chain**, and **with-ca**) or (**password** and **reference**). |
| Introduced | 23.3.R1 |
| Platforms | All |

### **ip-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address for the Subject Alternative Name |
| Context | admin system security pki cmpv2 initial-registration ip-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | ip-address |


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| | |
|---|---|
| Description | This command specifies an IPv4 or IPv6 address for the Subject Alternative Name extension of the requesting certificate. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **key-to-certify** *pki-file-name*

| | |
|---|---|
| Synopsis | Name of the key file used to create initial request |
| Context | admin system security pki cmpv2 initial-registration key-to-certify *pki-file-name* |
| Tree | key-to-certify |
| String length | 1 to 95 |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **password** *string*

| | |
|---|---|
| Synopsis | Password for message protection |
| Context | admin system security pki cmpv2 initial-registration password *string* |
| Tree | password |
| String length | 1 to 64 |
| Notes | The following elements are part of a mandatory choice: (**certificate**, **hash-algorithm**, **protection-key**, **send-chain**, and **with-ca**) or (**password** and **reference**). |
| Introduced | 23.3.R1 |
| Platforms | All |

### **protection-key** *pki-file-name*

| | |
|---|---|
| Synopsis | Key file used to generate message protection signature |
| Context | admin system security pki cmpv2 initial-registration protection-key *pki-file-name* |
| Tree | protection-key |
| String length | 1 to 95 |
| Notes | The following elements are part of a mandatory choice: (**certificate**, **hash-algorithm**, **protection-key**, **send-chain**, and **with-ca**) or (**password** and **reference**). |
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| | |
|---|---|
| Platforms | All |

### **reference** *string*

| | |
|---|---|
| Synopsis | Password reference number |
| Context | admin system security pki cmpv2 initial-registration reference *string* |
| Tree | reference |
| String length | 1 to 64 |
| Notes | The following elements are part of a mandatory choice: (**certificate**, **hash-algorithm**, **protection-key**, **send-chain**, and **with-ca**) or (**password** and **reference**). |
| Introduced | 23.3.R1 |
| Platforms | All |

### **save-as** *cflash-url*

| | |
|---|---|
| Synopsis | Full path to save the result certificate |
| Context | admin system security pki cmpv2 initial-registration save-as *cflash-url* |
| Tree | save-as |
| String length | 1 to 200 |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **send-chain**

| | |
|---|---|
| Synopsis | Send a certificate chain |
| Context | admin system security pki cmpv2 initial-registration send-chain |
| Tree | send-chain |
| Notes | The following elements are part of a mandatory choice: (**certificate**, **hash-algorithm**, **protection-key**, **send-chain**, and **with-ca**) or (**password** and **reference**). |
| Introduced | 23.3.R1 |
| Platforms | All |

### **subject-dn** *string*

| | |
|---|---|
| Synopsis | Subject of the requesting certificate |


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| | |
|---|---|
| Context | admin system security pki cmpv2 initial-registration subject-dn *string* |
| Tree | subject-dn |
| Description | This command specifies the subject DN attributes used in the certificate request. The format is a comma separated list with the format attr1=val1, attr2=val2, where attrN={C \| ST \| O \| OU \| CN}. |
| String length | 1 to 256 |
| Introduced | 23.3.R1 |
| Platforms | All |

## **with-ca** *reference*

| | |
|---|---|
| Synopsis | Name of CA profile with certificate in the send chain |
| Context | admin system security pki cmpv2 initial-registration with-ca *reference* |
| Tree | with-ca |
| Reference | **state system security pki ca-profile** *named-item* |
| Notes | The following elements are part of a mandatory choice: (**certificate**, **hash-algorithm**, **protection-key**, **send-chain**, and **with-ca**) or (**password** and **reference**). |
| Introduced | 23.3.R1 |
| Platforms | All |

## **key-update**

| | |
|---|---|
| Synopsis | Request new certificate to update existing certificate |
| Context | admin system security pki cmpv2 key-update |
| Tree | key-update |
| Description | When specified, the system requests a new certificate from the CA to update an existing certificate due to reasons such as a key refresh or to replace a compromised key.<br>The CA may not return the certificate immediately, for example, if the request process requires manual intervention. In these cases, the **poll** command can be used to poll the status of the request. |
| Introduced | 23.3.R1 |
| Platforms | All |

## **ca-profile** *reference*

| | |
|---|---|
| Synopsis | PKI CA profile name |
| Context | admin system security pki cmpv2 key-update ca-profile *reference* |


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| | |
|---|---|
| Tree | ca-profile |
| Description | This command configures the CA profile that contains the CMPv2 configuration like server URL. |
| Reference | **state system security pki ca-profile** *named-item* |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **hash-algorithm** *keyword*

| | |
|---|---|
| Synopsis | Hash algorithm used for the certificate signature |
| Context | admin system security pki cmpv2 key-update hash-algorithm *keyword* |
| Tree | hash-algorithm |
| Options | md5, sha1, sha224, sha256, sha384, sha512 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **new-key** *pki-file-name*

| | |
|---|---|
| Synopsis | Name of new imported key file used for the key update |
| Context | admin system security pki cmpv2 key-update new-key *pki-file-name* |
| Tree | new-key |
| String length | 1 to 95 |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **old-certificate** *pki-file-name*

| | |
|---|---|
| Synopsis | Name of the old certificate file to be replaced |
| Context | admin system security pki cmpv2 key-update old-certificate *pki-file-name* |
| Tree | old-certificate |
| String length | 1 to 95 |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |


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| | |
|---|---|
| Platforms | All |

### **old-key** *pki-file-name*

| | |
|---|---|
| Synopsis | Name of the old key file to be replaced |
| Context | admin system security pki cmpv2 key-update old-key *pki-file-name* |
| Tree | old-key |
| String length | 1 to 95 |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **save-as** *cflash-url*

| | |
|---|---|
| Synopsis | Full path to save the result certificate file |
| Context | admin system security pki cmpv2 key-update save-as *cflash-url* |
| Tree | save-as |
| String length | 1 to 200 |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **poll**

| | |
|---|---|
| Synopsis | Poll the CMPv2 server for pending request status |
| Context | admin system security pki cmpv2 poll |
| Tree | poll |
| Description | When specified, the system polls the status of the pending CMPv2 request toward the specified CA.<br>If the response is ready, the system resumes the CMPv2 protocol exchange with the server.<br>SR OS allows only one pending CMP request per CA; therefore, no new request is allowed when a pending request is present. |
| Introduced | 23.3.R1 |
| Platforms | All |


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### **ca-profile** *reference*

| | |
|---|---|
| Synopsis | PKI CA profile name |
| Context | admin system security pki cmpv2 poll ca-profile *reference* |
| Tree | ca-profile |
| Description | This command configures the CA profile that contains the CMPv2 configuration like server URL. |
| Reference | **state system security pki ca-profile** *named-item* |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **convert-file**

| | |
|---|---|
| Synopsis | Convert imported file between secure and legacy format |
| Context | admin system security pki convert-file |
| Tree | convert-file |
| Introduced | 23.3.R1 |
| Platforms | All |

### **force**

| | |
|---|---|
| Synopsis | Force the conversion |
| Context | admin system security pki convert-file force |
| Tree | force |
| Description | When specified, the system forces the conversion of imported certificates and keys even if files with the same output names exist. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **format** *keyword*

| | |
|---|---|
| Synopsis | File format to convert to |
| Context | admin system security pki convert-file format *keyword* |
| Tree | format |


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| | |
|---|---|
| Options | secure, legacy |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |

### [**input-file**] *pki-file-name*

| | |
|---|---|
| Synopsis | Name of the file to be converted |
| Context | admin system security pki convert-file [input-file] *pki-file-name* |
| Tree | [input-file] |
| String length | 1 to 95 |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |

### [**output-file**] *pki-file-name*

| | |
|---|---|
| Synopsis | Output filename |
| Context | admin system security pki convert-file [output-file] *pki-file-name* |
| Tree | [output-file] |
| Description | This command specifies the output filename. If the filename already exists, the system prompts the user to proceed or aborts if the **force** command is unconfigured. |
| String length | 1 to 95 |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |

## crl-update

| | |
|---|---|
| Synopsis | Trigger the CRL update for the CA profile |
| Context | admin system security pki crl-update |
| Tree | crl-update |
| Introduced | 23.3.R1 |
| Platforms | All |


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### **ca-profile** *reference*

| | |
|---|---|
| Synopsis | PKI CA profile name |
| Context | admin system security pki crl-update ca-profile *reference* |
| Tree | ca-profile |
| Description | This command configures the CA profile that contains the CMPv2 configuration like server URL. |
| Reference | **state system security pki ca-profile** *named-item* |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **est**

| | |
|---|---|
| Synopsis | Perform Enrollment over Secure Transport operations |
| Context | admin system security pki est |
| Tree | est |
| Description | Commands in this context configure command options for Enrollment over Secure Transport (EST) protocol operations. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **ca-certificates**

| | |
|---|---|
| Synopsis | Download CA certificates from the EST server |
| Context | admin system security pki est ca-certificates |
| Tree | ca-certificates |
| Description | This command downloads a Certificate Authority (CA) certificate from an EST server specified by the profile name. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **est-profile** *string*

| | |
|---|---|
| Synopsis | PKI EST profile name |


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| | |
|---|---|
| Context | admin system security pki est ca-certificates est-profile *string* |
| Tree | est-profile |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |

## force

| | |
|---|---|
| Synopsis | Force an overwrite of the result file |
| Context | admin system security pki est ca-certificates force |
| Tree | force |
| Introduced | 23.3.R1 |
| Platforms | All |

## output-url *cflash-url*

| | |
|---|---|
| Synopsis | Path to the result file |
| Context | admin system security pki est ca-certificates output-url *cflash-url* |
| Tree | output-url |
| String length | 1 to 200 |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |

## enroll

| | |
|---|---|
| Synopsis | Enroll a new certificate with CA with the EST protocol |
| Context | admin system security pki est enroll |
| Tree | enroll |
| Description | When specified, the system enrolls a new certificate with Certificate Authority (CA) by the EST protocol specified with the **est-profile** command with a imported private key specified by the **key** command.<br>The **est-profile** commad specifies the authentication between the system and EST server. |


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The **hash-alg**, **subject-dn**, **domain-name**, and **ip-address** commands are used to generate the Certificate Signing Request (CSR) in the EST request message. The **domain-name** and **ip-address** commands are used as subject alternative names.

If **validate-certificate-chain** is specified, the system validates the chain of result certificate before importing it. The certificate chain is the chain of all certificates from the result certificate to the issuing CA. The result certificate is the new certificate returned by the EST server.

The result certificate is imported and saved with the filename specified by the **output-file** command. If the **force** command is specified, the system overwrites the existing file with same name as the output file.

| | |
|---|---|
| Introduced | 23.3.R1 |
| Platforms | All |

## **domain-name** *string*

| | |
|---|---|
| Synopsis | FQDNs for the Subject Alternative Name |
| Context | admin system security pki est enroll domain-name *string* |
| Tree | domain-name |
| Description | This command specifies the Fully Qualified Domain Names (FQDNs) for the Subject Alternative Name extension of the requesting certificate, separated by commas. |
| String length | 1 to 512 |
| Introduced | 23.3.R1 |
| Platforms | All |

## **est-profile** *string*

| | |
|---|---|
| Synopsis | PKI EST profile name |
| Context | admin system security pki est enroll est-profile *string* |
| Tree | est-profile |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |

## **force**

| | |
|---|---|
| Synopsis | Force an overwrite of the result file |
| Context | admin system security pki est enroll force |


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| | |
|---|---|
| Tree | force |
| Introduced | 23.3.R1 |
| Platforms | All |

### **hash-algorithm** *keyword*

| | |
|---|---|
| Synopsis | Hash algorithm used for the certificate signature |
| Context | admin system security pki est enroll hash-algorithm *keyword* |
| Tree | hash-algorithm |
| Options | md5, sha1, sha224, sha256, sha384, sha512 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **ip-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address for the Subject Alternative Name |
| Context | admin system security pki est enroll ip-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | ip-address |
| Description | This command specifies an IPv4 or IPv6 address for the Subject Alternative Name extension of the requesting certificate. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **key** *cflash-url*

| | |
|---|---|
| Synopsis | Name of the imported the key file to enroll |
| Context | admin system security pki est enroll key *cflash-url* |
| Tree | key |
| String length | 1 to 200 |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |


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### **output-file** *pki-file-name*

| | |
|---|---|
| Synopsis | Name of the result file |
| Context | admin system security pki est enroll output-file *pki-file-name* |
| Tree | output-file |
| String length | 1 to 95 |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **subject-dn** *string*

| | |
|---|---|
| Synopsis | Subject of the requesting certificate |
| Context | admin system security pki est enroll subject-dn *string* |
| Tree | subject-dn |
| Description | This command specifies the subject DN attributes used in the certificate request. The format is a comma separated list with the format attr1=val1, attr2=val2, where attrN={C \| ST \| O \| OU \| CN}. |
| String length | 1 to 256 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **validate-certificate-chain**

| | |
|---|---|
| Synopsis | Validate result certificate chain before importing |
| Context | admin system security pki est enroll validate-certificate-chain |
| Tree | validate-certificate-chain |
| Introduced | 23.3.R1 |
| Platforms | All |

### **renew**

| | |
|---|---|
| Synopsis | Renew a CA certificate using the EST protocol |
| Context | admin system security pki est renew |
| Tree | renew |


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| | |
|---|---|
| Description | When specified, the system renews an imported certificate (specified by the **certificate** command) with a Certificate Authority (CA) using the EST protocol specified by the **est-profile** parameter, with an imported private key specified the **key** command. The key can be either the key of the certificate to be renewed or a new key.<br>The authentication between system and EST server is specified by the **est-profile** parameter.<br>The system uses the **hash-alg** command to generate the CSR in the EST request message. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **certificate** *cflash-url*

| | |
|---|---|
| Synopsis | Name of the imported certificate file to renew |
| Context | admin system security pki est renew certificate *cflash-url* |
| Tree | certificate |
| String length | 1 to 200 |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **est-profile** *string*

| | |
|---|---|
| Synopsis | PKI EST profile name |
| Context | admin system security pki est renew est-profile *string* |
| Tree | est-profile |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **force**

| | |
|---|---|
| Synopsis | Force an overwrite of the result file |
| Context | admin system security pki est renew force |
| Tree | force |


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| | |
|---|---|
| Introduced | 23.3.R1 |
| Platforms | All |

### **hash-algorithm** *keyword*

| | |
|---|---|
| Synopsis | Hash algorithm used for the certificate signature |
| Context | admin system security pki est renew hash-algorithm *keyword* |
| Tree | hash-algorithm |
| Options | md5, sha1, sha224, sha256, sha384, sha512 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **key** *cflash-url*

| | |
|---|---|
| Synopsis | Imported key file of the certificate to renew |
| Context | admin system security pki est renew key *cflash-url* |
| Tree | key |
| String length | 1 to 200 |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **output-file** *pki-file-name*

| | |
|---|---|
| Synopsis | Name of the result file |
| Context | admin system security pki est renew output-file *pki-file-name* |
| Tree | output-file |
| String length | 1 to 95 |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **validate-certificate-chain**

| | |
|---|---|
| Synopsis | Validate result certificate chain before importing |


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| | |
|---|---|
| Context | admin system security pki est renew validate-certificate-chain |
| Tree | validate-certificate-chain |
| Introduced | 23.3.R1 |
| Platforms | All |

### export

| | |
|---|---|
| Synopsis | Export an imported file |
| Context | admin system security pki export |
| Tree | export |
| Introduced | 23.3.R1 |
| Platforms | All |

### format *keyword*

| | |
|---|---|
| Synopsis | Output file format |
| Context | admin system security pki export format *keyword* |
| Tree | format |
| Options | pkcs12, pkcs7-der, pkcs7-pem, pem, der |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |

### input-file *pki-file-name*

| | |
|---|---|
| Synopsis | Name of the file to be exported |
| Context | admin system security pki export input-file *pki-file-name* |
| Tree | input-file |
| String length | 1 to 95 |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |


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### **key-file** *pki-file-name*

| | |
|---|---|
| Synopsis | Name of the key file to be exported |
| Context | admin system security pki export key-file *pki-file-name* |
| Tree | key-file |
| Description | This command specifies the name of the key file to be exported when the output format may contain the certificate and the key. |
| String length | 1 to 95 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **output-url** *cflash-url*

| | |
|---|---|
| Synopsis | Full path to export the result file |
| Context | admin system security pki export output-url *cflash-url* |
| Tree | output-url |
| String length | 1 to 200 |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **password** *string*

| | |
|---|---|
| Synopsis | Password used to encrypt the output file |
| Context | admin system security pki export password *string* |
| Tree | password |
| String length | 1 to 32 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **type** *keyword*

| | |
|---|---|
| Synopsis | Type of file to be exported |
| Context | admin system security pki export type *keyword* |
| Tree | type |


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| | |
|---|---|
| Options | certificate, key, crl |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |

### generate-csr

| | |
|---|---|
| Synopsis | Generate a PKCS#10 certificate signing request file |
| Context | admin system security pki generate-csr |
| Tree | generate-csr |
| Introduced | 23.3.R1 |
| Platforms | All |

### domain-name *string*

| | |
|---|---|
| Synopsis | FQDNs for the Subject Alternative Name |
| Context | admin system security pki generate-csr domain-name *string* |
| Tree | domain-name |
| Description | This command specifies the Fully Qualified Domain Names (FQDNs) for the Subject Alternative Name extension of the requesting certificate, separated by commas. |
| String length | 1 to 512 |
| Introduced | 23.3.R1 |
| Platforms | All |

### hash-algorithm *keyword*

| | |
|---|---|
| Synopsis | Hash algorithm used for the certificate signature |
| Context | admin system security pki generate-csr hash-algorithm *keyword* |
| Tree | hash-algorithm |
| Options | md5, sha1, sha224, sha256, sha384, sha512 |
| Introduced | 23.3.R1 |
| Platforms | All |


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### **ip-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address for the Subject Alternative Name |
| Context | admin system security pki generate-csr ip-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | ip-address |
| Description | This command specifies an IPv4 or IPv6 address for the Subject Alternative Name extension of the requesting certificate. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **key-url** *cflash-url*

| | |
|---|---|
| Synopsis | Full path to the key file used to generate the request |
| Context | admin system security pki generate-csr key-url *cflash-url* |
| Tree | key-url |
| String length | 1 to 200 |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **output-url** *cflash-url*

| | |
|---|---|
| Synopsis | Full path to result certificate signing request file |
| Context | admin system security pki generate-csr output-url *cflash-url* |
| Tree | output-url |
| String length | 1 to 200 |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **subject-dn** *string*

| | |
|---|---|
| Synopsis | Subject of the requesting certificate |
| Context | admin system security pki generate-csr subject-dn *string* |


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| | |
|---|---|
| Tree | subject-dn |
| Description | This command specifies the subject DN attributes used in the certificate request. The format is a comma separated list with the format attr1=val1, attr2=val2, where attrN={C \| ST \| O \| OU \| CN}. |
| String length | 1 to 256 |
| Introduced | 23.3.R1 |
| Platforms | All |

## use-printable

| | |
|---|---|
| Synopsis | Force ASCII encoding for input subject DN attributes |
| Context | admin system security pki generate-csr use-printable |
| Tree | use-printable |
| Description | When specified, the system forces the use of ASCII encoding for the input subject DN attributes. Otherwise, the system uses UTF-8 encoding. |
| Introduced | 23.3.R1 |
| Platforms | All |

## generate-keypair

| | |
|---|---|
| Synopsis | Generate PKI key pair |
| Context | admin system security pki generate-keypair |
| Tree | generate-keypair |
| Description | When specified, the system generates an RSA, DSA, or ECDSA private/public key pair file |
| Introduced | 23.3.R1 |
| Platforms | All |

## dsa-key-size *number*

| | |
|---|---|
| Synopsis | Length of the DSA key to be generated |
| Context | admin system security pki generate-keypair dsa-key-size *number* |
| Tree | dsa-key-size |
| Range | 512 to 8192 |
| Default | 2048 |


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| | |
|---|---|
| Notes | The following elements are part of a mandatory choice: **dsa-key-size**, **ecdsa-curve**, or **rsa-key-size**. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **ecdsa-curve** *keyword*

| | |
|---|---|
| Synopsis | Elliptic curve of the ECDSA key to be generated |
| Context | admin system security pki generate-keypair ecdsa-curve *keyword* |
| Tree | ecdsa-curve |
| Options | secp256r1, secp384r1, secp521r1 |
| Default | secp256r1 |
| Notes | The following elements are part of a mandatory choice: **dsa-key-size**, **ecdsa-curve**, or **rsa-key-size**. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **rsa-key-size** *number*

| | |
|---|---|
| Synopsis | Length of the RSA key to be generated |
| Context | admin system security pki generate-keypair rsa-key-size *number* |
| Tree | rsa-key-size |
| Range | 512 to 8192 |
| Default | 2048 |
| Notes | The following elements are part of a mandatory choice: **dsa-key-size**, **ecdsa-curve**, or **rsa-key-size**. |
| Introduced | 23.3.R1 |
| Platforms | All |

### [**save-path**] *cflash-url*

| | |
|---|---|
| Synopsis | Full path to save the result key file |
| Context | admin system security pki generate-keypair [save-path] *cflash-url* |
| Tree | [save-path] |
| String length | 1 to 200 |


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| | |
|---|---|
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |

## import

| | |
|---|---|
| Synopsis | Import a certificate related file |
| Context | admin system security pki import |
| Tree | import |
| Description | When specified, the system imports an input file (key/certificate/CRL) to be used by SROS applications. The following summarizes the supported formats:<br>• Certificate - PKCS #12, PKCS #7 PEM encoded, PKCS #7 DER encoded, PEM, DER<br>• Key - PKCS #12, PEM, DER<br>• CRL - PKCS #7 PEM encoded, PKCS #7 DER encoded, PEM, DER |
| Introduced | 23.3.R1 |
| Platforms | All |

## format *keyword*

| | |
|---|---|
| Synopsis | Output file format |
| Context | admin system security pki import format *keyword* |
| Tree | format |
| Options | pkcs12, pkcs7-der, pkcs7-pem, pem, der |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |

## input-url *cflash-url*

| | |
|---|---|
| Synopsis | Full path to the file to import |
| Context | admin system security pki import input-url *cflash-url* |
| Tree | input-url |
| String length | 1 to 200 |
| Notes | This element is mandatory. |


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| | |
|---|---|
| Introduced | 23.3.R1 |
| Platforms | All |

### **output-file** *pki-file-name*

| | |
|---|---|
| Synopsis | Name of the result file |
| Context | admin system security pki import output-file *pki-file-name* |
| Tree | output-file |
| String length | 1 to 95 |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **password** *string*

| | |
|---|---|
| Synopsis | Password used to encrypt the output file |
| Context | admin system security pki import password *string* |
| Tree | password |
| String length | 1 to 32 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **type** *keyword*

| | |
|---|---|
| Synopsis | Type of file to be exported |
| Context | admin system security pki import type *keyword* |
| Tree | type |
| Options | certificate, key, crl |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **validate-certificate-chain**

| | |
|---|---|
| Synopsis | Validate the certificate chain |


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| | |
|---|---|
| Context | admin system security pki import validate-certificate-chain |
| Tree | validate-certificate-chain |
| Description | When specified, the system validates the result certificate chain before it is imported. |
| Introduced | 23.3.R1 |
| Platforms | All |

## reload

| | |
|---|---|
| Synopsis | Reload key or certificate files |
| Context | admin system security pki reload |
| Tree | reload |
| Description | When specified, the system reloads the key or certificate files for the specified application.This command can be used to ensure a changed imported file takes effect. |
| Introduced | 23.3.R1 |
| Platforms | All |

## application *keyword*

| | |
|---|---|
| Synopsis | Application to be reloaded |
| Context | admin system security pki reload application *keyword* |
| Tree | application |
| Options | ipsec |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |

## certificate *pki-file-name*

| | |
|---|---|
| Synopsis | Name of the certificate file to reload |
| Context | admin system security pki reload certificate *pki-file-name* |
| Tree | certificate |
| String length | 1 to 95 |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |


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### **key** *pki-file-name*

| | |
|---|---|
| Synopsis | Name of the key file to reload |
| Context | admin system security pki reload key *pki-file-name* |
| Tree | key |
| String length | 1 to 95 |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **show**

| | |
|---|---|
| Synopsis | Enter the **show** context |
| Context | admin system security pki show |
| Tree | show |
| Description | Commands in this context include operations to display the PKI file. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **file-content**

| | |
|---|---|
| Synopsis | Display content of certificate related files |
| Context | admin system security pki show file-content |
| Tree | file-content |
| Introduced | 23.3.R1 |
| Platforms | All |

### [**file-path**] *cflash-url*

| | |
|---|---|
| Synopsis | Full path to the file to display |
| Context | admin system security pki show file-content [file-path] *cflash-url* |
| Tree | [file-path] |
| String length | 1 to 200 |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |


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| | |
|---|---|
| Platforms | All |

### **format** *keyword*

| | |
|---|---|
| Synopsis | Format of the file to display |
| Context | admin system security pki show file-content format *keyword* |
| Tree | format |
| Options | pkcs10, pkcs12, pkcs7-der, pkcs7-pem, pem, der |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **password** *string*

| | |
|---|---|
| Synopsis | File decryption password |
| Context | admin system security pki show file-content password *string* |
| Tree | password |
| String length | 1 to 32 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **type** *keyword*

| | |
|---|---|
| Synopsis | Type of the file to display |
| Context | admin system security pki show file-content type *keyword* |
| Tree | type |
| Options | certificate, key, crl, csr |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **update-certificate**

| | |
|---|---|
| Synopsis | Update End Entity certificate |
| Context | admin system security pki update-certificate |


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| | |
|---|---|
| Tree | update-certificate |
| Description | When specified, the system triggers an update for the specified certificate according to the corresponding **configure system security pki certificate-auto-update** configuration. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **certificate** *reference*

| | |
|---|---|
| Synopsis | Name of the certificate file to be updated |
| Context | admin system security pki update-certificate certificate *reference* |
| Tree | certificate |
| Reference | **state system security pki certificate-auto-update** *pki-file-name* |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |

### secure-boot

| | |
|---|---|
| Synopsis | Enter the **secure-boot** context |
| Context | admin system security secure-boot |
| Tree | secure-boot |
| Introduced | 23.7.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s, 7950 XRS-20e |

### activate

| | |
|---|---|
| Synopsis | Activate secure boot on a CPM |
| Context | admin system security secure-boot activate |
| Tree | activate |
| Description | This command activates Secure Boot to enforce digital signature verification of the software on every boot.<br>Once Secure Boot is activated on a CPM, the capability is permanently enabled and cannot be disabled. |
| Introduced | 23.7.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s, 7950 XRS-20e |


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### **card** *reference*

| | |
|---|---|
| Synopsis | CPM slot where secure boot is activated or modified |
| Context | admin system security secure-boot activate card *reference* |
| Tree | card |
| Reference | **state cpm** *cpm-card-slot* |
| Notes | This element is mandatory. |
| Introduced | 23.7.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s, 7950 XRS-20e |

### **confirmation-code** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | Confirmation code |
| Context | admin system security secure-boot activate confirmation-code *string-not-all-spaces* |
| Tree | confirmation-code |
| String length | 1 to 32 |
| Introduced | 23.7.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s, 7950 XRS-20e |

### **serial-number** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | CPM card serial number which secure-boot activates |
| Context | admin system security secure-boot activate serial-number *string-not-all-spaces* |
| Tree | serial-number |
| String length | 1 to 32 |
| Introduced | 23.7.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s, 7950 XRS-20e |

### **revoke-key**

| | |
|---|---|
| Synopsis | Revoke secure boot keys |
| Context | admin system security secure-boot revoke-key |
| Tree | revoke-key |
| Introduced | 23.7.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s, 7950 XRS-20e |


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### **card** *reference*

| | |
|---|---|
| Synopsis | CPM slot where secure boot is activated or modified |
| Context | admin system security secure-boot revoke-key card *reference* |
| Tree | card |
| Reference | **state cpm** *cpm-card-slot* |
| Notes | This element is mandatory. |
| Introduced | 23.7.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s, 7950 XRS-20e |

### **confirmation-code** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | Confirmation code |
| Context | admin system security secure-boot revoke-key confirmation-code *string-not-all-spaces* |
| Tree | confirmation-code |
| String length | 1 to 32 |
| Introduced | 23.7.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s, 7950 XRS-20e |

### **serial-number** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | CPM card serial number which secure-boot activates |
| Context | admin system security secure-boot revoke-key serial-number *string-not-all-spaces* |
| Tree | serial-number |
| String length | 1 to 32 |
| Introduced | 23.7.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s, 7950 XRS-20e |

### **update-key**

| | |
|---|---|
| Synopsis | Update secure boot keys |
| Context | admin system security secure-boot update-key |
| Tree | update-key |
| Introduced | 23.7.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s, 7950 XRS-20e |


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### **card** *reference*

| | |
|---|---|
| Synopsis | CPM slot where secure boot is activated or modified |
| Context | admin system security secure-boot update-key card *reference* |
| Tree | card |
| Reference | **state cpm** *cpm-card-slot* |
| Notes | This element is mandatory. |
| Introduced | 23.7.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s, 7950 XRS-20e |

### **confirmation-code** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | Confirmation code |
| Context | admin system security secure-boot update-key confirmation-code *string-not-all-spaces* |
| Tree | confirmation-code |
| String length | 1 to 32 |
| Introduced | 23.7.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s, 7950 XRS-20e |

### **serial-number** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | CPM card serial number which secure-boot activates |
| Context | admin system security secure-boot update-key serial-number *string-not-all-spaces* |
| Tree | serial-number |
| String length | 1 to 32 |
| Introduced | 23.7.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s, 7950 XRS-20e |

### **software-image** *cflash-and-url*

| | |
|---|---|
| Synopsis | Location of the target software image |
| Context | admin system security secure-boot update-key software-image *cflash-and-url* |
| Tree | software-image |
| String length | 1 to 180 |
| Notes | This element is mandatory. |


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| | |
|---|---|
| Introduced | 23.7.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s, 7950 XRS-20e |

### validate

| | |
|---|---|
| Synopsis | Validate software signature for the specified image |
| Context | admin system security secure-boot validate |
| Tree | validate |
| Introduced | 23.7.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s, 7950 XRS-20e |

### software-image *cflash-and-url*

| | |
|---|---|
| Synopsis | Location of the target software image |
| Context | admin system security secure-boot validate software-image *cflash-and-url* |
| Tree | software-image |
| String length | 1 to 180 |
| Notes | This element is mandatory. |
| Introduced | 23.7.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s, 7950 XRS-20e |

### system-password

| | |
|---|---|
| Synopsis | Change a local system password |
| Context | admin system security system-password |
| Tree | system-password |
| Introduced | 22.10.R2 |
| Platforms | All |

### admin-password

| | |
|---|---|
| Synopsis | Administrative password |
| Context | admin system security system-password admin-password |
| Tree | admin-password |
| Notes | This element is mandatory. |


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| | |
|---|---|
| Introduced | 22.10.R2 |
| Platforms | All |

## telemetry

| | |
|---|---|
| Synopsis | Enter the **telemetry** context |
| Context | admin system telemetry |
| Tree | telemetry |
| Introduced | 19.10.R1 |
| Platforms | All |

## grpc

| | |
|---|---|
| Synopsis | Enter the **grpc** context |
| Context | admin system telemetry grpc |
| Tree | grpc |
| Introduced | 19.10.R1 |
| Platforms | All |

## cancel

| | |
|---|---|
| Synopsis | Cancel the gRPC dynamic telemetry subscription |
| Context | admin system telemetry grpc cancel |
| Tree | cancel |
| Introduced | 19.10.R1 |
| Platforms | All |

## all

| | |
|---|---|
| Synopsis | Cancel gRPC dynamic telemetry for all subscriptions |
| Context | admin system telemetry grpc cancel all |
| Tree | all |
| Notes | The following elements are part of a mandatory choice: **all** or **subscription-id**. |
| Introduced | 19.10.R1 |
| Platforms | All |


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### **subscription-id** *number*

| | |
|---|---|
| Synopsis | ID of the telemetry subscription to cancel |
| Context | admin system telemetry grpc cancel subscription-id *number* |
| Tree | subscription-id |
| Max. range | 0 to 4294967295 |
| Notes | The following elements are part of a mandatory choice: **all** or **subscription-id**. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **tech-support**

| | |
|---|---|
| Synopsis | Save technical support information to a file |
| Context | admin tech-support |
| Tree | tech-support |
| Introduced | 20.10.R1 |
| Platforms | All |

### [**url**] *url*

| | |
|---|---|
| Synopsis | URL to save technical support information |
| Context | admin tech-support [url] *url* |
| Tree | [url] |
| String length | 1 to 180 |
| Introduced | 20.10.R1 |
| Platforms | All |


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## 2.2 environment commands

See “Environment commands” in the *7450 ESS, 7750 SR, 7950 XRS, and VSR MD-CLI User Guide* for more information.

```
environment
   –  command-alias
      –  alias string
         –  admin-state keyword
         –  cli-command string
         –  description string-not-all-spaces
         –  mount-point (keyword | string)
         –  python-script reference
   –  command-completion
      –  enter boolean
      –  space boolean
      –  tab boolean
   –  commit-options
      –  comment boolean
      –  confirm boolean
   –  console
      –  length number
      –  width number
   –  history
      –  recall boolean
      –  size number
   –  info-output
      –  always-display
         –  admin-state boolean
   –  message-severity-level
      –  cli keyword
   –  more boolean
   –  progress-indicator
      –  admin-state keyword
      –  delay number
      –  type keyword
   –  prompt
      –  context boolean
      –  newline boolean
      –  timestamp boolean
      –  uncommitted-changes-indicator boolean
   –  python
      –  memory-reservation number
      –  minimum-available-memory number
      –  timeout number
   –  time-display keyword
   –  time-format keyword
```


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## 2.2.1 environment command descriptions

### environment

| | |
|---|---|
| Synopsis | Configure the environment settings for this session |
| Context | environment |
| Tree | environment |
| Introduced | 16.0.R1 |
| Platforms | All |

### command-alias

| | |
|---|---|
| Synopsis | Enter the **command-alias** context |
| Context | environment command-alias |
| Tree | command-alias |
| Description | Commands in this context create aliases to existing MD-CLI commands or to Python scripts.<br>Aliases may be mounted for use globally or for selected context paths. Arguments and output modifiers may be provided to aliases at configuration or run time. |
| Introduced | 21.7.R1 |
| Platforms | All |

### **alias** [alias-name] *string*

| | |
|---|---|
| Synopsis | Enter the **alias** list instance |
| Context | environment command-alias alias *string* |
| Tree | alias |
| Description | Commands in this context create aliases to existing MD-CLI commands or to Python applications.<br>Aliases may be mounted for use globally or for selected context paths. Arguments and output modifiers may be provided to aliases at configuration or run time. |
| Introduced | 21.7.R1 |
| Platforms | All |


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### [**alias-name**] *string*

| | |
|---|---|
| Synopsis | Alias name |
| Context | environment command-alias alias *string* |
| Tree | alias |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 21.7.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the alias |
| Context | environment command-alias alias *string* admin-state *keyword* |
| Tree | admin-state |
| Description | This command controls the administrative state of the MD-CLI alias.<br>MD-CLI aliases that are administratively disabled cannot be executed, do not autocomplete in operational mode, and do not appear in **?** help. |
| Options | enable, disable |
| Introduced | 21.10.R1 |
| Platforms | All |

### **cli-command** *string*

| | |
|---|---|
| Synopsis | CLI command to run when executing the alias |
| Context | environment command-alias alias *string* cli-command *string* |
| Tree | cli-command |
| String length | 1 to 255 |
| Notes | The following elements are part of a mandatory choice: **cli-command** or **python-script**. |
| Introduced | 21.7.R1 |
| Platforms | All |

### **description** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | Text description |


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| | |
|---|---|
| Context | environment command-alias alias *string* description *string-not-all-spaces* |
| Tree | description |
| String length | 1 to 110 |
| Introduced | 21.7.R1 |
| Platforms | All |

### **mount-point** [path] *(keyword | string)*

| | |
|---|---|
| Synopsis | Add a list entry for **mount-point** |
| Context | environment command-alias alias *string* mount-point *(keyword | string)* |
| Tree | mount-point |
| Min. instances | 1 |
| Introduced | 21.7.R1 |
| Platforms | All |

### [**path**] *(keyword | string)*

| | |
|---|---|
| Synopsis | Mount point where the alias is available |
| Context | environment command-alias alias *string* mount-point *(keyword | string)* |
| Tree | mount-point |
| String length | 1 to 255 |
| Options | global |
| Notes | This element is part of a list key. |
| Introduced | 21.7.R1 |
| Platforms | All |

### **python-script** *reference*

| | |
|---|---|
| Synopsis | Python script to run when executing the alias |
| Context | environment command-alias alias *string* python-script *reference* |
| Tree | python-script |
| Reference | **state python python-script** *named-item* |
| Notes | The following elements are part of a mandatory choice: **cli-command** or **python-script**. |
| Introduced | 21.7.R1 |


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| | |
|---|---|
| Platforms | All |

### command-completion

| | |
|---|---|
| Synopsis | Enter the **command-completion** context |
| Context | environment command-completion |
| Tree | command-completion |
| Introduced | 16.0.R1 |
| Platforms | All |

### **enter** *boolean*

| | |
|---|---|
| Synopsis | Complete the command when the Enter key is pressed |
| Context | environment command-completion enter *boolean* |
| Tree | enter |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **space** *boolean*

| | |
|---|---|
| Synopsis | Complete the command when the Space key is pressed |
| Context | environment command-completion space *boolean* |
| Tree | space |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **tab** *boolean*

| | |
|---|---|
| Synopsis | Complete the command when the Tab key is pressed |
| Context | environment command-completion tab *boolean* |
| Tree | tab |
| Default | true |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## commit-options

| | |
|---|---|
| Synopsis | Enter the **commit-options** context |
| Context | environment commit-options |
| Tree | commit-options |
| Introduced | 24.10.R1 |
| Platforms | All |

## comment *boolean*

| | |
|---|---|
| Synopsis | Require a commit comment when committing configuration |
| Context | environment commit-options comment *boolean* |
| Tree | comment |
| Default | false |
| Introduced | 24.10.R1 |
| Platforms | All |

## confirm *boolean*

| | |
|---|---|
| Synopsis | Require confirmed commit when committing configuration |
| Context | environment commit-options confirm *boolean* |
| Tree | confirm |
| Default | false |
| Introduced | 24.10.R1 |
| Platforms | All |

## console

| | |
|---|---|
| Synopsis | Enter the **console** context |
| Context | environment console |
| Tree | console |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **length** *number*

| | |
|---|---|
| Synopsis | Number of lines displayed on the console |
| Context | environment console length *number* |
| Tree | length |
| Range | 24 to 512 |
| Default | 24 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **width** *number*

| | |
|---|---|
| Synopsis | Number of columns displayed on the console |
| Context | environment console width *number* |
| Tree | width |
| Range | 80 to 512 |
| Default | 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **history**

| | |
|---|---|
| Synopsis | Enter the **history** context |
| Context | environment history |
| Tree | history |
| Introduced | 24.7.R1 |
| Platforms | All |

### **recall** *boolean*

| | |
|---|---|
| Synopsis | Allow command history recall and search execution |
| Context | environment history recall *boolean* |
| Tree | recall |
| Description | When configured to **true**, the command history recall (**!**), substitution (**!$**), display (**:p**, **Esc+.**), and backward search (**Ctrl-R**) are enabled. |


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When configured to **false**, the command history can be displayed using the **history** command, but commands in the history cannot be executed.

| | |
|---|---|
| Default | true |
| Introduced | 24.7.R1 |
| Platforms | All |

### **size** *number*

| | |
|---|---|
| Synopsis | Command history size |
| Context | environment history size *number* |
| Tree | size |
| Description | This command specifies the maximum size of the command history. A value of 0 disables the command history. |
| Range | 0 to 1000 |
| Default | 50 |
| Introduced | 24.7.R1 |
| Platforms | All |

### info-output

| | |
|---|---|
| Synopsis | Enter the **info-output** context |
| Context | environment info-output |
| Tree | info-output |
| Introduced | 22.2.R1 |
| Platforms | All |

### always-display

| | |
|---|---|
| Synopsis | Enter the **always-display** context |
| Context | environment info-output always-display |
| Tree | always-display |
| Description | Commands in this context specify elements that are always displayed, regardless of whether they are set to their default value. |
| Introduced | 22.2.R1 |
| Platforms | All |


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### **admin-state** *boolean*

| | |
|---|---|
| Synopsis | Always display admin-state elements |
| Context | environment info-output always-display admin-state *boolean* |
| Tree | admin-state |
| Description | When configured to **true**, the values of the **admin-state** elements in **info** output (without the **detail** option) are always displayed, even if they are the default values. |
| Default | false |
| Introduced | 22.2.R1 |
| Platforms | All |

### **message-severity-level**

| | |
|---|---|
| Synopsis | Enter the **message-severity-level** context |
| Context | environment message-severity-level |
| Tree | message-severity-level |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cli** *keyword*

| | |
|---|---|
| Synopsis | Message severity threshold for CLI messages |
| Context | environment message-severity-level cli *keyword* |
| Tree | cli |
| Options | warning, info |
| Default | info |
| Introduced | 16.0.R1 |
| Platforms | All |

### **more** *boolean*

| | |
|---|---|
| Synopsis | Activate the pager when output is longer than a screen |
| Context | environment more *boolean* |
| Tree | more |
| Default | true |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### progress-indicator

| | |
|---|---|
| Synopsis | Enter the **progress-indicator** context |
| Context | environment progress-indicator |
| Tree | progress-indicator |
| Introduced | 16.0.R1 |
| Platforms | All |

### admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the progress indicator |
| Context | environment progress-indicator admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### delay *number*

| | |
|---|---|
| Synopsis | Delay before the progress indicator is displayed |
| Context | environment progress-indicator delay *number* |
| Tree | delay |
| Range | 0 to 10000 |
| Units | milliseconds |
| Default | 1000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### type *keyword*

| | |
|---|---|
| Synopsis | Progress indicator output style |


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| | |
|---|---|
| Context | environment progress-indicator type *keyword* |
| Tree | type |
| Options | dots |
| Default | dots |
| Introduced | 16.0.R1 |
| Platforms | All |

### prompt

| | |
|---|---|
| Synopsis | Enter the **prompt** context |
| Context | environment prompt |
| Tree | prompt |
| Introduced | 16.0.R1 |
| Platforms | All |

### context *boolean*

| | |
|---|---|
| Synopsis | Show the current command context in the prompt |
| Context | environment prompt context *boolean* |
| Tree | context |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### newline *boolean*

| | |
|---|---|
| Synopsis | Add a new line before every prompt line |
| Context | environment prompt newline *boolean* |
| Tree | newline |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **timestamp** *boolean*

| | |
|---|---|
| Synopsis | Show the timestamp before the first prompt line |
| Context | environment prompt timestamp *boolean* |
| Tree | timestamp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **uncommitted-changes-indicator** *boolean*

| | |
|---|---|
| Synopsis | Show an asterisk (*) when uncommitted changes exist |
| Context | environment prompt uncommitted-changes-indicator *boolean* |
| Tree | uncommitted-changes-indicator |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **python**

| | |
|---|---|
| Synopsis | Enter the **python** context |
| Context | environment python |
| Tree | python |
| Introduced | 21.10.R1 |
| Platforms | All |

### **memory-reservation** *number*

| | |
|---|---|
| Synopsis | Memory reserved per Python interpreter |
| Context | environment python memory-reservation *number* |
| Tree | memory-reservation |
| Range | 1 to 500 |
| Units | megabytes |
| Introduced | 21.10.R1 |
| Platforms | All |


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### **minimum-available-memory** *number*

| | |
|---|---|
| Synopsis | Minimum memory requirement to run a Python interpreter |
| Context | environment python minimum-available-memory *number* |
| Tree | minimum-available-memory |
| Range | 5 to 50 |
| Units | percent |
| Introduced | 21.10.R1 |
| Platforms | All |

### **timeout** *number*

| | |
|---|---|
| Synopsis | Maximum run time before a Python application is stopped |
| Context | environment python timeout *number* |
| Tree | timeout |
| Range | 30 to 86400 |
| Units | seconds |
| Default | 3600 |
| Introduced | 21.10.R1 |
| Platforms | All |

### **time-display** *keyword*

| | |
|---|---|
| Synopsis | Time zone to display time |
| Context | environment time-display *keyword* |
| Tree | time-display |
| Description | This command configures the time zone for a timestamp displayed in outputs, such as event logs and **show** commands for the current CLI session.<br>In event logs, the selected time is used to control the timestamps in the CLI output of **show log log-id** and in YANG state in the /state/log/log-id branch (for logs such as session, cli, memory, SNMP, and NETCONF).<br>Also see the **configure log log-id time-format** command. |
| Options | local, utc |
| Default | local |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **time-format** *keyword*

| | |
|---|---|
| Synopsis | Format to display the date and time |
| Context | environment time-format *keyword* |
| Tree | time-format |
| Description | This command specifies the format of the time display in the prompt, configuration, state, and certain **show** command output in the current CLI session. |
| Options | iso-8601, rfc-1123, rfc-3339 |
| Default | rfc-3339 |
| Introduced | 20.5.R1 |
| Platforms | All |


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## 2.3 file commands

See “File management” in the *7450 ESS, 7750 SR, 7950 XRS, and VSR Basic System Configuration Guide* for more information.

```
file
   –  change-directory
      –  [url] (sat-url | cflash-url | string-not-all-spaces | ftp-url)
   –  checksum
      –  [type] keyword
      –  [url] (sat-url | cflash-url | string-not-all-spaces | ftp-tftp-url)
   –  copy
      –  client-tls-profile string
      –  [destination-url] (sat-url | cflash-url | string-not-all-spaces | ftp-tftp-url | http-
url-loose | scp-url)
      –  direct-http
      –  force
      –  proxy http-url
      –  recursive
      –  router-instance string
      –  [source-url] (sat-url | cflash-url | string-not-all-spaces | ftp-tftp-url | http-url-
loose)
   –  disable
      –  active
      –  cflash-id cflash-id
      –  standby
   –  edit
      –  [url] (sat-url | cflash-url | string-not-all-spaces)
   –  enable
      –  active
      –  cflash-id cflash-id
      –  standby
   –  format
      –  [cflash-id] cflash-id
   –  list
      –  reverse
      –  [sort-order] keyword
      –  [url] (sat-url | cflash-url | string-not-all-spaces | ftp-url)
   –  make-directory
      –  [url] (sat-url | cflash-url | string-not-all-spaces | ftp-url)
   –  move
      –  client-tls-profile string
      –  [destination-url] (sat-url | cflash-url | string-not-all-spaces | ftp-url | http-url-
loose)
      –  direct-http
      –  force
      –  proxy http-url
      –  [source-url] (sat-url | cflash-url | string-not-all-spaces | ftp-url | http-url-loose)
   –  permission
      –  [attribute] keyword
      –  [url] (sat-url | cflash-url | string-not-all-spaces)
   –  remove
      –  client-tls-profile string
      –  direct-http
      –  force
      –  proxy http-url
      –  [url] (sat-url | cflash-url | string-not-all-spaces | ftp-url | http-url-loose)
   –  remove-directory
      –  force
      –  recursive
      –  [url] (sat-url | cflash-url | string-not-all-spaces | ftp-url)
```


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file repair

```
  - repair
    - [cflash-id] cflash-id
  - show
    - client-tls-profile string
    - direct-http
    - proxy http-url
    - [url] (sat-url | cflash-url | string-not-all-spaces | ftp-tftp-url | http-url-loose)
  - unzip
    - create-destination
    - [destination-url] (sat-url | cflash-url | string-not-all-spaces)
    - force
    - list
    - [source-url] (sat-url | cflash-url | string-not-all-spaces | ftp-tftp-url | http-url-
loose)
  - version
    - [url] (sat-url | cflash-url | string-not-all-spaces | ftp-tftp-url)
```


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## 2.3.1 file command descriptions

### file

| | |
|---|---|
| Synopsis | Perform file operations |
| Context | file |
| Tree | file |
| Description | Commands in this context execute file management operations. |
| Introduced | 20.10.R1 |
| Platforms | All |

### change-directory

| | |
|---|---|
| Synopsis | Change the working directory |
| Context | file change-directory |
| Tree | change-directory |
| Introduced | 20.10.R1 |
| Platforms | All |

### [**url**] *(sat-url | cflash-url | string-not-all-spaces | ftp-url)*

| | |
|---|---|
| Synopsis | New working directory URL |
| Context | file change-directory [url] *(sat-url* \| *cflash-url* \| *string-not-all-spaces* \| *ftp-url)* |
| Tree | [url] |
| String length | 1 to 200 (*sat-url*, *cflash-url*, *string-not-all-spaces*)<br>1 to 180 (*ftp-url*) |
| Default | . |
| Introduced | 20.10.R1 |
| Platforms | All |

### checksum

| | |
|---|---|
| Synopsis | Compute and display checksums |
| Context | file checksum |
| Tree | checksum |


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| | |
|---|---|
| Description | This command computes and displays an image file or a checksum for a file. |
| Introduced | 20.10.R1 |
| Platforms | All |

### [**type**] *keyword*

| | |
|---|---|
| Synopsis | Checksum option type |
| Context | file checksum [type] *keyword* |
| Tree | [type] |
| Options | image, md5, sha256 |
| Notes | This element is mandatory. |
| Introduced | 20.10.R1 |
| Platforms | All |

### [**url**] *(sat-url* | *cflash-url* | *string-not-all-spaces* | *ftp-tftp-url)*

| | |
|---|---|
| Synopsis | File URL |
| Context | file checksum [url] *(sat-url* \| *cflash-url* \| *string-not-all-spaces* \| *ftp-tftp-url)* |
| Tree | [url] |
| String length | 1 to 200 (*sat-url*, *cflash-url*, *string-not-all-spaces*)<br>1 to 199 (*ftp-tftp-url*) |
| Notes | This element is mandatory. |
| Introduced | 20.10.R1 |
| Platforms | All |

## copy

| | |
|---|---|
| Synopsis | Copy files |
| Context | file copy |
| Tree | copy |
| Introduced | 20.10.R1 |
| Platforms | All |


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### **client-tls-profile** *string*

| | |
|---|---|
| Synopsis | Connect over HTTP with a client TLS profile |
| Context | file copy client-tls-profile *string* |
| Tree | client-tls-profile |
| String length | 1 to 32 |
| Introduced | 20.10.R1 |
| Platforms | All |

### [**destination-url**] *(sat-url | cflash-url | string-not-all-spaces | ftp-tftp-url | http-url-loose | scp-url)*

| | |
|---|---|
| Synopsis | Destination URL or '.' for the working directory |
| Context | file copy [destination-url] *(sat-url* \| *cflash-url* \| *string-not-all-spaces* \| *ftp-tftp-url* \| *http-url-loose* \| *scp-url)* |
| Tree | [destination-url] |
| String length | 1 to 200 (*sat-url*, *cflash-url*, *string-not-all-spaces*)<br>1 to 199 (*ftp-tftp-url*)<br>1 to 180 (*http-url-loose*, *scp-url*) |
| Notes | This element is mandatory. |
| Introduced | 20.10.R1 |
| Platforms | All |

### **direct-http**

| | |
|---|---|
| Synopsis | Allow direct HTTP connection, do not follow redirects |
| Context | file copy direct-http |
| Tree | direct-http |
| Introduced | 20.10.R1 |
| Platforms | All |

### **force**

| | |
|---|---|
| Synopsis | Force copy without prompting before overwriting |
| Context | file copy force |
| Tree | force |


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| | |
|---|---|
| Introduced | 20.10.R1 |
| Platforms | All |

### **proxy** *http-url*

| | |
|---|---|
| Synopsis | Connect over HTTP with a proxy |
| Context | file copy proxy *http-url* |
| Tree | proxy |
| String length | 1 to 255 |
| Introduced | 20.10.R1 |
| Platforms | All |

### **recursive**

| | |
|---|---|
| Synopsis | Copy sub-directories encountered at the source URL |
| Context | file copy recursive |
| Tree | recursive |
| Description | This command recursively copies files and directories. If files or directories already exist, the operator is prompted to overwrite them. When the **force** command is enabled, a positive response to the overwrite prompts is assumed, and the operator is not prompted for confirmation. The existing files or directories are overwritten. |
| Introduced | 21.10.R1 |
| Platforms | All |

### **router-instance** *string*

| | |
|---|---|
| Synopsis | Router name or VPRN service name |
| Context | file copy router-instance *string* |
| Tree | router-instance |
| Introduced | 23.10.R1 |
| Platforms | All |

### [**source-url**] *(sat-url | cflash-url | string-not-all-spaces | ftp-tftp-url | http-url-loose)*

| | |
|---|---|
| Synopsis | Source URL |
| Context | file copy [source-url] *(sat-url | cflash-url | string-not-all-spaces | ftp-tftp-url | http-url-loose)* |


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| | |
|---|---|
| Tree | [source-url] |
| String length | 1 to 200 (*sat-url*, *cflash-url*, *string-not-all-spaces*)<br>1 to 199 (*ftp-tftp-url*)<br>1 to 180 (*http-url-loose*) |
| Notes | This element is mandatory. |
| Introduced | 20.10.R1 |
| Platforms | All |

## disable

| | |
|---|---|
| Synopsis | Disable compact flash devices |
| Context | file disable |
| Tree | disable |
| Introduced | 20.10.R1 |
| Platforms | All |

## active

| | |
|---|---|
| Synopsis | Disable all devices on the active CPM |
| Context | file disable active |
| Tree | active |
| Notes | The following elements are part of a choice: **active**, **cflash-id**, or **standby**. |
| Introduced | 20.10.R1 |
| Platforms | All |

## cflash-id *cflash-id*

| | |
|---|---|
| Synopsis | Disable the compact flash device |
| Context | file disable cflash-id *cflash-id* |
| Tree | cflash-id |
| String length | 4 to 6 |
| Notes | The following elements are part of a choice: **active**, **cflash-id**, or **standby**. |
| Introduced | 20.10.R1 |
| Platforms | All |


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### standby

| | |
|---|---|
| Synopsis | Disable all devices on the standby CPM |
| Context | file disable standby |
| Tree | standby |
| Notes | The following elements are part of a choice: **active**, **cflash-id**, or **standby**. |
| Introduced | 20.10.R1 |
| Platforms | All |

### edit

| | |
|---|---|
| Synopsis | Edit files with the text editor |
| Context | file edit |
| Tree | edit |
| Description | This command allows users to edit files with the text editor.<br>See "Text editor" in the *7450 ESS, 7750 SR, 7950 XRS, and VSR Basic System Configuration Guide* for more information. |
| Introduced | 22.10.R1 |
| Platforms | All |

### [**url**] *(sat-url | cflash-url | string-not-all-spaces)*

| | |
|---|---|
| Synopsis | File URL |
| Context | file edit [url] *(sat-url | cflash-url | string-not-all-spaces)* |
| Tree | [url] |
| String length | 1 to 200 |
| Notes | This element is mandatory. |
| Introduced | 22.10.R1 |
| Platforms | All |

### enable

| | |
|---|---|
| Synopsis | Enable compact flash devices |
| Context | file enable |
| Tree | enable |


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| | |
|---|---|
| Introduced | 20.10.R1 |
| Platforms | All |

### active

| | |
|---|---|
| Synopsis | Enable all devices on the active CPM |
| Context | file enable active |
| Tree | active |
| Notes | The following elements are part of a choice: **active**, **cflash-id**, or **standby**. |
| Introduced | 20.10.R1 |
| Platforms | All |

### cflash-id *cflash-id*

| | |
|---|---|
| Synopsis | Enable the compact flash device |
| Context | file enable cflash-id *cflash-id* |
| Tree | cflash-id |
| String length | 4 to 6 |
| Notes | The following elements are part of a choice: **active**, **cflash-id**, or **standby**. |
| Introduced | 20.10.R1 |
| Platforms | All |

### standby

| | |
|---|---|
| Synopsis | Enable all devices on the standby CPM |
| Context | file enable standby |
| Tree | standby |
| Notes | The following elements are part of a choice: **active**, **cflash-id**, or **standby**. |
| Introduced | 20.10.R1 |
| Platforms | All |

### format

| | |
|---|---|
| Synopsis | Format a compact flash device |
| Context | file format |


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| | |
|---|---|
| Tree | format |
| Introduced | 20.10.R1 |
| Platforms | All |

### [**cflash-id**] *cflash-id*

| | |
|---|---|
| Synopsis | Compact flash ID |
| Context | file format [cflash-id] *cflash-id* |
| Tree | [cflash-id] |
| String length | 4 to 6 |
| Introduced | 20.10.R1 |
| Platforms | All |

### list

| | |
|---|---|
| Synopsis | List directory contents |
| Context | file list |
| Tree | list |
| Introduced | 20.10.R1 |
| Platforms | All |

### reverse

| | |
|---|---|
| Synopsis | List files in reverse sort order |
| Context | file list reverse |
| Tree | reverse |
| Introduced | 20.10.R1 |
| Platforms | All |

### [**sort-order**] *keyword*

| | |
|---|---|
| Synopsis | Sort order for the directory |
| Context | file list [sort-order] *keyword* |
| Tree | [sort-order] |
| Options | date, name, size |


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| | |
|---|---|
| Introduced | 20.10.R1 |
| Platforms | All |

### [**url**] *(sat-url | cflash-url | string-not-all-spaces | ftp-url)*

| | |
|---|---|
| Synopsis | Location of the directory to be listed |
| Context | file list [url] *(sat-url | cflash-url | string-not-all-spaces | ftp-url)* |
| Tree | [url] |
| String length | 1 to 200 (*sat-url*, *cflash-url*, *string-not-all-spaces*)<br>1 to 180 (*ftp-url*) |
| Default | . |
| Introduced | 20.10.R1 |
| Platforms | All |

## make-directory

| | |
|---|---|
| Synopsis | Make a directory |
| Context | file make-directory |
| Tree | make-directory |
| Introduced | 20.10.R1 |
| Platforms | All |

### [**url**] *(sat-url | cflash-url | string-not-all-spaces | ftp-url)*

| | |
|---|---|
| Synopsis | Directory location |
| Context | file make-directory [url] *(sat-url | cflash-url | string-not-all-spaces | ftp-url)* |
| Tree | [url] |
| String length | 1 to 200 (*sat-url*, *cflash-url*, *string-not-all-spaces*)<br>1 to 180 (*ftp-url*) |
| Notes | This element is mandatory. |
| Introduced | 20.10.R1 |
| Platforms | All |

## move

| | |
|---|---|
| Synopsis | Move or rename files or directories |


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| | |
|---|---|
| Context | file move |
| Tree | move |
| Introduced | 20.10.R1 |
| Platforms | All |

### **client-tls-profile** *string*

| | |
|---|---|
| Synopsis | Connect over HTTP with a client TLS profile |
| Context | file move client-tls-profile *string* |
| Tree | client-tls-profile |
| String length | 1 to 32 |
| Introduced | 20.10.R1 |
| Platforms | All |

### [**destination-url**] *(sat-url* | *cflash-url* | *string-not-all-spaces* | *ftp-url* | *http-url-loose)*

| | |
|---|---|
| Synopsis | Destination URL or '.' for the working directory |
| Context | file move [destination-url] *(sat-url* \| *cflash-url* \| *string-not-all-spaces* \| *ftp-url* \| *http-url-loose)* |
| Tree | [destination-url] |
| String length | 1 to 200 (*sat-url*, *cflash-url*, *string-not-all-spaces*)<br>1 to 180 (*ftp-url*, *http-url-loose*) |
| Notes | This element is mandatory. |
| Introduced | 20.10.R1 |
| Platforms | All |

### **direct-http**

| | |
|---|---|
| Synopsis | Allow direct HTTP connection, do not follow redirects |
| Context | file move direct-http |
| Tree | direct-http |
| Introduced | 20.10.R1 |
| Platforms | All |


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### force

| | |
|---|---|
| Synopsis | Force move without prompting before overwriting |
| Context | file move force |
| Tree | force |
| Introduced | 20.10.R1 |
| Platforms | All |

### proxy *http-url*

| | |
|---|---|
| Synopsis | Connect over HTTP with a proxy |
| Context | file move proxy *http-url* |
| Tree | proxy |
| String length | 1 to 255 |
| Introduced | 20.10.R1 |
| Platforms | All |

### [**source-url**] *(sat-url | cflash-url | string-not-all-spaces | ftp-url | http-url-loose)*

| | |
|---|---|
| Synopsis | Source URL |
| Context | file move [source-url] *(sat-url \| cflash-url \| string-not-all-spaces \| ftp-url \| http-url-loose)* |
| Tree | [source-url] |
| String length | 1 to 200 (*sat-url*, *cflash-url*, *string-not-all-spaces*)<br>1 to 180 (*ftp-url*, *http-url-loose*) |
| Notes | This element is mandatory. |
| Introduced | 20.10.R1 |
| Platforms | All |

### permission

| | |
|---|---|
| Synopsis | Show or set file permissions |
| Context | file permission |
| Tree | permission |
| Introduced | 20.10.R1 |
| Platforms | All |


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### [**attribute**] *keyword*

| | |
|---|---|
| Synopsis | File permission |
| Context | file permission [attribute] *keyword* |
| Tree | [attribute] |
| Options | read-only, read-write |
| Introduced | 20.10.R1 |
| Platforms | All |

### [**url**] *(sat-url | cflash-url | string-not-all-spaces)*

| | |
|---|---|
| Synopsis | File URL to set permissions |
| Context | file permission [url] *(sat-url | cflash-url | string-not-all-spaces)* |
| Tree | [url] |
| String length | 1 to 200 |
| Introduced | 20.10.R1 |
| Platforms | All |

### **remove**

| | |
|---|---|
| Synopsis | Remove files |
| Context | file remove |
| Tree | remove |
| Introduced | 20.10.R1 |
| Platforms | All |

### **client-tls-profile** *string*

| | |
|---|---|
| Synopsis | Connect over HTTP with a client TLS profile |
| Context | file remove client-tls-profile *string* |
| Tree | client-tls-profile |
| String length | 1 to 32 |
| Introduced | 20.10.R1 |
| Platforms | All |


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### direct-http

| | |
|---|---|
| Synopsis | Allow direct HTTP connection, do not follow redirects |
| Context | file remove direct-http |
| Tree | direct-http |
| Introduced | 20.10.R1 |
| Platforms | All |

### force

| | |
|---|---|
| Synopsis | Force removal without prompting |
| Context | file remove force |
| Tree | force |
| Introduced | 20.10.R1 |
| Platforms | All |

### **proxy** *http-url*

| | |
|---|---|
| Synopsis | Connect over HTTP with a proxy |
| Context | file remove proxy *http-url* |
| Tree | proxy |
| String length | 1 to 255 |
| Introduced | 20.10.R1 |
| Platforms | All |

### [**url**] *(sat-url | cflash-url | string-not-all-spaces | ftp-url | http-url-loose)*

| | |
|---|---|
| Synopsis | File URL |
| Context | file remove [url] *(sat-url | cflash-url | string-not-all-spaces | ftp-url | http-url-loose)* |
| Tree | [url] |
| String length | 1 to 200 (*sat-url*, *cflash-url*, *string-not-all-spaces*)<br>1 to 180 (*ftp-url*, *http-url-loose*) |
| Notes | This element is mandatory. |
| Introduced | 20.10.R1 |
| Platforms | All |


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### remove-directory

| | |
|---|---|
| Synopsis | Remove directories |
| Context | file remove-directory |
| Tree | remove-directory |
| Introduced | 20.10.R1 |
| Platforms | All |

### force

| | |
|---|---|
| Synopsis | Force removal without prompting |
| Context | file remove-directory force |
| Tree | force |
| Introduced | 20.10.R1 |
| Platforms | All |

### recursive

| | |
|---|---|
| Synopsis | Remove directory and contents recursively |
| Context | file remove-directory recursive |
| Tree | recursive |
| Introduced | 20.10.R1 |
| Platforms | All |

### [**url**] *(sat-url* | *cflash-url* | *string-not-all-spaces* | *ftp-url)*

| | |
|---|---|
| Synopsis | Directory URL |
| Context | file remove-directory [url] *(sat-url* \| *cflash-url* \| *string-not-all-spaces* \| *ftp-url)* |
| Tree | [url] |
| String length | 1 to 200 (*sat-url*, *cflash-url*, *string-not-all-spaces*)<br>1 to 180 (*ftp-url*) |
| Notes | This element is mandatory. |
| Introduced | 20.10.R1 |
| Platforms | All |


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### repair

| | |
|---|---|
| Synopsis | Repair a compact flash file system |
| Context | file repair |
| Tree | repair |
| Introduced | 20.10.R1 |
| Platforms | All |

### [**cflash-id**] *cflash-id*

| | |
|---|---|
| Synopsis | Compact flash ID |
| Context | file repair [cflash-id] *cflash-id* |
| Tree | [cflash-id] |
| String length | 4 to 6 |
| Introduced | 20.10.R1 |
| Platforms | All |

### show

| | |
|---|---|
| Synopsis | Display the contents of a file |
| Context | file show |
| Tree | show |
| Introduced | 20.10.R1 |
| Platforms | All |

### client-tls-profile *string*

| | |
|---|---|
| Synopsis | Connect over HTTP with a client TLS profile |
| Context | file show client-tls-profile *string* |
| Tree | client-tls-profile |
| String length | 1 to 32 |
| Introduced | 20.10.R1 |
| Platforms | All |


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### direct-http

| | |
|---|---|
| Synopsis | Allow direct HTTP connection, do not follow redirects |
| Context | file show direct-http |
| Tree | direct-http |
| Introduced | 20.10.R1 |
| Platforms | All |

### proxy *http-url*

| | |
|---|---|
| Synopsis | Connect over HTTP with a proxy |
| Context | file show proxy *http-url* |
| Tree | proxy |
| String length | 1 to 255 |
| Introduced | 20.10.R1 |
| Platforms | All |

### [**url**] *(sat-url | cflash-url | string-not-all-spaces | ftp-tftp-url | http-url-loose)*

| | |
|---|---|
| Synopsis | File URL |
| Context | file show [url] *(sat-url* \| *cflash-url* \| *string-not-all-spaces* \| *ftp-tftp-url* \| *http-url-loose)* |
| Tree | [url] |
| String length | 1 to 200 (*sat-url*, *cflash-url*, *string-not-all-spaces*)<br>1 to 199 (*ftp-tftp-url*)<br>1 to 180 (*http-url-loose*) |
| Notes | This element is mandatory. |
| Introduced | 20.10.R1 |
| Platforms | All |

### unzip

| | |
|---|---|
| Synopsis | Unzip files |
| Context | file unzip |
| Tree | unzip |
| Introduced | 20.10.R1 |


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| | |
|---|---|
| Platforms | All |

### create-destination

| | |
|---|---|
| Synopsis | Create destination directory if it does not exist |
| Context | file unzip create-destination |
| Tree | create-destination |
| Introduced | 20.10.R1 |
| Platforms | All |

### [**destination-url**] *(sat-url | cflash-url | string-not-all-spaces)*

| | |
|---|---|
| Synopsis | Destination URL or '.' for the working directory |
| Context | file unzip [destination-url] *(sat-url | cflash-url | string-not-all-spaces)* |
| Tree | [destination-url] |
| String length | 1 to 200 |
| Introduced | 20.10.R1 |
| Platforms | All |

### force

| | |
|---|---|
| Synopsis | Force the unzip operation without prompting |
| Context | file unzip force |
| Tree | force |
| Description | When configured, files and directories that already exist in the destination URL are overwritten without prompting.<br>The system does not automatically create directories explicitly specified by the destination URL. To allow the system to create new directories, use the **create-destination** command.<br>When unconfigured, the system prompts the user before overwriting a file or directory. |
| Notes | The following elements are part of a choice: **force** or **list**. |
| Introduced | 20.10.R1 |
| Platforms | All |


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### list

| | |
|---|---|
| Synopsis | List the file contents without the unzip operation |
| Context | file unzip list |
| Tree | list |
| Notes | The following elements are part of a choice: **force** or **list**. |
| Introduced | 20.10.R1 |
| Platforms | All |

### [**source-url**] *(sat-url | cflash-url | string-not-all-spaces | ftp-tftp-url | http-url-loose)*

| | |
|---|---|
| Synopsis | Source URL |
| Context | file unzip [source-url] *(sat-url* \| *cflash-url* \| *string-not-all-spaces* \| *ftp-tftp-url* \| *http-url-loose)* |
| Tree | [source-url] |
| String length | 1 to 200 (*sat-url*, *cflash-url*, *string-not-all-spaces*)<br>1 to 199 (*ftp-tftp-url*)<br>1 to 180 (*http-url-loose*) |
| Notes | This element is mandatory. |
| Introduced | 20.10.R1 |
| Platforms | All |

### version

| | |
|---|---|
| Synopsis | Display the version of an SR OS image file |
| Context | file version |
| Tree | version |
| Introduced | 20.10.R1 |
| Platforms | All |

### [**url**] *(sat-url | cflash-url | string-not-all-spaces | ftp-tftp-url)*

| | |
|---|---|
| Synopsis | File URL |
| Context | file version [url] *(sat-url* \| *cflash-url* \| *string-not-all-spaces* \| *ftp-tftp-url)* |
| Tree | [url] |
| String length | 1 to 200 (*sat-url*, *cflash-url*, *string-not-all-spaces*) |


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| | |
|---|---|
| | 1 to 199 (*ftp-tftp-url*) |
| Notes | This element is mandatory. |
| Introduced | 20.10.R1 |
| Platforms | All |


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## 2.4 Global commands

Global commands are used for operational functions, such as entering configuration sessions, navigating the CLI, executing OAM commands, and logging into remote hosts.

```
– back number
– bof
  – exclusive
  – private
  – read-only
– configure
  – exclusive
  – global
  – private
  – read-only
– debug
  – exclusive
  – private
  – read-only
– delete instance-id
– edit-config
  – bof
  – debug
  – exclusive
  – global
  – li
  – private
  – read-only
– enable
– exec string
  – echo
– exit
  – all
– history
  – all
  – commands-only
– info keyword
  – [cli-path] cli-path-type
  – converted
  – depth number
  – detail
  – differences
  – flat
  – full-context
  – inheritance
  – json
  – model keyword
  – units
  – values
  – xml
– li
  – exclusive
  – private
  – read-only
– logout
– oam
  – efm
    – local-loopback
      – [action] keyword
      – port-id port
    – remote-loopback
```


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oam efm remote-loopback [action]

```
            – [action] keyword
            – port-id port
      – eth-cfm
         – eth-test
            – data-length number
            – [destination] (mac-unicast-address-no-zero | number)
            – ma-admin-name reference
            – md-admin-name reference
            – mep-id number
            – priority number
         – linktrace
            – [destination] (mac-unicast-address-no-zero | number)
            – ma-admin-name reference
            – md-admin-name reference
            – mep-id number
            – ttl number
         – loopback
            – [destination] (mac-unicast-address-no-zero | keyword | number)
            – interval number
            – lbm-padding number
            – ma-admin-name reference
            – md-admin-name reference
            – mep-id number
            – priority number
            – send-count number
            – size number
            – timeout number
         – one-way-delay-test
            – [destination] (mac-unicast-address-no-zero | number)
            – ma-admin-name reference
            – md-admin-name reference
            – mep-id number
            – priority number
         – two-way-delay-test
            – [destination] (mac-unicast-address-no-zero | number)
            – ma-admin-name reference
            – md-admin-name reference
            – mep-id number
            – priority number
         – two-way-slm-test
            – [destination] (mac-unicast-address-no-zero | number)
            – interval (number | decimal-number)
            – ma-admin-name reference
            – md-admin-name reference
            – mep-id number
            – priority number
            – send-count number
            – size number
            – timeout number
      – lsp-ping
         – bgp-label
            – fc keyword
            – interface reference
            – interval number
            – next-hop (ipv4-address-no-zone | ipv6-address-no-zone)
            – path-destination (ipv4-address-no-zone | ipv6-address-no-zone)
            – prefix (ipv4-prefix | ipv6-prefix)
            – profile keyword
            – send-count number
            – size number
            – source-ip-address (ipv4-address-no-zone | ipv6-address-no-zone)
            – timeout number
            – ttl number
         – ldp
```


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```
            - fc keyword
            - interface reference
            - interval number
            - next-hop (ipv4-address-no-zone | ipv6-address-no-zone)
            - path-destination (ipv4-address-no-zone | ipv6-address-no-zone)
            - prefix (ipv4-prefix | ipv6-prefix)
            - profile keyword
            - send-count number
            - size number
            - source-ip-address (ipv4-address-no-zone | ipv6-address-no-zone)
            - timeout number
            - ttl number
        - rsvp-te
            - fc keyword
            - interval number
            - lsp-name reference
            - path reference
            - profile keyword
            - send-count number
            - size number
            - source-ip-address (ipv4-address-no-zone | ipv6-address-no-zone)
            - timeout number
            - ttl number
        - sr-isis
            - fc keyword
            - flex-algo number
            - igp-instance number
            - interface reference
            - interval number
            - next-hop (ipv4-address-no-zone | ipv6-address-no-zone)
            - path-destination (ipv4-address-no-zone | ipv6-address-no-zone)
            - prefix (ipv4-prefix | ipv6-prefix)
            - profile keyword
            - send-count number
            - size number
            - source-ip-address (ipv4-address-no-zone | ipv6-address-no-zone)
            - timeout number
            - ttl number
        - sr-ospf
            - fc keyword
            - flex-algo number
            - igp-instance number
            - interface reference
            - interval number
            - next-hop ipv4-address
            - path-destination ipv4-address
            - prefix (ipv4-prefix | ipv6-prefix)
            - profile keyword
            - send-count number
            - size number
            - source-ip-address ipv4-address
            - timeout number
            - ttl number
        - sr-ospf3
            - fc keyword
            - igp-instance number
            - interface reference
            - interval number
            - next-hop (ipv4-address-no-zone | ipv6-address-no-zone)
            - path-destination (ipv4-address-no-zone | ipv6-address-no-zone)
            - prefix (ipv4-prefix | ipv6-prefix)
            - profile keyword
            - send-count number
            - size number
```


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```
            - source-ip-address (ipv4-address-no-zone | ipv6-address-no-zone)
            - timeout number
            - ttl number
        - sr-policy
            - color number
            - endpoint (ipv4-address-no-zone | ipv6-address-no-zone)
            - fc keyword
            - interface reference
            - interval number
            - next-hop (ipv4-address-no-zone | ipv6-address-no-zone)
            - path-destination (ipv4-address-no-zone | ipv6-address-no-zone)
            - profile keyword
            - segment-list number
            - send-count number
            - size number
            - source-ip-address (ipv4-address-no-zone | ipv6-address-no-zone)
            - timeout number
            - ttl number
        - sr-te
            - fc keyword
            - interface reference
            - interval number
            - lsp-name reference
            - next-hop (ipv4-address-no-zone | ipv6-address-no-zone)
            - path reference
            - path-destination (ipv4-address-no-zone | ipv6-address-no-zone)
            - profile keyword
            - send-count number
            - size number
            - source-ip-address (ipv4-address-no-zone | ipv6-address-no-zone)
            - timeout number
            - ttl number
    - lsp-trace
        - bgp-label
            - downstream-map-tlv keyword
            - fc keyword
            - interface reference
            - interval number
            - max-fail number
            - max-ttl number
            - min-ttl number
            - next-hop (ipv4-address-no-zone | ipv6-address-no-zone)
            - output-format keyword
            - path-destination (ipv4-address-no-zone | ipv6-address-no-zone)
            - prefix (ipv4-prefix | ipv6-prefix)
            - probe-count number
            - profile keyword
            - size number
            - source-ip-address (ipv4-address-no-zone | ipv6-address-no-zone)
            - timeout number
        - ldp
            - downstream-map-tlv keyword
            - fc keyword
            - interface reference
            - interval number
            - max-fail number
            - max-ttl number
            - min-ttl number
            - next-hop (ipv4-address-no-zone | ipv6-address-no-zone)
            - output-format keyword
            - path-destination (ipv4-address-no-zone | ipv6-address-no-zone)
            - prefix (ipv4-prefix | ipv6-prefix)
            - probe-count number
            - profile keyword
```


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```
            - size number
            - source-ip-address (ipv4-address-no-zone | ipv6-address-no-zone)
            - timeout number
         - rsvp-te
            - downstream-map-tlv keyword
            - fc keyword
            - interval number
            - lsp-name reference
            - max-fail number
            - max-ttl number
            - min-ttl number
            - output-format keyword
            - path reference
            - probe-count number
            - profile keyword
            - size number
            - source-ip-address (ipv4-address-no-zone | ipv6-address-no-zone)
            - timeout number
         - sr-isis
            - downstream-map-tlv keyword
            - fc keyword
            - flex-algo number
            - igp-instance number
            - interface reference
            - interval number
            - max-fail number
            - max-ttl number
            - min-ttl number
            - next-hop (ipv4-address-no-zone | ipv6-address-no-zone)
            - output-format keyword
            - path-destination (ipv4-address-no-zone | ipv6-address-no-zone)
            - prefix (ipv4-prefix | ipv6-prefix)
            - probe-count number
            - profile keyword
            - size number
            - source-ip-address (ipv4-address-no-zone | ipv6-address-no-zone)
            - timeout number
         - sr-ospf
            - downstream-map-tlv keyword
            - fc keyword
            - flex-algo number
            - igp-instance number
            - interface reference
            - interval number
            - max-fail number
            - max-ttl number
            - min-ttl number
            - next-hop ipv4-address
            - output-format keyword
            - path-destination ipv4-address
            - prefix (ipv4-prefix | ipv6-prefix)
            - probe-count number
            - profile keyword
            - size number
            - source-ip-address ipv4-address
            - timeout number
         - sr-ospf3
            - downstream-map-tlv keyword
            - fc keyword
            - igp-instance number
            - interface reference
            - interval number
            - max-fail number
            - max-ttl number
```


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```
            - min-ttl number
            - next-hop (ipv4-address-no-zone | ipv6-address-no-zone)
            - output-format keyword
            - path-destination (ipv4-address-no-zone | ipv6-address-no-zone)
            - prefix (ipv4-prefix | ipv6-prefix)
            - probe-count number
            - profile keyword
            - size number
            - source-ip-address (ipv4-address-no-zone | ipv6-address-no-zone)
            - timeout number
         - sr-policy
            - color number
            - downstream-map-tlv keyword
            - endpoint (ipv4-address-no-zone | ipv6-address-no-zone)
            - fc keyword
            - interface reference
            - interval number
            - max-fail number
            - max-ttl number
            - min-ttl number
            - next-hop (ipv4-address-no-zone | ipv6-address-no-zone)
            - output-format keyword
            - path-destination (ipv4-address-no-zone | ipv6-address-no-zone)
            - probe-count number
            - profile keyword
            - segment-list number
            - size number
            - source-ip-address (ipv4-address-no-zone | ipv6-address-no-zone)
            - timeout number
         - sr-te
            - downstream-map-tlv keyword
            - fc keyword
            - interface reference
            - interval number
            - lsp-name reference
            - max-fail number
            - max-ttl number
            - min-ttl number
            - next-hop (ipv4-address-no-zone | ipv6-address-no-zone)
            - output-format keyword
            - path reference
            - path-destination (ipv4-address-no-zone | ipv6-address-no-zone)
            - probe-count number
            - profile keyword
            - size number
            - source-ip-address (ipv4-address-no-zone | ipv6-address-no-zone)
            - timeout number
      - oam-pm
         - action keyword
         - session reference
         - test-type keyword
      - saa
         - owner reference test reference
            - start
               - accounting boolean
            - stop
               - accounting boolean
      - service-activation-testhead
         - service-test reference
            - start
            - stop
   - password
   - ping
      - bypass-routing
```


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```
      –  candidate-path
      –  color number
      –  count number
      –  [destination] (ipv4-address-with-zone | ipv6-address-with-zone | string-not-all-
spaces)
      –  distinguisher number
      –  do-not-fragment
      –  endpoint ipv6-unicast-or-zero-address
      –  fc keyword
      –  interface (reference | reference | reference | reference | reference)
      –  interval (number | decimal-number)
      –  next-hop-address (ipv4-address-no-zone | ipv6-address-no-zone)
      –  output-format keyword
      –  pattern (keyword | number)
      –  preference number
      –  protocol-owner keyword
      –  router-instance (reference | reference)
      –  segment-list number
      –  size number
      –  source-address (ipv4-address-no-zone | ipv6-address-no-zone)
      –  srv6-policy
      –  subscriber subscriber-id
      –  timeout number
      –  tos number
      –  ttl number
   –  pwc
      –  [path-type] keyword
      –  previous
   –  pyexec (string | string)
      –  [argument-01] string
      –  [argument-02] string
      –  [argument-03] string
      –  [argument-04] string
      –  [argument-05] string
      –  [argument-06] string
      –  [argument-07] string
      –  [argument-08] string
      –  [argument-09] string
      –  [argument-10] string
   –  quit-config
   –  ssh
      –  [destination] (ipv4-address-with-zone | ipv6-address-with-zone | string-not-all-
spaces)
      –  key-re-exchange
         –  mbytes (number | keyword)
         –  minutes (number | keyword)
      –  login-name string-not-all-spaces
      –  port number
      –  private-key-file string
      –  router-instance (string | string)
   –  telnet
      –  [destination] (ipv4-address-with-zone | ipv6-address-with-zone | string-not-all-
spaces)
      –  port number
      –  router-instance (string | string)
      –  source-address (ipv4-address-no-zone | ipv6-address-no-zone)
   –  top
   –  traceroute
      –  candidate-path
      –  color number
      –  decode keyword
      –  dest-port number
      –  dest-port-udp-fixed
      –  [destination] (ipv4-address-no-zone | ipv6-address-no-zone | string-not-all-spaces)
```


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traceroute detail

```
      –  detail
      –  distinguisher number
      –  endpoint ipv6-unicast-or-zero-address
      –  min-ttl number
      –  numeric
      –  preference number
      –  probe-count number
      –  protocol keyword
      –  protocol-owner keyword
      –  router-instance string
      –  segment-list number
      –  size number
      –  source-address (ipv4-address-no-zone | ipv6-address-no-zone)
      –  srv6-policy
      –  tos number
      –  ttl number
      –  wait number
   –  tree
      –  [cli-path] cli-path-type
      –  detail
      –  flat
      –  [path-format] keyword
   –  vmhost
```


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## 2.4.1 Global command descriptions

### **back** [levels] *number*

| | |
|---|---|
| Synopsis | Move back one or more levels |
| Context | back *number* |
| Tree | back |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**levels**] *number*

| | |
|---|---|
| Synopsis | Number of levels to move up |
| Context | back *number* |
| Tree | back |
| Range | 1 to 4294967295 |
| MD-CLI default | 1 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bof**

| | |
|---|---|
| Synopsis | Enter a candidate configuration mode |
| Context | bof |
| Tree | bof |
| Introduced | 20.10.R1 |
| Platforms | All |

### **exclusive**

| | |
|---|---|
| Synopsis | Enter exclusive configuration mode |
| Context | bof exclusive |
| Tree | exclusive |


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| | |
|---|---|
| Introduced | 20.10.R1 |
| Platforms | All |

## private

| | |
|---|---|
| Synopsis | Enter private configuration mode |
| Context | bof private |
| Tree | private |
| Introduced | 20.10.R1 |
| Platforms | All |

## read-only

| | |
|---|---|
| Synopsis | Enter read-only configuration mode |
| Context | bof read-only |
| Tree | read-only |
| Introduced | 20.10.R1 |
| Platforms | All |

## configure

| | |
|---|---|
| Synopsis | Enter a candidate configuration mode |
| Context | configure |
| Tree | configure |
| Introduced | 16.0.R2 |
| Platforms | All |

## exclusive

| | |
|---|---|
| Synopsis | Enter exclusive configuration mode |
| Context | configure exclusive |
| Tree | exclusive |
| Introduced | 16.0.R2 |
| Platforms | All |


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## global

| | |
|---|---|
| Synopsis | Enter global configuration mode |
| Context | configure global |
| Tree | global |
| Introduced | 16.0.R2 |
| Platforms | All |

## private

| | |
|---|---|
| Synopsis | Enter private configuration mode |
| Context | configure private |
| Tree | private |
| Introduced | 16.0.R4 |
| Platforms | All |

## read-only

| | |
|---|---|
| Synopsis | Enter read-only configuration mode |
| Context | configure read-only |
| Tree | read-only |
| Introduced | 16.0.R2 |
| Platforms | All |

## debug

| | |
|---|---|
| Synopsis | Enter a candidate configuration mode |
| Context | debug |
| Tree | debug |
| Introduced | 21.5.R1 |
| Platforms | All |

## exclusive

| | |
|---|---|
| Synopsis | Enter exclusive configuration mode |


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| | |
|---|---|
| Context | debug exclusive |
| Tree | exclusive |
| Introduced | 21.5.R1 |
| Platforms | All |

### private

| | |
|---|---|
| Synopsis | Enter private configuration mode |
| Context | debug private |
| Tree | private |
| Introduced | 21.5.R1 |
| Platforms | All |

### read-only

| | |
|---|---|
| Synopsis | Enter read-only configuration mode |
| Context | debug read-only |
| Tree | read-only |
| Introduced | 21.5.R1 |
| Platforms | All |

### **delete** [cli-path] *instance-id*

| | |
|---|---|
| Synopsis | Delete an element |
| Context | delete *instance-id* |
| Tree | delete |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**cli-path**] *instance-id*

| | |
|---|---|
| Synopsis | Absolute path or relative path from pwc |
| Context | delete *instance-id* |
| Tree | delete |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## edit-config

| | |
|---|---|
| Synopsis | Enter a configuration mode |
| Context | edit-config |
| Tree | edit-config |
| Introduced | 16.0.R1 |
| Platforms | All |

## bof

| | |
|---|---|
| Synopsis | Enter the bof configuration context |
| Context | edit-config bof |
| Tree | bof |
| Introduced | 20.10.R1 |
| Platforms | All |

## debug

| | |
|---|---|
| Synopsis | Enter the debug configuration context |
| Context | edit-config debug |
| Tree | debug |
| Introduced | 21.5.R1 |
| Platforms | All |

## exclusive

| | |
|---|---|
| Synopsis | Enter exclusive configuration mode |
| Context | edit-config exclusive |
| Tree | exclusive |
| Introduced | 16.0.R1 |
| Platforms | All |


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## global

| | |
|---|---|
| Synopsis | Enter global configuration mode |
| Context | edit-config global |
| Tree | global |
| Introduced | 16.0.R1 |
| Platforms | All |

## li

| | |
|---|---|
| Synopsis | Enter the li configuration context |
| Context | edit-config li |
| Tree | li |
| Introduced | 19.10.R1 |
| Platforms | All |

## private

| | |
|---|---|
| Synopsis | Enter private configuration mode |
| Context | edit-config private |
| Tree | private |
| Introduced | 16.0.R4 |
| Platforms | All |

## read-only

| | |
|---|---|
| Synopsis | Enter read-only configuration mode |
| Context | edit-config read-only |
| Tree | read-only |
| Introduced | 16.0.R1 |
| Platforms | All |

## enable

| | |
|---|---|
| Synopsis | Enable administrative mode |


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| | |
|---|---|
| Context | enable |
| Tree | enable |
| Introduced | 20.2.R1 |
| Platforms | All |

### **exec** [url] *string*

| | |
|---|---|
| Synopsis | Execute commands from a file |
| Context | exec *string* |
| Tree | exec |
| Description | The **exec** command should not be used to execute configuration files. Use the **load** command instead. |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**url**] *string*

| | |
|---|---|
| Synopsis | Location of the file to be executed |
| Context | exec *string* |
| Tree | exec |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **echo**

| | |
|---|---|
| Synopsis | Display the commands as they are being executed |
| Context | exec *string* echo |
| Tree | echo |
| Introduced | 16.0.R1 |
| Platforms | All |

### **exit**

| | |
|---|---|
| Synopsis | Return to the previous context or to operational root |


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| | |
|---|---|
| Context | exit |
| Tree | exit |
| Introduced | 16.0.R1 |
| Platforms | All |

### all

| | |
|---|---|
| Synopsis | Return to the root context |
| Context | exit all |
| Tree | all |
| Introduced | 16.0.R1 |
| Platforms | All |

### history

| | |
|---|---|
| Synopsis | Show the command history |
| Context | history |
| Tree | history |
| Introduced | 16.0.R1 |
| Platforms | All |

### all

| | |
|---|---|
| Synopsis | Show the command history from all regions |
| Context | history all |
| Tree | all |
| Introduced | 24.7.R1 |
| Platforms | All |

### commands-only

| | |
|---|---|
| Synopsis | Show only the commands in the command history |
| Context | history commands-only |
| Tree | commands-only |
| Introduced | 24.7.R1 |


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| | |
|---|---|
| Platforms | All |

### **info** [from] *keyword*

| | |
|---|---|
| Synopsis | Show the information under the present working context |
| Context | info *keyword* |
| Tree | info |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**from**] *keyword*

| | |
|---|---|
| Synopsis | Source datastore |
| Context | info *keyword* |
| Tree | info |
| Description | This command specifies the source datastore. This option is not supported for **state** elements. |
| Options | candidate – The candidate datastore<br>running – The running datastore<br>baseline – The baseline candidate configuration<br>intended – The intended datastore |
| MD-CLI default | candidate |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**cli-path**] *cli-path-type*

| | |
|---|---|
| Synopsis | Absolute path or relative path from pwc |
| Context | info *keyword* [cli-path] *cli-path-type* |
| Tree | [cli-path] |
| Introduced | 20.10.R1 |
| Platforms | All |


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## converted

| | |
|---|---|
| Synopsis | Include converted third-party model configuration from the running datastore |
| Context | info *keyword* converted |
| Tree | converted |
| Description | This option specifies the inclusion of converted configuration values from third-party models in the output and is only available when **configure system management-interface yang-modules openconfig-modules** is set to **true**.<br>This option should only be used in the **configure** region when third-party models are used. The output with this option is the same as **info** when used in other configuration regions.<br>This option is not supported for **state** elements. |
| Introduced | 16.0.R1 |
| Platforms | All |

## depth *number*

| | |
|---|---|
| Synopsis | Depth limit from the pwc |
| Context | info *keyword* depth *number* |
| Tree | depth |
| Range | 1 to 4294967040 |
| Introduced | 23.10.R1 |
| Platforms | All |

## detail

| | |
|---|---|
| Synopsis | Include default and unconfigured values |
| Context | info *keyword* detail |
| Tree | detail |
| Introduced | 16.0.R1 |
| Platforms | All |

## differences

| | |
|---|---|
| Synopsis | Show the different values each model tries to set |
| Context | info *keyword* differences |


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| | |
|---|---|
| Tree | differences |
| Description | When specified, this command shows only the values that are different when multiple models try to set the same configuration element.<br>This option is supported only with the **converted** option and is available only when **configure system management-interface yang-modules openconfig-modules** is set to **true**.<br>This option is not supported for **state** elements. |
| Notes | The following elements are part of a choice: **differences**, **model**, or **values**. |
| Introduced | 23.3.R1 |
| Platforms | All |

## flat

| | |
|---|---|
| Synopsis | Show the context from the pwc on each line |
| Context | info *keyword* flat |
| Tree | flat |
| Description | This option shows the hierarchy on each line starting from the present working context. |
| Notes | The following elements are part of a choice: **flat**, **json**, or **xml**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## full-context

| | |
|---|---|
| Synopsis | Show the full context on each line |
| Context | info *keyword* full-context |
| Tree | full-context |
| Introduced | 16.0.R1 |
| Platforms | All |

## inheritance

| | |
|---|---|
| Synopsis | Include configuration inherited from configuration groups |
| Context | info *keyword* inheritance |
| Tree | inheritance |
| Description | This option specifies the inclusion of configuration inherited from configuration groups in the output. |


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This option should only be used in the **configure** region when configuration groups are used. The output with this option is the same as **info** when used in other configuration regions.

This option is not supported for **state** elements.

Introduced 16.0.R1

Platforms All

## json

Synopsis Show the output in indented JSON IETF format

Context info *keyword* json

Tree json

Notes The following elements are part of a choice: **flat**, **json**, or **xml**.

Introduced 19.10.R1

Platforms All

## model *keyword*

Synopsis Data model for which to display converted output

Context info *keyword* model *keyword*

Tree model

Description This option specifies the data model for which to display the converted output.

This option is supported only with the **converted** option and is available only when **configure system management-interface yang-modules openconfig-modules** is set to **true**.

This option is not supported for **state** elements.

Options all – All models
openconfig – OpenConfig models

Default all

Notes The following elements are part of a choice: **differences**, **model**, or **values**.

Introduced 20.7.R1

Platforms All

## units

Synopsis Include unit types for applicable elements


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| | |
|---|---|
| Context | info *keyword* units |
| Tree | units |
| Introduced | 20.5.R1 |
| Platforms | All |

## values

| | |
|---|---|
| Synopsis | Show all the values each model tries to set |
| Context | info *keyword* values |
| Tree | values |
| Description | When specified, this command shows all the values that each model tries to set.<br>This option is supported only with the **converted** option and is available only when **configure system management-interface yang-modules openconfig-modules** is set to **true**.<br>This option is not supported for **state** elements. |
| Notes | The following elements are part of a choice: **differences**, **model**, or **values**. |
| Introduced | 23.3.R1 |
| Platforms | All |

## xml

| | |
|---|---|
| Synopsis | Show the output in indented XML format |
| Context | info *keyword* xml |
| Tree | xml |
| Notes | The following elements are part of a choice: **flat**, **json**, or **xml**. |
| Introduced | 20.7.R1 |
| Platforms | All |

## li

| | |
|---|---|
| Synopsis | Enter a candidate configuration mode |
| Context | li |
| Tree | li |
| Introduced | 19.10.R1 |
| Platforms | All |


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## exclusive

| | |
|---|---|
| Synopsis | Enter exclusive configuration mode |
| Context | li exclusive |
| Tree | exclusive |
| Introduced | 19.10.R1 |
| Platforms | All |

## private

| | |
|---|---|
| Synopsis | Enter private configuration mode |
| Context | li private |
| Tree | private |
| Introduced | 19.10.R1 |
| Platforms | All |

## read-only

| | |
|---|---|
| Synopsis | Enter read-only configuration mode |
| Context | li read-only |
| Tree | read-only |
| Introduced | 19.10.R1 |
| Platforms | All |

## logout

| | |
|---|---|
| Synopsis | Exit the CLI session |
| Context | logout |
| Tree | logout |
| Introduced | 16.0.R1 |
| Platforms | All |

## oam

| | |
|---|---|
| Synopsis | Perform OAM tests |


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| | |
|---|---|
| Context | oam |
| Tree | oam |
| Introduced | 20.2.R1 |
| Platforms | All |

## efm

| | |
|---|---|
| Synopsis | Enter the **efm** context |
| Context | oam efm |
| Tree | efm |
| Introduced | 20.2.R1 |
| Platforms | All |

## local-loopback

| | |
|---|---|
| Synopsis | Start or stop local loopback test on a port |
| Context | oam efm local-loopback |
| Tree | local-loopback |
| Introduced | 20.2.R1 |
| Platforms | All |

## [**action**] *keyword*

| | |
|---|---|
| Synopsis | Action type for the test |
| Context | oam efm local-loopback [action] *keyword* |
| Tree | [action] |
| Options | start, stop |
| Notes | This element is mandatory. |
| Introduced | 20.2.R1 |
| Platforms | All |

## **port-id** *port*

| | |
|---|---|
| Synopsis | Port ID for the test |
| Context | oam efm local-loopback port-id *port* |


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| | |
|---|---|
| Tree | port-id |
| Notes | This element is mandatory. |
| Introduced | 20.2.R1 |
| Platforms | All |

### remote-loopback

| | |
|---|---|
| Synopsis | Start or stop remote loopback test on a port |
| Context | oam efm remote-loopback |
| Tree | remote-loopback |
| Introduced | 20.2.R1 |
| Platforms | All |

### [**action**] *keyword*

| | |
|---|---|
| Synopsis | Action type for the test |
| Context | oam efm remote-loopback [action] *keyword* |
| Tree | [action] |
| Options | start, stop |
| Notes | This element is mandatory. |
| Introduced | 20.2.R1 |
| Platforms | All |

### **port-id** *port*

| | |
|---|---|
| Synopsis | Port ID for the test |
| Context | oam efm remote-loopback port-id *port* |
| Tree | port-id |
| Notes | This element is mandatory. |
| Introduced | 20.2.R1 |
| Platforms | All |

### eth-cfm

| | |
|---|---|
| Synopsis | Initiate an Ethernet Connectivity Fault Management test |


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| | |
|---|---|
| Context | oam eth-cfm |
| Tree | eth-cfm |
| Introduced | 20.2.R1 |
| Platforms | All |

### eth-test

| | |
|---|---|
| Synopsis | Initiate an OAM ETH-CFM test |
| Context | oam eth-cfm eth-test |
| Tree | eth-test |
| Introduced | 20.2.R1 |
| Platforms | All |

### **data-length** *number*

| | |
|---|---|
| Synopsis | Size of the padding to be added to the frame |
| Context | oam eth-cfm eth-test data-length *number* |
| Tree | data-length |
| Range | 64 to 1500 |
| Default | 64 |
| Introduced | 20.2.R1 |
| Platforms | All |

### [**destination**] *(mac-unicast-address-no-zero* | *number)*

| | |
|---|---|
| Synopsis | Destination MAC address or remote MEP ID of the peer |
| Context | oam eth-cfm eth-test [destination] *(mac-unicast-address-no-zero* \| *number)* |
| Tree | [destination] |
| Range | 1 to 8191 |
| Notes | This element is mandatory. |
| Introduced | 20.2.R1 |
| Platforms | All |


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### **ma-admin-name** *reference*

| | |
|---|---|
| Synopsis | Association name |
| Context | oam eth-cfm eth-test ma-admin-name *reference* |
| Tree | ma-admin-name |
| Reference | **state eth-cfm domain** *admin-name* **association** *admin-name* |
| Notes | This element is mandatory. |
| Introduced | 20.2.R1 |
| Platforms | All |

### **md-admin-name** *reference*

| | |
|---|---|
| Synopsis | Domain name |
| Context | oam eth-cfm eth-test md-admin-name *reference* |
| Tree | md-admin-name |
| Reference | **state eth-cfm domain** *admin-name* |
| Notes | This element is mandatory. |
| Introduced | 20.2.R1 |
| Platforms | All |

### **mep-id** *number*

| | |
|---|---|
| Synopsis | Local Maintenance Association Endpoint (MEP) ID |
| Context | oam eth-cfm eth-test mep-id *number* |
| Tree | mep-id |
| Range | 1 to 8191 |
| Notes | This element is mandatory. |
| Introduced | 20.2.R1 |
| Platforms | All |

### **priority** *number*

| | |
|---|---|
| Synopsis | Frame priority that can be manipulated by QoS policies |
| Context | oam eth-cfm eth-test priority *number* |


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| | |
|---|---|
| Tree | priority |
| Range | 0 to 7 |
| Default | 7 |
| Introduced | 20.2.R1 |
| Platforms | All |

### linktrace

| | |
|---|---|
| Synopsis | Initiate a linktrace test |
| Context | oam eth-cfm linktrace |
| Tree | linktrace |
| Introduced | 20.2.R1 |
| Platforms | All |

### [**destination**] *(mac-unicast-address-no-zero* | *number)*

| | |
|---|---|
| Synopsis | Destination MAC address or remote MEP ID of the peer |
| Context | oam eth-cfm linktrace [destination] *(mac-unicast-address-no-zero* \| *number)* |
| Tree | [destination] |
| Range | 1 to 8191 |
| Notes | This element is mandatory. |
| Introduced | 20.2.R1 |
| Platforms | All |

### **ma-admin-name** *reference*

| | |
|---|---|
| Synopsis | Association name |
| Context | oam eth-cfm linktrace ma-admin-name *reference* |
| Tree | ma-admin-name |
| Reference | **state eth-cfm domain** *admin-name* **association** *admin-name* |
| Notes | This element is mandatory. |
| Introduced | 20.2.R1 |
| Platforms | All |


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### **md-admin-name** *reference*

| | |
|---|---|
| Synopsis | Domain name |
| Context | oam eth-cfm linktrace md-admin-name *reference* |
| Tree | md-admin-name |
| Reference | **state eth-cfm domain** *admin-name* |
| Notes | This element is mandatory. |
| Introduced | 20.2.R1 |
| Platforms | All |

### **mep-id** *number*

| | |
|---|---|
| Synopsis | Local Maintenance Association Endpoint (MEP) ID |
| Context | oam eth-cfm linktrace mep-id *number* |
| Tree | mep-id |
| Range | 1 to 8191 |
| Notes | This element is mandatory. |
| Introduced | 20.2.R1 |
| Platforms | All |

### **ttl** *number*

| | |
|---|---|
| Synopsis | Time to live for a returned linktrace |
| Context | oam eth-cfm linktrace ttl *number* |
| Tree | ttl |
| Range | 0 to 255 |
| Default | 64 |
| Introduced | 20.2.R1 |
| Platforms | All |

### **loopback**

| | |
|---|---|
| Synopsis | Initiate a loopback test |
| Context | oam eth-cfm loopback |
| Tree | loopback |


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| | |
|---|---|
| Introduced | 20.2.R1 |
| Platforms | All |

### [**destination**] *(mac-unicast-address-no-zero | keyword | number)*

| | |
|---|---|
| Synopsis | Destination MAC address or remote MEP ID of the peer |
| Context | oam eth-cfm loopback [destination] *(mac-unicast-address-no-zero \| keyword \| number)* |
| Tree | [destination] |
| Range | 1 to 8191 |
| Options | multicast – Class one destination multicast address based on the level of the local MEP |
| Notes | This element is mandatory. |
| Introduced | 20.2.R1 |
| Platforms | All |

### **interval** *number*

| | |
|---|---|
| Synopsis | Time between probes within the test run |
| Context | oam eth-cfm loopback interval *number* |
| Tree | interval |
| Range | 0 to 600 |
| Units | deciseconds |
| Default | 0 |
| Introduced | 20.2.R1 |
| Platforms | All |

### **lbm-padding** *number*

| | |
|---|---|
| Synopsis | Data portion size of the data TLV, no octet string |
| Context | oam eth-cfm loopback lbm-padding *number* |
| Tree | lbm-padding |
| Description | This command specifies the size of the data portion of the data TLV which does not allow for an optional octet string.<br>MSDU is not processed when setting is in use. A value of 0 means that no data TLV is added to the packet. This is specified with an octet string. This parameter and **size** are mutually exclusive. |
| Range | 0 \| 3 to 9778 |


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| | |
|---|---|
| Default | 0 |
| Introduced | 20.2.R1 |
| Platforms | All |

### **ma-admin-name** *reference*

| | |
|---|---|
| Synopsis | Association name |
| Context | oam eth-cfm loopback ma-admin-name *reference* |
| Tree | ma-admin-name |
| Reference | **state eth-cfm domain** *admin-name* **association** *admin-name* |
| Notes | This element is mandatory. |
| Introduced | 20.2.R1 |
| Platforms | All |

### **md-admin-name** *reference*

| | |
|---|---|
| Synopsis | Domain name |
| Context | oam eth-cfm loopback md-admin-name *reference* |
| Tree | md-admin-name |
| Reference | **state eth-cfm domain** *admin-name* |
| Notes | This element is mandatory. |
| Introduced | 20.2.R1 |
| Platforms | All |

### **mep-id** *number*

| | |
|---|---|
| Synopsis | Local Maintenance Association Endpoint (MEP) ID |
| Context | oam eth-cfm loopback mep-id *number* |
| Tree | mep-id |
| Range | 1 to 8191 |
| Notes | This element is mandatory. |
| Introduced | 20.2.R1 |
| Platforms | All |


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### **priority** *number*

| | |
|---|---|
| Synopsis | Frame priority that can be manipulated by QoS policies |
| Context | oam eth-cfm loopback priority *number* |
| Tree | priority |
| Range | 0 to 7 |
| Introduced | 20.2.R1 |
| Platforms | All |

### **send-count** *number*

| | |
|---|---|
| Synopsis | Number of loopback messages to send |
| Context | oam eth-cfm loopback send-count *number* |
| Tree | send-count |
| Range | 1 to 1024 |
| Default | 1 |
| Introduced | 20.2.R1 |
| Platforms | All |

### **size** *number*

| | |
|---|---|
| Synopsis | Data portion size of the data TLV, octet string allowed |
| Context | oam eth-cfm loopback size *number* |
| Tree | size |
| Description | This command specifies the size of the data portion of the data TLV allowing for an optional octet string to be included.<br>A value of 0 means that no data TLV is added to the packet. This parameter and **lbm-padding** are mutually exclusive. |
| Range | 0 to 1500 |
| Units | bytes |
| Default | 0 |
| Introduced | 20.2.R1 |
| Platforms | All |


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### **timeout** *number*

| | |
|---|---|
| Synopsis | Wait time for a reply to a sent message request |
| Context | oam eth-cfm loopback timeout *number* |
| Tree | timeout |
| Description | This command specifies the time the router waits for a message reply after sending a message request.<br>Upon expiration of the timeout, the router assumes that the message response is not received. Any response received after the timeout is silently discarded. |
| Range | 1 to 10 |
| Units | seconds |
| Default | 5 |
| Introduced | 20.2.R1 |
| Platforms | All |

### **one-way-delay-test**

| | |
|---|---|
| Synopsis | Initiate a one-way delay test |
| Context | oam eth-cfm one-way-delay-test |
| Tree | one-way-delay-test |
| Introduced | 20.2.R1 |
| Platforms | All |

### [**destination**] *(mac-unicast-address-no-zero* | *number)*

| | |
|---|---|
| Synopsis | Destination MAC address or remote MEP ID of the peer |
| Context | oam eth-cfm one-way-delay-test [destination] *(mac-unicast-address-no-zero* \| *number)* |
| Tree | [destination] |
| Range | 1 to 8191 |
| Notes | This element is mandatory. |
| Introduced | 20.2.R1 |
| Platforms | All |


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### **ma-admin-name** *reference*

| | |
|---|---|
| Synopsis | Association name |
| Context | oam eth-cfm one-way-delay-test ma-admin-name *reference* |
| Tree | ma-admin-name |
| Reference | **state eth-cfm domain** *admin-name* **association** *admin-name* |
| Notes | This element is mandatory. |
| Introduced | 20.2.R1 |
| Platforms | All |

### **md-admin-name** *reference*

| | |
|---|---|
| Synopsis | Domain name |
| Context | oam eth-cfm one-way-delay-test md-admin-name *reference* |
| Tree | md-admin-name |
| Reference | **state eth-cfm domain** *admin-name* |
| Notes | This element is mandatory. |
| Introduced | 20.2.R1 |
| Platforms | All |

### **mep-id** *number*

| | |
|---|---|
| Synopsis | Local Maintenance Association Endpoint (MEP) ID |
| Context | oam eth-cfm one-way-delay-test mep-id *number* |
| Tree | mep-id |
| Range | 1 to 8191 |
| Notes | This element is mandatory. |
| Introduced | 20.2.R1 |
| Platforms | All |

### **priority** *number*

| | |
|---|---|
| Synopsis | Frame priority that can be manipulated by QoS policies |
| Context | oam eth-cfm one-way-delay-test priority *number* |


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| | |
|---|---|
| Tree | priority |
| Range | 0 to 7 |
| Default | 7 |
| Introduced | 20.2.R1 |
| Platforms | All |

### two-way-delay-test

| | |
|---|---|
| Synopsis | Initiate a two-way delay test |
| Context | oam eth-cfm two-way-delay-test |
| Tree | two-way-delay-test |
| Introduced | 20.2.R1 |
| Platforms | All |

### [**destination**] *(mac-unicast-address-no-zero* | *number)*

| | |
|---|---|
| Synopsis | Destination MAC address or remote MEP ID of the peer |
| Context | oam eth-cfm two-way-delay-test [destination] *(mac-unicast-address-no-zero* \| *number)* |
| Tree | [destination] |
| Range | 1 to 8191 |
| Notes | This element is mandatory. |
| Introduced | 20.2.R1 |
| Platforms | All |

### **ma-admin-name** *reference*

| | |
|---|---|
| Synopsis | Association name |
| Context | oam eth-cfm two-way-delay-test ma-admin-name *reference* |
| Tree | ma-admin-name |
| Reference | **state eth-cfm domain** *admin-name* **association** *admin-name* |
| Notes | This element is mandatory. |
| Introduced | 20.2.R1 |
| Platforms | All |


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### **md-admin-name** *reference*

| | |
|---|---|
| Synopsis | Domain name |
| Context | oam eth-cfm two-way-delay-test md-admin-name *reference* |
| Tree | md-admin-name |
| Reference | **state eth-cfm domain** *admin-name* |
| Notes | This element is mandatory. |
| Introduced | 20.2.R1 |
| Platforms | All |

### **mep-id** *number*

| | |
|---|---|
| Synopsis | Local Maintenance Association Endpoint (MEP) ID |
| Context | oam eth-cfm two-way-delay-test mep-id *number* |
| Tree | mep-id |
| Range | 1 to 8191 |
| Notes | This element is mandatory. |
| Introduced | 20.2.R1 |
| Platforms | All |

### **priority** *number*

| | |
|---|---|
| Synopsis | Frame priority that can be manipulated by QoS policies |
| Context | oam eth-cfm two-way-delay-test priority *number* |
| Tree | priority |
| Range | 0 to 7 |
| Default | 7 |
| Introduced | 20.2.R1 |
| Platforms | All |

### **two-way-slm-test**

| | |
|---|---|
| Synopsis | Initiate a two-way SLM test in SAA |
| Context | oam eth-cfm two-way-slm-test |
| Tree | two-way-slm-test |


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| | |
|---|---|
| Introduced | 20.2.R1 |
| Platforms | All |

### [**destination**] *(mac-unicast-address-no-zero* | *number)*

| | |
|---|---|
| Synopsis | Destination MAC address or remote MEP ID of the peer |
| Context | oam eth-cfm two-way-slm-test [destination] *(mac-unicast-address-no-zero* \| *number)* |
| Tree | [destination] |
| Range | 1 to 8191 |
| Notes | This element is mandatory. |
| Introduced | 20.2.R1 |
| Platforms | All |

### **interval** *(number* | *decimal-number)*

| | |
|---|---|
| Synopsis | Time between probes within the test run |
| Context | oam eth-cfm two-way-slm-test interval *(number* \| *decimal-number)* |
| Tree | interval |
| Range | 1 to 10 |
| Units | seconds |
| Default | 5 |
| Introduced | 20.2.R1 |
| Platforms | All |

### **ma-admin-name** *reference*

| | |
|---|---|
| Synopsis | Association name |
| Context | oam eth-cfm two-way-slm-test ma-admin-name *reference* |
| Tree | ma-admin-name |
| Reference | **state eth-cfm domain** *admin-name* **association** *admin-name* |
| Notes | This element is mandatory. |
| Introduced | 20.2.R1 |
| Platforms | All |


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### **md-admin-name** *reference*

| | |
|---|---|
| Synopsis | Domain name |
| Context | oam eth-cfm two-way-slm-test md-admin-name *reference* |
| Tree | md-admin-name |
| Reference | **state eth-cfm domain** *admin-name* |
| Notes | This element is mandatory. |
| Introduced | 20.2.R1 |
| Platforms | All |

### **mep-id** *number*

| | |
|---|---|
| Synopsis | Local Maintenance Association Endpoint (MEP) ID |
| Context | oam eth-cfm two-way-slm-test mep-id *number* |
| Tree | mep-id |
| Range | 1 to 8191 |
| Notes | This element is mandatory. |
| Introduced | 20.2.R1 |
| Platforms | All |

### **priority** *number*

| | |
|---|---|
| Synopsis | Frame priority that can be manipulated by QoS policies |
| Context | oam eth-cfm two-way-slm-test priority *number* |
| Tree | priority |
| Range | 0 to 7 |
| Default | 7 |
| Introduced | 20.2.R1 |
| Platforms | All |

### **send-count** *number*

| | |
|---|---|
| Synopsis | Number of two-way SLM test messages to send |
| Context | oam eth-cfm two-way-slm-test send-count *number* |
| Tree | send-count |


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| | |
|---|---|
| Range | 1 to 1000 |
| Default | 1 |
| Introduced | 20.2.R1 |
| Platforms | All |

### **size** *number*

| | |
|---|---|
| Synopsis | Data portion size of the data TLV, octet string allowed |
| Context | oam eth-cfm two-way-slm-test size *number* |
| Tree | size |
| Description | This command specifies the size of the data portion of the data TLV allowing for an optional octet string to be included. |
| Range | 0 to 1500 |
| Units | bytes |
| Default | 0 |
| Introduced | 20.2.R1 |
| Platforms | All |

### **timeout** *number*

| | |
|---|---|
| Synopsis | Wait time for a reply to a sent message request |
| Context | oam eth-cfm two-way-slm-test timeout *number* |
| Tree | timeout |
| Description | This command specifies the time the router waits for a message reply after sending a message request.<br>Upon expiration of the timeout, the router assumes that the message response is not received. Any response received after the timeout is silently discarded. |
| Range | 1 to 10 |
| Units | seconds |
| Default | 5 |
| Introduced | 20.2.R1 |
| Platforms | All |

### **lsp-ping**

| | |
|---|---|
| Synopsis | Perform a Label Switched Path (LSP) ping test |


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| | |
|---|---|
| Context | oam lsp-ping |
| Tree | lsp-ping |
| Introduced | 23.3.R1 |
| Platforms | All |

## bgp-label

| | |
|---|---|
| Synopsis | Perform a BGP-label LSP trace test |
| Context | oam lsp-ping bgp-label |
| Tree | bgp-label |
| Description | This command option performs a Border Gateway Protocol (BGP-label) LSP trace test using Target FEC Stack code point "BGP labeled IPv4 prefix". |
| Introduced | 23.3.R1 |
| Platforms | All |

## fc *keyword*

| | |
|---|---|
| Synopsis | QoS forwarding class for the sent echo request packet |
| Context | oam lsp-ping bgp-label fc *keyword* |
| Tree | fc |
| Options | be – Best effort<br>l2 – Low 2 (best effort)<br>af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority)<br>ef – Expedited forwarding (high priority)<br>h1 – High 1 (high priority)<br>nc – Network control (high priority) |
| Default | be |
| Introduced | 23.3.R1 |
| Platforms | All |

## interface *reference*

| | |
|---|---|
| Synopsis | Egress router interface to use with path destination |
| Context | oam lsp-ping bgp-label interface *reference* |
| Tree | interface |


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| | |
|---|---|
| Reference | **state router** *named-item-64* **interface** *interface-name* |
| Notes | The following elements are part of a choice: **interface** or **next-hop**. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **interval** *number*

| | |
|---|---|
| Synopsis | Minimum time to expire before next echo request is sent |
| Context | oam lsp-ping bgp-label interval *number* |
| Tree | interval |
| Range | 1 to 10 |
| Units | seconds |
| Default | 1 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **next-hop** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Egress IP next hop address to use with path destination |
| Context | oam lsp-ping bgp-label next-hop *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | next-hop |
| Notes | The following elements are part of a choice: **interface** or **next-hop**. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **path-destination** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the path destination |
| Context | oam lsp-ping bgp-label path-destination *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | path-destination |
| Introduced | 23.3.R1 |
| Platforms | All |


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### **prefix** *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Destination IP prefix for the test |
| Context | oam lsp-ping bgp-label prefix *(ipv4-prefix \| ipv6-prefix)* |
| Tree | prefix |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **profile** *keyword*

| | |
|---|---|
| Synopsis | QoS profile for the transmitted echo request packets |
| Context | oam lsp-ping bgp-label profile *keyword* |
| Tree | profile |
| Options | in – In profile<br>out – Out of profile |
| Default | out |
| Introduced | 23.3.R1 |
| Platforms | All |

### **send-count** *number*

| | |
|---|---|
| Synopsis | Number of echo request packets to send |
| Context | oam lsp-ping bgp-label send-count *number* |
| Tree | send-count |
| Range | 1 to 100 |
| Units | packets |
| Default | 1 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **size** *number*

| | |
|---|---|
| Synopsis | Echo request packet pad size |
| Context | oam lsp-ping bgp-label size *number* |


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| | |
|---|---|
| Tree | size |
| Range | 1 to 9786 |
| Units | bytes |
| Default | 1 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **source-ip-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source IP address |
| Context | oam lsp-ping bgp-label source-ip-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | source-ip-address |
| Introduced | 23.3.R1 |
| Platforms | All |

### **timeout** *number*

| | |
|---|---|
| Synopsis | Time to wait for a reply after sending an echo request |
| Context | oam lsp-ping bgp-label timeout *number* |
| Tree | timeout |
| Range | 1 to 10 |
| Units | seconds |
| Default | 5 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **ttl** *number*

| | |
|---|---|
| Synopsis | TTL value for the MPLS label of the echo request |
| Context | oam lsp-ping bgp-label ttl *number* |
| Tree | ttl |
| Range | 1 to 255 |
| Default | 255 |
| Introduced | 23.3.R1 |


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| | |
|---|---|
| Platforms | All |

## ldp

| | |
|---|---|
| Synopsis | Perform Label Distribution Protocal (LDP) LSP ping test |
| Context | oam lsp-ping ldp |
| Tree | ldp |
| Introduced | 23.3.R1 |
| Platforms | All |

## fc *keyword*

| | |
|---|---|
| Synopsis | QoS forwarding class for the sent echo request packet |
| Context | oam lsp-ping ldp fc *keyword* |
| Tree | fc |
| Options | be – Best effort<br>l2 – Low 2 (best effort)<br>af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority)<br>ef – Expedited forwarding (high priority)<br>h1 – High 1 (high priority)<br>nc – Network control (high priority) |
| Default | be |
| Introduced | 23.3.R1 |
| Platforms | All |

## interface *reference*

| | |
|---|---|
| Synopsis | Egress router interface to use with path destination |
| Context | oam lsp-ping ldp interface *reference* |
| Tree | interface |
| Reference | **state router** *named-item-64* **interface** *interface-name* |
| Notes | The following elements are part of a choice: **interface** or **next-hop**. |
| Introduced | 23.3.R1 |
| Platforms | All |


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### **interval** *number*

| | |
|---|---|
| Synopsis | Minimum time to expire before next echo request is sent |
| Context | oam lsp-ping ldp interval *number* |
| Tree | interval |
| Range | 1 to 10 |
| Units | seconds |
| Default | 1 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **next-hop** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Egress IP next hop address to use with path destination |
| Context | oam lsp-ping ldp next-hop *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | next-hop |
| Notes | The following elements are part of a choice: **interface** or **next-hop**. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **path-destination** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the path destination |
| Context | oam lsp-ping ldp path-destination *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | path-destination |
| Introduced | 23.3.R1 |
| Platforms | All |

### **prefix** *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Destination IP prefix for the test |
| Context | oam lsp-ping ldp prefix *(ipv4-prefix \| ipv6-prefix)* |
| Tree | prefix |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |


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| | |
|---|---|
| Platforms | All |

### **profile** *keyword*

| | |
|---|---|
| Synopsis | QoS profile for the transmitted echo request packets |
| Context | oam lsp-ping ldp profile *keyword* |
| Tree | profile |
| Options | in – In profile<br>out – Out of profile |
| Default | out |
| Introduced | 23.3.R1 |
| Platforms | All |

### **send-count** *number*

| | |
|---|---|
| Synopsis | Number of echo request packets to send |
| Context | oam lsp-ping ldp send-count *number* |
| Tree | send-count |
| Range | 1 to 100 |
| Units | packets |
| Default | 1 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **size** *number*

| | |
|---|---|
| Synopsis | Echo request packet pad size |
| Context | oam lsp-ping ldp size *number* |
| Tree | size |
| Range | 1 to 9786 |
| Units | bytes |
| Default | 1 |
| Introduced | 23.3.R1 |
| Platforms | All |


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### **source-ip-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source IP address |
| Context | oam lsp-ping ldp source-ip-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | source-ip-address |
| Introduced | 23.3.R1 |
| Platforms | All |

### **timeout** *number*

| | |
|---|---|
| Synopsis | Time to wait for a reply after sending an echo request |
| Context | oam lsp-ping ldp timeout *number* |
| Tree | timeout |
| Range | 1 to 10 |
| Units | seconds |
| Default | 5 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **ttl** *number*

| | |
|---|---|
| Synopsis | TTL value for the MPLS label of the echo request |
| Context | oam lsp-ping ldp ttl *number* |
| Tree | ttl |
| Range | 1 to 255 |
| Default | 255 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **rsvp-te**

| | |
|---|---|
| Synopsis | Perform an RSVP-TE LSP ping test |
| Context | oam lsp-ping rsvp-te |
| Tree | rsvp-te |
| Introduced | 23.3.R1 |


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| | |
|---|---|
| Platforms | All |

## **fc** *keyword*

| | |
|---|---|
| Synopsis | QoS forwarding class for the sent echo request packet |
| Context | oam lsp-ping rsvp-te fc *keyword* |
| Tree | fc |
| Options | be – Best effort<br>l2 – Low 2 (best effort)<br>af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority)<br>ef – Expedited forwarding (high priority)<br>h1 – High 1 (high priority)<br>nc – Network control (high priority) |
| Default | be |
| Introduced | 23.3.R1 |
| Platforms | All |

## **interval** *number*

| | |
|---|---|
| Synopsis | Minimum time to expire before next echo request is sent |
| Context | oam lsp-ping rsvp-te interval *number* |
| Tree | interval |
| Range | 1 to 10 |
| Units | seconds |
| Default | 1 |
| Introduced | 23.3.R1 |
| Platforms | All |

## **lsp-name** *reference*

| | |
|---|---|
| Synopsis | Name of the LSP to test |
| Context | oam lsp-ping rsvp-te lsp-name *reference* |
| Tree | lsp-name |
| Reference | **state router** *named-item-64* **mpls lsp** *named-item-64* |
| Notes | This element is mandatory. |


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| | |
|---|---|
| Introduced | 23.3.R1 |
| Platforms | All |

### **path** *reference*

| | |
|---|---|
| Synopsis | Name of the MPLS path to test |
| Context | oam lsp-ping rsvp-te path *reference* |
| Tree | path |
| Reference | **state router** *named-item-64* **mpls path** *named-item-64* |
| Introduced | 23.3.R1 |
| Platforms | All |

### **profile** *keyword*

| | |
|---|---|
| Synopsis | QoS profile for the transmitted echo request packets |
| Context | oam lsp-ping rsvp-te profile *keyword* |
| Tree | profile |
| Options | in – In profile<br>out – Out of profile |
| Default | out |
| Introduced | 23.3.R1 |
| Platforms | All |

### **send-count** *number*

| | |
|---|---|
| Synopsis | Number of echo request packets to send |
| Context | oam lsp-ping rsvp-te send-count *number* |
| Tree | send-count |
| Range | 1 to 100 |
| Units | packets |
| Default | 1 |
| Introduced | 23.3.R1 |
| Platforms | All |


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### **size** *number*

| | |
|---|---|
| Synopsis | Echo request packet pad size |
| Context | oam lsp-ping rsvp-te size *number* |
| Tree | size |
| Range | 1 to 9786 |
| Units | bytes |
| Default | 1 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **source-ip-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source IP address |
| Context | oam lsp-ping rsvp-te source-ip-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | source-ip-address |
| Introduced | 23.3.R1 |
| Platforms | All |

### **timeout** *number*

| | |
|---|---|
| Synopsis | Time to wait for a reply after sending an echo request |
| Context | oam lsp-ping rsvp-te timeout *number* |
| Tree | timeout |
| Range | 1 to 10 |
| Units | seconds |
| Default | 5 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **ttl** *number*

| | |
|---|---|
| Synopsis | TTL value for the MPLS label of the echo request |
| Context | oam lsp-ping rsvp-te ttl *number* |
| Tree | ttl |


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| | |
|---|---|
| Range | 1 to 255 |
| Default | 255 |
| Introduced | 23.3.R1 |
| Platforms | All |

### sr-isis

| | |
|---|---|
| Synopsis | Perform an SR-ISIS LSP ping test |
| Context | oam lsp-ping sr-isis |
| Tree | sr-isis |
| Introduced | 23.3.R1 |
| Platforms | All |

### fc *keyword*

| | |
|---|---|
| Synopsis | QoS forwarding class for the sent echo request packet |
| Context | oam lsp-ping sr-isis fc *keyword* |
| Tree | fc |
| Options | be – Best effort<br>l2 – Low 2 (best effort)<br>af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority)<br>ef – Expedited forwarding (high priority)<br>h1 – High 1 (high priority)<br>nc – Network control (high priority) |
| Default | be |
| Introduced | 23.3.R1 |
| Platforms | All |

### flex-algo *number*

| | |
|---|---|
| Synopsis | Segment Routing Flexible Algorithm for the test |
| Context | oam lsp-ping sr-isis flex-algo *number* |
| Tree | flex-algo |
| Range | 128 to 255 |
| Introduced | 23.7.R1 |


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| | |
|---|---|
| Platforms | All |

### **igp-instance** *number*

| | |
|---|---|
| Synopsis | IGP instance for the SR-ISIS test |
| Context | oam lsp-ping sr-isis igp-instance *number* |
| Tree | igp-instance |
| Range | 0 to 127 |
| Default | 0 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **interface** *reference*

| | |
|---|---|
| Synopsis | Egress router interface to use with path destination |
| Context | oam lsp-ping sr-isis interface *reference* |
| Tree | interface |
| Reference | **state router** *named-item-64* **interface** *interface-name* |
| Notes | The following elements are part of a choice: **interface** or **next-hop**. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **interval** *number*

| | |
|---|---|
| Synopsis | Minimum time to expire before next echo request is sent |
| Context | oam lsp-ping sr-isis interval *number* |
| Tree | interval |
| Range | 1 to 10 |
| Units | seconds |
| Default | 1 |
| Introduced | 23.3.R1 |
| Platforms | All |


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### **next-hop** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Egress IP next hop address to use with path destination |
| Context | oam lsp-ping sr-isis next-hop *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | next-hop |
| Notes | The following elements are part of a choice: **interface** or **next-hop**. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **path-destination** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the path destination |
| Context | oam lsp-ping sr-isis path-destination *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | path-destination |
| Introduced | 23.3.R1 |
| Platforms | All |

### **prefix** *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Destination IP prefix for the test |
| Context | oam lsp-ping sr-isis prefix *(ipv4-prefix \| ipv6-prefix)* |
| Tree | prefix |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **profile** *keyword*

| | |
|---|---|
| Synopsis | QoS profile for the transmitted echo request packets |
| Context | oam lsp-ping sr-isis profile *keyword* |
| Tree | profile |
| Options | in – In profile<br>out – Out of profile |
| Default | out |
| Introduced | 23.3.R1 |


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| | |
|---|---|
| Platforms | All |

### **send-count** *number*

| | |
|---|---|
| Synopsis | Number of echo request packets to send |
| Context | oam lsp-ping sr-isis send-count *number* |
| Tree | send-count |
| Range | 1 to 100 |
| Units | packets |
| Default | 1 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **size** *number*

| | |
|---|---|
| Synopsis | Echo request packet pad size |
| Context | oam lsp-ping sr-isis size *number* |
| Tree | size |
| Range | 1 to 9786 |
| Units | bytes |
| Default | 1 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **source-ip-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source IP address |
| Context | oam lsp-ping sr-isis source-ip-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | source-ip-address |
| Introduced | 23.3.R1 |
| Platforms | All |

### **timeout** *number*

| | |
|---|---|
| Synopsis | Time to wait for a reply after sending an echo request |


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| | |
|---|---|
| Context | oam lsp-ping sr-isis timeout *number* |
| Tree | timeout |
| Range | 1 to 10 |
| Units | seconds |
| Default | 5 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **ttl** *number*

| | |
|---|---|
| Synopsis | TTL value for the MPLS label of the echo request |
| Context | oam lsp-ping sr-isis ttl *number* |
| Tree | ttl |
| Range | 1 to 255 |
| Default | 255 |
| Introduced | 23.3.R1 |
| Platforms | All |

## sr-ospf

| | |
|---|---|
| Synopsis | Perform an SR-OSPF LSP ping test |
| Context | oam lsp-ping sr-ospf |
| Tree | sr-ospf |
| Introduced | 23.3.R1 |
| Platforms | All |

### **fc** *keyword*

| | |
|---|---|
| Synopsis | QoS forwarding class for the sent echo request packet |
| Context | oam lsp-ping sr-ospf fc *keyword* |
| Tree | fc |
| Options | be – Best effort<br>l2 – Low 2 (best effort)<br>af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority)<br>ef – Expedited forwarding (high priority) |


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| | |
|---|---|
| | h1 – High 1 (high priority)<br>nc – Network control (high priority) |
| Default | be |
| Introduced | 23.3.R1 |
| Platforms | All |

### **flex-algo** *number*

| | |
|---|---|
| Synopsis | Segment Routing Flexible Algorithm for the test |
| Context | oam lsp-ping sr-ospf flex-algo *number* |
| Tree | flex-algo |
| Range | 128 to 255 |
| Introduced | 23.7.R1 |
| Platforms | All |

### **igp-instance** *number*

| | |
|---|---|
| Synopsis | IGP instance for the SR-OSPF test |
| Context | oam lsp-ping sr-ospf igp-instance *number* |
| Tree | igp-instance |
| Range | 0 to 31 |
| Default | 0 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **interface** *reference*

| | |
|---|---|
| Synopsis | Egress router interface to use with path destination |
| Context | oam lsp-ping sr-ospf interface *reference* |
| Tree | interface |
| Reference | **state router** *named-item-64* **interface** *interface-name* |
| Notes | The following elements are part of a choice: **interface** or **next-hop**. |
| Introduced | 23.3.R1 |
| Platforms | All |


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### **interval** *number*

| | |
|---|---|
| Synopsis | Minimum time to expire before next echo request is sent |
| Context | oam lsp-ping sr-ospf interval *number* |
| Tree | interval |
| Range | 1 to 10 |
| Units | seconds |
| Default | 1 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **next-hop** *ipv4-address*

| | |
|---|---|
| Synopsis | Egress IP next hop address to use with path destination |
| Context | oam lsp-ping sr-ospf next-hop *ipv4-address* |
| Tree | next-hop |
| Notes | The following elements are part of a choice: **interface** or **next-hop**. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **path-destination** *ipv4-address*

| | |
|---|---|
| Synopsis | IP address of the path destination |
| Context | oam lsp-ping sr-ospf path-destination *ipv4-address* |
| Tree | path-destination |
| Introduced | 23.3.R1 |
| Platforms | All |

### **prefix** *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Destination IP prefix for the test |
| Context | oam lsp-ping sr-ospf prefix *(ipv4-prefix \| ipv6-prefix)* |
| Tree | prefix |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |


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| | |
|---|---|
| Platforms | All |

### **profile** *keyword*

| | |
|---|---|
| Synopsis | QoS profile for the transmitted echo request packets |
| Context | oam lsp-ping sr-ospf profile *keyword* |
| Tree | profile |
| Options | in – In profile<br>out – Out of profile |
| Default | out |
| Introduced | 23.3.R1 |
| Platforms | All |

### **send-count** *number*

| | |
|---|---|
| Synopsis | Number of echo request packets to send |
| Context | oam lsp-ping sr-ospf send-count *number* |
| Tree | send-count |
| Range | 1 to 100 |
| Units | packets |
| Default | 1 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **size** *number*

| | |
|---|---|
| Synopsis | Echo request packet pad size |
| Context | oam lsp-ping sr-ospf size *number* |
| Tree | size |
| Range | 1 to 9786 |
| Units | bytes |
| Default | 1 |
| Introduced | 23.3.R1 |
| Platforms | All |


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### **source-ip-address** *ipv4-address*

| | |
|---|---|
| Synopsis | Source IP address |
| Context | oam lsp-ping sr-ospf source-ip-address *ipv4-address* |
| Tree | source-ip-address |
| Introduced | 23.3.R1 |
| Platforms | All |

### **timeout** *number*

| | |
|---|---|
| Synopsis | Time to wait for a reply after sending an echo request |
| Context | oam lsp-ping sr-ospf timeout *number* |
| Tree | timeout |
| Range | 1 to 10 |
| Units | seconds |
| Default | 5 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **ttl** *number*

| | |
|---|---|
| Synopsis | TTL value for the MPLS label of the echo request |
| Context | oam lsp-ping sr-ospf ttl *number* |
| Tree | ttl |
| Range | 1 to 255 |
| Default | 255 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **sr-ospf3**

| | |
|---|---|
| Synopsis | Perform an SR-OSPFv3 LSP ping test |
| Context | oam lsp-ping sr-ospf3 |
| Tree | sr-ospf3 |
| Introduced | 23.3.R1 |


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| | |
|---|---|
| Platforms | All |

### **fc** *keyword*

| | |
|---|---|
| Synopsis | QoS forwarding class for the sent echo request packet |
| Context | oam lsp-ping sr-ospf3 fc *keyword* |
| Tree | fc |
| Options | be – Best effort<br>l2 – Low 2 (best effort)<br>af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority)<br>ef – Expedited forwarding (high priority)<br>h1 – High 1 (high priority)<br>nc – Network control (high priority) |
| Default | be |
| Introduced | 23.3.R1 |
| Platforms | All |

### **igp-instance** *number*

| | |
|---|---|
| Synopsis | IGP instance for the SR-OSPFv3 test |
| Context | oam lsp-ping sr-ospf3 igp-instance *number* |
| Tree | igp-instance |
| Range | 0 to 31 \| 64 to 95 |
| Default | 0 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **interface** *reference*

| | |
|---|---|
| Synopsis | Egress router interface to use with path destination |
| Context | oam lsp-ping sr-ospf3 interface *reference* |
| Tree | interface |
| Reference | **state router** *named-item-64* **interface** *interface-name* |
| Notes | The following elements are part of a choice: **interface** or **next-hop**. |
| Introduced | 23.3.R1 |


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| | |
|---|---|
| Platforms | All |

### **interval** *number*

| | |
|---|---|
| Synopsis | Minimum time to expire before next echo request is sent |
| Context | oam lsp-ping sr-ospf3 interval *number* |
| Tree | interval |
| Range | 1 to 10 |
| Units | seconds |
| Default | 1 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **next-hop** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Egress IP next hop address to use with path destination |
| Context | oam lsp-ping sr-ospf3 next-hop *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | next-hop |
| Notes | The following elements are part of a choice: **interface** or **next-hop**. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **path-destination** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the path destination |
| Context | oam lsp-ping sr-ospf3 path-destination *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | path-destination |
| Introduced | 23.3.R1 |
| Platforms | All |

### **prefix** *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Destination IP prefix for the test |
| Context | oam lsp-ping sr-ospf3 prefix *(ipv4-prefix \| ipv6-prefix)* |
| Tree | prefix |


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| | |
|---|---|
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **profile** *keyword*

| | |
|---|---|
| Synopsis | QoS profile for the transmitted echo request packets |
| Context | oam lsp-ping sr-ospf3 profile *keyword* |
| Tree | profile |
| Options | in – In profile<br>out – Out of profile |
| Default | out |
| Introduced | 23.3.R1 |
| Platforms | All |

### **send-count** *number*

| | |
|---|---|
| Synopsis | Number of echo request packets to send |
| Context | oam lsp-ping sr-ospf3 send-count *number* |
| Tree | send-count |
| Range | 1 to 100 |
| Units | packets |
| Default | 1 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **size** *number*

| | |
|---|---|
| Synopsis | Echo request packet pad size |
| Context | oam lsp-ping sr-ospf3 size *number* |
| Tree | size |
| Range | 1 to 9786 |
| Units | bytes |
| Default | 1 |
| Introduced | 23.3.R1 |


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| | |
|---|---|
| Platforms | All |

### **source-ip-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source IP address |
| Context | oam lsp-ping sr-ospf3 source-ip-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | source-ip-address |
| Introduced | 23.3.R1 |
| Platforms | All |

### **timeout** *number*

| | |
|---|---|
| Synopsis | Time to wait for a reply after sending an echo request |
| Context | oam lsp-ping sr-ospf3 timeout *number* |
| Tree | timeout |
| Range | 1 to 10 |
| Units | seconds |
| Default | 5 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **ttl** *number*

| | |
|---|---|
| Synopsis | TTL value for the MPLS label of the echo request |
| Context | oam lsp-ping sr-ospf3 ttl *number* |
| Tree | ttl |
| Range | 1 to 255 |
| Default | 255 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **sr-policy**

| | |
|---|---|
| Synopsis | Perform an SR policy LSP ping test |
| Context | oam lsp-ping sr-policy |


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| | |
|---|---|
| Tree | sr-policy |
| Introduced | 23.3.R1 |
| Platforms | All |

### **color** *number*

| | |
|---|---|
| Synopsis | Segment Routing color for the test |
| Context | oam lsp-ping sr-policy color *number* |
| Tree | color |
| Max. range | 0 to 4294967295 |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **endpoint** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Segment Routing endpoint for the test |
| Context | oam lsp-ping sr-policy endpoint *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | endpoint |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **fc** *keyword*

| | |
|---|---|
| Synopsis | QoS forwarding class for the sent echo request packet |
| Context | oam lsp-ping sr-policy fc *keyword* |
| Tree | fc |
| Options | be – Best effort<br>l2 – Low 2 (best effort)<br>af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority)<br>ef – Expedited forwarding (high priority)<br>h1 – High 1 (high priority)<br>nc – Network control (high priority) |
| Default | be |


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| | |
|---|---|
| Introduced | 23.3.R1 |
| Platforms | All |

### **interface** *reference*

| | |
|---|---|
| Synopsis | Egress router interface to use with path destination |
| Context | oam lsp-ping sr-policy interface *reference* |
| Tree | interface |
| Reference | **state router** *named-item-64* **interface** *interface-name* |
| Notes | The following elements are part of a choice: **interface** or **next-hop**. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **interval** *number*

| | |
|---|---|
| Synopsis | Minimum time to expire before next echo request is sent |
| Context | oam lsp-ping sr-policy interval *number* |
| Tree | interval |
| Range | 1 to 10 |
| Units | seconds |
| Default | 1 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **next-hop** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Egress IP next hop address to use with path destination |
| Context | oam lsp-ping sr-policy next-hop *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | next-hop |
| Notes | The following elements are part of a choice: **interface** or **next-hop**. |
| Introduced | 23.3.R1 |
| Platforms | All |


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### **path-destination** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the path destination |
| Context | oam lsp-ping sr-policy path-destination *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | path-destination |
| Introduced | 23.3.R1 |
| Platforms | All |

### **profile** *keyword*

| | |
|---|---|
| Synopsis | QoS profile for the transmitted echo request packets |
| Context | oam lsp-ping sr-policy profile *keyword* |
| Tree | profile |
| Options | in – In profile<br>out – Out of profile |
| Default | out |
| Introduced | 23.3.R1 |
| Platforms | All |

### **segment-list** *number*

| | |
|---|---|
| Synopsis | Segment Routing segment list for the test |
| Context | oam lsp-ping sr-policy segment-list *number* |
| Tree | segment-list |
| Range | 1 to 32 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **send-count** *number*

| | |
|---|---|
| Synopsis | Number of echo request packets to send |
| Context | oam lsp-ping sr-policy send-count *number* |
| Tree | send-count |
| Range | 1 to 100 |
| Units | packets |


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| | |
|---|---|
| Default | 1 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **size** *number*

| | |
|---|---|
| Synopsis | Echo request packet pad size |
| Context | oam lsp-ping sr-policy size *number* |
| Tree | size |
| Range | 1 to 9786 |
| Units | bytes |
| Default | 1 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **source-ip-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source IP address |
| Context | oam lsp-ping sr-policy source-ip-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | source-ip-address |
| Introduced | 23.3.R1 |
| Platforms | All |

### **timeout** *number*

| | |
|---|---|
| Synopsis | Time to wait for a reply after sending an echo request |
| Context | oam lsp-ping sr-policy timeout *number* |
| Tree | timeout |
| Range | 1 to 10 |
| Units | seconds |
| Default | 5 |
| Introduced | 23.3.R1 |
| Platforms | All |


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### **ttl** *number*

| | |
|---|---|
| Synopsis | TTL value for the MPLS label of the echo request |
| Context | oam lsp-ping sr-policy ttl *number* |
| Tree | ttl |
| Range | 1 to 255 |
| Default | 255 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **sr-te**

| | |
|---|---|
| Synopsis | Perform an SR-TE LSP ping test |
| Context | oam lsp-ping sr-te |
| Tree | sr-te |
| Introduced | 23.3.R1 |
| Platforms | All |

### **fc** *keyword*

| | |
|---|---|
| Synopsis | QoS forwarding class for the sent echo request packet |
| Context | oam lsp-ping sr-te fc *keyword* |
| Tree | fc |
| Options | be – Best effort<br>l2 – Low 2 (best effort)<br>af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority)<br>ef – Expedited forwarding (high priority)<br>h1 – High 1 (high priority)<br>nc – Network control (high priority) |
| Default | be |
| Introduced | 23.3.R1 |
| Platforms | All |


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### **interface** *reference*

| | |
|---|---|
| Synopsis | Egress router interface to use with path destination |
| Context | oam lsp-ping sr-te interface *reference* |
| Tree | interface |
| Reference | **state router** *named-item-64* **interface** *interface-name* |
| Notes | The following elements are part of a choice: **interface** or **next-hop**. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **interval** *number*

| | |
|---|---|
| Synopsis | Minimum time to expire before next echo request is sent |
| Context | oam lsp-ping sr-te interval *number* |
| Tree | interval |
| Range | 1 to 10 |
| Units | seconds |
| Default | 1 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **lsp-name** *reference*

| | |
|---|---|
| Synopsis | Name of the LSP to test |
| Context | oam lsp-ping sr-te lsp-name *reference* |
| Tree | lsp-name |
| Reference | **state router** *named-item-64* **mpls lsp** *named-item-64* |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **next-hop** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Egress IP next hop address to use with path destination |
| Context | oam lsp-ping sr-te next-hop *(ipv4-address-no-zone \| ipv6-address-no-zone)* |


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| | |
|---|---|
| Tree | next-hop |
| Notes | The following elements are part of a choice: **interface** or **next-hop**. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **path** *reference*

| | |
|---|---|
| Synopsis | Name of the MPLS path to test |
| Context | oam lsp-ping sr-te path *reference* |
| Tree | path |
| Reference | **state router** *named-item-64* **mpls path** *named-item-64* |
| Introduced | 23.3.R1 |
| Platforms | All |

### **path-destination** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the path destination |
| Context | oam lsp-ping sr-te path-destination *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | path-destination |
| Introduced | 23.3.R1 |
| Platforms | All |

### **profile** *keyword*

| | |
|---|---|
| Synopsis | QoS profile for the transmitted echo request packets |
| Context | oam lsp-ping sr-te profile *keyword* |
| Tree | profile |
| Options | in – In profile<br>out – Out of profile |
| Default | out |
| Introduced | 23.3.R1 |
| Platforms | All |


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### **send-count** *number*

| | |
|---|---|
| Synopsis | Number of echo request packets to send |
| Context | oam lsp-ping sr-te send-count *number* |
| Tree | send-count |
| Range | 1 to 100 |
| Units | packets |
| Default | 1 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **size** *number*

| | |
|---|---|
| Synopsis | Echo request packet pad size |
| Context | oam lsp-ping sr-te size *number* |
| Tree | size |
| Range | 1 to 9786 |
| Units | bytes |
| Default | 1 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **source-ip-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source IP address |
| Context | oam lsp-ping sr-te source-ip-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | source-ip-address |
| Introduced | 23.3.R1 |
| Platforms | All |

### **timeout** *number*

| | |
|---|---|
| Synopsis | Time to wait for a reply after sending an echo request |
| Context | oam lsp-ping sr-te timeout *number* |
| Tree | timeout |


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| | |
|---|---|
| Range | 1 to 10 |
| Units | seconds |
| Default | 5 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **ttl** *number*

| | |
|---|---|
| Synopsis | TTL value for the MPLS label of the echo request |
| Context | oam lsp-ping sr-te ttl *number* |
| Tree | ttl |
| Range | 1 to 255 |
| Default | 255 |
| Introduced | 23.3.R1 |
| Platforms | All |

### lsp-trace

| | |
|---|---|
| Synopsis | Perform a Label Switched Path (LSP) trace test |
| Context | oam lsp-trace |
| Tree | lsp-trace |
| Introduced | 23.3.R1 |
| Platforms | All |

### bgp-label

| | |
|---|---|
| Synopsis | Perform a BGP-label LSP trace test |
| Context | oam lsp-trace bgp-label |
| Tree | bgp-label |
| Description | This option performs an LSP trace test using Target FEC Stack sub-type "BGP labeled IPv4 prefix". |
| Introduced | 23.3.R1 |
| Platforms | All |


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### **downstream-map-tlv** *keyword*

| | |
|---|---|
| Synopsis | Type of downstream mapping TLV in MPLS echo request PDU |
| Context | oam lsp-trace bgp-label downstream-map-tlv *keyword* |
| Tree | downstream-map-tlv |
| Options | dsmap – Downstream Mapping TLV<br>ddmap – Downstream Detailed Mapping TLV<br>none – No mapping TLV |
| Introduced | 23.3.R1 |
| Platforms | All |

### **fc** *keyword*

| | |
|---|---|
| Synopsis | QoS forwarding class for the sent echo request packet |
| Context | oam lsp-trace bgp-label fc *keyword* |
| Tree | fc |
| Options | be – Best effort<br>l2 – Low 2 (best effort)<br>af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority)<br>ef – Expedited forwarding (high priority)<br>h1 – High 1 (high priority)<br>nc – Network control (high priority) |
| Default | be |
| Introduced | 23.3.R1 |
| Platforms | All |

### **interface** *reference*

| | |
|---|---|
| Synopsis | Egress router interface to use with path destination |
| Context | oam lsp-trace bgp-label interface *reference* |
| Tree | interface |
| Reference | **state router** *named-item-64* **interface** *interface-name* |
| Notes | The following elements are part of a choice: **interface** or **next-hop**. |
| Introduced | 23.3.R1 |
| Platforms | All |


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### **interval** *number*

| | |
|---|---|
| Synopsis | Minimum time to expire before next echo request is sent |
| Context | oam lsp-trace bgp-label interval *number* |
| Tree | interval |
| Range | 1 to 10 |
| Units | seconds |
| Default | 1 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **max-fail** *number*

| | |
|---|---|
| Synopsis | Maximum consecutive timeouts before terminating test |
| Context | oam lsp-trace bgp-label max-fail *number* |
| Tree | max-fail |
| Range | 1 to 255 |
| Default | 5 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **max-ttl** *number*

| | |
|---|---|
| Synopsis | Maximum TTL |
| Context | oam lsp-trace bgp-label max-ttl *number* |
| Tree | max-ttl |
| Range | 1 to 255 |
| Default | 30 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **min-ttl** *number*

| | |
|---|---|
| Synopsis | Initial TTL for the test |
| Context | oam lsp-trace bgp-label min-ttl *number* |


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| | |
|---|---|
| Tree | min-ttl |
| Range | 1 to 255 |
| Default | 1 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **next-hop** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Egress IP next hop address to use with path destination |
| Context | oam lsp-trace bgp-label next-hop *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | next-hop |
| Notes | The following elements are part of a choice: **interface** or **next-hop**. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **output-format** *keyword*

| | |
|---|---|
| Synopsis | Output format for the result |
| Context | oam lsp-trace bgp-label output-format *keyword* |
| Tree | output-format |
| Options | summary, detail |
| Default | summary |
| Introduced | 23.3.R1 |
| Platforms | All |

### **path-destination** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the path destination |
| Context | oam lsp-trace bgp-label path-destination *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | path-destination |
| Introduced | 23.3.R1 |
| Platforms | All |


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### **prefix** *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Destination IP prefix for the test |
| Context | oam lsp-trace bgp-label prefix *(ipv4-prefix \| ipv6-prefix)* |
| Tree | prefix |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **probe-count** *number*

| | |
|---|---|
| Synopsis | Number of OAM trace probes to send per TTL |
| Context | oam lsp-trace bgp-label probe-count *number* |
| Tree | probe-count |
| Range | 1 to 10 |
| Default | 1 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **profile** *keyword*

| | |
|---|---|
| Synopsis | QoS profile for the transmitted echo request packets |
| Context | oam lsp-trace bgp-label profile *keyword* |
| Tree | profile |
| Options | in – In profile<br>out – Out of profile |
| Default | out |
| Introduced | 23.3.R1 |
| Platforms | All |

### **size** *number*

| | |
|---|---|
| Synopsis | Echo request packet pad size |
| Context | oam lsp-trace bgp-label size *number* |
| Tree | size |


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| | |
|---|---|
| Range | 1 to 9786 |
| Units | bytes |
| Default | 1 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **source-ip-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source IP address |
| Context | oam lsp-trace bgp-label source-ip-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | source-ip-address |
| Introduced | 23.3.R1 |
| Platforms | All |

### **timeout** *number*

| | |
|---|---|
| Synopsis | Time to wait for a reply after sending an echo request |
| Context | oam lsp-trace bgp-label timeout *number* |
| Tree | timeout |
| Range | 1 to 10 |
| Units | seconds |
| Default | 5 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **ldp**

| | |
|---|---|
| Synopsis | Perform an LDP LSP trace test |
| Context | oam lsp-trace ldp |
| Tree | ldp |
| Introduced | 23.3.R1 |
| Platforms | All |


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### **downstream-map-tlv** *keyword*

| | |
|---|---|
| Synopsis | Type of downstream mapping TLV in MPLS echo request PDU |
| Context | oam lsp-trace ldp downstream-map-tlv *keyword* |
| Tree | downstream-map-tlv |
| Options | dsmap – Downstream Mapping TLV<br>ddmap – Downstream Detailed Mapping TLV<br>none – No mapping TLV |
| Introduced | 23.3.R1 |
| Platforms | All |

### **fc** *keyword*

| | |
|---|---|
| Synopsis | QoS forwarding class for the sent echo request packet |
| Context | oam lsp-trace ldp fc *keyword* |
| Tree | fc |
| Options | be – Best effort<br>l2 – Low 2 (best effort)<br>af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority)<br>ef – Expedited forwarding (high priority)<br>h1 – High 1 (high priority)<br>nc – Network control (high priority) |
| Default | be |
| Introduced | 23.3.R1 |
| Platforms | All |

### **interface** *reference*

| | |
|---|---|
| Synopsis | Egress router interface to use with path destination |
| Context | oam lsp-trace ldp interface *reference* |
| Tree | interface |
| Reference | **state router** *named-item-64* **interface** *interface-name* |
| Notes | The following elements are part of a choice: **interface** or **next-hop**. |
| Introduced | 23.3.R1 |
| Platforms | All |


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### **interval** *number*

| | |
|---|---|
| Synopsis | Minimum time to expire before next echo request is sent |
| Context | oam lsp-trace ldp interval *number* |
| Tree | interval |
| Range | 1 to 10 |
| Units | seconds |
| Default | 1 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **max-fail** *number*

| | |
|---|---|
| Synopsis | Maximum consecutive timeouts before terminating test |
| Context | oam lsp-trace ldp max-fail *number* |
| Tree | max-fail |
| Range | 1 to 255 |
| Default | 5 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **max-ttl** *number*

| | |
|---|---|
| Synopsis | Maximum TTL |
| Context | oam lsp-trace ldp max-ttl *number* |
| Tree | max-ttl |
| Range | 1 to 255 |
| Default | 30 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **min-ttl** *number*

| | |
|---|---|
| Synopsis | Initial TTL for the test |
| Context | oam lsp-trace ldp min-ttl *number* |


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| | |
|---|---|
| Tree | min-ttl |
| Range | 1 to 255 |
| Default | 1 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **next-hop** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Egress IP next hop address to use with path destination |
| Context | oam lsp-trace ldp next-hop *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | next-hop |
| Notes | The following elements are part of a choice: **interface** or **next-hop**. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **output-format** *keyword*

| | |
|---|---|
| Synopsis | Output format for the result |
| Context | oam lsp-trace ldp output-format *keyword* |
| Tree | output-format |
| Options | summary, detail |
| Default | summary |
| Introduced | 23.3.R1 |
| Platforms | All |

### **path-destination** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the path destination |
| Context | oam lsp-trace ldp path-destination *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | path-destination |
| Introduced | 23.3.R1 |
| Platforms | All |


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### **prefix** *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Destination IP prefix for the test |
| Context | oam lsp-trace ldp prefix *(ipv4-prefix \| ipv6-prefix)* |
| Tree | prefix |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **probe-count** *number*

| | |
|---|---|
| Synopsis | Number of OAM trace probes to send per TTL |
| Context | oam lsp-trace ldp probe-count *number* |
| Tree | probe-count |
| Range | 1 to 10 |
| Default | 1 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **profile** *keyword*

| | |
|---|---|
| Synopsis | QoS profile for the transmitted echo request packets |
| Context | oam lsp-trace ldp profile *keyword* |
| Tree | profile |
| Options | in – In profile<br>out – Out of profile |
| Default | out |
| Introduced | 23.3.R1 |
| Platforms | All |

### **size** *number*

| | |
|---|---|
| Synopsis | Echo request packet pad size |
| Context | oam lsp-trace ldp size *number* |
| Tree | size |


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| | |
|---|---|
| Range | 1 to 9786 |
| Units | bytes |
| Default | 1 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **source-ip-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source IP address |
| Context | oam lsp-trace ldp source-ip-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | source-ip-address |
| Introduced | 23.3.R1 |
| Platforms | All |

### **timeout** *number*

| | |
|---|---|
| Synopsis | Time to wait for a reply after sending an echo request |
| Context | oam lsp-trace ldp timeout *number* |
| Tree | timeout |
| Range | 1 to 10 |
| Units | seconds |
| Default | 5 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **rsvp-te**

| | |
|---|---|
| Synopsis | Perform an RSVP-TE LSP trace test |
| Context | oam lsp-trace rsvp-te |
| Tree | rsvp-te |
| Introduced | 23.3.R1 |
| Platforms | All |


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### **downstream-map-tlv** *keyword*

| | |
|---|---|
| Synopsis | Type of downstream mapping TLV in MPLS echo request PDU |
| Context | oam lsp-trace rsvp-te downstream-map-tlv *keyword* |
| Tree | downstream-map-tlv |
| Options | dsmap – Downstream Mapping TLV<br>ddmap – Downstream Detailed Mapping TLV<br>none – No mapping TLV |
| Introduced | 23.3.R1 |
| Platforms | All |

### **fc** *keyword*

| | |
|---|---|
| Synopsis | QoS forwarding class for the sent echo request packet |
| Context | oam lsp-trace rsvp-te fc *keyword* |
| Tree | fc |
| Options | be – Best effort<br>l2 – Low 2 (best effort)<br>af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority)<br>ef – Expedited forwarding (high priority)<br>h1 – High 1 (high priority)<br>nc – Network control (high priority) |
| Default | be |
| Introduced | 23.3.R1 |
| Platforms | All |

### **interval** *number*

| | |
|---|---|
| Synopsis | Minimum time to expire before next echo request is sent |
| Context | oam lsp-trace rsvp-te interval *number* |
| Tree | interval |
| Range | 1 to 10 |
| Units | seconds |
| Default | 1 |
| Introduced | 23.3.R1 |
| Platforms | All |


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### **lsp-name** *reference*

| | |
|---|---|
| Synopsis | Name of the LSP to test |
| Context | oam lsp-trace rsvp-te lsp-name *reference* |
| Tree | lsp-name |
| Reference | **state router** *named-item-64* **mpls lsp** *named-item-64* |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **max-fail** *number*

| | |
|---|---|
| Synopsis | Maximum consecutive timeouts before terminating test |
| Context | oam lsp-trace rsvp-te max-fail *number* |
| Tree | max-fail |
| Range | 1 to 255 |
| Default | 5 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **max-ttl** *number*

| | |
|---|---|
| Synopsis | Maximum TTL |
| Context | oam lsp-trace rsvp-te max-ttl *number* |
| Tree | max-ttl |
| Range | 1 to 255 |
| Default | 30 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **min-ttl** *number*

| | |
|---|---|
| Synopsis | Initial TTL for the test |
| Context | oam lsp-trace rsvp-te min-ttl *number* |
| Tree | min-ttl |


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| | |
|---|---|
| Range | 1 to 255 |
| Default | 1 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **output-format** *keyword*

| | |
|---|---|
| Synopsis | Output format for the result |
| Context | oam lsp-trace rsvp-te output-format *keyword* |
| Tree | output-format |
| Options | summary, detail |
| Default | summary |
| Introduced | 23.3.R1 |
| Platforms | All |

### **path** *reference*

| | |
|---|---|
| Synopsis | Name of the MPLS path to test |
| Context | oam lsp-trace rsvp-te path *reference* |
| Tree | path |
| Reference | **state router** *named-item-64* **mpls path** *named-item-64* |
| Introduced | 23.3.R1 |
| Platforms | All |

### **probe-count** *number*

| | |
|---|---|
| Synopsis | Number of OAM trace probes to send per TTL |
| Context | oam lsp-trace rsvp-te probe-count *number* |
| Tree | probe-count |
| Range | 1 to 10 |
| Default | 1 |
| Introduced | 23.3.R1 |
| Platforms | All |


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### **profile** *keyword*

| | |
|---|---|
| Synopsis | QoS profile for the transmitted echo request packets |
| Context | oam lsp-trace rsvp-te profile *keyword* |
| Tree | profile |
| Options | in – In profile<br>out – Out of profile |
| Default | out |
| Introduced | 23.3.R1 |
| Platforms | All |

### **size** *number*

| | |
|---|---|
| Synopsis | Echo request packet pad size |
| Context | oam lsp-trace rsvp-te size *number* |
| Tree | size |
| Range | 1 to 9786 |
| Units | bytes |
| Default | 1 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **source-ip-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source IP address |
| Context | oam lsp-trace rsvp-te source-ip-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | source-ip-address |
| Introduced | 23.3.R1 |
| Platforms | All |

### **timeout** *number*

| | |
|---|---|
| Synopsis | Time to wait for a reply after sending an echo request |
| Context | oam lsp-trace rsvp-te timeout *number* |
| Tree | timeout |


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| | |
|---|---|
| Range | 1 to 10 |
| Units | seconds |
| Default | 5 |
| Introduced | 23.3.R1 |
| Platforms | All |

### sr-isis

| | |
|---|---|
| Synopsis | Perform an SR-ISIS LSP trace test |
| Context | oam lsp-trace sr-isis |
| Tree | sr-isis |
| Introduced | 23.3.R1 |
| Platforms | All |

### downstream-map-tlv *keyword*

| | |
|---|---|
| Synopsis | Type of downstream mapping TLV in MPLS echo request PDU |
| Context | oam lsp-trace sr-isis downstream-map-tlv *keyword* |
| Tree | downstream-map-tlv |
| Options | dsmap – Downstream Mapping TLV<br>ddmap – Downstream Detailed Mapping TLV<br>none – No mapping TLV |
| Introduced | 23.3.R1 |
| Platforms | All |

### fc *keyword*

| | |
|---|---|
| Synopsis | QoS forwarding class for the sent echo request packet |
| Context | oam lsp-trace sr-isis fc *keyword* |
| Tree | fc |
| Options | be – Best effort<br>l2 – Low 2 (best effort)<br>af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority)<br>ef – Expedited forwarding (high priority)<br>h1 – High 1 (high priority)<br>nc – Network control (high priority) |


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| | |
|---|---|
| Default | be |
| Introduced | 23.3.R1 |
| Platforms | All |

### **flex-algo** *number*

| | |
|---|---|
| Synopsis | Segment Routing Flexible Algorithm for the test |
| Context | oam lsp-trace sr-isis flex-algo *number* |
| Tree | flex-algo |
| Range | 128 to 255 |
| Introduced | 23.7.R1 |
| Platforms | All |

### **igp-instance** *number*

| | |
|---|---|
| Synopsis | IGP instance for the SR-ISIS test |
| Context | oam lsp-trace sr-isis igp-instance *number* |
| Tree | igp-instance |
| Range | 0 to 127 |
| Default | 0 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **interface** *reference*

| | |
|---|---|
| Synopsis | Egress router interface to use with path destination |
| Context | oam lsp-trace sr-isis interface *reference* |
| Tree | interface |
| Reference | **state router** *named-item-64* **interface** *interface-name* |
| Notes | The following elements are part of a choice: **interface** or **next-hop**. |
| Introduced | 23.3.R1 |
| Platforms | All |


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### **interval** *number*

| | |
|---|---|
| Synopsis | Minimum time to expire before next echo request is sent |
| Context | oam lsp-trace sr-isis interval *number* |
| Tree | interval |
| Range | 1 to 10 |
| Units | seconds |
| Default | 1 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **max-fail** *number*

| | |
|---|---|
| Synopsis | Maximum consecutive timeouts before terminating test |
| Context | oam lsp-trace sr-isis max-fail *number* |
| Tree | max-fail |
| Range | 1 to 255 |
| Default | 5 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **max-ttl** *number*

| | |
|---|---|
| Synopsis | Maximum TTL |
| Context | oam lsp-trace sr-isis max-ttl *number* |
| Tree | max-ttl |
| Range | 1 to 255 |
| Default | 30 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **min-ttl** *number*

| | |
|---|---|
| Synopsis | Initial TTL for the test |
| Context | oam lsp-trace sr-isis min-ttl *number* |


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| | |
|---|---|
| Tree | min-ttl |
| Range | 1 to 255 |
| Default | 1 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **next-hop** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Egress IP next hop address to use with path destination |
| Context | oam lsp-trace sr-isis next-hop *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | next-hop |
| Notes | The following elements are part of a choice: **interface** or **next-hop**. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **output-format** *keyword*

| | |
|---|---|
| Synopsis | Output format for the result |
| Context | oam lsp-trace sr-isis output-format *keyword* |
| Tree | output-format |
| Options | summary, detail |
| Default | summary |
| Introduced | 23.3.R1 |
| Platforms | All |

### **path-destination** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the path destination |
| Context | oam lsp-trace sr-isis path-destination *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | path-destination |
| Introduced | 23.3.R1 |
| Platforms | All |


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### **prefix** *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Destination IP prefix for the test |
| Context | oam lsp-trace sr-isis prefix *(ipv4-prefix \| ipv6-prefix)* |
| Tree | prefix |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **probe-count** *number*

| | |
|---|---|
| Synopsis | Number of OAM trace probes to send per TTL |
| Context | oam lsp-trace sr-isis probe-count *number* |
| Tree | probe-count |
| Range | 1 to 10 |
| Default | 1 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **profile** *keyword*

| | |
|---|---|
| Synopsis | QoS profile for the transmitted echo request packets |
| Context | oam lsp-trace sr-isis profile *keyword* |
| Tree | profile |
| Options | in – In profile<br>out – Out of profile |
| Default | out |
| Introduced | 23.3.R1 |
| Platforms | All |

### **size** *number*

| | |
|---|---|
| Synopsis | Echo request packet pad size |
| Context | oam lsp-trace sr-isis size *number* |
| Tree | size |


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| | |
|---|---|
| Range | 1 to 9786 |
| Units | bytes |
| Default | 1 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **source-ip-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source IP address |
| Context | oam lsp-trace sr-isis source-ip-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | source-ip-address |
| Introduced | 23.3.R1 |
| Platforms | All |

### **timeout** *number*

| | |
|---|---|
| Synopsis | Time to wait for a reply after sending an echo request |
| Context | oam lsp-trace sr-isis timeout *number* |
| Tree | timeout |
| Range | 1 to 10 |
| Units | seconds |
| Default | 5 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **sr-ospf**

| | |
|---|---|
| Synopsis | Perform an SR-OSPF LSP trace test |
| Context | oam lsp-trace sr-ospf |
| Tree | sr-ospf |
| Introduced | 23.3.R1 |
| Platforms | All |


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### **downstream-map-tlv** *keyword*

| | |
|---|---|
| Synopsis | Type of downstream mapping TLV in MPLS echo request PDU |
| Context | oam lsp-trace sr-ospf downstream-map-tlv *keyword* |
| Tree | downstream-map-tlv |
| Options | dsmap – Downstream Mapping TLV<br>ddmap – Downstream Detailed Mapping TLV<br>none – No mapping TLV |
| Introduced | 23.3.R1 |
| Platforms | All |

### **fc** *keyword*

| | |
|---|---|
| Synopsis | QoS forwarding class for the sent echo request packet |
| Context | oam lsp-trace sr-ospf fc *keyword* |
| Tree | fc |
| Options | be – Best effort<br>l2 – Low 2 (best effort)<br>af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority)<br>ef – Expedited forwarding (high priority)<br>h1 – High 1 (high priority)<br>nc – Network control (high priority) |
| Default | be |
| Introduced | 23.3.R1 |
| Platforms | All |

### **flex-algo** *number*

| | |
|---|---|
| Synopsis | Segment Routing Flexible Algorithm for the test |
| Context | oam lsp-trace sr-ospf flex-algo *number* |
| Tree | flex-algo |
| Range | 128 to 255 |
| Introduced | 23.7.R1 |
| Platforms | All |


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### **igp-instance** *number*

| | |
|---|---|
| Synopsis | IGP instance for the SR-OSPF test |
| Context | oam lsp-trace sr-ospf igp-instance *number* |
| Tree | igp-instance |
| Range | 0 to 31 |
| Default | 0 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **interface** *reference*

| | |
|---|---|
| Synopsis | Egress router interface to use with path destination |
| Context | oam lsp-trace sr-ospf interface *reference* |
| Tree | interface |
| Reference | **state router** *named-item-64* **interface** *interface-name* |
| Notes | The following elements are part of a choice: **interface** or **next-hop**. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **interval** *number*

| | |
|---|---|
| Synopsis | Minimum time to expire before next echo request is sent |
| Context | oam lsp-trace sr-ospf interval *number* |
| Tree | interval |
| Range | 1 to 10 |
| Units | seconds |
| Default | 1 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **max-fail** *number*

| | |
|---|---|
| Synopsis | Maximum consecutive timeouts before terminating test |
| Context | oam lsp-trace sr-ospf max-fail *number* |


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| | |
|---|---|
| Tree | max-fail |
| Range | 1 to 255 |
| Default | 5 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **max-ttl** *number*

| | |
|---|---|
| Synopsis | Maximum TTL |
| Context | oam lsp-trace sr-ospf max-ttl *number* |
| Tree | max-ttl |
| Range | 1 to 255 |
| Default | 30 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **min-ttl** *number*

| | |
|---|---|
| Synopsis | Initial TTL for the test |
| Context | oam lsp-trace sr-ospf min-ttl *number* |
| Tree | min-ttl |
| Range | 1 to 255 |
| Default | 1 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **next-hop** *ipv4-address*

| | |
|---|---|
| Synopsis | Egress IP next hop address to use with path destination |
| Context | oam lsp-trace sr-ospf next-hop *ipv4-address* |
| Tree | next-hop |
| Notes | The following elements are part of a choice: **interface** or **next-hop**. |
| Introduced | 23.3.R1 |
| Platforms | All |


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### **output-format** *keyword*

| | |
|---|---|
| Synopsis | Output format for the result |
| Context | oam lsp-trace sr-ospf output-format *keyword* |
| Tree | output-format |
| Options | summary, detail |
| Default | summary |
| Introduced | 23.3.R1 |
| Platforms | All |

### **path-destination** *ipv4-address*

| | |
|---|---|
| Synopsis | IP address of the path destination |
| Context | oam lsp-trace sr-ospf path-destination *ipv4-address* |
| Tree | path-destination |
| Introduced | 23.3.R1 |
| Platforms | All |

### **prefix** *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Destination IP prefix for the test |
| Context | oam lsp-trace sr-ospf prefix *(ipv4-prefix \| ipv6-prefix)* |
| Tree | prefix |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **probe-count** *number*

| | |
|---|---|
| Synopsis | Number of OAM trace probes to send per TTL |
| Context | oam lsp-trace sr-ospf probe-count *number* |
| Tree | probe-count |
| Range | 1 to 10 |
| Default | 1 |
| Introduced | 23.3.R1 |


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| | |
|---|---|
| Platforms | All |

### **profile** *keyword*

| | |
|---|---|
| Synopsis | QoS profile for the transmitted echo request packets |
| Context | oam lsp-trace sr-ospf profile *keyword* |
| Tree | profile |
| Options | in – In profile<br>out – Out of profile |
| Default | out |
| Introduced | 23.3.R1 |
| Platforms | All |

### **size** *number*

| | |
|---|---|
| Synopsis | Echo request packet pad size |
| Context | oam lsp-trace sr-ospf size *number* |
| Tree | size |
| Range | 1 to 9786 |
| Units | bytes |
| Default | 1 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **source-ip-address** *ipv4-address*

| | |
|---|---|
| Synopsis | Source IP address |
| Context | oam lsp-trace sr-ospf source-ip-address *ipv4-address* |
| Tree | source-ip-address |
| Introduced | 23.3.R1 |
| Platforms | All |

### **timeout** *number*

| | |
|---|---|
| Synopsis | Time to wait for a reply after sending an echo request |
| Context | oam lsp-trace sr-ospf timeout *number* |


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| | |
|---|---|
| Tree | timeout |
| Range | 1 to 10 |
| Units | seconds |
| Default | 5 |
| Introduced | 23.3.R1 |
| Platforms | All |

### sr-ospf3

| | |
|---|---|
| Synopsis | Perform an SR-OSPFv3 LSP trace test |
| Context | oam lsp-trace sr-ospf3 |
| Tree | sr-ospf3 |
| Introduced | 23.3.R1 |
| Platforms | All |

### downstream-map-tlv *keyword*

| | |
|---|---|
| Synopsis | Type of downstream mapping TLV in MPLS echo request PDU |
| Context | oam lsp-trace sr-ospf3 downstream-map-tlv *keyword* |
| Tree | downstream-map-tlv |
| Options | dsmap – Downstream Mapping TLV<br>ddmap – Downstream Detailed Mapping TLV<br>none – No mapping TLV |
| Introduced | 23.3.R1 |
| Platforms | All |

### fc *keyword*

| | |
|---|---|
| Synopsis | QoS forwarding class for the sent echo request packet |
| Context | oam lsp-trace sr-ospf3 fc *keyword* |
| Tree | fc |
| Options | be – Best effort<br>l2 – Low 2 (best effort)<br>af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority)<br>ef – Expedited forwarding (high priority)<br>h1 – High 1 (high priority) |


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| | |
|---|---|
| | nc – Network control (high priority) |
| Default | be |
| Introduced | 23.3.R1 |
| Platforms | All |

### **igp-instance** *number*

| | |
|---|---|
| Synopsis | IGP instance for the SR-OSPFv3 test |
| Context | oam lsp-trace sr-ospf3 igp-instance *number* |
| Tree | igp-instance |
| Range | 0 to 31 \| 64 to 95 |
| Default | 0 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **interface** *reference*

| | |
|---|---|
| Synopsis | Egress router interface to use with path destination |
| Context | oam lsp-trace sr-ospf3 interface *reference* |
| Tree | interface |
| Reference | **state router** *named-item-64* **interface** *interface-name* |
| Notes | The following elements are part of a choice: **interface** or **next-hop**. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **interval** *number*

| | |
|---|---|
| Synopsis | Minimum time to expire before next echo request is sent |
| Context | oam lsp-trace sr-ospf3 interval *number* |
| Tree | interval |
| Range | 1 to 10 |
| Units | seconds |
| Default | 1 |
| Introduced | 23.3.R1 |
| Platforms | All |


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### **max-fail** *number*

| | |
|---|---|
| Synopsis | Maximum consecutive timeouts before terminating test |
| Context | oam lsp-trace sr-ospf3 max-fail *number* |
| Tree | max-fail |
| Range | 1 to 255 |
| Default | 5 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **max-ttl** *number*

| | |
|---|---|
| Synopsis | Maximum TTL |
| Context | oam lsp-trace sr-ospf3 max-ttl *number* |
| Tree | max-ttl |
| Range | 1 to 255 |
| Default | 30 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **min-ttl** *number*

| | |
|---|---|
| Synopsis | Initial TTL for the test |
| Context | oam lsp-trace sr-ospf3 min-ttl *number* |
| Tree | min-ttl |
| Range | 1 to 255 |
| Default | 1 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **next-hop** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Egress IP next hop address to use with path destination |
| Context | oam lsp-trace sr-ospf3 next-hop *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | next-hop |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **interface** or **next-hop**. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **output-format** *keyword*

| | |
|---|---|
| Synopsis | Output format for the result |
| Context | oam lsp-trace sr-ospf3 output-format *keyword* |
| Tree | output-format |
| Options | summary, detail |
| Default | summary |
| Introduced | 23.3.R1 |
| Platforms | All |

### **path-destination** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the path destination |
| Context | oam lsp-trace sr-ospf3 path-destination *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | path-destination |
| Introduced | 23.3.R1 |
| Platforms | All |

### **prefix** *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Destination IP prefix for the test |
| Context | oam lsp-trace sr-ospf3 prefix *(ipv4-prefix \| ipv6-prefix)* |
| Tree | prefix |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **probe-count** *number*

| | |
|---|---|
| Synopsis | Number of OAM trace probes to send per TTL |
| Context | oam lsp-trace sr-ospf3 probe-count *number* |


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| | |
|---|---|
| Tree | probe-count |
| Range | 1 to 10 |
| Default | 1 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **profile** *keyword*

| | |
|---|---|
| Synopsis | QoS profile for the transmitted echo request packets |
| Context | oam lsp-trace sr-ospf3 profile *keyword* |
| Tree | profile |
| Options | in – In profile<br>out – Out of profile |
| Default | out |
| Introduced | 23.3.R1 |
| Platforms | All |

### **size** *number*

| | |
|---|---|
| Synopsis | Echo request packet pad size |
| Context | oam lsp-trace sr-ospf3 size *number* |
| Tree | size |
| Range | 1 to 9786 |
| Units | bytes |
| Default | 1 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **source-ip-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source IP address |
| Context | oam lsp-trace sr-ospf3 source-ip-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | source-ip-address |
| Introduced | 23.3.R1 |


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| | |
|---|---|
| Platforms | All |

### **timeout** *number*

| | |
|---|---|
| Synopsis | Time to wait for a reply after sending an echo request |
| Context | oam lsp-trace sr-ospf3 timeout *number* |
| Tree | timeout |
| Range | 1 to 10 |
| Units | seconds |
| Default | 5 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **sr-policy**

| | |
|---|---|
| Synopsis | Perform an SR policy LSP trace test |
| Context | oam lsp-trace sr-policy |
| Tree | sr-policy |
| Introduced | 23.3.R1 |
| Platforms | All |

### **color** *number*

| | |
|---|---|
| Synopsis | Segment Routing color for the test |
| Context | oam lsp-trace sr-policy color *number* |
| Tree | color |
| Max. range | 0 to 4294967295 |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **downstream-map-tlv** *keyword*

| | |
|---|---|
| Synopsis | Type of downstream mapping TLV in MPLS echo request PDU |
| Context | oam lsp-trace sr-policy downstream-map-tlv *keyword* |


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| | |
|---|---|
| Tree | downstream-map-tlv |
| Options | dsmap – Downstream Mapping TLV<br>ddmap – Downstream Detailed Mapping TLV<br>none – No mapping TLV |
| Introduced | 23.3.R1 |
| Platforms | All |

### **endpoint** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Segment Routing endpoint for the test |
| Context | oam lsp-trace sr-policy endpoint *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | endpoint |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **fc** *keyword*

| | |
|---|---|
| Synopsis | QoS forwarding class for the sent echo request packet |
| Context | oam lsp-trace sr-policy fc *keyword* |
| Tree | fc |
| Options | be – Best effort<br>l2 – Low 2 (best effort)<br>af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority)<br>ef – Expedited forwarding (high priority)<br>h1 – High 1 (high priority)<br>nc – Network control (high priority) |
| Default | be |
| Introduced | 23.3.R1 |
| Platforms | All |

### **interface** *reference*

| | |
|---|---|
| Synopsis | Egress router interface to use with path destination |
| Context | oam lsp-trace sr-policy interface *reference* |
| Tree | interface |


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| | |
|---|---|
| Reference | **state router** *named-item-64* **interface** *interface-name* |
| Notes | The following elements are part of a choice: **interface** or **next-hop**. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **interval** *number*

| | |
|---|---|
| Synopsis | Minimum time to expire before next echo request is sent |
| Context | oam lsp-trace sr-policy interval *number* |
| Tree | interval |
| Range | 1 to 10 |
| Units | seconds |
| Default | 1 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **max-fail** *number*

| | |
|---|---|
| Synopsis | Maximum consecutive timeouts before terminating test |
| Context | oam lsp-trace sr-policy max-fail *number* |
| Tree | max-fail |
| Range | 1 to 255 |
| Default | 5 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **max-ttl** *number*

| | |
|---|---|
| Synopsis | Maximum TTL |
| Context | oam lsp-trace sr-policy max-ttl *number* |
| Tree | max-ttl |
| Range | 1 to 255 |
| Default | 30 |
| Introduced | 23.3.R1 |
| Platforms | All |


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### **min-ttl** *number*

| | |
|---|---|
| Synopsis | Initial TTL for the test |
| Context | oam lsp-trace sr-policy min-ttl *number* |
| Tree | min-ttl |
| Range | 1 to 255 |
| Default | 1 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **next-hop** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Egress IP next hop address to use with path destination |
| Context | oam lsp-trace sr-policy next-hop *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | next-hop |
| Notes | The following elements are part of a choice: **interface** or **next-hop**. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **output-format** *keyword*

| | |
|---|---|
| Synopsis | Output format for the result |
| Context | oam lsp-trace sr-policy output-format *keyword* |
| Tree | output-format |
| Options | summary, detail |
| Default | summary |
| Introduced | 23.3.R1 |
| Platforms | All |

### **path-destination** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the path destination |
| Context | oam lsp-trace sr-policy path-destination *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | path-destination |
| Introduced | 23.3.R1 |


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| | |
|---|---|
| Platforms | All |

### **probe-count** *number*

| | |
|---|---|
| Synopsis | Number of OAM trace probes to send per TTL |
| Context | oam lsp-trace sr-policy probe-count *number* |
| Tree | probe-count |
| Range | 1 to 10 |
| Default | 1 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **profile** *keyword*

| | |
|---|---|
| Synopsis | QoS profile for the transmitted echo request packets |
| Context | oam lsp-trace sr-policy profile *keyword* |
| Tree | profile |
| Options | in – In profile<br>out – Out of profile |
| Default | out |
| Introduced | 23.3.R1 |
| Platforms | All |

### **segment-list** *number*

| | |
|---|---|
| Synopsis | Segment Routing segment list for the test |
| Context | oam lsp-trace sr-policy segment-list *number* |
| Tree | segment-list |
| Range | 1 to 32 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **size** *number*

| | |
|---|---|
| Synopsis | Echo request packet pad size |
| Context | oam lsp-trace sr-policy size *number* |


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| | |
|---|---|
| Tree | size |
| Range | 1 to 9786 |
| Units | bytes |
| Default | 1 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **source-ip-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source IP address |
| Context | oam lsp-trace sr-policy source-ip-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | source-ip-address |
| Introduced | 23.3.R1 |
| Platforms | All |

### **timeout** *number*

| | |
|---|---|
| Synopsis | Time to wait for a reply after sending an echo request |
| Context | oam lsp-trace sr-policy timeout *number* |
| Tree | timeout |
| Range | 1 to 10 |
| Units | seconds |
| Default | 5 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **sr-te**

| | |
|---|---|
| Synopsis | Perform an SR-TE LSP trace test |
| Context | oam lsp-trace sr-te |
| Tree | sr-te |
| Introduced | 23.3.R1 |
| Platforms | All |


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### **downstream-map-tlv** *keyword*

| | |
|---|---|
| Synopsis | Type of downstream mapping TLV in MPLS echo request PDU |
| Context | oam lsp-trace sr-te downstream-map-tlv *keyword* |
| Tree | downstream-map-tlv |
| Options | dsmap – Downstream Mapping TLV<br>ddmap – Downstream Detailed Mapping TLV<br>none – No mapping TLV |
| Introduced | 23.3.R1 |
| Platforms | All |

### **fc** *keyword*

| | |
|---|---|
| Synopsis | QoS forwarding class for the sent echo request packet |
| Context | oam lsp-trace sr-te fc *keyword* |
| Tree | fc |
| Options | be – Best effort<br>l2 – Low 2 (best effort)<br>af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority)<br>ef – Expedited forwarding (high priority)<br>h1 – High 1 (high priority)<br>nc – Network control (high priority) |
| Default | be |
| Introduced | 23.3.R1 |
| Platforms | All |

### **interface** *reference*

| | |
|---|---|
| Synopsis | Egress router interface to use with path destination |
| Context | oam lsp-trace sr-te interface *reference* |
| Tree | interface |
| Reference | **state router** *named-item-64* **interface** *interface-name* |
| Notes | The following elements are part of a choice: **interface** or **next-hop**. |
| Introduced | 23.3.R1 |
| Platforms | All |


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### **interval** *number*

| | |
|---|---|
| Synopsis | Minimum time to expire before next echo request is sent |
| Context | oam lsp-trace sr-te interval *number* |
| Tree | interval |
| Range | 1 to 10 |
| Units | seconds |
| Default | 1 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **lsp-name** *reference*

| | |
|---|---|
| Synopsis | Name of the LSP to test |
| Context | oam lsp-trace sr-te lsp-name *reference* |
| Tree | lsp-name |
| Reference | **state router** *named-item-64* **mpls lsp** *named-item-64* |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **max-fail** *number*

| | |
|---|---|
| Synopsis | Maximum consecutive timeouts before terminating test |
| Context | oam lsp-trace sr-te max-fail *number* |
| Tree | max-fail |
| Range | 1 to 255 |
| Default | 5 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **max-ttl** *number*

| | |
|---|---|
| Synopsis | Maximum TTL |
| Context | oam lsp-trace sr-te max-ttl *number* |


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| | |
|---|---|
| Tree | max-ttl |
| Range | 1 to 255 |
| Default | 30 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **min-ttl** *number*

| | |
|---|---|
| Synopsis | Initial TTL for the test |
| Context | oam lsp-trace sr-te min-ttl *number* |
| Tree | min-ttl |
| Range | 1 to 255 |
| Default | 1 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **next-hop** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Egress IP next hop address to use with path destination |
| Context | oam lsp-trace sr-te next-hop *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | next-hop |
| Notes | The following elements are part of a choice: **interface** or **next-hop**. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **output-format** *keyword*

| | |
|---|---|
| Synopsis | Output format for the result |
| Context | oam lsp-trace sr-te output-format *keyword* |
| Tree | output-format |
| Options | summary, detail |
| Default | summary |
| Introduced | 23.3.R1 |
| Platforms | All |


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### **path** *reference*

| | |
|---|---|
| Synopsis | Name of the MPLS path to test |
| Context | oam lsp-trace sr-te path *reference* |
| Tree | path |
| Reference | **state router** *named-item-64* **mpls path** *named-item-64* |
| Introduced | 23.3.R1 |
| Platforms | All |

### **path-destination** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the path destination |
| Context | oam lsp-trace sr-te path-destination *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | path-destination |
| Introduced | 23.3.R1 |
| Platforms | All |

### **probe-count** *number*

| | |
|---|---|
| Synopsis | Number of OAM trace probes to send per TTL |
| Context | oam lsp-trace sr-te probe-count *number* |
| Tree | probe-count |
| Range | 1 to 10 |
| Default | 1 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **profile** *keyword*

| | |
|---|---|
| Synopsis | QoS profile for the transmitted echo request packets |
| Context | oam lsp-trace sr-te profile *keyword* |
| Tree | profile |
| Options | in – In profile<br>out – Out of profile |
| Default | out |


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| | |
|---|---|
| Introduced | 23.3.R1 |
| Platforms | All |

### **size** *number*

| | |
|---|---|
| Synopsis | Echo request packet pad size |
| Context | oam lsp-trace sr-te size *number* |
| Tree | size |
| Range | 1 to 9786 |
| Units | bytes |
| Default | 1 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **source-ip-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source IP address |
| Context | oam lsp-trace sr-te source-ip-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | source-ip-address |
| Introduced | 23.3.R1 |
| Platforms | All |

### **timeout** *number*

| | |
|---|---|
| Synopsis | Time to wait for a reply after sending an echo request |
| Context | oam lsp-trace sr-te timeout *number* |
| Tree | timeout |
| Range | 1 to 10 |
| Units | seconds |
| Default | 5 |
| Introduced | 23.3.R1 |
| Platforms | All |


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## oam-pm

| | |
|---|---|
| Synopsis | Initiate an on-demand OAM Performance Monitoring test |
| Context | oam oam-pm |
| Tree | oam-pm |
| Introduced | 20.2.R1 |
| Platforms | All |

## **action** *keyword*

| | |
|---|---|
| Synopsis | OAM-PM test action |
| Context | oam oam-pm action *keyword* |
| Tree | action |
| Options | start, stop |
| Notes | This element is mandatory. |
| Introduced | 20.2.R1 |
| Platforms | All |

## **session** *reference*

| | |
|---|---|
| Synopsis | OAM-PM session name |
| Context | oam oam-pm session *reference* |
| Tree | session |
| Reference | **state oam-pm session** *named-item* |
| Notes | This element is mandatory. |
| Introduced | 20.2.R1 |
| Platforms | All |

## **test-type** *keyword*

| | |
|---|---|
| Synopsis | Test type |
| Context | oam oam-pm test-type *keyword* |
| Tree | test-type |
| Options | dm – MPLS Delay Measurement test<br>dmm – Ethernet Delay Measurement Message test |


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| | |
|---|---|
| | lmm – Ethernet Loss Measurement Message test<br>slm – Ethernet Synthetic Loss Message test<br>twamp-light – IP Two-Way Active Measurement Protocol (Light) test |
| Notes | This element is mandatory. |
| Introduced | 20.2.R1 |
| Platforms | All |

### saa

| | |
|---|---|
| Synopsis | Enter the **saa** context |
| Context | oam saa |
| Tree | saa |
| Introduced | 22.10.R1 |
| Platforms | All |

### **owner** [owner-name] *reference* test *reference*

| | |
|---|---|
| Synopsis | SAA owner name |
| Context | oam saa owner *reference* test *reference* |
| Tree | owner |
| Introduced | 22.10.R1 |
| Platforms | All |

### [**owner-name**] *reference*

| | |
|---|---|
| Synopsis | Name of the owner of SAA test to be stopped or started |
| Context | oam saa owner *reference* test *reference* |
| Tree | owner |
| MD-CLI default | TiMOS CLI |
| Reference | **state saa owner** *named-item* **test** *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 22.10.R1 |
| Platforms | All |


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### **test** *reference*

| | |
|---|---|
| Synopsis | Name of the SAA test to be stopped or started |
| Context | oam saa owner *reference* test *reference* |
| Tree | owner |
| Reference | **state saa owner** *named-item* **test** *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **start**

| | |
|---|---|
| Synopsis | Start the SAA test |
| Context | oam saa owner *reference* test *reference* start |
| Tree | start |
| Introduced | 22.10.R1 |
| Platforms | All |

### **accounting** *boolean*

| | |
|---|---|
| Synopsis | Disable recording results in accounting policy |
| Context | oam saa owner *reference* test *reference* start accounting *boolean* |
| Tree | accounting |
| Default | true |
| Introduced | 22.10.R1 |
| Platforms | All |

### **stop**

| | |
|---|---|
| Synopsis | Stop the SAA test |
| Context | oam saa owner *reference* test *reference* stop |
| Tree | stop |
| Introduced | 22.10.R1 |
| Platforms | All |


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### **accounting** *boolean*

| | |
|---|---|
| Synopsis | Disable recording results in accounting policy |
| Context | oam saa owner *reference* test *reference* stop accounting *boolean* |
| Tree | accounting |
| Default | true |
| Introduced | 22.10.R1 |
| Platforms | All |

### **service-activation-testhead**

| | |
|---|---|
| Synopsis | Start or stop Service Activation Testhead service test |
| Context | oam service-activation-testhead |
| Tree | service-activation-testhead |
| Introduced | 23.10.R1 |
| Platforms | All |

### **service-test** [service-test-name] *reference*

| | |
|---|---|
| Synopsis | Service test name |
| Context | oam service-activation-testhead service-test *reference* |
| Tree | service-test |
| Introduced | 23.10.R1 |
| Platforms | All |

### [**service-test-name**] *reference*

| | |
|---|---|
| Synopsis | Name of the service test to be started or stopped |
| Context | oam service-activation-testhead service-test *reference* |
| Tree | service-test |
| Reference | **state test-oam service-activation-testhead service-test** *named-item-64* |
| Notes | This element is part of a list key. |
| Introduced | 23.10.R1 |
| Platforms | All |


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## start

| | |
|---|---|
| Synopsis | Start OAM SATH service test |
| Context | oam service-activation-testhead service-test *reference* start |
| Tree | start |
| Description | This command starts an OAM Service Activtation Testhead (SATH) service test.<br>Only one instance of a service test is allowed for the specified *service-test-name*. If the user attempts to start another instance of a service test for the same *service-test-name* while the current instance is still running, an error is generated. |
| Introduced | 23.10.R1 |
| Platforms | All |

## stop

| | |
|---|---|
| Synopsis | Stop OAM SATH service test |
| Context | oam service-activation-testhead service-test *reference* stop |
| Tree | stop |
| Description | This command stops an OAM Service Activtation Testhead (SATH) service test.<br>If the user attempts to stop a service test that is already complete, an error is generated. |
| Introduced | 23.10.R1 |
| Platforms | All |

## password

| | |
|---|---|
| Synopsis | Change the local user password |
| Context | password |
| Tree | password |
| Introduced | 20.10.R1 |
| Platforms | All |

## ping

| | |
|---|---|
| Synopsis | Ping an IP address or DNS name |
| Context | ping |
| Tree | ping |
| Introduced | 19.10.R1 |


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| | |
|---|---|
| Platforms | All |

## bypass-routing

| | |
|---|---|
| Synopsis | Bypass routing table when sending ping request to host |
| Context | ping bypass-routing |
| Tree | bypass-routing |
| Description | When configured, the system bypasses the routing table when sending the ping request to a host on a directly-attached network. If the host is not on a directly-attached network, an error is returned. |
| Notes | The following elements are part of a choice: **bypass-routing**, **interface**, **next-hop-address**, or **subscriber**. |
| Introduced | 19.10.R1 |
| Platforms | All |

## candidate-path

| | |
|---|---|
| Synopsis | Ping candidate path of the SRv6 policy |
| Context | ping candidate-path |
| Tree | candidate-path |
| Description | When configured, this command allows the user to specify a candidate path of the SRv6 policy to ping. The candidate path does not need to be the currently active candidate path. |
| Introduced | 23.10.R1 |
| Platforms | All |

## color *number*

| | |
|---|---|
| Synopsis | Color identifier of the Segment Routing IPv6 policy |
| Context | ping color *number* |
| Tree | color |
| Max. range | 0 to 4294967295 |
| Notes | The following elements are part of a mandatory choice: (**destination**, **router-instance**, and **source-address**) or (**color**, **endpoint**, **segment-list**, and **srv6-policy**). |
| Introduced | 23.7.R1 |
| Platforms | All |


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### **count** *number*

| | |
|---|---|
| Synopsis | Number of ping requests to send to the remote host |
| Context | ping count *number* |
| Tree | count |
| Range | 1 to 100000 |
| Units | packets |
| Default | 5 |
| Introduced | 19.10.R1 |
| Platforms | All |

### [**destination**] *(ipv4-address-with-zone | ipv6-address-with-zone | string-not-all-spaces)*

| | |
|---|---|
| Synopsis | Destination IP address or DNS name |
| Context | ping [destination] *(ipv4-address-with-zone* \| *ipv6-address-with-zone* \| *string-not-all-spaces)* |
| Tree | [destination] |
| String length | 1 to 128 |
| Notes | The following elements are part of a mandatory choice: (**destination**, **router-instance**, and **source-address**) or (**color**, **endpoint**, **segment-list**, and **srv6-policy**). |
| Introduced | 19.10.R1 |
| Platforms | All |

### **distinguisher** *number*

| | |
|---|---|
| Synopsis | SRv6 policy candidate path distinguisher |
| Context | ping distinguisher *number* |
| Tree | distinguisher |
| Description | This command specifies the distinguisher of the SRv6 policy candidate path to send the ping probe on.<br>This command must be configured if the **protocol-owner** command is configured to **bgp**. |
| Range | 1 to 4294967295 |
| Introduced | 23.10.R1 |
| Platforms | All |


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### do-not-fragment

| | |
|---|---|
| Synopsis | Do not fragment echo request packets (valid for IPv4) |
| Context | ping do-not-fragment |
| Tree | do-not-fragment |
| Description | This command sets the Do Not Fragment (DF) bit in the IPv4 header. This prevents packet fragmentation along the path when there is an MTU mismatch. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **endpoint** *ipv6-unicast-or-zero-address*

| | |
|---|---|
| Synopsis | Endpoint identifier of the Segment Routing IPv6 policy to be pinged |
| Context | ping endpoint *ipv6-unicast-or-zero-address* |
| Tree | endpoint |
| Notes | The following elements are part of a mandatory choice: (**destination**, **router-instance**, and **source-address**) or (**color**, **endpoint**, **segment-list**, and **srv6-policy**). |
| Introduced | 23.7.R1 |
| Platforms | All |

### **fc** *keyword*

| | |
|---|---|
| Synopsis | Forwarding class option for the transmitted packet |
| Context | ping fc *keyword* |
| Tree | fc |
| Options | be – Best effort<br>l2 – Low 2 (best effort)<br>af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority)<br>ef – Expedited forwarding (high priority)<br>h1 – High 1 (high priority)<br>nc – Network control (high priority) |
| Default | nc |
| Introduced | 19.10.R1 |
| Platforms | All |


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### **interface** *(reference | reference | reference | reference | reference)*

| | |
|---|---|
| Synopsis | Sending interface name |
| Context | ping interface *(reference \| reference \| reference \| reference \| reference)* |
| Tree | interface |
| Reference | **state router** *named-item-64* **interface** *interface-name*<br>**state service ies** *service-name* **interface** *interface-name*<br>**state service ies** *service-name* **subscriber-interface** *interface-name*<br>**state service vprn** *service-name* **interface** *interface-name*<br>**state service vprn** *service-name* **subscriber-interface** *interface-name* |
| Notes | The following elements are part of a choice: **bypass-routing**, **interface**, **next-hop-address**, or **subscriber**. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **interval** *(number | decimal-number)*

| | |
|---|---|
| Synopsis | Time between consecutive ping requests |
| Context | ping interval *(number \| decimal-number)* |
| Tree | interval |
| Range | 1 to 10000 |
| Units | seconds |
| Default | 1 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **next-hop-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Next-hop address to send packet, ignoring routing table |
| Context | ping next-hop-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | next-hop-address |
| Description | This command specifies the next-hop address. The system does not use the routing table and the address must be on an adjacent router attached to a common subnet. |
| Notes | The following elements are part of a choice: **bypass-routing**, **interface**, **next-hop-address**, or **subscriber**. |


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| | |
|---|---|
| Introduced | 19.10.R1 |
| Platforms | All |

### **output-format** *keyword*

| | |
|---|---|
| Synopsis | Output format |
| Context | ping output-format *keyword* |
| Tree | output-format |
| Options | summary, detail |
| Default | detail |
| Introduced | 19.10.R1 |
| Platforms | All |

### **pattern** *(keyword | number)*

| | |
|---|---|
| Synopsis | Pattern string to include in the packet |
| Context | ping pattern *(keyword | number)* |
| Tree | pattern |
| Range | 0 to 65535 |
| Options | sequential |
| Default | sequential |
| Introduced | 19.10.R1 |
| Platforms | All |

### **preference** *number*

| | |
|---|---|
| Synopsis | SRv6 policy candidate path preference |
| Context | ping preference *number* |
| Tree | preference |
| Description | This command specifies the preference of the SRv6 policy candidate path to send the ping probe on. |
| Max. range | 0 to 4294967295 |
| Default | 100 |
| Introduced | 23.10.R1 |
| Platforms | All |


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### **protocol-owner** *keyword*

| | |
|---|---|
| Synopsis | Protocol owner |
| Context | ping protocol-owner *keyword* |
| Tree | protocol-owner |
| Description | This command specifies the protocol owner of the SRv6 policy candidate path to ping.<br>The **bgp** option specifies a BGP SRv6 policy.<br>The **static** option specifies a locally configured static SRv6 policy. |
| Options | bgp, static |
| Introduced | 23.10.R1 |
| Platforms | All |

### **router-instance** *(reference | reference)*

| | |
|---|---|
| Synopsis | Router name or VPRN service name |
| Context | ping router-instance *(reference \| reference)* |
| Tree | router-instance |
| Default | Base |
| Reference | **state router** *named-item-64*<br>**state service vprn** *service-name* |
| Notes | The following elements are part of a mandatory choice: (**destination**, **router-instance**, and **source-address**) or (**color**, **endpoint**, **segment-list**, and **srv6-policy**). |
| Introduced | 19.10.R1 |
| Platforms | All |

### **segment-list** *number*

| | |
|---|---|
| Synopsis | Segment Routing IPv6 segment list to be pinged |
| Context | ping segment-list *number* |
| Tree | segment-list |
| Range | 1 to 32 |
| Notes | The following elements are part of a mandatory choice: (**destination**, **router-instance**, and **source-address**) or (**color**, **endpoint**, **segment-list**, and **srv6-policy**). |
| Introduced | 23.7.R1 |
| Platforms | All |


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### **size** *number*

| | |
|---|---|
| Synopsis | Request packet size including ICMP header and payload |
| Context | ping size *number* |
| Tree | size |
| Range | 0 to 16384 |
| Units | bytes |
| Default | 56 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **source-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source IP address used in the ICMP Echo Request packet |
| Context | ping source-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | source-address |
| Notes | The following elements are part of a mandatory choice: (**destination**, **router-instance**, and **source-address**) or (**color**, **endpoint**, **segment-list**, and **srv6-policy**). |
| Introduced | 19.10.R1 |
| Platforms | All |

### **srv6-policy**

| | |
|---|---|
| Synopsis | Ping a Segment Routing IPv6 policy |
| Context | ping srv6-policy |
| Tree | srv6-policy |
| Notes | The following elements are part of a mandatory choice: (**destination**, **router-instance**, and **source-address**) or (**color**, **endpoint**, **segment-list**, and **srv6-policy**). |
| Introduced | 23.7.R1 |
| Platforms | All |

### **subscriber** *subscriber-id*

| | |
|---|---|
| Synopsis | Subscriber ID for sending ICMP Echo Request packets |
| Context | ping subscriber *subscriber-id* |


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| | |
|---|---|
| Tree | subscriber |
| String length | 1 to 64 |
| Notes | The following elements are part of a choice: **bypass-routing**, **interface**, **next-hop-address**, or **subscriber**. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **timeout** *number*

| | |
|---|---|
| Synopsis | Wait time for the ICMP Echo Reply packet |
| Context | ping timeout *number* |
| Tree | timeout |
| Description | This command specifies the time to wait for the ICMP Echo Reply packet. The timer is started when the last ICMP Echo Request is sent. |
| Range | 1 to 10 |
| Units | seconds |
| Default | 5 |
| Introduced | 19.10.R2 |
| Platforms | All |

### **tos** *number*

| | |
|---|---|
| Synopsis | Type of Service (ToS) bits in the IP header |
| Context | ping tos *number* |
| Tree | tos |
| Range | 0 to 255 |
| Default | 0 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **ttl** *number*

| | |
|---|---|
| Synopsis | Time to Live (TTL) included in the request packet |
| Context | ping ttl *number* |
| Tree | ttl |


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| | |
|---|---|
| Range | 1 to 128 |
| Default | 64 |
| Introduced | 19.10.R1 |
| Platforms | All |

## pwc

| | |
|---|---|
| Synopsis | Show the present working context |
| Context | pwc |
| Tree | pwc |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**path-type**] *keyword*

| | |
|---|---|
| Synopsis | Alternative format to display the path |
| Context | pwc [path-type] *keyword* |
| Tree | [path-type] |
| Description | This command provides alternative formats to display the present working context.<br>The **gnmi-path** option replaces the **xpath** option. |
| Options | model-path – YANG-modeled format for RESTCONF<br>gnmi-path – gNMI format for streaming telemetry<br>cli-path – MD-CLI format on a single line for copying and pasting<br>json-instance-path – YANG-modeled format for pySROS |
| Introduced | 19.10.R1 |
| Platforms | All |

## previous

| | |
|---|---|
| Synopsis | Display previous working context |
| Context | pwc previous |
| Tree | previous |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **pyexec** [url] *(string | string)*

| | |
|---|---|
| Synopsis | Execute a Python application |
| Context | pyexec *(string | string)* |
| Tree | pyexec |
| Introduced | 21.7.R1 |
| Platforms | All |

### [**url**] *(string | string)*

| | |
|---|---|
| Synopsis | Location of the script to be executed |
| Context | pyexec *(string | string)* |
| Tree | pyexec |
| Notes | This element is part of a list key. |
| Introduced | 21.7.R1 |
| Platforms | All |

### [**argument-01**] *string*

| | |
|---|---|
| Synopsis | First argument |
| Context | pyexec *(string | string)* [argument-01] *string* |
| Tree | [argument-01] |
| Introduced | 21.7.R1 |
| Platforms | All |

### [**argument-02**] *string*

| | |
|---|---|
| Synopsis | Second argument |
| Context | pyexec *(string | string)* [argument-02] *string* |
| Tree | [argument-02] |
| Introduced | 21.7.R1 |
| Platforms | All |


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### [**argument-03**] *string*

| | |
|---|---|
| Synopsis | Third argument |
| Context | pyexec *(string* \| *string)* [argument-03] *string* |
| Tree | [argument-03] |
| Introduced | 21.7.R1 |
| Platforms | All |

### [**argument-04**] *string*

| | |
|---|---|
| Synopsis | Fourth argument |
| Context | pyexec *(string* \| *string)* [argument-04] *string* |
| Tree | [argument-04] |
| Introduced | 21.7.R1 |
| Platforms | All |

### [**argument-05**] *string*

| | |
|---|---|
| Synopsis | Fifth argument |
| Context | pyexec *(string* \| *string)* [argument-05] *string* |
| Tree | [argument-05] |
| Introduced | 21.7.R1 |
| Platforms | All |

### [**argument-06**] *string*

| | |
|---|---|
| Synopsis | Sixth argument |
| Context | pyexec *(string* \| *string)* [argument-06] *string* |
| Tree | [argument-06] |
| Introduced | 21.7.R1 |
| Platforms | All |

### [**argument-07**] *string*

| | |
|---|---|
| Synopsis | Seventh argument |


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| | |
|---|---|
| Context | pyexec *(string* \| *string)* [argument-07] *string* |
| Tree | [argument-07] |
| Introduced | 21.7.R1 |
| Platforms | All |

### [**argument-08**] *string*

| | |
|---|---|
| Synopsis | Eight argument |
| Context | pyexec *(string* \| *string)* [argument-08] *string* |
| Tree | [argument-08] |
| Introduced | 21.7.R1 |
| Platforms | All |

### [**argument-09**] *string*

| | |
|---|---|
| Synopsis | Ninth argument |
| Context | pyexec *(string* \| *string)* [argument-09] *string* |
| Tree | [argument-09] |
| Introduced | 21.7.R1 |
| Platforms | All |

### [**argument-10**] *string*

| | |
|---|---|
| Synopsis | Tenth argument |
| Context | pyexec *(string* \| *string)* [argument-10] *string* |
| Tree | [argument-10] |
| Introduced | 21.7.R1 |
| Platforms | All |

## quit-config

| | |
|---|---|
| Synopsis | Exit the candidate configuration mode |
| Context | quit-config |
| Tree | quit-config |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## ssh

| | |
|---|---|
| Synopsis | SSH to an IP address or DNS name |
| Context | ssh |
| Tree | ssh |
| Introduced | 20.7.R1 |
| Platforms | All |

## [**destination**] *(ipv4-address-with-zone | ipv6-address-with-zone | string-not-all-spaces)*

| | |
|---|---|
| Synopsis | Destination IP address or DNS name |
| Context | ssh [destination] *(ipv4-address-with-zone \| ipv6-address-with-zone \| string-not-all-spaces)* |
| Tree | [destination] |
| String length | 1 to 128 |
| Notes | This element is mandatory. |
| Introduced | 20.7.R1 |
| Platforms | All |

## key-re-exchange

| | |
|---|---|
| Synopsis | Enter the **key-re-exchange** context |
| Context | ssh key-re-exchange |
| Tree | key-re-exchange |
| Introduced | 20.7.R1 |
| Platforms | All |

## mbytes *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum bytes before initiating key re-exchange |
| Context | ssh key-re-exchange mbytes *(number \| keyword)* |
| Tree | mbytes |
| Description | This command specifies the number of bytes transmitted on an SSH session, after which the SSH client initiates the key re-exchange. |


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| | |
|---|---|
| Range | 1 to 64000 |
| Units | megabytes |
| Options | infinite |
| Default | 1024 |
| Introduced | 20.7.R1 |
| Platforms | All |

### **minutes** *(number | keyword)*

| | |
|---|---|
| Synopsis | Time after which SSH client initiates key re-exchange |
| Context | ssh key-re-exchange minutes *(number | keyword)* |
| Tree | minutes |
| Range | 1 to 1440 |
| Units | minutes |
| Options | infinite |
| Default | 60 |
| Introduced | 20.7.R1 |
| Platforms | All |

### **login-name** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | SSH login username |
| Context | ssh login-name *string-not-all-spaces* |
| Tree | login-name |
| String length | 1 to 32 |
| Introduced | 20.7.R1 |
| Platforms | All |

### **port** *number*

| | |
|---|---|
| Synopsis | TCP listening port on SSH client for SSH session |
| Context | ssh port *number* |
| Tree | port |
| Description | This command configures the listening port for the SR OS SSH client to establish the SSH session with the SSH server. |


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| | |
|---|---|
| Range | 1 to 65535 |
| Default | 22 |
| Introduced | 24.7.R1 |
| Platforms | All |

### **private-key-file** *string*

| | |
|---|---|
| Synopsis | SSH private key file for public-key authentication |
| Context | ssh private-key-file *string* |
| Tree | private-key-file |
| Description | This command configures the name of the file containing the private key for public-key authentication on the SR OS SSH client, up to 255 characters. (The public key must be provided to the SSH server.) If the file containing the private key is encrypted, the system asks for the password to decrypt the file. |
| Introduced | 24.7.R1 |
| Platforms | All |

### **router-instance** *(string | string)*

| | |
|---|---|
| Synopsis | Router name or VPRN service name |
| Context | ssh router-instance *(string | string)* |
| Tree | router-instance |
| Default | Base |
| Introduced | 20.7.R1 |
| Platforms | All |

### **telnet**

| | |
|---|---|
| Synopsis | Telnet to an IP address or DNS name |
| Context | telnet |
| Tree | telnet |
| Description | This command opens a Telnet session to a remote host. In SR OS, the Telnet servers limit Telnet clients to three login attempts; if unsuccessful, the Telnet client session disconnects. The number is not user configurable. |
| Introduced | 20.7.R1 |
| Platforms | All |


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### [**destination**] *(ipv4-address-with-zone | ipv6-address-with-zone | string-not-all-spaces)*

| | |
|---|---|
| Synopsis | Destination IP address or DNS name |
| Context | telnet [destination] *(ipv4-address-with-zone \| ipv6-address-with-zone \| string-not-all-spaces)* |
| Tree | [destination] |
| Description | This command specifies the IP address or DNS name (if DNS name resolution is configured) of the remote host for the Telnet session. |
| String length | 1 to 128 |
| Notes | This element is mandatory. |
| Introduced | 20.7.R1 |
| Platforms | All |

### **port** *number*

| | |
|---|---|
| Synopsis | Remote host TCP port for the Telnet connection |
| Context | telnet port *number* |
| Tree | port |
| Range | 1 to 65535 |
| Default | 23 |
| Introduced | 20.7.R1 |
| Platforms | All |

### **router-instance** *(string | string)*

| | |
|---|---|
| Synopsis | Router name or VPRN service name |
| Context | telnet router-instance *(string \| string)* |
| Tree | router-instance |
| Default | Base |
| Introduced | 20.7.R1 |
| Platforms | All |

### **source-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source IP address of the Telnet packets |


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| | |
|---|---|
| Context | telnet source-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | source-address |
| Introduced | 20.7.R1 |
| Platforms | All |

## top

| | |
|---|---|
| Synopsis | Move to the top level of the context |
| Context | top |
| Tree | top |
| Introduced | 16.0.R1 |
| Platforms | All |

## traceroute

| | |
|---|---|
| Synopsis | Show the route taken to an IP address or DNS name |
| Context | traceroute |
| Tree | traceroute |
| Introduced | 19.10.R1 |
| Platforms | All |

## candidate-path

| | |
|---|---|
| Synopsis | Trace route of the candidate path of the SRv6 policy |
| Context | traceroute candidate-path |
| Tree | candidate-path |
| Description | When configured, this command allows the user to specify a candidate path of the SRv6 policy to traceroute. The candidate path does not need to be the currently active candidate path. |
| Introduced | 23.10.R1 |
| Platforms | All |

## color *number*

| | |
|---|---|
| Synopsis | Color ID of the SRv6 policy to trace |
| Context | traceroute color *number* |


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| | |
|---|---|
| Tree | color |
| Description | This command launches a traceroute of an SRv6 policy that matches a specific color. |
| Max. range | 0 to 4294967295 |
| Notes | The following elements are part of a mandatory choice: (**destination**, **router-instance**, and **source-address**) or (**color**, **endpoint**, **segment-list**, and **srv6-policy**). |
| Introduced | 23.3.R1 |
| Platforms | All |

### **decode** *keyword*

| | |
|---|---|
| Synopsis | Perform original datagram parsing functions |
| Context | traceroute decode *keyword* |
| Tree | decode |
| Options | none, original-datagram |
| Default | none |
| Introduced | 22.7.R1 |
| Platforms | All |

### **dest-port** *number*

| | |
|---|---|
| Synopsis | Transport protocol destination port number |
| Context | traceroute dest-port *number* |
| Tree | dest-port |
| Range | 1 to 65535 |
| Default | 33434 |
| Introduced | 20.10.R1 |
| Platforms | All |

### **dest-port-udp-fixed**

| | |
|---|---|
| Synopsis | Avoid increment of destination port number for UDP test |
| Context | traceroute dest-port-udp-fixed |
| Tree | dest-port-udp-fixed |
| Introduced | 21.10.R1 |
| Platforms | All |


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### [**destination**] *(ipv4-address-no-zone | ipv6-address-no-zone | string-not-all-spaces)*

| | |
|---|---|
| Synopsis | Destination IP address or DNS name |
| Context | traceroute [destination] *(ipv4-address-no-zone \| ipv6-address-no-zone \| string-not-all-spaces)* |
| Tree | [destination] |
| String length | 1 to 128 |
| Notes | The following elements are part of a mandatory choice: (**destination**, **router-instance**, and **source-address**) or (**color**, **endpoint**, **segment-list**, and **srv6-policy**). |
| Introduced | 19.10.R1 |
| Platforms | All |

### **detail**

| | |
|---|---|
| Synopsis | Display MPLS label stack information or TCP port status |
| Context | traceroute detail |
| Tree | detail |
| Introduced | 19.10.R1 |
| Platforms | All |

### **distinguisher** *number*

| | |
|---|---|
| Synopsis | SRv6 policy candidate path distinguisher |
| Context | traceroute distinguisher *number* |
| Tree | distinguisher |
| Description | This command specifies the distinguisher of the SRv6 policy candidate path to send the traceroute probe on.<br>This command must be configured if the **protocol-owner** command is configured to **bgp**. |
| Range | 1 to 4294967295 |
| Introduced | 23.10.R1 |
| Platforms | All |

### **endpoint** *ipv6-unicast-or-zero-address*

| | |
|---|---|
| Synopsis | Endpoint of the SRv6 policy to trace |


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| | |
|---|---|
| Context | traceroute endpoint *ipv6-unicast-or-zero-address* |
| Tree | endpoint |
| Description | This command configures an IPv6 endpoint address for an SRv6 policy as the target of the traceroute. |
| Notes | The following elements are part of a mandatory choice: (**destination**, **router-instance**, and **source-address**) or (**color**, **endpoint**, **segment-list**, and **srv6-policy**). |
| Introduced | 23.3.R1 |
| Platforms | All |

### **min-ttl** *number*

| | |
|---|---|
| Synopsis | First hop traceroute probes using the TTL value |
| Context | traceroute min-ttl *number* |
| Tree | min-ttl |
| Description | This command specifies the first hop traceroute probes, using the **ttl** value. |
| Range | 1 to 255 |
| Default | 1 |
| Introduced | 21.10.R1 |
| Platforms | All |

### **numeric**

| | |
|---|---|
| Synopsis | Display IP addresses instead of DNS names |
| Context | traceroute numeric |
| Tree | numeric |
| Introduced | 19.10.R1 |
| Platforms | All |

### **preference** *number*

| | |
|---|---|
| Synopsis | SRv6 policy candidate path preference |
| Context | traceroute preference *number* |
| Tree | preference |
| Description | This command specifies the preference of the SRv6 policy candidate path to send the traceroute probe on. |


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| | |
|---|---|
| Max. range | 0 to 4294967295 |
| Default | 100 |
| Introduced | 23.10.R1 |
| Platforms | All |

### **probe-count** *number*

| | |
|---|---|
| Synopsis | Number of probes to send per hop |
| Context | traceroute probe-count *number* |
| Tree | probe-count |
| Range | 1 to 10 |
| Default | 3 |
| Introduced | 20.10.R1 |
| Platforms | All |

### **protocol** *keyword*

| | |
|---|---|
| Synopsis | Packet type to send |
| Context | traceroute protocol *keyword* |
| Tree | protocol |
| Description | This command sets the transport protocol, UDP or TCP, for the traceroute packet. A targeted VPRN service silently discards TCP traceroutes and only responds to UDP traceroutes. |
| Options | udp, tcp |
| Default | udp |
| Introduced | 21.10.R1 |
| Platforms | All |

### **protocol-owner** *keyword*

| | |
|---|---|
| Synopsis | Protocol owner |
| Context | traceroute protocol-owner *keyword* |
| Tree | protocol-owner |
| Description | This command specifies the protocol owner of the SRv6 policy candidate path to traceroute.<br>The **bgp** option specifies a BGP SRv6 policy. |


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The **static** option specifies a locally configured static SRv6 policy.

| | |
|---|---|
| Options | bgp, static |
| Introduced | 23.10.R1 |
| Platforms | All |

### **router-instance** *string*

| | |
|---|---|
| Synopsis | Router name or VPRN service name |
| Context | traceroute router-instance *string* |
| Tree | router-instance |
| Default | Base |
| Notes | The following elements are part of a mandatory choice: (**destination**, **router-instance**, and **source-address**) or (**color**, **endpoint**, **segment-list**, and **srv6-policy**). |
| Introduced | 19.10.R1 |
| Platforms | All |

### **segment-list** *number*

| | |
|---|---|
| Synopsis | SR IPv6 segment list to trace |
| Context | traceroute segment-list *number* |
| Tree | segment-list |
| Description | This command configures the traceroute probe to target a specific segment list of an SRv6 policy. When the segment list is not specified, the traceroute probe is sent on the lowest available segment list. |
| Range | 1 to 32 |
| Notes | The following elements are part of a mandatory choice: (**destination**, **router-instance**, and **source-address**) or (**color**, **endpoint**, **segment-list**, and **srv6-policy**). |
| Introduced | 23.3.R1 |
| Platforms | All |

### **size** *number*

| | |
|---|---|
| Synopsis | Number of pad bytes in each transmitted packet |
| Context | traceroute size *number* |
| Tree | size |
| Range | 0 to 9786 |


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| | |
|---|---|
| Units | bytes |
| Default | 0 |
| Introduced | 21.10.R1 |
| Platforms | All |

### **source-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source address of the probe packets |
| Context | traceroute source-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | source-address |
| Description | This command specifies the source address of the probe packets. If the IP address is not one of the interfaces of the device, the system returns an error. |
| Notes | The following elements are part of a mandatory choice: (**destination**, **router-instance**, and **source-address**) or (**color**, **endpoint**, **segment-list**, and **srv6-policy**). |
| Introduced | 19.10.R1 |
| Platforms | All |

### **srv6-policy**

| | |
|---|---|
| Synopsis | Trace an SRv6 policy |
| Context | traceroute srv6-policy |
| Tree | srv6-policy |
| Description | This command launches a traceroute of a Segment Routing IPv6 (SRv6) policy. |
| Notes | The following elements are part of a mandatory choice: (**destination**, **router-instance**, and **source-address**) or (**color**, **endpoint**, **segment-list**, and **srv6-policy**). |
| Introduced | 23.3.R1 |
| Platforms | All |

### **tos** *number*

| | |
|---|---|
| Synopsis | Type of Service (ToS) bits in the IP header |
| Context | traceroute tos *number* |
| Tree | tos |
| Range | 0 to 255 |
| Default | 0 |


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| | |
|---|---|
| Introduced | 19.10.R1 |
| Platforms | All |

### **ttl** *number*

| | |
|---|---|
| Synopsis | Maximum number of hops (TTL) to probe |
| Context | traceroute ttl *number* |
| Tree | ttl |
| Range | 1 to 255 |
| Default | 30 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **wait** *number*

| | |
|---|---|
| Synopsis | Time to wait for a response to the probe |
| Context | traceroute wait *number* |
| Tree | wait |
| Range | 10 to 60000 |
| Units | milliseconds |
| Default | 5000 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **tree**

| | |
|---|---|
| Synopsis | Show the command tree under the present working context |
| Context | tree |
| Tree | tree |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**cli-path**] *cli-path-type*

| | |
|---|---|
| Synopsis | Absolute path or relative path from pwc |


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| | |
|---|---|
| Context | tree [cli-path] *cli-path-type* |
| Tree | [cli-path] |
| Introduced | 20.10.R1 |
| Platforms | All |

## detail

| | |
|---|---|
| Synopsis | Display the tree with keys and field values |
| Context | tree detail |
| Tree | detail |
| Notes | The following elements are part of a choice: (**detail** and **flat**) or **path-format**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## flat

| | |
|---|---|
| Synopsis | Show the context from the pwc on each line |
| Context | tree flat |
| Tree | flat |
| Notes | The following elements are part of a choice: (**detail** and **flat**) or **path-format**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**path-format**] *keyword*

| | |
|---|---|
| Synopsis | Alternative format to display the path |
| Context | tree [path-format] *keyword* |
| Tree | [path-format] |
| Description | This option outputs the tree information in alternative YANG formats for use in external tools, such as pySROS, gNMI, or the Network Services Platform (NSP). |
| Options | model-path – YANG-modeled format for RESTCONF<br>gnmi-path – gNMI format for streaming telemetry<br>json-instance-path – YANG-modeled format for pySROS |
| Notes | The following elements are part of a choice: (**detail** and **flat**) or **path-format**. |
| Introduced | 24.7.R1 |


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| | |
|---|---|
| Platforms | All |

## vmhost

| | |
|---|---|
| Synopsis | Connect to kernel of VM host |
| Context | vmhost |
| Tree | vmhost |
| Introduced | 23.10.R1 |
| Platforms | All |


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## 2.5 Output modifier commands

See “Using output modifiers in the MD-CLI” in the *7450 ESS, 7750 SR, 7950 XRS, and VSR MD-CLI User Guide* for more information.

```
- |
  - count
  - match string
    - ignore-case boolean
    - invert-match boolean
    - max-count number
    - post-lines number
    - pre-lines number
  - no-more
  - pyexec (string | reference)
    - [argument-01] string
    - [argument-02] string
    - [argument-03] string
    - [argument-04] string
    - [argument-05] string
    - [argument-06] string
    - [argument-07] string
    - [argument-08] string
    - [argument-09] string
    - [argument-10] string
  - repeat
    - count number
    - [interval] number
    - timestamp
  - reverse-dns
- > (cflash-url | ftp-tftp-url)
- >> cflash-url
```


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### 2.5.1 Output modifier command descriptions

#### |

| | |
|---|---|
| Synopsis | Apply an output modifier |
| Context | \| |
| Tree | \| |
| Introduced | 16.0.R1 |
| Platforms | All |

#### count

| | |
|---|---|
| Synopsis | Show the line count of the output |
| Context | \| count |
| Tree | count |
| Introduced | 16.0.R1 |
| Platforms | All |

#### **match** [pattern] *string*

| | |
|---|---|
| Synopsis | Match on a string (") or regular expression (') |
| Context | \| match *string* |
| Tree | match |
| Introduced | 16.0.R1 |
| Platforms | All |

#### [**pattern**] *string*

| | |
|---|---|
| Synopsis | String (") or regular expression (') pattern to match |
| Context | \| match *string* |
| Tree | match |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **ignore-case** *boolean*

| | |
|---|---|
| Synopsis | Ignore case in pattern match |
| Context | \| match *string* ignore-case *boolean* |
| Tree | ignore-case |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **invert-match** *boolean*

| | |
|---|---|
| Synopsis | Invert the pattern match selection |
| Context | \| match *string* invert-match *boolean* |
| Tree | invert-match |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **max-count** *number*

| | |
|---|---|
| Synopsis | Maximum number of displayed matches |
| Context | \| match *string* max-count *number* |
| Tree | max-count |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **post-lines** *number*

| | |
|---|---|
| Synopsis | Number of lines to display following the matched line |
| Context | \| match *string* post-lines *number* |
| Tree | post-lines |
| Range | 0 to 4294967295 |
| Default | 0 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **pre-lines** *number*

| | |
|---|---|
| Synopsis | Number of lines to display preceding the matched line |
| Context | \| match *string* pre-lines *number* |
| Tree | pre-lines |
| Range | 0 to 4294967295 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **no-more**

| | |
|---|---|
| Synopsis | Prevent pagination for the displayed output |
| Context | \| no-more |
| Tree | no-more |
| Introduced | 16.0.R1 |
| Platforms | All |

### **pyexec** [url] *(string* | *reference)*

| | |
|---|---|
| Synopsis | Execute a Python application |
| Context | \| pyexec *(string* \| *reference)* |
| Tree | pyexec |
| Introduced | 21.7.R1 |
| Platforms | All |

### [**url**] *(string* | *reference)*

| | |
|---|---|
| Synopsis | Location of the script to be executed |
| Context | \| pyexec *(string* \| *reference)* |
| Tree | pyexec |
| Reference | **state python python-script name** |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 21.7.R1 |
| Platforms | All |

### [**argument-01**] *string*

| | |
|---|---|
| Synopsis | First argument |
| Context | \| pyexec *(string* \| *reference)* [argument-01] *string* |
| Tree | [argument-01] |
| Introduced | 21.7.R1 |
| Platforms | All |

### [**argument-02**] *string*

| | |
|---|---|
| Synopsis | Second argument |
| Context | \| pyexec *(string* \| *reference)* [argument-02] *string* |
| Tree | [argument-02] |
| Introduced | 21.7.R1 |
| Platforms | All |

### [**argument-03**] *string*

| | |
|---|---|
| Synopsis | Third argument |
| Context | \| pyexec *(string* \| *reference)* [argument-03] *string* |
| Tree | [argument-03] |
| Introduced | 21.7.R1 |
| Platforms | All |

### [**argument-04**] *string*

| | |
|---|---|
| Synopsis | Fourth argument |
| Context | \| pyexec *(string* \| *reference)* [argument-04] *string* |
| Tree | [argument-04] |
| Introduced | 21.7.R1 |
| Platforms | All |


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### [**argument-05**] *string*

| | |
|---|---|
| Synopsis | Fifth argument |
| Context | \| pyexec *(string* \| *reference)* [argument-05] *string* |
| Tree | [argument-05] |
| Introduced | 21.7.R1 |
| Platforms | All |

### [**argument-06**] *string*

| | |
|---|---|
| Synopsis | Sixth argument |
| Context | \| pyexec *(string* \| *reference)* [argument-06] *string* |
| Tree | [argument-06] |
| Introduced | 21.7.R1 |
| Platforms | All |

### [**argument-07**] *string*

| | |
|---|---|
| Synopsis | Seventh argument |
| Context | \| pyexec *(string* \| *reference)* [argument-07] *string* |
| Tree | [argument-07] |
| Introduced | 21.7.R1 |
| Platforms | All |

### [**argument-08**] *string*

| | |
|---|---|
| Synopsis | Eight argument |
| Context | \| pyexec *(string* \| *reference)* [argument-08] *string* |
| Tree | [argument-08] |
| Introduced | 21.7.R1 |
| Platforms | All |

### [**argument-09**] *string*

| | |
|---|---|
| Synopsis | Ninth argument |


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| | |
|---|---|
| Context | \| pyexec *(string* \| *reference)* [argument-09] *string* |
| Tree | [argument-09] |
| Introduced | 21.7.R1 |
| Platforms | All |

### [**argument-10**] *string*

| | |
|---|---|
| Synopsis | Tenth argument |
| Context | \| pyexec *(string* \| *reference)* [argument-10] *string* |
| Tree | [argument-10] |
| Introduced | 21.7.R1 |
| Platforms | All |

### **repeat**

| | |
|---|---|
| Synopsis | Repeat the command |
| Context | \| repeat |
| Tree | repeat |
| Description | Commands in this context configure the command to repeat. |
| Introduced | 24.10.R1 |
| Platforms | All |

### **count** *number*

| | |
|---|---|
| Synopsis | Command repetition count |
| Context | \| repeat count *number* |
| Tree | count |
| Range | 1 to 65535 |
| Introduced | 24.10.R1 |
| Platforms | All |

### [**interval**] *number*

| | |
|---|---|
| Synopsis | Command repetition interval |
| Context | \| repeat [interval] *number* |


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| | |
|---|---|
| Tree | [interval] |
| Description | This command configures the command repetition interval. If this command is not specified, the command repeats until interrupted with Ctrl-C. |
| Range | 10 to 86400000 |
| Units | milliseconds |
| Default | 1000 |
| Introduced | 24.10.R1 |
| Platforms | All |

### timestamp

| | |
|---|---|
| Synopsis | Display the timestamp before each repetition |
| Context | \| repeat timestamp |
| Tree | timestamp |
| Introduced | 24.10.R1 |
| Platforms | All |

### reverse-dns

| | |
|---|---|
| Synopsis | Resolve IP addresses to DNS names in input |
| Context | \| reverse-dns |
| Tree | reverse-dns |
| Introduced | 22.7.R1 |
| Platforms | All |

### **>** [url] *(cflash-url | ftp-tftp-url)*

| | |
|---|---|
| Synopsis | Redirect output to a file |
| Context | > *(cflash-url \| ftp-tftp-url)* |
| Tree | > |
| Introduced | 16.0.R4 |
| Platforms | All |


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### [**url**] *(cflash-url | ftp-tftp-url)*

| | |
|---|---|
| Synopsis | Location to save the output |
| Context | > *(cflash-url \| ftp-tftp-url)* |
| Tree | > |
| String length | 1 to 199 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **>>** [url] *cflash-url*

| | |
|---|---|
| Synopsis | Append output to a local file |
| Context | >> *cflash-url* |
| Tree | >> |
| Introduced | 24.7.R1 |
| Platforms | All |

### [**url**] *cflash-url*

| | |
|---|---|
| Synopsis | Local location to append the output |
| Context | >> *cflash-url* |
| Tree | >> |
| String length | 1 to 199 |
| Notes | This element is part of a list key. |
| Introduced | 24.7.R1 |
| Platforms | All |


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## 2.6 perform commands

The **perform** commands are YANG-modeled versions of the **tools perform** commands and are available in MD-CLI and NETCONF interfaces. The **perform** commands execute actions in the router, such as:

- force a LAG subgroup to become active
- set an IS-IS overload condition
- terminate a Python script

```
perform
   –  application-assurance
      –  aarp reference
         –  force-evaluate
            –  [force-evaluate]
      –  group reference
         –  load-balance
            –  service-id number
         –  partition reference
            –  aa-sub
               –  esm
                  –  clear-quarantine
                  –  quarantine
                  –  [sub-ident-string] named-item
               –  esm-mac
                  –  clear-quarantine
                  –  [esm-mac-name] named-item
                  –  quarantine
               –  sap
                  –  clear-quarantine
                  –  quarantine
                  –  [sap-id] sap
               –  spoke-sdp
                  –  clear-quarantine
                  –  quarantine
                  –  [sdp-bind-id] sdp-bind-id
               –  transit
                  –  clear-quarantine
                  –  quarantine
                  –  [transit-aasub-name] named-item
            –  tethering
               –  [clear-counters]
   –  card number
      –  power-cycle
   –  chassis reference chassis-number reference
      –  check-backplane-eprom
      –  link-check
   –  filter
      –  ip-filter reference
         –  entry reference
            –  activate-primary-action
      –  ipv6-filter reference
         –  entry reference
            –  activate-primary-action
      –  mac-filter reference
         –  entry reference
            –  activate-primary-action
      –  redirect-policy reference
         –  activate-best-dest
   –  lag
      –  clear-force
```


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perform lag clear-force lag

```
        - lag
          - [lag-name] reference
          - sub-group number
        - multi-chassis
          - all
          - peer
            - [ip-address] reference
    - force-active
        - lag
          - [lag-name] reference
          - sub-group number
        - multi-chassis
          - all
          - peer
            - [ip-address] reference
    - force-standby
        - lag
          - [lag-name] reference
          - sub-group number
        - multi-chassis
          - all
          - peer
            - [ip-address] reference
    - load-balance
        - class number
        - [lag-name] reference
  - log
    - custom-event
        - [event-number] number
        - message-string string
        - parameter1 string
        - parameter2 string
        - parameter3 string
        - parameter4 string
        - parameter5 string
        - parameter6 string
        - parameter7 string
        - parameter8 string
        - subject string
    - test-event
        - custom-text string
  - python
    - python-policy
        - cache
          - policy
            - hex-key hex-string
            - [name] reference
            - set-lifetime number
            - string-key string
    - python-script
        - protect
          - hmac-sha256-key string
          - input-file string
          - output-file string
        - reload
          - script
            - [name] reference
  - router string
    - isis reference
        - ldp-sync-exit
        - overload
          - max-metric boolean
          - [seconds] number
        - run-manual-spf
```


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perform router mcast-umh-red

```
      –  mcast-umh-red
         –  show
            –  pair
               –  card number
               –  pair-id number
               –  summary
      –  pim
         –  mc-ecmp-rebalance
            –  threshold number
         –  show
            –  iom-failures
               –  detail boolean
   –  system
      –  script-control
         –  script-policy
            –  stop
               –  all
               –  owner reference
               –  policy-name reference
      –  security
         –  secure-boot
            –  show
               –  uefi-variables
                  –  card reference
      –  ssh
         –  generate-keypair
            –  ecdsa-curve keyword
            –  ed25519
            –  rsa-key-size number
            –  [save-path] cflash-url
```


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## 2.6.1 perform command descriptions

### perform

| | |
|---|---|
| Synopsis | Perform troubleshooting and debugging |
| Context | perform |
| Tree | perform |
| Introduced | 23.7.R1 |
| Platforms | All |

### application-assurance

| | |
|---|---|
| Synopsis | Enter the application-assurance context |
| Context | perform application-assurance |
| Tree | application-assurance |
| Description | Commands in this context perform Application Assurance (AA) operations. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **aarp** [aarp-id] *reference*

| | |
|---|---|
| Synopsis | Enter the aarp list instance |
| Context | perform application-assurance aarp *reference* |
| Tree | aarp |
| Description | Commands in this context perform Application Assurance Redundancy Protocol (AARP) instance operations. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**aarp-id**] *reference*

| | |
|---|---|
| Synopsis | AARP ID |
| Context | perform application-assurance aarp *reference* |
| Tree | aarp |
| Reference | **state application-assurance aarp** *number* |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### force-evaluate

| | |
|---|---|
| Synopsis | Force an evaluation of the specific AARP instance |
| Context | perform application-assurance aarp *reference* force-evaluate |
| Tree | force-evaluate |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**force-evaluate**]

| | |
|---|---|
| Synopsis | Perform an AARP force-evaluate operation |
| Context | perform application-assurance aarp *reference* force-evaluate [force-evaluate] |
| Tree | [force-evaluate] |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **group** [aa-group-id] *reference*

| | |
|---|---|
| Synopsis | Enter the group list instance |
| Context | perform application-assurance group *reference* |
| Tree | group |
| Description | Commands in this context perform AA group operations. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**aa-group-id**] *reference*

| | |
|---|---|
| Synopsis | AA group ID |
| Context | perform application-assurance group *reference* |
| Tree | group |
| Reference | **state application-assurance group** *number* |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### load-balance

| | |
|---|---|
| Synopsis | Load balance subscribers across ISAs in the group |
| Context | perform application-assurance group *reference* load-balance |
| Tree | load-balance |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### service-id *number*

| | |
|---|---|
| Synopsis | Service ID |
| Context | perform application-assurance group *reference* load-balance service-id *number* |
| Tree | service-id |
| Range | 1 to 4294967295 |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### partition [aa-partition-id] *reference*

| | |
|---|---|
| Synopsis | Enter the partition list instance |
| Context | perform application-assurance group *reference* partition *reference* |
| Tree | partition |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [aa-partition-id] *reference*

| | |
|---|---|
| Synopsis | AA partition ID |
| Context | perform application-assurance group *reference* partition *reference* |
| Tree | partition |
| Reference | **state application-assurance group** *number* **partition** *number* |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## aa-sub

| | |
|---|---|
| Synopsis | Enter the aa-sub context |
| Context | perform application-assurance group *reference* partition *reference* aa-sub |
| Tree | aa-sub |
| Description | Commands in this context perform group AA subscriber operations. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## esm

| | |
|---|---|
| Synopsis | Perform AA operations on an ESM subscriber |
| Context | perform application-assurance group *reference* partition *reference* aa-sub esm |
| Tree | esm |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## clear-quarantine

| | |
|---|---|
| Synopsis | Remove a subscriber from quarantine |
| Context | perform application-assurance group *reference* partition *reference* aa-sub esm clear-quarantine |
| Tree | clear-quarantine |
| Notes | The following elements are part of a choice: **clear-quarantine** or **quarantine**. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## quarantine

| | |
|---|---|
| Synopsis | Quarantine a subscriber |
| Context | perform application-assurance group *reference* partition *reference* aa-sub esm quarantine |


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| | |
|---|---|
| Tree | quarantine |
| Notes | The following elements are part of a choice: **clear-quarantine** or **quarantine**. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**sub-ident-string**] *named-item*

| | |
|---|---|
| Synopsis | Subscriber ID |
| Context | perform application-assurance group *reference* partition *reference* aa-sub esm [sub-ident-string] *named-item* |
| Tree | [sub-ident-string] |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### esm-mac

| | |
|---|---|
| Synopsis | Perform AA actions on an ESM-MAC subscriber |
| Context | perform application-assurance group *reference* partition *reference* aa-sub esm-mac |
| Tree | esm-mac |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### clear-quarantine

| | |
|---|---|
| Synopsis | Remove a subscriber from quarantine |
| Context | perform application-assurance group *reference* partition *reference* aa-sub esm-mac clear-quarantine |
| Tree | clear-quarantine |
| Notes | The following elements are part of a choice: **clear-quarantine** or **quarantine**. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### [**esm-mac-name**] *named-item*

| | |
|---|---|
| Synopsis | ESM-MAC name |
| Context | perform application-assurance group *reference* partition *reference* aa-sub esm-mac [esm-mac-name] *named-item* |
| Tree | [esm-mac-name] |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### quarantine

| | |
|---|---|
| Synopsis | Quarantine a subscriber |
| Context | perform application-assurance group *reference* partition *reference* aa-sub esm-mac quarantine |
| Tree | quarantine |
| Notes | The following elements are part of a choice: **clear-quarantine** or **quarantine**. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### sap

| | |
|---|---|
| Synopsis | Perform AA actions on a SAP |
| Context | perform application-assurance group *reference* partition *reference* aa-sub sap |
| Tree | sap |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### clear-quarantine

| | |
|---|---|
| Synopsis | Remove a subscriber from quarantine |
| Context | perform application-assurance group *reference* partition *reference* aa-sub sap clear-quarantine |
| Tree | clear-quarantine |
| Notes | The following elements are part of a choice: **clear-quarantine** or **quarantine**. |


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| | |
|---|---|
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## quarantine

| | |
|---|---|
| Synopsis | Quarantine a subscriber |
| Context | perform application-assurance group *reference* partition *reference* aa-sub sap quarantine |
| Tree | quarantine |
| Notes | The following elements are part of a choice: **clear-quarantine** or **quarantine**. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## [**sap-id**] *sap*

| | |
|---|---|
| Synopsis | SAP ID |
| Context | perform application-assurance group *reference* partition *reference* aa-sub sap [sap-id] *sap* |
| Tree | [sap-id] |
| String length | 1 to 45 |
| Notes | This element is mandatory. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## spoke-sdp

| | |
|---|---|
| Synopsis | Perform AA actions on a spoke SDP |
| Context | perform application-assurance group *reference* partition *reference* aa-sub spoke-sdp |
| Tree | spoke-sdp |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## clear-quarantine

| | |
|---|---|
| Synopsis | Remove a subscriber from quarantine |


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| | |
|---|---|
| Context | perform application-assurance group *reference* partition *reference* aa-sub spoke-sdp clear-quarantine |
| Tree | clear-quarantine |
| Notes | The following elements are part of a choice: **clear-quarantine** or **quarantine**. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## quarantine

| | |
|---|---|
| Synopsis | Quarantine a subscriber |
| Context | perform application-assurance group *reference* partition *reference* aa-sub spoke-sdp quarantine |
| Tree | quarantine |
| Notes | The following elements are part of a choice: **clear-quarantine** or **quarantine**. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## [**sdp-bind-id**] *sdp-bind-id*

| | |
|---|---|
| Synopsis | Spoke-SDP and VC ID |
| Context | perform application-assurance group *reference* partition *reference* aa-sub spoke-sdp [sdp-bind-id] *sdp-bind-id* |
| Tree | [sdp-bind-id] |
| String length | 3 to 16 |
| Notes | This element is mandatory. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## transit

| | |
|---|---|
| Synopsis | Perform AA actions on a transit subscriber |
| Context | perform application-assurance group *reference* partition *reference* aa-sub transit |
| Tree | transit |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### clear-quarantine

| | |
|---|---|
| Synopsis | Remove a subscriber from quarantine |
| Context | perform application-assurance group *reference* partition *reference* aa-sub transit clear-quarantine |
| Tree | clear-quarantine |
| Notes | The following elements are part of a choice: **clear-quarantine** or **quarantine**. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### quarantine

| | |
|---|---|
| Synopsis | Quarantine a subscriber |
| Context | perform application-assurance group *reference* partition *reference* aa-sub transit quarantine |
| Tree | quarantine |
| Notes | The following elements are part of a choice: **clear-quarantine** or **quarantine**. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**transit-aasub-name**] *named-item*

| | |
|---|---|
| Synopsis | Transit subscriber name |
| Context | perform application-assurance group *reference* partition *reference* aa-sub transit [transit-aasub-name] *named-item* |
| Tree | [transit-aasub-name] |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### tethering

| | |
|---|---|
| Synopsis | Perform AA actions on tethering statistics |
| Context | perform application-assurance group *reference* partition *reference* tethering |
| Tree | tethering |


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| | |
|---|---|
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**clear-counters**]

| | |
|---|---|
| Synopsis | Clear counters |
| Context | perform application-assurance group *reference* partition *reference* tethering [clear-counters] |
| Tree | [clear-counters] |
| Notes | This element is mandatory. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **card** [slot-number] *number*

| | |
|---|---|
| Synopsis | Enter the card list instance |
| Context | perform card *number* |
| Tree | card |
| Introduced | 24.10.R1 |
| Platforms | All |

### [**slot-number**] *number*

| | |
|---|---|
| Synopsis | Card slot number |
| Context | perform card *number* |
| Tree | card |
| Max. range | 0 to 4294967295 |
| Notes | This element is part of a list key. |
| Introduced | 24.10.R1 |
| Platforms | All |

### **power-cycle**

| | |
|---|---|
| Synopsis | Force a power cycle of a card |
| Context | perform card *number* power-cycle |


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| | |
|---|---|
| Tree | power-cycle |
| Introduced | 24.10.R1 |
| Platforms | All |

### **chassis** [chassis-class] *reference* chassis-number *reference*

| | |
|---|---|
| Synopsis | Enter the chassis list instance |
| Context | perform chassis *reference* chassis-number *reference* |
| Tree | chassis |
| Introduced | 24.10.R1 |
| Platforms | All |

### [**chassis-class**] *reference*

| | |
|---|---|
| Synopsis | Physical chassis |
| Context | perform chassis *reference* chassis-number *reference* |
| Tree | chassis |
| Reference | **state chassis** *keyword* **chassis-number** *number* |
| Notes | This element is part of a list key. |
| Introduced | 24.10.R1 |
| Platforms | All |

### **chassis-number** *reference*

| | |
|---|---|
| Synopsis | Unique index ID for the physical chassis |
| Context | perform chassis *reference* chassis-number *reference* |
| Tree | chassis |
| Reference | **state chassis** *keyword* **chassis-number** *number* |
| Notes | This element is part of a list key. |
| Introduced | 24.10.R1 |
| Platforms | All |

### **check-backplane-eprom**

| | |
|---|---|
| Synopsis | Check chassis backplane EPROM |


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| | |
|---|---|
| Context | perform chassis *reference* chassis-number *reference* check-backplane-eprom |
| Tree | check-backplane-eprom |
| Introduced | 24.10.R1 |
| Platforms | All |

### link-check

| | |
|---|---|
| Synopsis | Check chassis links |
| Context | perform chassis *reference* chassis-number *reference* link-check |
| Tree | link-check |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1s, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s |

### filter

| | |
|---|---|
| Synopsis | Enter the **filter** context |
| Context | perform filter |
| Tree | filter |
| Introduced | 23.7.R1 |
| Platforms | All |

### **ip-filter** [filter-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **ip-filter** list instance |
| Context | perform filter ip-filter *reference* |
| Tree | ip-filter |
| Introduced | 23.7.R1 |
| Platforms | All |

### [**filter-name**] *reference*

| | |
|---|---|
| Synopsis | Name to associate with the IP filter |
| Context | perform filter ip-filter *reference* |
| Tree | ip-filter |
| Reference | **state filter ip-filter** *filter-name* |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 23.7.R1 |
| Platforms | All |

### **entry** [entry-id] *reference*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | perform filter ip-filter *reference* entry *reference* |
| Tree | entry |
| Introduced | 23.7.R1 |
| Platforms | All |

### [**entry-id**] *reference*

| | |
|---|---|
| Synopsis | ID for the IP filter entry |
| Context | perform filter ip-filter *reference* entry *reference* |
| Tree | entry |
| Reference | **state filter ip-filter** *filter-name* **entry** *number* |
| Notes | This element is part of a list key. |
| Introduced | 23.7.R1 |
| Platforms | All |

### **activate-primary-action**

| | |
|---|---|
| Synopsis | Switch from the secondary to the primary action |
| Context | perform filter ip-filter *reference* entry *reference* activate-primary-action |
| Tree | activate-primary-action |
| Description | This command activates the primary action for the specified filter policy entry. If the primary action is already active, the command has no effect. If a secondary action is active, the primary action is activated unless the primary target is down. If the **configure filter redirect sticky-dest** command is configured, the timer expires. |
| Introduced | 23.7.R1 |
| Platforms | All |


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### **ipv6-filter** [filter-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **ipv6-filter** list instance |
| Context | perform filter ipv6-filter *reference* |
| Tree | ipv6-filter |
| Introduced | 23.7.R1 |
| Platforms | All |

### [**filter-name**] *reference*

| | |
|---|---|
| Synopsis | Name to associate with the IPv6 filter |
| Context | perform filter ipv6-filter *reference* |
| Tree | ipv6-filter |
| Reference | **state filter ipv6-filter** *filter-name* |
| Notes | This element is part of a list key. |
| Introduced | 23.7.R1 |
| Platforms | All |

### **entry** [entry-id] *reference*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | perform filter ipv6-filter *reference* entry *reference* |
| Tree | entry |
| Introduced | 23.7.R1 |
| Platforms | All |

### [**entry-id**] *reference*

| | |
|---|---|
| Synopsis | ID for the IPv6 filter entry |
| Context | perform filter ipv6-filter *reference* entry *reference* |
| Tree | entry |
| Reference | **state filter ipv6-filter** *filter-name* **entry** *number* |
| Notes | This element is part of a list key. |
| Introduced | 23.7.R1 |


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| | |
|---|---|
| Platforms | All |

### activate-primary-action

| | |
|---|---|
| Synopsis | Switch from the secondary to the primary action |
| Context | perform filter ipv6-filter *reference* entry *reference* activate-primary-action |
| Tree | activate-primary-action |
| Description | This command activates the primary action for the specified filter policy entry. If the primary action is already active, the command has no effect. If a secondary action is active, the primary action is activated unless the primary target is down. If the **configure filter redirect sticky-dest** command is configured, the timer expires. |
| Introduced | 23.7.R1 |
| Platforms | All |

### **mac-filter** [filter-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **mac-filter** list instance |
| Context | perform filter mac-filter *reference* |
| Tree | mac-filter |
| Introduced | 23.7.R1 |
| Platforms | All |

### [**filter-name**] *reference*

| | |
|---|---|
| Synopsis | Name to associate with the MAC filter |
| Context | perform filter mac-filter *reference* |
| Tree | mac-filter |
| Reference | **state filter mac-filter** *filter-name* |
| Notes | This element is part of a list key. |
| Introduced | 23.7.R1 |
| Platforms | All |

### **entry** [entry-id] *reference*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | perform filter mac-filter *reference* entry *reference* |


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| | |
|---|---|
| Tree | entry |
| Introduced | 23.7.R1 |
| Platforms | All |

### [**entry-id**] *reference*

| | |
|---|---|
| Synopsis | ID for the MAC filter entry |
| Context | perform filter mac-filter *reference* entry *reference* |
| Tree | entry |
| Reference | **state filter mac-filter** *filter-name* **entry** *number* |
| Notes | This element is part of a list key. |
| Introduced | 23.7.R1 |
| Platforms | All |

### **activate-primary-action**

| | |
|---|---|
| Synopsis | Switch from the secondary to the primary action |
| Context | perform filter mac-filter *reference* entry *reference* activate-primary-action |
| Tree | activate-primary-action |
| Description | This command activates the primary action for the specified filter policy entry. If the primary action is already active, the command has no effect. If a secondary action is active, the primary action is activated unless the primary target is down. If the **configure filter redirect sticky-dest** command is configured, the timer expires. |
| Introduced | 23.7.R1 |
| Platforms | All |

### **redirect-policy** [redirect-policy-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **redirect-policy** list instance |
| Context | perform filter redirect-policy *reference* |
| Tree | redirect-policy |
| Introduced | 23.7.R1 |
| Platforms | All |


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### [**redirect-policy-name**] *reference*

| | |
|---|---|
| Synopsis | Name of the redirect policy |
| Context | perform filter redirect-policy *reference* |
| Tree | redirect-policy |
| Reference | **state filter redirect-policy** *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 23.7.R1 |
| Platforms | All |

### activate-best-dest

| | |
|---|---|
| Synopsis | Activate the current best destination |
| Context | perform filter redirect-policy *reference* activate-best-dest |
| Tree | activate-best-dest |
| Description | This command forces a PBR switch to the best destination selected by the redirect policy when that destination is not currently active as result of sticky destination functionality being enabled for the specified redirect policy. If the **configure filter redirect sticky-dest** command is configured, the timer expires. |
| Introduced | 23.7.R1 |
| Platforms | All |

### lag

| | |
|---|---|
| Synopsis | Perform LAG operations |
| Context | perform lag |
| Tree | lag |
| Introduced | 23.7.R1 |
| Platforms | All |

### clear-force

| | |
|---|---|
| Synopsis | Perform LAG clear-force operation |
| Context | perform lag clear-force |
| Tree | clear-force |
| Introduced | 23.7.R1 |


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| | |
|---|---|
| Platforms | All |

## lag

| | |
|---|---|
| Synopsis | Perform LAG operation on the specified LAG |
| Context | perform lag clear-force lag |
| Tree | lag |
| Introduced | 23.7.R1 |
| Platforms | All |

## [**lag-name**] *reference*

| | |
|---|---|
| Synopsis | LAG name |
| Context | perform lag clear-force lag [lag-name] *reference* |
| Tree | [lag-name] |
| Reference | **state lag** *lag-interface* |
| Notes | This element is mandatory. |
| Introduced | 23.7.R1 |
| Platforms | All |

## **sub-group** *number*

| | |
|---|---|
| Synopsis | Sub-group in the LAG |
| Context | perform lag clear-force lag sub-group *number* |
| Tree | sub-group |
| Range | 1 to 16 |
| Default | 1 |
| Introduced | 23.7.R1 |
| Platforms | All |

## multi-chassis

| | |
|---|---|
| Synopsis | Enter the **multi-chassis** context |
| Context | perform lag clear-force multi-chassis |
| Tree | multi-chassis |


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| | |
|---|---|
| Introduced | 23.7.R1 |
| Platforms | All |

### all

| | |
|---|---|
| Synopsis | Perform LAG operation on all multi-chassis LAGs |
| Context | perform lag clear-force multi-chassis all |
| Tree | all |
| Introduced | 23.7.R1 |
| Platforms | All |

### peer

| | |
|---|---|
| Synopsis | Perform LAG operation on the MC peer |
| Context | perform lag clear-force multi-chassis peer |
| Tree | peer |
| Introduced | 23.7.R1 |
| Platforms | All |

### [**ip-address**] *reference*

| | |
|---|---|
| Synopsis | Peer IP address |
| Context | perform lag clear-force multi-chassis peer [ip-address] *reference* |
| Tree | [ip-address] |
| Reference | **state redundancy multi-chassis peer** *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Notes | This element is mandatory. |
| Introduced | 23.7.R1 |
| Platforms | All |

### force-active

| | |
|---|---|
| Synopsis | Perform LAG force-active operation |
| Context | perform lag force-active |
| Tree | force-active |
| Introduced | 23.7.R1 |


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| | |
|---|---|
| Platforms | All |

### lag

| | |
|---|---|
| Synopsis | Perform LAG operation on the specified LAG |
| Context | perform lag force-active lag |
| Tree | lag |
| Introduced | 23.7.R1 |
| Platforms | All |

### [**lag-name**] *reference*

| | |
|---|---|
| Synopsis | LAG name |
| Context | perform lag force-active lag [lag-name] *reference* |
| Tree | [lag-name] |
| Reference | **state lag** *lag-interface* |
| Notes | This element is mandatory. |
| Introduced | 23.7.R1 |
| Platforms | All |

### **sub-group** *number*

| | |
|---|---|
| Synopsis | Sub-group in the LAG |
| Context | perform lag force-active lag sub-group *number* |
| Tree | sub-group |
| Range | 1 to 16 |
| Default | 1 |
| Introduced | 23.7.R1 |
| Platforms | All |

### multi-chassis

| | |
|---|---|
| Synopsis | Enter the **multi-chassis** context |
| Context | perform lag force-active multi-chassis |
| Tree | multi-chassis |


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| | |
|---|---|
| Introduced | 23.7.R1 |
| Platforms | All |

### all

| | |
|---|---|
| Synopsis | Perform LAG operation on all multi-chassis LAGs |
| Context | perform lag force-active multi-chassis all |
| Tree | all |
| Introduced | 23.7.R1 |
| Platforms | All |

### peer

| | |
|---|---|
| Synopsis | Perform LAG operation on the MC peer |
| Context | perform lag force-active multi-chassis peer |
| Tree | peer |
| Introduced | 23.7.R1 |
| Platforms | All |

### [**ip-address**] *reference*

| | |
|---|---|
| Synopsis | Peer IP address |
| Context | perform lag force-active multi-chassis peer [ip-address] *reference* |
| Tree | [ip-address] |
| Reference | **state redundancy multi-chassis peer** *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Notes | This element is mandatory. |
| Introduced | 23.7.R1 |
| Platforms | All |

### force-standby

| | |
|---|---|
| Synopsis | Perform LAG force-standby operation |
| Context | perform lag force-standby |
| Tree | force-standby |
| Introduced | 23.7.R1 |


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| | |
|---|---|
| Platforms | All |

## lag

| | |
|---|---|
| Synopsis | Perform LAG operation on the specified LAG |
| Context | perform lag force-standby lag |
| Tree | lag |
| Introduced | 23.7.R1 |
| Platforms | All |

## [**lag-name**] *reference*

| | |
|---|---|
| Synopsis | LAG name |
| Context | perform lag force-standby lag [lag-name] *reference* |
| Tree | [lag-name] |
| Reference | **state lag** *lag-interface* |
| Notes | This element is mandatory. |
| Introduced | 23.7.R1 |
| Platforms | All |

## **sub-group** *number*

| | |
|---|---|
| Synopsis | Sub-group in the LAG |
| Context | perform lag force-standby lag sub-group *number* |
| Tree | sub-group |
| Range | 1 to 16 |
| Default | 1 |
| Introduced | 23.7.R1 |
| Platforms | All |

## multi-chassis

| | |
|---|---|
| Synopsis | Enter the **multi-chassis** context |
| Context | perform lag force-standby multi-chassis |
| Tree | multi-chassis |


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| | |
|---|---|
| Introduced | 23.7.R1 |
| Platforms | All |

### all

| | |
|---|---|
| Synopsis | Perform LAG operation on all multi-chassis LAGs |
| Context | perform lag force-standby multi-chassis all |
| Tree | all |
| Introduced | 23.7.R1 |
| Platforms | All |

### peer

| | |
|---|---|
| Synopsis | Perform LAG operation on the MC peer |
| Context | perform lag force-standby multi-chassis peer |
| Tree | peer |
| Introduced | 23.7.R1 |
| Platforms | All |

### [**ip-address**] *reference*

| | |
|---|---|
| Synopsis | Peer IP address |
| Context | perform lag force-standby multi-chassis peer [ip-address] *reference* |
| Tree | [ip-address] |
| Reference | **state redundancy multi-chassis peer** *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* |
| Notes | This element is mandatory. |
| Introduced | 23.7.R1 |
| Platforms | All |

### load-balance

| | |
|---|---|
| Synopsis | Perform LAG load-balance operation |
| Context | perform lag load-balance |
| Tree | load-balance |
| Introduced | 23.7.R1 |


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| | |
|---|---|
| Platforms | All |

### **class** *number*

| | |
|---|---|
| Synopsis | Class used for load balancing |
| Context | perform lag load-balance class *number* |
| Tree | class |
| Range | 1 to 3 |
| Default | 1 |
| Introduced | 23.7.R1 |
| Platforms | All |

### [**lag-name**] *reference*

| | |
|---|---|
| Synopsis | LAG name |
| Context | perform lag load-balance [lag-name] *reference* |
| Tree | [lag-name] |
| Reference | **state lag** *lag-interface* |
| Notes | This element is mandatory. |
| Introduced | 23.7.R1 |
| Platforms | All |

### **log**

| | |
|---|---|
| Synopsis | Enter the log context |
| Context | perform log |
| Tree | log |
| Introduced | 24.10.R1 |
| Platforms | All |

### **custom-event**

| | |
|---|---|
| Synopsis | Send a custom generic log event |
| Context | perform log custom-event |
| Tree | custom-event |


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| | |
|---|---|
| Description | When specified, the system sends a custom generic log event. The total length of the message string and all parameter strings must be less than or equal to 2400 characters. |
| Introduced | 24.10.R1 |
| Platforms | All |

### [**event-number**] *number*

| | |
|---|---|
| Synopsis | Custom event to send |
| Context | perform log custom-event [event-number] *number* |
| Tree | [event-number] |
| Range | 1 to 6 |
| Notes | This element is mandatory. |
| Introduced | 24.10.R1 |
| Platforms | All |

### **message-string** *string*

| | |
|---|---|
| Synopsis | Message for the log event |
| Context | perform log custom-event message-string *string* |
| Tree | message-string |
| Description | This command specifies the string for the message field of the log event. Embedded double quotes are supported by using the backslash character (\) followed by the double quote character ("). |
| String length | 1 to 2000 |
| Notes | This element is mandatory. |
| Introduced | 24.10.R1 |
| Platforms | All |

### **parameter1** *string*

| | |
|---|---|
| Synopsis | Custom text of the parameter |
| Context | perform log custom-event parameter1 *string* |
| Tree | parameter1 |
| Description | This command specifies the string for the parameter. Embedded double quotes are supported by using the backslash character (\) followed by the double quote character ("). |


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| | |
|---|---|
| String length | 0 to 2000 |
| Default | |
| Introduced | 24.10.R1 |
| Platforms | All |

### **parameter2** *string*

| | |
|---|---|
| Synopsis | Custom text of the parameter |
| Context | perform log custom-event parameter2 *string* |
| Tree | parameter2 |
| Description | This command specifies the string for the parameter. Embedded double quotes are supported by using the backslash character (\) followed by the double quote character (''). |
| String length | 0 to 2000 |
| Default | |
| Introduced | 24.10.R1 |
| Platforms | All |

### **parameter3** *string*

| | |
|---|---|
| Synopsis | Custom text of the parameter |
| Context | perform log custom-event parameter3 *string* |
| Tree | parameter3 |
| Description | This command specifies the string for the parameter. Embedded double quotes are supported by using the backslash character (\) followed by the double quote character (''). |
| String length | 0 to 2000 |
| Default | |
| Introduced | 24.10.R1 |
| Platforms | All |

### **parameter4** *string*

| | |
|---|---|
| Synopsis | Custom text of the parameter |
| Context | perform log custom-event parameter4 *string* |
| Tree | parameter4 |


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| | |
|---|---|
| Description | This command specifies the string for the parameter. Embedded double quotes are supported by using the backslash character (\) followed by the double quote character (”). |
| String length | 0 to 2000 |
| Default | |
| Introduced | 24.10.R1 |
| Platforms | All |

### **parameter5** *string*

| | |
|---|---|
| Synopsis | Custom text of the parameter |
| Context | perform log custom-event parameter5 *string* |
| Tree | parameter5 |
| Description | This command specifies the string for the parameter. Embedded double quotes are supported by using the backslash character (\) followed by the double quote character (”). |
| String length | 0 to 2000 |
| Default | |
| Introduced | 24.10.R1 |
| Platforms | All |

### **parameter6** *string*

| | |
|---|---|
| Synopsis | Custom text of the parameter |
| Context | perform log custom-event parameter6 *string* |
| Tree | parameter6 |
| Description | This command specifies the string for the parameter. Embedded double quotes are supported by using the backslash character (\) followed by the double quote character (”). |
| String length | 0 to 2000 |
| Default | |
| Introduced | 24.10.R1 |
| Platforms | All |

### **parameter7** *string*

| | |
|---|---|
| Synopsis | Custom text of the parameter |


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| | |
|---|---|
| Context | perform log custom-event parameter7 *string* |
| Tree | parameter7 |
| Description | This command specifies the string for the parameter. Embedded double quotes are supported by using the backslash character (\) followed by the double quote character (”). |
| String length | 0 to 2000 |
| Default | |
| Introduced | 24.10.R1 |
| Platforms | All |

### **parameter8** *string*

| | |
|---|---|
| Synopsis | Custom text of the parameter |
| Context | perform log custom-event parameter8 *string* |
| Tree | parameter8 |
| Description | This command specifies the string for the parameter. Embedded double quotes are supported by using the backslash character (\) followed by the double quote character (”). |
| String length | 0 to 2000 |
| Default | |
| Introduced | 24.10.R1 |
| Platforms | All |

### **subject** *string*

| | |
|---|---|
| Synopsis | Subject of the log event |
| Context | perform log custom-event subject *string* |
| Tree | subject |
| Description | This command specifies the string in the subject field of the log event. Embedded double quotes are supported by using the backslash character (\) followed by the double quote character (”). |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 24.10.R1 |
| Platforms | All |


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### test-event

| | |
|---|---|
| Synopsis | Send a test log event |
| Context | perform log test-event |
| Tree | test-event |
| Introduced | 24.10.R1 |
| Platforms | All |

### custom-text *string*

| | |
|---|---|
| Synopsis | Custom text of the test event message field |
| Context | perform log test-event custom-text *string* |
| Tree | custom-text |
| Description | This command specifies custom text for the message section of the test log event. Embedded double quotes are not supported in the custom-text string. There is no special treatment for or \r sequences. For example, in the custom-text string is output as the backslash character (\) and "n" (the equivalent of ASCII 0x5C and 0x6e). |
| String length | 0 to 800 |
| Default | |
| Introduced | 24.10.R1 |
| Platforms | All |

### python

| | |
|---|---|
| Synopsis | Enter the **python** context |
| Context | perform python |
| Tree | python |
| Introduced | 23.10.R1 |
| Platforms | All |

### python-policy

| | |
|---|---|
| Synopsis | Enter the python-policy context |
| Context | perform python python-policy |
| Tree | python-policy |
| Introduced | 23.10.R1 |


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| | |
|---|---|
| Platforms | All |

## cache

| | |
|---|---|
| Synopsis | Enter the cache context |
| Context | perform python python-policy cache |
| Tree | cache |
| Description | Commands in this context operate on python cache entries. |
| Introduced | 23.10.R1 |
| Platforms | All |

## policy

| | |
|---|---|
| Synopsis | Set the lifetime of a specified python cache entry |
| Context | perform python python-policy cache policy |
| Tree | policy |
| Introduced | 23.10.R1 |
| Platforms | All |

## **hex-key** *hex-string*

| | |
|---|---|
| Synopsis | Policy key in hexadecimal format |
| Context | perform python python-policy cache policy hex-key *hex-string* |
| Tree | hex-key |
| String length | 3 to 1026 |
| Notes | The following elements are part of a mandatory choice: **hex-key** or **string-key**. |
| Introduced | 23.10.R1 |
| Platforms | All |

## [**name**] *reference*

| | |
|---|---|
| Synopsis | Name of the Python policy |
| Context | perform python python-policy cache policy [name] *reference* |
| Tree | [name] |
| Reference | **state python python-policy** *named-item* |


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| | |
|---|---|
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **set-lifetime** *number*

| | |
|---|---|
| Synopsis | Lifetime to set for a Python cache entry |
| Context | perform python python-policy cache policy set-lifetime *number* |
| Tree | set-lifetime |
| Range | 1 to 604800 |
| Units | seconds |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **string-key** *string*

| | |
|---|---|
| Synopsis | Policy key in ASCII format |
| Context | perform python python-policy cache policy string-key *string* |
| Tree | string-key |
| String length | 1 to 512 |
| Notes | The following elements are part of a mandatory choice: **hex-key** or **string-key**. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **python-script**

| | |
|---|---|
| Synopsis | Enter the **python-script** context |
| Context | perform python python-script |
| Tree | python-script |
| Introduced | 23.10.R1 |
| Platforms | All |


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## protect

| | |
|---|---|
| Synopsis | Convert a Python file into a protected SRPY format |
| Context | perform python python-script protect |
| Tree | protect |
| Description | When invoked, the system converts a normal (unprotected) Python script file into a protected SRPY format using a specified key.<br>For more information about the SRPY format and protected scripts, see "Python script protection" in the *7450 ESS, 7750 SR, and VSR Triple Play Service Delivery Architecture Guide*. |
| Introduced | 23.10.R1 |
| Platforms | All |

## hmac-sha256-key *string*

| | |
|---|---|
| Synopsis | Key used to compute the hash |
| Context | perform python python-script protect hmac-sha256-key *string* |
| Tree | hmac-sha256-key |
| String length | 1 to 128 |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

## input-file *string*

| | |
|---|---|
| Synopsis | URL of the input unprotected script file |
| Context | perform python python-script protect input-file *string* |
| Tree | input-file |
| String length | 1 to 180 |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

## output-file *string*

| | |
|---|---|
| Synopsis | URL of the output protected script file |


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| | |
|---|---|
| Context | perform python python-script protect output-file *string* |
| Tree | output-file |
| String length | 1 to 180 |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

## reload

| | |
|---|---|
| Synopsis | Enter the **reload** context |
| Context | perform python python-script reload |
| Tree | reload |
| Description | Commands in this context reload and recompile the primary, secondary, and tertiary scripts in the specified Python scripts, in that order. The system uses the first script that comes up.<br>Executing these commands may update the last modified time for the system configuration. |
| Introduced | 23.10.R1 |
| Platforms | All |

## script

| | |
|---|---|
| Synopsis | Reload and recompile the specified script |
| Context | perform python python-script reload script |
| Tree | script |
| Introduced | 23.10.R1 |
| Platforms | All |

## [**name**] *reference*

| | |
|---|---|
| Synopsis | Name of the python script to reload |
| Context | perform python python-script reload script [name] *reference* |
| Tree | [name] |
| Reference | **state python python-script** *named-item* |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |


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| | |
|---|---|
| Platforms | All |

### **router** [router-instance] *string*

| | |
|---|---|
| Synopsis | Enter the **router** list instance |
| Context | perform router *string* |
| Tree | router |
| Introduced | 23.10.R1 |
| Platforms | All |

### [**router-instance**] *string*

| | |
|---|---|
| Synopsis | Router name or VPRN service name |
| Context | perform router *string* |
| Tree | router |
| MD-CLI default | Base |
| Notes | This element is part of a list key. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **isis** [isis-instance] *reference*

| | |
|---|---|
| Synopsis | Enter the **isis** list instance |
| Context | perform router *string* isis *reference* |
| Tree | isis |
| Introduced | 23.10.R1 |
| Platforms | All |

### [**isis-instance**] *reference*

| | |
|---|---|
| Synopsis | IS-IS instance |
| Context | perform router *string* isis *reference* |
| Tree | isis |
| MD-CLI default | 0 |


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| | |
|---|---|
| Reference | **state router** *named-item-64* **isis** *number* |
| Notes | This element is part of a list key. |
| Introduced | 23.10.R1 |
| Platforms | All |

### ldp-sync-exit

| | |
|---|---|
| Synopsis | Terminate LDP synchronization and restore actual cost |
| Context | perform router *string* isis *reference* ldp-sync-exit |
| Tree | ldp-sync-exit |
| Introduced | 23.10.R1 |
| Platforms | All |

### overload

| | |
|---|---|
| Synopsis | Perform IS-IS overload |
| Context | perform router *string* isis *reference* overload |
| Tree | overload |
| Introduced | 23.10.R1 |
| Platforms | All |

### **max-metric** *boolean*

| | |
|---|---|
| Synopsis | Enable advertising max-metric values |
| Context | perform router *string* isis *reference* overload max-metric *boolean* |
| Tree | max-metric |
| Default | false |
| Introduced | 23.10.R1 |
| Platforms | All |

### [**seconds**] *number*

| | |
|---|---|
| Synopsis | Overload duration |
| Context | perform router *string* isis *reference* overload [seconds] *number* |
| Tree | [seconds] |


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| | |
|---|---|
| Range | 60 to 1800 |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

## run-manual-spf

| | |
|---|---|
| Synopsis | Run SPF algorithm |
| Context | perform router *string* isis *reference* run-manual-spf |
| Tree | run-manual-spf |
| Introduced | 23.10.R1 |
| Platforms | All |

## mcast-umh-red

| | |
|---|---|
| Synopsis | Display Upstream Multi-Homing info |
| Context | perform router *string* mcast-umh-red |
| Tree | mcast-umh-red |
| Introduced | 24.7.R1 |
| Platforms | All |

## show

| | |
|---|---|
| Synopsis | Enter the show context |
| Context | perform router *string* mcast-umh-red show |
| Tree | show |
| Introduced | 24.7.R1 |
| Platforms | All |

## pair

| | |
|---|---|
| Synopsis | Enter the pair context |
| Context | perform router *string* mcast-umh-red show pair |
| Tree | pair |
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| | |
|---|---|
| Platforms | All |

### **card** *number*

| | |
|---|---|
| Synopsis | Slot number |
| Context | perform router *string* mcast-umh-red show pair card *number* |
| Tree | card |
| Max. range | 0 to 4294967295 |
| Notes | The following elements are part of a choice: **card**, **pair-id**, or **summary**. |
| Introduced | 24.7.R1 |
| Platforms | All |

### **pair-id** *number*

| | |
|---|---|
| Synopsis | Pair ID |
| Context | perform router *string* mcast-umh-red show pair pair-id *number* |
| Tree | pair-id |
| Range | 1 to 1000 |
| Notes | The following elements are part of a choice: **card**, **pair-id**, or **summary**. |
| Introduced | 24.7.R1 |
| Platforms | All |

### **summary**

| | |
|---|---|
| Synopsis | Summary |
| Context | perform router *string* mcast-umh-red show pair summary |
| Tree | summary |
| Notes | The following elements are part of a choice: **card**, **pair-id**, or **summary**. |
| Introduced | 24.7.R1 |
| Platforms | All |

### **pim**

| | |
|---|---|
| Synopsis | Enter the pim context |
| Context | perform router *string* pim |


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| | |
|---|---|
| Tree | pim |
| Description | Commands in this context enable tools to perform PIM tasks. |
| Introduced | 24.7.R1 |
| Platforms | All |

## mc-ecmp-rebalance

| | |
|---|---|
| Synopsis | Perform multicast ECMP rebalance |
| Context | perform router *string* pim mc-ecmp-rebalance |
| Tree | mc-ecmp-rebalance |
| Introduced | 24.7.R1 |
| Platforms | All |

## threshold *number*

| | |
|---|---|
| Synopsis | ECMP preference level threshold |
| Context | perform router *string* pim mc-ecmp-rebalance threshold *number* |
| Tree | threshold |
| Description | This command configures a threshold level to force a rebalance of all multicast streams with a priority of less than or equal to the specified value. Selecting the highest value forces the rebalance of all multicast streams. |
| Range | 1 to 7 |
| Introduced | 24.7.R1 |
| Platforms | All |

## show

| | |
|---|---|
| Synopsis | Enter the show context |
| Context | perform router *string* pim show |
| Tree | show |
| Introduced | 24.7.R1 |
| Platforms | All |

## iom-failures

| | |
|---|---|
| Synopsis | Display IOM failures |


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| | |
|---|---|
| Context | perform router *string* pim show iom-failures |
| Tree | iom-failures |
| Introduced | 24.7.R1 |
| Platforms | All |

### **detail** *boolean*

| | |
|---|---|
| Synopsis | Display IOM failure details |
| Context | perform router *string* pim show iom-failures detail *boolean* |
| Tree | detail |
| Introduced | 24.7.R1 |
| Platforms | All |

### system

| | |
|---|---|
| Synopsis | Enter the **system** context |
| Context | perform system |
| Tree | system |
| Introduced | 23.7.R1 |
| Platforms | All |

### script-control

| | |
|---|---|
| Synopsis | Enter the **script-control** context |
| Context | perform system script-control |
| Tree | script-control |
| Introduced | 23.10.R1 |
| Platforms | All |

### script-policy

| | |
|---|---|
| Synopsis | Enter the **script-policy** context |
| Context | perform system script-control script-policy |
| Tree | script-policy |
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| | |
|---|---|
| Platforms | All |

## stop

| | |
|---|---|
| Synopsis | Stop the execution of scripts |
| Context | perform system script-control script-policy stop |
| Tree | stop |
| Introduced | 23.10.R1 |
| Platforms | All |

## all

| | |
|---|---|
| Synopsis | Stop script execution for all script policies |
| Context | perform system script-control script-policy stop all |
| Tree | all |
| Notes | The following elements are part of a mandatory choice: **all** or (**owner** and **policy-name**). |
| Introduced | 23.10.R1 |
| Platforms | All |

## **owner** *reference*

| | |
|---|---|
| Synopsis | Stop script execution for a specific owner |
| Context | perform system script-control script-policy stop owner *reference* |
| Tree | owner |
| Default | TiMOS CLI |
| Reference | **state system script-control script-policy** *named-item* **owner** *named-item* |
| Notes | The following elements are part of a mandatory choice: **all** or (**owner** and **policy-name**). |
| Introduced | 23.10.R1 |
| Platforms | All |

## **policy-name** *reference*

| | |
|---|---|
| Synopsis | Stop script execution for a specific policy |
| Context | perform system script-control script-policy stop policy-name *reference* |
| Tree | policy-name |


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| | |
|---|---|
| Reference | **state system script-control script-policy** *named-item* **owner** *named-item* |
| Notes | The following elements are part of a mandatory choice: **all** or (**owner** and **policy-name**). |
| Introduced | 23.10.R1 |
| Platforms | All |

## security

| | |
|---|---|
| Synopsis | Enter the **security** context |
| Context | perform system security |
| Tree | security |
| Introduced | 23.7.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s, 7950 XRS-20e |

## secure-boot

| | |
|---|---|
| Synopsis | Enter the **secure-boot** context |
| Context | perform system security secure-boot |
| Tree | secure-boot |
| Introduced | 23.7.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s, 7950 XRS-20e |

## show

| | |
|---|---|
| Synopsis | Enter the **show** context |
| Context | perform system security secure-boot show |
| Tree | show |
| Introduced | 23.7.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s, 7950 XRS-20e |

## uefi-variables

| | |
|---|---|
| Synopsis | Display secure-boot UEFI variables |
| Context | perform system security secure-boot show uefi-variables |
| Tree | uefi-variables |
| Introduced | 23.7.R1 |


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| | |
|---|---|
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s, 7950 XRS-20e |

### **card** *reference*

| | |
|---|---|
| Synopsis | CPM slot where UEFI variables are returned |
| Context | perform system security secure-boot show uefi-variables card *reference* |
| Tree | card |
| Reference | **state cpm** *cpm-card-slot* |
| Notes | This element is mandatory. |
| Introduced | 23.7.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s, 7950 XRS-20e |

### **ssh**

| | |
|---|---|
| Synopsis | Perform SSH operations |
| Context | perform system ssh |
| Tree | ssh |
| Introduced | 24.3.R3 |
| Platforms | All |

### **generate-keypair**

| | |
|---|---|
| Synopsis | Generate SSH authentication key pair |
| Context | perform system ssh generate-keypair |
| Tree | generate-keypair |
| Introduced | 24.3.R3 |
| Platforms | All |

### **ecdsa-curve** *keyword*

| | |
|---|---|
| Synopsis | Elliptic curve of the ECDSA key to be generated |
| Context | perform system ssh generate-keypair ecdsa-curve *keyword* |
| Tree | ecdsa-curve |
| Options | secp256r1, secp384r1, secp521r1 |
| Default | secp256r1 |


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| | |
|---|---|
| Notes | The following elements are part of a mandatory choice: **ecdsa-curve**, **ed25519**, or **rsa-key-size**. |
| Introduced | 24.3.R3 |
| Platforms | All |

### ed25519

| | |
|---|---|
| Synopsis | Generate an ed25519 key |
| Context | perform system ssh generate-keypair ed25519 |
| Tree | ed25519 |
| Notes | The following elements are part of a mandatory choice: **ecdsa-curve**, **ed25519**, or **rsa-key-size**. |
| Introduced | 24.3.R3 |
| Platforms | All |

### **rsa-key-size** *number*

| | |
|---|---|
| Synopsis | Length in bits of the RSA key to be generated |
| Context | perform system ssh generate-keypair rsa-key-size *number* |
| Tree | rsa-key-size |
| Range | 2048 to 4096 |
| Default | 3072 |
| Notes | The following elements are part of a mandatory choice: **ecdsa-curve**, **ed25519**, or **rsa-key-size**. |
| Introduced | 24.3.R3 |
| Platforms | All |

### [**save-path**] *cflash-url*

| | |
|---|---|
| Synopsis | Path to save the result key file |
| Context | perform system ssh generate-keypair [save-path] *cflash-url* |
| Tree | [save-path] |
| String length | 1 to 200 |
| Notes | This element is mandatory. |
| Introduced | 24.3.R3 |


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Platforms All


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## 2.7 reset commands

The **reset** commands are YANG-modeled versions of the **clear** commands and are available in MD-CLI and NETCONF interfaces. The **reset** commands are primarily used to:

- set statistics in a specific area back to a value of zero
- reset specific hardware assemblies, for example, cards
- delete temporary operational state data, for example, contents of a log in memory

```
reset
   –  application-assurance
      –  group reference
         –  cflowd
         –  partition reference
            –  event-log
               –  name reference
            –  gtp
         –  statistics
            –  force
         –  status
      –  radius-accounting-policy reference
         –  statistics
            –  server reference
   –  card reference
      –  fp reference
         –  distributed-cpu-protection
            –  information
         –  forward-engine-drop-reason
            –  statistics
         –  ingress
            –  per-egress-fp-statistics
            –  queue-group
               –  statistics
                  –  instance number
                  –  mode keyword
                  –  queue-group-name string
      –  reinitialize
         –  hard-reset-unsupported-mdas
         –  soft
   –  filter
      –  ip-exception
         –  direction keyword
         –  entry reference
         –  [filter-name] reference
      –  ip-filter
         –  direction keyword
         –  entry reference
         –  [filter-name] reference
      –  ipv6-exception
         –  direction keyword
         –  entry reference
         –  [filter-name] reference
      –  ipv6-filter
         –  direction keyword
         –  entry reference
         –  [filter-name] reference
      –  log
         –  [log-id] reference
      –  mac-filter
         –  direction keyword
```


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reset filter mac-filter entry

```
        – entry reference
        – [filter-name] reference
  – lag reference
     – aggregate-queue-statistics
     – bfd-session
        – port
           – family keyword
           – [lag-port] reference
     – lacp-statistics
     – statistics
  – log
     – event-handling
        – handlers
           – all
           – handler
              – [name] reference
        – information
     – log-events
        – repeating-events
           – all
     – log-id
        – [name] reference
  – mda
     – card-slot reference
        – mda-slot reference
           – ipsec-statistics
           – reinitialize
        – xiom-slot reference
           – mda-slot reference
              – ipsec-statistics
              – reinitialize
  – router string
     – arp
        – address
           – ipv4-address ipv4-address
        – all
        – interface
           – interface-name interface-name
     – bfd
        – session
           – lsp-ldp
              – head
                 – session-key
                    – prefix (ipv4-prefix | ipv6-prefix)
                    – src-ip (ipv4-address-no-zone | ipv6-address-no-zone)
              – tail
                 – session-key
                    – dst-ip (ipv4-address-no-zone | ipv6-address-no-zone)
                    – prefix (ipv4-prefix | ipv6-prefix)
           – lsp-rsvp
              – head
                 – rsvp-session-name
                    – rsvp-session-name string-not-all-spaces
                 – session-key
                    – dst-ip (ipv4-address-no-zone | ipv6-address-no-zone)
                    – lsp-id number
                    – src-ip (ipv4-address-no-zone | ipv6-address-no-zone)
                    – tunnel-id number
              – tail
                 – rsvp-session-name
                    – rsvp-session-name string-not-all-spaces
                    – sender-ip (ipv4-address-no-zone | ipv6-address-no-zone)
                 – session-key
                    – dst-ip (ipv4-address-no-zone | ipv6-address-no-zone)
```


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reset router bfd session lsp-rsvp tail session-key lsp-id

```
                    - lsp-id number
                    - src-ip (ipv4-address-no-zone | ipv6-address-no-zone)
                    - tunnel-id number
            - mpls-tp
              - lsp-id
                - lsp-name string-not-all-spaces
                - path keyword
            - point-to-multipoint
              - p2mp-interface-name
                - [p2mp-interface-name] string
            - point-to-point
              - session-key
                - dst (ipv4-address-no-zone | ipv6-address-no-zone)
                - src (ipv4-address-no-zone | ipv6-address-no-zone)
            - seamless-lsp-path
              - all
              - session-key
                - lsp-index number
                - path-lspid number
                - prefix (ipv4-prefix | ipv6-prefix)
                - src-ip (ipv4-address-no-zone | ipv6-address-no-zone)
            - seamless-sr-policy
              - all
              - session-key
                - lsp-index number
                - path-lspid number
                - prefix (ipv4-prefix | ipv6-prefix)
                - src-ip (ipv4-address-no-zone | ipv6-address-no-zone)
        - statistics
            - lsp-ldp
              - head
                - session-key
                  - prefix (ipv4-prefix | ipv6-prefix)
                  - src-ip (ipv4-address-no-zone | ipv6-address-no-zone)
              - tail
                - session-key
                  - dst-ip (ipv4-address-no-zone | ipv6-address-no-zone)
                  - prefix (ipv4-prefix | ipv6-prefix)
            - lsp-rsvp
              - head
                - rsvp-session-name
                  - rsvp-session-name string-not-all-spaces
                - session-key
                  - dst-ip (ipv4-address-no-zone | ipv6-address-no-zone)
                  - lsp-id number
                  - src-ip (ipv4-address-no-zone | ipv6-address-no-zone)
                  - tunnel-id number
              - tail
                - rsvp-session-name
                  - rsvp-session-name string-not-all-spaces
                  - sender-ip (ipv4-address-no-zone | ipv6-address-no-zone)
                - session-key
                  - dst-ip (ipv4-address-no-zone | ipv6-address-no-zone)
                  - lsp-id number
                  - src-ip (ipv4-address-no-zone | ipv6-address-no-zone)
                  - tunnel-id number
            - mpls-tp
              - lsp-id
                - lsp-name string-not-all-spaces
                - path keyword
            - point-to-multipoint
              - p2mp-interface-name
                - [p2mp-interface-name] string
            - point-to-point
```


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reset router bfd statistics point-to-point session-key

```
            - session-key
              - dst (ipv4-address-no-zone | ipv6-address-no-zone)
              - src (ipv4-address-no-zone | ipv6-address-no-zone)
        - seamless-lsp-path
            - all
            - session-key
              - lsp-index number
              - path-lspid number
              - prefix (ipv4-prefix | ipv6-prefix)
              - src-ip (ipv4-address-no-zone | ipv6-address-no-zone)
        - seamless-sr-policy
            - all
            - session-key
              - lsp-index number
              - path-lspid number
              - prefix (ipv4-prefix | ipv6-prefix)
              - src-ip (ipv4-address-no-zone | ipv6-address-no-zone)
    - bier
        - database
            - sub-domain
              - bsl number
              - sub-domain-id number
        - statistics
    - dhcp-server
        - dhcpv4 named-item
            - declined-addresses
              - address
                - [address] ipv4-address
                - mask number
              - pool
                - [pool] named-item
            - failover-pool-statistics
              - all
              - pool
                - [pool] named-item
            - leases
              - address
                - [address] (ipv4-address-no-zone | ipv6-address-no-zone)
                - state keyword
              - all
                - state keyword
              - prefix
                - [prefix] ipv4-unicast-prefix
                - state keyword
            - pool-extended-statistics
              - all
              - pool
                - [pool] named-item
            - statistics
            - sticky-leases
              - host-name
                - [host-name] named-item
              - host-name-prefix
                - [host-name-prefix] named-item
            - subnet-extended-statistics
              - pool
                - [pool] named-item
              - prefix
                - [prefix] ipv4-unicast-prefix
        - dhcpv6 named-item
            - failover-pool-statistics
              - all
              - pool
                - [pool] named-item
```


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reset router dhcp-server dhcpv6 leases

```
            – leases
               – address
                  – [address] (ipv4-address-no-zone | ipv6-address-no-zone)
                  – state keyword
                  – type keyword
               – all
                  – state keyword
                  – type keyword
               – prefix
                  – [prefix] ipv6-prefix
                  – state keyword
                  – type keyword
            – pool-extended-statistics
               – all
               – pool
                  – [pool] named-item
            – pool-threshold-statistics
               – all
               – pool
                  – [pool] named-item
            – prefix-extended-statistics
               – pool
                  – [pool] named-item
               – prefix
                  – [prefix] ipv6-prefix
            – prefix-threshold-statistics
               – pool
                  – [pool] named-item
               – prefix
                  – [prefix] ipv6-prefix
            – statistics
      – forwarding-table
         – all
         – slot
            – slot-number reference
      – grt-lookup
      – icmp
         – all
         – global
         – interface
            – interface-name interface-name
      – icmp-redirect-route
         – address
            – ipv4-address ipv4-address
         – all
      – icmp6
         – all
         – global
         – interface
            – interface-name interface-name
      – icmp6-redirect-route
         – address
            – ipv6-address ipv6-address
         – all
      – igmp
         – database
            – all
               – group ipv4-multicast-address
               – source ipv4-unicast-address
            – all-group-interfaces
               – group ipv4-multicast-address
               – source ipv4-unicast-address
            – all-hosts
               – group ipv4-multicast-address
```


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reset router igmp database all-hosts source

```
            - source ipv4-unicast-address
         - forwarding-group-interface
            - forwarding-service service-name
            - group ipv4-multicast-address
            - group-interface-name interface-name
            - source ipv4-unicast-address
         - group-interface
            - group ipv4-multicast-address
            - group-interface-name interface-name
            - source ipv4-unicast-address
         - host
            - group ipv4-multicast-address
            - host-ip-address ipv4-address
            - source ipv4-unicast-address
         - interface
            - group ipv4-multicast-address
            - interface-name interface-name
            - source ipv4-unicast-address
      - mcast-reporting-statistics
         - all-hosts
         - host
            - host-ip-address ipv4-address
      - statistics
         - all
         - all-group-interfaces
         - all-hosts
         - forwarding-group-interface
            - forwarding-service service-name
            - group-interface-name interface-name
         - group-interface
            - group-interface-name interface-name
         - host
            - host-ip-address ipv4-address
         - interface
            - interface-name interface-name
      - version
         - all
         - all-group-interfaces
         - all-hosts
         - forwarding-group-interface
            - forwarding-service service-name
            - group-interface-name interface-name
         - group-interface
            - group-interface-name interface-name
         - host
            - host-ip-address ipv4-address
         - interface
            - interface-name interface-name
   - interface interface-name
      - hold-time
      - mac
         - address
            - [mac-address] mac-address
         - all
      - policy-accounting
         - all
         - class
            - all
            - index number
            - [name] keyword
         - policer
            - all
            - index
               - [policer-index] number
```


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```
        – statistics
        – urpf-statistics
     – isis reference
        – adjacency
           – all-adjacencies
           – system-id
              – [system-id] system-id
        – database
           – all-databases
           – system-id
              – [system-id] system-id
        – export
        – overload
           – [overload-type] keyword
        – sid-egress-stats
           – adj
              – all
              – interface
                 – [interface-name] string
           – adj-set
              – all
              – id
                 – [id] reference
           – all
           – node
              – all
              – prefix
                 – [ip-prefix-prefix-length] (ipv4-address-no-zone | ipv6-address-no-zone |
ipv4-prefix | ipv6-prefix)
        – sid-ingress-stats
           – adj
              – all
              – interface
                 – [interface-name] string
           – adj-set
              – all
              – id
                 – [id] reference
           – all
           – node
              – all
              – prefix
                 – [ip-prefix-prefix-length] (ipv4-address-no-zone | ipv6-address-no-zone |
ipv4-prefix | ipv6-prefix)
        – spf-log
        – statistics
     – mld
        – database
           – all
              – group ipv6-multicast-address
              – source ipv6-unicast-address
           – all-group-interfaces
              – group ipv6-multicast-address
              – source ipv6-unicast-address
           – all-hosts
              – group ipv6-multicast-address
              – source ipv6-unicast-address
           – forwarding-group-interface
              – forwarding-service service-name
              – group ipv6-multicast-address
              – group-interface-name interface-name
              – source ipv6-unicast-address
           – group-interface
              – group ipv6-multicast-address
```


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reset router mld database group-interface group-interface-name

```
            - group-interface-name interface-name
            - source ipv6-unicast-address
         - host
            - group ipv6-multicast-address
            - host-ip-address ipv6-address
            - source ipv6-unicast-address
         - interface
            - group ipv6-multicast-address
            - interface-name interface-name
            - source ipv6-unicast-address
      - statistics
         - all
         - all-group-interfaces
         - all-hosts
         - forwarding-group-interface
            - forwarding-service service-name
            - group-interface-name interface-name
         - group-interface
            - group-interface-name interface-name
         - host
            - host-ip-address ipv6-address
         - interface
            - interface-name interface-name
      - version
         - all
         - all-group-interfaces
         - all-hosts
         - forwarding-group-interface
            - forwarding-service service-name
            - group-interface-name interface-name
         - group-interface
            - group-interface-name interface-name
         - host
            - host-ip-address ipv6-address
         - interface
            - interface-name interface-name
   - msdp
      - cache
         - group-address ipv4-multicast-address
         - origin-rp-address ipv4-unicast-address
         - peer-address ipv4-unicast-address
         - source-address ipv4-unicast-address
      - statistics
         - peer-address ipv4-unicast-address
   - neighbor
      - address
         - ipv6-address (ipv4-address-with-zone | ipv6-address-with-zone)
      - all
      - interface
         - interface-name interface-name
   - ospf number
      - database
         - purge
      - export
      - neighbor
         - interface-name string
         - router-id ipv4-address
      - overload
         - [overload-type] keyword
      - sid-egress-stats
         - adj
            - all
            - interface
               - [interface-name] reference
```


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reset router ospf sid-egress-stats adj-set

```
            – adj-set
               – all
               – id
                  – [id] reference
            – all
            – node
               – all
               – prefix
                  – [prefix] (ipv4-address-no-zone | ipv6-address-no-zone | ipv4-prefix |
ipv6-prefix)
         – sid-ingress-stats
            – adj
               – all
               – interface
                  – [interface-name] reference
            – adj-set
               – all
               – id
                  – [id] reference
            – all
            – node
               – all
               – prefix
                  – [prefix] (ipv4-address-no-zone | ipv6-address-no-zone | ipv4-prefix |
ipv6-prefix)
         – statistics
      – ospf3 number
         – database
            – purge
         – export
         – neighbor
            – interface-name string
            – router-id ipv4-address
         – overload
            – [overload-type] keyword
         – sid-egress-stats
            – adj
               – all
               – interface
                  – [interface-name] reference
            – all
            – node
               – all
               – prefix
                  – [prefix] (ipv4-address-no-zone | ipv6-address-no-zone | ipv4-prefix |
ipv6-prefix)
         – sid-ingress-stats
            – adj
               – all
               – interface
                  – [interface-name] reference
            – all
            – node
               – all
               – prefix
                  – [prefix] (ipv4-address-no-zone | ipv6-address-no-zone | ipv4-prefix |
ipv6-prefix)
         – statistics
      – pim
         – database
            – all
               – group (ipv4-address-no-zone | ipv6-address-no-zone)
               – ipv4
               – ipv6
```


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reset router pim database all source

```
            - source (ipv4-address-no-zone | ipv6-address-no-zone)
         - interface
            - group (ipv4-address-no-zone | ipv6-address-no-zone)
            - interface-name interface-name
            - ipv4
            - ipv6
            - source (ipv4-address-no-zone | ipv6-address-no-zone)
      - neighbor
         - all
            - address (ipv4-address-no-zone | ipv6-address-no-zone)
            - ipv4
            - ipv6
         - interface
            - address (ipv4-address-no-zone | ipv6-address-no-zone)
            - interface-name interface-name
            - ipv4
            - ipv6
      - s-pmsi
         - all
         - md
            - group ipv4-multicast-address
            - source ipv4-unicast-address
         - vprn
            - group (ipv4-address-no-zone | ipv6-address-no-zone)
            - md-group ipv4-multicast-address
            - md-source ipv4-unicast-address
            - source (ipv4-address-no-zone | ipv6-address-no-zone)
      - statistics
         - all
            - group (ipv4-address-no-zone | ipv6-address-no-zone)
            - ipv4
            - ipv6
            - source (ipv4-address-no-zone | ipv6-address-no-zone)
         - interface
            - group (ipv4-address-no-zone | ipv6-address-no-zone)
            - interface-name interface-name
            - ipv4
            - ipv6
            - source (ipv4-address-no-zone | ipv6-address-no-zone)
   - segment-routing
      - sr-policies
         - sr-policies-egress-statistics
            - [color] reference
            - endpoint reference
         - sr-policies-ingress-statistics
            - [color] reference
            - endpoint reference
   - vrrp
      - instances
         - interface interface-name
            - all-vrid
            - ipv4
               - vrid
                  - virtual-router-id number
            - ipv6
               - vrid
                  - virtual-router-id number
      - statistics
         - all-statistics
         - interface interface-name
            - all-vrid
            - ipv4
               - vrid
                  - virtual-router-id number
```


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reset router vrrp statistics interface ipv6

```
            - ipv6
              - vrid
                - virtual-router-id number
- saa
  - owner reference test reference
    - statistics
- subscriber-management
  - ancp
    - sub-string
      - [value] ancp-string
  - errors
  - host-lockout
    - policy
      - [name] reference
      - state keyword
    - sap
      - circuit-id string
      - mac ieee-address
      - remote-id string
      - [sap] sap
      - state keyword
    - state
      - [state] keyword
  - idle-only-msap
    - all
    - msap-policy
      - name reference
  - msap-policy
    - name reference
  - sap-template reference
    - idle-saps
  - sessions
    - diameter
      - ccrt-replay
        - application-policy
          - [name] named-item
    - gtp
      - all
      - apn reference
        - all
        - imsi
          - [imsi] imsi
      - imsi
        - [imsi] imsi
    - host-tracking
      - subscriber
        - all
        - id
          - [name] reference
    - pfcp
      - nat-member
        - [id] reference
      - sap
        - mac ieee-address
        - [sap] sap
      - session-id
        - [local-session-id] reference
  - statistics
    - accumulated
      - active-subscribers
        - no-accu-stats-policy
        - sub-profile
          - [name] reference
      - inactive-subscribers
```


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```
            – subscriber
              – [name] reference
        – data-trigger
            – system
        – diameter
            – application-policy
              – [name] named-item
            – ccrt-replay
              – application-policy
                – [name] named-item
        – gtp
            – all
        – host-and-session
            – peakvalues
              – card
                – all
                  – recursive
                – slot
                  – recursive
                  – [slot-number] reference
              – mda
                – all
                  – recursive
                – card-slot reference
                  – mda-slot
                    – [mda] reference
                    – recursive
                  – xiom-slot
                    – mda-slot reference
                    – recursive
                    – [xiom] reference
              – port
                – all
                – lag
                  – [name] reference
                – port-id
                  – [port-id] reference
              – pw-port
                – all
                – pw-port-id
                  – [pw-port-id] reference
              – service
                – all
                  – recursive
                – name service-name
                  – all
                    – recursive
                  – group-interface
                    – all
                    – name
                      – [name] interface-name
                  – subscriber-interface
                    – all
                      – recursive
                    – name
                      – [name] interface-name
                      – recursive
              – system
                – recursive
        – host-tracking
            – subscriber
              – all
              – id
                – [name] reference
```


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reset subscriber-management statistics interface

```
        – interface
          – service service-name
            – all
            – group-interface
              – [name] interface-name
            – subscriber-interface
              – [name] interface-name
        – pfcp
          – association
            – [name] reference
        – radius
          – authentication
            – coa
              – all
        – sla-profile
          – all
          – name
            – [name] reference
        – sub-profile
          – all
          – name
            – [name] reference
        – svlan
          – lag reference
            – all
            – vlan-id
              – [svlan-id] reference
          – port reference
            – all
            – vlan-id
              – [svlan-id] reference
          – pw-port reference
            – all
            – vlan-id
              – [svlan-id] reference
        – wlan-gw
          – cpm-totals
  – system
    – management-interface
      – remote-management
        – managers
          – all
          – manager
            – [name] reference
        – statistics
          – all
          – manager
            – [name] reference
    – ptp
      – clock-recovery
    – reboot-required
    – satellite
      – ethernet-satellite reference
        – synchronous-interface-timing
          – [reference] keyword
    – script-control
      – script-policy
        – completed
          – all
          – policy
            – owner reference
            – [policy-name] reference
    – security
      – cpm-filter
```


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reset system security cpm-filter cpm-queue

```
            –  cpm-queue
               –  queue-id reference
            –  ip-filter
               –  entry reference
            –  ipv6-filter
               –  entry reference
            –  mac-filter
               –  entry reference
         –  management-access-filter
            –  ip-filter
               –  entry reference
            –  ipv6-filter
               –  entry reference
            –  mac-filter
               –  entry reference
   –  xiom
      –  card-slot reference
         –  xiom-slot reference
            –  reinitialize
```


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## 2.7.1 reset command descriptions

### reset

| | |
|---|---|
| Synopsis | Clear statistics or reset operational state |
| Context | reset |
| Tree | reset |
| Description | Commands in this context are used to clear specific statistics, reset specific hardware assemblies (for example, cards), and delete temporary operational state data (for example, contents of a log in memory). |
| Introduced | 23.3.R1 |
| Platforms | All |

### application-assurance

| | |
|---|---|
| Synopsis | Enter the **application-assurance** context |
| Context | reset application-assurance |
| Tree | application-assurance |
| Description | Commands in this context reset Application Assurance (AA) data. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **group** [aa-group-id] *reference*

| | |
|---|---|
| Synopsis | Enter the **group** list instance |
| Context | reset application-assurance group *reference* |
| Tree | group |
| Description | Commands in this context reset AA group data. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**aa-group-id**] *reference*

| | |
|---|---|
| Synopsis | AA group ID |
| Context | reset application-assurance group *reference* |


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| | |
|---|---|
| Tree | group |
| Reference | **state application-assurance group** *number* |
| Notes | This element is part of a list key. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### cflowd

| | |
|---|---|
| Synopsis | Reset AA group cflowd |
| Context | reset application-assurance group *reference* cflowd |
| Tree | cflowd |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **partition** [aa-partition-id] *reference*

| | |
|---|---|
| Synopsis | Enter the **partition** list instance |
| Context | reset application-assurance group *reference* partition *reference* |
| Tree | partition |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**aa-partition-id**] *reference*

| | |
|---|---|
| Synopsis | AA partition ID |
| Context | reset application-assurance group *reference* partition *reference* |
| Tree | partition |
| Reference | **state application-assurance group** *number* **partition** *number* |
| Notes | This element is part of a list key. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### event-log

| | |
|---|---|
| Synopsis | Reset the AA event log for the group partition |


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| | |
|---|---|
| Context | reset application-assurance group *reference* partition *reference* event-log |
| Tree | event-log |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **name** *reference*

| | |
|---|---|
| Synopsis | Event log name |
| Context | reset application-assurance group *reference* partition *reference* event-log name *reference* |
| Tree | name |
| Reference | **state application-assurance group** *number* **partition** *number* **event-log** *named-item* |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## gtp

| | |
|---|---|
| Synopsis | Reset the AA GTP for the group partition |
| Context | reset application-assurance group *reference* partition *reference* gtp |
| Tree | gtp |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## statistics

| | |
|---|---|
| Synopsis | Reset AA group statistics |
| Context | reset application-assurance group *reference* statistics |
| Tree | statistics |
| Description | This command resets statistics displayed using the **show application-assurance group status** command.<br><br>**Note**: This command resets all the application assurance statistics counters to zero on the CPM; however, in some instances these counters may still display non-zero values if there are active flows on the ISA. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### force

| | |
|---|---|
| Synopsis | Force the reset action |
| Context | reset application-assurance group *reference* statistics force |
| Tree | force |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### status

| | |
|---|---|
| Synopsis | Reset status and statistics |
| Context | reset application-assurance group *reference* status |
| Tree | status |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **radius-accounting-policy** [name] *reference*

| | |
|---|---|
| Synopsis | Enter the **radius-accounting-policy** list instance |
| Context | reset application-assurance radius-accounting-policy *reference* |
| Tree | radius-accounting-policy |
| Description | Commands in this context reset application assurance RADIUS accounting statistics for the specified policy. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *reference*

| | |
|---|---|
| Synopsis | AA RADIUS accounting policy |
| Context | reset application-assurance radius-accounting-policy *reference* |
| Tree | radius-accounting-policy |
| Reference | **state application-assurance radius-accounting-policy** *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### statistics

| | |
|---|---|
| Synopsis | Reset AA RADIUS accounting policy statistics |
| Context | reset application-assurance radius-accounting-policy *reference* statistics |
| Tree | statistics |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **server** *reference*

| | |
|---|---|
| Synopsis | AA RADIUS accounting policy server index |
| Context | reset application-assurance radius-accounting-policy *reference* statistics server *reference* |
| Tree | server |
| Reference | **state application-assurance radius-accounting-policy** *named-item* **radius-accounting-server server** *number* |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **card** [slot-number] *reference*

| | |
|---|---|
| Synopsis | Enter the **card** list instance |
| Context | reset card *reference* |
| Tree | card |
| Description | Commands in this context perform reset operations on a specific card. |
| Introduced | 24.3.R1 |
| Platforms | All |

### [**slot-number**] *reference*

| | |
|---|---|
| Synopsis | Slot number |
| Context | reset card *reference* |
| Tree | card |
| Reference | **state card** *number* |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 24.3.R1 |
| Platforms | All |

### **fp** [fp-number] *reference*

| | |
|---|---|
| Synopsis | Enter the **fp** list instance |
| Context | reset card *reference* fp *reference* |
| Tree | fp |
| Description | Commands in this context display information for the specified forwarding plane (FP). |
| Introduced | 24.3.R1 |
| Platforms | All |

### [**fp-number**] *reference*

| | |
|---|---|
| Synopsis | FP number |
| Context | reset card *reference* fp *reference* |
| Tree | fp |
| Reference | **state card** *number* **fp** *number* |
| Notes | This element is part of a list key. |
| Introduced | 24.3.R1 |
| Platforms | All |

### distributed-cpu-protection

| | |
|---|---|
| Synopsis | Enter the **distributed-cpu-protection** context |
| Context | reset card *reference* fp *reference* distributed-cpu-protection |
| Tree | distributed-cpu-protection |
| Description | Commands in this context reset the distributed CPU protection information. |
| Introduced | 24.3.R1 |
| Platforms | All |

### information

| | |
|---|---|
| Synopsis | Reset distributed CPU protection information |
| Context | reset card *reference* fp *reference* distributed-cpu-protection information |


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| | |
|---|---|
| Tree | information |
| Introduced | 24.3.R1 |
| Platforms | All |

## forward-engine-drop-reason

| | |
|---|---|
| Synopsis | Enter the **forward-engine-drop-reason** context |
| Context | reset card *reference* fp *reference* forward-engine-drop-reason |
| Tree | forward-engine-drop-reason |
| Introduced | 24.3.R1 |
| Platforms | All |

## statistics

| | |
|---|---|
| Synopsis | Reset forwarding engine drop reason statistics |
| Context | reset card *reference* fp *reference* forward-engine-drop-reason statistics |
| Tree | statistics |
| Introduced | 24.3.R1 |
| Platforms | All |

## ingress

| | |
|---|---|
| Synopsis | Enter the **ingress** context |
| Context | reset card *reference* fp *reference* ingress |
| Tree | ingress |
| Description | Commands in this context reset the ingress information. |
| Introduced | 24.3.R1 |
| Platforms | All |

## per-egress-fp-statistics

| | |
|---|---|
| Synopsis | Reset per egress FP statistics |
| Context | reset card *reference* fp *reference* ingress per-egress-fp-statistics |
| Tree | per-egress-fp-statistics |
| Introduced | 24.3.R1 |


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| | |
|---|---|
| Platforms | All |

## queue-group

| | |
|---|---|
| Synopsis | Enter the **queue-group** context |
| Context | reset card *reference* fp *reference* ingress queue-group |
| Tree | queue-group |
| Introduced | 24.3.R1 |
| Platforms | All |

## statistics

| | |
|---|---|
| Synopsis | Reset the queue group statistics |
| Context | reset card *reference* fp *reference* ingress queue-group statistics |
| Tree | statistics |
| Introduced | 24.3.R1 |
| Platforms | All |

## instance *number*

| | |
|---|---|
| Synopsis | Queue group instance ID |
| Context | reset card *reference* fp *reference* ingress queue-group statistics instance *number* |
| Tree | instance |
| Max. range | 0 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## mode *keyword*

| | |
|---|---|
| Synopsis | Queue group statistics mode |
| Context | reset card *reference* fp *reference* ingress queue-group statistics mode *keyword* |
| Tree | mode |
| Options | access, network |
| Notes | This element is mandatory. |


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| | |
|---|---|
| Introduced | 24.3.R1 |
| Platforms | All |

### queue-group-name *string*

| | |
|---|---|
| Synopsis | Queue group name |
| Context | reset card *reference* fp *reference* ingress queue-group statistics queue-group-name *string* |
| Tree | queue-group-name |
| Notes | This element is mandatory. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### reinitialize

| | |
|---|---|
| Synopsis | Reset the specified card |
| Context | reset card *reference* reinitialize |
| Tree | reinitialize |
| Introduced | 24.3.R1 |
| Platforms | All |

### hard-reset-unsupported-mdas

| | |
|---|---|
| Synopsis | Perform a hard reset on MDAs incapable of soft reset |
| Context | reset card *reference* reinitialize hard-reset-unsupported-mdas |
| Tree | hard-reset-unsupported-mdas |
| Description | This command allows a soft reset operation when some of the MDAs cannot perform a soft reset. A soft reset is performed on MDAs that support a soft reset, and a hard reset is performed on MDAs that do not support soft resets. |
| Introduced | 24.3.R1 |
| Platforms | All |

### soft

| | |
|---|---|
| Synopsis | Perform a soft reset on the card |
| Context | reset card *reference* reinitialize soft |


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| | |
|---|---|
| Tree | soft |
| Introduced | 24.3.R1 |
| Platforms | All |

### filter

| | |
|---|---|
| Synopsis | Enter the **filter** context |
| Context | reset filter |
| Tree | filter |
| Introduced | 23.3.R1 |
| Platforms | All |

### ip-exception

| | |
|---|---|
| Synopsis | Reset operation on the specified IP exception filter |
| Context | reset filter ip-exception |
| Tree | ip-exception |
| Introduced | 23.3.R1 |
| Platforms | VSR |

### direction *keyword*

| | |
|---|---|
| Synopsis | Statistics direction for IP exception filter entries |
| Context | reset filter ip-exception direction *keyword* |
| Tree | direction |
| Options | ingress, egress |
| Introduced | 23.3.R1 |
| Platforms | VSR |

### entry *reference*

| | |
|---|---|
| Synopsis | Entry ID for the filter |
| Context | reset filter ip-exception entry *reference* |
| Tree | entry |
| Reference | **state filter ip-exception** *filter-name* **entry** *number* |


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| | |
|---|---|
| Introduced | 23.3.R1 |
| Platforms | VSR |

### [**filter-name**] *reference*

| | |
|---|---|
| Synopsis | IP exception filter name |
| Context | reset filter ip-exception [filter-name] *reference* |
| Tree | [filter-name] |
| Reference | **state filter ip-exception** *filter-name* |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | VSR |

### **ip-filter**

| | |
|---|---|
| Synopsis | Reset operation on the specified IP filter |
| Context | reset filter ip-filter |
| Tree | ip-filter |
| Introduced | 23.3.R1 |
| Platforms | All |

### **direction** *keyword*

| | |
|---|---|
| Synopsis | Statistics direction for IP filter entries |
| Context | reset filter ip-filter direction *keyword* |
| Tree | direction |
| Options | ingress, egress |
| Introduced | 23.3.R1 |
| Platforms | All |

### **entry** *reference*

| | |
|---|---|
| Synopsis | Entry ID for the filter |
| Context | reset filter ip-filter entry *reference* |
| Tree | entry |


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| | |
|---|---|
| Reference | **state filter ip-filter** *filter-name* **entry** *number* |
| Introduced | 23.3.R1 |
| Platforms | All |

### [**filter-name**] *reference*

| | |
|---|---|
| Synopsis | IP filter name |
| Context | reset filter ip-filter [filter-name] *reference* |
| Tree | [filter-name] |
| Reference | **state filter ip-filter** *filter-name* |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **ipv6-exception**

| | |
|---|---|
| Synopsis | Reset operation on the specified IPv6 exception filter |
| Context | reset filter ipv6-exception |
| Tree | ipv6-exception |
| Introduced | 23.3.R1 |
| Platforms | VSR |

### **direction** *keyword*

| | |
|---|---|
| Synopsis | Statistics direction for IPv6 exception filter entries |
| Context | reset filter ipv6-exception direction *keyword* |
| Tree | direction |
| Options | ingress, egress |
| Introduced | 23.3.R1 |
| Platforms | VSR |

### **entry** *reference*

| | |
|---|---|
| Synopsis | Entry ID for the filter |
| Context | reset filter ipv6-exception entry *reference* |


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| | |
|---|---|
| Tree | entry |
| Reference | **state filter ipv6-exception** *filter-name* **entry** *number* |
| Introduced | 23.3.R1 |
| Platforms | VSR |

### [**filter-name**] *reference*

| | |
|---|---|
| Synopsis | IPv6 exception filter name |
| Context | reset filter ipv6-exception [filter-name] *reference* |
| Tree | [filter-name] |
| Reference | **state filter ipv6-exception** *filter-name* |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | VSR |

### **ipv6-filter**

| | |
|---|---|
| Synopsis | Reset operation on the specified IPv6 filter |
| Context | reset filter ipv6-filter |
| Tree | ipv6-filter |
| Introduced | 23.3.R1 |
| Platforms | All |

### **direction** *keyword*

| | |
|---|---|
| Synopsis | Statistics direction of IPv6 filter entries |
| Context | reset filter ipv6-filter direction *keyword* |
| Tree | direction |
| Options | ingress, egress |
| Introduced | 23.3.R1 |
| Platforms | All |

### **entry** *reference*

| | |
|---|---|
| Synopsis | Entry ID for the IPv6 filter |


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| | |
|---|---|
| Context | reset filter ipv6-filter entry *reference* |
| Tree | entry |
| Reference | **state filter ipv6-filter** *filter-name* **entry** *number* |
| Introduced | 23.3.R1 |
| Platforms | All |

### [**filter-name**] *reference*

| | |
|---|---|
| Synopsis | IPv6 exception filter name |
| Context | reset filter ipv6-filter [filter-name] *reference* |
| Tree | [filter-name] |
| Reference | **state filter ipv6-filter** *filter-name* |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |

### log

| | |
|---|---|
| Synopsis | Reset the specified filter log |
| Context | reset filter log |
| Tree | log |
| Description | This command reinitializes or rolls over the specified memory filter log. Memory filter logs are reinitialized and cleared of contents.<br>This command is applicable only to filter logs that are directed to memory destinations. Filter logs with destinations other than memory are not affected by this command. |
| Introduced | 23.7.R1 |
| Platforms | All |

### [**log-id**] *reference*

| | |
|---|---|
| Synopsis | ID of the filter log to reset |
| Context | reset filter log [log-id] *reference* |
| Tree | [log-id] |
| Reference | **state filter log** *number* |
| Notes | This element is mandatory. |


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| | |
|---|---|
| Introduced | 23.7.R1 |
| Platforms | All |

### mac-filter

| | |
|---|---|
| Synopsis | Reset operation on the specified MAC filter |
| Context | reset filter mac-filter |
| Tree | mac-filter |
| Introduced | 23.3.R1 |
| Platforms | All |

### direction *keyword*

| | |
|---|---|
| Synopsis | Statistics direction for MAC filter entries |
| Context | reset filter mac-filter direction *keyword* |
| Tree | direction |
| Options | ingress, egress |
| Introduced | 23.3.R1 |
| Platforms | All |

### entry *reference*

| | |
|---|---|
| Synopsis | Entry ID for the MAC filter |
| Context | reset filter mac-filter entry *reference* |
| Tree | entry |
| Reference | **state filter mac-filter** *filter-name* **entry** *number* |
| Introduced | 23.3.R1 |
| Platforms | All |

### [**filter-name**] *reference*

| | |
|---|---|
| Synopsis | MAC filter name |
| Context | reset filter mac-filter [filter-name] *reference* |
| Tree | [filter-name] |
| Reference | **state filter mac-filter** *filter-name* |


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| | |
|---|---|
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **lag** [lag-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **lag** list instance |
| Context | reset lag *reference* |
| Tree | lag |
| Description | Commands in this context configure LAG reset operations. |
| Introduced | 23.3.R1 |
| Platforms | All |

### [**lag-name**] *reference*

| | |
|---|---|
| Synopsis | LAG name, starting with lag- |
| Context | reset lag *reference* |
| Tree | lag |
| Reference | **state lag** *lag-interface* |
| Notes | This element is part of a list key. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **aggregate-queue-statistics**

| | |
|---|---|
| Synopsis | Reset LAG aggregate queue statistics |
| Context | reset lag *reference* aggregate-queue-statistics |
| Tree | aggregate-queue-statistics |
| Description | This command clears aggregate queue statistics on a PXC-based LAG. |
| Introduced | 24.10.R1 |
| Platforms | All |

### **bfd-session**

| | |
|---|---|
| Synopsis | Enter the **bfd-session** context |


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| | |
|---|---|
| Context | reset lag *reference* bfd-session |
| Tree | bfd-session |
| Description | Commands in this context reset the LAG BFD session data. |
| Introduced | 23.3.R1 |
| Platforms | All |

## port

| | |
|---|---|
| Synopsis | Port identifier in the LAG |
| Context | reset lag *reference* bfd-session port |
| Tree | port |
| Introduced | 23.3.R1 |
| Platforms | All |

## family *keyword*

| | |
|---|---|
| Synopsis | BFD session family type |
| Context | reset lag *reference* bfd-session port family *keyword* |
| Tree | family |
| Options | ipv4, ipv6 |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |

## [**lag-port**] *reference*

| | |
|---|---|
| Synopsis | Member port of the LAG |
| Context | reset lag *reference* bfd-session port [lag-port] *reference* |
| Tree | [lag-port] |
| Reference | **state lag** *lag-interface* **port** *reference* |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |


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### lacp-statistics

| | |
|---|---|
| Synopsis | Reset LACP statistics |
| Context | reset lag *reference* lacp-statistics |
| Tree | lacp-statistics |
| Introduced | 23.3.R1 |
| Platforms | All |

### statistics

| | |
|---|---|
| Synopsis | Reset LAG statistics |
| Context | reset lag *reference* statistics |
| Tree | statistics |
| Introduced | 23.3.R1 |
| Platforms | All |

### log

| | |
|---|---|
| Synopsis | Enter the **log** context |
| Context | reset log |
| Tree | log |
| Description | Commands in this context provide reset operations for events, logs, and the event handling system (EHS). |
| Introduced | 23.7.R1 |
| Platforms | All |

### event-handling

| | |
|---|---|
| Synopsis | Enter the **event-handling** context |
| Context | reset log event-handling |
| Tree | event-handling |
| Description | Commands in this context provide reset operations for the EHS. |
| Introduced | 23.7.R1 |
| Platforms | All |


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## handlers

| | |
|---|---|
| Synopsis | Enter the **handlers** context |
| Context | reset log event-handling handlers |
| Tree | handlers |
| Description | Commands in this context reset statistics related to EHS handlers. |
| Introduced | 23.7.R1 |
| Platforms | All |

## all

| | |
|---|---|
| Synopsis | Reset statistics for all EHS handlers |
| Context | reset log event-handling handlers all |
| Tree | all |
| Description | This command resets all statistics for all handlers in the **state log event-handling handler** context and in the output of the **show log event-handling handler** command. |
| Introduced | 23.7.R1 |
| Platforms | All |

## handler

| | |
|---|---|
| Synopsis | Reset statistics for a specified EHS handler |
| Context | reset log event-handling handlers handler |
| Tree | handler |
| Description | This command resets all statistics for the specified handler in the **state log event-handling handler** context and in the output of the **show log event-handling handler** command. |
| Introduced | 23.7.R1 |
| Platforms | All |

## [**name**] *reference*

| | |
|---|---|
| Synopsis | Handler name to reset |
| Context | reset log event-handling handlers handler [name] *reference* |
| Tree | [name] |
| Reference | **state log event-handling handler** *named-item* |


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| | |
|---|---|
| Notes | This element is mandatory. |
| Introduced | 23.7.R1 |
| Platforms | All |

## information

| | |
|---|---|
| Synopsis | Reset general EHS operational data |
| Context | reset log event-handling information |
| Tree | information |
| Description | This command resets all data in the **state log event-handling summary-statistics** context and in the output of the **show log event-handling information** command. |
| Introduced | 23.7.R1 |
| Platforms | All |

## log-events

| | |
|---|---|
| Synopsis | Enter the **log-events** context |
| Context | reset log log-events |
| Tree | log-events |
| Description | Commands in this context reset the operational state related to log events. |
| Introduced | 23.7.R1 |
| Platforms | All |

## repeating-events

| | |
|---|---|
| Synopsis | Enter the **repeating-events** context |
| Context | reset log log-events repeating-events |
| Tree | repeating-events |
| Description | Commands in this context reset the operational state related to repeating log events. |
| Introduced | 23.7.R1 |
| Platforms | All |

## all

| | |
|---|---|
| Synopsis | Reset operation for all repeating log events |


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| | |
|---|---|
| Context | reset log log-events repeating-events all |
| Tree | all |
| Description | This command cancels the repetition of all log events that are currently repeating.<br>All repeating log events stop repeating. |
| Introduced | 23.7.R1 |
| Platforms | All |

## log-id

| | |
|---|---|
| Synopsis | Reset the specified event log |
| Context | reset log log-id |
| Tree | log-id |
| Description | This command reinitializes or rolls over the specified memory or file event log. Memory logs are reinitialized and cleared of contents. File logs are manually rolled over by this command.<br>This command is applicable only to event logs that are directed to file destinations and memory destinations. This command does not affect SNMP, syslog, console, CLI, or session logs. |
| Introduced | 23.7.R1 |
| Platforms | All |

## [**name**] *reference*

| | |
|---|---|
| Synopsis | Name of the event log to reset |
| Context | reset log log-id [name] *reference* |
| Tree | [name] |
| Reference | **state log log-id** *log-name* |
| Notes | This element is mandatory. |
| Introduced | 23.7.R1 |
| Platforms | All |

## mda

| | |
|---|---|
| Synopsis | Enter the **mda** context |
| Context | reset mda |
| Tree | mda |


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| | |
|---|---|
| Description | Commands in this context perform reset operations on an MDA in a specified slot. |
| Introduced | 24.3.R1 |
| Platforms | All |

### **card-slot** [slot-number] *reference*

| | |
|---|---|
| Synopsis | Enter the **card-slot** list instance |
| Context | reset mda card-slot *reference* |
| Tree | card-slot |
| Introduced | 24.3.R1 |
| Platforms | All |

### [**slot-number**] *reference*

| | |
|---|---|
| Synopsis | Slot number |
| Context | reset mda card-slot *reference* |
| Tree | card-slot |
| Reference | **state card** *number* |
| Notes | This element is part of a list key. |
| Introduced | 24.3.R1 |
| Platforms | All |

### **mda-slot** [mda] *reference*

| | |
|---|---|
| Synopsis | Enter the **mda-slot** list instance |
| Context | reset mda card-slot *reference* mda-slot *reference* |
| Tree | mda-slot |
| Introduced | 24.3.R1 |
| Platforms | All |

### [**mda**] *reference*

| | |
|---|---|
| Synopsis | Card MDA slot |
| Context | reset mda card-slot *reference* mda-slot *reference* |
| Tree | mda-slot |


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| | |
|---|---|
| Reference | **state card** *number* **mda** *number* |
| Notes | This element is part of a list key. |
| Introduced | 24.3.R1 |
| Platforms | All |

### ipsec-statistics

| | |
|---|---|
| Synopsis | Reset MDA IPsec statistics |
| Context | reset mda card-slot *reference* mda-slot *reference* ipsec-statistics |
| Tree | ipsec-statistics |
| Introduced | 24.3.R1 |
| Platforms | All |

### reinitialize

| | |
|---|---|
| Synopsis | Reset the specified MDA |
| Context | reset mda card-slot *reference* mda-slot *reference* reinitialize |
| Tree | reinitialize |
| Introduced | 24.3.R1 |
| Platforms | All |

### **xiom-slot** [xiom] *reference*

| | |
|---|---|
| Synopsis | Enter the **xiom-slot** list instance |
| Context | reset mda card-slot *reference* xiom-slot *reference* |
| Tree | xiom-slot |
| Description | Commands in this context perform reset operations in the specified XIOM slot. |
| Introduced | 24.3.R1 |
| Platforms | 7750 SR-1s, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s |

### [**xiom**] *reference*

| | |
|---|---|
| Synopsis | XIOM slot |
| Context | reset mda card-slot *reference* xiom-slot *reference* |
| Tree | xiom-slot |


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| | |
|---|---|
| Reference | **state card** *number* **xiom** *string* |
| Notes | This element is part of a list key. |
| Introduced | 24.3.R1 |
| Platforms | 7750 SR-1s, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s |

### **mda-slot** [mda] *reference*

| | |
|---|---|
| Synopsis | Enter the **mda-slot** list instance |
| Context | reset mda card-slot *reference* xiom-slot *reference* mda-slot *reference* |
| Tree | mda-slot |
| Introduced | 24.3.R1 |
| Platforms | 7750 SR-1s, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s |

### [**mda**] *reference*

| | |
|---|---|
| Synopsis | XIOM MDA slot |
| Context | reset mda card-slot *reference* xiom-slot *reference* mda-slot *reference* |
| Tree | mda-slot |
| Reference | **state card** *number* **xiom** *string* **mda** *number* |
| Notes | This element is part of a list key. |
| Introduced | 24.3.R1 |
| Platforms | 7750 SR-1s, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s |

### **ipsec-statistics**

| | |
|---|---|
| Synopsis | Reset mda ipsec statistics |
| Context | reset mda card-slot *reference* xiom-slot *reference* mda-slot *reference* ipsec-statistics |
| Tree | ipsec-statistics |
| Introduced | 24.3.R1 |
| Platforms | 7750 SR-1s, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s |

### **reinitialize**

| | |
|---|---|
| Synopsis | Reset the specified MDA |
| Context | reset mda card-slot *reference* xiom-slot *reference* mda-slot *reference* reinitialize |


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| | |
|---|---|
| Tree | reinitialize |
| Introduced | 24.3.R1 |
| Platforms | 7750 SR-1s, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s |

### **router** [router-instance] *string*

| | |
|---|---|
| Synopsis | Enter the **router** list instance |
| Context | reset router *string* |
| Tree | router |
| Introduced | 23.7.R1 |
| Platforms | All |

### [**router-instance**] *string*

| | |
|---|---|
| Synopsis | Router name or VPRN service name |
| Context | reset router *string* |
| Tree | router |
| MD-CLI default | Base |
| Notes | This element is part of a list key. |
| Introduced | 23.7.R1 |
| Platforms | All |

### **arp**

| | |
|---|---|
| Synopsis | Enter the **arp** context |
| Context | reset router *string* arp |
| Tree | arp |
| Description | Commands in this context reset ARP cache entries. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **address**

| | |
|---|---|
| Synopsis | Reset the ARP cache entries for the IPv4 address |


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| | |
|---|---|
| Context | reset router *string* arp address |
| Tree | address |
| Introduced | 23.10.R1 |
| Platforms | All |

### **ipv4-address** *ipv4-address*

| | |
|---|---|
| Synopsis | IPv4 address |
| Context | reset router *string* arp address ipv4-address *ipv4-address* |
| Tree | ipv4-address |
| Introduced | 23.10.R1 |
| Platforms | All |

### **all**

| | |
|---|---|
| Synopsis | Reset all ARP cache entries |
| Context | reset router *string* arp all |
| Tree | all |
| Introduced | 23.10.R1 |
| Platforms | All |

### **interface**

| | |
|---|---|
| Synopsis | Reset ARP cache entries for the interface |
| Context | reset router *string* arp interface |
| Tree | interface |
| Introduced | 23.10.R1 |
| Platforms | All |

### **interface-name** *interface-name*

| | |
|---|---|
| Synopsis | Interface name |
| Context | reset router *string* arp interface interface-name *interface-name* |
| Tree | interface-name |
| String length | 1 to 32 |


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| | |
|---|---|
| Introduced | 23.10.R1 |
| Platforms | All |

## bfd

| | |
|---|---|
| Synopsis | Enter the **bfd** context |
| Context | reset router *string* bfd |
| Tree | bfd |
| Description | Commands in this context reset bidirectional forwarding (BFD) sessions and statistics. |
| Introduced | 23.10.R1 |
| Platforms | All |

## session

| | |
|---|---|
| Synopsis | Enter the **session** context |
| Context | reset router *string* bfd session |
| Tree | session |
| Introduced | 23.10.R1 |
| Platforms | All |

## lsp-ldp

| | |
|---|---|
| Synopsis | Enter the **lsp-ldp** context |
| Context | reset router *string* bfd session lsp-ldp |
| Tree | lsp-ldp |
| Introduced | 23.10.R1 |
| Platforms | All |

## head

| | |
|---|---|
| Synopsis | Enter the **head** context |
| Context | reset router *string* bfd session lsp-ldp head |
| Tree | head |
| Introduced | 23.10.R1 |
| Platforms | All |


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### session-key

| | |
|---|---|
| Synopsis | Reset information for the session key |
| Context | reset router *string* bfd session lsp-ldp head session-key |
| Tree | session-key |
| Introduced | 23.10.R1 |
| Platforms | All |

### prefix *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Prefix |
| Context | reset router *string* bfd session lsp-ldp head session-key prefix *(ipv4-prefix \| ipv6-prefix)* |
| Tree | prefix |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

### src-ip *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source address |
| Context | reset router *string* bfd session lsp-ldp head session-key src-ip *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | src-ip |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

### tail

| | |
|---|---|
| Synopsis | Enter the **tail** context |
| Context | reset router *string* bfd session lsp-ldp tail |
| Tree | tail |
| Introduced | 23.10.R1 |
| Platforms | All |


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### session-key

| | |
|---|---|
| Synopsis | Reset information for the session key |
| Context | reset router *string* bfd session lsp-ldp tail session-key |
| Tree | session-key |
| Introduced | 23.10.R1 |
| Platforms | All |

### dst-ip *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Destination address |
| Context | reset router *string* bfd session lsp-ldp tail session-key dst-ip *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | dst-ip |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

### prefix *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Prefix |
| Context | reset router *string* bfd session lsp-ldp tail session-key prefix *(ipv4-prefix \| ipv6-prefix)* |
| Tree | prefix |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

### lsp-rsvp

| | |
|---|---|
| Synopsis | Enter the **lsp-rsvp** context |
| Context | reset router *string* bfd session lsp-rsvp |
| Tree | lsp-rsvp |
| Introduced | 23.10.R1 |
| Platforms | All |


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## head

| | |
|---|---|
| Synopsis | Enter the **head** context |
| Context | reset router *string* bfd session lsp-rsvp head |
| Tree | head |
| Introduced | 23.10.R1 |
| Platforms | All |

## rsvp-session-name

| | |
|---|---|
| Synopsis | Reset information for the RSVP session name |
| Context | reset router *string* bfd session lsp-rsvp head rsvp-session-name |
| Tree | rsvp-session-name |
| Introduced | 23.10.R1 |
| Platforms | All |

## rsvp-session-name *string-not-all-spaces*

| | |
|---|---|
| Synopsis | RSVP session name |
| Context | reset router *string* bfd session lsp-rsvp head rsvp-session-name rsvp-session-name *string-not-all-spaces* |
| Tree | rsvp-session-name |
| String length | 1 to 256 |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

## session-key

| | |
|---|---|
| Synopsis | Reset information for the session key |
| Context | reset router *string* bfd session lsp-rsvp head session-key |
| Tree | session-key |
| Introduced | 23.10.R1 |
| Platforms | All |


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### **dst-ip** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Destination address |
| Context | reset router *string* bfd session lsp-rsvp head session-key dst-ip *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | dst-ip |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **lsp-id** *number*

| | |
|---|---|
| Synopsis | LSP ID |
| Context | reset router *string* bfd session lsp-rsvp head session-key lsp-id *number* |
| Tree | lsp-id |
| Max. range | 0 to 4294967295 |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **src-ip** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source address |
| Context | reset router *string* bfd session lsp-rsvp head session-key src-ip *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | src-ip |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **tunnel-id** *number*

| | |
|---|---|
| Synopsis | Tunnel ID |
| Context | reset router *string* bfd session lsp-rsvp head session-key tunnel-id *number* |
| Tree | tunnel-id |


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| | |
|---|---|
| Max. range | 0 to 4294967295 |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

### tail

| | |
|---|---|
| Synopsis | Enter the **tail** context |
| Context | reset router *string* bfd session lsp-rsvp tail |
| Tree | tail |
| Introduced | 23.10.R1 |
| Platforms | All |

### rsvp-session-name

| | |
|---|---|
| Synopsis | Reset information for the RSVP session name |
| Context | reset router *string* bfd session lsp-rsvp tail rsvp-session-name |
| Tree | rsvp-session-name |
| Introduced | 23.10.R1 |
| Platforms | All |

### rsvp-session-name *string-not-all-spaces*

| | |
|---|---|
| Synopsis | RSVP session name |
| Context | reset router *string* bfd session lsp-rsvp tail rsvp-session-name rsvp-session-name *string-not-all-spaces* |
| Tree | rsvp-session-name |
| String length | 1 to 256 |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

### sender-ip *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | RSVP session sender IP address |


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| | |
|---|---|
| Context | reset router *string* bfd session lsp-rsvp tail rsvp-session-name sender-ip *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | sender-ip |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

### session-key

| | |
|---|---|
| Synopsis | Reset information for the session key |
| Context | reset router *string* bfd session lsp-rsvp tail session-key |
| Tree | session-key |
| Introduced | 23.10.R1 |
| Platforms | All |

### dst-ip *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Destination address |
| Context | reset router *string* bfd session lsp-rsvp tail session-key dst-ip *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | dst-ip |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

### lsp-id *number*

| | |
|---|---|
| Synopsis | LSP ID |
| Context | reset router *string* bfd session lsp-rsvp tail session-key lsp-id *number* |
| Tree | lsp-id |
| Max. range | 0 to 4294967295 |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |


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### **src-ip** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source address |
| Context | reset router *string* bfd session lsp-rsvp tail session-key src-ip *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | src-ip |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **tunnel-id** *number*

| | |
|---|---|
| Synopsis | Tunnel ID |
| Context | reset router *string* bfd session lsp-rsvp tail session-key tunnel-id *number* |
| Tree | tunnel-id |
| Max. range | 0 to 4294967295 |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **mpls-tp**

| | |
|---|---|
| Synopsis | Enter the **mpls-tp** context |
| Context | reset router *string* bfd session mpls-tp |
| Tree | mpls-tp |
| Introduced | 23.10.R1 |
| Platforms | All |

### **lsp-id**

| | |
|---|---|
| Synopsis | Reset information for the LSP ID |
| Context | reset router *string* bfd session mpls-tp lsp-id |
| Tree | lsp-id |
| Introduced | 23.10.R1 |
| Platforms | All |


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### **lsp-name** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | LSP name |
| Context | reset router *string* bfd session mpls-tp lsp-id lsp-name *string-not-all-spaces* |
| Tree | lsp-name |
| String length | 1 to 256 |
| Introduced | 23.10.R1 |
| Platforms | All |

### **path** *keyword*

| | |
|---|---|
| Synopsis | Path status |
| Context | reset router *string* bfd session mpls-tp lsp-id path *keyword* |
| Tree | path |
| Options | working, protecting |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **point-to-multipoint**

| | |
|---|---|
| Synopsis | Enter the **point-to-multipoint** context |
| Context | reset router *string* bfd session point-to-multipoint |
| Tree | point-to-multipoint |
| Introduced | 23.10.R1 |
| Platforms | All |

### **p2mp-interface-name**

| | |
|---|---|
| Synopsis | Reset information for the P2MP interface |
| Context | reset router *string* bfd session point-to-multipoint p2mp-interface-name |
| Tree | p2mp-interface-name |
| Introduced | 23.10.R1 |
| Platforms | All |


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### [**p2mp-interface-name**] *string*

| | |
|---|---|
| Synopsis | P2MP interface name |
| Context | reset router *string* bfd session point-to-multipoint p2mp-interface-name [p2mp-interface-name] *string* |
| Tree | [p2mp-interface-name] |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

### point-to-point

| | |
|---|---|
| Synopsis | Enter the **point-to-point** context |
| Context | reset router *string* bfd session point-to-point |
| Tree | point-to-point |
| Introduced | 23.10.R1 |
| Platforms | All |

### session-key

| | |
|---|---|
| Synopsis | Reset information for the session key |
| Context | reset router *string* bfd session point-to-point session-key |
| Tree | session-key |
| Introduced | 23.10.R1 |
| Platforms | All |

### **dst** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Destination address |
| Context | reset router *string* bfd session point-to-point session-key dst *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | dst |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |


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### **src** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source address |
| Context | reset router *string* bfd session point-to-point session-key src *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | src |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

### seamless-lsp-path

| | |
|---|---|
| Synopsis | Enter the **seamless-lsp-path** context |
| Context | reset router *string* bfd session seamless-lsp-path |
| Tree | seamless-lsp-path |
| Introduced | 23.10.R1 |
| Platforms | All |

### all

| | |
|---|---|
| Synopsis | Reset all sessions |
| Context | reset router *string* bfd session seamless-lsp-path all |
| Tree | all |
| Introduced | 23.10.R1 |
| Platforms | All |

### session-key

| | |
|---|---|
| Synopsis | Reset information for the session key |
| Context | reset router *string* bfd session seamless-lsp-path session-key |
| Tree | session-key |
| Introduced | 23.10.R1 |
| Platforms | All |


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### **lsp-index** *number*

| | |
|---|---|
| Synopsis | LSP index |
| Context | reset router *string* bfd session seamless-lsp-path session-key lsp-index *number* |
| Tree | lsp-index |
| Max. range | 0 to 4294967295 |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **path-lspid** *number*

| | |
|---|---|
| Synopsis | LSP path ID |
| Context | reset router *string* bfd session seamless-lsp-path session-key path-lspid *number* |
| Tree | path-lspid |
| Max. range | 0 to 4294967295 |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **prefix** *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Prefix |
| Context | reset router *string* bfd session seamless-lsp-path session-key prefix *(ipv4-prefix \| ipv6-prefix)* |
| Tree | prefix |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **src-ip** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source address |
| Context | reset router *string* bfd session seamless-lsp-path session-key src-ip *(ipv4-address-no-zone \| ipv6-address-no-zone)* |


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| | |
|---|---|
| Tree | src-ip |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

## seamless-sr-policy

| | |
|---|---|
| Synopsis | Enter the **seamless-sr-policy** context |
| Context | reset router *string* bfd session seamless-sr-policy |
| Tree | seamless-sr-policy |
| Introduced | 23.10.R1 |
| Platforms | All |

## all

| | |
|---|---|
| Synopsis | Reset all sessions |
| Context | reset router *string* bfd session seamless-sr-policy all |
| Tree | all |
| Introduced | 23.10.R1 |
| Platforms | All |

## session-key

| | |
|---|---|
| Synopsis | Reset information for the session key |
| Context | reset router *string* bfd session seamless-sr-policy session-key |
| Tree | session-key |
| Introduced | 23.10.R1 |
| Platforms | All |

## lsp-index *number*

| | |
|---|---|
| Synopsis | LSP index |
| Context | reset router *string* bfd session seamless-sr-policy session-key lsp-index *number* |
| Tree | lsp-index |
| Max. range | 0 to 4294967295 |


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| | |
|---|---|
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **path-lspid** *number*

| | |
|---|---|
| Synopsis | LSP path ID |
| Context | reset router *string* bfd session seamless-sr-policy session-key path-lspid *number* |
| Tree | path-lspid |
| Max. range | 0 to 4294967295 |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **prefix** *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Prefix |
| Context | reset router *string* bfd session seamless-sr-policy session-key prefix *(ipv4-prefix \| ipv6-prefix)* |
| Tree | prefix |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **src-ip** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source address |
| Context | reset router *string* bfd session seamless-sr-policy session-key src-ip *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | src-ip |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |


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### statistics

| | |
|---|---|
| Synopsis | Enter the **statistics** context |
| Context | reset router *string* bfd statistics |
| Tree | statistics |
| Introduced | 23.10.R1 |
| Platforms | All |

### lsp-ldp

| | |
|---|---|
| Synopsis | Enter the **lsp-ldp** context |
| Context | reset router *string* bfd statistics lsp-ldp |
| Tree | lsp-ldp |
| Introduced | 23.10.R1 |
| Platforms | All |

### head

| | |
|---|---|
| Synopsis | Enter the **head** context |
| Context | reset router *string* bfd statistics lsp-ldp head |
| Tree | head |
| Introduced | 23.10.R1 |
| Platforms | All |

### session-key

| | |
|---|---|
| Synopsis | Reset information for the session key |
| Context | reset router *string* bfd statistics lsp-ldp head session-key |
| Tree | session-key |
| Introduced | 23.10.R1 |
| Platforms | All |

### prefix *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Prefix |


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| | |
|---|---|
| Context | reset router *string* bfd statistics lsp-ldp head session-key prefix *(ipv4-prefix \| ipv6-prefix)* |
| Tree | prefix |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **src-ip** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source address |
| Context | reset router *string* bfd statistics lsp-ldp head session-key src-ip *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | src-ip |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **tail**

| | |
|---|---|
| Synopsis | Enter the **tail** context |
| Context | reset router *string* bfd statistics lsp-ldp tail |
| Tree | tail |
| Introduced | 23.10.R1 |
| Platforms | All |

### **session-key**

| | |
|---|---|
| Synopsis | Reset information for the session key |
| Context | reset router *string* bfd statistics lsp-ldp tail session-key |
| Tree | session-key |
| Introduced | 23.10.R1 |
| Platforms | All |

### **dst-ip** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Destination address |


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| | |
|---|---|
| Context | reset router *string* bfd statistics lsp-ldp tail session-key dst-ip *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | dst-ip |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **prefix** *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Prefix |
| Context | reset router *string* bfd statistics lsp-ldp tail session-key prefix *(ipv4-prefix \| ipv6-prefix)* |
| Tree | prefix |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **lsp-rsvp**

| | |
|---|---|
| Synopsis | Enter the **lsp-rsvp** context |
| Context | reset router *string* bfd statistics lsp-rsvp |
| Tree | lsp-rsvp |
| Introduced | 23.10.R1 |
| Platforms | All |

### **head**

| | |
|---|---|
| Synopsis | Enter the **head** context |
| Context | reset router *string* bfd statistics lsp-rsvp head |
| Tree | head |
| Introduced | 23.10.R1 |
| Platforms | All |

### **rsvp-session-name**

| | |
|---|---|
| Synopsis | Reset information for the RSVP session name |


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| | |
|---|---|
| Context | reset router *string* bfd statistics lsp-rsvp head rsvp-session-name |
| Tree | rsvp-session-name |
| Introduced | 23.10.R1 |
| Platforms | All |

### **rsvp-session-name** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | RSVP session name |
| Context | reset router *string* bfd statistics lsp-rsvp head rsvp-session-name rsvp-session-name *string-not-all-spaces* |
| Tree | rsvp-session-name |
| String length | 1 to 256 |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **session-key**

| | |
|---|---|
| Synopsis | Reset information for the session key |
| Context | reset router *string* bfd statistics lsp-rsvp head session-key |
| Tree | session-key |
| Introduced | 23.10.R1 |
| Platforms | All |

### **dst-ip** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Destination address |
| Context | reset router *string* bfd statistics lsp-rsvp head session-key dst-ip *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | dst-ip |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |


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### **lsp-id** *number*

| | |
|---|---|
| Synopsis | LSP ID |
| Context | reset router *string* bfd statistics lsp-rsvp head session-key lsp-id *number* |
| Tree | lsp-id |
| Max. range | 0 to 4294967295 |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **src-ip** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source address |
| Context | reset router *string* bfd statistics lsp-rsvp head session-key src-ip *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | src-ip |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **tunnel-id** *number*

| | |
|---|---|
| Synopsis | Tunnel ID |
| Context | reset router *string* bfd statistics lsp-rsvp head session-key tunnel-id *number* |
| Tree | tunnel-id |
| Max. range | 0 to 4294967295 |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **tail**

| | |
|---|---|
| Synopsis | Enter the **tail** context |
| Context | reset router *string* bfd statistics lsp-rsvp tail |
| Tree | tail |


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| | |
|---|---|
| Introduced | 23.10.R1 |
| Platforms | All |

### rsvp-session-name

| | |
|---|---|
| Synopsis | Reset information for the RSVP session name |
| Context | reset router *string* bfd statistics lsp-rsvp tail rsvp-session-name |
| Tree | rsvp-session-name |
| Introduced | 23.10.R1 |
| Platforms | All |

### rsvp-session-name *string-not-all-spaces*

| | |
|---|---|
| Synopsis | RSVP session name |
| Context | reset router *string* bfd statistics lsp-rsvp tail rsvp-session-name rsvp-session-name *string-not-all-spaces* |
| Tree | rsvp-session-name |
| String length | 1 to 256 |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

### sender-ip *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | RSVP session sender IP address |
| Context | reset router *string* bfd statistics lsp-rsvp tail rsvp-session-name sender-ip *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | sender-ip |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

### session-key

| | |
|---|---|
| Synopsis | Reset information for the session key |
| Context | reset router *string* bfd statistics lsp-rsvp tail session-key |


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| | |
|---|---|
| Tree | session-key |
| Introduced | 23.10.R1 |
| Platforms | All |

### **dst-ip** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Destination address |
| Context | reset router *string* bfd statistics lsp-rsvp tail session-key dst-ip *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | dst-ip |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **lsp-id** *number*

| | |
|---|---|
| Synopsis | LSP ID |
| Context | reset router *string* bfd statistics lsp-rsvp tail session-key lsp-id *number* |
| Tree | lsp-id |
| Max. range | 0 to 4294967295 |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **src-ip** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source address |
| Context | reset router *string* bfd statistics lsp-rsvp tail session-key src-ip *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | src-ip |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |


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### **tunnel-id** *number*

| | |
|---|---|
| Synopsis | Tunnel ID |
| Context | reset router *string* bfd statistics lsp-rsvp tail session-key tunnel-id *number* |
| Tree | tunnel-id |
| Max. range | 0 to 4294967295 |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **mpls-tp**

| | |
|---|---|
| Synopsis | Enter the **mpls-tp** context |
| Context | reset router *string* bfd statistics mpls-tp |
| Tree | mpls-tp |
| Introduced | 23.10.R1 |
| Platforms | All |

### **lsp-id**

| | |
|---|---|
| Synopsis | Reset information for the LSP ID |
| Context | reset router *string* bfd statistics mpls-tp lsp-id |
| Tree | lsp-id |
| Introduced | 23.10.R1 |
| Platforms | All |

### **lsp-name** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | LSP name |
| Context | reset router *string* bfd statistics mpls-tp lsp-id lsp-name *string-not-all-spaces* |
| Tree | lsp-name |
| String length | 1 to 256 |
| Introduced | 23.10.R1 |
| Platforms | All |


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### **path** *keyword*

| | |
|---|---|
| Synopsis | Path status |
| Context | reset router *string* bfd statistics mpls-tp lsp-id path *keyword* |
| Tree | path |
| Options | working, protecting |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **point-to-multipoint**

| | |
|---|---|
| Synopsis | Enter the **point-to-multipoint** context |
| Context | reset router *string* bfd statistics point-to-multipoint |
| Tree | point-to-multipoint |
| Introduced | 23.10.R1 |
| Platforms | All |

### **p2mp-interface-name**

| | |
|---|---|
| Synopsis | Reset information for the P2MP interface |
| Context | reset router *string* bfd statistics point-to-multipoint p2mp-interface-name |
| Tree | p2mp-interface-name |
| Introduced | 23.10.R1 |
| Platforms | All |

### [**p2mp-interface-name**] *string*

| | |
|---|---|
| Synopsis | P2MP interface name |
| Context | reset router *string* bfd statistics point-to-multipoint p2mp-interface-name [p2mp-interface-name] *string* |
| Tree | [p2mp-interface-name] |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |


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### point-to-point

| | |
|---|---|
| Synopsis | Enter the **point-to-point** context |
| Context | reset router *string* bfd statistics point-to-point |
| Tree | point-to-point |
| Introduced | 23.10.R1 |
| Platforms | All |

### session-key

| | |
|---|---|
| Synopsis | Reset information for the session key |
| Context | reset router *string* bfd statistics point-to-point session-key |
| Tree | session-key |
| Introduced | 23.10.R1 |
| Platforms | All |

### dst *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Destination address |
| Context | reset router *string* bfd statistics point-to-point session-key dst *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | dst |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

### src *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source address |
| Context | reset router *string* bfd statistics point-to-point session-key src *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | src |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |


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## seamless-lsp-path

| | |
|---|---|
| Synopsis | Enter the **seamless-lsp-path** context |
| Context | reset router *string* bfd statistics seamless-lsp-path |
| Tree | seamless-lsp-path |
| Introduced | 23.10.R1 |
| Platforms | All |

## all

| | |
|---|---|
| Synopsis | Reset all sessions |
| Context | reset router *string* bfd statistics seamless-lsp-path all |
| Tree | all |
| Introduced | 23.10.R1 |
| Platforms | All |

## session-key

| | |
|---|---|
| Synopsis | Reset information for the session key |
| Context | reset router *string* bfd statistics seamless-lsp-path session-key |
| Tree | session-key |
| Introduced | 23.10.R1 |
| Platforms | All |

## lsp-index *number*

| | |
|---|---|
| Synopsis | LSP index |
| Context | reset router *string* bfd statistics seamless-lsp-path session-key lsp-index *number* |
| Tree | lsp-index |
| Max. range | 0 to 4294967295 |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |


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### **path-lspid** *number*

| | |
|---|---|
| Synopsis | LSP path ID |
| Context | reset router *string* bfd statistics seamless-lsp-path session-key path-lspid *number* |
| Tree | path-lspid |
| Max. range | 0 to 4294967295 |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **prefix** *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Prefix |
| Context | reset router *string* bfd statistics seamless-lsp-path session-key prefix *(ipv4-prefix | ipv6-prefix)* |
| Tree | prefix |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **src-ip** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source address |
| Context | reset router *string* bfd statistics seamless-lsp-path session-key src-ip *(ipv4-address-no-zone | ipv6-address-no-zone)* |
| Tree | src-ip |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **seamless-sr-policy**

| | |
|---|---|
| Synopsis | Enter the **seamless-sr-policy** context |
| Context | reset router *string* bfd statistics seamless-sr-policy |
| Tree | seamless-sr-policy |


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| | |
|---|---|
| Introduced | 23.10.R1 |
| Platforms | All |

### all

| | |
|---|---|
| Synopsis | Reset all sessions |
| Context | reset router *string* bfd statistics seamless-sr-policy all |
| Tree | all |
| Introduced | 23.10.R1 |
| Platforms | All |

### session-key

| | |
|---|---|
| Synopsis | Reset information for the session key |
| Context | reset router *string* bfd statistics seamless-sr-policy session-key |
| Tree | session-key |
| Introduced | 23.10.R1 |
| Platforms | All |

### lsp-index *number*

| | |
|---|---|
| Synopsis | LSP index |
| Context | reset router *string* bfd statistics seamless-sr-policy session-key lsp-index *number* |
| Tree | lsp-index |
| Max. range | 0 to 4294967295 |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

### path-lspid *number*

| | |
|---|---|
| Synopsis | LSP path ID |
| Context | reset router *string* bfd statistics seamless-sr-policy session-key path-lspid *number* |
| Tree | path-lspid |
| Max. range | 0 to 4294967295 |


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| | |
|---|---|
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **prefix** *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Prefix |
| Context | reset router *string* bfd statistics seamless-sr-policy session-key prefix *(ipv4-prefix | ipv6-prefix)* |
| Tree | prefix |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **src-ip** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source address |
| Context | reset router *string* bfd statistics seamless-sr-policy session-key src-ip *(ipv4-address-no-zone | ipv6-address-no-zone)* |
| Tree | src-ip |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **bier**

| | |
|---|---|
| Synopsis | Enter the **bier** context |
| Context | reset router *string* bier |
| Tree | bier |
| Description | Commands in this context perform reset operations on Bit Index Explicit Replication (BIER) entities. |
| Introduced | 24.3.R1 |
| Platforms | All |


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## database

| | |
|---|---|
| Synopsis | Enter the **database** context |
| Context | reset router *string* bier database |
| Tree | database |
| Description | Commands in this context reset the BIER database. |
| Introduced | 24.3.R1 |
| Platforms | All |

## sub-domain

| | |
|---|---|
| Synopsis | Reset the sub-domain |
| Context | reset router *string* bier database sub-domain |
| Tree | sub-domain |
| Introduced | 24.3.R1 |
| Platforms | All |

## bsl *number*

| | |
|---|---|
| Synopsis | Sub-domain BSL |
| Context | reset router *string* bier database sub-domain bsl *number* |
| Tree | bsl |
| Max. range | 0 to 65535 |
| Introduced | 24.3.R1 |
| Platforms | All |

## sub-domain-id *number*

| | |
|---|---|
| Synopsis | Sub-domain ID |
| Context | reset router *string* bier database sub-domain sub-domain-id *number* |
| Tree | sub-domain-id |
| Range | 0 to 255 |
| Notes | This element is mandatory. |
| Introduced | 24.3.R1 |
| Platforms | All |


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### statistics

| | |
|---|---|
| Synopsis | Reset statistics |
| Context | reset router *string* bier statistics |
| Tree | statistics |
| Introduced | 24.3.R1 |
| Platforms | All |

### dhcp-server

| | |
|---|---|
| Synopsis | Enter the **dhcp-server** context |
| Context | reset router *string* dhcp-server |
| Tree | dhcp-server |
| Description | Commands in this context reset DHCPv4 server entities. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **dhcpv4** [server-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **dhcpv4** list instance |
| Context | reset router *string* dhcp-server dhcpv4 *named-item* |
| Tree | dhcpv4 |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**server-name**] *named-item*

| | |
|---|---|
| Synopsis | Server name |
| Context | reset router *string* dhcp-server dhcpv4 *named-item* |
| Tree | dhcpv4 |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## declined-addresses

| | |
|---|---|
| Synopsis | Enter the **declined-addresses** context |
| Context | reset router *string* dhcp-server dhcpv4 *named-item* declined-addresses |
| Tree | declined-addresses |
| Description | Commands in this context make declined DHCPv4 addresses available. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## address

| | |
|---|---|
| Synopsis | Make the specified declined addresses available |
| Context | reset router *string* dhcp-server dhcpv4 *named-item* declined-addresses address |
| Tree | address |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## [**address**] *ipv4-address*

| | |
|---|---|
| Synopsis | IPv4 address |
| Context | reset router *string* dhcp-server dhcpv4 *named-item* declined-addresses address [address] *ipv4-address* |
| Tree | [address] |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **mask** *number*

| | |
|---|---|
| Synopsis | IPv4 address mask |
| Context | reset router *string* dhcp-server dhcpv4 *named-item* declined-addresses address mask *number* |
| Tree | mask |
| Range | 1 to 32 |
| Introduced | 23.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## pool

| | |
|---|---|
| Synopsis | Make declined addresses in the pool available |
| Context | reset router *string* dhcp-server dhcpv4 *named-item* declined-addresses pool |
| Tree | pool |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## [**pool**] *named-item*

| | |
|---|---|
| Synopsis | Pool name |
| Context | reset router *string* dhcp-server dhcpv4 *named-item* declined-addresses pool [pool] *named-item* |
| Tree | [pool] |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## failover-pool-statistics

| | |
|---|---|
| Synopsis | Enter the **failover-pool-statistics** context |
| Context | reset router *string* dhcp-server dhcpv4 *named-item* failover-pool-statistics |
| Tree | failover-pool-statistics |
| Description | Commands in this context reset the per pool failover statistics. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## all

| | |
|---|---|
| Synopsis | Reset failover statistics for all pools |
| Context | reset router *string* dhcp-server dhcpv4 *named-item* failover-pool-statistics all |
| Tree | all |


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| | |
|---|---|
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## pool

| | |
|---|---|
| Synopsis | Reset failover statistics for the specified pool |
| Context | reset router *string* dhcp-server dhcpv4 *named-item* failover-pool-statistics pool |
| Tree | pool |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## [**pool**] *named-item*

| | |
|---|---|
| Synopsis | Pool name |
| Context | reset router *string* dhcp-server dhcpv4 *named-item* failover-pool-statistics pool [pool] *named-item* |
| Tree | [pool] |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## leases

| | |
|---|---|
| Synopsis | Enter the **leases** context |
| Context | reset router *string* dhcp-server dhcpv4 *named-item* leases |
| Tree | leases |
| Description | Commands in this context delete leases in the specified DHCPv4 server. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## address

| | |
|---|---|
| Synopsis | Delete the specified DHCPv4 lease |
| Context | reset router *string* dhcp-server dhcpv4 *named-item* leases address |


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| | |
|---|---|
| Tree | address |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**address**] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IPv4 address |
| Context | reset router *string* dhcp-server dhcpv4 *named-item* leases address [address] *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | [address] |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **state** *keyword*

| | |
|---|---|
| Synopsis | Lease state |
| Context | reset router *string* dhcp-server dhcpv4 *named-item* leases address state *keyword* |
| Tree | state |
| Options | offered, stable, force-renew-pending, remove-pending, held, internal, internal-orphan, internal-offered, internal-held, sticky |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **all**

| | |
|---|---|
| Synopsis | Delete all DHCPv4 leases |
| Context | reset router *string* dhcp-server dhcpv4 *named-item* leases all |
| Tree | all |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **state** *keyword*

| | |
|---|---|
| Synopsis | Lease state |
| Context | reset router *string* dhcp-server dhcpv4 *named-item* leases all state *keyword* |


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| | |
|---|---|
| Tree | state |
| Options | offered, stable, force-renew-pending, remove-pending, held, internal, internal-orphan, internal-offered, internal-held, sticky |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## prefix

| | |
|---|---|
| Synopsis | Delete all DHCPv4 leases in the specified prefix |
| Context | reset router *string* dhcp-server dhcpv4 *named-item* leases prefix |
| Tree | prefix |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## [**prefix**] *ipv4-unicast-prefix*

| | |
|---|---|
| Synopsis | IPv4 prefix |
| Context | reset router *string* dhcp-server dhcpv4 *named-item* leases prefix [prefix] *ipv4-unicast-prefix* |
| Tree | [prefix] |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **state** *keyword*

| | |
|---|---|
| Synopsis | Lease state |
| Context | reset router *string* dhcp-server dhcpv4 *named-item* leases prefix state *keyword* |
| Tree | state |
| Options | offered, stable, force-renew-pending, remove-pending, held, internal, internal-orphan, internal-offered, internal-held, sticky |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## pool-extended-statistics

| | |
|---|---|
| Synopsis | Enter the **pool-extended-statistics** context |
| Context | reset router *string* dhcp-server dhcpv4 *named-item* pool-extended-statistics |
| Tree | pool-extended-statistics |
| Description | Commands in this context reset the pool extended statistics peak values. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## all

| | |
|---|---|
| Synopsis | Reset extended statistics peak values for all pools |
| Context | reset router *string* dhcp-server dhcpv4 *named-item* pool-extended-statistics all |
| Tree | all |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## pool

| | |
|---|---|
| Synopsis | Reset extended statistics peak values for the pool |
| Context | reset router *string* dhcp-server dhcpv4 *named-item* pool-extended-statistics pool |
| Tree | pool |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## [**pool**] *named-item*

| | |
|---|---|
| Synopsis | Pool name |
| Context | reset router *string* dhcp-server dhcpv4 *named-item* pool-extended-statistics pool [pool] *named-item* |
| Tree | [pool] |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### statistics

| | |
|---|---|
| Synopsis | Reset DHCPv4 server statistics |
| Context | reset router *string* dhcp-server dhcpv4 *named-item* statistics |
| Tree | statistics |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### sticky-leases

| | |
|---|---|
| Synopsis | Enter the **sticky-leases** context |
| Context | reset router *string* dhcp-server dhcpv4 *named-item* sticky-leases |
| Tree | sticky-leases |
| Description | Commands in this context delete sticky leases. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### host-name

| | |
|---|---|
| Synopsis | Delete the sticky lease associated with the hostname |
| Context | reset router *string* dhcp-server dhcpv4 *named-item* sticky-leases host-name |
| Tree | host-name |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**host-name**] *named-item*

| | |
|---|---|
| Synopsis | Hostname |
| Context | reset router *string* dhcp-server dhcpv4 *named-item* sticky-leases host-name [host-name] *named-item* |
| Tree | [host-name] |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### host-name-prefix

| | |
|---|---|
| Synopsis | Delete sticky leases associated with hostnames containing the prefix |
| Context | reset router *string* dhcp-server dhcpv4 *named-item* sticky-leases host-name-prefix |
| Tree | host-name-prefix |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**host-name-prefix**] *named-item*

| | |
|---|---|
| Synopsis | Hostname prefix |
| Context | reset router *string* dhcp-server dhcpv4 *named-item* sticky-leases host-name-prefix [host-name-prefix] *named-item* |
| Tree | [host-name-prefix] |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### subnet-extended-statistics

| | |
|---|---|
| Synopsis | Enter the **subnet-extended-statistics** context |
| Context | reset router *string* dhcp-server dhcpv4 *named-item* subnet-extended-statistics |
| Tree | subnet-extended-statistics |
| Description | Commands in this context reset the per subnet extended statistics peak values. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### pool

| | |
|---|---|
| Synopsis | Reset extended statistics peak values for all subnets in the pool |
| Context | reset router *string* dhcp-server dhcpv4 *named-item* subnet-extended-statistics pool |
| Tree | pool |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### [**pool**] *named-item*

| | |
|---|---|
| Synopsis | Pool name |
| Context | reset router *string* dhcp-server dhcpv4 *named-item* subnet-extended-statistics pool [pool] *named-item* |
| Tree | [pool] |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **prefix**

| | |
|---|---|
| Synopsis | Reset extended statistics peak values for the specified prefix |
| Context | reset router *string* dhcp-server dhcpv4 *named-item* subnet-extended-statistics prefix |
| Tree | prefix |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**prefix**] *ipv4-unicast-prefix*

| | |
|---|---|
| Synopsis | IPv4 prefix |
| Context | reset router *string* dhcp-server dhcpv4 *named-item* subnet-extended-statistics prefix [prefix] *ipv4-unicast-prefix* |
| Tree | [prefix] |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **dhcpv6** [server-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **dhcpv6** list instance |
| Context | reset router *string* dhcp-server dhcpv6 *named-item* |
| Tree | dhcpv6 |
| Description | Commands in this context reset DHCPv6 server entities. |


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| | |
|---|---|
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**server-name**] *named-item*

| | |
|---|---|
| Synopsis | Server name |
| Context | reset router *string* dhcp-server dhcpv6 *named-item* |
| Tree | dhcpv6 |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### failover-pool-statistics

| | |
|---|---|
| Synopsis | Enter the **failover-pool-statistics** context |
| Context | reset router *string* dhcp-server dhcpv6 *named-item* failover-pool-statistics |
| Tree | failover-pool-statistics |
| Description | Commands in this context reset the per pool failover statistics. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### all

| | |
|---|---|
| Synopsis | Reset failover statistics for all pools |
| Context | reset router *string* dhcp-server dhcpv6 *named-item* failover-pool-statistics all |
| Tree | all |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### pool

| | |
|---|---|
| Synopsis | Reset failover statistics for the specified pool |
| Context | reset router *string* dhcp-server dhcpv6 *named-item* failover-pool-statistics pool |
| Tree | pool |


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| | |
|---|---|
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**pool**] *named-item*

| | |
|---|---|
| Synopsis | Pool name |
| Context | reset router *string* dhcp-server dhcpv6 *named-item* failover-pool-statistics pool [pool] *named-item* |
| Tree | [pool] |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### leases

| | |
|---|---|
| Synopsis | Enter the **leases** context |
| Context | reset router *string* dhcp-server dhcpv6 *named-item* leases |
| Tree | leases |
| Description | Commands in this context delete leases in the specified DHCPv6 server. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### address

| | |
|---|---|
| Synopsis | Delete the specified DHCPv6 lease |
| Context | reset router *string* dhcp-server dhcpv6 *named-item* leases address |
| Tree | address |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**address**] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IPv6 address |
| Context | reset router *string* dhcp-server dhcpv6 *named-item* leases address [address] *(ipv4-address-no-zone \| ipv6-address-no-zone)* |


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| | |
|---|---|
| Tree | [address] |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **state** *keyword*

| | |
|---|---|
| Synopsis | Lease state |
| Context | reset router *string* dhcp-server dhcpv6 *named-item* leases address state *keyword* |
| Tree | state |
| Options | advertised, stable, remove-pending, held, internal, internal-orphan, internal-offered, internal-held |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **type** *keyword*

| | |
|---|---|
| Synopsis | Lease type |
| Context | reset router *string* dhcp-server dhcpv6 *named-item* leases address type *keyword* |
| Tree | type |
| Options | pd, slaac, wan |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **all**

| | |
|---|---|
| Synopsis | Delete all DHCPv6 leases |
| Context | reset router *string* dhcp-server dhcpv6 *named-item* leases all |
| Tree | all |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **state** *keyword*

| | |
|---|---|
| Synopsis | Lease state |


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| | |
|---|---|
| Context | reset router *string* dhcp-server dhcpv6 *named-item* leases all state *keyword* |
| Tree | state |
| Options | advertised, stable, remove-pending, held, internal, internal-orphan, internal-offered, internal-held |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **type** *keyword*

| | |
|---|---|
| Synopsis | Lease type |
| Context | reset router *string* dhcp-server dhcpv6 *named-item* leases all type *keyword* |
| Tree | type |
| Options | pd, slaac, wan |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **prefix**

| | |
|---|---|
| Synopsis | Delete all DHCPv6 leases in the specified prefix |
| Context | reset router *string* dhcp-server dhcpv6 *named-item* leases prefix |
| Tree | prefix |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**prefix**] *ipv6-prefix*

| | |
|---|---|
| Synopsis | IPv6 prefix |
| Context | reset router *string* dhcp-server dhcpv6 *named-item* leases prefix [prefix] *ipv6-prefix* |
| Tree | [prefix] |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **state** *keyword*

| | |
|---|---|
| Synopsis | Lease state |
| Context | reset router *string* dhcp-server dhcpv6 *named-item* leases prefix state *keyword* |
| Tree | state |
| Options | advertised, stable, remove-pending, held, internal, internal-orphan, internal-offered, internal-held |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **type** *keyword*

| | |
|---|---|
| Synopsis | Lease type |
| Context | reset router *string* dhcp-server dhcpv6 *named-item* leases prefix type *keyword* |
| Tree | type |
| Options | pd, slaac, wan |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **pool-extended-statistics**

| | |
|---|---|
| Synopsis | Enter the **pool-extended-statistics** context |
| Context | reset router *string* dhcp-server dhcpv6 *named-item* pool-extended-statistics |
| Tree | pool-extended-statistics |
| Description | Commands in this context reset the pool extended statistics extended values. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **all**

| | |
|---|---|
| Synopsis | Reset extended statistics peak values for all pools |
| Context | reset router *string* dhcp-server dhcpv6 *named-item* pool-extended-statistics all |
| Tree | all |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## pool

| | |
|---|---|
| Synopsis | Reset extended statistics peak values for the specified pool |
| Context | reset router *string* dhcp-server dhcpv6 *named-item* pool-extended-statistics pool |
| Tree | pool |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## [**pool**] *named-item*

| | |
|---|---|
| Synopsis | Pool name |
| Context | reset router *string* dhcp-server dhcpv6 *named-item* pool-extended-statistics pool [pool] *named-item* |
| Tree | [pool] |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## pool-threshold-statistics

| | |
|---|---|
| Synopsis | Enter the **pool-threshold-statistics** context |
| Context | reset router *string* dhcp-server dhcpv6 *named-item* pool-threshold-statistics |
| Tree | pool-threshold-statistics |
| Description | Commands in this context reset the per pool threshold statistics peak values. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## all

| | |
|---|---|
| Synopsis | Reset threshold statistics peak values for all pools |
| Context | reset router *string* dhcp-server dhcpv6 *named-item* pool-threshold-statistics all |
| Tree | all |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### pool

| | |
|---|---|
| Synopsis | Reset threshold statistics peak values for the pool |
| Context | reset router *string* dhcp-server dhcpv6 *named-item* pool-threshold-statistics pool |
| Tree | pool |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**pool**] *named-item*

| | |
|---|---|
| Synopsis | Pool name |
| Context | reset router *string* dhcp-server dhcpv6 *named-item* pool-threshold-statistics pool [pool] *named-item* |
| Tree | [pool] |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### prefix-extended-statistics

| | |
|---|---|
| Synopsis | Enter the **prefix-extended-statistics** context |
| Context | reset router *string* dhcp-server dhcpv6 *named-item* prefix-extended-statistics |
| Tree | prefix-extended-statistics |
| Description | Commands in this context reset the per prefix extended statistics peak values. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### pool

| | |
|---|---|
| Synopsis | Reset extended statistics peak values for all prefixes in the pool |
| Context | reset router *string* dhcp-server dhcpv6 *named-item* prefix-extended-statistics pool |
| Tree | pool |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### [**pool**] *named-item*

| | |
|---|---|
| Synopsis | Pool name |
| Context | reset router *string* dhcp-server dhcpv6 *named-item* prefix-extended-statistics pool [pool] *named-item* |
| Tree | [pool] |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### prefix

| | |
|---|---|
| Synopsis | Reset extended statistics peak values for the prefix |
| Context | reset router *string* dhcp-server dhcpv6 *named-item* prefix-extended-statistics prefix |
| Tree | prefix |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**prefix**] *ipv6-prefix*

| | |
|---|---|
| Synopsis | IPv6 prefix |
| Context | reset router *string* dhcp-server dhcpv6 *named-item* prefix-extended-statistics prefix [prefix] *ipv6-prefix* |
| Tree | [prefix] |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### prefix-threshold-statistics

| | |
|---|---|
| Synopsis | Enter the **prefix-threshold-statistics** context |
| Context | reset router *string* dhcp-server dhcpv6 *named-item* prefix-threshold-statistics |
| Tree | prefix-threshold-statistics |
| Description | Commands in this context reset the per prefix threshold statistics peak values. |


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| | |
|---|---|
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## pool

| | |
|---|---|
| Synopsis | Reset threshold statistics peak values for all prefixes in the pool |
| Context | reset router *string* dhcp-server dhcpv6 *named-item* prefix-threshold-statistics pool |
| Tree | pool |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## [**pool**] *named-item*

| | |
|---|---|
| Synopsis | Pool name |
| Context | reset router *string* dhcp-server dhcpv6 *named-item* prefix-threshold-statistics pool [pool] *named-item* |
| Tree | [pool] |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## prefix

| | |
|---|---|
| Synopsis | Reset threshold statistics peak values for the specified prefix |
| Context | reset router *string* dhcp-server dhcpv6 *named-item* prefix-threshold-statistics prefix |
| Tree | prefix |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## [**prefix**] *ipv6-prefix*

| | |
|---|---|
| Synopsis | IPv6 prefix |
| Context | reset router *string* dhcp-server dhcpv6 *named-item* prefix-threshold-statistics prefix [prefix] *ipv6-prefix* |
| Tree | [prefix] |


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| | |
|---|---|
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## statistics

| | |
|---|---|
| Synopsis | Reset DHCPv6 server statistics |
| Context | reset router *string* dhcp-server dhcpv6 *named-item* statistics |
| Tree | statistics |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## forwarding-table

| | |
|---|---|
| Synopsis | Enter the **forwarding-table** context |
| Context | reset router *string* forwarding-table |
| Tree | forwarding-table |
| Description | Commands in this context reset the router forwarding table for the IOM. |
| Introduced | 23.10.R1 |
| Platforms | All |

## all

| | |
|---|---|
| Synopsis | Reset all router forwarding tables |
| Context | reset router *string* forwarding-table all |
| Tree | all |
| Introduced | 23.10.R1 |
| Platforms | All |

## slot

| | |
|---|---|
| Synopsis | Reset the router forwarding table for the IOM slot |
| Context | reset router *string* forwarding-table slot |
| Tree | slot |
| Introduced | 23.10.R1 |


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| | |
|---|---|
| Platforms | All |

### **slot-number** *reference*

| | |
|---|---|
| Synopsis | Slot number |
| Context | reset router *string* forwarding-table slot slot-number *reference* |
| Tree | slot-number |
| Reference | **state card** *number* |
| Introduced | 23.10.R1 |
| Platforms | All |

### grt-lookup

| | |
|---|---|
| Synopsis | Re-evaluate the route policies for GRT |
| Context | reset router *string* grt-lookup |
| Tree | grt-lookup |
| Introduced | 23.10.R1 |
| Platforms | All |

### icmp

| | |
|---|---|
| Synopsis | Enter the **icmp** context |
| Context | reset router *string* icmp |
| Tree | icmp |
| Introduced | 23.10.R1 |
| Platforms | All |

### all

| | |
|---|---|
| Synopsis | Reset all ICMP router statistics |
| Context | reset router *string* icmp all |
| Tree | all |
| Introduced | 23.10.R1 |
| Platforms | All |


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### global

| | |
|---|---|
| Synopsis | Reset global router statistics |
| Context | reset router *string* icmp global |
| Tree | global |
| Introduced | 23.10.R1 |
| Platforms | All |

### interface

| | |
|---|---|
| Synopsis | Reset ICMP statistics for the interface |
| Context | reset router *string* icmp interface |
| Tree | interface |
| Introduced | 23.10.R1 |
| Platforms | All |

### interface-name *interface-name*

| | |
|---|---|
| Synopsis | Interface name |
| Context | reset router *string* icmp interface interface-name *interface-name* |
| Tree | interface-name |
| String length | 1 to 32 |
| Introduced | 23.10.R1 |
| Platforms | All |

### icmp-redirect-route

| | |
|---|---|
| Synopsis | Enter the **icmp-redirect-route** context |
| Context | reset router *string* icmp-redirect-route |
| Tree | icmp-redirect-route |
| Description | Commands in this context remove routes created as a result of ICMP redirects received on the management interface. |
| Introduced | 23.10.R1 |
| Platforms | All |


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### address

| | |
|---|---|
| Synopsis | Reset the routes associated with the IP address |
| Context | reset router *string* icmp-redirect-route address |
| Tree | address |
| Introduced | 23.10.R1 |
| Platforms | All |

### ipv4-address *ipv4-address*

| | |
|---|---|
| Synopsis | IPv4 address |
| Context | reset router *string* icmp-redirect-route address ipv4-address *ipv4-address* |
| Tree | ipv4-address |
| Introduced | 23.10.R1 |
| Platforms | All |

### all

| | |
|---|---|
| Synopsis | Reset all routes |
| Context | reset router *string* icmp-redirect-route all |
| Tree | all |
| Introduced | 23.10.R1 |
| Platforms | All |

### icmp6

| | |
|---|---|
| Synopsis | Enter the **icmp6** context |
| Context | reset router *string* icmp6 |
| Tree | icmp6 |
| Description | Commands in this context reset ICMPv6 statistics. |
| Introduced | 23.10.R1 |
| Platforms | All |


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### all

| | |
|---|---|
| Synopsis | Reset all ICMPv6 router statistics |
| Context | reset router *string* icmp6 all |
| Tree | all |
| Introduced | 23.10.R1 |
| Platforms | All |

### global

| | |
|---|---|
| Synopsis | Reset ICMPv6 global router statistics |
| Context | reset router *string* icmp6 global |
| Tree | global |
| Introduced | 23.10.R1 |
| Platforms | All |

### interface

| | |
|---|---|
| Synopsis | Reset ICMPv6 router statistics of the interface |
| Context | reset router *string* icmp6 interface |
| Tree | interface |
| Introduced | 23.10.R1 |
| Platforms | All |

### interface-name *interface-name*

| | |
|---|---|
| Synopsis | Interface name |
| Context | reset router *string* icmp6 interface interface-name *interface-name* |
| Tree | interface-name |
| String length | 1 to 32 |
| Introduced | 23.10.R1 |
| Platforms | All |


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## icmp6-redirect-route

| | |
|---|---|
| Synopsis | Enter the **icmp6-redirect-route** context |
| Context | reset router *string* icmp6-redirect-route |
| Tree | icmp6-redirect-route |
| Description | Commands in this context delete routes created from ICMPv6 redirects received on the management interface. |
| Introduced | 23.10.R1 |
| Platforms | All |

## address

| | |
|---|---|
| Synopsis | Reset routes associated with the IPv6 address |
| Context | reset router *string* icmp6-redirect-route address |
| Tree | address |
| Introduced | 23.10.R1 |
| Platforms | All |

## ipv6-address *ipv6-address*

| | |
|---|---|
| Synopsis | IPv6 address |
| Context | reset router *string* icmp6-redirect-route address ipv6-address *ipv6-address* |
| Tree | ipv6-address |
| Introduced | 23.10.R1 |
| Platforms | All |

## all

| | |
|---|---|
| Synopsis | Reset all routes |
| Context | reset router *string* icmp6-redirect-route all |
| Tree | all |
| Introduced | 23.10.R1 |
| Platforms | All |


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## igmp

| | |
|---|---|
| Synopsis | Enter the **igmp** context |
| Context | reset router *string* igmp |
| Tree | igmp |
| Description | Commands in this context perform reset operations on IGMP entities. |
| Introduced | 24.3.R1 |
| Platforms | All |

## database

| | |
|---|---|
| Synopsis | Enter the **database** context |
| Context | reset router *string* igmp database |
| Tree | database |
| Description | Commands in this context reset IGMP database statistics on a specified interface or IP address. |
| Introduced | 24.3.R1 |
| Platforms | All |

## all

| | |
|---|---|
| Synopsis | Reset database for all interfaces, groups, and hosts |
| Context | reset router *string* igmp database all |
| Tree | all |
| Introduced | 24.3.R1 |
| Platforms | All |

## group *ipv4-multicast-address*

| | |
|---|---|
| Synopsis | Group address |
| Context | reset router *string* igmp database all group *ipv4-multicast-address* |
| Tree | group |
| Introduced | 24.3.R1 |
| Platforms | All |


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### **source** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Source address |
| Context | reset router *string* igmp database all source *ipv4-unicast-address* |
| Tree | source |
| Introduced | 24.3.R1 |
| Platforms | All |

### **all-group-interfaces**

| | |
|---|---|
| Synopsis | Reset the database for all group interfaces |
| Context | reset router *string* igmp database all-group-interfaces |
| Tree | all-group-interfaces |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **group** *ipv4-multicast-address*

| | |
|---|---|
| Synopsis | Group address |
| Context | reset router *string* igmp database all-group-interfaces group *ipv4-multicast-address* |
| Tree | group |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **source** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Source address |
| Context | reset router *string* igmp database all-group-interfaces source *ipv4-unicast-address* |
| Tree | source |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **all-hosts**

| | |
|---|---|
| Synopsis | Reset the database for all hosts |


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| | |
|---|---|
| Context | reset router *string* igmp database all-hosts |
| Tree | all-hosts |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **group** *ipv4-multicast-address*

| | |
|---|---|
| Synopsis | Group address |
| Context | reset router *string* igmp database all-hosts group *ipv4-multicast-address* |
| Tree | group |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **source** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Source address |
| Context | reset router *string* igmp database all-hosts source *ipv4-unicast-address* |
| Tree | source |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **forwarding-group-interface**

| | |
|---|---|
| Synopsis | Reset the database on a forwarding group interface |
| Context | reset router *string* igmp database forwarding-group-interface |
| Tree | forwarding-group-interface |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **forwarding-service** *service-name*

| | |
|---|---|
| Synopsis | Forwarding service for a subscriber interface |
| Context | reset router *string* igmp database forwarding-group-interface forwarding-service *service-name* |
| Tree | forwarding-service |
| String length | 1 to 64 |


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| | |
|---|---|
| Notes | This element is mandatory. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **group** *ipv4-multicast-address*

| | |
|---|---|
| Synopsis | Group address |
| Context | reset router *string* igmp database forwarding-group-interface group *ipv4-multicast-address* |
| Tree | group |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **group-interface-name** *interface-name*

| | |
|---|---|
| Synopsis | Group interface name |
| Context | reset router *string* igmp database forwarding-group-interface group-interface-name *interface-name* |
| Tree | group-interface-name |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **source** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Source address |
| Context | reset router *string* igmp database forwarding-group-interface source *ipv4-unicast-address* |
| Tree | source |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **group-interface**

| | |
|---|---|
| Synopsis | Reset the database on a group interface |


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| | |
|---|---|
| Context | reset router *string* igmp database group-interface |
| Tree | group-interface |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **group** *ipv4-multicast-address*

| | |
|---|---|
| Synopsis | Group address |
| Context | reset router *string* igmp database group-interface group *ipv4-multicast-address* |
| Tree | group |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **group-interface-name** *interface-name*

| | |
|---|---|
| Synopsis | Group interface name |
| Context | reset router *string* igmp database group-interface group-interface-name *interface-name* |
| Tree | group-interface-name |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **source** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Source address |
| Context | reset router *string* igmp database group-interface source *ipv4-unicast-address* |
| Tree | source |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **host**

| | |
|---|---|
| Synopsis | Reset the database on a host |
| Context | reset router *string* igmp database host |


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| | |
|---|---|
| Tree | host |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **group** *ipv4-multicast-address*

| | |
|---|---|
| Synopsis | Group address |
| Context | reset router *string* igmp database host group *ipv4-multicast-address* |
| Tree | group |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **host-ip-address** *ipv4-address*

| | |
|---|---|
| Synopsis | Host address |
| Context | reset router *string* igmp database host host-ip-address *ipv4-address* |
| Tree | host-ip-address |
| Notes | This element is mandatory. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **source** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Source address |
| Context | reset router *string* igmp database host source *ipv4-unicast-address* |
| Tree | source |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **interface**

| | |
|---|---|
| Synopsis | Reset the database on an interface |
| Context | reset router *string* igmp database interface |
| Tree | interface |
| Introduced | 24.3.R1 |


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| | |
|---|---|
| Platforms | All |

### **group** *ipv4-multicast-address*

| | |
|---|---|
| Synopsis | Group address |
| Context | reset router *string* igmp database interface group *ipv4-multicast-address* |
| Tree | group |
| Introduced | 24.3.R1 |
| Platforms | All |

### **interface-name** *interface-name*

| | |
|---|---|
| Synopsis | Interface name |
| Context | reset router *string* igmp database interface interface-name *interface-name* |
| Tree | interface-name |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 24.3.R1 |
| Platforms | All |

### **source** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Source address |
| Context | reset router *string* igmp database interface source *ipv4-unicast-address* |
| Tree | source |
| Introduced | 24.3.R1 |
| Platforms | All |

### **mcast-reporting-statistics**

| | |
|---|---|
| Synopsis | Enter the **mcast-reporting-statistics** context |
| Context | reset router *string* igmp mcast-reporting-statistics |
| Tree | mcast-reporting-statistics |
| Description | Commands in this context perform reset operations on IGMP multicast reporting statistics. |


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| | |
|---|---|
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## all-hosts

| | |
|---|---|
| Synopsis | Reset multicast reporting statistics for all hosts |
| Context | reset router *string* igmp mcast-reporting-statistics all-hosts |
| Tree | all-hosts |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## host

| | |
|---|---|
| Synopsis | Reset multicast reporting statistics for a host |
| Context | reset router *string* igmp mcast-reporting-statistics host |
| Tree | host |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## host-ip-address *ipv4-address*

| | |
|---|---|
| Synopsis | Host address |
| Context | reset router *string* igmp mcast-reporting-statistics host host-ip-address *ipv4-address* |
| Tree | host-ip-address |
| Notes | This element is mandatory. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## statistics

| | |
|---|---|
| Synopsis | Enter the **statistics** context |
| Context | reset router *string* igmp statistics |
| Tree | statistics |
| Description | Commands in this context reset IGMP statistics on a specified interface or IP address. |
| Introduced | 24.3.R1 |


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| | |
|---|---|
| Platforms | All |

## all

| | |
|---|---|
| Synopsis | Reset statistics for all interfaces, groups, and hosts |
| Context | reset router *string* igmp statistics all |
| Tree | all |
| Introduced | 24.3.R1 |
| Platforms | All |

## all-group-interfaces

| | |
|---|---|
| Synopsis | Reset statistics for all group interfaces |
| Context | reset router *string* igmp statistics all-group-interfaces |
| Tree | all-group-interfaces |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## all-hosts

| | |
|---|---|
| Synopsis | Reset statistics for all hosts |
| Context | reset router *string* igmp statistics all-hosts |
| Tree | all-hosts |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## forwarding-group-interface

| | |
|---|---|
| Synopsis | Reset statistics on a group interface |
| Context | reset router *string* igmp statistics forwarding-group-interface |
| Tree | forwarding-group-interface |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **forwarding-service** *service-name*

| | |
|---|---|
| Synopsis | Forwarding service for a subscriber interface |
| Context | reset router *string* igmp statistics forwarding-group-interface forwarding-service *service-name* |
| Tree | forwarding-service |
| String length | 1 to 64 |
| Notes | This element is mandatory. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **group-interface-name** *interface-name*

| | |
|---|---|
| Synopsis | Group interface name |
| Context | reset router *string* igmp statistics forwarding-group-interface group-interface-name *interface-name* |
| Tree | group-interface-name |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **group-interface**

| | |
|---|---|
| Synopsis | Reset statistics on a group interface |
| Context | reset router *string* igmp statistics group-interface |
| Tree | group-interface |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **group-interface-name** *interface-name*

| | |
|---|---|
| Synopsis | Group interface name |
| Context | reset router *string* igmp statistics group-interface group-interface-name *interface-name* |
| Tree | group-interface-name |


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| | |
|---|---|
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### host

| | |
|---|---|
| Synopsis | Reset statistics on a host |
| Context | reset router *string* igmp statistics host |
| Tree | host |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### host-ip-address *ipv4-address*

| | |
|---|---|
| Synopsis | Host address |
| Context | reset router *string* igmp statistics host host-ip-address *ipv4-address* |
| Tree | host-ip-address |
| Notes | This element is mandatory. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### interface

| | |
|---|---|
| Synopsis | Reset statistics on an interface |
| Context | reset router *string* igmp statistics interface |
| Tree | interface |
| Introduced | 24.3.R1 |
| Platforms | All |

### interface-name *interface-name*

| | |
|---|---|
| Synopsis | Interface name |
| Context | reset router *string* igmp statistics interface interface-name *interface-name* |
| Tree | interface-name |


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| | |
|---|---|
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 24.3.R1 |
| Platforms | All |

## version

| | |
|---|---|
| Synopsis | Enter the **version** context |
| Context | reset router *string* igmp version |
| Tree | version |
| Description | Commands in this context reset the IGMP version on a specified interface or IP address. |
| Introduced | 24.3.R1 |
| Platforms | All |

## all

| | |
|---|---|
| Synopsis | Reset the version for all interfaces, groups, and hosts |
| Context | reset router *string* igmp version all |
| Tree | all |
| Introduced | 24.3.R1 |
| Platforms | All |

## all-group-interfaces

| | |
|---|---|
| Synopsis | Reset the version for all group interfaces |
| Context | reset router *string* igmp version all-group-interfaces |
| Tree | all-group-interfaces |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## all-hosts

| | |
|---|---|
| Synopsis | Reset the version for all hosts |
| Context | reset router *string* igmp version all-hosts |
| Tree | all-hosts |


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| | |
|---|---|
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### forwarding-group-interface

| | |
|---|---|
| Synopsis | Reset the version on a group interface |
| Context | reset router *string* igmp version forwarding-group-interface |
| Tree | forwarding-group-interface |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### forwarding-service *service-name*

| | |
|---|---|
| Synopsis | Forwarding service for a subscriber interface |
| Context | reset router *string* igmp version forwarding-group-interface forwarding-service *service-name* |
| Tree | forwarding-service |
| String length | 1 to 64 |
| Notes | This element is mandatory. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### group-interface-name *interface-name*

| | |
|---|---|
| Synopsis | Group interface name |
| Context | reset router *string* igmp version forwarding-group-interface group-interface-name *interface-name* |
| Tree | group-interface-name |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### group-interface

| | |
|---|---|
| Synopsis | Reset the version on a group interface |


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| | |
|---|---|
| Context | reset router *string* igmp version group-interface |
| Tree | group-interface |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **group-interface-name** *interface-name*

| | |
|---|---|
| Synopsis | Group interface name |
| Context | reset router *string* igmp version group-interface group-interface-name *interface-name* |
| Tree | group-interface-name |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **host**

| | |
|---|---|
| Synopsis | Reset the version on a host |
| Context | reset router *string* igmp version host |
| Tree | host |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **host-ip-address** *ipv4-address*

| | |
|---|---|
| Synopsis | Host address |
| Context | reset router *string* igmp version host host-ip-address *ipv4-address* |
| Tree | host-ip-address |
| Notes | This element is mandatory. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **interface**

| | |
|---|---|
| Synopsis | Reset the version on an interface |


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| | |
|---|---|
| Context | reset router *string* igmp version interface |
| Tree | interface |
| Introduced | 24.3.R1 |
| Platforms | All |

### **interface-name** *interface-name*

| | |
|---|---|
| Synopsis | Interface name |
| Context | reset router *string* igmp version interface interface-name *interface-name* |
| Tree | interface-name |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 24.3.R1 |
| Platforms | All |

### **interface** [interface-name] *interface-name*

| | |
|---|---|
| Synopsis | Enter the **interface** list instance |
| Context | reset router *string* interface *interface-name* |
| Tree | interface |
| Description | Commands in this context reset IP interface statistics. |
| Introduced | 23.7.R1 |
| Platforms | All |

### [**interface-name**] *interface-name*

| | |
|---|---|
| Synopsis | Interface name |
| Context | reset router *string* interface *interface-name* |
| Tree | interface |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 23.7.R1 |
| Platforms | All |


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### hold-time

| | |
|---|---|
| Synopsis | Reset the IP interface activation hold timers |
| Context | reset router *string* interface *interface-name* hold-time |
| Tree | hold-time |
| Introduced | 23.7.R1 |
| Platforms | All |

### mac

| | |
|---|---|
| Synopsis | Enter the **mac** context |
| Context | reset router *string* interface *interface-name* mac |
| Tree | mac |
| Introduced | 23.7.R1 |
| Platforms | All |

### address

| | |
|---|---|
| Synopsis | Reset specified MAC address from associated interface |
| Context | reset router *string* interface *interface-name* mac address |
| Tree | address |
| Introduced | 23.7.R1 |
| Platforms | All |

### [**mac-address**] *mac-address*

| | |
|---|---|
| Synopsis | MAC address |
| Context | reset router *string* interface *interface-name* mac address [mac-address] *mac-address* |
| Tree | [mac-address] |
| Notes | This element is mandatory. |
| Introduced | 23.7.R1 |
| Platforms | All |


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### all

| | |
|---|---|
| Synopsis | Reset all MAC addresses for the specified interface |
| Context | reset router *string* interface *interface-name* mac all |
| Tree | all |
| Introduced | 23.7.R1 |
| Platforms | All |

### policy-accounting

| | |
|---|---|
| Synopsis | Enter the **policy-accounting** context |
| Context | reset router *string* interface *interface-name* policy-accounting |
| Tree | policy-accounting |
| Description | Commands in this context reset the accounting statistics. |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### all

| | |
|---|---|
| Synopsis | Reset all the policy-accounting statistics |
| Context | reset router *string* interface *interface-name* policy-accounting all |
| Tree | all |
| Description | When configured, the system resets all classes, indexes, and policers. |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### class

| | |
|---|---|
| Synopsis | Reset the specified policy-accounting class |
| Context | reset router *string* interface *interface-name* policy-accounting class |
| Tree | class |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |


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### **all**

| | |
|---|---|
| Synopsis | Reset all policy-accounting class indexes |
| Context | reset router *string* interface *interface-name* policy-accounting class all |
| Tree | all |
| Notes | The following elements are part of a mandatory choice: **all** or **index**. |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### **index** *number*

| | |
|---|---|
| Synopsis | Policy-accounting class index |
| Context | reset router *string* interface *interface-name* policy-accounting class index *number* |
| Tree | index |
| Range | 1 to 255 |
| Notes | The following elements are part of a mandatory choice: **all** or **index**. |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### [**name**] *keyword*

| | |
|---|---|
| Synopsis | Policy-accounting class counters to reset |
| Context | reset router *string* interface *interface-name* policy-accounting class [name] *keyword* |
| Tree | [name] |
| Options | source-class, destination-class |
| Notes | This element is mandatory. |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### **policer**

| | |
|---|---|
| Synopsis | Enter the **policer** context |
| Context | reset router *string* interface *interface-name* policy-accounting policer |
| Tree | policer |
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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## all

| | |
|---|---|
| Synopsis | Reset all the policer statistics |
| Context | reset router *string* interface *interface-name* policy-accounting policer all |
| Tree | all |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## index

| | |
|---|---|
| Synopsis | Reset the specified policer |
| Context | reset router *string* interface *interface-name* policy-accounting policer index |
| Tree | index |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## [**policer-index**] *number*

| | |
|---|---|
| Synopsis | Policer index |
| Context | reset router *string* interface *interface-name* policy-accounting policer index [policer-index] *number* |
| Tree | [policer-index] |
| Range | 1 to 63 |
| Notes | This element is mandatory. |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## statistics

| | |
|---|---|
| Synopsis | Reset the interface traffic statistics |
| Context | reset router *string* interface *interface-name* statistics |
| Tree | statistics |
| Introduced | 23.7.R1 |


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| | |
|---|---|
| Platforms | All |

### urpf-statistics

| | |
|---|---|
| Synopsis | Reset the interface uRPF statistics |
| Context | reset router *string* interface *interface-name* urpf-statistics |
| Tree | urpf-statistics |
| Introduced | 23.7.R1 |
| Platforms | All |

### **isis** [isis-instance] *reference*

| | |
|---|---|
| Synopsis | Enter the **isis** list instance |
| Context | reset router *string* isis *reference* |
| Tree | isis |
| Description | Commands in this context reset the IS-IS protocol entities. |
| Introduced | 23.10.R1 |
| Platforms | All |

### [**isis-instance**] *reference*

| | |
|---|---|
| Synopsis | IS-IS instance |
| Context | reset router *string* isis *reference* |
| Tree | isis |
| MD-CLI default | 0 |
| Reference | **state router** *named-item-64* **isis** *number* |
| Notes | This element is part of a list key. |
| Introduced | 23.10.R1 |
| Platforms | All |

### adjacency

| | |
|---|---|
| Synopsis | Enter the **adjacency** context |
| Context | reset router *string* isis *reference* adjacency |


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| | |
|---|---|
| Tree | adjacency |
| Description | Commands in this context reset the entries from the IS-IS adjacency database. |
| Introduced | 23.10.R1 |
| Platforms | All |

## all-adjacencies

| | |
|---|---|
| Synopsis | Reset all IS-IS adjacencies |
| Context | reset router *string* isis *reference* adjacency all-adjacencies |
| Tree | all-adjacencies |
| Introduced | 23.10.R1 |
| Platforms | All |

## system-id

| | |
|---|---|
| Synopsis | Reset the IS-IS adjacency to a node |
| Context | reset router *string* isis *reference* adjacency system-id |
| Tree | system-id |
| Introduced | 23.10.R1 |
| Platforms | All |

## [**system-id**] *system-id*

| | |
|---|---|
| Synopsis | System ID for a specific node |
| Context | reset router *string* isis *reference* adjacency system-id [system-id] *system-id* |
| Tree | [system-id] |
| String length | 14 |
| Default | 0000.0000.0000 |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

## database

| | |
|---|---|
| Synopsis | Enter the **database** context |


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| | |
|---|---|
| Context | reset router *string* isis *reference* database |
| Tree | database |
| Description | Commands in this context reset the entries from the IS-IS link-state database. |
| Introduced | 23.10.R1 |
| Platforms | All |

### all-databases

| | |
|---|---|
| Synopsis | Reset all IS-IS databases system wide |
| Context | reset router *string* isis *reference* database all-databases |
| Tree | all-databases |
| Introduced | 23.10.R1 |
| Platforms | All |

### system-id

| | |
|---|---|
| Synopsis | Reset the IS-IS database for a node |
| Context | reset router *string* isis *reference* database system-id |
| Tree | system-id |
| Introduced | 23.10.R1 |
| Platforms | All |

### [**system-id**] *system-id*

| | |
|---|---|
| Synopsis | System ID for a specific node |
| Context | reset router *string* isis *reference* database system-id [system-id] *system-id* |
| Tree | [system-id] |
| String length | 14 |
| Default | 0000.0000.0000 |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |


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### export

| | |
|---|---|
| Synopsis | Reset and re-evaluate IS-IS route policies |
| Context | reset router *string* isis *reference* export |
| Tree | export |
| Description | When configured, the system re-evaluates route policies participating in the export mechanism, either as importers or exporters of routes. |
| Introduced | 23.10.R1 |
| Platforms | All |

### overload

| | |
|---|---|
| Synopsis | Reset the IS-IS overload |
| Context | reset router *string* isis *reference* overload |
| Tree | overload |
| Introduced | 23.10.R1 |
| Platforms | All |

### [**overload-type**] *keyword*

| | |
|---|---|
| Synopsis | Overload type |
| Context | reset router *string* isis *reference* overload [overload-type] *keyword* |
| Tree | [overload-type] |
| Options | fib, rtm, prefix-limit |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

### sid-egress-stats

| | |
|---|---|
| Synopsis | Enter the **sid-egress-stats** context |
| Context | reset router *string* isis *reference* sid-egress-stats |
| Tree | sid-egress-stats |
| Introduced | 23.10.R1 |
| Platforms | All |


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### adj

| | |
|---|---|
| Synopsis | Enter the **adj** context |
| Context | reset router *string* isis *reference* sid-egress-stats adj |
| Tree | adj |
| Introduced | 23.10.R1 |
| Platforms | All |

### all

| | |
|---|---|
| Synopsis | Reset all egress SID statistics for all adjacencies |
| Context | reset router *string* isis *reference* sid-egress-stats adj all |
| Tree | all |
| Introduced | 23.10.R1 |
| Platforms | All |

### interface

| | |
|---|---|
| Synopsis | Reset adjacency SID statistics for an interface |
| Context | reset router *string* isis *reference* sid-egress-stats adj interface |
| Tree | interface |
| Introduced | 23.10.R1 |
| Platforms | All |

### [**interface-name**] *string*

| | |
|---|---|
| Synopsis | Interface name |
| Context | reset router *string* isis *reference* sid-egress-stats adj interface [interface-name] *string* |
| Tree | [interface-name] |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |


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### adj-set

| | |
|---|---|
| Synopsis | Enter the **adj-set** context |
| Context | reset router *string* isis *reference* sid-egress-stats adj-set |
| Tree | adj-set |
| Introduced | 23.10.R1 |
| Platforms | All |

### all

| | |
|---|---|
| Synopsis | Reset egress SID statistics for all adjacency sets |
| Context | reset router *string* isis *reference* sid-egress-stats adj-set all |
| Tree | all |
| Introduced | 23.10.R1 |
| Platforms | All |

### id

| | |
|---|---|
| Synopsis | Reset adjacency set ID |
| Context | reset router *string* isis *reference* sid-egress-stats adj-set id |
| Tree | id |
| Introduced | 23.10.R1 |
| Platforms | All |

### [**id**] *reference*

| | |
|---|---|
| Synopsis | Adjacency set ID |
| Context | reset router *string* isis *reference* sid-egress-stats adj-set id [id] *reference* |
| Tree | [id] |
| Reference | **state router** *named-item-64* **isis** *number* **segment-routing adjacency-set** *number* |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |


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### all

| | |
|---|---|
| Synopsis | Reset all egress SID statistics |
| Context | reset router *string* isis *reference* sid-egress-stats all |
| Tree | all |
| Introduced | 23.10.R1 |
| Platforms | All |

### node

| | |
|---|---|
| Synopsis | Enter the **node** context |
| Context | reset router *string* isis *reference* sid-egress-stats node |
| Tree | node |
| Introduced | 23.10.R1 |
| Platforms | All |

### all

| | |
|---|---|
| Synopsis | Reset all egress node SID statistics |
| Context | reset router *string* isis *reference* sid-egress-stats node all |
| Tree | all |
| Introduced | 23.10.R1 |
| Platforms | All |

### prefix

| | |
|---|---|
| Synopsis | Reset egress statistics for a node prefix SID |
| Context | reset router *string* isis *reference* sid-egress-stats node prefix |
| Tree | prefix |
| Introduced | 23.10.R1 |
| Platforms | All |


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### [**ip-prefix-prefix-length**] *(ipv4-address-no-zone | ipv6-address-no-zone | ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Node prefix |
| Context | reset router *string* isis *reference* sid-egress-stats node prefix [ip-prefix-prefix-length] *(ipv4-address-no-zone \| ipv6-address-no-zone \| ipv4-prefix \| ipv6-prefix)* |
| Tree | [ip-prefix-prefix-length] |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

## sid-ingress-stats

| | |
|---|---|
| Synopsis | Enter the **sid-ingress-stats** context |
| Context | reset router *string* isis *reference* sid-ingress-stats |
| Tree | sid-ingress-stats |
| Introduced | 23.10.R1 |
| Platforms | All |

## adj

| | |
|---|---|
| Synopsis | Enter the **adj** context |
| Context | reset router *string* isis *reference* sid-ingress-stats adj |
| Tree | adj |
| Introduced | 23.10.R1 |
| Platforms | All |

## all

| | |
|---|---|
| Synopsis | Reset ingress SID statistics for all adjacencies |
| Context | reset router *string* isis *reference* sid-ingress-stats adj all |
| Tree | all |
| Introduced | 23.10.R1 |
| Platforms | All |


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### interface

| | |
|---|---|
| Synopsis | Reset ingress SID statistics for an adjacency |
| Context | reset router *string* isis *reference* sid-ingress-stats adj interface |
| Tree | interface |
| Introduced | 23.10.R1 |
| Platforms | All |

### [**interface-name**] *string*

| | |
|---|---|
| Synopsis | Interface name |
| Context | reset router *string* isis *reference* sid-ingress-stats adj interface [interface-name] *string* |
| Tree | [interface-name] |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

### adj-set

| | |
|---|---|
| Synopsis | Enter the **adj-set** context |
| Context | reset router *string* isis *reference* sid-ingress-stats adj-set |
| Tree | adj-set |
| Introduced | 23.10.R1 |
| Platforms | All |

### all

| | |
|---|---|
| Synopsis | Reset ingress SID statistics for all adjacency sets |
| Context | reset router *string* isis *reference* sid-ingress-stats adj-set all |
| Tree | all |
| Introduced | 23.10.R1 |
| Platforms | All |


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### id

| | |
|---|---|
| Synopsis | Reset ingress statistics for the adjacency set ID |
| Context | reset router *string* isis *reference* sid-ingress-stats adj-set id |
| Tree | id |
| Introduced | 23.10.R1 |
| Platforms | All |

### [**id**] *reference*

| | |
|---|---|
| Synopsis | Adjacency set ID |
| Context | reset router *string* isis *reference* sid-ingress-stats adj-set id [id] *reference* |
| Tree | [id] |
| Reference | **state router** *named-item-64* **isis** *number* **segment-routing adjacency-set** *number* |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

### all

| | |
|---|---|
| Synopsis | Reset all ingress SID statistics |
| Context | reset router *string* isis *reference* sid-ingress-stats all |
| Tree | all |
| Introduced | 23.10.R1 |
| Platforms | All |

### node

| | |
|---|---|
| Synopsis | Enter the **node** context |
| Context | reset router *string* isis *reference* sid-ingress-stats node |
| Tree | node |
| Introduced | 23.10.R1 |
| Platforms | All |


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### all

| | |
|---|---|
| Synopsis | Reset all ingress node SID statistics |
| Context | reset router *string* isis *reference* sid-ingress-stats node all |
| Tree | all |
| Introduced | 23.10.R1 |
| Platforms | All |

### prefix

| | |
|---|---|
| Synopsis | Reset ingress statistics for a node prefix SID |
| Context | reset router *string* isis *reference* sid-ingress-stats node prefix |
| Tree | prefix |
| Introduced | 23.10.R1 |
| Platforms | All |

### [**ip-prefix-prefix-length**] *(ipv4-address-no-zone | ipv6-address-no-zone | ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Node prefix |
| Context | reset router *string* isis *reference* sid-ingress-stats node prefix [ip-prefix-prefix-length] *(ipv4-address-no-zone \| ipv6-address-no-zone \| ipv4-prefix \| ipv6-prefix)* |
| Tree | [ip-prefix-prefix-length] |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

### spf-log

| | |
|---|---|
| Synopsis | Reset the IS-IS SPF log |
| Context | reset router *string* isis *reference* spf-log |
| Tree | spf-log |
| Introduced | 23.10.R1 |
| Platforms | All |


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## statistics

| | |
|---|---|
| Synopsis | Reset IS-IS statistics |
| Context | reset router *string* isis *reference* statistics |
| Tree | statistics |
| Introduced | 23.10.R1 |
| Platforms | All |

## mld

| | |
|---|---|
| Synopsis | Enter the **mld** context |
| Context | reset router *string* mld |
| Tree | mld |
| Description | Commands in this context perform reset operations on Multicast Listener Discovery (MLD) entities. |
| Introduced | 24.3.R1 |
| Platforms | All |

## database

| | |
|---|---|
| Synopsis | Enter the **database** context |
| Context | reset router *string* mld database |
| Tree | database |
| Description | Commands in this context reset MLD database entities. |
| Introduced | 24.3.R1 |
| Platforms | All |

## all

| | |
|---|---|
| Synopsis | Reset database for all interfaces, groups, and hosts |
| Context | reset router *string* mld database all |
| Tree | all |
| Introduced | 24.3.R1 |
| Platforms | All |


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### **group** *ipv6-multicast-address*

| | |
|---|---|
| Synopsis | Group address |
| Context | reset router *string* mld database all group *ipv6-multicast-address* |
| Tree | group |
| Introduced | 24.3.R1 |
| Platforms | All |

### **source** *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Source address |
| Context | reset router *string* mld database all source *ipv6-unicast-address* |
| Tree | source |
| Introduced | 24.3.R1 |
| Platforms | All |

### **all-group-interfaces**

| | |
|---|---|
| Synopsis | Reset the database for all group interfaces |
| Context | reset router *string* mld database all-group-interfaces |
| Tree | all-group-interfaces |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **group** *ipv6-multicast-address*

| | |
|---|---|
| Synopsis | Group address |
| Context | reset router *string* mld database all-group-interfaces group *ipv6-multicast-address* |
| Tree | group |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **source** *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Source address |


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| | |
|---|---|
| Context | reset router *string* mld database all-group-interfaces source *ipv6-unicast-address* |
| Tree | source |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### all-hosts

| | |
|---|---|
| Synopsis | Reset the database for all hosts |
| Context | reset router *string* mld database all-hosts |
| Tree | all-hosts |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### group *ipv6-multicast-address*

| | |
|---|---|
| Synopsis | Group address |
| Context | reset router *string* mld database all-hosts group *ipv6-multicast-address* |
| Tree | group |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### source *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Source address |
| Context | reset router *string* mld database all-hosts source *ipv6-unicast-address* |
| Tree | source |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### forwarding-group-interface

| | |
|---|---|
| Synopsis | Reset the database on a group interface |
| Context | reset router *string* mld database forwarding-group-interface |
| Tree | forwarding-group-interface |
| Introduced | 24.3.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **forwarding-service** *service-name*

| | |
|---|---|
| Synopsis | Forwarding service for a subscriber interface |
| Context | reset router *string* mld database forwarding-group-interface forwarding-service *service-name* |
| Tree | forwarding-service |
| String length | 1 to 64 |
| Notes | This element is mandatory. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **group** *ipv6-multicast-address*

| | |
|---|---|
| Synopsis | Group address |
| Context | reset router *string* mld database forwarding-group-interface group *ipv6-multicast-address* |
| Tree | group |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **group-interface-name** *interface-name*

| | |
|---|---|
| Synopsis | Group interface name |
| Context | reset router *string* mld database forwarding-group-interface group-interface-name *interface-name* |
| Tree | group-interface-name |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **source** *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Source address |


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| | |
|---|---|
| Context | reset router *string* mld database forwarding-group-interface source *ipv6-unicast-address* |
| Tree | source |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### group-interface

| | |
|---|---|
| Synopsis | Reset the database on a group interface |
| Context | reset router *string* mld database group-interface |
| Tree | group-interface |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### group *ipv6-multicast-address*

| | |
|---|---|
| Synopsis | Group address |
| Context | reset router *string* mld database group-interface group *ipv6-multicast-address* |
| Tree | group |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### group-interface-name *interface-name*

| | |
|---|---|
| Synopsis | Group interface name |
| Context | reset router *string* mld database group-interface group-interface-name *interface-name* |
| Tree | group-interface-name |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### source *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Source address |
| Context | reset router *string* mld database group-interface source *ipv6-unicast-address* |


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| | |
|---|---|
| Tree | source |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### host

| | |
|---|---|
| Synopsis | Reset the database on a host |
| Context | reset router *string* mld database host |
| Tree | host |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### group *ipv6-multicast-address*

| | |
|---|---|
| Synopsis | Group address |
| Context | reset router *string* mld database host group *ipv6-multicast-address* |
| Tree | group |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### host-ip-address *ipv6-address*

| | |
|---|---|
| Synopsis | Host address |
| Context | reset router *string* mld database host host-ip-address *ipv6-address* |
| Tree | host-ip-address |
| Notes | This element is mandatory. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### source *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Source address |
| Context | reset router *string* mld database host source *ipv6-unicast-address* |
| Tree | source |
| Introduced | 24.3.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### interface

| | |
|---|---|
| Synopsis | Reset the database on an interface |
| Context | reset router *string* mld database interface |
| Tree | interface |
| Introduced | 24.3.R1 |
| Platforms | All |

### group *ipv6-multicast-address*

| | |
|---|---|
| Synopsis | Group address |
| Context | reset router *string* mld database interface group *ipv6-multicast-address* |
| Tree | group |
| Introduced | 24.3.R1 |
| Platforms | All |

### interface-name *interface-name*

| | |
|---|---|
| Synopsis | Interface name |
| Context | reset router *string* mld database interface interface-name *interface-name* |
| Tree | interface-name |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 24.3.R1 |
| Platforms | All |

### source *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Source address |
| Context | reset router *string* mld database interface source *ipv6-unicast-address* |
| Tree | source |
| Introduced | 24.3.R1 |
| Platforms | All |


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## statistics

| | |
|---|---|
| Synopsis | Enter the **statistics** context |
| Context | reset router *string* mld statistics |
| Tree | statistics |
| Description | Commands in this context reset MLD statistics entities. |
| Introduced | 24.3.R1 |
| Platforms | All |

## all

| | |
|---|---|
| Synopsis | Reset statistics for all interfaces, groups, and hosts |
| Context | reset router *string* mld statistics all |
| Tree | all |
| Introduced | 24.3.R1 |
| Platforms | All |

## all-group-interfaces

| | |
|---|---|
| Synopsis | Reset the statistics for all group interfaces |
| Context | reset router *string* mld statistics all-group-interfaces |
| Tree | all-group-interfaces |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## all-hosts

| | |
|---|---|
| Synopsis | Reset the statistics for all hosts |
| Context | reset router *string* mld statistics all-hosts |
| Tree | all-hosts |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### forwarding-group-interface

| | |
|---|---|
| Synopsis | Reset the statistics on a group interface |
| Context | reset router *string* mld statistics forwarding-group-interface |
| Tree | forwarding-group-interface |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### forwarding-service *service-name*

| | |
|---|---|
| Synopsis | Forwarding service for a subscriber interface |
| Context | reset router *string* mld statistics forwarding-group-interface forwarding-service *service-name* |
| Tree | forwarding-service |
| String length | 1 to 64 |
| Notes | This element is mandatory. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### group-interface-name *interface-name*

| | |
|---|---|
| Synopsis | Group interface name |
| Context | reset router *string* mld statistics forwarding-group-interface group-interface-name *interface-name* |
| Tree | group-interface-name |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### group-interface

| | |
|---|---|
| Synopsis | Reset the statistics on a group interface |
| Context | reset router *string* mld statistics group-interface |
| Tree | group-interface |


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| | |
|---|---|
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **group-interface-name** *interface-name*

| | |
|---|---|
| Synopsis | Group interface name |
| Context | reset router *string* mld statistics group-interface group-interface-name *interface-name* |
| Tree | group-interface-name |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **host**

| | |
|---|---|
| Synopsis | Reset the statistics on a host |
| Context | reset router *string* mld statistics host |
| Tree | host |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **host-ip-address** *ipv6-address*

| | |
|---|---|
| Synopsis | Host address |
| Context | reset router *string* mld statistics host host-ip-address *ipv6-address* |
| Tree | host-ip-address |
| Notes | This element is mandatory. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **interface**

| | |
|---|---|
| Synopsis | Reset the statistics on an interface |
| Context | reset router *string* mld statistics interface |
| Tree | interface |


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| | |
|---|---|
| Introduced | 24.3.R1 |
| Platforms | All |

### **interface-name** *interface-name*

| | |
|---|---|
| Synopsis | Interface name |
| Context | reset router *string* mld statistics interface interface-name *interface-name* |
| Tree | interface-name |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 24.3.R1 |
| Platforms | All |

### **version**

| | |
|---|---|
| Synopsis | Enter the **version** context |
| Context | reset router *string* mld version |
| Tree | version |
| Description | Commands in this context reset the MLD version entities. |
| Introduced | 24.3.R1 |
| Platforms | All |

### **all**

| | |
|---|---|
| Synopsis | Reset the version for all interfaces, groups, and hosts |
| Context | reset router *string* mld version all |
| Tree | all |
| Introduced | 24.3.R1 |
| Platforms | All |

### **all-group-interfaces**

| | |
|---|---|
| Synopsis | Reset the version for all group interfaces |
| Context | reset router *string* mld version all-group-interfaces |
| Tree | all-group-interfaces |


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| | |
|---|---|
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### all-hosts

| | |
|---|---|
| Synopsis | Reset the version for all hosts |
| Context | reset router *string* mld version all-hosts |
| Tree | all-hosts |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### forwarding-group-interface

| | |
|---|---|
| Synopsis | Reset the version on a group interface |
| Context | reset router *string* mld version forwarding-group-interface |
| Tree | forwarding-group-interface |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### forwarding-service *service-name*

| | |
|---|---|
| Synopsis | Forwarding service for a subscriber interface |
| Context | reset router *string* mld version forwarding-group-interface forwarding-service *service-name* |
| Tree | forwarding-service |
| String length | 1 to 64 |
| Notes | This element is mandatory. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### group-interface-name *interface-name*

| | |
|---|---|
| Synopsis | Group interface name |
| Context | reset router *string* mld version forwarding-group-interface group-interface-name *interface-name* |
| Tree | group-interface-name |


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| | |
|---|---|
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### group-interface

| | |
|---|---|
| Synopsis | Reset the version on a group interface |
| Context | reset router *string* mld version group-interface |
| Tree | group-interface |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### group-interface-name *interface-name*

| | |
|---|---|
| Synopsis | Group interface name |
| Context | reset router *string* mld version group-interface group-interface-name *interface-name* |
| Tree | group-interface-name |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### host

| | |
|---|---|
| Synopsis | Reset the version on a host |
| Context | reset router *string* mld version host |
| Tree | host |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### host-ip-address *ipv6-address*

| | |
|---|---|
| Synopsis | Host address |
| Context | reset router *string* mld version host host-ip-address *ipv6-address* |


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| | |
|---|---|
| Tree | host-ip-address |
| Notes | This element is mandatory. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## interface

| | |
|---|---|
| Synopsis | Reset the version on an interface |
| Context | reset router *string* mld version interface |
| Tree | interface |
| Introduced | 24.3.R1 |
| Platforms | All |

## interface-name *interface-name*

| | |
|---|---|
| Synopsis | Interface name |
| Context | reset router *string* mld version interface interface-name *interface-name* |
| Tree | interface-name |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 24.3.R1 |
| Platforms | All |

## msdp

| | |
|---|---|
| Synopsis | Enter the **msdp** context |
| Context | reset router *string* msdp |
| Tree | msdp |
| Description | Commands in this context perform reset operations on Multicast Source Discovery Protocol (MSDP) entities and statistics. |
| Introduced | 24.3.R1 |
| Platforms | All |


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### cache

| | |
|---|---|
| Synopsis | Reset the MSDP cache |
| Context | reset router *string* msdp cache |
| Tree | cache |
| Introduced | 24.3.R1 |
| Platforms | All |

### group-address *ipv4-multicast-address*

| | |
|---|---|
| Synopsis | Group address |
| Context | reset router *string* msdp cache group-address *ipv4-multicast-address* |
| Tree | group-address |
| Introduced | 24.3.R1 |
| Platforms | All |

### origin-rp-address *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Origin RP address |
| Context | reset router *string* msdp cache origin-rp-address *ipv4-unicast-address* |
| Tree | origin-rp-address |
| Description | This command specifies the origin Rendezvous Point (RP) address type of the source-active (SA) entry to reset. |
| Introduced | 24.3.R1 |
| Platforms | All |

### peer-address *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Peer address |
| Context | reset router *string* msdp cache peer-address *ipv4-unicast-address* |
| Tree | peer-address |
| Description | This command specifies the peer address of the cache of the IP address for the peer where MSDP SA requests for groups matching the group range for this entry were sent. |
| Introduced | 24.3.R1 |
| Platforms | All |


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### **source-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Source address |
| Context | reset router *string* msdp cache source-address *ipv4-unicast-address* |
| Tree | source-address |
| Introduced | 24.3.R1 |
| Platforms | All |

### **statistics**

| | |
|---|---|
| Synopsis | Reset the statistics |
| Context | reset router *string* msdp statistics |
| Tree | statistics |
| Introduced | 24.3.R1 |
| Platforms | All |

### **peer-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Peer address |
| Context | reset router *string* msdp statistics peer-address *ipv4-unicast-address* |
| Tree | peer-address |
| Description | This command specifies the peer address for resetting statistics where MSDP SA requests for groups matching the group range for this entry were sent. |
| Introduced | 24.3.R1 |
| Platforms | All |

### **neighbor**

| | |
|---|---|
| Synopsis | Enter the **neighbor** context |
| Context | reset router *string* neighbor |
| Tree | neighbor |
| Description | Commands in this context reset neighbor information. |
| Introduced | 23.10.R1 |
| Platforms | All |


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### address

| | |
|---|---|
| Synopsis | Reset the IPv6 neighbor information |
| Context | reset router *string* neighbor address |
| Tree | address |
| Introduced | 23.10.R1 |
| Platforms | All |

### ipv6-address *(ipv4-address-with-zone | ipv6-address-with-zone)*

| | |
|---|---|
| Synopsis | IPv6 address |
| Context | reset router *string* neighbor address ipv6-address *(ipv4-address-with-zone | ipv6-address-with-zone)* |
| Tree | ipv6-address |
| Introduced | 23.10.R1 |
| Platforms | All |

### all

| | |
|---|---|
| Synopsis | Reset information for all neighbors of all interfaces |
| Context | reset router *string* neighbor all |
| Tree | all |
| Introduced | 23.10.R1 |
| Platforms | All |

### interface

| | |
|---|---|
| Synopsis | Reset all neighbors of the router interface |
| Context | reset router *string* neighbor interface |
| Tree | interface |
| Introduced | 23.10.R1 |
| Platforms | All |

### interface-name *interface-name*

| | |
|---|---|
| Synopsis | Interface name |


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| | |
|---|---|
| Context | reset router *string* neighbor interface interface-name *interface-name* |
| Tree | interface-name |
| String length | 1 to 32 |
| Introduced | 23.10.R1 |
| Platforms | All |

### **ospf** [ospf-instance] *number*

| | |
|---|---|
| Synopsis | Enter the **ospf** list instance |
| Context | reset router *string* ospf *number* |
| Tree | ospf |
| Description | Commands in this context clear and reset OSPF protocol entities. |
| Introduced | 23.10.R1 |
| Platforms | All |

### [**ospf-instance**] *number*

| | |
|---|---|
| Synopsis | OSPF instance |
| Context | reset router *string* ospf *number* |
| Tree | ospf |
| Max. range | 0 to 4294967295 |
| MD-CLI default | 0 |
| Notes | This element is part of a list key. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **database**

| | |
|---|---|
| Synopsis | Reset and refresh LSAs |
| Context | reset router *string* ospf *number* database |
| Tree | database |
| Description | When configured, the system clears all LSAs received from other nodes, sets all adjacencies other than two-way to one-way, and refreshes all self-originated LSAs. |
| Introduced | 23.10.R1 |


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| | |
|---|---|
| Platforms | All |

### purge

| | |
|---|---|
| Synopsis | Reset LSAs |
| Context | reset router *string* ospf *number* database purge |
| Tree | purge |
| Introduced | 23.10.R1 |
| Platforms | All |

### export

| | |
|---|---|
| Synopsis | Reset and re-evaluate export policies |
| Context | reset router *string* ospf *number* export |
| Tree | export |
| Introduced | 23.10.R1 |
| Platforms | All |

### neighbor

| | |
|---|---|
| Synopsis | Reset neighbor adjacencies |
| Context | reset router *string* ospf *number* neighbor |
| Tree | neighbor |
| Description | This command marks the neighbor as dead and re-initiates the affected adjacencies. |
| Introduced | 23.10.R1 |
| Platforms | All |

### interface-name *string*

| | |
|---|---|
| Synopsis | Neighbor interface name |
| Context | reset router *string* ospf *number* neighbor interface-name *string* |
| Tree | interface-name |
| Introduced | 23.10.R1 |
| Platforms | All |


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### **router-id** *ipv4-address*

| | |
|---|---|
| Synopsis | Neighbor router ID |
| Context | reset router *string* ospf *number* neighbor router-id *ipv4-address* |
| Tree | router-id |
| Introduced | 23.10.R1 |
| Platforms | All |

### **overload**

| | |
|---|---|
| Synopsis | Reset the OSPF overload |
| Context | reset router *string* ospf *number* overload |
| Tree | overload |
| Introduced | 23.10.R1 |
| Platforms | All |

### [**overload-type**] *keyword*

| | |
|---|---|
| Synopsis | Overload type |
| Context | reset router *string* ospf *number* overload [overload-type] *keyword* |
| Tree | [overload-type] |
| Options | fib, rtm, rtr-adv-lsa-limit |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **sid-egress-stats**

| | |
|---|---|
| Synopsis | Enter the **sid-egress-stats** context |
| Context | reset router *string* ospf *number* sid-egress-stats |
| Tree | sid-egress-stats |
| Introduced | 23.10.R1 |
| Platforms | All |


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### adj

| | |
|---|---|
| Synopsis | Enter the **adj** context |
| Context | reset router *string* ospf *number* sid-egress-stats adj |
| Tree | adj |
| Introduced | 23.10.R1 |
| Platforms | All |

### all

| | |
|---|---|
| Synopsis | Reset egress statistics for all adjacency SIDs |
| Context | reset router *string* ospf *number* sid-egress-stats adj all |
| Tree | all |
| Introduced | 23.10.R1 |
| Platforms | All |

### interface

| | |
|---|---|
| Synopsis | Reset egress adjacency SID statistics for an interface |
| Context | reset router *string* ospf *number* sid-egress-stats adj interface |
| Tree | interface |
| Introduced | 23.10.R1 |
| Platforms | All |

### [**interface-name**] *reference*

| | |
|---|---|
| Synopsis | Interface name |
| Context | reset router *string* ospf *number* sid-egress-stats adj interface [interface-name] *reference* |
| Tree | [interface-name] |
| Reference | **state router** *named-item-64* **ospf** *number* **area** *ipv4-address* **interface** *interface-name* |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |


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### adj-set

| | |
|---|---|
| Synopsis | Enter the **adj-set** context |
| Context | reset router *string* ospf *number* sid-egress-stats adj-set |
| Tree | adj-set |
| Introduced | 23.10.R1 |
| Platforms | All |

### all

| | |
|---|---|
| Synopsis | Reset egress statistics for all adjacency sets |
| Context | reset router *string* ospf *number* sid-egress-stats adj-set all |
| Tree | all |
| Introduced | 23.10.R1 |
| Platforms | All |

### id

| | |
|---|---|
| Synopsis | Reset egress statistics for an adjacency set |
| Context | reset router *string* ospf *number* sid-egress-stats adj-set id |
| Tree | id |
| Introduced | 23.10.R1 |
| Platforms | All |

### [**id**] *reference*

| | |
|---|---|
| Synopsis | Adjacency set ID |
| Context | reset router *string* ospf *number* sid-egress-stats adj-set id [id] *reference* |
| Tree | [id] |
| Reference | **state router** *named-item-64* **ospf** *number* **segment-routing adjacency-set** *number* |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |


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### all

| | |
|---|---|
| Synopsis | Reset all egress SID statistics |
| Context | reset router *string* ospf *number* sid-egress-stats all |
| Tree | all |
| Introduced | 23.10.R1 |
| Platforms | All |

### node

| | |
|---|---|
| Synopsis | Enter the **node** context |
| Context | reset router *string* ospf *number* sid-egress-stats node |
| Tree | node |
| Introduced | 23.10.R1 |
| Platforms | All |

### all

| | |
|---|---|
| Synopsis | Reset egress statistics for all prefix SIDs |
| Context | reset router *string* ospf *number* sid-egress-stats node all |
| Tree | all |
| Introduced | 23.10.R1 |
| Platforms | All |

### prefix

| | |
|---|---|
| Synopsis | Reset egress SID statistics for a prefix |
| Context | reset router *string* ospf *number* sid-egress-stats node prefix |
| Tree | prefix |
| Introduced | 23.10.R1 |
| Platforms | All |

### [**prefix**] *(ipv4-address-no-zone | ipv6-address-no-zone | ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Node prefix |


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| | |
|---|---|
| Context | reset router *string* ospf *number* sid-egress-stats node prefix [prefix] *(ipv4-address-no-zone \| ipv6-address-no-zone \| ipv4-prefix \| ipv6-prefix)* |
| Tree | [prefix] |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

## sid-ingress-stats

| | |
|---|---|
| Synopsis | Enter the **sid-ingress-stats** context |
| Context | reset router *string* ospf *number* sid-ingress-stats |
| Tree | sid-ingress-stats |
| Introduced | 23.10.R1 |
| Platforms | All |

## adj

| | |
|---|---|
| Synopsis | Enter the **adj** context |
| Context | reset router *string* ospf *number* sid-ingress-stats adj |
| Tree | adj |
| Introduced | 23.10.R1 |
| Platforms | All |

## all

| | |
|---|---|
| Synopsis | Reset ingress statistics for all adjacency SIDs |
| Context | reset router *string* ospf *number* sid-ingress-stats adj all |
| Tree | all |
| Introduced | 23.10.R1 |
| Platforms | All |

## interface

| | |
|---|---|
| Synopsis | Reset ingress adjacency SID statistics on an interface |
| Context | reset router *string* ospf *number* sid-ingress-stats adj interface |


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| | |
|---|---|
| Tree | interface |
| Introduced | 23.10.R1 |
| Platforms | All |

### [**interface-name**] *reference*

| | |
|---|---|
| Synopsis | Interface name |
| Context | reset router *string* ospf *number* sid-ingress-stats adj interface [interface-name] *reference* |
| Tree | [interface-name] |
| Reference | **state router** *named-item-64* **ospf** *number* **area** *ipv4-address* **interface** *interface-name* |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

### adj-set

| | |
|---|---|
| Synopsis | Enter the **adj-set** context |
| Context | reset router *string* ospf *number* sid-ingress-stats adj-set |
| Tree | adj-set |
| Introduced | 23.10.R1 |
| Platforms | All |

### all

| | |
|---|---|
| Synopsis | Reset ingress statistics for all adjacency sets |
| Context | reset router *string* ospf *number* sid-ingress-stats adj-set all |
| Tree | all |
| Introduced | 23.10.R1 |
| Platforms | All |

### id

| | |
|---|---|
| Synopsis | Reset ingress statistics for a specific adjacency set |
| Context | reset router *string* ospf *number* sid-ingress-stats adj-set id |
| Tree | id |


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| | |
|---|---|
| Introduced | 23.10.R1 |
| Platforms | All |

### [**id**] *reference*

| | |
|---|---|
| Synopsis | Adjacency set ID |
| Context | reset router *string* ospf *number* sid-ingress-stats adj-set id [id] *reference* |
| Tree | [id] |
| Reference | **state router** *named-item-64* **ospf** *number* **segment-routing adjacency-set** *number* |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

### all

| | |
|---|---|
| Synopsis | Reset all ingress SID statistics |
| Context | reset router *string* ospf *number* sid-ingress-stats all |
| Tree | all |
| Introduced | 23.10.R1 |
| Platforms | All |

### node

| | |
|---|---|
| Synopsis | Enter the **node** context |
| Context | reset router *string* ospf *number* sid-ingress-stats node |
| Tree | node |
| Introduced | 23.10.R1 |
| Platforms | All |

### all

| | |
|---|---|
| Synopsis | Reset ingress statistics for all prefix SIDs |
| Context | reset router *string* ospf *number* sid-ingress-stats node all |
| Tree | all |
| Introduced | 23.10.R1 |


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| | |
|---|---|
| Platforms | All |

## prefix

| | |
|---|---|
| Synopsis | Reset ingress statistics for a prefix SID |
| Context | reset router *string* ospf *number* sid-ingress-stats node prefix |
| Tree | prefix |
| Introduced | 23.10.R1 |
| Platforms | All |

## [**prefix**] *(ipv4-address-no-zone | ipv6-address-no-zone | ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Node prefix |
| Context | reset router *string* ospf *number* sid-ingress-stats node prefix [prefix] *(ipv4-address-no-zone | ipv6-address-no-zone | ipv4-prefix | ipv6-prefix)* |
| Tree | [prefix] |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

## statistics

| | |
|---|---|
| Synopsis | Reset OSPF statistics |
| Context | reset router *string* ospf *number* statistics |
| Tree | statistics |
| Description | When configured, the system clears all neighbor, router, interface, SPF and global statistics of this OSPF instance. |
| Introduced | 23.10.R1 |
| Platforms | All |

## **ospf3** [ospf-instance] *number*

| | |
|---|---|
| Synopsis | Enter the **ospf3** list instance |
| Context | reset router *string* ospf3 *number* |
| Tree | ospf3 |
| Description | Commands in this context clear and reset OSPFv3 protocol entities. |


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| | |
|---|---|
| Introduced | 23.10.R1 |
| Platforms | All |

### [**ospf-instance**] *number*

| | |
|---|---|
| Synopsis | OSPFv3 instance |
| Context | reset router *string* ospf3 *number* |
| Tree | ospf3 |
| Max. range | 0 to 4294967295 |
| MD-CLI default | 0 |
| Notes | This element is part of a list key. |
| Introduced | 23.10.R1 |
| Platforms | All |

### database

| | |
|---|---|
| Synopsis | Reset and refresh LSAs |
| Context | reset router *string* ospf3 *number* database |
| Tree | database |
| Description | When configured, the system clears all LSAs received from other nodes, sets all adjacencies other than two-way to one-way, and refreshes all self-originated LSAs. |
| Introduced | 23.10.R1 |
| Platforms | All |

### purge

| | |
|---|---|
| Synopsis | Reset LSAs |
| Context | reset router *string* ospf3 *number* database purge |
| Tree | purge |
| Introduced | 23.10.R1 |
| Platforms | All |

### export

| | |
|---|---|
| Synopsis | Reset and re-evaluate export policies |


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| | |
|---|---|
| Context | reset router *string* ospf3 *number* export |
| Tree | export |
| Introduced | 23.10.R1 |
| Platforms | All |

## neighbor

| | |
|---|---|
| Synopsis | Reset neighbor adjacencies |
| Context | reset router *string* ospf3 *number* neighbor |
| Tree | neighbor |
| Description | When configured, this command marks the neighbor as dead and reinitiates the affected adjacencies. |
| Introduced | 23.10.R1 |
| Platforms | All |

## interface-name *string*

| | |
|---|---|
| Synopsis | Neighbor interface name |
| Context | reset router *string* ospf3 *number* neighbor interface-name *string* |
| Tree | interface-name |
| Introduced | 23.10.R1 |
| Platforms | All |

## router-id *ipv4-address*

| | |
|---|---|
| Synopsis | Router ID of the neighbor to reset |
| Context | reset router *string* ospf3 *number* neighbor router-id *ipv4-address* |
| Tree | router-id |
| Introduced | 23.10.R1 |
| Platforms | All |

## overload

| | |
|---|---|
| Synopsis | Reset the OSPF overload |
| Context | reset router *string* ospf3 *number* overload |


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| | |
|---|---|
| Tree | overload |
| Introduced | 23.10.R1 |
| Platforms | All |

### [**overload-type**] *keyword*

| | |
|---|---|
| Synopsis | Overload type |
| Context | reset router *string* ospf3 *number* overload [overload-type] *keyword* |
| Tree | [overload-type] |
| Options | fib, rtm, rtr-adv-lsa-limit |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

### sid-egress-stats

| | |
|---|---|
| Synopsis | Enter the **sid-egress-stats** context |
| Context | reset router *string* ospf3 *number* sid-egress-stats |
| Tree | sid-egress-stats |
| Introduced | 23.10.R1 |
| Platforms | All |

### adj

| | |
|---|---|
| Synopsis | Enter the **adj** context |
| Context | reset router *string* ospf3 *number* sid-egress-stats adj |
| Tree | adj |
| Introduced | 23.10.R1 |
| Platforms | All |

### all

| | |
|---|---|
| Synopsis | Reset egress statistics for all adjacency SIDs |
| Context | reset router *string* ospf3 *number* sid-egress-stats adj all |
| Tree | all |


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| | |
|---|---|
| Introduced | 23.10.R1 |
| Platforms | All |

## interface

| | |
|---|---|
| Synopsis | Reset statistics for adjacency SIDs on an interface |
| Context | reset router *string* ospf3 *number* sid-egress-stats adj interface |
| Tree | interface |
| Introduced | 23.10.R1 |
| Platforms | All |

## [**interface-name**] *reference*

| | |
|---|---|
| Synopsis | Interface name |
| Context | reset router *string* ospf3 *number* sid-egress-stats adj interface [interface-name] *reference* |
| Tree | [interface-name] |
| Reference | **state router** *named-item-64* **ospf3** *number* **area** *ipv4-address* **interface** *interface-name* |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

## all

| | |
|---|---|
| Synopsis | Reset all egress SID statistics |
| Context | reset router *string* ospf3 *number* sid-egress-stats all |
| Tree | all |
| Introduced | 23.10.R1 |
| Platforms | All |

## node

| | |
|---|---|
| Synopsis | Enter the **node** context |
| Context | reset router *string* ospf3 *number* sid-egress-stats node |
| Tree | node |


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| | |
|---|---|
| Introduced | 23.10.R1 |
| Platforms | All |

### all

| | |
|---|---|
| Synopsis | Reset egress statistics for all prefix SIDs |
| Context | reset router *string* ospf3 *number* sid-egress-stats node all |
| Tree | all |
| Introduced | 23.10.R1 |
| Platforms | All |

### prefix

| | |
|---|---|
| Synopsis | Reset egress statistics for SIDs of a specific prefix |
| Context | reset router *string* ospf3 *number* sid-egress-stats node prefix |
| Tree | prefix |
| Introduced | 23.10.R1 |
| Platforms | All |

### [**prefix**] *(ipv4-address-no-zone | ipv6-address-no-zone | ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Node prefix |
| Context | reset router *string* ospf3 *number* sid-egress-stats node prefix [prefix] *(ipv4-address-no-zone | ipv6-address-no-zone | ipv4-prefix | ipv6-prefix)* |
| Tree | [prefix] |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

### sid-ingress-stats

| | |
|---|---|
| Synopsis | Enter the **sid-ingress-stats** context |
| Context | reset router *string* ospf3 *number* sid-ingress-stats |
| Tree | sid-ingress-stats |
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| | |
|---|---|
| Platforms | All |

## adj

| | |
|---|---|
| Synopsis | Enter the **adj** context |
| Context | reset router *string* ospf3 *number* sid-ingress-stats adj |
| Tree | adj |
| Introduced | 23.10.R1 |
| Platforms | All |

## all

| | |
|---|---|
| Synopsis | Reset ingress statistics for all adjacency SIDs |
| Context | reset router *string* ospf3 *number* sid-ingress-stats adj all |
| Tree | all |
| Introduced | 23.10.R1 |
| Platforms | All |

## interface

| | |
|---|---|
| Synopsis | Reset statistics for adjacency SIDs on an interface |
| Context | reset router *string* ospf3 *number* sid-ingress-stats adj interface |
| Tree | interface |
| Introduced | 23.10.R1 |
| Platforms | All |

## [**interface-name**] *reference*

| | |
|---|---|
| Synopsis | Interface name |
| Context | reset router *string* ospf3 *number* sid-ingress-stats adj interface [interface-name] *reference* |
| Tree | [interface-name] |
| Reference | **state router** *named-item-64* **ospf3** *number* **area** *ipv4-address* **interface** *interface-name* |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |


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| | |
|---|---|
| Platforms | All |

## all

| | |
|---|---|
| Synopsis | Reset all ingress SID statistics |
| Context | reset router *string* ospf3 *number* sid-ingress-stats all |
| Tree | all |
| Introduced | 23.10.R1 |
| Platforms | All |

## node

| | |
|---|---|
| Synopsis | Enter the **node** context |
| Context | reset router *string* ospf3 *number* sid-ingress-stats node |
| Tree | node |
| Introduced | 23.10.R1 |
| Platforms | All |

## all

| | |
|---|---|
| Synopsis | Reset ingress SID statistics for all prefix SIDs |
| Context | reset router *string* ospf3 *number* sid-ingress-stats node all |
| Tree | all |
| Introduced | 23.10.R1 |
| Platforms | All |

## prefix

| | |
|---|---|
| Synopsis | Reset ingress statistics for specific prefix SIDs |
| Context | reset router *string* ospf3 *number* sid-ingress-stats node prefix |
| Tree | prefix |
| Introduced | 23.10.R1 |
| Platforms | All |


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### [**prefix**] *(ipv4-address-no-zone | ipv6-address-no-zone | ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Node prefix |
| Context | reset router *string* ospf3 *number* sid-ingress-stats node prefix [prefix] *(ipv4-address-no-zone \| ipv6-address-no-zone \| ipv4-prefix \| ipv6-prefix)* |
| Tree | [prefix] |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

## statistics

| | |
|---|---|
| Synopsis | Reset OSPF statistics |
| Context | reset router *string* ospf3 *number* statistics |
| Tree | statistics |
| Description | When configured, the system clears all neighbor, router, interface, SPF and global statistics of this OSPF instance. |
| Introduced | 23.10.R1 |
| Platforms | All |

## pim

| | |
|---|---|
| Synopsis | Enter the **pim** context |
| Context | reset router *string* pim |
| Tree | pim |
| Description | Commands in this context perform reset operations on PIM entities. |
| Introduced | 24.3.R1 |
| Platforms | All |

## database

| | |
|---|---|
| Synopsis | Enter the **database** context |
| Context | reset router *string* pim database |
| Tree | database |
| Description | Commands in this context reset PIM database statistics on a specified interface or IP address. |


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| | |
|---|---|
| Introduced | 24.3.R1 |
| Platforms | All |

### all

| | |
|---|---|
| Synopsis | Reset the database for all interfaces |
| Context | reset router *string* pim database all |
| Tree | all |
| Introduced | 24.3.R1 |
| Platforms | All |

### group *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Group address |
| Context | reset router *string* pim database all group *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | group |
| Introduced | 24.3.R1 |
| Platforms | All |

### ipv4

| | |
|---|---|
| Synopsis | IPv4 address |
| Context | reset router *string* pim database all ipv4 |
| Tree | ipv4 |
| Notes | The following elements are part of a choice: **ipv4** or **ipv6**. |
| Introduced | 24.3.R1 |
| Platforms | All |

### ipv6

| | |
|---|---|
| Synopsis | IPv6 address |
| Context | reset router *string* pim database all ipv6 |
| Tree | ipv6 |
| Notes | The following elements are part of a choice: **ipv4** or **ipv6**. |


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| | |
|---|---|
| Introduced | 24.3.R1 |
| Platforms | All |

### **source** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source address |
| Context | reset router *string* pim database all source *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | source |
| Introduced | 24.3.R1 |
| Platforms | All |

### **interface**

| | |
|---|---|
| Synopsis | Reset the database for an interface |
| Context | reset router *string* pim database interface |
| Tree | interface |
| Introduced | 24.3.R1 |
| Platforms | All |

### **group** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Group address |
| Context | reset router *string* pim database interface group *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | group |
| Introduced | 24.3.R1 |
| Platforms | All |

### **interface-name** *interface-name*

| | |
|---|---|
| Synopsis | Interface name |
| Context | reset router *string* pim database interface interface-name *interface-name* |
| Tree | interface-name |
| String length | 1 to 32 |
| Notes | This element is mandatory. |


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| | |
|---|---|
| Introduced | 24.3.R1 |
| Platforms | All |

### ipv4

| | |
|---|---|
| Synopsis | IPv4 address |
| Context | reset router *string* pim database interface ipv4 |
| Tree | ipv4 |
| Notes | The following elements are part of a choice: **ipv4** or **ipv6**. |
| Introduced | 24.3.R1 |
| Platforms | All |

### ipv6

| | |
|---|---|
| Synopsis | IPv6 address |
| Context | reset router *string* pim database interface ipv6 |
| Tree | ipv6 |
| Notes | The following elements are part of a choice: **ipv4** or **ipv6**. |
| Introduced | 24.3.R1 |
| Platforms | All |

### source *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source address |
| Context | reset router *string* pim database interface source *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | source |
| Introduced | 24.3.R1 |
| Platforms | All |

### neighbor

| | |
|---|---|
| Synopsis | Enter the **neighbor** context |
| Context | reset router *string* pim neighbor |
| Tree | neighbor |


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| | |
|---|---|
| Description | Commands in this context reset PIM neighbor data on a specified interface or IP address. |
| Introduced | 24.3.R1 |
| Platforms | All |

### all

| | |
|---|---|
| Synopsis | Reset the neighbors on all interfaces |
| Context | reset router *string* pim neighbor all |
| Tree | all |
| Introduced | 24.3.R1 |
| Platforms | All |

### address *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Neighbor address |
| Context | reset router *string* pim neighbor all address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | address |
| Introduced | 24.3.R1 |
| Platforms | All |

### ipv4

| | |
|---|---|
| Synopsis | IPv4 address |
| Context | reset router *string* pim neighbor all ipv4 |
| Tree | ipv4 |
| Notes | The following elements are part of a choice: **ipv4** or **ipv6**. |
| Introduced | 24.3.R1 |
| Platforms | All |

### ipv6

| | |
|---|---|
| Synopsis | IPv6 address |
| Context | reset router *string* pim neighbor all ipv6 |
| Tree | ipv6 |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **ipv4** or **ipv6**. |
| Introduced | 24.3.R1 |
| Platforms | All |

## interface

| | |
|---|---|
| Synopsis | Reset the neighbors on an interface |
| Context | reset router *string* pim neighbor interface |
| Tree | interface |
| Introduced | 24.3.R1 |
| Platforms | All |

## address *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Neighbor address |
| Context | reset router *string* pim neighbor interface address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | address |
| Introduced | 24.3.R1 |
| Platforms | All |

## interface-name *interface-name*

| | |
|---|---|
| Synopsis | Interface name |
| Context | reset router *string* pim neighbor interface interface-name *interface-name* |
| Tree | interface-name |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 24.3.R1 |
| Platforms | All |

## ipv4

| | |
|---|---|
| Synopsis | IPv4 address |
| Context | reset router *string* pim neighbor interface ipv4 |


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| | |
|---|---|
| Tree | ipv4 |
| Notes | The following elements are part of a choice: **ipv4** or **ipv6**. |
| Introduced | 24.3.R1 |
| Platforms | All |

## ipv6

| | |
|---|---|
| Synopsis | IPv6 address |
| Context | reset router *string* pim neighbor interface ipv6 |
| Tree | ipv6 |
| Notes | The following elements are part of a choice: **ipv4** or **ipv6**. |
| Introduced | 24.3.R1 |
| Platforms | All |

## s-pmsi

| | |
|---|---|
| Synopsis | Enter the **s-pmsi** context |
| Context | reset router *string* pim s-pmsi |
| Tree | s-pmsi |
| Description | Commands in this context reset the PIM Selective Provider Multicast Service Interface (S-PMSI) cache. |
| Introduced | 24.3.R1 |
| Platforms | All |

## all

| | |
|---|---|
| Synopsis | Reset all |
| Context | reset router *string* pim s-pmsi all |
| Tree | all |
| Introduced | 24.3.R1 |
| Platforms | All |

## md

| | |
|---|---|
| Synopsis | Reset the MD |


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| | |
|---|---|
| Context | reset router *string* pim s-pmsi md |
| Tree | md |
| Description | This command specifies the source address used for the Multicast Distribution Tree (MDT) to reset. |
| Introduced | 24.3.R1 |
| Platforms | All |

### **group** *ipv4-multicast-address*

| | |
|---|---|
| Synopsis | Group address |
| Context | reset router *string* pim s-pmsi md group *ipv4-multicast-address* |
| Tree | group |
| Introduced | 24.3.R1 |
| Platforms | All |

### **source** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Source address |
| Context | reset router *string* pim s-pmsi md source *ipv4-unicast-address* |
| Tree | source |
| Introduced | 24.3.R1 |
| Platforms | All |

### **vprn**

| | |
|---|---|
| Synopsis | Reset the VPRN |
| Context | reset router *string* pim s-pmsi vprn |
| Tree | vprn |
| Introduced | 24.3.R1 |
| Platforms | All |

### **group** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Group address |
| Context | reset router *string* pim s-pmsi vprn group *(ipv4-address-no-zone \| ipv6-address-no-zone)* |


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| | |
|---|---|
| Tree | group |
| Notes | This element is mandatory. |
| Introduced | 24.3.R1 |
| Platforms | All |

### **md-group** *ipv4-multicast-address*

| | |
|---|---|
| Synopsis | MD group address |
| Context | reset router *string* pim s-pmsi vprn md-group *ipv4-multicast-address* |
| Tree | md-group |
| Introduced | 24.3.R1 |
| Platforms | All |

### **md-source** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | MD source address |
| Context | reset router *string* pim s-pmsi vprn md-source *ipv4-unicast-address* |
| Tree | md-source |
| Introduced | 24.3.R1 |
| Platforms | All |

### **source** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source address |
| Context | reset router *string* pim s-pmsi vprn source *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | source |
| Notes | This element is mandatory. |
| Introduced | 24.3.R1 |
| Platforms | All |

### **statistics**

| | |
|---|---|
| Synopsis | Enter the **statistics** context |
| Context | reset router *string* pim statistics |


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| | |
|---|---|
| Tree | statistics |
| Description | Commands in this context reset PIM statistics on a specified interface or IP address. |
| Introduced | 24.3.R1 |
| Platforms | All |

### all

| | |
|---|---|
| Synopsis | Reset the statistics for all interfaces |
| Context | reset router *string* pim statistics all |
| Tree | all |
| Introduced | 24.3.R1 |
| Platforms | All |

### group *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Group address |
| Context | reset router *string* pim statistics all group *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | group |
| Introduced | 24.3.R1 |
| Platforms | All |

### ipv4

| | |
|---|---|
| Synopsis | IPv4 address |
| Context | reset router *string* pim statistics all ipv4 |
| Tree | ipv4 |
| Notes | The following elements are part of a choice: **ipv4** or **ipv6**. |
| Introduced | 24.3.R1 |
| Platforms | All |

### ipv6

| | |
|---|---|
| Synopsis | IPv6 address |
| Context | reset router *string* pim statistics all ipv6 |
| Tree | ipv6 |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **ipv4** or **ipv6**. |
| Introduced | 24.3.R1 |
| Platforms | All |

### **source** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source address |
| Context | reset router *string* pim statistics all source *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | source |
| Introduced | 24.3.R1 |
| Platforms | All |

### **interface**

| | |
|---|---|
| Synopsis | Reset the statistics for an interface |
| Context | reset router *string* pim statistics interface |
| Tree | interface |
| Introduced | 24.3.R1 |
| Platforms | All |

### **group** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Group address |
| Context | reset router *string* pim statistics interface group *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | group |
| Introduced | 24.3.R1 |
| Platforms | All |

### **interface-name** *interface-name*

| | |
|---|---|
| Synopsis | Interface name |
| Context | reset router *string* pim statistics interface interface-name *interface-name* |
| Tree | interface-name |
| String length | 1 to 32 |


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| | |
|---|---|
| Notes | This element is mandatory. |
| Introduced | 24.3.R1 |
| Platforms | All |

## ipv4

| | |
|---|---|
| Synopsis | IPv4 address |
| Context | reset router *string* pim statistics interface ipv4 |
| Tree | ipv4 |
| Notes | The following elements are part of a choice: **ipv4** or **ipv6**. |
| Introduced | 24.3.R1 |
| Platforms | All |

## ipv6

| | |
|---|---|
| Synopsis | IPv6 address |
| Context | reset router *string* pim statistics interface ipv6 |
| Tree | ipv6 |
| Notes | The following elements are part of a choice: **ipv4** or **ipv6**. |
| Introduced | 24.3.R1 |
| Platforms | All |

## source *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source address |
| Context | reset router *string* pim statistics interface source *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | source |
| Introduced | 24.3.R1 |
| Platforms | All |

## segment-routing

| | |
|---|---|
| Synopsis | Enter the **segment-routing** context |
| Context | reset router *string* segment-routing |


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| | |
|---|---|
| Tree | segment-routing |
| Description | Commands in this context reset segment-routing statistics. |
| Introduced | 23.10.R1 |
| Platforms | All |

## sr-policies

| | |
|---|---|
| Synopsis | Enter the **sr-policies** context |
| Context | reset router *string* segment-routing sr-policies |
| Tree | sr-policies |
| Description | Commands in this context reset segment-routing policy statistics. |
| Introduced | 23.10.R1 |
| Platforms | All |

## sr-policies-egress-statistics

| | |
|---|---|
| Synopsis | Reset egress traffic statistics |
| Context | reset router *string* segment-routing sr-policies sr-policies-egress-statistics |
| Tree | sr-policies-egress-statistics |
| Description | This command resets traffic statistics collected on egress of segment-routing policies, identified by their color and endpoint address, if any. |
| Introduced | 23.10.R1 |
| Platforms | All |

## [**color**] *reference*

| | |
|---|---|
| Synopsis | Color for the SR policy |
| Context | reset router *string* segment-routing sr-policies sr-policies-egress-statistics [color] *reference* |
| Tree | [color] |
| Reference | **state router** *named-item-64* **segment-routing sr-policies sr-policy-egress-statistics** *number* **endpoint** *(ipv4-address-no-zone \| ipv6-address-no-zone)* **segment-index** *number* |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |


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### **endpoint** *reference*

| | |
|---|---|
| Synopsis | Endpoint address of the SR policy |
| Context | reset router *string* segment-routing sr-policies sr-policies-egress-statistics endpoint *reference* |
| Tree | endpoint |
| Reference | **state router** *named-item-64* **segment-routing sr-policies sr-policy-egress-statistics** *number* **endpoint** *(ipv4-address-no-zone \| ipv6-address-no-zone)* **segment-index** *number* |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **sr-policies-ingress-statistics**

| | |
|---|---|
| Synopsis | Reset ingress traffic statistics |
| Context | reset router *string* segment-routing sr-policies sr-policies-ingress-statistics |
| Tree | sr-policies-ingress-statistics |
| Description | This command resets traffic statistics collected on ingress of segment-routing policies, identified by their color and endpoint address, if any. |
| Introduced | 23.10.R1 |
| Platforms | All |

### [**color**] *reference*

| | |
|---|---|
| Synopsis | Color for the SR policy |
| Context | reset router *string* segment-routing sr-policies sr-policies-ingress-statistics [color] *reference* |
| Tree | [color] |
| Reference | **state router** *named-item-64* **segment-routing sr-policies sr-policy-ingress-statistics** *number* **endpoint** *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |


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### **endpoint** *reference*

| | |
|---|---|
| Synopsis | Endpoint of the SR policy |
| Context | reset router *string* segment-routing sr-policies sr-policies-ingress-statistics endpoint *reference* |
| Tree | endpoint |
| Reference | **state router** *named-item-64* **segment-routing sr-policies sr-policy-ingress-statistics** *number* **endpoint** *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **vrrp**

| | |
|---|---|
| Synopsis | Enter the **vrrp** context |
| Context | reset router *string* vrrp |
| Tree | vrrp |
| Introduced | 23.10.R1 |
| Platforms | All |

### **instances**

| | |
|---|---|
| Synopsis | Enter the **instances** context |
| Context | reset router *string* vrrp instances |
| Tree | instances |
| Description | Commands in this context reset VRRP protocol instances. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **interface** [interface-name] *interface-name*

| | |
|---|---|
| Synopsis | Enter the **interface** list instance |
| Context | reset router *string* vrrp instances interface *interface-name* |
| Tree | interface |
| Description | Commands in this context reset VRRP protocol instances on an IP interface. |


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| | |
|---|---|
| Introduced | 23.10.R1 |
| Platforms | All |

### [**interface-name**] *interface-name*

| | |
|---|---|
| Synopsis | Interface name |
| Context | reset router *string* vrrp instances interface *interface-name* |
| Tree | interface |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 23.10.R1 |
| Platforms | All |

### all-vrid

| | |
|---|---|
| Synopsis | Reset all VRRP instances on the interface |
| Context | reset router *string* vrrp instances interface *interface-name* all-vrid |
| Tree | all-vrid |
| Introduced | 23.10.R1 |
| Platforms | All |

### ipv4

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |
| Context | reset router *string* vrrp instances interface *interface-name* ipv4 |
| Tree | ipv4 |
| Introduced | 23.10.R1 |
| Platforms | All |

### vrid

| | |
|---|---|
| Synopsis | Reset the IPv4 VRRP instance |
| Context | reset router *string* vrrp instances interface *interface-name* ipv4 vrid |
| Tree | vrid |
| Introduced | 23.10.R1 |


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| | |
|---|---|
| Platforms | All |

### **virtual-router-id** *number*

| | |
|---|---|
| Synopsis | VRRP instance to reset |
| Context | reset router *string* vrrp instances interface *interface-name* ipv4 vrid virtual-router-id *number* |
| Tree | virtual-router-id |
| Max. range | -2147483648 to 2147483647 |
| Introduced | 23.10.R1 |
| Platforms | All |

### **ipv6**

| | |
|---|---|
| Synopsis | Enter the **ipv6** context |
| Context | reset router *string* vrrp instances interface *interface-name* ipv6 |
| Tree | ipv6 |
| Introduced | 23.10.R1 |
| Platforms | All |

### **vrid**

| | |
|---|---|
| Synopsis | Reset the IPv6 VRRP instance |
| Context | reset router *string* vrrp instances interface *interface-name* ipv6 vrid |
| Tree | vrid |
| Introduced | 23.10.R1 |
| Platforms | All |

### **virtual-router-id** *number*

| | |
|---|---|
| Synopsis | VRRP instance to reset |
| Context | reset router *string* vrrp instances interface *interface-name* ipv6 vrid virtual-router-id *number* |
| Tree | virtual-router-id |
| Max. range | -2147483648 to 2147483647 |
| Introduced | 23.10.R1 |


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| | |
|---|---|
| Platforms | All |

## statistics

| | |
|---|---|
| Synopsis | Enter the **statistics** context |
| Context | reset router *string* vrrp statistics |
| Tree | statistics |
| Description | Commands in this context reset statistics for VRRP instances on an IP interface or VRRP priority control policies. |
| Introduced | 23.10.R1 |
| Platforms | All |

## all-statistics

| | |
|---|---|
| Synopsis | Reset statistics of VRRP instances on all interfaces |
| Context | reset router *string* vrrp statistics all-statistics |
| Tree | all-statistics |
| Introduced | 23.10.R1 |
| Platforms | All |

## **interface** [interface-name] *interface-name*

| | |
|---|---|
| Synopsis | Enter the **interface** list instance |
| Context | reset router *string* vrrp statistics interface *interface-name* |
| Tree | interface |
| Introduced | 23.10.R1 |
| Platforms | All |

## [**interface-name**] *interface-name*

| | |
|---|---|
| Synopsis | Interface name |
| Context | reset router *string* vrrp statistics interface *interface-name* |
| Tree | interface |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 23.10.R1 |
| Platforms | All |

### all-vrid

| | |
|---|---|
| Synopsis | Reset statistics of all VRRP instances on the interface |
| Context | reset router *string* vrrp statistics interface *interface-name* all-vrid |
| Tree | all-vrid |
| Introduced | 23.10.R1 |
| Platforms | All |

### ipv4

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |
| Context | reset router *string* vrrp statistics interface *interface-name* ipv4 |
| Tree | ipv4 |
| Introduced | 23.10.R1 |
| Platforms | All |

### vrid

| | |
|---|---|
| Synopsis | Reset statistics of the IPv4 VRRP instance |
| Context | reset router *string* vrrp statistics interface *interface-name* ipv4 vrid |
| Tree | vrid |
| Introduced | 23.10.R1 |
| Platforms | All |

### virtual-router-id *number*

| | |
|---|---|
| Synopsis | VRRP instance to reset |
| Context | reset router *string* vrrp statistics interface *interface-name* ipv4 vrid virtual-router-id *number* |
| Tree | virtual-router-id |
| Max. range | -2147483648 to 2147483647 |
| Introduced | 23.10.R1 |


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| | |
|---|---|
| Platforms | All |

## ipv6

| | |
|---|---|
| Synopsis | Enter the **ipv6** context |
| Context | reset router *string* vrrp statistics interface *interface-name* ipv6 |
| Tree | ipv6 |
| Introduced | 23.10.R1 |
| Platforms | All |

## vrid

| | |
|---|---|
| Synopsis | Reset statistics of the IPv6 VRRP instance |
| Context | reset router *string* vrrp statistics interface *interface-name* ipv6 vrid |
| Tree | vrid |
| Introduced | 23.10.R1 |
| Platforms | All |

## virtual-router-id *number*

| | |
|---|---|
| Synopsis | VRRP instance to reset |
| Context | reset router *string* vrrp statistics interface *interface-name* ipv6 vrid virtual-router-id *number* |
| Tree | virtual-router-id |
| Max. range | -2147483648 to 2147483647 |
| Introduced | 23.10.R1 |
| Platforms | All |

## saa

| | |
|---|---|
| Synopsis | Enter the **saa** context |
| Context | reset saa |
| Tree | saa |
| Introduced | 23.3.R1 |
| Platforms | All |


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### **owner** [owner-name] *reference* test *reference*

| | |
|---|---|
| Synopsis | Enter the **owner** list instance |
| Context | reset saa owner *reference* test *reference* |
| Tree | owner |
| Introduced | 23.3.R1 |
| Platforms | All |

### [**owner-name**] *reference*

| | |
|---|---|
| Synopsis | Name of SAA test owner for which to reset statistics |
| Context | reset saa owner *reference* test *reference* |
| Tree | owner |
| MD-CLI default | TiMOS CLI |
| Reference | **state saa owner** *named-item* **test** *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **test** *reference*

| | |
|---|---|
| Synopsis | Name of the SAA test for which to reset statistics |
| Context | reset saa owner *reference* test *reference* |
| Tree | owner |
| Reference | **state saa owner** *named-item* **test** *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **statistics**

| | |
|---|---|
| Synopsis | Clear the SAA test statistics |
| Context | reset saa owner *reference* test *reference* statistics |
| Tree | statistics |


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| | |
|---|---|
| Description | This command clears historical statistics for a completed run. If this option is not configured, the reset operation has no impact. |
| Introduced | 23.3.R1 |
| Platforms | All |

### subscriber-management

| | |
|---|---|
| Synopsis | Enter the **subscriber-management** context |
| Context | reset subscriber-management |
| Tree | subscriber-management |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### ancp

| | |
|---|---|
| Synopsis | Enter the **ancp** context |
| Context | reset subscriber-management ancp |
| Tree | ancp |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### sub-string

| | |
|---|---|
| Synopsis | Delete the ANCP association for matching ANCP strings |
| Context | reset subscriber-management ancp sub-string |
| Tree | sub-string |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**value**] *ancp-string*

| | |
|---|---|
| Synopsis | Substring to match |
| Context | reset subscriber-management ancp sub-string [value] *ancp-string* |
| Tree | [value] |
| String length | 1 to 63 |


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| | |
|---|---|
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### errors

| | |
|---|---|
| Synopsis | Delete subscriber management errors |
| Context | reset subscriber-management errors |
| Tree | errors |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### host-lockout

| | |
|---|---|
| Synopsis | Enter the **host-lockout** context |
| Context | reset subscriber-management host-lockout |
| Tree | host-lockout |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### policy

| | |
|---|---|
| Synopsis | Delete matching host lockout contexts from the policy |
| Context | reset subscriber-management host-lockout policy |
| Tree | policy |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *reference*

| | |
|---|---|
| Synopsis | Host lockout policy name |
| Context | reset subscriber-management host-lockout policy [name] *reference* |
| Tree | [name] |
| Reference | **state subscriber-mgmt host-lockout-policy** *named-item* |
| Notes | This element is mandatory. |


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| | |
|---|---|
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **state** *keyword*

| | |
|---|---|
| Synopsis | Lockout state to match |
| Context | reset subscriber-management host-lockout policy state *keyword* |
| Tree | state |
| Options | all, active, graceful |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sap**

| | |
|---|---|
| Synopsis | Delete matching host lockout contexts from the SAP |
| Context | reset subscriber-management host-lockout sap |
| Tree | sap |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **circuit-id** *string*

| | |
|---|---|
| Synopsis | Circuit ID to match |
| Context | reset subscriber-management host-lockout sap circuit-id *string* |
| Tree | circuit-id |
| String length | 1 to 253 |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **mac** *ieee-address*

| | |
|---|---|
| Synopsis | MAC address to match |
| Context | reset subscriber-management host-lockout sap mac *ieee-address* |
| Tree | mac |


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| | |
|---|---|
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **remote-id** *string*

| | |
|---|---|
| Synopsis | Remote ID to match |
| Context | reset subscriber-management host-lockout sap remote-id *string* |
| Tree | remote-id |
| String length | 1 to 253 |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**sap**] *sap*

| | |
|---|---|
| Synopsis | SAP ID |
| Context | reset subscriber-management host-lockout sap [sap] *sap* |
| Tree | [sap] |
| String length | 1 to 45 |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **state** *keyword*

| | |
|---|---|
| Synopsis | Lockout state to match |
| Context | reset subscriber-management host-lockout sap state *keyword* |
| Tree | state |
| Options | all, active, graceful |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **state**

| | |
|---|---|
| Synopsis | Delete all host lockout contexts in the state |


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| | |
|---|---|
| Context | reset subscriber-management host-lockout state |
| Tree | state |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**state**] *keyword*

| | |
|---|---|
| Synopsis | Lockout state |
| Context | reset subscriber-management host-lockout state [state] *keyword* |
| Tree | [state] |
| Options | all, active, graceful |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### idle-only-msap

| | |
|---|---|
| Synopsis | Enter the **idle-only-msap** context |
| Context | reset subscriber-management idle-only-msap |
| Tree | idle-only-msap |
| Description | Commands in this context remove idle MSAPs without active subscribers. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### all

| | |
|---|---|
| Synopsis | Delete all sticky MSAPs in the idle state |
| Context | reset subscriber-management idle-only-msap all |
| Tree | all |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### msap-policy

| | |
|---|---|
| Synopsis | Delete idle state sticky MSAPs created by the policy |


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| | |
|---|---|
| Context | reset subscriber-management idle-only-msap msap-policy |
| Tree | msap-policy |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **name** *reference*

| | |
|---|---|
| Synopsis | MSAP policy name |
| Context | reset subscriber-management idle-only-msap msap-policy name *reference* |
| Tree | name |
| Reference | **state subscriber-mgmt msap-policy** *named-item* |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **msap-policy**

| | |
|---|---|
| Synopsis | Delete MSAPs created by the policy |
| Context | reset subscriber-management msap-policy |
| Tree | msap-policy |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **name** *reference*

| | |
|---|---|
| Synopsis | MSAP policy name |
| Context | reset subscriber-management msap-policy name *reference* |
| Tree | name |
| Reference | **state subscriber-mgmt msap-policy** *named-item* |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **sap-template** [name] *reference*

| | |
|---|---|
| Synopsis | Enter the **sap-template** list instance |
| Context | reset subscriber-management sap-template *reference* |
| Tree | sap-template |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *reference*

| | |
|---|---|
| Synopsis | SAP template name |
| Context | reset subscriber-management sap-template *reference* |
| Tree | sap-template |
| Reference | **state subscriber-mgmt sap-template** *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **idle-saps**

| | |
|---|---|
| Synopsis | Delete SAPs that use this template and have no sessions |
| Context | reset subscriber-management sap-template *reference* idle-saps |
| Tree | idle-saps |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sessions**

| | |
|---|---|
| Synopsis | Enter the **sessions** context |
| Context | reset subscriber-management sessions |
| Tree | sessions |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## diameter

| | |
|---|---|
| Synopsis | Enter the **diameter** context |
| Context | reset subscriber-management sessions diameter |
| Tree | diameter |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ccrt-replay

| | |
|---|---|
| Synopsis | Enter the **ccrt-replay** context |
| Context | reset subscriber-management sessions diameter ccrt-replay |
| Tree | ccrt-replay |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## application-policy

| | |
|---|---|
| Synopsis | Delete sessions in CCR-T replay mode |
| Context | reset subscriber-management sessions diameter ccrt-replay application-policy |
| Tree | application-policy |
| Description | This command deletes sessions in CCR-T replay mode and that are associated with the application policy. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## [**name**] *named-item*

| | |
|---|---|
| Synopsis | Diameter application policy name |
| Context | reset subscriber-management sessions diameter ccrt-replay application-policy [name] *named-item* |
| Tree | [name] |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## gtp

| | |
|---|---|
| Synopsis | Enter the **gtp** context |
| Context | reset subscriber-management sessions gtp |
| Tree | gtp |
| Description | Commands in this context delete the GPRS Tunnelling Protocol (GTP) sessions matching the specified criteria. Associated objects, such as the ESM subscriber in a GTP uplink scenario, are also removed. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## all

| | |
|---|---|
| Synopsis | Delete all GTP sessions |
| Context | reset subscriber-management sessions gtp all |
| Tree | all |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **apn** [apn] *reference*

| | |
|---|---|
| Synopsis | Enter the **apn** list instance |
| Context | reset subscriber-management sessions gtp apn *reference* |
| Tree | apn |
| Introduced | 23.10.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## [**apn**] *reference*

| | |
|---|---|
| Synopsis | Access point name |
| Context | reset subscriber-management sessions gtp apn *reference* |
| Tree | apn |
| Reference | **state subscriber-mgmt gtp apn-policy** *named-item* **apn** *string* |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 23.10.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### all

| | |
|---|---|
| Synopsis | Delete all GTP sessions associated with the APN |
| Context | reset subscriber-management sessions gtp apn *reference* all |
| Tree | all |
| Introduced | 23.10.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### imsi

| | |
|---|---|
| Synopsis | Delete the GTP session with the specified IMSI |
| Context | reset subscriber-management sessions gtp apn *reference* imsi |
| Tree | imsi |
| Description | This command deletes the GTP session with the specified IMSI and associated with the APN. |
| Introduced | 23.10.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**imsi**] *imsi*

| | |
|---|---|
| Synopsis | International Mobile Subscriber Identity |
| Context | reset subscriber-management sessions gtp apn *reference* imsi [imsi] *imsi* |
| Tree | [imsi] |
| String length | 0 to 15 |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### imsi

| | |
|---|---|
| Synopsis | Delete the GTP session with the specified IMSI |
| Context | reset subscriber-management sessions gtp imsi |


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| | |
|---|---|
| Tree | imsi |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**imsi**] *imsi*

| | |
|---|---|
| Synopsis | International Mobile Subscriber Identity |
| Context | reset subscriber-management sessions gtp imsi [imsi] *imsi* |
| Tree | [imsi] |
| String length | 0 to 15 |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### host-tracking

| | |
|---|---|
| Synopsis | Enter the **host-tracking** context |
| Context | reset subscriber-management sessions host-tracking |
| Tree | host-tracking |
| Description | Commands in this context delete host-tracking table entries. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### subscriber

| | |
|---|---|
| Synopsis | Enter the **subscriber** context |
| Context | reset subscriber-management sessions host-tracking subscriber |
| Tree | subscriber |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### all

| | |
|---|---|
| Synopsis | Delete host tracking table entry for all subscribers |
| Context | reset subscriber-management sessions host-tracking subscriber all |


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| | |
|---|---|
| Tree | all |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## id

| | |
|---|---|
| Synopsis | Delete host tracking table entry for the subscriber |
| Context | reset subscriber-management sessions host-tracking subscriber id |
| Tree | id |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## [**name**] *reference*

| | |
|---|---|
| Synopsis | Subscriber ID |
| Context | reset subscriber-management sessions host-tracking subscriber id [name] *reference* |
| Tree | [name] |
| Reference | **state subscriber-mgmt subscriber** *subscriber-id* |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## pfcp

| | |
|---|---|
| Synopsis | Enter the **pfcp** context |
| Context | reset subscriber-management sessions pfcp |
| Tree | pfcp |
| Description | Commands in this context delete Packet Forwarding Control Protocol (PFCP) sessions matching the specified criteria. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## nat-member

| | |
|---|---|
| Synopsis | Delete PFCP session matching the NAT group member ID |


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| | |
|---|---|
| Context | reset subscriber-management sessions pfcp nat-member |
| Tree | nat-member |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**id**] *reference*

| | |
|---|---|
| Synopsis | NAT group member ID |
| Context | reset subscriber-management sessions pfcp nat-member [id] *reference* |
| Tree | [id] |
| Reference | **state isa nat-group** *number* **member** *number* |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **sap**

| | |
|---|---|
| Synopsis | Delete the PFCP session matching the SAP and MAC |
| Context | reset subscriber-management sessions pfcp sap |
| Tree | sap |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **mac** *ieee-address*

| | |
|---|---|
| Synopsis | MAC address |
| Context | reset subscriber-management sessions pfcp sap mac *ieee-address* |
| Tree | mac |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**sap**] *sap*

| | |
|---|---|
| Synopsis | SAP ID |


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| | |
|---|---|
| Context | reset subscriber-management sessions pfcp sap [sap] *sap* |
| Tree | [sap] |
| String length | 1 to 45 |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## session-id

| | |
|---|---|
| Synopsis | Delete the PFCP session with the local SEID |
| Context | reset subscriber-management sessions pfcp session-id |
| Tree | session-id |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## [**local-session-id**] *reference*

| | |
|---|---|
| Synopsis | Local assigned PFCP session ID |
| Context | reset subscriber-management sessions pfcp session-id [local-session-id] *reference* |
| Tree | [local-session-id] |
| Reference | **state subscriber-mgmt pfcp association** *named-item* **session** *pfcp-session-id* |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## statistics

| | |
|---|---|
| Synopsis | Enter the **statistics** context |
| Context | reset subscriber-management statistics |
| Tree | statistics |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## accumulated

| | |
|---|---|
| Synopsis | Enter the **accumulated** context |
| Context | reset subscriber-management statistics accumulated |
| Tree | accumulated |
| Description | Commands in this context reset accumulated statistics for a subscriber. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## active-subscribers

| | |
|---|---|
| Synopsis | Enter the **active-subscribers** context |
| Context | reset subscriber-management statistics accumulated active-subscribers |
| Tree | active-subscribers |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## no-accu-stats-policy

| | |
|---|---|
| Synopsis | Reset accumulated statistics for active subscribers |
| Context | reset subscriber-management statistics accumulated active-subscribers no-accu-stats-policy |
| Tree | no-accu-stats-policy |
| Description | This command resets the accumulated statistics that are no longer associated with an accumulated statistics policy. These statistics apply to active subscribers that are referencing a subscriber profile where the accumulated statistics policy is removed. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## sub-profile

| | |
|---|---|
| Synopsis | Reset active subscribers statistics without a policy |
| Context | reset subscriber-management statistics accumulated active-subscribers sub-profile |
| Tree | sub-profile |
| Description | This command resets the accumulated statistics that are no longer associated with an accumulated statistics policy. These statistics apply to active subscribers that are |


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referencing the specified subscriber profile where the accumulated statistics policy is removed.

| | |
|---|---|
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *reference*

| | |
|---|---|
| Synopsis | Subscriber profile name |
| Context | reset subscriber-management statistics accumulated active-subscribers sub-profile [name] *reference* |
| Tree | [name] |
| Reference | **state subscriber-mgmt sub-profile** *external-named-item* |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## inactive-subscribers

| | |
|---|---|
| Synopsis | Reset accumulated statistics for all inactive subscribers |
| Context | reset subscriber-management statistics accumulated inactive-subscribers |
| Tree | inactive-subscribers |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## subscriber

| | |
|---|---|
| Synopsis | Reset accumulated statistics for specified subscriber |
| Context | reset subscriber-management statistics accumulated subscriber |
| Tree | subscriber |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *reference*

| | |
|---|---|
| Synopsis | Subscriber ID |
| Context | reset subscriber-management statistics accumulated subscriber [name] *reference* |


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| | |
|---|---|
| Tree | [name] |
| Reference | **state subscriber-mgmt subscriber** *subscriber-id* |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## data-trigger

| | |
|---|---|
| Synopsis | Enter the **data-trigger** context |
| Context | reset subscriber-management statistics data-trigger |
| Tree | data-trigger |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## system

| | |
|---|---|
| Synopsis | Reset data-trigger statistics |
| Context | reset subscriber-management statistics data-trigger system |
| Tree | system |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## diameter

| | |
|---|---|
| Synopsis | Enter the **diameter** context |
| Context | reset subscriber-management statistics diameter |
| Tree | diameter |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## application-policy

| | |
|---|---|
| Synopsis | Reset Diameter application policy statistics |
| Context | reset subscriber-management statistics diameter application-policy |
| Tree | application-policy |


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| | |
|---|---|
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | Diameter application policy name |
| Context | reset subscriber-management statistics diameter application-policy [name] *named-item* |
| Tree | [name] |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ccrt-replay

| | |
|---|---|
| Synopsis | Enter the **ccrt-replay** context |
| Context | reset subscriber-management statistics diameter ccrt-replay |
| Tree | ccrt-replay |
| Description | Commands in this context reset CCR-T replay statistics. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## application-policy

| | |
|---|---|
| Synopsis | Reset CCR-T replay stats for the application policy |
| Context | reset subscriber-management statistics diameter ccrt-replay application-policy |
| Tree | application-policy |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | Diameter application policy name |
| Context | reset subscriber-management statistics diameter ccrt-replay application-policy [name] *named-item* |


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| | |
|---|---|
| Tree | [name] |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## gtp

| | |
|---|---|
| Synopsis | Enter the **gtp** context |
| Context | reset subscriber-management statistics gtp |
| Tree | gtp |
| Description | Commands in this context reset GTP statistics. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## all

| | |
|---|---|
| Synopsis | Reset GTP messaging statistics |
| Context | reset subscriber-management statistics gtp all |
| Tree | all |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## host-and-session

| | |
|---|---|
| Synopsis | Enter the **host-and-session** context |
| Context | reset subscriber-management statistics host-and-session |
| Tree | host-and-session |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## peakvalues

| | |
|---|---|
| Synopsis | Enter the **peakvalues** context |
| Context | reset subscriber-management statistics host-and-session peakvalues |


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| | |
|---|---|
| Tree | peakvalues |
| Description | Commands in this context reset the peak values of subscriber management host and session statistics<br>**Note**: Peak values statistics can be reset at each level independently. For example, clearing the most recent peak value for an IOM does not impact the MDA peak value. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## card

| | |
|---|---|
| Synopsis | Enter the **card** context |
| Context | reset subscriber-management statistics host-and-session peakvalues card |
| Tree | card |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## all

| | |
|---|---|
| Synopsis | Reset the peak value statistics for all cards |
| Context | reset subscriber-management statistics host-and-session peakvalues card all |
| Tree | all |
| Description | This command resets the subscriber management statistics peak values for all cards. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## recursive

| | |
|---|---|
| Synopsis | Reset the statistics recursively |
| Context | reset subscriber-management statistics host-and-session peakvalues card all recursive |
| Tree | recursive |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## slot

| | |
|---|---|
| Synopsis | Reset peak values statistics for the specified card |


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| | |
|---|---|
| Context | reset subscriber-management statistics host-and-session peakvalues card slot |
| Tree | slot |
| Description | This command resets the subscriber management statistics peak values for the specified card. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## recursive

| | |
|---|---|
| Synopsis | Reset the statistics recursively |
| Context | reset subscriber-management statistics host-and-session peakvalues card slot recursive |
| Tree | recursive |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## [**slot-number**] *reference*

| | |
|---|---|
| Synopsis | Slot number |
| Context | reset subscriber-management statistics host-and-session peakvalues card slot [slot-number] *reference* |
| Tree | [slot-number] |
| Reference | **state card** *number* |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## mda

| | |
|---|---|
| Synopsis | Enter the **mda** context |
| Context | reset subscriber-management statistics host-and-session peakvalues mda |
| Tree | mda |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### all

| | |
|---|---|
| Synopsis | Reset peak value statistics for all MDAs |
| Context | reset subscriber-management statistics host-and-session peakvalues mda all |
| Tree | all |
| Description | This command resets the subscriber management statistics peak values for all MDA. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### recursive

| | |
|---|---|
| Synopsis | Reset the statistics recursively |
| Context | reset subscriber-management statistics host-and-session peakvalues mda all recursive |
| Tree | recursive |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **card-slot** [slot-number] *reference*

| | |
|---|---|
| Synopsis | Enter the **card-slot** list instance |
| Context | reset subscriber-management statistics host-and-session peakvalues mda card-slot *reference* |
| Tree | card-slot |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**slot-number**] *reference*

| | |
|---|---|
| Synopsis | Slot number |
| Context | reset subscriber-management statistics host-and-session peakvalues mda card-slot *reference* |
| Tree | card-slot |
| Reference | **state card** *number* |
| Notes | This element is part of a list key. |
| Introduced | 23.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## mda-slot

| | |
|---|---|
| Synopsis | Reset peak value statistics for the specified MDA |
| Context | reset subscriber-management statistics host-and-session peakvalues mda card-slot *reference* mda-slot |
| Tree | mda-slot |
| Description | This command resets the subscriber management statistics peak values for the specified MDA. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## [**mda**] *reference*

| | |
|---|---|
| Synopsis | MDA slot number |
| Context | reset subscriber-management statistics host-and-session peakvalues mda card-slot *reference* mda-slot [mda] *reference* |
| Tree | [mda] |
| Reference | **state card** *number* **mda** *number* |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## recursive

| | |
|---|---|
| Synopsis | Reset the statistics recursively |
| Context | reset subscriber-management statistics host-and-session peakvalues mda card-slot *reference* mda-slot recursive |
| Tree | recursive |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## xiom-slot

| | |
|---|---|
| Synopsis | Reset peak value statistics for the specified XIOM MDA |


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| | |
|---|---|
| Context | reset subscriber-management statistics host-and-session peakvalues mda card-slot *reference* xiom-slot |
| Tree | xiom-slot |
| Description | This command resets the subscriber management statistics peak values for the specified XIOM MDA. |
| Introduced | 23.10.R1 |
| Platforms | 7750 SR-1s, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s |

## **mda-slot** *reference*

| | |
|---|---|
| Synopsis | MDA slot number |
| Context | reset subscriber-management statistics host-and-session peakvalues mda card-slot *reference* xiom-slot mda-slot *reference* |
| Tree | mda-slot |
| Reference | **state card** *number* **xiom** *string* **mda** *number* |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7750 SR-1s, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s |

## **recursive**

| | |
|---|---|
| Synopsis | Reset the statistics recursively |
| Context | reset subscriber-management statistics host-and-session peakvalues mda card-slot *reference* xiom-slot recursive |
| Tree | recursive |
| Introduced | 23.10.R1 |
| Platforms | 7750 SR-1s, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s |

## [**xiom**] *reference*

| | |
|---|---|
| Synopsis | XIOM slot number |
| Context | reset subscriber-management statistics host-and-session peakvalues mda card-slot *reference* xiom-slot [xiom] *reference* |
| Tree | [xiom] |
| Reference | **state card** *number* **xiom** *string* |
| Notes | This element is mandatory. |


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| | |
|---|---|
| Introduced | 23.10.R1 |
| Platforms | 7750 SR-1s, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s |

## port

| | |
|---|---|
| Synopsis | Enter the **port** context |
| Context | reset subscriber-management statistics host-and-session peakvalues port |
| Tree | port |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## all

| | |
|---|---|
| Synopsis | Reset peak values statistics for all ports |
| Context | reset subscriber-management statistics host-and-session peakvalues port all |
| Tree | all |
| Description | This command resets the subscriber management statistics peak values for all ports. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## lag

| | |
|---|---|
| Synopsis | Reset peak value statistics for the specified LAG |
| Context | reset subscriber-management statistics host-and-session peakvalues port lag |
| Tree | lag |
| Description | This command resets the subscriber management statistics peak values for the specified LAG. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## [**name**] *reference*

| | |
|---|---|
| Synopsis | LAG name |
| Context | reset subscriber-management statistics host-and-session peakvalues port lag [name] *reference* |
| Tree | [name] |


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| | |
|---|---|
| Reference | **state lag** *lag-interface* |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## port-id

| | |
|---|---|
| Synopsis | Reset peak value statistics for the specified port |
| Context | reset subscriber-management statistics host-and-session peakvalues port port-id |
| Tree | port-id |
| Description | This command resets the subscriber management statistics peak values for the specified port. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## [**port-id**] *reference*

| | |
|---|---|
| Synopsis | Port ID |
| Context | reset subscriber-management statistics host-and-session peakvalues port port-id [port-id] *reference* |
| Tree | [port-id] |
| Reference | **state port** *port* |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## pw-port

| | |
|---|---|
| Synopsis | Enter the **pw-port** context |
| Context | reset subscriber-management statistics host-and-session peakvalues pw-port |
| Tree | pw-port |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## all

| | |
|---|---|
| Synopsis | Reset peak value statistics for all PW ports |
| Context | reset subscriber-management statistics host-and-session peakvalues pw-port all |
| Tree | all |
| Description | This command resets the subscriber management statistics peak values for all PW ports. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## pw-port-id

| | |
|---|---|
| Synopsis | Reset peak value statistics for the PW port |
| Context | reset subscriber-management statistics host-and-session peakvalues pw-port pw-port-id |
| Tree | pw-port-id |
| Description | This command resets the subscriber management statistics peak values for the specified PW port. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## [**pw-port-id**] *reference*

| | |
|---|---|
| Synopsis | PW port ID |
| Context | reset subscriber-management statistics host-and-session peakvalues pw-port pw-port-id [pw-port-id] *reference* |
| Tree | [pw-port-id] |
| Reference | **state pw-port** *number* |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## service

| | |
|---|---|
| Synopsis | Enter the **service** context |
| Context | reset subscriber-management statistics host-and-session peakvalues service |
| Tree | service |


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| | |
|---|---|
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### all

| | |
|---|---|
| Synopsis | Reset peak value statistics for all services |
| Context | reset subscriber-management statistics host-and-session peakvalues service all |
| Tree | all |
| Description | This command resets the subscriber management statistics peak values for all services. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### recursive

| | |
|---|---|
| Synopsis | Reset the statistics recursively |
| Context | reset subscriber-management statistics host-and-session peakvalues service all recursive |
| Tree | recursive |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **name** [service-name] *service-name*

| | |
|---|---|
| Synopsis | Enter the **name** list instance |
| Context | reset subscriber-management statistics host-and-session peakvalues service name *service-name* |
| Tree | name |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**service-name**] *service-name*

| | |
|---|---|
| Synopsis | Service name |
| Context | reset subscriber-management statistics host-and-session peakvalues service name *service-name* |
| Tree | name |


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| | |
|---|---|
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## all

| | |
|---|---|
| Synopsis | Reset all peak value statistics for the service |
| Context | reset subscriber-management statistics host-and-session peakvalues service name *service-name* all |
| Tree | all |
| Description | This command resets all subscriber management statistics peak values for the specified service. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## recursive

| | |
|---|---|
| Synopsis | Reset the statistics recursively |
| Context | reset subscriber-management statistics host-and-session peakvalues service name *service-name* all recursive |
| Tree | recursive |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## group-interface

| | |
|---|---|
| Synopsis | Enter the **group-interface** context |
| Context | reset subscriber-management statistics host-and-session peakvalues service name *service-name* group-interface |
| Tree | group-interface |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### all

| | |
|---|---|
| Synopsis | Reset peak value statistics for all group interfaces |
| Context | reset subscriber-management statistics host-and-session peakvalues service name *service-name* group-interface all |
| Tree | all |
| Description | This command resets the subscriber management statistics peak values for all group interfaces. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### name

| | |
|---|---|
| Synopsis | Reset peak value statistics for the group interface |
| Context | reset subscriber-management statistics host-and-session peakvalues service name *service-name* group-interface name |
| Tree | name |
| Description | This command resets the subscriber management statistics peak values for the specified group interface. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *interface-name*

| | |
|---|---|
| Synopsis | Group interface name |
| Context | reset subscriber-management statistics host-and-session peakvalues service name *service-name* group-interface name [name] *interface-name* |
| Tree | [name] |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### subscriber-interface

| | |
|---|---|
| Synopsis | Enter the **subscriber-interface** context |


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| | |
|---|---|
| Context | reset subscriber-management statistics host-and-session peakvalues service name *service-name* subscriber-interface |
| Tree | subscriber-interface |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## all

| | |
|---|---|
| Synopsis | Reset peak value stats for all subscriber interfaces |
| Context | reset subscriber-management statistics host-and-session peakvalues service name *service-name* subscriber-interface all |
| Tree | all |
| Description | This command resets the subscriber management statistics peak values for all subscriber interfaces. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## recursive

| | |
|---|---|
| Synopsis | Reset the statistics recursively |
| Context | reset subscriber-management statistics host-and-session peakvalues service name *service-name* subscriber-interface all recursive |
| Tree | recursive |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## name

| | |
|---|---|
| Synopsis | Reset peak values stats for the subscriber interface |
| Context | reset subscriber-management statistics host-and-session peakvalues service name *service-name* subscriber-interface name |
| Tree | name |
| Description | This command resets the subscriber management statistics peak values for the specified subscriber interface. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### [**name**] *interface-name*

| | |
|---|---|
| Synopsis | Subscriber interface name |
| Context | reset subscriber-management statistics host-and-session peakvalues service name *service-name* subscriber-interface name [name] *interface-name* |
| Tree | [name] |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### recursive

| | |
|---|---|
| Synopsis | Reset the statistics recursively |
| Context | reset subscriber-management statistics host-and-session peakvalues service name *service-name* subscriber-interface name recursive |
| Tree | recursive |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### system

| | |
|---|---|
| Synopsis | Reset peak value statistics for the system |
| Context | reset subscriber-management statistics host-and-session peakvalues system |
| Tree | system |
| Description | This command resets the subscriber management statistics peak values for the system. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### recursive

| | |
|---|---|
| Synopsis | Reset the statistics recursively |
| Context | reset subscriber-management statistics host-and-session peakvalues system recursive |
| Tree | recursive |
| Introduced | 23.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## host-tracking

| | |
|---|---|
| Synopsis | Enter the **host-tracking** context |
| Context | reset subscriber-management statistics host-tracking |
| Tree | host-tracking |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## subscriber

| | |
|---|---|
| Synopsis | Enter the **subscriber** context |
| Context | reset subscriber-management statistics host-tracking subscriber |
| Tree | subscriber |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## all

| | |
|---|---|
| Synopsis | Reset the host-tracking statistics for all subscribers |
| Context | reset subscriber-management statistics host-tracking subscriber all |
| Tree | all |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## id

| | |
|---|---|
| Synopsis | Reset the host-tracking stats of the subscriber |
| Context | reset subscriber-management statistics host-tracking subscriber id |
| Tree | id |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### [**name**] *reference*

| | |
|---|---|
| Synopsis | Subscriber ID |
| Context | reset subscriber-management statistics host-tracking subscriber id [name] *reference* |
| Tree | [name] |
| Reference | **state subscriber-mgmt subscriber** *subscriber-id* |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **interface**

| | |
|---|---|
| Synopsis | Enter the **interface** context |
| Context | reset subscriber-management statistics interface |
| Tree | interface |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **service** [service-name] *service-name*

| | |
|---|---|
| Synopsis | Enter the **service** list instance |
| Context | reset subscriber-management statistics interface service *service-name* |
| Tree | service |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**service-name**] *service-name*

| | |
|---|---|
| Synopsis | Service name |
| Context | reset subscriber-management statistics interface service *service-name* |
| Tree | service |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### all

| | |
|---|---|
| Synopsis | Reset traffic statistics for all service interfaces |
| Context | reset subscriber-management statistics interface service *service-name* all |
| Tree | all |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### group-interface

| | |
|---|---|
| Synopsis | Reset subscriber traffic stats for a group interface |
| Context | reset subscriber-management statistics interface service *service-name* group-interface |
| Tree | group-interface |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *interface-name*

| | |
|---|---|
| Synopsis | Group interface name |
| Context | reset subscriber-management statistics interface service *service-name* group-interface [name] *interface-name* |
| Tree | [name] |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### subscriber-interface

| | |
|---|---|
| Synopsis | Reset traffic statistics for the subscriber interface |
| Context | reset subscriber-management statistics interface service *service-name* subscriber-interface |
| Tree | subscriber-interface |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### [**name**] *interface-name*

| | |
|---|---|
| Synopsis | Subscriber interface name |
| Context | reset subscriber-management statistics interface service *service-name* subscriber-interface [name] *interface-name* |
| Tree | [name] |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### pfcp

| | |
|---|---|
| Synopsis | Enter the **pfcp** context |
| Context | reset subscriber-management statistics pfcp |
| Tree | pfcp |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### association

| | |
|---|---|
| Synopsis | Reset the PFCP statistics for the specified association |
| Context | reset subscriber-management statistics pfcp association |
| Tree | association |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *reference*

| | |
|---|---|
| Synopsis | PFCP association name |
| Context | reset subscriber-management statistics pfcp association [name] *reference* |
| Tree | [name] |
| Reference | **state subscriber-mgmt pfcp association** *named-item* |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## radius

| | |
|---|---|
| Synopsis | Enter the **radius** context |
| Context | reset subscriber-management statistics radius |
| Tree | radius |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## authentication

| | |
|---|---|
| Synopsis | Enter the **authentication** context |
| Context | reset subscriber-management statistics radius authentication |
| Tree | authentication |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## coa

| | |
|---|---|
| Synopsis | Enter the **coa** context |
| Context | reset subscriber-management statistics radius authentication coa |
| Tree | coa |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## all

| | |
|---|---|
| Synopsis | Reset RADIUS CoA statistics |
| Context | reset subscriber-management statistics radius authentication coa all |
| Tree | all |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### sla-profile

| | |
|---|---|
| Synopsis | Enter the **sla-profile** context |
| Context | reset subscriber-management statistics sla-profile |
| Tree | sla-profile |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### all

| | |
|---|---|
| Synopsis | Reset all SLA profile statistics |
| Context | reset subscriber-management statistics sla-profile all |
| Tree | all |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### name

| | |
|---|---|
| Synopsis | Reset SLA profile statistics for the sla-profile |
| Context | reset subscriber-management statistics sla-profile name |
| Tree | name |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *reference*

| | |
|---|---|
| Synopsis | SLA profile name |
| Context | reset subscriber-management statistics sla-profile name [name] *reference* |
| Tree | [name] |
| Reference | **state subscriber-mgmt sla-profile** *external-named-item* |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## sub-profile

| | |
|---|---|
| Synopsis | Enter the **sub-profile** context |
| Context | reset subscriber-management statistics sub-profile |
| Tree | sub-profile |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## all

| | |
|---|---|
| Synopsis | Reset all subscriber profile statistics |
| Context | reset subscriber-management statistics sub-profile all |
| Tree | all |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## name

| | |
|---|---|
| Synopsis | Reset subscriber profile statistics for the specified sub-profile |
| Context | reset subscriber-management statistics sub-profile name |
| Tree | name |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## [**name**] *reference*

| | |
|---|---|
| Synopsis | Subscriber profile name |
| Context | reset subscriber-management statistics sub-profile name [name] *reference* |
| Tree | [name] |
| Reference | **state subscriber-mgmt sub-profile** *external-named-item* |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### svlan

| | |
|---|---|
| Synopsis | Enter the **svlan** context |
| Context | reset subscriber-management statistics svlan |
| Tree | svlan |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **lag** [name] *reference*

| | |
|---|---|
| Synopsis | Enter the **lag** list instance |
| Context | reset subscriber-management statistics svlan lag *reference* |
| Tree | lag |
| Description | Commands in this context reset the statistics for the S-VLANs on the specified LAG. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *reference*

| | |
|---|---|
| Synopsis | LAG name |
| Context | reset subscriber-management statistics svlan lag *reference* |
| Tree | lag |
| Reference | **state lag** *lag-interface* |
| Notes | This element is part of a list key. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### all

| | |
|---|---|
| Synopsis | Reset all S-VLAN statistics on this LAG |
| Context | reset subscriber-management statistics svlan lag *reference* all |
| Tree | all |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### vlan-id

| | |
|---|---|
| Synopsis | Reset the specified S-VLAN statistics on this LAG |
| Context | reset subscriber-management statistics svlan lag *reference* vlan-id |
| Tree | vlan-id |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**svlan-id**] *reference*

| | |
|---|---|
| Synopsis | VLAN ID |
| Context | reset subscriber-management statistics svlan lag *reference* vlan-id [svlan-id] *reference* |
| Tree | [svlan-id] |
| Reference | **state lag** *lag-interface* **subscriber-management svlan** *number* |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **port** [port-id] *reference*

| | |
|---|---|
| Synopsis | Enter the **port** list instance |
| Context | reset subscriber-management statistics svlan port *reference* |
| Tree | port |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**port-id**] *reference*

| | |
|---|---|
| Synopsis | Port ID |
| Context | reset subscriber-management statistics svlan port *reference* |
| Tree | port |
| Reference | **state port** *port* |
| Notes | This element is part of a list key. |
| Introduced | 23.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### all

| | |
|---|---|
| Synopsis | Reset all S-VLAN statistics on this port |
| Context | reset subscriber-management statistics svlan port *reference* all |
| Tree | all |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### vlan-id

| | |
|---|---|
| Synopsis | Reset the specified S-VLAN statistics on this port |
| Context | reset subscriber-management statistics svlan port *reference* vlan-id |
| Tree | vlan-id |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**svlan-id**] *reference*

| | |
|---|---|
| Synopsis | VLAN ID |
| Context | reset subscriber-management statistics svlan port *reference* vlan-id [svlan-id] *reference* |
| Tree | [svlan-id] |
| Reference | **state port** *port* **subscriber-management svlan** *number* |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **pw-port** [pw-port-id] *reference*

| | |
|---|---|
| Synopsis | Enter the **pw-port** list instance |
| Context | reset subscriber-management statistics svlan pw-port *reference* |
| Tree | pw-port |
| Description | Commands in this context reset PW port statistics. |
| Introduced | 23.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**pw-port-id**] *reference*

| | |
|---|---|
| Synopsis | PW port ID |
| Context | reset subscriber-management statistics svlan pw-port *reference* |
| Tree | pw-port |
| Reference | **state pw-port** *number* |
| Notes | This element is part of a list key. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### all

| | |
|---|---|
| Synopsis | Reset all S-VLAN statistics on this PW port |
| Context | reset subscriber-management statistics svlan pw-port *reference* all |
| Tree | all |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### vlan-id

| | |
|---|---|
| Synopsis | Reset the specified S-VLAN statistics on this PW port |
| Context | reset subscriber-management statistics svlan pw-port *reference* vlan-id |
| Tree | vlan-id |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**svlan-id**] *reference*

| | |
|---|---|
| Synopsis | VLAN ID |
| Context | reset subscriber-management statistics svlan pw-port *reference* vlan-id [svlan-id] *reference* |
| Tree | [svlan-id] |
| Reference | **state pw-port** *number* **subscriber-management svlan** *number* |


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| | |
|---|---|
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## wlan-gw

| | |
|---|---|
| Synopsis | Enter the **wlan-gw** context |
| Context | reset subscriber-management statistics wlan-gw |
| Tree | wlan-gw |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## cpm-totals

| | |
|---|---|
| Synopsis | Reset the WLAN GW statistics peak values |
| Context | reset subscriber-management statistics wlan-gw cpm-totals |
| Tree | cpm-totals |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## system

| | |
|---|---|
| Synopsis | Enter the **system** context |
| Context | reset system |
| Tree | system |
| Introduced | 23.3.R1 |
| Platforms | All |

## management-interface

| | |
|---|---|
| Synopsis | Enter the **management-interface** context |
| Context | reset system management-interface |
| Tree | management-interface |
| Introduced | 23.7.R1 |
| Platforms | All |


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## remote-management

| | |
|---|---|
| Synopsis | Enter the **remote-management** context |
| Context | reset system management-interface remote-management |
| Tree | remote-management |
| Description | Commands in this context reset operational information related to the remote management feature that is used with the Network Interface Shell (NISH) Tool. |
| Introduced | 23.7.R1 |
| Platforms | All |

## managers

| | |
|---|---|
| Synopsis | Enter the **managers** context |
| Context | reset system management-interface remote-management managers |
| Tree | managers |
| Description | Commands in this context reset and restart the remote management manager connection process for NISH managers. |
| Introduced | 23.7.R1 |
| Platforms | All |

## all

| | |
|---|---|
| Synopsis | Reset connections for all remote NISH managers |
| Context | reset system management-interface remote-management managers all |
| Tree | all |
| Description | This command resets and restarts the remote management manager connection process for all NISH managers. |
| Introduced | 23.7.R1 |
| Platforms | All |

## manager

| | |
|---|---|
| Synopsis | Reset connection for a remote NISH manager |
| Context | reset system management-interface remote-management managers manager |
| Tree | manager |


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| | |
|---|---|
| Description | This command resets and restarts the remote management manager connection process for the specified NISH manager. |
| Introduced | 23.7.R1 |
| Platforms | All |

### [**name**] *reference*

| | |
|---|---|
| Synopsis | Name of the manager |
| Context | reset system management-interface remote-management managers manager [name] *reference* |
| Tree | [name] |
| Reference | **state system management-interface remote-management manager** *named-item-64* |
| Notes | This element is mandatory. |
| Introduced | 23.7.R1 |
| Platforms | All |

### statistics

| | |
|---|---|
| Synopsis | Enter the **statistics** context |
| Context | reset system management-interface remote-management statistics |
| Tree | statistics |
| Description | Commands in this context reset statistics for NISH remote management managers. |
| Introduced | 23.7.R1 |
| Platforms | All |

### all

| | |
|---|---|
| Synopsis | Reset statistics for all remote NISH managers |
| Context | reset system management-interface remote-management statistics all |
| Tree | all |
| Introduced | 23.7.R1 |
| Platforms | All |


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### manager

| | |
|---|---|
| Synopsis | Reset statistics for the specified remote NISH manager |
| Context | reset system management-interface remote-management statistics manager |
| Tree | manager |
| Introduced | 23.7.R1 |
| Platforms | All |

### [**name**] *reference*

| | |
|---|---|
| Synopsis | Name of the manager |
| Context | reset system management-interface remote-management statistics manager [name] *reference* |
| Tree | [name] |
| Reference | **state system management-interface remote-management manager** *named-item-64* |
| Notes | This element is mandatory. |
| Introduced | 23.7.R1 |
| Platforms | All |

### ptp

| | |
|---|---|
| Synopsis | Enter the **ptp** context |
| Context | reset system ptp |
| Tree | ptp |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### clock-recovery

| | |
|---|---|
| Synopsis | Reset PTP clock recovery algorithm |
| Context | reset system ptp clock-recovery |
| Tree | clock-recovery |
| Description | This command resets the algorithms involved in PTP frequency and time recovery to initial conditions. This clears out any previous history and can be used to ensure a consistent starting state for a test or can be used to clear any unexpected behavior in the algorithm. |


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| | |
|---|---|
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## reboot-required

| | |
|---|---|
| Synopsis | Clear the reboot required state |
| Context | reset system reboot-required |
| Tree | reboot-required |
| Description | This command clears the reboot required information. Use this command after a configuration triggers the reboot required state, but the configuration is removed. |
| Introduced | 24.3.R1 |
| Platforms | All |

## satellite

| | |
|---|---|
| Synopsis | Enter the **satellite** context |
| Context | reset system satellite |
| Tree | satellite |
| Description | Commands in this context reset satellite information. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **ethernet-satellite** [satellite-id] *reference*

| | |
|---|---|
| Synopsis | Enter the **ethernet-satellite** list instance |
| Context | reset system satellite ethernet-satellite *reference* |
| Tree | ethernet-satellite |
| Description | Commands in this context reset Ethernet satellite information. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## [**satellite-id**] *reference*

| | |
|---|---|
| Synopsis | Satellite ID |
| Context | reset system satellite ethernet-satellite *reference* |


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| | |
|---|---|
| Tree | ethernet-satellite |
| Reference | **state satellite ethernet-satellite** *number* |
| Notes | This element is part of a list key. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## synchronous-interface-timing

| | |
|---|---|
| Synopsis | Reset a failed reference on the Ethernet satellite |
| Context | reset system satellite ethernet-satellite *reference* synchronous-interface-timing |
| Tree | synchronous-interface-timing |
| Description | This command resets (re-enables) a previously failed reference on the Ethernet satellite. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## [**reference**] *keyword*

| | |
|---|---|
| Synopsis | Synchronous timing reference |
| Context | reset system satellite ethernet-satellite *reference* synchronous-interface-timing [reference] *keyword* |
| Tree | [reference] |
| Options | ref1, ref2 |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## script-control

| | |
|---|---|
| Synopsis | Enter the **script-control** context |
| Context | reset system script-control |
| Tree | script-control |
| Introduced | 23.7.R1 |
| Platforms | All |


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## script-policy

| | |
|---|---|
| Synopsis | Enter the **script-policy** context |
| Context | reset system script-control script-policy |
| Tree | script-policy |
| Introduced | 23.7.R1 |
| Platforms | All |

## completed

| | |
|---|---|
| Synopsis | Enter the **completed** context |
| Context | reset system script-control script-policy completed |
| Tree | completed |
| Description | Commands in this context delete completed script run history entries. |
| Introduced | 23.7.R1 |
| Platforms | All |

## all

| | |
|---|---|
| Synopsis | Delete script run entries for all script policies |
| Context | reset system script-control script-policy completed all |
| Tree | all |
| Introduced | 23.7.R1 |
| Platforms | All |

## policy

| | |
|---|---|
| Synopsis | Delete script run entries for specific policies |
| Context | reset system script-control script-policy completed policy |
| Tree | policy |
| Introduced | 23.7.R1 |
| Platforms | All |


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### **owner** *reference*

| | |
|---|---|
| Synopsis | Script-policy owner for run history deletion |
| Context | reset system script-control script-policy completed policy owner *reference* |
| Tree | owner |
| Description | This command specifies the script policy owner for run history deletion.<br>The system only deletes run history entries for script policies with this owner and the specified policy name. |
| Default | TiMOS CLI |
| Reference | **state system script-control script-policy** *named-item* **owner** *named-item* |
| Introduced | 23.7.R1 |
| Platforms | All |

### [**policy-name**] *reference*

| | |
|---|---|
| Synopsis | Script-policy name for run history deletion |
| Context | reset system script-control script-policy completed policy [policy-name] *reference* |
| Tree | [policy-name] |
| Reference | **state system script-control script-policy** *named-item* **owner** *named-item* |
| Notes | This element is mandatory. |
| Introduced | 23.7.R1 |
| Platforms | All |

### **security**

| | |
|---|---|
| Synopsis | Enter the **security** context |
| Context | reset system security |
| Tree | security |
| Introduced | 23.3.R1 |
| Platforms | All |

### **cpm-filter**

| | |
|---|---|
| Synopsis | Enter the **cpm-filter** context |
| Context | reset system security cpm-filter |


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| | |
|---|---|
| Tree | cpm-filter |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### cpm-queue

| | |
|---|---|
| Synopsis | Reset CPM queue information |
| Context | reset system security cpm-filter cpm-queue |
| Tree | cpm-queue |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### queue-id *reference*

| | |
|---|---|
| Synopsis | Queue ID for the CPM queue |
| Context | reset system security cpm-filter cpm-queue queue-id *reference* |
| Tree | queue-id |
| Reference | **state system security cpm-queue queue** *number* |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### ip-filter

| | |
|---|---|
| Synopsis | Reset IP filter information |
| Context | reset system security cpm-filter ip-filter |
| Tree | ip-filter |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### entry *reference*

| | |
|---|---|
| Synopsis | Entry ID for IP filter |
| Context | reset system security cpm-filter ip-filter entry *reference* |
| Tree | entry |


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| | |
|---|---|
| Reference | **state system security cpm-filter ip-filter entry** *number* |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### ipv6-filter

| | |
|---|---|
| Synopsis | Reset IPv6 filter information |
| Context | reset system security cpm-filter ipv6-filter |
| Tree | ipv6-filter |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### entry *reference*

| | |
|---|---|
| Synopsis | Entry ID for IPv6 filter |
| Context | reset system security cpm-filter ipv6-filter entry *reference* |
| Tree | entry |
| Reference | **state system security cpm-filter ipv6-filter entry** *number* |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### mac-filter

| | |
|---|---|
| Synopsis | Reset MAC filter information |
| Context | reset system security cpm-filter mac-filter |
| Tree | mac-filter |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### entry *reference*

| | |
|---|---|
| Synopsis | Entry ID for the MAC filter |
| Context | reset system security cpm-filter mac-filter entry *reference* |
| Tree | entry |
| Reference | **state system security cpm-filter mac-filter entry** *number* |


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| | |
|---|---|
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### management-access-filter

| | |
|---|---|
| Synopsis | Enter the **management-access-filter** context |
| Context | reset system security management-access-filter |
| Tree | management-access-filter |
| Introduced | 23.3.R1 |
| Platforms | All |

### ip-filter

| | |
|---|---|
| Synopsis | Reset operation on the specified IP filter |
| Context | reset system security management-access-filter ip-filter |
| Tree | ip-filter |
| Introduced | 23.3.R1 |
| Platforms | All |

### entry *reference*

| | |
|---|---|
| Synopsis | Entry ID for the IP filter |
| Context | reset system security management-access-filter ip-filter entry *reference* |
| Tree | entry |
| Reference | **state system security management-access-filter ip-filter entry** *number* |
| Introduced | 23.3.R1 |
| Platforms | All |

### ipv6-filter

| | |
|---|---|
| Synopsis | Reset operation on the specified IPv6 filter |
| Context | reset system security management-access-filter ipv6-filter |
| Tree | ipv6-filter |
| Introduced | 23.3.R1 |
| Platforms | All |


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### **entry** *reference*

| | |
|---|---|
| Synopsis | Entry ID for the IPv6 filter |
| Context | reset system security management-access-filter ipv6-filter entry *reference* |
| Tree | entry |
| Reference | **state system security management-access-filter ipv6-filter entry** *number* |
| Introduced | 23.3.R1 |
| Platforms | All |

### **mac-filter**

| | |
|---|---|
| Synopsis | Reset operation on the specified MAC filter |
| Context | reset system security management-access-filter mac-filter |
| Tree | mac-filter |
| Introduced | 23.3.R1 |
| Platforms | All |

### **entry** *reference*

| | |
|---|---|
| Synopsis | Entry ID for the MAC filter |
| Context | reset system security management-access-filter mac-filter entry *reference* |
| Tree | entry |
| Reference | **state system security management-access-filter mac-filter entry** *number* |
| Introduced | 23.3.R1 |
| Platforms | All |

### **xiom**

| | |
|---|---|
| Synopsis | Enter the **xiom** context |
| Context | reset xiom |
| Tree | xiom |
| Introduced | 24.3.R1 |
| Platforms | 7750 SR-1s, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s |


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### **card-slot** [slot-number] *reference*

| | |
|---|---|
| Synopsis | Enter the **card-slot** list instance |
| Context | reset xiom card-slot *reference* |
| Tree | card-slot |
| Introduced | 24.3.R1 |
| Platforms | 7750 SR-1s, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s |

### [**slot-number**] *reference*

| | |
|---|---|
| Synopsis | Slot number |
| Context | reset xiom card-slot *reference* |
| Tree | card-slot |
| Reference | **state card** *number* |
| Notes | This element is part of a list key. |
| Introduced | 24.3.R1 |
| Platforms | 7750 SR-1s, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s |

### **xiom-slot** [xiom] *reference*

| | |
|---|---|
| Synopsis | Enter the **xiom-slot** list instance |
| Context | reset xiom card-slot *reference* xiom-slot *reference* |
| Tree | xiom-slot |
| Introduced | 24.3.R1 |
| Platforms | 7750 SR-1s, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s |

### [**xiom**] *reference*

| | |
|---|---|
| Synopsis | XIOM slot |
| Context | reset xiom card-slot *reference* xiom-slot *reference* |
| Tree | xiom-slot |
| Reference | **state card** *number* **xiom** *string* |
| Notes | This element is part of a list key. |
| Introduced | 24.3.R1 |


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| | |
|---|---|
| Platforms | 7750 SR-1s, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s |

## reinitialize

| | |
|---|---|
| Synopsis | Reset the specified xiom |
| Context | reset xiom card-slot *reference* xiom-slot *reference* reinitialize |
| Tree | reinitialize |
| Introduced | 24.3.R1 |
| Platforms | 7750 SR-1s, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s |


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# 3 Configuration mode commands

This section lists the commands available in MD-CLI configuration modes.


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## 3.1 Configuration mode commands

See “Editing configuration” in the *7450 ESS, 7750 SR, 7950 XRS, and VSR MD-CLI User Guide* for more information.

```
–  annotate comment-text-type
   –  [cli-path] cli-path-type
–  commit
   –  comment string
   –  confirmed
      –  accept
      –  cancel
      –  comment string
      –  persist-id string
      –  [timeout] number
–  compare string [to] string
   –  [cli-path] cli-path-type
   –  flat
   –  full-context
   –  lines number
   –  netconf-rpc
   –  summary
–  copy
   –  [cli-path] cli-path-type
   –  to cli-path-type
–  discard
   –  [cli-path] cli-path-type
–  insert instance-id
   –  after
      –  [cli-path] instance-id
   –  before
      –  [cli-path] instance-id
   –  beginning
   –  end
–  load keyword
   –  encryption-key string
   –  interactive
   –  [url] string
–  rename
   –  [cli-path] cli-path-type
   –  to cli-path-type
–  replace string with string
   –  [cli-path] cli-path-type
   –  continue-on-error
   –  depth number
   –  ignore-case
–  rollback
   –  commit-id number
   –  [rollback-id] (keyword | number)
–  update
   –  /configure
   –  /bof
   –  check
   –  /debug
   –  /li
–  validate
```


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### 3.1.1 Configuration mode command descriptions

#### **annotate** [comment-text] *comment-text-type*

| | |
|---|---|
| Synopsis | Annotate a configuration element with a comment |
| Context | annotate *comment-text-type* |
| Tree | annotate |
| Introduced | 21.5.R1 |
| Platforms | All |

#### [**comment-text**] *comment-text-type*

| | |
|---|---|
| Synopsis | Comment for the configuration element |
| Context | annotate *comment-text-type* |
| Tree | annotate |
| String length | 0 to 2048 |
| Notes | This element is part of a list key. |
| Introduced | 21.5.R1 |
| Platforms | All |

#### [**cli-path**] *cli-path-type*

| | |
|---|---|
| Synopsis | Absolute path or relative path from pwc, or 'pwc' |
| Context | annotate *comment-text-type* [cli-path] *cli-path-type* |
| Tree | [cli-path] |
| Notes | This element is mandatory. |
| Introduced | 21.5.R1 |
| Platforms | All |

#### **commit**

| | |
|---|---|
| Synopsis | Commit the candidate configuration |
| Context | commit |
| Tree | commit |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **comment** *string*

| | |
|---|---|
| Synopsis | Comment associated with the commit |
| Context | commit comment *string* |
| Tree | comment |
| String length | 1 to 2048 |
| Introduced | 21.10.R1 |
| Platforms | All |

### **confirmed**

| | |
|---|---|
| Synopsis | Enter the **confirmed** context |
| Context | commit confirmed |
| Tree | confirmed |
| Introduced | 16.0.R1 |
| Platforms | All |

### **accept**

| | |
|---|---|
| Synopsis | Accept commit confirmed and cancel automatic rollback |
| Context | commit confirmed accept |
| Tree | accept |
| Notes | The following elements are part of a choice: **accept**, **cancel**, or (**comment** and **timeout**). |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cancel**

| | |
|---|---|
| Synopsis | Cancel commit confirmed and roll back changes |
| Context | commit confirmed cancel |
| Tree | cancel |


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| | |
|---|---|
| Description | When specified, the router rolls back the configuration and returns the changes to the candidate. |
| Notes | The following elements are part of a choice: **accept**, **cancel**, or (**comment** and **timeout**). |
| Introduced | 16.0.R1 |
| Platforms | All |

### **comment** *string*

| | |
|---|---|
| Synopsis | Comment associated with the commit |
| Context | commit confirmed comment *string* |
| Tree | comment |
| String length | 1 to 2048 |
| Notes | The following elements are part of a choice: **accept**, **cancel**, or (**comment** and **timeout**). |
| Introduced | 21.10.R1 |
| Platforms | All |

### **persist-id** *string*

| | |
|---|---|
| Synopsis | Persistent confirmed commit ID |
| Context | commit confirmed persist-id *string* |
| Tree | persist-id |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**timeout**] *number*

| | |
|---|---|
| Synopsis | Confirmed commit expiration timeout interval |
| Context | commit confirmed [timeout] *number* |
| Tree | [timeout] |
| Range | 1 to 65535 |
| Units | minutes |
| Default | 10 |
| Notes | The following elements are part of a choice: **accept**, **cancel**, or (**comment** and **timeout**). |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **compare** [from] *string* to *string*

| | |
|---|---|
| Synopsis | Compare changes between datastores |
| Context | compare *string* [to] *string* |
| Tree | compare |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**from**] *string*

| | |
|---|---|
| Synopsis | Source configuration from which to compare |
| Context | compare *string* [to] *string* |
| Tree | compare |
| MD-CLI default | baseline |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**to**] *string*

| | |
|---|---|
| Synopsis | Configuration to compare against source configuration |
| Context | compare *string* [to] *string* |
| Tree | compare |
| MD-CLI default | candidate |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**cli-path**] *cli-path-type*

| | |
|---|---|
| Synopsis | Absolute path or relative path from pwc |


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| | |
|---|---|
| Context | compare *string* [to] *string* [cli-path] *cli-path-type* |
| Tree | [cli-path] |
| Introduced | 20.10.R1 |
| Platforms | All |

## flat

| | |
|---|---|
| Synopsis | Show the context from the pwc on each line |
| Context | compare *string* [to] *string* flat |
| Tree | flat |
| Description | This option shows the hierarchy on each line starting from the present working context. |
| Notes | The following elements are part of a choice: **flat** or **netconf-rpc**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## full-context

| | |
|---|---|
| Synopsis | Show the full context on each line |
| Context | compare *string* [to] *string* full-context |
| Tree | full-context |
| Introduced | 16.0.R1 |
| Platforms | All |

## lines *number*

| | |
|---|---|
| Synopsis | Number of lines of context to display before and after |
| Context | compare *string* [to] *string* lines *number* |
| Tree | lines |
| Description | This command specifies the number of lines of context to display before and after changed elements. The context is evaluated separately at each container. If the parameter value is larger than the available context, the maximum available context up to the container boundary is displayed. |
| Max. range | 0 to 4294967295 |
| Default | 0 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## netconf-rpc

| | |
|---|---|
| Synopsis | Display changes in NETCONF <edit-config> RPC format |
| Context | compare *string* [to] *string* netconf-rpc |
| Tree | netconf-rpc |
| Description | This option specifies the display of changes in NETCONF <edit-config> RPC format.<br>This option is only supported with the **summary** option. |
| Notes | The following elements are part of a choice: **flat** or **netconf-rpc**. |
| Introduced | 21.5.R1 |
| Platforms | All |

## summary

| | |
|---|---|
| Synopsis | Suppress specific differences and display a summary |
| Context | compare *string* [to] *string* summary |
| Tree | summary |
| Description | This command allows the suppression of specific differences and displays a summarized comparison. The summarized differences in elements under the highest level container that was deleted is displayed with { ... }. A tilde (~) character is displayed to indicate the new value of an element that has changed. |
| Introduced | 16.0.R1 |
| Platforms | All |

## copy

| | |
|---|---|
| Synopsis | Copy a configuration element to another |
| Context | copy |
| Tree | copy |
| Introduced | 20.10.R1 |
| Platforms | All |

## [**cli-path**] *cli-path-type*

| | |
|---|---|
| Synopsis | Absolute path or relative path from pwc, or 'pwc' |


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| | |
|---|---|
| Context | copy [cli-path] *cli-path-type* |
| Tree | [cli-path] |
| Introduced | 20.10.R1 |
| Platforms | All |

### **to** *cli-path-type*

| | |
|---|---|
| Synopsis | Destination path, or 'pwc' |
| Context | copy to *cli-path-type* |
| Tree | to |
| Introduced | 20.10.R1 |
| Platforms | All |

### **discard**

| | |
|---|---|
| Synopsis | Discard changes in the candidate configuration |
| Context | discard |
| Tree | discard |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**cli-path**] *cli-path-type*

| | |
|---|---|
| Synopsis | Absolute path or relative path from pwc |
| Context | discard [cli-path] *cli-path-type* |
| Tree | [cli-path] |
| Introduced | 20.10.R1 |
| Platforms | All |

### **insert** [new-entry] *instance-id*

| | |
|---|---|
| Synopsis | Insert an element into a user-ordered list |
| Context | insert *instance-id* |
| Tree | insert |
| Introduced | 19.10.R1 |


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| | |
|---|---|
| Platforms | All |

### [**new-entry**] *instance-id*

| | |
|---|---|
| Synopsis | Identification of the new entry |
| Context | insert *instance-id* |
| Tree | insert |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | All |

### after

| | |
|---|---|
| Synopsis | Insert an entry after the specified entry |
| Context | insert *instance-id* after |
| Tree | after |
| Notes | The following elements are part of a choice: **after**, **before**, **beginning**, or **end**. |
| Introduced | 19.10.R1 |
| Platforms | All |

### [**cli-path**] *instance-id*

| | |
|---|---|
| Synopsis | Absolute path or relative path from pwc |
| Context | insert *instance-id* after [cli-path] *instance-id* |
| Tree | [cli-path] |
| Introduced | 19.10.R1 |
| Platforms | All |

### before

| | |
|---|---|
| Synopsis | Insert an entry before the specified entry |
| Context | insert *instance-id* before |
| Tree | before |
| Notes | The following elements are part of a choice: **after**, **before**, **beginning**, or **end**. |
| Introduced | 19.10.R1 |


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| | |
|---|---|
| Platforms | All |

### [**cli-path**] *instance-id*

| | |
|---|---|
| Synopsis | Absolute path or relative path from pwc |
| Context | insert *instance-id* before [cli-path] *instance-id* |
| Tree | [cli-path] |
| Introduced | 19.10.R1 |
| Platforms | All |

### **beginning**

| | |
|---|---|
| Synopsis | Insert the new entry at the beginning of the list |
| Context | insert *instance-id* beginning |
| Tree | beginning |
| Notes | The following elements are part of a choice: **after**, **before**, **beginning**, or **end**. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **end**

| | |
|---|---|
| Synopsis | Insert the new entry at the end of the list |
| Context | insert *instance-id* end |
| Tree | end |
| Notes | The following elements are part of a choice: **after**, **before**, **beginning**, or **end**. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **load** [mode] *keyword*

| | |
|---|---|
| Synopsis | Load configuration into the candidate configuration |
| Context | load *keyword* |
| Tree | load |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**mode**] *keyword*

| | |
|---|---|
| Synopsis | Load mode |
| Context | load *keyword* |
| Tree | load |
| Options | merge – Merge with the candidate configuration<br>full-replace – Replace the candidate configuration |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **encryption-key** *string*

| | |
|---|---|
| Synopsis | Encryption key of the file to be loaded |
| Context | load *keyword* encryption-key *string* |
| Tree | encryption-key |
| String length | 8 to 32 |
| Notes | The following elements are part of a mandatory choice: **interactive** or (**encryption-key** and **url**). |
| Introduced | 21.7.R1 |
| Platforms | All |

### **interactive**

| | |
|---|---|
| Synopsis | Load the configuration interactively |
| Context | load *keyword* interactive |
| Tree | interactive |
| Description | This command allows the user to enter configuration commands directly in an interactive session.<br>This command is available with the **merge** option of the **load** command.<br>See "Loading configuration interactively" in the *7450 ESS, 7750 SR, 7950 XRS, and VSR MD-CLI User Guide* for more information. |
| Notes | The following elements are part of a mandatory choice: **interactive** or (**encryption-key** and **url**). |
| Introduced | 22.10.R1 |
| Platforms | All |


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### [**url**] *string*

| | |
|---|---|
| Synopsis | Location of the file to be loaded |
| Context | load *keyword* [url] *string* |
| Tree | [url] |
| String length | 1 to 255 |
| Notes | The following elements are part of a mandatory choice: **interactive** or (**encryption-key** and **url**). |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rename**

| | |
|---|---|
| Synopsis | Rename a list element |
| Context | rename |
| Tree | rename |
| Introduced | 20.10.R1 |
| Platforms | All |

### [**cli-path**] *cli-path-type*

| | |
|---|---|
| Synopsis | Source element path to the list, or 'pwc' |
| Context | rename [cli-path] *cli-path-type* |
| Tree | [cli-path] |
| Introduced | 20.10.R1 |
| Platforms | All |

### **to** *cli-path-type*

| | |
|---|---|
| Synopsis | Destination key name |
| Context | rename to *cli-path-type* |
| Tree | to |
| Introduced | 20.10.R1 |
| Platforms | All |


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### **replace** [pattern] *string* with *string*

| | |
|---|---|
| Synopsis | Match and replace values in the candidate configuration |
| Context | replace *string* with *string* |
| Tree | replace |
| Introduced | 23.7.R1 |
| Platforms | All |

### [**pattern**] *string*

| | |
|---|---|
| Synopsis | String (") or regular expression (') pattern to match |
| Context | replace *string* with *string* |
| Tree | replace |
| Description | This command configures a text string or regular expression that defines the values to match. |
| String length | 1 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 23.7.R1 |
| Platforms | All |

### **with** *string*

| | |
|---|---|
| Synopsis | String (") or regular expression (') pattern to replace |
| Context | replace *string* with *string* |
| Tree | replace |
| String length | 0 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 23.7.R1 |
| Platforms | All |

### [**cli-path**] *cli-path-type*

| | |
|---|---|
| Synopsis | Absolute path or relative path from pwc |
| Context | replace *string* with *string* [cli-path] *cli-path-type* |
| Tree | [cli-path] |


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| | |
|---|---|
| Introduced | 23.7.R1 |
| Platforms | All |

### continue-on-error

| | |
|---|---|
| Synopsis | Continue the replace operation upon errors |
| Context | replace *string* with *string* continue-on-error |
| Tree | continue-on-error |
| Introduced | 23.7.R1 |
| Platforms | All |

### depth *number*

| | |
|---|---|
| Synopsis | Replace operation depth from the pwc |
| Context | replace *string* with *string* depth *number* |
| Tree | depth |
| Range | 1 to 4294967040 |
| Introduced | 23.7.R1 |
| Platforms | All |

### ignore-case

| | |
|---|---|
| Synopsis | Ignore case in pattern match |
| Context | replace *string* with *string* ignore-case |
| Tree | ignore-case |
| Introduced | 23.7.R1 |
| Platforms | All |

### rollback

| | |
|---|---|
| Synopsis | Roll back to a previous configuration |
| Context | rollback |
| Tree | rollback |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **commit-id** *number*

| | |
|---|---|
| Synopsis | Commit ID to roll back to |
| Context | rollback commit-id *number* |
| Tree | commit-id |
| Range | 1 to 4294967295 |
| Notes | The following elements are part of a choice: **commit-id** or **rollback-id**. |
| Introduced | 23.3.R1 |
| Platforms | All |

### [**rollback-id**] *(keyword | number)*

| | |
|---|---|
| Synopsis | Previous configuration to roll back to |
| Context | rollback [rollback-id] *(keyword | number)* |
| Tree | [rollback-id] |
| Range | 0 to 200 |
| Options | startup – Configuration loaded when the system boots |
| Notes | The following elements are part of a choice: **commit-id** or **rollback-id**. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **update**

| | |
|---|---|
| Synopsis | Update the candidate baseline |
| Context | update |
| Tree | update |
| Introduced | 16.0.R4 |
| Platforms | All |

### **/configure**

| | |
|---|---|
| Synopsis | Update the entire candidate |
| Context | update /configure |
| Tree | /configure |
| Introduced | 16.0.R4 |


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| | |
|---|---|
| Platforms | All |

### /bof

| | |
|---|---|
| Synopsis | Update the entire BOF candidate |
| Context | update /bof |
| Tree | /bof |
| Introduced | 20.10.R1 |
| Platforms | All |

### check

| | |
|---|---|
| Synopsis | Perform dry-run update report without an actual update |
| Context | update check |
| Tree | check |
| Introduced | 16.0.R4 |
| Platforms | All |

### /debug

| | |
|---|---|
| Synopsis | Update the entire debug candidate |
| Context | update /debug |
| Tree | /debug |
| Introduced | 21.5.R1 |
| Platforms | All |

### /li

| | |
|---|---|
| Synopsis | Update the entire LI candidate |
| Context | update /li |
| Tree | /li |
| Introduced | 19.10.R1 |
| Platforms | All |


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## validate

| | |
|---|---|
| Synopsis | Validate changes in the candidate configuration |
| Context | validate |
| Tree | validate |
| Introduced | 16.0.R1 |
| Platforms | All |


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# 4 Configuration commands

This section lists MD-CLI configuration commands.


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## 4.1 aaa commands

```
configure
  - aaa
    - apply-groups reference
    - apply-groups-exclude reference
    - diameter
      - node diam-fqdn
        - apply-groups reference
        - apply-groups-exclude reference
        - connection
          - ipv4
            - allow-connections boolean
            - local-address ipv4-unicast-address
          - ipv6
            - allow-connections boolean
            - local-address ipv6-unicast-address
          - timer number
        - description description
        - origin-realm diam-fqdn
        - peer index number
          - address (ipv4-address-no-zone | ipv6-address-no-zone)
          - admin-state keyword
          - apply-groups reference
          - apply-groups-exclude reference
          - connection-timer number
          - default-peer boolean
          - destination-host diam-fqdn
          - preference number
          - route index number
            - application keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - preference number
            - realm diam-fqdn
          - watchdog-timer number
        - python-policy reference
        - router-instance string
    - radius
      - acct-on-off-group named-item
        - apply-groups reference
        - apply-groups-exclude reference
        - description description
      - coa-port number
      - isa-policy named-item
        - accounting
          - include-attributes
            - acct-delay-time boolean
            - acct-triggered-reason boolean
            - called-station-id boolean
            - calling-station-id boolean
            - circuit-id boolean
            - class boolean
            - credit-control-quota boolean
            - dhcp-options boolean
            - dhcp-vendor-class-id boolean
            - frame-counters boolean
            - framed-ip-address boolean
            - framed-ip-netmask boolean
            - framed-ipv6-prefix boolean
            - hardware-timestamp boolean
```


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configure aaa radius isa-policy accounting include-attributes ipv6-address

```
                - ipv6-address boolean
                - mac-address boolean
                - millisecond-event-timestamp boolean
                - multi-session-id boolean
                - nas-identifier boolean
                - nas-ip-address boolean
                - nas-ipv6-address boolean
                - nas-port boolean
                - nas-port-id boolean
                - nas-port-type boolean
                - nat-inside-service-id boolean
                - nat-outside-ip-address boolean
                - nat-outside-service-id boolean
                - nat-port-forward-logging boolean
                - nat-port-range-block boolean
                - nat-port-time boolean
                - nat-subscriber-string boolean
                - octet-counters boolean
                - proxied-subscriber-data boolean
                - release-reason boolean
                - remote-id boolean
                - rssi boolean
                - session-time boolean
                - subscriber-id boolean
                - toserver-dhcp6-options boolean
                - ue-creation-type boolean
                - user-name boolean
                - wlan-custom-user-group boolean
                - wlan-ssid-vlan boolean
                - xconnect-tunnel-home-address boolean
                - xconnect-tunnel-local-ipv6-address boolean
                - xconnect-tunnel-remote-ipv6-address boolean
                - xconnect-tunnel-service boolean
                - xconnect-tunnel-type boolean
            - nat-periodic-update
                - interval number
                - rate-limit (number | keyword)
            - update-triggers
                - address-state boolean
                - soft-quota-exhausted boolean
        - apply-groups reference
        - apply-groups-exclude reference
        - authentication
            - include-attributes
                - called-station-id boolean
                - calling-station-id boolean
                - circuit-id boolean
                - dhcp-vendor-class-id boolean
                - framed-ip-address boolean
                - ipv6-address boolean
                - mac-address boolean
                - nas-identifier boolean
                - nas-ip-address boolean
                - nas-ipv6-address boolean
                - nas-port boolean
                - nas-port-id boolean
                - nas-port-type boolean
                - remote-id boolean
                - toserver-dhcp-options boolean
                - toserver-dhcp6-options boolean
                - wlan-ssid-vlan boolean
                - xconnect-tunnel-home-address boolean
        - description description
        - nas-ip-address-origin keyword
```


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```
            - password encrypted-leaf
            - python-policy reference
            - servers
               - access-algorithm keyword
               - ipv6
                  - mtu number
                  - source-prefix ipv6-prefix
               - router-instance string
               - server number
                  - admin-state keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - ip-address (ipv4-address-no-zone | ipv6-address-no-zone)
                  - purpose
                     - accounting
                        - udp-port number
                     - authentication
                        - udp-port number
                     - coa
                        - udp-port number
                  - secret encrypted-leaf
               - source-address-range ipv4-unicast-address
               - timeout number
               - total-tries number
            - user-name
               - format keyword
               - mac-format keyword
         - l2tp-accounting-policy named-item
            - accounting-type
               - session boolean
               - tunnel boolean
            - acct-tunnel-connection-fmt display-string
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - include-radius-attribute
               - calling-station-id boolean
               - nas-identifier boolean
               - nas-port
                  - bit-spec binary-specification
               - nas-port-id
                  - prefix-string string-not-all-spaces
                  - suffix keyword
               - nas-port-type
                  - type (keyword | number)
            - radius-server-policy reference
         - route-downloader named-item
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - base-user-name named-item
            - default-metric number
            - default-tag number
            - description description
            - download-interval number
            - max-routes number
            - password encrypted-leaf
            - radius-server-policy reference
            - retry-interval
               - max number
               - min number
         - server-policy named-item
            - acct-on-off
               - apply-groups reference
```


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configure aaa radius server-policy acct-on-off apply-groups-exclude

```
            - apply-groups-exclude reference
            - monitor reference
            - oper-state-change
               - group reference
         - apply-groups reference
         - apply-groups-exclude reference
         - description description
         - python-policy reference
         - servers
            - access-algorithm keyword
            - buffering
               - acct-interim
                  - lifetime number
                  - max number
                  - min number
               - acct-start
                  - lifetime number
                  - max number
                  - min number
               - acct-stop
                  - lifetime number
                  - max number
                  - min number
            - health-check
               - down-timeout number
               - test-account
                  - admin-state keyword
                  - interval number
                  - password encrypted-leaf
                  - user-name display-string
            - hold-down-time number
            - ipv6-source-address ipv6-address
            - retry-count number
            - router-instance string
            - server number
               - apply-groups reference
               - apply-groups-exclude reference
               - server-name named-item
            - source-address ipv4-address
            - stickiness boolean
            - timeout number
   - wpp
      - apply-groups reference
      - apply-groups-exclude reference
      - portal-group named-item
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - description description
         - portal string name named-item
      - system-name string
```


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## 4.1.1 aaa command descriptions

### aaa

| | |
|---|---|
| Synopsis | Enter the **aaa** context |
| Context | **configure** aaa |
| Tree | aaa |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### diameter

| | |
|---|---|
| Synopsis | Enter the **diameter** context |
| Context | **configure** aaa diameter |
| Tree | diameter |
| Description | Commands in this context configure Diameter Base parameters. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **node** [origin-host] *diam-fqdn*

| | |
|---|---|
| Synopsis | Enter the **node** list instance |
| Context | **configure** aaa diameter node *diam-fqdn* |
| Tree | node |
| Max. instances | 32 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**origin-host**] *diam-fqdn*

| | |
|---|---|
| Synopsis | Origin-Host AVP |
| Context | **configure** aaa diameter node *diam-fqdn* |
| Tree | node |
| String length | 1 to 80 |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## connection

| | |
|---|---|
| Synopsis | Enter the **connection** context |
| Context | **configure** aaa diameter node *diam-fqdn* connection |
| Tree | connection |
| Introduced | 16.0.R6 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ipv4

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |
| Context | **configure** aaa diameter node *diam-fqdn* connection ipv4 |
| Tree | ipv4 |
| Introduced | 16.0.R6 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## allow-connections *boolean*

| | |
|---|---|
| Synopsis | Listen on local address for incoming peer connections |
| Context | **configure** aaa diameter node *diam-fqdn* connection ipv4 allow-connections *boolean* |
| Tree | allow-connections |
| Description | When configured to **true**, this command is used in multi-chassis redundancy where the local Diameter node accepts connection from the inter-chassis peer. The peer requesting the connection must have the same Diameter name as the local peer and its source address must match the IP address of the locally configured destination peer.<br><br>The IPv4 address on which the node listens for incoming connection is the configured source address of the local peer. This source IPv4 address can reference any local interface, including loopbacks.<br><br>When configured to **false**, incoming requests for connections are refused. |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **local-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IPv4 source address for the TCP peer connection |
| Context | **configure** aaa diameter node *diam-fqdn* connection ipv4 local-address *ipv4-unicast-address* |
| Tree | local-address |
| Introduced | 16.0.R6 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ipv6**

| | |
|---|---|
| Synopsis | Enter the **ipv6** context |
| Context | **configure** aaa diameter node *diam-fqdn* connection ipv6 |
| Tree | ipv6 |
| Introduced | 16.0.R6 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **allow-connections** *boolean*

| | |
|---|---|
| Synopsis | Listen on local address for incoming peer connections |
| Context | **configure** aaa diameter node *diam-fqdn* connection ipv6 allow-connections *boolean* |
| Tree | allow-connections |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **local-address** *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | IPv6 source address for the TCP peer connection |
| Context | **configure** aaa diameter node *diam-fqdn* connection ipv6 local-address *ipv6-unicast-address* |
| Tree | local-address |
| Introduced | 16.0.R6 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **timer** *number*

| | |
|---|---|
| Synopsis | Wait time before attempting reconnection to peer |
| Context | **configure** aaa diameter node *diam-fqdn* connection timer *number* |
| Tree | timer |
| Description | This command configures the time the system waits before attempting to reconnect to a peer after the connection is lost. |
| Range | 1 to 1000 |
| Units | seconds |
| Default | 30 |
| Introduced | 16.0.R6 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** aaa diameter node *diam-fqdn* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **origin-realm** *diam-fqdn*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Origin-realm name |
| Context | **configure** aaa diameter node *diam-fqdn* origin-realm *diam-fqdn* |
| Tree | origin-realm |
| String length | 1 to 80 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **peer** index *number*

| | |
|---|---|
| Synopsis | Enter the **peer** list instance |
| Context | **configure** aaa diameter node *diam-fqdn* peer index *number* |
| Tree | peer |
| Max. instances | 5 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **index** *number*

| | |
|---|---|
| Synopsis | Index of a peer within the node |
| Context | **configure** aaa diameter node *diam-fqdn* peer index *number* |
| Tree | peer |
| Range | 1 to 5 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Diameter peer address |
| Context | **configure** aaa diameter node *diam-fqdn* peer index *number* address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | address |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the Diameter peer |
| Context | **configure** aaa diameter node *diam-fqdn* peer index *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **connection-timer** *number*

| | |
|---|---|
| Synopsis | Wait time before attempting reconnection to peer |
| Context | **configure** aaa diameter node *diam-fqdn* peer index *number* connection-timer *number* |
| Tree | connection-timer |
| Range | 1 to 1000 |
| Units | seconds |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **default-peer** *boolean*

| | |
|---|---|
| Synopsis | Use the peer as default route for realm-based routing |
| Context | **configure** aaa diameter node *diam-fqdn* peer index *number* default-peer *boolean* |
| Tree | default-peer |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **destination-host** *diam-fqdn*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Destination-Host AVP string for Diameter messages |
| Context | **configure** aaa diameter node *diam-fqdn* peer index *number* destination-host *diam-fqdn* |
| Tree | destination-host |
| String length | 1 to 80 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **preference** *number*

| | |
|---|---|
| Synopsis | Diameter routing preference for a peer |
| Context | **configure** aaa diameter node *diam-fqdn* peer index *number* preference *number* |
| Tree | preference |
| Range | 1 to 100 |
| Default | 50 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **route** index *number*

| | |
|---|---|
| Synopsis | Enter the **route** list instance |
| Context | **configure** aaa diameter node *diam-fqdn* peer index *number* route index *number* |
| Tree | route |
| Max. instances | 15 |
| Introduced | 20.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **index** *number*

| | |
|---|---|
| Synopsis | Static Diameter route ID |
| Context | **configure** aaa diameter node *diam-fqdn* peer index *number* route index *number* |
| Tree | route |
| Description | This command configures the ID of the static route used to reach remote realms that are not directly connected to the origin realm. The route can also be used to override the route preference (peer preference) of the directly-connected realms. |
| Range | 1 to 15 |
| Notes | This element is part of a list key. |
| Introduced | 20.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## **application** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Diameter application to which the route applies |
| Context | **configure** aaa diameter node *diam-fqdn* peer index *number* route index *number* application *keyword* |
| Tree | application |
| Description | This command specifies the Diameter application in the destination realm reachable via the static route. |
| Options | nasreq, gy, gx |
| Notes | This element is mandatory. |
| Introduced | 20.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **preference** *number*

| | |
|---|---|
| Synopsis | Static route preference; lower value is preferred |
| Context | **configure** aaa diameter node *diam-fqdn* peer index *number* route index *number* preference *number* |
| Tree | preference |
| Description | This command configures the preference of the static route. The preference is compared with the preference values of all other static and dynamic routes. The dynamic route is a realm route learned directly from the peer via the Capabilities Exchange process during the peer negotiation phase. The preference value of the dynamic route is configured directly under the peer configuration. A lower preference value is preferred for route selection. |
| Range | 1 to 100 |
| Default | 50 |
| Introduced | 20.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## **realm** *diam-fqdn*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Destination realm reachable via the static route |
| Context | **configure** aaa diameter node *diam-fqdn* peer index *number* route index *number* realm *diam-fqdn* |
| Tree | realm |
| String length | 1 to 80 |
| Notes | This element is mandatory. |
| Introduced | 20.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **watchdog-timer** *number*

| | |
|---|---|
| Synopsis | Time between consecutive watchdog messages |
| Context | **configure** aaa diameter node *diam-fqdn* peer index *number* watchdog-timer *number* |
| Tree | watchdog-timer |
| Range | 1 to 1000 |
| Units | seconds |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **python-policy** *reference*

| | |
|---|---|
| Synopsis | Python policy for received or sent Diameter messages |
| Context | **configure** aaa diameter node *diam-fqdn* python-policy *reference* |
| Tree | python-policy |
| Reference | **configure** python python-policy *named-item* |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **router-instance** *string*

| | |
|---|---|
| Synopsis | Router in which this node connects to its peers |
| Context | **configure** aaa diameter node *diam-fqdn* router-instance *string* |
| Tree | router-instance |
| Default | Base |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **radius**

| | |
|---|---|
| Synopsis | Enter the **radius** context |
| Context | **configure** aaa radius |
| Tree | radius |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **acct-on-off-group** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **acct-on-off-group** list instance |
| Context | **configure** aaa radius acct-on-off-group *named-item* |
| Tree | acct-on-off-group |
| Max. instances | 32 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | Group name for accounting on/off |
| Context | **configure** aaa radius acct-on-off-group *named-item* |
| Tree | acct-on-off-group |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** aaa radius acct-on-off-group *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **coa-port** *number*

| | |
|---|---|
| Synopsis | RADIUS listening port for CoA and Disconnect messages |
| Context | **configure** aaa radius coa-port *number* |
| Tree | coa-port |
| Range | 1647 \| 1700 \| 1812 \| 3799 |
| Default | 3799 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **isa-policy** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **isa-policy** list instance |
| Context | **configure** aaa radius isa-policy *named-item* |
| Tree | isa-policy |
| Max. instances | 8 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | ISA RADIUS policy name referenced by a NAT application |
| Context | **configure** aaa radius isa-policy *named-item* |
| Tree | isa-policy |


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| | |
|---|---|
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## accounting

| | |
|---|---|
| Synopsis | Enter the **accounting** context |
| Context | **configure** aaa radius isa-policy *named-item* accounting |
| Tree | accounting |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## include-attributes

| | |
|---|---|
| Synopsis | Enter the **include-attributes** context |
| Context | **configure** aaa radius isa-policy *named-item* accounting include-attributes |
| Tree | include-attributes |
| Description | Commands in this context specify the attributes to include in the RADIUS accounting messages. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## acct-delay-time *boolean*

| | |
|---|---|
| Synopsis | Include the accounting delay time attribute |
| Context | **configure** aaa radius isa-policy *named-item* accounting include-attributes acct-delay-time *boolean* |
| Tree | acct-delay-time |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## acct-triggered-reason *boolean*

| | |
|---|---|
| Synopsis | Include the accounting triggered reason attribute |


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| | |
|---|---|
| Context | **configure** aaa radius isa-policy *named-item* accounting include-attributes acct-triggered-reason *boolean* |
| Tree | acct-triggered-reason |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **called-station-id** *boolean*

| | |
|---|---|
| Synopsis | Include the Called-Station-Id attribute |
| Context | **configure** aaa radius isa-policy *named-item* accounting include-attributes called-station-id *boolean* |
| Tree | called-station-id |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **calling-station-id** *boolean*

| | |
|---|---|
| Synopsis | Include the Calling-Station-Id attribute |
| Context | **configure** aaa radius isa-policy *named-item* accounting include-attributes calling-station-id *boolean* |
| Tree | calling-station-id |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **circuit-id** *boolean*

| | |
|---|---|
| Synopsis | Include the Agent-Circuit-Id attribute |
| Context | **configure** aaa radius isa-policy *named-item* accounting include-attributes circuit-id *boolean* |
| Tree | circuit-id |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **class** *boolean*

| | |
|---|---|
| Synopsis | Include the Class attribute |
| Context | **configure** aaa radius isa-policy *named-item* accounting include-attributes class *boolean* |
| Tree | class |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **credit-control-quota** *boolean*

| | |
|---|---|
| Synopsis | Add unconsumed volume quota to Credit-Control-Quota |
| Context | **configure** aaa radius isa-policy *named-item* accounting include-attributes credit-control-quota *boolean* |
| Tree | credit-control-quota |
| Default | false |
| Introduced | 21.7.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **dhcp-options** *boolean*

| | |
|---|---|
| Synopsis | Include the Alc-ToServer-Dhcp-Options attribute |
| Context | **configure** aaa radius isa-policy *named-item* accounting include-attributes dhcp-options *boolean* |
| Tree | dhcp-options |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **dhcp-vendor-class-id** *boolean*

| | |
|---|---|
| Synopsis | Include the Alc-Dhcp-Vendor-Class-Id attribute |
| Context | **configure** aaa radius isa-policy *named-item* accounting include-attributes dhcp-vendor-class-id *boolean* |
| Tree | dhcp-vendor-class-id |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **frame-counters** *boolean*

| | |
|---|---|
| Synopsis | Include Acct-Input-Packets and Acct-Output-Packets |
| Context | **configure** aaa radius isa-policy *named-item* accounting include-attributes frame-counters *boolean* |
| Tree | frame-counters |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **framed-ip-address** *boolean*

| | |
|---|---|
| Synopsis | Include the Framed-IP-Address attribute |
| Context | **configure** aaa radius isa-policy *named-item* accounting include-attributes framed-ip-address *boolean* |
| Tree | framed-ip-address |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **framed-ip-netmask** *boolean*

| | |
|---|---|
| Synopsis | Include the Framed-IP-Netmask attribute |
| Context | **configure** aaa radius isa-policy *named-item* accounting include-attributes framed-ip-netmask *boolean* |
| Tree | framed-ip-netmask |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **framed-ipv6-prefix** *boolean*

| | |
|---|---|
| Synopsis | Include the Framed-IPv6-Prefix attribute |


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| | |
|---|---|
| Context | **configure** aaa radius isa-policy *named-item* accounting include-attributes framed-ipv6-prefix *boolean* |
| Tree | framed-ipv6-prefix |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **hardware-timestamp** *boolean*

| | |
|---|---|
| Synopsis | Include the Event-Timestamp attribute |
| Context | **configure** aaa radius isa-policy *named-item* accounting include-attributes hardware-timestamp *boolean* |
| Tree | hardware-timestamp |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ipv6-address** *boolean*

| | |
|---|---|
| Synopsis | Include the Alc-Ipv6-Address attribute |
| Context | **configure** aaa radius isa-policy *named-item* accounting include-attributes ipv6-address *boolean* |
| Tree | ipv6-address |
| Description | When configured to **true**, the IA_NA address of the UE is included in the accounting message if an active IA_NA lease exists.<br>When configured to **false**, the address is not included. |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **mac-address** *boolean*

| | |
|---|---|
| Synopsis | Include the Alc-Client-Hardware-Addr attribute |
| Context | **configure** aaa radius isa-policy *named-item* accounting include-attributes mac-address *boolean* |
| Tree | mac-address |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **millisecond-event-timestamp** *boolean*

| | |
|---|---|
| Synopsis | Include the Alc-Millisecond-Event-Timestamp attribute |
| Context | **configure** aaa radius isa-policy *named-item* accounting include-attributes millisecond-event-timestamp *boolean* |
| Tree | millisecond-event-timestamp |
| Description | When configured to **true**, the router includes the Alc-Millisecond-Event-Timestamp attribute in the accounting message. This attribute includes the time the accounting event was logged in milliseconds since Jan 1, 1970 00:00:00 UTC.<br>When configured to **false**, the router does not include this attribute. |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **multi-session-id** *boolean*

| | |
|---|---|
| Synopsis | Include the Acct-Multi-Session-Id attribute |
| Context | **configure** aaa radius isa-policy *named-item* accounting include-attributes multi-session-id *boolean* |
| Tree | multi-session-id |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **nas-identifier** *boolean*

| | |
|---|---|
| Synopsis | Include the NAS-Identifier attribute |
| Context | **configure** aaa radius isa-policy *named-item* accounting include-attributes nas-identifier *boolean* |
| Tree | nas-identifier |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **nas-ip-address** *boolean*

| | |
|---|---|
| Synopsis | Include the NAS-IP-Address attribute |
| Context | **configure** aaa radius isa-policy *named-item* accounting include-attributes nas-ip-address *boolean* |
| Tree | nas-ip-address |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **nas-ipv6-address** *boolean*

| | |
|---|---|
| Synopsis | Include the NAS-IPv6-Address attribute |
| Context | **configure** aaa radius isa-policy *named-item* accounting include-attributes nas-ipv6-address *boolean* |
| Tree | nas-ipv6-address |
| Description | When configured to **true**, the router includes the NAS-IPv6-Address attribute in RADIUS accounting messages using the address specified in the **configure aaa radius isa-policy nas-ip-address-origin** command. The NAS-IPv6-Address attribute is included in both IPv4 and IPv6 RADIUS connections.<br>When configured to **false**, the router does not include the NAS-IPv6-Address attribute in RADIUS accounting messages. |
| Default | false |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **nas-port** *boolean*

| | |
|---|---|
| Synopsis | Include the NAS-Port attribute |
| Context | **configure** aaa radius isa-policy *named-item* accounting include-attributes nas-port *boolean* |
| Tree | nas-port |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **nas-port-id** *boolean*

| | |
|---|---|
| Synopsis | Include the NAS-Port-Id attribute |
| Context | **configure** aaa radius isa-policy *named-item* accounting include-attributes nas-port-id *boolean* |
| Tree | nas-port-id |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **nas-port-type** *boolean*

| | |
|---|---|
| Synopsis | Include the NAS-Port-Type attribute |
| Context | **configure** aaa radius isa-policy *named-item* accounting include-attributes nas-port-type *boolean* |
| Tree | nas-port-type |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **nat-inside-service-id** *boolean*

| | |
|---|---|
| Synopsis | Include NAT inside service ID in Alc-Serv-Id attribute |
| Context | **configure** aaa radius isa-policy *named-item* accounting include-attributes nat-inside-service-id *boolean* |
| Tree | nat-inside-service-id |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **nat-outside-ip-address** *boolean*

| | |
|---|---|
| Synopsis | Include the Alc-Nat-Outside-Ip-Addr attribute |
| Context | **configure** aaa radius isa-policy *named-item* accounting include-attributes nat-outside-ip-address *boolean* |
| Tree | nat-outside-ip-address |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **nat-outside-service-id** *boolean*

| | |
|---|---|
| Synopsis | Include NAT outside service ID in Alc-Serv-Id attribute |
| Context | **configure** aaa radius isa-policy *named-item* accounting include-attributes nat-outside-service-id *boolean* |
| Tree | nat-outside-service-id |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **nat-port-forward-logging** *boolean*

| | |
|---|---|
| Synopsis | Enable logging of port forwards via RADIUS |
| Context | **configure** aaa radius isa-policy *named-item* accounting include-attributes nat-port-forward-logging *boolean* |
| Tree | nat-port-forward-logging |
| Description | When configured to **true**, the router enables static or PCP port-forward logging via RADIUS. Port-forward logging is supported only in conjunction with the logging of port blocks.<br>When configured to **false**, the router disables static or PCP port-forward logging. |
| Default | false |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **nat-port-range-block** *boolean*

| | |
|---|---|
| Synopsis | Include the Alc-Nat-Port-Range attribute |
| Context | **configure** aaa radius isa-policy *named-item* accounting include-attributes nat-port-range-block *boolean* |
| Tree | nat-port-range-block |
| Default | false |
| Introduced | 16.0.R4 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **nat-port-time** *boolean*

| | |
|---|---|
| Synopsis | Enable the Alc-Nat-Port-Time RADIUS attribute |
| Context | **configure** aaa radius isa-policy *named-item* accounting include-attributes nat-port-time *boolean* |
| Tree | nat-port-time |
| Description | When configured to **true**, the router records the duration of port-blocks or port-forwards allocated to a NAT subscriber using the Alc-Nat-Port-Time RADIUS attribute.<br>When configured to **false**, the router disables the Alc-Nat-Port-Time RADIUS attribute. |
| Default | false |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **nat-subscriber-string** *boolean*

| | |
|---|---|
| Synopsis | Include the Alc-Subsc-ID-Str attribute |
| Context | **configure** aaa radius isa-policy *named-item* accounting include-attributes nat-subscriber-string *boolean* |
| Tree | nat-subscriber-string |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **octet-counters** *boolean*

| | |
|---|---|
| Synopsis | Include Acct-Input-Octets and Acct-Output-Octets |
| Context | **configure** aaa radius isa-policy *named-item* accounting include-attributes octet-counters *boolean* |
| Tree | octet-counters |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **proxied-subscriber-data** *boolean*

| | |
|---|---|
| Synopsis | Include subscriber data as RADIUS attributes |
| Context | **configure** aaa radius isa-policy *named-item* accounting include-attributes proxied-subscriber-data *boolean* |
| Tree | proxied-subscriber-data |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **release-reason** *boolean*

| | |
|---|---|
| Synopsis | Include reason in the Acct-Terminate-Cause attribute |
| Context | **configure** aaa radius isa-policy *named-item* accounting include-attributes release-reason *boolean* |
| Tree | release-reason |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **remote-id** *boolean*

| | |
|---|---|
| Synopsis | Include the Agent-Remote-Id attribute |
| Context | **configure** aaa radius isa-policy *named-item* accounting include-attributes remote-id *boolean* |
| Tree | remote-id |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **rssi** *boolean*

| | |
|---|---|
| Synopsis | Include the Alc-RSSI attribute |
| Context | **configure** aaa radius isa-policy *named-item* accounting include-attributes rssi *boolean* |
| Tree | rssi |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **session-time** *boolean*

| | |
|---|---|
| Synopsis | Include the Acct-Session-Time attribute |
| Context | **configure** aaa radius isa-policy *named-item* accounting include-attributes session-time *boolean* |
| Tree | session-time |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **subscriber-id** *boolean*

| | |
|---|---|
| Synopsis | Include the Alc-Subsc-ID-Str attribute |
| Context | **configure** aaa radius isa-policy *named-item* accounting include-attributes subscriber-id *boolean* |
| Tree | subscriber-id |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **toserver-dhcp6-options** *boolean*

| | |
|---|---|
| Synopsis | Include the Alc-ToServer-Dhcp6-Options attribute |
| Context | **configure** aaa radius isa-policy *named-item* accounting include-attributes toserver-dhcp6-options *boolean* |
| Tree | toserver-dhcp6-options |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ue-creation-type** *boolean*

| | |
|---|---|
| Synopsis | Include the Alc-Wlan-Ue-Creation-Type attribute |


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| | |
|---|---|
| Context | **configure** aaa radius isa-policy *named-item* accounting include-attributes ue-creation-type *boolean* |
| Tree | ue-creation-type |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **user-name** *boolean*

| | |
|---|---|
| Synopsis | Include the User-Name attribute |
| Context | **configure** aaa radius isa-policy *named-item* accounting include-attributes user-name *boolean* |
| Tree | user-name |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **wlan-custom-user-group** *boolean*

| | |
|---|---|
| Synopsis | Include Wlan-Custom-User-Group attribute |
| Context | **configure** aaa radius isa-policy *named-item* accounting include-attributes wlan-custom-user-group *boolean* |
| Tree | wlan-custom-user-group |
| Description | When configured to **true**, this command includes the Alc-Wlan-Custom-User-Group attribute in the RADIUS accounting messages. |
| Default | false |
| Introduced | 24.3.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **wlan-ssid-vlan** *boolean*

| | |
|---|---|
| Synopsis | Include per-SSID VLAN in Alc-Wlan-SSID-VLAN attribute |
| Context | **configure** aaa radius isa-policy *named-item* accounting include-attributes wlan-ssid-vlan *boolean* |
| Tree | wlan-ssid-vlan |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **xconnect-tunnel-home-address** *boolean*

| | |
|---|---|
| Synopsis | Include the Alc-Xconnect-Tunnel-Home-Ipv6 attribute |
| Context | **configure** aaa radius isa-policy *named-item* accounting include-attributes xconnect-tunnel-home-address *boolean* |
| Tree | xconnect-tunnel-home-address |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **xconnect-tunnel-local-ipv6-address** *boolean*

| | |
|---|---|
| Synopsis | Include the Alc-Xconnect-Tunnel-Local-Ipv6 attribute |
| Context | **configure** aaa radius isa-policy *named-item* accounting include-attributes xconnect-tunnel-local-ipv6-address *boolean* |
| Tree | xconnect-tunnel-local-ipv6-address |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **xconnect-tunnel-remote-ipv6-address** *boolean*

| | |
|---|---|
| Synopsis | Include the Alc-Xconnect-Tunnel-Remote-Ipv6 attribute |
| Context | **configure** aaa radius isa-policy *named-item* accounting include-attributes xconnect-tunnel-remote-ipv6-address *boolean* |
| Tree | xconnect-tunnel-remote-ipv6-address |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **xconnect-tunnel-service** *boolean*

| | |
|---|---|
| Synopsis | Include the Alc-Xconnect-Tunnel-Service attribute |


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| | |
|---|---|
| Context | **configure** aaa radius isa-policy *named-item* accounting include-attributes xconnect-tunnel-service *boolean* |
| Tree | xconnect-tunnel-service |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **xconnect-tunnel-type** *boolean*

| | |
|---|---|
| Synopsis | Include the Alc-Xconnect-Tunnel-Type attribute |
| Context | **configure** aaa radius isa-policy *named-item* accounting include-attributes xconnect-tunnel-type *boolean* |
| Tree | xconnect-tunnel-type |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **nat-periodic-update**

| | |
|---|---|
| Synopsis | Enter the **nat-periodic-update** context |
| Context | **configure** aaa radius isa-policy *named-item* accounting nat-periodic-update |
| Tree | nat-periodic-update |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **interval** *number*

| | |
|---|---|
| Synopsis | Interval for periodic RADIUS Interim-Update messages |
| Context | **configure** aaa radius isa-policy *named-item* accounting nat-periodic-update interval *number* |
| Tree | interval |
| Range | 1 to 72 |
| Units | hours |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **rate-limit** *(number | keyword)*

| | |
|---|---|
| Synopsis | Rate limit for periodic RADIUS Interim-Update messages |
| Context | **configure** aaa radius isa-policy *named-item* accounting nat-periodic-update rate-limit *(number \| keyword)* |
| Tree | rate-limit |
| Range | 1 to 100000 |
| Units | packets per second |
| Options | unlimited |
| Default | unlimited |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **update-triggers**

| | |
|---|---|
| Synopsis | Enter the **update-triggers** context |
| Context | **configure** aaa radius isa-policy *named-item* accounting update-triggers |
| Tree | update-triggers |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **address-state** *boolean*

| | |
|---|---|
| Synopsis | Send an Interim-Update when address allocated or freed |
| Context | **configure** aaa radius isa-policy *named-item* accounting update-triggers address-state *boolean* |
| Tree | address-state |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **soft-quota-exhausted** *boolean*

| | |
|---|---|
| Synopsis | Send interim update when soft volume quota is reached |
| Context | **configure** aaa radius isa-policy *named-item* accounting update-triggers soft-quota-exhausted *boolean* |


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| | |
|---|---|
| Tree | soft-quota-exhausted |
| Default | false |
| Introduced | 21.7.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## authentication

| | |
|---|---|
| Synopsis | Enter the **authentication** context |
| Context | **configure** aaa radius isa-policy *named-item* authentication |
| Tree | authentication |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## include-attributes

| | |
|---|---|
| Synopsis | Enter the **include-attributes** context |
| Context | **configure** aaa radius isa-policy *named-item* authentication include-attributes |
| Tree | include-attributes |
| Description | Commands in this context specify the attributes to include in the RADIUS authentication messages. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## called-station-id *boolean*

| | |
|---|---|
| Synopsis | Include the Called-Station-Id attribute |
| Context | **configure** aaa radius isa-policy *named-item* authentication include-attributes called-station-id *boolean* |
| Tree | called-station-id |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## calling-station-id *boolean*

| | |
|---|---|
| Synopsis | Include the Calling-Station-Id attribute |


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| | |
|---|---|
| Context | **configure** aaa radius isa-policy *named-item* authentication include-attributes calling-station-id *boolean* |
| Tree | calling-station-id |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **circuit-id** *boolean*

| | |
|---|---|
| Synopsis | Include the Agent-Circuit-Id attribute |
| Context | **configure** aaa radius isa-policy *named-item* authentication include-attributes circuit-id *boolean* |
| Tree | circuit-id |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **dhcp-vendor-class-id** *boolean*

| | |
|---|---|
| Synopsis | Include the Alc-DHCP-Vendor-Class-Id attribute |
| Context | **configure** aaa radius isa-policy *named-item* authentication include-attributes dhcp-vendor-class-id *boolean* |
| Tree | dhcp-vendor-class-id |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **framed-ip-address** *boolean*

| | |
|---|---|
| Synopsis | Include the Framed-IP-Address attribute |
| Context | **configure** aaa radius isa-policy *named-item* authentication include-attributes framed-ip-address *boolean* |
| Tree | framed-ip-address |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **ipv6-address** *boolean*

| | |
|---|---|
| Synopsis | Include the Alc-IPv6-address attribute |
| Context | **configure** aaa radius isa-policy *named-item* authentication include-attributes ipv6-address *boolean* |
| Tree | ipv6-address |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **mac-address** *boolean*

| | |
|---|---|
| Synopsis | Include the Alc-Client-Hardware-Addr attribute |
| Context | **configure** aaa radius isa-policy *named-item* authentication include-attributes mac-address *boolean* |
| Tree | mac-address |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **nas-identifier** *boolean*

| | |
|---|---|
| Synopsis | Include the NAS-Identifier attribute |
| Context | **configure** aaa radius isa-policy *named-item* authentication include-attributes nas-identifier *boolean* |
| Tree | nas-identifier |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **nas-ip-address** *boolean*

| | |
|---|---|
| Synopsis | Include the NAS-IP-Address attribute |
| Context | **configure** aaa radius isa-policy *named-item* authentication include-attributes nas-ip-address *boolean* |
| Tree | nas-ip-address |


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| | |
|---|---|
| Default | true |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **nas-ipv6-address** *boolean*

| | |
|---|---|
| Synopsis | Include the NAS-IPv6-Address attribute |
| Context | **configure** aaa radius isa-policy *named-item* authentication include-attributes nas-ipv6-address *boolean* |
| Tree | nas-ipv6-address |
| Description | When configured to **true**, the router includes the NAS-IPv6-Address attribute in RADIUS authentication messages using the address specified in the **configure aaa radius isa-policy nas-ip-address-origin** command. The NAS-IPv6-Address attribute is included in both IPv4 and IPv6 RADIUS connections.<br>When configured to **false**, the router does not include the NAS-IPv6-Address attribute in RADIUS authentication messages. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **nas-port** *boolean*

| | |
|---|---|
| Synopsis | Include the NAS-Port attribute |
| Context | **configure** aaa radius isa-policy *named-item* authentication include-attributes nas-port *boolean* |
| Tree | nas-port |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **nas-port-id** *boolean*

| | |
|---|---|
| Synopsis | Include the NAS-Port-Id attribute |
| Context | **configure** aaa radius isa-policy *named-item* authentication include-attributes nas-port-id *boolean* |
| Tree | nas-port-id |
| Default | false |
| Introduced | 16.0.R4 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **nas-port-type** *boolean*

| | |
|---|---|
| Synopsis | Include the NAS-Port-Type attribute |
| Context | **configure** aaa radius isa-policy *named-item* authentication include-attributes nas-port-type *boolean* |
| Tree | nas-port-type |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **remote-id** *boolean*

| | |
|---|---|
| Synopsis | Include the Agent-Remote-Id attribute |
| Context | **configure** aaa radius isa-policy *named-item* authentication include-attributes remote-id *boolean* |
| Tree | remote-id |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **toserver-dhcp-options** *boolean*

| | |
|---|---|
| Synopsis | Include the Alc-ToServer-Dhcp-Options attribute |
| Context | **configure** aaa radius isa-policy *named-item* authentication include-attributes toserver-dhcp-options *boolean* |
| Tree | toserver-dhcp-options |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **toserver-dhcp6-options** *boolean*

| | |
|---|---|
| Synopsis | Include the Alc-ToServer-Dhcp6-Options attribute |
| Context | **configure** aaa radius isa-policy *named-item* authentication include-attributes toserver-dhcp6-options *boolean* |


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| | |
|---|---|
| Tree | toserver-dhcp6-options |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **wlan-ssid-vlan** *boolean*

| | |
|---|---|
| Synopsis | Include per-SSID VLAN in Alc-Wlan-SSID-VLAN attribute |
| Context | **configure** aaa radius isa-policy *named-item* authentication include-attributes wlan-ssid-vlan *boolean* |
| Tree | wlan-ssid-vlan |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **xconnect-tunnel-home-address** *boolean*

| | |
|---|---|
| Synopsis | Include the Alc-Xconnect-Tunnel-Home-Ipv6 attribute |
| Context | **configure** aaa radius isa-policy *named-item* authentication include-attributes xconnect-tunnel-home-address *boolean* |
| Tree | xconnect-tunnel-home-address |
| Default | false |
| Introduced | 16.0.R5 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** aaa radius isa-policy *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **nas-ip-address-origin** *keyword*

| | |
|---|---|
| Synopsis | NAS-IP-Address attribute |
| Context | **configure** aaa radius isa-policy *named-item* nas-ip-address-origin *keyword* |
| Tree | nas-ip-address-origin |
| Options | system-ip, isa-ip |
| Default | system-ip |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **password** *encrypted-leaf*

| | |
|---|---|
| Synopsis | Password used in the RADIUS access requests |
| Context | **configure** aaa radius isa-policy *named-item* password *encrypted-leaf* |
| Tree | password |
| String length | 1 to 42 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **python-policy** *reference*

| | |
|---|---|
| Synopsis | Python policy used for modifying RADIUS messages |
| Context | **configure** aaa radius isa-policy *named-item* python-policy *reference* |
| Tree | python-policy |
| Reference | **configure** python python-policy *named-item* |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **servers**

| | |
|---|---|
| Synopsis | Enter the **servers** context |
| Context | **configure** aaa radius isa-policy *named-item* servers |
| Tree | servers |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **access-algorithm** *keyword*

| | |
|---|---|
| Synopsis | Algorithm that accesses the RADIUS servers |
| Context | **configure** aaa radius isa-policy *named-item* servers access-algorithm *keyword* |
| Tree | access-algorithm |
| Options | direct, round-robin, hash-based, direct-priority |
| Default | direct |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ipv6**

| | |
|---|---|
| Synopsis | Enter the **ipv6** context |
| Context | **configure** aaa radius isa-policy *named-item* servers ipv6 |
| Tree | ipv6 |
| Description | Commands in this context configure how to communicate with IPv6 RADIUS servers. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **mtu** *number*

| | |
|---|---|
| Synopsis | MTU used to fragment outgoing IPv6 RADIUS packets |
| Context | **configure** aaa radius isa-policy *named-item* servers ipv6 mtu *number* |
| Tree | mtu |
| Range | 1280 to 9000 |
| Default | 9000 |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **source-prefix** *ipv6-prefix*

| | |
|---|---|
| Synopsis | Prefix containing individual source addresses per ISA |
| Context | **configure** aaa radius isa-policy *named-item* servers ipv6 source-prefix *ipv6-prefix* |
| Tree | source-prefix |


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| | |
|---|---|
| Description | This command configures an IPv6 prefix containing individual /128 addresses. These addresses are used as the source address for connections to IPv6 RADIUS servers.<br>The prefix must be large enough to accommodate all BB-ISAs or ESA VMs in the system. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **router-instance** *string*

| | |
|---|---|
| Synopsis | Routing instance |
| Context | **configure** aaa radius isa-policy *named-item* servers router-instance *string* |
| Tree | router-instance |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **server** [index] *number*

| | |
|---|---|
| Synopsis | Enter the **server** list instance |
| Context | **configure** aaa radius isa-policy *named-item* servers server *number* |
| Tree | server |
| Max. instances | 10 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**index**] *number*

| | |
|---|---|
| Synopsis | RADIUS server ID |
| Context | **configure** aaa radius isa-policy *named-item* servers server *number* |
| Tree | server |
| Range | 1 to 10 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the ISA RADIUS server |
| Context | **configure** aaa radius isa-policy *named-item* servers server *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ip-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IP address of the RADIUS server |
| Context | **configure** aaa radius isa-policy *named-item* servers server *number* ip-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | ip-address |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **purpose**

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **purpose** context |
| Context | **configure** aaa radius isa-policy *named-item* servers server *number* purpose |
| Tree | purpose |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## accounting

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable the **accounting** context |
| Context | **configure** aaa radius isa-policy *named-item* servers server *number* purpose accounting |
| Tree | accounting |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## udp-port *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | ISA RADIUS server accounting UDP port |
| Context | **configure** aaa radius isa-policy *named-item* servers server *number* purpose accounting udp-port *number* |
| Tree | udp-port |
| Range | 1 to 65535 |
| Default | 1813 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## authentication

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable the **authentication** context |
| Context | **configure** aaa radius isa-policy *named-item* servers server *number* purpose authentication |
| Tree | authentication |
| Introduced | 16.0.R4 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **udp-port** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | ISA RADIUS server authentication UDP port |
| Context | **configure** aaa radius isa-policy *named-item* servers server *number* purpose authentication udp-port *number* |
| Tree | udp-port |
| Range | 1 to 65535 |
| Default | 1812 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **coa**

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable the **coa** context |
| Context | **configure** aaa radius isa-policy *named-item* servers server *number* purpose coa |
| Tree | coa |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **udp-port** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | ISA RADIUS server change of authorization UDP port |
| Context | **configure** aaa radius isa-policy *named-item* servers server *number* purpose coa udp-port *number* |


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| | |
|---|---|
| Tree | udp-port |
| Range | 1 to 65535 |
| Default | 3799 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **secret** *encrypted-leaf*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Secret key to access the RADIUS server |
| Context | **configure** aaa radius isa-policy *named-item* servers server *number* secret *encrypted-leaf* |
| Tree | secret |
| String length | 1 to 115 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **source-address-range** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Starting IP address of the IP address range |
| Context | **configure** aaa radius isa-policy *named-item* servers source-address-range *ipv4-unicast-address* |
| Tree | source-address-range |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **timeout** *number*

| | |
|---|---|
| Synopsis | Timeout for a response from the RADIUS server |
| Context | **configure** aaa radius isa-policy *named-item* servers timeout *number* |
| Tree | timeout |
| Range | 1 to 90 |
| Units | seconds |


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| | |
|---|---|
| Default | 5 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **total-tries** *number*

| | |
|---|---|
| Synopsis | Maximum number of tries toward the same RADIUS server |
| Context | **configure** aaa radius isa-policy *named-item* servers total-tries *number* |
| Tree | total-tries |
| Range | 1 to 10 |
| Default | 3 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **user-name**

| | |
|---|---|
| Synopsis | Enter the **user-name** context |
| Context | **configure** aaa radius isa-policy *named-item* user-name |
| Tree | user-name |
| Description | Commands in this context define the format of the username field in the UE authentication request sent to the RADIUS server. For authentication of IPv6 triggers (ICMPv6, DHCPv6, IPv6 data-trigger) the username format will always fall back to MAC only. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **format** *keyword*

| | |
|---|---|
| Synopsis | Username format in RADIUS message |
| Context | **configure** aaa radius isa-policy *named-item* user-name format *keyword* |
| Tree | format |
| Options | mac, mac-ip, dhcp-vendor, circuit-id |
| Default | mac |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **mac-format** *keyword*

| | |
|---|---|
| Synopsis | MAC address format when contacting RADIUS server |
| Context | **configure** aaa radius isa-policy *named-item* user-name mac-format *keyword* |
| Tree | mac-format |
| Options | alu, ieee |
| Default | alu |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **l2tp-accounting-policy** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **l2tp-accounting-policy** list instance |
| Context | **configure** aaa radius l2tp-accounting-policy *named-item* |
| Tree | l2tp-accounting-policy |
| Max. instances | 32 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | L2TP RADIUS accounting policy name |
| Context | **configure** aaa radius l2tp-accounting-policy *named-item* |
| Tree | l2tp-accounting-policy |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **accounting-type**

| | |
|---|---|
| Synopsis | Enter the **accounting-type** context |
| Context | **configure** aaa radius l2tp-accounting-policy *named-item* accounting-type |
| Tree | accounting-type |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **session** *boolean*

| | |
|---|---|
| Synopsis | Enable per-session accounting |
| Context | **configure** aaa radius l2tp-accounting-policy *named-item* accounting-type session *boolean* |
| Tree | session |
| Default | true |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **tunnel** *boolean*

| | |
|---|---|
| Synopsis | Enable per-tunnel accounting |
| Context | **configure** aaa radius l2tp-accounting-policy *named-item* accounting-type tunnel *boolean* |
| Tree | tunnel |
| Default | true |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **acct-tunnel-connection-fmt** *display-string*

| | |
|---|---|
| Synopsis | Accounting tunnel connection ASCII specification |
| Context | **configure** aaa radius l2tp-accounting-policy *named-item* acct-tunnel-connection-fmt *display-string* |
| Tree | acct-tunnel-connection-fmt |
| String length | 1 to 253 |
| Default | %n |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** aaa radius l2tp-accounting-policy *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **include-radius-attribute**

| | |
|---|---|
| Synopsis | Enter the **include-radius-attribute** context |
| Context | **configure** aaa radius l2tp-accounting-policy *named-item* include-radius-attribute |
| Tree | include-radius-attribute |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **calling-station-id** *boolean*

| | |
|---|---|
| Synopsis | Include the Calling-Station-Id attribute |
| Context | **configure** aaa radius l2tp-accounting-policy *named-item* include-radius-attribute calling-station-id *boolean* |
| Tree | calling-station-id |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **nas-identifier** *boolean*

| | |
|---|---|
| Synopsis | Include the NAS-Identifier attribute |
| Context | **configure** aaa radius l2tp-accounting-policy *named-item* include-radius-attribute nas-identifier *boolean* |
| Tree | nas-identifier |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## nas-port

| | |
|---|---|
| Synopsis | Enable the **nas-port** context |
| Context | **configure** aaa radius l2tp-accounting-policy *named-item* include-radius-attribute nas-port |
| Tree | nas-port |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## bit-spec *binary-specification*

| | |
|---|---|
| Synopsis | RADIUS NAS-Port attribute |
| Context | **configure** aaa radius l2tp-accounting-policy *named-item* include-radius-attribute nas-port bit-spec *binary-specification* |
| Tree | bit-spec |
| String length | 1 to 255 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## nas-port-id

| | |
|---|---|
| Synopsis | Enable the **nas-port-id** context |
| Context | **configure** aaa radius l2tp-accounting-policy *named-item* include-radius-attribute nas-port-id |
| Tree | nas-port-id |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## prefix-string *string-not-all-spaces*

| | |
|---|---|
| Synopsis | Prefix string added to RADIUS NAS-Port attribute |
| Context | **configure** aaa radius l2tp-accounting-policy *named-item* include-radius-attribute nas-port-id prefix-string *string-not-all-spaces* |
| Tree | prefix-string |
| String length | 1 to 8 |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **suffix** *keyword*

| | |
|---|---|
| Synopsis | NAS-Port-Id suffix type |
| Context | **configure** aaa radius l2tp-accounting-policy *named-item* include-radius-attribute nas-port-id suffix *keyword* |
| Tree | suffix |
| Options | circuit-id, remote-id |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **nas-port-type**

| | |
|---|---|
| Synopsis | Enable the **nas-port-type** context |
| Context | **configure** aaa radius l2tp-accounting-policy *named-item* include-radius-attribute nas-port-type |
| Tree | nas-port-type |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **type** *(keyword | number)*

| | |
|---|---|
| Synopsis | Value for RADIUS NAS-Port-Type attribute |
| Context | **configure** aaa radius l2tp-accounting-policy *named-item* include-radius-attribute nas-port-type type *(keyword \| number)* |
| Tree | type |
| Range | 0 to 255 |
| Options | rfc-aligned |
| Default | rfc-aligned |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **radius-server-policy** *reference*

| | |
|---|---|
| Synopsis | RADIUS server policy referenced |
| Context | **configure** aaa radius l2tp-accounting-policy *named-item* radius-server-policy *reference* |
| Tree | radius-server-policy |
| Reference | **configure** aaa radius server-policy *named-item* |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **route-downloader** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **route-downloader** list instance |
| Context | **configure** aaa radius route-downloader *named-item* |
| Tree | route-downloader |
| Max. instances | 1 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | RADIUS route downloader name |
| Context | **configure** aaa radius route-downloader *named-item* |
| Tree | route-downloader |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of this route downloader |
| Context | **configure** aaa radius route-downloader *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |


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| | |
|---|---|
| Default | disable |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **base-user-name** *named-item*

| | |
|---|---|
| Synopsis | Prefix of the username used as access requests |
| Context | **configure** aaa radius route-downloader *named-item* base-user-name *named-item* |
| Tree | base-user-name |
| Description | This command sets the prefix for the username that is used for access requests. The actual name used is a concatenation of this string, the "-" (dash) character and a monotonically increasing integer. |
| String length | 1 to 32 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **default-metric** *number*

| | |
|---|---|
| Synopsis | Default metric that RTM imported routes acquire |
| Context | **configure** aaa radius route-downloader *named-item* default-metric *number* |
| Tree | default-metric |
| Range | 0 to 254 |
| Default | 2 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **default-tag** *number*

| | |
|---|---|
| Synopsis | Default tag of this route downloader |
| Context | **configure** aaa radius route-downloader *named-item* default-tag *number* |
| Tree | default-tag |
| Range | 0 to 4294967295 |
| Default | 0 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** aaa radius route-downloader *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **download-interval** *number*

| | |
|---|---|
| Synopsis | Wait time between consecutive runs of the process |
| Context | **configure** aaa radius route-downloader *named-item* download-interval *number* |
| Tree | download-interval |
| Range | 1 to 1440 |
| Units | minutes |
| Default | 720 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **max-routes** *number*

| | |
|---|---|
| Synopsis | Maximum routes imported by this route downloader |
| Context | **configure** aaa radius route-downloader *named-item* max-routes *number* |
| Tree | max-routes |
| Range | 1 to 200000 |
| Default | 200000 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **password** *encrypted-leaf*

| | |
|---|---|
| Synopsis | Route downloader password for RADIUS access requests |
| Context | **configure** aaa radius route-downloader *named-item* password *encrypted-leaf* |
| Tree | password |


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| | |
|---|---|
| String length | 1 to 71 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **radius-server-policy** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | RADIUS server policy referenced |
| Context | **configure** aaa radius route-downloader *named-item* radius-server-policy *reference* |
| Tree | radius-server-policy |
| Reference | **configure** aaa radius server-policy *named-item* |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **retry-interval**

| | |
|---|---|
| Synopsis | Enter the **retry-interval** context |
| Context | **configure** aaa radius route-downloader *named-item* retry-interval |
| Tree | retry-interval |
| Description | Commands in this context configure parameters of the retry interval timer, which is an exponential backoff timer. The system retries sending an Access Request message after the previous message was unanswered (for example, a RADIUS failure or ICMP port unreachable error). |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **max** *number*

| | |
|---|---|
| Synopsis | Maximum duration of the retry interval |
| Context | **configure** aaa radius route-downloader *named-item* retry-interval max *number* |
| Tree | max |
| Range | 1 to 1440 |
| Units | minutes |
| Default | 20 |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **min** *number*

| | |
|---|---|
| Synopsis | Minimum duration of the retry interval |
| Context | **configure** aaa radius route-downloader *named-item* retry-interval min *number* |
| Tree | min |
| Description | This command specifies the minimum duration of the retry interval. This duration grows exponentially after each sequential failure. |
| Range | 1 to 1440 |
| Units | minutes |
| Default | 10 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **server-policy** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **server-policy** list instance |
| Context | **configure** aaa radius server-policy *named-item* |
| Tree | server-policy |
| Max. instances | 32 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | RADIUS server policy name |
| Context | **configure** aaa radius server-policy *named-item* |
| Tree | server-policy |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## acct-on-off

| | |
|---|---|
| Synopsis | Enable the **acct-on-off** context |
| Context | **configure** aaa radius server-policy *named-item* acct-on-off |
| Tree | acct-on-off |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## monitor *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Accounting on/off group name |
| Context | **configure** aaa radius server-policy *named-item* acct-on-off monitor *reference* |
| Tree | monitor |
| Reference | **configure** aaa radius acct-on-off-group *named-item* |
| Notes | The following elements are part of a choice: **monitor** or **oper-state-change**. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## oper-state-change

| | |
|---|---|
| Synopsis | Enable the **oper-state-change** context |
| Context | **configure** aaa radius server-policy *named-item* acct-on-off oper-state-change |
| Tree | oper-state-change |
| Notes | The following elements are part of a choice: **monitor** or **oper-state-change**. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## **group** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Operational state for a group |
| Context | **configure** aaa radius server-policy *named-item* acct-on-off oper-state-change group *reference* |
| Tree | group |
| Reference | **configure** aaa radius acct-on-off-group *named-item* |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** aaa radius server-policy *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **python-policy** *reference*

| | |
|---|---|
| Synopsis | Python policy for RADIUS packets to/from RADIUS servers |
| Context | **configure** aaa radius server-policy *named-item* python-policy *reference* |
| Tree | python-policy |
| Reference | **configure** python python-policy *named-item* |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **servers**

| | |
|---|---|
| Synopsis | Enter the **servers** context |
| Context | **configure** aaa radius server-policy *named-item* servers |


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| | |
|---|---|
| Tree | servers |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **access-algorithm** *keyword*

| | |
|---|---|
| Synopsis | Algorithm to select a RADIUS server from the pool |
| Context | **configure** aaa radius server-policy *named-item* servers access-algorithm *keyword* |
| Tree | access-algorithm |
| Options | direct, round-robin, hash-based |
| Default | direct |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **buffering**

| | |
|---|---|
| Synopsis | Enter the **buffering** context |
| Context | **configure** aaa radius server-policy *named-item* servers buffering |
| Tree | buffering |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **acct-interim**

| | |
|---|---|
| Synopsis | Enable the **acct-interim** context |
| Context | **configure** aaa radius server-policy *named-item* servers buffering acct-interim |
| Tree | acct-interim |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **lifetime** *number*

| | |
|---|---|
| Synopsis | Time accounting message can be in retransmission buffer |
| Context | **configure** aaa radius server-policy *named-item* servers buffering acct-interim lifetime *number* |
| Tree | lifetime |


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| | |
|---|---|
| Range | 1 to 25 |
| Units | hours |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **max** *number*

| | |
|---|---|
| Synopsis | Maximum time between accounting message resend attempts |
| Context | **configure** aaa radius server-policy *named-item* servers buffering acct-interim max *number* |
| Tree | max |
| Range | 1 to 3600 |
| Units | seconds |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **min** *number*

| | |
|---|---|
| Synopsis | Minimum time between accounting message resend attempts |
| Context | **configure** aaa radius server-policy *named-item* servers buffering acct-interim min *number* |
| Tree | min |
| Range | 1 to 3600 |
| Units | seconds |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **acct-start**

| | |
|---|---|
| Synopsis | Enable the **acct-start** context |
| Context | **configure** aaa radius server-policy *named-item* servers buffering acct-start |
| Tree | acct-start |


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| | |
|---|---|
| Introduced | 20.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **lifetime** *number*

| | |
|---|---|
| Synopsis | Time accounting message can be in retransmission buffer |
| Context | **configure** aaa radius server-policy *named-item* servers buffering acct-start lifetime *number* |
| Tree | lifetime |
| Range | 1 to 25 |
| Units | hours |
| Notes | This element is mandatory. |
| Introduced | 20.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **max** *number*

| | |
|---|---|
| Synopsis | Maximum time between accounting message resend attempts |
| Context | **configure** aaa radius server-policy *named-item* servers buffering acct-start max *number* |
| Tree | max |
| Range | 1 to 3600 |
| Units | seconds |
| Notes | This element is mandatory. |
| Introduced | 20.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **min** *number*

| | |
|---|---|
| Synopsis | Minimum time between accounting message resend attempts |
| Context | **configure** aaa radius server-policy *named-item* servers buffering acct-start min *number* |
| Tree | min |
| Range | 1 to 3600 |
| Units | seconds |
| Notes | This element is mandatory. |
| Introduced | 20.7.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## acct-stop

| | |
|---|---|
| Synopsis | Enable the **acct-stop** context |
| Context | **configure** aaa radius server-policy *named-item* servers buffering acct-stop |
| Tree | acct-stop |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## lifetime *number*

| | |
|---|---|
| Synopsis | Time accounting message can be in retransmission buffer |
| Context | **configure** aaa radius server-policy *named-item* servers buffering acct-stop lifetime *number* |
| Tree | lifetime |
| Range | 1 to 25 |
| Units | hours |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## max *number*

| | |
|---|---|
| Synopsis | Maximum time between accounting message resend attempts |
| Context | **configure** aaa radius server-policy *named-item* servers buffering acct-stop max *number* |
| Tree | max |
| Range | 1 to 3600 |
| Units | seconds |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **min** *number*

| | |
|---|---|
| Synopsis | Minimum time between accounting message resend attempts |
| Context | **configure** aaa radius server-policy *named-item* servers buffering acct-stop min *number* |
| Tree | min |
| Range | 1 to 3600 |
| Units | seconds |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **health-check**

| | |
|---|---|
| Synopsis | Enter the **health-check** context |
| Context | **configure** aaa radius server-policy *named-item* servers health-check |
| Tree | health-check |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **down-timeout** *number*

| | |
|---|---|
| Synopsis | Wait time before declaring RADIUS server out-of-service |
| Context | **configure** aaa radius server-policy *named-item* servers health-check down-timeout *number* |
| Tree | down-timeout |
| Range | 1 to 340 |
| Units | seconds |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **test-account**

| | |
|---|---|
| Synopsis | Enter the **test-account** context |
| Context | **configure** aaa radius server-policy *named-item* servers health-check test-account |
| Tree | test-account |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the health check |
| Context | **configure** aaa radius server-policy *named-item* servers health-check test-account admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **interval** *number*

| | |
|---|---|
| Synopsis | Time for test account to check health of RADIUS servers |
| Context | **configure** aaa radius server-policy *named-item* servers health-check test-account interval *number* |
| Tree | interval |
| Range | 1 to 60 |
| Units | seconds |
| Default | 3 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **password** *encrypted-leaf*

| | |
|---|---|
| Synopsis | Test account password for RADIUS server health check |
| Context | **configure** aaa radius server-policy *named-item* servers health-check test-account password *encrypted-leaf* |
| Tree | password |
| String length | 1 to 115 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **user-name** *display-string*

| | |
|---|---|
| Synopsis | Username to send access requests to probe RADIUS server |
| Context | **configure** aaa radius server-policy *named-item* servers health-check test-account user-name *display-string* |
| Tree | user-name |
| String length | 1 to 64 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **hold-down-time** *number*

| | |
|---|---|
| Synopsis | Hold time before reusing a RADIUS server that was down |
| Context | **configure** aaa radius server-policy *named-item* servers hold-down-time *number* |
| Tree | hold-down-time |
| Range | 30 to 86400 |
| Units | seconds |
| Default | 30 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ipv6-source-address** *ipv6-address*

| | |
|---|---|
| Synopsis | Source address for IPv6 RADIUS datagrams |
| Context | **configure** aaa radius server-policy *named-item* servers ipv6-source-address *ipv6-address* |
| Tree | ipv6-source-address |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **retry-count** *number*

| | |
|---|---|
| Synopsis | Number of retries for contacting the RADIUS server |
| Context | **configure** aaa radius server-policy *named-item* servers retry-count *number* |
| Tree | retry-count |
| Range | 1 to 256 |


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| | |
|---|---|
| Default | 3 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **router-instance** *string*

| | |
|---|---|
| Synopsis | RADIUS routing instance |
| Context | **configure** aaa radius server-policy *named-item* servers router-instance *string* |
| Tree | router-instance |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **server** [server-index] *number*

| | |
|---|---|
| Synopsis | Enter the **server** list instance |
| Context | **configure** aaa radius server-policy *named-item* servers server *number* |
| Tree | server |
| Max. instances | 32 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**server-index**] *number*

| | |
|---|---|
| Synopsis | RADIUS server index |
| Context | **configure** aaa radius server-policy *named-item* servers server *number* |
| Tree | server |
| Range | 1 to 16 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **server-name** *named-item*

| | |
|---|---|
| Synopsis | RADIUS server name |


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| | |
|---|---|
| Context | **configure** aaa radius server-policy *named-item* servers server *number* server-name *named-item* |
| Tree | server-name |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **source-address** *ipv4-address*

| | |
|---|---|
| Synopsis | Source address of RADIUS messages |
| Context | **configure** aaa radius server-policy *named-item* servers source-address *ipv4-address* |
| Tree | source-address |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **stickiness** *boolean*

| | |
|---|---|
| Synopsis | Allow stickiness in a multi-server application |
| Context | **configure** aaa radius server-policy *named-item* servers stickiness *boolean* |
| Tree | stickiness |
| Default | true |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **timeout** *number*

| | |
|---|---|
| Synopsis | Time until the next retry to the RADIUS server |
| Context | **configure** aaa radius server-policy *named-item* servers timeout *number* |
| Tree | timeout |
| Range | 1 to 340 |
| Units | seconds |
| Default | 5 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### wpp

| | |
|---|---|
| Synopsis | Enter the **wpp** context |
| Context | **configure** aaa wpp |
| Tree | wpp |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **portal-group** [group-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **portal-group** list instance |
| Context | **configure** aaa wpp portal-group *named-item* |
| Tree | portal-group |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**group-name**] *named-item*

| | |
|---|---|
| Synopsis | Portal group name |
| Context | **configure** aaa wpp portal-group *named-item* |
| Tree | portal-group |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the portal group |
| Context | **configure** aaa wpp portal-group *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** aaa wpp portal-group *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **portal** [router-instance] *string* name *named-item*

| | |
|---|---|
| Synopsis | Add a list entry for **portal** |
| Context | **configure** aaa wpp portal-group *named-item* portal *string* name *named-item* |
| Tree | portal |
| Max. instances | 8 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**router-instance**] *string*

| | |
|---|---|
| Synopsis | Router on which the portal is configured |
| Context | **configure** aaa wpp portal-group *named-item* portal *string* name *named-item* |
| Tree | portal |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **name** *named-item*

| | |
|---|---|
| Synopsis | Web portal server name |
| Context | **configure** aaa wpp portal-group *named-item* portal *string* name *named-item* |
| Tree | portal |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **system-name** *string*

| | |
|---|---|
| Synopsis | System name used in WPP protocol messages |
| Context | **configure** aaa wpp system-name *string* |
| Tree | system-name |
| String length | 1 to 16 |
| Introduced | 16.0.R6 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## 4.2 anysec commands

```
configure
   –  anysec
      –  apply-groups reference
      –  apply-groups-exclude reference
      –  mka-over-ip
         –  mka-udp-port number
      –  reserved-label-block reference
      –  tunnel-encryption
         –  encryption-group named-item
            –  admin-state keyword
            –  apply-groups reference
            –  apply-groups-exclude reference
            –  ca-name reference
            –  encryption-label number
            –  peer (ipv4-address-no-zone | ipv6-address-no-zone)
               –  admin-state keyword
               –  apply-groups reference
               –  apply-groups-exclude reference
            –  peer-tunnel-attributes
               –  flex-algo-id number
               –  igp-instance-id number
               –  protocol keyword
            –  security-termination-policy reference
         –  security-termination-policy named-item
            –  admin-state keyword
            –  apply-groups reference
            –  apply-groups-exclude reference
            –  flex-algo-id number
            –  igp-instance-id number
            –  local-address (ipv4-address-no-zone | ipv6-address-no-zone)
            –  protocol keyword
            –  rx-must-be-encrypted boolean
```


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## 4.2.1 anysec command descriptions

### anysec

| | |
|---|---|
| Synopsis | Enter the **anysec** context |
| Context | **configure** anysec |
| Tree | anysec |
| Introduced | 23.3.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se |

### mka-over-ip

| | |
|---|---|
| Synopsis | Enter the **mka-over-ip** context |
| Context | **configure** anysec mka-over-ip |
| Tree | mka-over-ip |
| Introduced | 23.3.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se |

### mka-udp-port *number*

| | |
|---|---|
| Synopsis | ANYSec MKA UDP port |
| Context | **configure** anysec mka-over-ip mka-udp-port *number* |
| Tree | mka-udp-port |
| Description | This command configures the UDP port that identifies the MKA packet on the system.<br>Nokia recommends configuring this UDP port network wide. In addition, ensure the UDP port is not used by any other protocols in the network. |
| Range | 1024 to 49151 |
| Introduced | 23.3.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se |

### reserved-label-block *reference*

| | |
|---|---|
| Synopsis | ANYSec reserved label block |
| Context | **configure** anysec reserved-label-block *reference* |
| Tree | reserved-label-block |


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| | |
|---|---|
| Description | This command assigns the label block that is reserved for the ANYsec encryption SID. Without this reserved block, ANYsec cannot assign any encryption SIDs. The encryption SID uniquely identifies the encrypting node within a network and avoids double encryption scenarios. The encryption SID can be assigned per encryption group. However, all encryption groups can have the same encryption SID.<br>To save label space, Nokia recommends limiting the number of encryption SIDs within a network. |
| Reference | **configure** router *named-item-64* mpls-labels reserved-label-block *named-item-64* |
| Introduced | 23.3.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se |

## tunnel-encryption

| | |
|---|---|
| Synopsis | Enter the **tunnel-encryption** context |
| Context | **configure** anysec tunnel-encryption |
| Tree | tunnel-encryption |
| Introduced | 23.3.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se |

## encryption-group [group-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **encryption-group** list instance |
| Context | **configure** anysec tunnel-encryption encryption-group *named-item* |
| Tree | encryption-group |
| Description | Commands in this context create an encryption group.<br>An encryption group is a group of LSPs that use the same CA and preshared keys (PSK). For ease of PSK management, SR OS allows a group of LSPs to use the same CA with the same PSKs. The PSK is used to secure the SAK for distribution to other PEERs.<br>Note: Although the LSPs are unidirectional, ANYsec is a bidirectional concept where a pair of LSPs between two peers are encrypted and decrypted. Each pair of LSPs uses its own SAK for maximum security, although they may share the same CA and PSK with all other LSPs in the encryption group to secure the SAK. |
| Max. instances | 1023 |
| Introduced | 23.3.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se |


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### [**group-name**] *named-item*

| | |
|---|---|
| Synopsis | ANYsec encryption group name |
| Context | **configure** anysec tunnel-encryption encryption-group *named-item* |
| Tree | encryption-group |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 23.3.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the encryption group |
| Context | **configure** anysec tunnel-encryption encryption-group *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 23.3.R2 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se |

### **ca-name** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Connectivity association for the encryption group |
| Context | **configure** anysec tunnel-encryption encryption-group *named-item* ca-name *reference* |
| Tree | ca-name |
| Description | This command configures the CA used for this encryption group.<br>A CA must be configured with the keyword **anysec** for use in the encryption group. |
| Reference | **configure** macsec connectivity-association *string* |
| Introduced | 23.3.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se |


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### **encryption-label** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Label identifying packets sent from the node to peers |
| Context | **configure** anysec tunnel-encryption encryption-group *named-item* encryption-label *number* |
| Tree | encryption-label |
| Description | This command creates an encryption SD for the encryption group.<br>The encryption SID uniquely identifies the encrypting node within a network to avoid double encryption scenarios. The encryption SID can be assigned per encryption group. However, all encryption groups can have the same encryption SID. To save label space, Nokia recommends limiting the number of encryption SIDs within a network. To configure the encryption SID, a **reserved-label-block** command must be configured under the **anysec** context. The encryption SID is programmed at the bottom of the stack with the S-it set. |
| Range | 32 to 1048575 |
| Introduced | 23.3.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se |

### **peer** [peer-ip-address] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Enter the **peer** list instance |
| Context | **configure** anysec tunnel-encryption encryption-group *named-item* peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | peer |
| Max. instances | 1023 |
| Introduced | 23.3.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se |

### [**peer-ip-address**] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Peer IP address of the node SID |
| Context | **configure** anysec tunnel-encryption encryption-group *named-item* peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | peer |


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| | |
|---|---|
| Description | This command configures the IPv4 or IPv6 address of the node SID of the peer that is part of this encryption group.<br>This configuration identifies the segment routing node SID of the peer and programs the egress label stack for matching on the FP5 for encrypting the LSP.<br>When the label stack is downloaded, the encryption SID is also included at the bottom of the stack with the S-bit set. |
| Notes | This element is part of a list key. |
| Introduced | 23.3.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the encryption group peer |
| Context | **configure** anysec tunnel-encryption encryption-group *named-item* peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 23.3.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se |

## **peer-tunnel-attributes**

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **peer-tunnel-attributes** context |
| Context | **configure** anysec tunnel-encryption encryption-group *named-item* peer-tunnel-attributes |
| Tree | peer-tunnel-attributes |
| Description | Commands in this context configure the peer-tunnel attributes.<br>Tunnel attributes are used to match and identify the outgoing tunnels for encryptoin with ANYsec. A single tunnel attribute is used for multiple peers. Since an LSP is unidirectional, the outgoing tunnel can have different attributes from the incoming tunnel (for example, security termination policy). |
| Introduced | 23.3.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se |


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## **flex-algo-id** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Flexible algorithm ID |
| Context | **configure** anysec tunnel-encryption encryption-group *named-item* peer-tunnel-attributes flex-algo-id *number* |
| Tree | flex-algo-id |
| Description | This command configures the flexible algorithm ID. This ID must match the local terminating ANYsec tunnel. |
| Range | 128 to 255 |
| Introduced | 23.3.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se |

## **igp-instance-id** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IGP instance ID |
| Context | **configure** anysec tunnel-encryption encryption-group *named-item* peer-tunnel-attributes igp-instance-id *number* |
| Tree | igp-instance-id |
| Description | This command configures the IGP instance ID. This IGP instance ID must match the IGP instance that the incoming encrypted LSP was signaled on. |
| Range | 0 to 31 \| 64 to 95 |
| Introduced | 23.3.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se |

## **protocol** *keyword*

**WARNING:**
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| | |
|---|---|
| Synopsis | Protocol used to advertise node SID of incoming tunnel |
| Context | **configure** anysec tunnel-encryption encryption-group *named-item* peer-tunnel-attributes protocol *keyword* |
| Tree | protocol |
| Options | sr-ospf, sr-ospf3, sr-isis |
| Default | sr-isis |
| Introduced | 23.10.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se |

## **security-termination-policy** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Security termination policy used by encryption group |
| Context | **configure** anysec tunnel-encryption encryption-group *named-item* security-termination-policy *reference* |
| Tree | security-termination-policy |
| Reference | **configure** anysec tunnel-encryption security-termination-policy *named-item* |
| Introduced | 23.3.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se |

## **security-termination-policy** [policy-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **security-termination-policy** list instance |
| Context | **configure** anysec tunnel-encryption security-termination-policy *named-item* |
| Tree | security-termination-policy |
| Max. instances | 1023 |
| Introduced | 23.3.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se |

## [**policy-name**] *named-item*

| | |
|---|---|
| Synopsis | ANYsec security termination policy name |
| Context | **configure** anysec tunnel-encryption security-termination-policy *named-item* |


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| | |
|---|---|
| Tree | security-termination-policy |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 23.3.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the security termination policy |
| Context | **configure** anysec tunnel-encryption security-termination-policy *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 23.3.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se |

## **flex-algo-id** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Flexible algorithm ID |
| Context | **configure** anysec tunnel-encryption security-termination-policy *named-item* flex-algo-id *number* |
| Tree | flex-algo-id |
| Description | This command configures the flexible algorithm ID. This ID must match the local terminating ANYsec tunnel. |
| Range | 128 to 255 |
| Introduced | 23.3.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se |


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## **igp-instance-id** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IGP instance ID |
| Context | **configure** anysec tunnel-encryption security-termination-policy *named-item* igp-instance-id *number* |
| Tree | igp-instance-id |
| Description | This command configures the IGP instance ID. This IGP instance ID must match the IGP instance that the incoming encrypted LSP was signaled on. |
| Range | 0 to 31 \| 64 to 95 |
| Introduced | 23.3.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se |

## **local-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Local address of node SID associated with ANYsec tunnel |
| Context | **configure** anysec tunnel-encryption security-termination-policy *named-item* local-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | local-address |
| Description | This command configures the local IPv4 or IPv6 address for the system IP or loopback node SID. This is used to program the FP5 label stack to match the incoming ANYsec tunnel and decryption of the tunnel. |
| Introduced | 23.3.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se |

## **protocol** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Protocol used to advertise node SID of incoming tunnel |


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| | |
|---|---|
| Context | **configure** anysec tunnel-encryption security-termination-policy *named-item* protocol *keyword* |
| Tree | protocol |
| Options | sr-ospf, sr-ospf3, sr-isis |
| Default | sr-isis |
| Introduced | 23.10.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se |

## **rx-must-be-encrypted** *boolean*

| | |
|---|---|
| Synopsis | Enforce encryption for received packets |
| Context | **configure** anysec tunnel-encryption security-termination-policy *named-item* rx-must-be-encrypted *boolean* |
| Tree | rx-must-be-encrypted |
| Description | When configured to **true**, the router accepts all arriving traffic that is ANYsec secured on the port. All other traffic is dropped.<br>When configured to **false**, the router accepts all arriving traffic on the port. |
| Default | false |
| Introduced | 23.3.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se |


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## 4.3 application-assurance commands

```
configure
   –  application-assurance
      –  aarp number
         –  admin-state keyword
         –  apply-groups reference
         –  apply-groups-exclude reference
         –  description description
         –  master-selection-mode keyword
         –  peer (ipv4-address-no-zone | ipv6-address-no-zone)
         –  peer-endpoint
            –  sap
               –  encap-type keyword
               –  sap-id sap
            –  spoke-sdp sdp-bind-id
         –  priority number
      –  apply-groups reference
      –  apply-groups-exclude reference
      –  cflowd
         –  field named-item
            –  apply-groups reference
            –  apply-groups-exclude reference
            –  comment named-item
      –  flow-attribute
         –  attribute named-item
            –  apply-groups reference
            –  apply-groups-exclude reference
            –  comment named-item
      –  group number
         –  apply-groups reference
         –  apply-groups-exclude reference
         –  certificate-profile named-item
            –  admin-state keyword
            –  apply-groups reference
            –  apply-groups-exclude reference
            –  description description
            –  file certificate-file
         –  cflowd
            –  admin-state keyword
            –  apply-groups reference
            –  apply-groups-exclude reference
            –  collector (ipv4-address-no-zone | ipv6-address-no-zone) port number
               –  admin-state keyword
               –  apply-groups reference
               –  apply-groups-exclude reference
               –  description description
            –  comprehensive
               –  apply-groups reference
               –  apply-groups-exclude reference
               –  flow-rate number
               –  flow-rate-2 number
               –  template
                  –  apply-groups reference
                  –  apply-groups-exclude reference
                  –  dynamic-fields
                     –  admin-state keyword
                     –  field named-item
                  –  field-selection keyword
            –  direct-export
               –  collector number
```


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configure application-assurance group cflowd direct-export collector address

```
                - address (ipv4-address-no-zone | ipv6-address-no-zone) port number
                  - admin-state keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
                - apply-groups reference
                - apply-groups-exclude reference
                - description description
              - vlan-id number
            - export-override
              - mode keyword
              - prefix named-item
            - obfuscation
              - aes-128-encryption-key encrypted-leaf
              - aes-256-encryption-key encrypted-leaf
            - system-name named-item
            - tcp-performance
              - apply-groups reference
              - apply-groups-exclude reference
              - flow-rate number
              - flow-rate-2 number
              - template
                - apply-groups reference
                - apply-groups-exclude reference
                - dynamic-fields
                  - admin-state keyword
                  - field named-item
                - field-selection keyword
            - template-retransmit number
            - volume
              - rate number
              - template
                - apply-groups reference
                - apply-groups-exclude reference
                - dynamic-fields
                  - admin-state keyword
                  - field named-item
                - field-selection keyword
          - dns-ip-cache named-item
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - dns-match
              - domain named-item
                - apply-groups reference
                - apply-groups-exclude reference
                - expression display-string
              - trusted-server-address (ipv4-address-no-zone | ipv6-address-no-zone)
                - apply-groups reference
                - apply-groups-exclude reference
                - server-name named-item
            - ip-cache
              - high-watermark number
              - low-watermark number
              - size number
              - static-address (ipv4-address-no-zone | ipv6-address-no-zone)
          - http-enrich named-item
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - field named-item
              - aes-initialization-vector hex-string
              - anti-spoof boolean
```


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configure application-assurance group http-enrich field apply-groups

```
            - apply-groups reference
            - apply-groups-exclude reference
            - calling-line-id boolean
            - encode
               - cert-base64 reference
               - cert-profile reference
               - key
                  - type keyword
                  - value encrypted-leaf
            - md5-salt string-not-all-spaces
            - name named-item
            - static-string string-not-all-spaces
         - rat-type-enrichment
            - rat-type keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - rat-string string-not-all-spaces
      - http-error-redirect named-item
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - description description
         - error-code number
            - apply-groups reference
            - apply-groups-exclude reference
            - custom-message-size number
         - http-host display-string
         - participant-id named-item
         - template number
      - http-notification named-item
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - description description
         - interval (number | keyword)
         - script-url http-redirect-url
         - template number
      - http-redirect named-item
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - captive-redirect
            - vlan-id number
         - description description
         - redirect-https boolean
         - redirect-url http-redirect-url
         - tcp-client-reset boolean
         - template number
      - ip-identification-assist
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - passive-dns
            - monitor boolean
            - trusted-server (ipv4-address-no-zone | ipv6-address-no-zone)
               - apply-groups reference
               - apply-groups-exclude reference
               - comment named-item-or-empty
         - positive-app-id
            - enabled boolean
      - partition number
         - aa-sub-congestion-detection
            - admin-state keyword
            - apply-groups reference
```


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configure application-assurance group partition aa-sub-congestion-detection apply-groups-exclude

```
            - apply-groups-exclude reference
            - rat-type keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - rtt-threshold (number | keyword)
            - rtt-threshold (number | keyword)
            - rtt-threshold-tolerance number
         - aa-sub-remote boolean
         - access-network-location
            - source keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - rat-type keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - rtt-threshold (number | keyword)
               - rtt-threshold (number | keyword)
               - rtt-threshold-tolerance number
               - source-level keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - aqp-initial-lookup boolean
         - cflowd
            - export-type keyword
               - admin-state keyword
               - app-group reference
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - rate-choice keyword
               - application reference
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - rate-choice keyword
               - apply-groups reference
               - apply-groups-exclude reference
         - description description
         - event-log named-item
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - buffer-type keyword
            - max-entries number
            - syslog
               - address (ipv4-address-no-zone | ipv6-address-no-zone)
               - description description
               - facility keyword
               - port number
               - severity keyword
               - vlan-id number
         - gtp
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - gtp-filter named-item
               - apply-groups reference
               - apply-groups-exclude reference
               - description description
               - gtp-in-gtp keyword
               - gtp-tunnel-database
                  - default-tunnel-endpoint-limit number
                  - validate-gtp-tunnels boolean
                  - validate-sequence-number boolean
                  - validate-source-ip-addr boolean
               - imsi-apn-filter
```


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configure application-assurance group partition gtp gtp-filter imsi-apn-filter default-action

```
                    - default-action keyword
                    - entry number
                       - action keyword
                       - apn display-string
                       - apply-groups reference
                       - apply-groups-exclude reference
                       - imsi-mcc-mnc-prefix display-string
                       - src-gsn
                          - ip-prefix (ipv4-prefix | ipv6-prefix)
                          - ip-prefix-list reference
                 - log
                    - action keyword
                    - event-log reference
                 - max-payload-length number
                 - message-type
                    - default-action keyword
                    - entry number
                       - action keyword
                       - apply-groups reference
                       - apply-groups-exclude reference
                       - value (number | keyword)
                 - message-type-gtp-v2
                    - default-action keyword
                    - entry number
                       - action keyword
                       - apply-groups reference
                       - apply-groups-exclude reference
                       - value (number | keyword)
              - gtpc-inspection boolean
              - log
                 - action keyword
                 - event-log reference
              - mode keyword
           - http-match-all-requests boolean
           - http-x-online-host boolean
           - ip-identification-contribute boolean
           - ip-prefix-list named-item
              - apply-groups reference
              - apply-groups-exclude reference
              - description description
              - prefix (ipv4-prefix | ipv6-prefix)
                 - apply-groups reference
                 - apply-groups-exclude reference
                 - name named-item
           - policy
              - app-filter
                 - entry number
                    - admin-state keyword
                    - application reference
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - description description
                    - expression number
                       - apply-groups reference
                       - apply-groups-exclude reference
                       - eq display-string
                       - neq display-string
                       - type keyword
                    - flow-setup-direction keyword
                    - http-match-all-requests boolean
                    - http-port
                       - eq
                          - port-list reference
                          - port-number number
```


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configure application-assurance group partition policy app-filter entry http-port neq

```
                    - neq
                      - port-list reference
                      - port-number number
                - ip-identification-assist boolean
                - ip-protocol
                  - eq (number | keyword)
                  - neq (number | keyword)
                - network-address
                  - eq
                    - ip-prefix (ipv4-prefix | ipv6-prefix)
                    - ip-prefix-list reference
                  - neq
                    - ip-prefix (ipv4-prefix | ipv6-prefix)
                    - ip-prefix-list reference
                - protocol
                  - eq (string | named-item)
                  - neq (string | named-item)
                - server-address
                  - eq
                    - dns-ip-cache reference
                    - ip-prefix (ipv4-prefix | ipv6-prefix)
                    - ip-prefix-list reference
                    - masked-ip
                      - address (ipv4-address-no-zone | ipv6-address-no-zone)
                      - netmask (ipv4-address-no-zone | ipv6-address-no-zone)
                  - neq
                    - dns-ip-cache reference
                    - ip-prefix (ipv4-prefix | ipv6-prefix)
                    - ip-prefix-list reference
                    - masked-ip
                      - address (ipv4-address-no-zone | ipv6-address-no-zone)
                      - netmask (ipv4-address-no-zone | ipv6-address-no-zone)
                - server-port
                  - eq
                    - first-packet-policy keyword
                    - port-list reference
                    - port-number number
                    - range
                      - end number
                      - start number
                  - gt
                    - port-number number
                  - lt
                    - port-number number
                  - neq
                    - port-list reference
                    - port-number number
                    - range
                      - end number
                      - start number
            - app-group named-item
              - apply-groups reference
              - apply-groups-exclude reference
              - charging-group reference
              - description description
              - export-id number
            - app-profile named-item
              - aa-sub-distribute-traffic-by-ip boolean
              - aa-sub-suppressible boolean
              - apply-groups reference
              - apply-groups-exclude reference
              - capacity-cost number
              - characteristic reference
                - apply-groups reference
```


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configure application-assurance group partition policy app-profile characteristic apply-groups-exclude

```
                    - apply-groups-exclude reference
                    - value reference
                 - description description
                 - divert boolean
              - app-qos-policy
                 - entry number
                    - action
                       - abandon-tcp-optimization boolean
                       - apply-groups reference
                       - apply-groups-exclude reference
                       - bandwidth-policer
                          - anl reference
                          - dual-bucket reference
                          - flow reference
                          - single-bucket reference
                       - dns-ip-cache reference
                       - drop boolean
                       - error-drop
                          - event-log reference
                       - flow-count-limit-policer
                          - event-log reference
                          - policer-name reference
                       - flow-setup-rate-policer
                          - event-log reference
                          - policer-name reference
                       - fragment-drop
                          - drop-scope keyword
                          - event-log reference
                       - gtp-filter reference
                       - http-enrich reference
                       - http-error-redirect reference
                       - http-notification reference
                       - http-redirect
                          - flow-type keyword
                          - name reference
                       - mirror-source
                          - all-inclusive boolean
                          - mirror-service reference
                       - overload-drop
                          - event-log reference
                       - remark
                          - dscp
                             - in-profile keyword
                             - out-profile keyword
                          - fc keyword
                          - priority keyword
                       - sctp-filter reference
                       - session-filter reference
                       - tcp-mss-adjust number
                       - tcp-validate reference
                       - tls-enrich reference
                       - url-filter
                          - characteristic reference
                          - name reference
                    - admin-state keyword
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - description description
                    - match
                       - aa-sub
                          - esm
                             - eq named-item
                             - neq named-item
                          - esm-mac
```


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configure application-assurance group partition policy app-qos-policy entry match aa-sub esm-mac eq

```
                    - eq named-item
                    - neq named-item
                 - sap
                    - eq sap
                    - neq sap
                 - spoke-sdp
                    - eq sdp-bind-id
                    - neq sdp-bind-id
                 - transit
                    - eq named-item
                    - neq named-item
              - aa-sub-tethering keyword
              - app-group
                 - eq reference
                 - neq reference
              - application
                 - eq reference
                 - neq reference
              - apply-groups reference
              - apply-groups-exclude reference
              - characteristic reference
                 - apply-groups reference
                 - apply-groups-exclude reference
                 - eq reference
                 - neq reference
              - charging-group
                 - eq reference
                 - neq reference
              - dscp
                 - eq keyword
                 - neq keyword
              - dst-ip
                 - eq
                    - ip-prefix (ipv4-prefix | ipv6-prefix)
                    - ip-prefix-list reference
                 - neq
                    - ip-prefix (ipv4-prefix | ipv6-prefix)
                    - ip-prefix-list reference
              - dst-port
                 - eq
                    - port-list reference
                    - port-number number
                    - range
                       - end number
                       - start number
                 - neq
                    - port-list reference
                    - port-number number
                    - range
                       - end number
                       - start number
              - flow-attribute named-item
                 - apply-groups reference
                 - apply-groups-exclude reference
                 - confidence
                    - eq number
                    - gte number
                    - lt number
              - ip-protocol
                 - eq (number | keyword)
                 - neq (number | keyword)
              - src-ip
                 - eq
                    - ip-prefix (ipv4-prefix | ipv6-prefix)
```


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configure application-assurance group partition policy app-qos-policy entry match src-ip eq ip-prefix-list

```
                        - ip-prefix-list reference
                     - neq
                        - ip-prefix (ipv4-prefix | ipv6-prefix)
                        - ip-prefix-list reference
                  - src-port
                     - eq
                        - port-list reference
                        - port-number number
                        - range
                           - end number
                           - start number
                     - neq
                        - port-list reference
                        - port-number number
                        - range
                           - end number
                           - start number
                  - traffic-direction keyword
            - app-service-options
               - characteristic named-item
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - default-value named-item
                  - value named-item
            - application named-item
               - app-group reference
               - apply-groups reference
               - apply-groups-exclude reference
               - charging-group reference
               - description description
               - export-id number
            - apply-groups reference
            - apply-groups-exclude reference
            - charging-filter
               - entry number
                  - admin-state keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - charging-group reference
                  - description description
                  - match
                     - app-group
                        - eq reference
                        - neq reference
                     - application
                        - eq reference
                        - neq reference
                     - flow-attribute named-item
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - confidence
                           - eq number
                           - gte number
                           - lt number
                     - tethered-flow
            - charging-group named-item
               - apply-groups reference
               - apply-groups-exclude reference
               - description description
               - export-id number
               - notify-start-stop keyword
            - custom-protocol custom-protocol-name
               - admin-state keyword
               - apply-groups reference
```


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configure application-assurance group partition policy custom-protocol apply-groups-exclude

```
                - apply-groups-exclude reference
                - description description
                - expression number
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - direction keyword
                  - eq display-string
                  - offset number
                - ip-protocol keyword
            - default-charging-group reference
            - default-tethered-charging-group reference
        - policy-override
            - aa-sub
                - sap sap
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - characteristic reference
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - value reference
                - spoke-sdp sdp-bind-id
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - characteristic reference
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - value reference
                - transit named-item
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - characteristic reference
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - value reference
        - port-list named-item
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - port number
            - range start number end number
        - sctp-filter named-item
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - event-log reference
            - ppid
                - default-action keyword
                - entry number
                  - action keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - value (number | keyword)
            - ppid-range
                - max number
                - min number
        - session-filter named-item
            - apply-groups reference
            - apply-groups-exclude reference
            - default-action
                - action keyword
                - event-log reference
            - description description
            - entry number
                - action
```


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configure application-assurance group partition session-filter entry action deny

```
                    - deny
                    - event-log reference
                    - http-redirect reference
                    - l3-l4-redirect
                      - dst-ip-address (ipv4-address-no-zone | ipv6-address-no-zone)
                      - dst-port number
                    - permit
                    - tcp-optimizer reference
                - apply-groups reference
                - apply-groups-exclude reference
                - description description
                - match
                    - dst-ip
                      - dns-ip-cache reference
                      - ip-prefix (ipv4-prefix | ipv6-prefix)
                      - ip-prefix-list reference
                    - dst-port
                      - eq number
                      - gt number
                      - lt number
                      - port-list reference
                      - range
                        - end number
                        - start number
                    - ip-protocol (number | keyword)
                    - src-ip
                      - ip-prefix (ipv4-prefix | ipv6-prefix)
                      - ip-prefix-list reference
                    - src-port
                      - eq number
                      - gt number
                      - lt number
                      - port-list reference
                      - range
                        - end number
                        - start number
            - shallow-inspection boolean
            - statistics
                - aa-admit-deny
                    - accounting-policy reference
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - collect-stats boolean
                    - gtp-filter-stats boolean
                    - policer-stats boolean
                    - policer-stats-resources boolean
                    - sctp-filter-stats boolean
                    - session-filter-stats boolean
                    - tcp-validate-stats boolean
                - aa-app-group
                    - accounting-policy reference
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - collect-stats boolean
                - aa-application
                    - accounting-policy reference
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - collect-stats boolean
                - aa-partition
                    - accounting-policy reference
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - collect-stats boolean
```


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configure application-assurance group partition statistics aa-partition tethering-stats

```
                - tethering-stats boolean
                - traffic-type-stats boolean
            - aa-protocol
                - accounting-policy reference
                - admin-state keyword
                - apply-groups reference
                - apply-groups-exclude reference
                - collect-stats boolean
            - aa-sub
                - accounting-policy reference
                - aggregate-stats-export-using keyword
                - app-group reference
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - export-using keyword
                - application reference
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - export-using keyword
                - apply-groups reference
                - apply-groups-exclude reference
                - charging-group reference
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - export-using keyword
                - collect-stats boolean
                - exclude-tcp-retrans boolean
                - max-throughput-stats boolean
                - protocol named-item
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - export-using keyword
                - radius-accounting-policy reference
                - usage-monitoring boolean
            - aa-sub-study keyword
                - aa-sub
                    - esm named-item
                    - esm-mac named-item
                    - sap sap
                    - spoke-sdp sdp-bind-id
                    - transit named-item
                - accounting-policy reference
                - apply-groups reference
                - apply-groups-exclude reference
                - collect-stats boolean
        - tcp-validate named-item
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - log
                - all boolean
                - event-log reference
            - strict boolean
        - tethering-detection
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - single-device
                - expected-ttl number
                - invert-match boolean
            - ttl-monitor
                - tcp-protocols keyword
                - udp-protocols keyword
        - threshold-crossing-alert
```


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configure application-assurance group partition threshold-crossing-alert criteria

```
            - criteria keyword direction keyword
              - apply-groups reference
              - apply-groups-exclude reference
              - high-watermark number
              - low-watermark number
            - gtp-filter reference criteria keyword direction keyword
              - apply-groups reference
              - apply-groups-exclude reference
              - high-watermark number
              - low-watermark number
            - gtp-filter-entry reference entry-id number direction keyword
              - apply-groups reference
              - apply-groups-exclude reference
              - high-watermark number
              - low-watermark number
            - policer named-item direction keyword
              - apply-groups reference
              - apply-groups-exclude reference
              - high-watermark number
              - low-watermark number
            - sctp-filter reference criteria keyword direction keyword
              - apply-groups reference
              - apply-groups-exclude reference
              - high-watermark number
              - low-watermark number
            - sctp-filter-entry reference entry-id reference direction keyword
              - apply-groups reference
              - apply-groups-exclude reference
              - high-watermark number
              - low-watermark number
            - session-filter reference criteria keyword direction keyword
              - apply-groups reference
              - apply-groups-exclude reference
              - high-watermark number
              - low-watermark number
            - session-filter-entry reference entry-id reference direction keyword
              - apply-groups reference
              - apply-groups-exclude reference
              - high-watermark number
              - low-watermark number
            - tcp-validate reference direction keyword
              - apply-groups reference
              - apply-groups-exclude reference
              - high-watermark number
              - low-watermark number
          - transit-ip-policy number
            - apply-groups reference
            - apply-groups-exclude reference
            - default-app-profile reference
            - description description
            - detect-seen-ip boolean
            - dhcp
              - admin-state keyword
            - diameter
              - admin-state keyword
              - application-policy reference
            - ipv6-address-prefix-length number
            - radius
              - admin-state keyword
              - authentication-policy reference
              - seen-ip-radius-acct-policy reference
            - static-aa-sub named-item
              - app-profile reference
              - apply-groups reference
```


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configure application-assurance group partition transit-ip-policy static-aa-sub apply-groups-exclude

```
                - apply-groups-exclude reference
                - ip (ipv4-unicast-address | ipv6-prefix)
            - sub-ident-policy reference
            - transit-auto-create
                - admin-state keyword
                - inactivity-monitor boolean
        - transit-prefix-policy number
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - entry number
                - aa-sub reference
                - apply-groups reference
                - apply-groups-exclude reference
                - match
                    - aa-sub-ip (ipv4-prefix | ipv6-prefix)
                    - network-ip (ipv4-prefix | ipv6-prefix)
            - static-aa-sub named-item
                - app-profile reference
                - apply-groups reference
                - apply-groups-exclude reference
                - is-remote boolean
        - wap1x
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
    - policer
        - anl-bandwidth-policer named-item
            - action keyword
            - adaptation-rule
                - pir keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - mbs number
            - rate-percentage number
            - rate-percentage-stage-2 number
        - dual-bucket-bandwidth-policer named-item
            - adaptation-rule
                - cir keyword
                - pir keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - cbs number
            - cir (number | keyword)
            - congestion-override
                - cbs number
                - cir (number | keyword)
                - mbs number
                - pir (number | keyword)
            - congestion-override-stage-2
                - cbs number
                - cir (number | keyword)
                - mbs number
                - pir (number | keyword)
            - description description
            - mbs number
            - pir (number | keyword)
            - time-of-day-override number
                - admin-state keyword
                - apply-groups reference
                - apply-groups-exclude reference
                - cbs number
                - cir (number | keyword)
```


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configure application-assurance group policer dual-bucket-bandwidth-policer time-of-day-override description

```
                - description description
                - mbs number
                - pir (number | keyword)
                - time-range
                  - daily
                    - all-days
                    - end policer-end-time
                    - on keyword
                    - start policer-start-time
                  - weekly
                    - end
                      - day keyword
                      - time policer-end-time
                    - start
                      - day keyword
                      - time policer-start-time
        - flow-bandwidth-policer named-item
          - action keyword
          - adaptation-rule
            - pir keyword
          - apply-groups reference
          - apply-groups-exclude reference
          - congestion-override
            - mbs number
            - pir (number | keyword)
          - congestion-override-stage-2
            - mbs number
            - pir (number | keyword)
          - description description
          - mbs number
          - pir (number | keyword)
          - time-of-day-override number
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - mbs number
            - pir (number | keyword)
            - time-range
              - daily
                - all-days
                - end policer-end-time
                - on keyword
                - start policer-start-time
              - weekly
                - end
                  - day keyword
                  - time policer-end-time
                - start
                  - day keyword
                  - time policer-start-time
        - flow-count-limit-policer named-item
          - action keyword
          - apply-groups reference
          - apply-groups-exclude reference
          - description description
          - granularity keyword
          - limit-gtp-flows boolean
          - peak-flow-count (number | keyword)
          - time-of-day-override number
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
```


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configure application-assurance group policer flow-count-limit-policer time-of-day-override peak-flow-count

```
                - peak-flow-count (number | keyword)
                - time-range
                  - daily
                    - all-days
                    - end policer-end-time
                    - on keyword
                    - start policer-start-time
                  - weekly
                    - end
                      - day keyword
                      - time policer-end-time
                    - start
                      - day keyword
                      - time policer-start-time
        - flow-setup-rate-policer named-item
          - action keyword
          - adaptation-rule
            - peak-flow-setup-rate keyword
          - apply-groups reference
          - apply-groups-exclude reference
          - description description
          - flow-setup-rate-burst-size number
          - granularity keyword
          - peak-flow-setup-rate (number | keyword)
          - time-of-day-override number
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - flow-setup-rate-burst-size number
            - peak-flow-setup-rate (number | keyword)
            - time-range
              - daily
                - all-days
                - end policer-end-time
                - on keyword
                - start policer-start-time
              - weekly
                - end
                  - day keyword
                  - time policer-end-time
                - start
                  - day keyword
                  - time policer-start-time
        - single-bucket-bandwidth-policer named-item
          - action keyword
          - adaptation-rule
            - pir keyword
          - apply-groups reference
          - apply-groups-exclude reference
          - congestion-override
            - mbs number
            - pir (number | keyword)
          - congestion-override-stage-2
            - mbs number
            - pir (number | keyword)
          - description description
          - granularity keyword
          - mbs number
          - pir (number | keyword)
          - time-of-day-override number
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
```


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```
                - description description
                - mbs number
                - pir (number | keyword)
                - time-range
                  - daily
                    - all-days
                    - end policer-end-time
                    - on keyword
                    - start policer-start-time
                  - weekly
                    - end
                      - day keyword
                      - time policer-end-time
                    - start
                      - day keyword
                      - time policer-start-time
        - tcp-optimizer named-item
          - apply-groups reference
          - apply-groups-exclude reference
          - dack-timeout number
          - description description
          - high-cpu-backoff boolean
          - initial-cwnd number
          - initial-ss-threshold (number | keyword)
          - network-rtt-threshold number
          - tcp-stack keyword
        - url-filter named-item
          - admin-state keyword
          - apply-function-specific-behaviour boolean
          - apply-groups reference
          - apply-groups-exclude reference
          - default-action
            - allow
            - block-all
            - block-http-redirect reference
          - description description
          - http-redirect reference
          - http-request-filtering keyword
          - icap
            - custom-x-header named-item
            - default-action
              - allow
              - block-all
              - block-http-redirect reference
            - http-redirect reference
            - server (ipv4-address-no-zone | ipv6-address-no-zone) port number
              - admin-state keyword
              - apply-groups reference
              - apply-groups-exclude reference
              - description description
            - vlan-id number
          - local-filtering
            - allow-list reference
            - deny-list reference
              - apply-groups reference
              - apply-groups-exclude reference
              - default-action
                - allow
                - block-all
                - block-http-redirect reference
              - http-redirect reference
          - web-service
            - category-set number
            - classification-overrides
```


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configure application-assurance group url-filter web-service classification-overrides entry

```
                  - entry number
                     - apply-groups reference
                     - apply-groups-exclude reference
                     - category-name named-item
                     - expression display-string
               - classifier keyword
               - default-action
                  - allow
                  - block-all
                  - block-http-redirect reference
               - default-profile reference
               - dns-server (ipv4-address-no-zone | ipv6-address-no-zone)
               - fqdn display-string
               - http-redirect reference
               - profile named-item
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - block
                     - category web-serv-category-name
                  - description description
               - server (ipv4-address-no-zone | ipv6-address-no-zone) port number
                  - admin-state keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - description description
               - vlan-id number
         - url-list named-item
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - file display-string
            - host-expressions boolean
            - key encrypted-leaf
            - size keyword
      - http-enrich
         - field named-item
            - apply-groups reference
            - apply-groups-exclude reference
            - comment named-item
      - http-error-redirect
         - error-code number
            - apply-groups reference
            - apply-groups-exclude reference
            - comment named-item
         - template number
            - apply-groups reference
            - apply-groups-exclude reference
            - comment named-item
      - http-notification
         - template number
            - apply-groups reference
            - apply-groups-exclude reference
            - comment named-item
      - http-redirect
         - template number
            - apply-groups reference
            - apply-groups-exclude reference
            - comment named-item
      - protocol named-item
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
      - radius-accounting-policy named-item
```


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configure application-assurance radius-accounting-policy apply-groups

```
        - apply-groups reference
        - apply-groups-exclude reference
        - description description
        - interim-update-interval number
        - radius-accounting-server
          - access-algorithm keyword
          - retry number
          - router-instance string
          - server number
            - address ipv4-unicast-address
            - apply-groups reference
            - apply-groups-exclude reference
            - port number
            - secret encrypted-leaf
          - source-address ipv4-unicast-address
          - timeout number
        - significant-change number
    - usage-alert-thresholds
        - bit-rate-high-wmark (number | keyword)
        - bit-rate-low-wmark number
        - datapath-cpu-high-wmark (number | keyword)
        - datapath-cpu-low-wmark number
        - flow-setup-rate-high-wmark (number | keyword)
        - flow-setup-rate-low-wmark number
        - flow-table-high-wmark number
        - flow-table-low-wmark number
        - packet-rate-high-wmark (number | keyword)
        - packet-rate-low-wmark number
```


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## 4.3.1 application-assurance command descriptions

### application-assurance

| | |
|---|---|
| Synopsis | Enter the **application-assurance** context |
| Context | **configure** application-assurance |
| Tree | application-assurance |
| Description | Commands in this context configure the attributes of Application Assurance (AA) operations. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **aarp** [aarp-id] *number*

| | |
|---|---|
| Synopsis | Enter the **aarp** list instance |
| Context | **configure** application-assurance aarp *number* |
| Tree | aarp |
| Description | Commands in this context define an Application Assurance Redundancy Protocol (AARP) instance. This instance is paired with the same AARP ID in a peer node, as part of the configuration to provide flow and packet asymmetry removal for traffic of a multi-homed SAP or spoke SDP. |
| Max. instances | 100 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**aarp-id**] *number*

| | |
|---|---|
| Synopsis | AARP ID |
| Context | **configure** application-assurance aarp *number* |
| Tree | aarp |
| Range | 1 to 65535 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the AARP instance |
| Context | **configure** application-assurance aarp *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** application-assurance aarp *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **master-selection-mode** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | AARP master selection mode |
| Context | **configure** application-assurance aarp *number* master-selection-mode *keyword* |
| Tree | master-selection-mode |
| Description | This command configures the AARP mode of operation with the peer instance. The modes affect the AARP state machine behavior according to the specified behavior. |
| Options | minimize-switchovers, inter-chassis-efficiency, priority-based-balance |
| Default | minimize-switchovers |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **peer** *(ipv4-address-no-zone | ipv6-address-no-zone)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | AARP peer IP address |
| Context | **configure** application-assurance aarp *number* peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | peer |
| Description | This command defines the IP address of the AARP peer router, which must be a routable system IP address. If no peer is configured when the AARP is administratively enabled, it is configured as a single node AARP instance. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## peer-endpoint

| | |
|---|---|
| Synopsis | Enter the **peer-endpoint** context |
| Context | **configure** application-assurance aarp *number* peer-endpoint |
| Tree | peer-endpoint |
| Description | Commands in this context specify the attributes of the peer endpoint parent AA subscriber of the AARP peer. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## sap

| | |
|---|---|
| Synopsis | Enable the **sap** context |
| Context | **configure** application-assurance aarp *number* peer-endpoint sap |
| Tree | sap |
| Notes | The following elements are part of a choice: **sap** or **spoke-sdp**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **encap-type** *keyword*

| | |
|---|---|
| Synopsis | Encapsulation type for peer endpoint SAP |
| Context | **configure** application-assurance aarp *number* peer-endpoint sap encap-type *keyword* |
| Tree | encap-type |
| Options | null, dot1q, qinq |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **sap-id** *sap*

| | |
|---|---|
| Synopsis | AARP peer endpoint SAP ID |
| Context | **configure** application-assurance aarp *number* peer-endpoint sap sap-id *sap* |
| Tree | sap-id |
| String length | 1 to 45 |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **spoke-sdp** *sdp-bind-id*

| | |
|---|---|
| Synopsis | AARP peer endpoint spoke SDP |
| Context | **configure** application-assurance aarp *number* peer-endpoint spoke-sdp *sdp-bind-id* |
| Tree | spoke-sdp |
| String length | 3 to 16 |
| Notes | The following elements are part of a choice: **sap** or **spoke-sdp**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **priority** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.


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| | |
|---|---|
| Synopsis | AARP priority |
| Context | **configure** application-assurance aarp *number* priority *number* |
| Tree | priority |
| Description | This command defines the priority for the AARP instance. The priority value is used to determine the master and backup upon initialization or rebalance. |
| Range | 0 to 255 |
| Default | 100 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## cflowd

| | |
|---|---|
| Synopsis | Enter the **cflowd** context |
| Context | **configure** application-assurance cflowd |
| Tree | cflowd |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **field** [field-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **field** list instance |
| Context | **configure** application-assurance cflowd field *named-item* |
| Tree | field |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## [**field-name**] *named-item*

| | |
|---|---|
| Synopsis | Cflowd record field name |
| Context | **configure** application-assurance cflowd field *named-item* |
| Tree | field |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **comment** *named-item*

| | |
|---|---|
| Synopsis | User information comment |
| Context | **configure** application-assurance cflowd field *named-item* comment *named-item* |
| Tree | comment |
| String length | 1 to 32 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **flow-attribute**

| | |
|---|---|
| Synopsis | Enter the **flow-attribute** context |
| Context | **configure** application-assurance flow-attribute |
| Tree | flow-attribute |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **attribute** [attribute-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **attribute** list instance |
| Context | **configure** application-assurance flow-attribute attribute *named-item* |
| Tree | attribute |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**attribute-name**] *named-item*

| | |
|---|---|
| Synopsis | Attribute name |
| Context | **configure** application-assurance flow-attribute attribute *named-item* |
| Tree | attribute |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **comment** *named-item*

| | |
|---|---|
| Synopsis | User information comment |
| Context | **configure** application-assurance flow-attribute attribute *named-item* comment *named-item* |
| Tree | comment |
| String length | 1 to 32 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **group** [aa-group-id] *number*

| | |
|---|---|
| Synopsis | Enter the **group** list instance |
| Context | **configure** application-assurance group *number* |
| Tree | group |
| Description | Commands in this context configure an Application Assurance group and partition parameters. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**aa-group-id**] *number*

| | |
|---|---|
| Synopsis | AA group ID |
| Context | **configure** application-assurance group *number* |
| Tree | group |
| Range | 1 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **certificate-profile** [cert-prof-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **certificate-profile** list instance |
| Context | **configure** application-assurance group *number* certificate-profile *named-item* |
| Tree | certificate-profile |


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| | |
|---|---|
| Description | Commands in this context create a certificate profile to be used for certificate-based encryption in HTTP header enrichment. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**cert-prof-name**] *named-item*

| | |
|---|---|
| Synopsis | AA group certificate profile name |
| Context | **configure** application-assurance group *number* certificate-profile *named-item* |
| Tree | certificate-profile |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the AA certificate profile |
| Context | **configure** application-assurance group *number* certificate-profile *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** application-assurance group *number* certificate-profile *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **file** *certificate-file*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Certificate file name |
| Context | **configure** application-assurance group *number* certificate-profile *named-item* file *certificate-file* |
| Tree | file |
| String length | 1 to 95 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **cflowd**

| | |
|---|---|
| Synopsis | Enter the **cflowd** context |
| Context | **configure** application-assurance group *number* cflowd |
| Tree | cflowd |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of cflowd export |
| Context | **configure** application-assurance group *number* cflowd admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **collector** [ip-address] *(ipv4-address-no-zone | ipv6-address-no-zone)* port *number*

| | |
|---|---|
| Synopsis | Enter the **collector** list instance |
| Context | **configure** application-assurance group *number* cflowd collector *(ipv4-address-no-zone | ipv6-address-no-zone)* port *number* |


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| | |
|---|---|
| Tree | collector |
| Description | Commands in this context configure flow data collectors for cflowd data.<br>In the current release, the system supports IPv4 addresses only for the cflowd collector host. |
| Max. instances | 2 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## [**ip-address**] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the remote cflowd collector host |
| Context | **configure** application-assurance group *number* cflowd collector *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* |
| Tree | collector |
| Description | This command configures the IP address of the remote cflowd collector host.<br>In the current release, the system supports IPv4 addresses only for the cflowd collector host. |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **port** *number*

| | |
|---|---|
| Synopsis | Cflowd collector host port number |
| Context | **configure** application-assurance group *number* cflowd collector *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* |
| Tree | collector |
| Description | This command configures the UDP port number used by the remote cflowd collector host. |
| Range | 1 to 65535 |
| MD-CLI default | 4739 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the cflowd export |
| Context | **configure** application-assurance group *number* cflowd collector *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** application-assurance group *number* cflowd collector *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **comprehensive**

| | |
|---|---|
| Synopsis | Enter the **comprehensive** context |
| Context | **configure** application-assurance group *number* cflowd comprehensive |
| Tree | comprehensive |
| Description | Commands in this context configure cflowd comprehensive records output parameters. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **flow-rate** *number*

| | |
|---|---|
| Synopsis | Cflowd flow sampling rate |
| Context | **configure** application-assurance group *number* cflowd comprehensive flow-rate *number* |
| Tree | flow-rate |
| Range | 1 to 1000 |


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| | |
|---|---|
| Units | flows per second |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **flow-rate-2** *number*

| | |
|---|---|
| Synopsis | Cflowd per-flow second sampling rate |
| Context | **configure** application-assurance group *number* cflowd comprehensive flow-rate-2 *number* |
| Tree | flow-rate-2 |
| Range | 1 to 1000 |
| Units | flows per second |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### template

| | |
|---|---|
| Synopsis | Enter the **template** context |
| Context | **configure** application-assurance group *number* cflowd comprehensive template |
| Tree | template |
| Description | Commands in this context configure the template for comprehensive fields. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### dynamic-fields

| | |
|---|---|
| Synopsis | Enter the **dynamic-fields** context |
| Context | **configure** application-assurance group *number* cflowd comprehensive template dynamic-fields |
| Tree | dynamic-fields |
| Description | Commands in this context configure the fields that are included in the exported cflowd template. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the dynamic fields |
| Context | **configure** application-assurance group *number* cflowd comprehensive template dynamic-fields admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **field** [field-name] *named-item*

| | |
|---|---|
| Synopsis | Add a list entry for **field** |
| Context | **configure** application-assurance group *number* cflowd comprehensive template dynamic-fields field *named-item* |
| Tree | field |
| Description | This command adds a dynamic field to be included in the exported cflowd template. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**field-name**] *named-item*

| | |
|---|---|
| Synopsis | Cflowd template dynamic field name |
| Context | **configure** application-assurance group *number* cflowd comprehensive template dynamic-fields field *named-item* |
| Tree | field |
| Description | This command specifies the name of the field to be included in the exported cflowd template.<br>• Common to all templates are the following values: session/flowStartSeconds, session/flowDurationMilliseconds, postIpPrecedence, ipTTL, aaProt, aaApp, aa AppGrp, hostName, deviceId, deviceMfgId, deviceOsId, ipFamily, deviceOsVer1, deviceOsVer2, deviceOsVer3, anlType, anlTopology, anlCongestionState, timeZone, aaChargingGrp, flowAttr_video, flowAttr_abr_service, flowAttr_audio, flowAttr_encrypted, flowAttr_download, flowAttr_upload, flowAttr_realtime_communication, aa SubTetheringState<br>• When AA is deployed in FWA SR, the following value applies: ApnExtended<br>• For the TCP and comprehensive templates only, the following values apply: tcp SessionEstDelay, tcpRetransmittedBytes, tcpRetransmittedPackets |


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- For the comprehensive templates only when deployed on VSR or ESA in FWA SR configured in the residential mode, the following values apply: dnsAnswerName, dnsType, dnsState, dnsTid, tlsCname, sliceId, mmeAmfAddr, flowActiveBytes, flow ActiveTime, qci, policyRuleName chargeVolumeIPBytes, http-url-len http-uri http-referer http-ua http-ua-len http-request-method http-content-type httpReplyCode http-contentlen
- For the Comprehensive template only (in Residential AA scale mode): sessionStart Milliseconds, sessionEndMilliseconds, flow-end-reason, aaSystemName

| | |
|---|---|
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **field-selection** *keyword*

| | |
|---|---|
| Synopsis | Field selection method |
| Context | **configure** application-assurance group *number* cflowd comprehensive template field-selection *keyword* |
| Tree | field-selection |
| Description | This command configures the method for selecting the fields to be included in the exported cflowd template. |
| Options | legacy, dynamic |
| Default | legacy |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **direct-export**

| | |
|---|---|
| Synopsis | Enter the **direct-export** context |
| Context | **configure** application-assurance group *number* cflowd direct-export |
| Tree | direct-export |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **collector** [collector-id] *number*

| | |
|---|---|
| Synopsis | Enter the **collector** list instance |


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| | |
|---|---|
| Context | **configure** application-assurance group *number* cflowd direct-export collector *number* |
| Tree | collector |
| Max. instances | 16 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**collector-id**] *number*

| | |
|---|---|
| Synopsis | Cflowd direct export collector ID |
| Context | **configure** application-assurance group *number* cflowd direct-export collector *number* |
| Tree | collector |
| Range | 1 to 65535 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **address** [ip-address] *(ipv4-address-no-zone | ipv6-address-no-zone)* port *number*

| | |
|---|---|
| Synopsis | Enter the **address** list instance |
| Context | **configure** application-assurance group *number* cflowd direct-export collector *number* address *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* |
| Tree | address |
| Description | Commands in this context configure the cflowd direct export collector IP address.<br>In the current release, the system supports IPv4 addresses only for the cflowd direct export collector. |
| Max. instances | 2 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**ip-address**] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the remote cflowd collector host |
| Context | **configure** application-assurance group *number* cflowd direct-export collector *number* address *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* |


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| | |
|---|---|
| Tree | address |
| Description | This command configures the IP address of the remote cflowd collector host.<br>In the current release, the system supports IPv4 addresses only for the cflowd collector host. |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **port** *number*

| | |
|---|---|
| Synopsis | Cflowd collector host port number |
| Context | **configure** application-assurance group *number* cflowd direct-export collector *number* address *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* |
| Tree | address |
| Description | This command configures the UDP port number used by the remote cflowd collector host. |
| Range | 1 to 65535 |
| MD-CLI default | 4739 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the direct export collector |
| Context | **configure** application-assurance group *number* cflowd direct-export collector *number* address *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* admin-state *keyword* |
| Tree | admin-state |
| Description | This command sets the administrative state of the cflowd direct export collector.<br>In the current release, the system supports IPv4 addresses only for the cflowd direct export collector. |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** application-assurance group *number* cflowd direct-export collector *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **vlan-id** *number*

| | |
|---|---|
| Synopsis | Cflowd direct export VLAN ID |
| Context | **configure** application-assurance group *number* cflowd direct-export vlan-id *number* |
| Tree | vlan-id |
| Range | 1 to 4094 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **export-override**

| | |
|---|---|
| Synopsis | Enter the **export-override** context |
| Context | **configure** application-assurance group *number* cflowd export-override |
| Tree | export-override |
| Description | Commands in this context configure the AA subtype used in the cflowd record export. The cflowd statistics exported to the cflowd collector look identical to AA for the type of system defined by the mode. The following cflowd export fields are affected:<br>• The cflowd export observation point (field 138) mode is derived from the export-override category that is selected.<br>• The cflowd export AA_Subscriber_Type (field 12) mode is modified as configured, using existing field types.<br>• The cflowd interface name is used as the sub-ID field, optionally modified to use the configured **mode** and **prefix** commands for global identifiers.<br>All AA cflowd record types are affected by export override. To change the export override or prefix, cflowd must first be disabled. When this command is set back to the default, the prefix is also set back to its default. |


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| | |
|---|---|
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **mode** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | AA cflowd export override mode |
| Context | **configure** application-assurance group *number* cflowd export-override mode *keyword* |
| Tree | mode |
| Description | This command specifies the type of system emulated for the cflowd export. |
| Options | mobile, ifname-obfuscate |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **prefix** *named-item*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | AA group cflowd export override prefix |
| Context | **configure** application-assurance group *number* cflowd export-override prefix *named-item* |
| Tree | prefix |
| Description | This command specifies the prefix-string associated with the export override. The prefix string specifies up to an 8 character string. If the 8 character prefix is "ABCDEFG_" for a particular node, the cflowd export override would generate IPv4 interface names such as ABCDEFG_255.255.255.255 or IPv6 as ABCDEFG_2001:DB8:EF01:2345::/64. By default, the prefix is left blank. |
| String length | 1 to 8 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## obfuscation

| | |
|---|---|
| Synopsis | Enter the **obfuscation** context |
| Context | **configure** application-assurance group *number* cflowd obfuscation |
| Tree | obfuscation |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## aes-128-encryption-key *encrypted-leaf*

| | |
|---|---|
| Synopsis | AES-128 encryption key |
| Context | **configure** application-assurance group *number* cflowd obfuscation aes-128-encryption-key *encrypted-leaf* |
| Tree | aes-128-encryption-key |
| Description | This command specifies the AES-128 key used to encrypt export cflowd fields. |
| String length | 1 to 51 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## aes-256-encryption-key *encrypted-leaf*

| | |
|---|---|
| Synopsis | AES-256 encryption key |
| Context | **configure** application-assurance group *number* cflowd obfuscation aes-256-encryption-key *encrypted-leaf* |
| Tree | aes-256-encryption-key |
| Description | This command specifies the AES-256 key used to encrypt exported cflowd fields. |
| String length | 1 to 71 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## system-name *named-item*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.


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| | |
|---|---|
| Synopsis | Node name to report in cflowd template |
| Context | **configure** application-assurance group *number* cflowd system-name *named-item* |
| Tree | system-name |
| Description | This command configures the system name of the cflowd AA group. This is exported to the comprehensive cflowd template as **aaSystemName**. |
| String length | 1 to 32 |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## tcp-performance

| | |
|---|---|
| Synopsis | Enter the **tcp-performance** context |
| Context | **configure** application-assurance group *number* cflowd tcp-performance |
| Tree | tcp-performance |
| Description | Commands in this context configure TCP performance parameters for the group cflowd export. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## flow-rate *number*

| | |
|---|---|
| Synopsis | Cflowd flow sampling rate |
| Context | **configure** application-assurance group *number* cflowd tcp-performance flow-rate *number* |
| Tree | flow-rate |
| Range | 1 to 1000 |
| Units | flows per second |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## flow-rate-2 *number*

| | |
|---|---|
| Synopsis | Cflowd per-flow second sampling rate |
| Context | **configure** application-assurance group *number* cflowd tcp-performance flow-rate-2 *number* |
| Tree | flow-rate-2 |


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| | |
|---|---|
| Range | 1 to 1000 |
| Units | flows per second |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## template

| | |
|---|---|
| Synopsis | Enter the **template** context |
| Context | **configure** application-assurance group *number* cflowd tcp-performance template |
| Tree | template |
| Description | Commands in this context configure the template for cflowd TCP performance fields. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## dynamic-fields

| | |
|---|---|
| Synopsis | Enter the **dynamic-fields** context |
| Context | **configure** application-assurance group *number* cflowd tcp-performance template dynamic-fields |
| Tree | dynamic-fields |
| Description | Commands in this context configure the fields to be included in the exported cflowd template. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the dynamic fields |
| Context | **configure** application-assurance group *number* cflowd tcp-performance template dynamic-fields admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **field** [field-name] *named-item*

| | |
|---|---|
| Synopsis | Add a list entry for **field** |
| Context | **configure** application-assurance group *number* cflowd tcp-performance template dynamic-fields field *named-item* |
| Tree | field |
| Description | This command adds a list entry for fields to include in the exported cflowd template. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## [**field-name**] *named-item*

| | |
|---|---|
| Synopsis | Cflowd template dynamic field name |
| Context | **configure** application-assurance group *number* cflowd tcp-performance template dynamic-fields field *named-item* |
| Tree | field |
| Description | This command specifies the name of the field to be included in the exported cflowd template.<br>• Common to all templates are the following values: session/flowStartSeconds, session/flowDurationMilliseconds, postIpPrecedence, ipTTL, aaProt, aaApp, aa AppGrp, hostName, deviceId, deviceMfgId, deviceOsId, ipFamily, deviceOsVer1, deviceOsVer2, deviceOsVer3, anlType, anlTopology, anlCongestionState, timeZone, aaChargingGrp, flowAttr_video, flowAttr_abr_service, flowAttr_audio, flowAttr_encrypted, flowAttr_download, flowAttr_upload, flowAttr_realtime_communication, aa SubTetheringState<br>• When AA is deployed in FWA SR, the following value applies: ApnExtended<br>• For the TCP and comprehensive templates only, the following values apply: tcp SessionEstDelay, tcpRetransmittedBytes, tcpRetransmittedPackets<br>• For the comprehensive templates only when deployed on VSR or ESA in FWA SR configured in the residential mode, the following values apply: dnsAnswerName, dnsType, dnsState, dnsTid, tlsCname, sliceId, mmeAmfAddr, flowActiveBytes, flow ActiveTime, qci, policyRuleName chargeVolumeIPBytes, http-url-len http-uri http-referer http-ua http-ua-len http-request-method http-content-type httpReplyCode http-contentlen<br>• For the Comprehensive template only (in Residential AA scale mode): sessionStart Milliseconds, sessionEndMilliseconds, flow-end-reason, aaSystemName |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **field-selection** *keyword*

| | |
|---|---|
| Synopsis | Field selection method |
| Context | **configure** application-assurance group *number* cflowd tcp-performance template field-selection *keyword* |
| Tree | field-selection |
| Description | This command configures the method for selecting the fields to be included in the exported cflowd template. |
| Options | legacy, dynamic |
| Default | legacy |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **template-retransmit** *number*

| | |
|---|---|
| Synopsis | Template retransmit time |
| Context | **configure** application-assurance group *number* cflowd template-retransmit *number* |
| Tree | template-retransmit |
| Range | 10 to 600 |
| Units | seconds |
| Default | 600 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **volume**

| | |
|---|---|
| Synopsis | Enter the **volume** context |
| Context | **configure** application-assurance group *number* cflowd volume |
| Tree | volume |
| Description | Commands in this context configure the cflowd volume export. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **rate** *number*

| | |
|---|---|
| Synopsis | Cflowd packet sampling rate |
| Context | **configure** application-assurance group *number* cflowd volume rate *number* |
| Tree | rate |
| Range | 1 to 10000 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **template**

| | |
|---|---|
| Synopsis | Enter the **template** context |
| Context | **configure** application-assurance group *number* cflowd volume template |
| Tree | template |
| Description | Commands in this context configure the template for cflowd volume fields. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **dynamic-fields**

| | |
|---|---|
| Synopsis | Enter the **dynamic-fields** context |
| Context | **configure** application-assurance group *number* cflowd volume template dynamic-fields |
| Tree | dynamic-fields |
| Description | Commands in this context configure the fields to be included in the exported cflowd template. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the dynamic fields |
| Context | **configure** application-assurance group *number* cflowd volume template dynamic-fields admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |


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| | |
|---|---|
| Default | disable |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **field** [field-name] *named-item*

| | |
|---|---|
| Synopsis | Add a list entry for **field** |
| Context | **configure** application-assurance group *number* cflowd volume template dynamic-fields field *named-item* |
| Tree | field |
| Description | This command adds a list entry for the fields to be included in the exported cflowd template. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**field-name**] *named-item*

| | |
|---|---|
| Synopsis | Cflowd template dynamic field name |
| Context | **configure** application-assurance group *number* cflowd volume template dynamic-fields field *named-item* |
| Tree | field |
| Description | This command specifies the name of the field to be included in the exported cflowd template. |

- Common to all templates are the following values: session/flowStartSeconds, session/flowDurationMilliseconds, postIpPrecedence, ipTTL, aaProt, aaApp, aa AppGrp, hostName, deviceId, deviceMfgId, deviceOsId, ipFamily, deviceOsVer1, deviceOsVer2, deviceOsVer3, anlType, anlTopology, anlCongestionState, timeZone, aaChargingGrp, flowAttr_video, flowAttr_abr_service, flowAttr_audio, flowAttr_encrypted, flowAttr_download, flowAttr_upload, flowAttr_realtime_communication, aa SubTetheringState
- When AA is deployed in FWA SR, the following value applies: ApnExtended
- For the TCP and comprehensive templates only, the following values apply: tcp SessionEstDelay, tcpRetransmittedBytes, tcpRetransmittedPackets
- For the comprehensive templates only when deployed on VSR or ESA in FWA SR configured in the residential mode, the following values apply: dnsAnswerName, dnsType, dnsState, dnsTid, tlsCname, sliceId, mmeAmfAddr, flowActiveBytes, flow ActiveTime, qci, policyRuleName chargeVolumeIPBytes, http-url-len http-uri http-referer http-ua http-ua-len http-request-method http-content-type httpReplyCode http-contentlen


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- For the Comprehensive template only (in Residential AA scale mode): sessionStart Milliseconds, sessionEndMilliseconds, flow-end-reason, aaSystemName

| | |
|---|---|
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **field-selection** *keyword*

| | |
|---|---|
| Synopsis | Field selection method |
| Context | **configure** application-assurance group *number* cflowd volume template field-selection *keyword* |
| Tree | field-selection |
| Description | This command configures the method for selecting the fields to be included in the exported cflowd template. |
| Options | legacy, dynamic |
| Default | legacy |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **dns-ip-cache** [dns-ip-cache-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **dns-ip-cache** list instance |
| Context | **configure** application-assurance group *number* dns-ip-cache *named-item* |
| Tree | dns-ip-cache |
| Description | Commands in this context configure a DNS IP cache that is used to snoop DNS requests generated by subscribers, to populate a cache of IP addresses that match a specified list of domain names. In the context of strengthening URL-content charging, Operators may also specify a list of trusted DNS servers to populate the DNS IP cache. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**dns-ip-cache-name**] *named-item*

| | |
|---|---|
| Synopsis | DNS IP cache name within the AA group |
| Context | **configure** application-assurance group *number* dns-ip-cache *named-item* |
| Tree | dns-ip-cache |


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| | |
|---|---|
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the AA DNS IP cache object |
| Context | **configure** application-assurance group *number* dns-ip-cache *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** application-assurance group *number* dns-ip-cache *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **dns-match**

| | |
|---|---|
| Synopsis | Enter the **dns-match** context |
| Context | **configure** application-assurance group *number* dns-ip-cache *named-item* dns-match |
| Tree | dns-match |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **domain** [domain-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **domain** list instance |
| Context | **configure** application-assurance group *number* dns-ip-cache *named-item* dns-match domain *named-item* |
| Tree | domain |
| Description | Commands in this context configure a domain expression to populate the DNS IP cache. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**domain-name**] *named-item*

| | |
|---|---|
| Synopsis | DNS IP cache domain name |
| Context | **configure** application-assurance group *number* dns-ip-cache *named-item* dns-match domain *named-item* |
| Tree | domain |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **expression** *display-string*

| | |
|---|---|
| Synopsis | AA DNS domain expression to match |
| Context | **configure** application-assurance group *number* dns-ip-cache *named-item* dns-match domain *named-item* expression *display-string* |
| Tree | expression |
| Description | This command specifies a domain name expression string used to define a pattern match. The domain expression uses the same syntax as the expressions used in **configure application-assurance group partition policy app-filter entry app-filters** configuration. |
| String length | 1 to 255 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **trusted-server-address** [dns-server-address] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Enter the **trusted-server-address** list instance |
| Context | **configure** application-assurance group *number* dns-ip-cache *named-item* dns-match trusted-server-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | trusted-server-address |
| Description | Commands in this context configure a trusted DNS server address. DNS responses from this DNS server are used to populate the DNS IP cache. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**dns-server-address**] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Trusted DNS server address |
| Context | **configure** application-assurance group *number* dns-ip-cache *named-item* dns-match trusted-server-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | trusted-server-address |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **server-name** *named-item*

| | |
|---|---|
| Synopsis | DNS server name |
| Context | **configure** application-assurance group *number* dns-ip-cache *named-item* dns-match trusted-server-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* server-name *named-item* |
| Tree | server-name |
| String length | 1 to 32 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ip-cache**

| | |
|---|---|
| Synopsis | Enter the **ip-cache** context |
| Context | **configure** application-assurance group *number* dns-ip-cache *named-item* ip-cache |


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| | |
|---|---|
| Tree | ip-cache |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **high-watermark** *number*

| | |
|---|---|
| Synopsis | High watermark value for the DNS IP cache |
| Context | **configure** application-assurance group *number* dns-ip-cache *named-item* ip-cache high-watermark *number* |
| Tree | high-watermark |
| Description | This command configures the high watermark value for the DNS IP cache. When the number of cached IP addresses exceeds the threshold, the system generates a trap. |
| Range | 0 to 100 |
| Default | 90 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **low-watermark** *number*

| | |
|---|---|
| Synopsis | Low watermark value for the DNS IP cache |
| Context | **configure** application-assurance group *number* dns-ip-cache *named-item* ip-cache low-watermark *number* |
| Tree | low-watermark |
| Description | This command configures the low watermark value for the DNS IP cache. When the number of cached IP addresses exceeds the high watermark threshold, the system generates a trap based on the high watermark. The trap clears after the number of cached IP addresses drops below the configured low watermark value. |
| Range | 0 to 100 |
| Default | 80 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **size** *number*

| | |
|---|---|
| Synopsis | Maximum number of IP addresses stored in the cache |
| Context | **configure** application-assurance group *number* dns-ip-cache *named-item* ip-cache size *number* |


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| | |
|---|---|
| Tree | size |
| Range | 10 to 64000 |
| Default | 10 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **static-address** [static-ip-address] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Add a list entry for **static-address** |
| Context | **configure** application-assurance group *number* dns-ip-cache *named-item* ip-cache static-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | static-address |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**static-ip-address**] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Trusted IP address for the DNS IP cache |
| Context | **configure** application-assurance group *number* dns-ip-cache *named-item* ip-cache static-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | static-address |
| Description | This command configures an IP address to be used as a trusted IP address. For packets whose destination IP address matches that of the trusted IP address, a cache hit is assumed. |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **http-enrich** [http-enrich-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **http-enrich** list instance |
| Context | **configure** application-assurance group *number* http-enrich *named-item* |
| Tree | http-enrich |
| Description | Commands in this context configure the attributes of the HTTP enrichment policy. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### [**http-enrich-name**] *named-item*

| | |
|---|---|
| Synopsis | HTTP header enrichment policy name |
| Context | **configure** application-assurance group *number* http-enrich *named-item* |
| Tree | http-enrich |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the HTTP enrichment policy |
| Context | **configure** application-assurance group *number* http-enrich *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** application-assurance group *number* http-enrich *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **field** [field-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **field** list instance |
| Context | **configure** application-assurance group *number* http-enrich *named-item* field *named-item* |


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| | |
|---|---|
| Tree | field |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**field-name**] *named-item*

| | |
|---|---|
| Synopsis | Field name to insert into the HTTP header |
| Context | **configure** application-assurance group *number* http-enrich *named-item* field *named-item* |
| Tree | field |
| Description | This command specifies the field type to insert into the HTTTP header. The command must be repeated for each field to be inserted. The same field cannot be inserted twice into the header under different header names.<br><br>**Note**: AA can insert two copies of the following fields in the same HTTP header (with a different header name):<br><br>imei-hyphenated, imei-hyphenated-2, imsi, imsi-2, static-string, static-string-2, user-location-raw, and user-location-raw2.<br><br>The following field types are supported in any deployment:<br><br>static-string - header name for the inserted string<br><br>static-string-2 - header name for the inserted string<br><br>subscriber-id - header name for the subscriber ID<br><br>subscriber-ip - header name for the subscriber IP address<br><br>The following field types are supported in Fixed Wireless Access (FWA) deployments only:<br><br>apn - complete APN string<br><br>apn-ni - APN Network Identifier (APN-NI) used by the UE<br><br>billing-type - UE charging type (charging characteristics)<br><br>dynamic-acr - dynamic Anonymous Customer Record (ACR)<br><br>static-acr - static ACR<br><br>imei-hyphenated - subscriber IMEI with format AABBBBBB-CCCCCC-EE<br><br>imei-hyphenated-2 - subscriber IMEI with format AABBBBBB-CCCCCC-EE<br><br>imei-sv - subscriber IMEI with format AABBBBBBCCCCCCEE<br><br>imsi - subscriber IMSI<br><br>imsi-2 - subscriber IMSI<br><br>msisdn - subscriber MSISDN<br><br>msisdn-ts - subscriber MSISDN appended with the UNIX timestamp<br><br>msisdn-without-cc - subscriber MSISDN without a country code<br><br>pgw-ggsn-address - PGW/GGSN address serving the UE |


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plmn-id - Public Land Mobile Network (PLMN) ID of the SGSN/MME

rat-type - Radio Access Technology (RAT) type

timestamp - timestamp inserted in UNIX time format; for example, 1531204313

user-location - UE LOCATION (ULI)

user-location-3gpp - ULI encoded as defined in 3GPP 29.061

user-location-raw - ULI in raw format:<ULI-TYPE1>[+<ULI-TYPE2>]=<ULI HEX>

Example: x-locinfo: TAI+ECGI=1300622c46130062014adf16

user-location-raw-2 - ULI in raw format:<ULI-TYPE1>[+<ULI-TYPE2>]=<ULI HEX>

Example: x-locinfo: TAI+ECGI=1300622c46130062014adf16

| | |
|---|---|
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **aes-initialization-vector** *hex-string*

| | |
|---|---|
| Synopsis | Initialization vector for the AES CBC encryption |
| Context | **configure** application-assurance group *number* http-enrich *named-item* field *named-item* aes-initialization-vector *hex-string* |
| Tree | aes-initialization-vector |
| Description | This command configures the initialization vector used for the AES CBC encryption. The vector consists of 34 characters, that is, 0x followed by exactly 32 hexadecimal characters. |
| String length | 34 |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **anti-spoof** *boolean*

| | |
|---|---|
| Synopsis | Enable anti-spoofing |
| Context | **configure** application-assurance group *number* http-enrich *named-item* field *named-item* anti-spoof *boolean* |
| Tree | anti-spoof |
| Description | When configured to **true**, this command enables the HTTP header enrichment anti-spoofing functionality. |
| Default | false |


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| | |
|---|---|
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **calling-line-id** *boolean*

| | |
|---|---|
| Synopsis | Enable calling line identification |
| Context | **configure** application-assurance group *number* http-enrich *named-item* field *named-item* calling-line-id *boolean* |
| Tree | calling-line-id |
| Description | When configured to **true**, this command configures the HTTP header for “x-up-calling-line-id” anti-spoofing. |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **encode**

| | |
|---|---|
| Synopsis | Enter the **encode** context |
| Context | **configure** application-assurance group *number* http-enrich *named-item* field *named-item* encode |
| Tree | encode |
| Description | Commands in this context configure the encoding applied to the HTTP header enrichment field. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **cert-base64** *reference*

| | |
|---|---|
| Synopsis | Certificate profile name |
| Context | **configure** application-assurance group *number* http-enrich *named-item* field *named-item* encode cert-base64 *reference* |
| Tree | cert-base64 |
| Reference | **configure** application-assurance group *number* certificate-profile *named-item* |
| Notes | The following elements are part of a choice: **cert-base64**, **cert-profile**, or **key**. |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **cert-profile** *reference*

| | |
|---|---|
| Synopsis | Certificate profile name used for encryption |
| Context | **configure** application-assurance group *number* http-enrich *named-item* field *named-item* encode cert-profile *reference* |
| Tree | cert-profile |
| Reference | **configure** application-assurance group *number* certificate-profile *named-item* |
| Notes | The following elements are part of a choice: **cert-base64**, **cert-profile**, or **key**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **key**

| | |
|---|---|
| Synopsis | Enter the **key** context |
| Context | **configure** application-assurance group *number* http-enrich *named-item* field *named-item* encode key |
| Tree | key |
| Description | Commands in this context configure the encryption fields. |
| Notes | The following elements are part of a choice: **cert-base64**, **cert-profile**, or **key**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **type** *keyword*

| | |
|---|---|
| Synopsis | Encoding type |
| Context | **configure** application-assurance group *number* http-enrich *named-item* field *named-item* encode key type *keyword* |
| Tree | type |
| Description | This command configures the encoding/ encryption method. |
| Options | md5, rc4, rc4-md5-base64, aes128, aes256, aes128cbc, aes256cbc |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **value** *encrypted-leaf*

| | |
|---|---|
| Synopsis | Secret key for encrypting the field |
| Context | **configure** application-assurance group *number* http-enrich *named-item* field *named-item* encode key value *encrypted-leaf* |
| Tree | value |
| String length | 1 to 114 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **md5-salt** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | MD5 salt string |
| Context | **configure** application-assurance group *number* http-enrich *named-item* field *named-item* md5-salt *string-not-all-spaces* |
| Tree | md5-salt |
| Description | This command configures an MD5 salt string. The configured string is appended to the parameter before performing MD5 hashing of the field. |
| String length | 1 to 16 |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **name** *named-item*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | HTTP header field name |
| Context | **configure** application-assurance group *number* http-enrich *named-item* field *named-item* name *named-item* |
| Tree | name |
| String length | 1 to 32 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **static-string** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | HTTP header enrichment template field static string |
| Context | **configure** application-assurance group *number* http-enrich *named-item* field *named-item* static-string *string-not-all-spaces* |
| Tree | static-string |
| String length | 1 to 16 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **rat-type-enrichment**

| | |
|---|---|
| Synopsis | Enter the **rat-type-enrichment** context |
| Context | **configure** application-assurance group *number* http-enrich *named-item* rat-type-enrichment |
| Tree | rat-type-enrichment |
| Description | Commands in this context configure Radio Access Type (RAT) enrichment. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **rat-type** [rat-type-name] *keyword*

| | |
|---|---|
| Synopsis | Enter the **rat-type** list instance |
| Context | **configure** application-assurance group *number* http-enrich *named-item* rat-type-enrichment rat-type *keyword* |
| Tree | rat-type |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**rat-type-name**] *keyword*

| | |
|---|---|
| Synopsis | RAT type name |
| Context | **configure** application-assurance group *number* http-enrich *named-item* rat-type-enrichment rat-type *keyword* |
| Tree | rat-type |
| Description | This command configures a customised RAT value for the specified RAT-Type. |


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| | |
|---|---|
| Options | utran, geran, wlan, gan, hspa-evol, eutran, virtual, eutran-nb, ehrpd, hrpd, cdma-1x, umb, wifi, nr, lte-m |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **rat-string** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | Customised RAT type value |
| Context | **configure** application-assurance group *number* http-enrich *named-item* rat-type-enrichment rat-type *keyword* rat-string *string-not-all-spaces* |
| Tree | rat-string |
| String length | 1 to 31 |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **http-error-redirect** [http-error-redirect-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **http-error-redirect** list instance |
| Context | **configure** application-assurance group *number* http-error-redirect *named-item* |
| Tree | http-error-redirect |
| Description | Commands in this context configure an HTTP error redirect policy that contains important information relevant to the redirect server. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**http-error-redirect-name**] *named-item*

| | |
|---|---|
| Synopsis | HTTP error redirect policy name |
| Context | **configure** application-assurance group *number* http-error-redirect *named-item* |
| Tree | http-error-redirect |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the HTTP error redirect object |
| Context | **configure** application-assurance group *number* http-error-redirect *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** application-assurance group *number* http-error-redirect *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **error-code** [error-code-value] *number*

| | |
|---|---|
| Synopsis | Enter the **error-code** list instance |
| Context | **configure** application-assurance group *number* http-error-redirect *named-item* error-code *number* |
| Tree | error-code |
| Description | Commands in this context configure the HTTP error status codes to which a redirect action is applied. Only messages with sizes less than that configured for the **custom-message-size** command are eligible for redirect action. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### [**error-code-value**] *number*

| | |
|---|---|
| Synopsis | HTTP error code value for an HTTP error redirect |
| Context | **configure** application-assurance group *number* http-error-redirect *named-item* error-code *number* |
| Tree | error-code |
| Range | 400 to 999 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **custom-message-size** *number*

| | |
|---|---|
| Synopsis | HTTP error redirect error code custom message size |
| Context | **configure** application-assurance group *number* http-error-redirect *named-item* error-code *number* custom-message-size *number* |
| Tree | custom-message-size |
| Description | This command specifies the maximum message size above which an HTTP error redirect is not performed. |
| Max. range | 0 to 4294967295 |
| Units | octets |
| Default | 1024 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **http-host** *display-string*

| | |
|---|---|
| Synopsis | HTTP host for the HTTP error redirect object |
| Context | **configure** application-assurance group *number* http-error-redirect *named-item* http-host *display-string* |
| Tree | http-host |
| Description | This command specifies the HTTP hostname of the landing server (Barefruit or Xerocole). It is used in the HTTP GET operation from the client (which is being redirected) to the redirect search landing server. The hostname must contain a valid IP address or HTTP hostname or URI for the HTTP GET from the client to the landing server. |
| String length | 1 to 255 |


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| | |
|---|---|
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **participant-id** *named-item*

| | |
|---|---|
| Synopsis | Participant ID for the HTTP error redirect object |
| Context | **configure** application-assurance group *number* http-error-redirect *named-item* participant-id *named-item* |
| Tree | participant-id |
| Description | This command specifies a string assigned to the operator by Barefruit. It is used by Barefruit landing servers (applies to template # 1 only). |
| String length | 1 to 32 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **template** *number*

| | |
|---|---|
| Synopsis | Template ID for the HTTP error redirect object |
| Context | **configure** application-assurance group *number* http-error-redirect *named-item* template *number* |
| Tree | template |
| Description | This command configures the template of parameters passed from the AA-ISA to the redirect server using JavaScript in the redirect packet. The template is specific to the redirect server used in the network. Currently, two partners are supported with AA-ISA redirect solution, Barefruit, and Xerocole. |
| Max. range | 0 to 4294967295 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **http-notification** [http-notification-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **http-notification** list instance |
| Context | **configure** application-assurance group *number* http-notification *named-item* |
| Tree | http-notification |
| Description | Commands in this context configure an HTTP notification object for the subscriber in-browser notification. |
| Introduced | 21.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**http-notification-name**] *named-item*

| | |
|---|---|
| Synopsis | HTTP notification policy name |
| Context | **configure** application-assurance group *number* http-notification *named-item* |
| Tree | http-notification |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the AA HTTP notification object |
| Context | **configure** application-assurance group *number* http-notification *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** application-assurance group *number* http-notification *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **interval** *(number | keyword)*

| | |
|---|---|
| Synopsis | Minimum HTTP response notification interval |


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| | |
|---|---|
| Context | **configure** application-assurance group *number* http-notification *named-item* interval *(number \| keyword)* |
| Tree | interval |
| Range | 1 to 1440 |
| Units | minutes |
| Options | one-time |
| Default | one-time |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **script-url** *http-redirect-url*

| | |
|---|---|
| Synopsis | Script URL inserted into the HTTP response |
| Context | **configure** application-assurance group *number* http-notification *named-item* script-url *http-redirect-url* |
| Tree | script-url |
| Description | This command configures the URL of the script used by the HTTP notification policy. |
| String length | 1 to 255 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **template** *number*

| | |
|---|---|
| Synopsis | Template ID for the AA HTTP notification object |
| Context | **configure** application-assurance group *number* http-notification *named-item* template *number* |
| Tree | template |
| Description | This command configures the template that defines the format and attributes included in the HTTP notification message. |
| Max. range | 0 to 4294967295 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **http-redirect** [http-redirect-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **http-redirect** list instance |


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| | |
|---|---|
| Context | **configure** application-assurance group *number* http-redirect *named-item* |
| Tree | http-redirect |
| Description | Commands in this context configure the parameters of the HTTP redirect policy. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## [**http-redirect-name**] *named-item*

| | |
|---|---|
| Synopsis | HTTP redirect policy name |
| Context | **configure** application-assurance group *number* http-redirect *named-item* |
| Tree | http-redirect |
| Description | This command specifies the applied HTTP redirect name. If no redirect name is specified, HTTP redirect is not enabled. |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the AA HTTP redirect object |
| Context | **configure** application-assurance group *number* http-redirect *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **captive-redirect**

| | |
|---|---|
| Synopsis | Enter the **captive-redirect** context |
| Context | **configure** application-assurance group *number* http-redirect *named-item* captive-redirect |
| Tree | captive-redirect |


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| | |
|---|---|
| Description | Commands in this context configure the captive redirect capability for an HTTP redirect policy. HTTP redirect policies using captive redirect can be used in conjunction with a session-filter policy to terminate TCP flows in the ISA-AA card before reaching the Internet to redirect subscribers to the predefined redirect URL.<br>Non-HTTP TCP flows are TCP reset. Captive redirect uses the provisioned VLAN ID to send the HTTP response to subscribers; therefore, this VLAN ID must be properly assigned in the same VPN as the subscriber.<br>The operator can select the URL arguments to include in the redirect URL using either a specific template ID or by configuring the redirect URL using a supported macro substitution keyword. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **vlan-id** *number*

| | |
|---|---|
| Synopsis | Captive redirect VLAN ID |
| Context | **configure** application-assurance group *number* http-redirect *named-item* captive-redirect vlan-id *number* |
| Tree | vlan-id |
| Description | This command configures the VLAN ID for a captive redirect. Captive redirect uses the provisioned VLAN ID to send the HTTP response to subscribers; therefore, this VLAN ID must be properly assigned in the same VPN as the subscriber. |
| Range | 1 to 4094 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** application-assurance group *number* http-redirect *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **redirect-https** *boolean*

| | |
|---|---|
| Synopsis | Enable HTTPS redirect |
| Context | **configure** application-assurance group *number* http-redirect *named-item* redirect-https *boolean* |
| Tree | redirect-https |
| Description | When set to **true**, the HTTP redirect policy redirects HTTPS sessions to the configured redirect URL. |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **redirect-url** *http-redirect-url*

| | |
|---|---|
| Synopsis | HTTP redirect URL |
| Context | **configure** application-assurance group *number* http-redirect *named-item* redirect-url *http-redirect-url* |
| Tree | redirect-url |
| Description | This command configures the HTTP redirect URL which is the URL (page) that the user is redirected to when an HTTP redirect takes effect.<br>The operator can select the URL arguments to include in the redirect URL, using either a specific template ID or by configuring any of the following macro substitution keywords:<br>• $URL - The Request-URI in the HTTP GET Request received<br>• $SUB - The subscriber ID<br>• $IP - The IP address of the subscriber host<br>• $RTRID - The router ID<br>• $URLPRM - The HTTP URL parameter associated with the subscriber<br>• $MAC - The UE MAC address<br>• $SAP - The UE SAP<br>• $CID - The circuit ID or interface ID of the subscriber<br>• $RID - The remote ID of the subscriber<br>• $CATID - The URL filter web-service rating category identifier<br>• $CATNAME - The URL filter web-service rating category name<br>Only ESM and ESM-MAC sub types support $MAC, $SAP, $CID, and $RID macro substitution. |
| String length | 1 to 255 |


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| | |
|---|---|
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **tcp-client-reset** *boolean*

| | |
|---|---|
| Synopsis | Enable TCP client reset |
| Context | **configure** application-assurance group *number* http-redirect *named-item* tcp-client-reset *boolean* |
| Tree | tcp-client-reset |
| Description | When configured to **true**, this command enables an HTTP-redirect policy to initiate a TCP reset towards the client if the AA policy results in a redirect with packet drop but the HTTP redirect cannot be delivered. Scenarios for this include HTTP (TLS) sessions, blocking of non-HTTP TCP traffic, and blocking of existing flows after a policy re-evaluation of an existing subscriber. |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **template** *number*

| | |
|---|---|
| Synopsis | Template ID for the HTTP redirect object |
| Context | **configure** application-assurance group *number* http-redirect *named-item* template *number* |
| Tree | template |
| Description | This command configures the template that defines which parameters are appended to the HTTP host redirect field in the redirect message. The HTTP redirect template provides HTTP 302 redirect containing only the URL specified in the redirect policy, with no other parameters. |
| Max. range | 0 to 4294967295 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **ip-identification-assist**

| | |
|---|---|
| Synopsis | Enter the **ip-identification-assist** context |
| Context | **configure** application-assurance group *number* ip-identification-assist |
| Tree | ip-identification-assist |


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| | |
|---|---|
| Description | Commands in this context configure the IP identification assist feature, which uses IP addresses to assist in traffic identification.<br>This optional mechanism is enabled by default and consults an internally generated and stored database when app-filters fail to classify the traffic as one of the configured applications from the AppDB.<br>Use the **configure application-assurance group ip-identification-assist admin-state** command to disable the administrative state of the IP identification assist feature. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of IP identification assist |
| Context | **configure** application-assurance group *number* ip-identification-assist admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **passive-dns**

| | |
|---|---|
| Synopsis | Enter the **passive-dns** context |
| Context | **configure** application-assurance group *number* ip-identification-assist passive-dns |
| Tree | passive-dns |
| Description | Commands in this context configure passive DNS monitoring for the IP identification assist feature. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **monitor** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Use passive DNS monitoring to collect IP addresses |


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| | |
|---|---|
| Context | **configure** application-assurance group *number* ip-identification-assist passive-dns monitor *boolean* |
| Tree | monitor |
| Description | When configured to **true**, the router collects IP addresses by passively monitoring DNS traffic. The router uses the collected IP addresses to build its internal database. |
| Default | true |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **trusted-server** [ip-address] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Enter the **trusted-server** list instance |
| Context | **configure** application-assurance group *number* ip-identification-assist passive-dns trusted-server *(ipv4-address-no-zone | ipv6-address-no-zone)* |
| Tree | trusted-server |
| Description | Commands in this context configure a DNS server that the IP identification assist feature is allowed to passively monitor. |
| Max. instances | 64 |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**ip-address**] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the DNS server |
| Context | **configure** application-assurance group *number* ip-identification-assist passive-dns trusted-server *(ipv4-address-no-zone | ipv6-address-no-zone)* |
| Tree | trusted-server |
| Notes | This element is part of a list key. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **comment** *named-item-or-empty*

| | |
|---|---|
| Synopsis | Name or description to associate with the DNS server |


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| | |
|---|---|
| Context | **configure** application-assurance group *number* ip-identification-assist passive-dns trusted-server *(ipv4-address-no-zone \| ipv6-address-no-zone)* comment *named-item-or-empty* |
| Tree | comment |
| String length | 0 to 32 |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## positive-app-id

| | |
|---|---|
| Synopsis | Enter the **positive-app-id** context |
| Context | **configure** application-assurance group *number* ip-identification-assist positive-app-id |
| Tree | positive-app-id |
| Description | Commands in this context implement the positive application identification mechanism, which monitors the correlations between IP addresses and applications identified with a high degree of confidence independently of any IP identification assist mechanism. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## enabled *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Use the positive application identification mechanism |
| Context | **configure** application-assurance group *number* ip-identification-assist positive-app-id enabled *boolean* |
| Tree | enabled |
| Description | When configured to **true**, the router uses the positive application identification mechanism. This mechanism causes the router to add the IP addresses of the global applications learned through AA analysis into the IP identification assist cache. The router uses the harvested IP addresses to build its internal application-IP database.<br>When configured to **false**, only DNS is used to harvest IP addresses. |
| Default | true |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **partition** [aa-partition-id] *number*

| | |
|---|---|
| Synopsis | Enter the **partition** list instance |
| Context | **configure** application-assurance group *number* partition *number* |
| Tree | partition |
| Description | Commands in this context configure the AA partition-related policies. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**aa-partition-id**] *number*

| | |
|---|---|
| Synopsis | Partition ID within the AA group |
| Context | **configure** application-assurance group *number* partition *number* |
| Tree | partition |
| Range | 0 to 65535 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **aa-sub-congestion-detection**

| | |
|---|---|
| Synopsis | Enter the **aa-sub-congestion-detection** context |
| Context | **configure** application-assurance group *number* partition *number* aa-sub-congestion-detection |
| Tree | aa-sub-congestion-detection |
| Description | Commands in this context configure congestion detection parameters related to Non-location Based Dynamic Experience Management (NLB-DEM).<br>**Note:** NLB-DEM cannot be enabled if Access-Network Location (ANL) DEM mode is enabled; the two are mutually exclusive. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of congestion detection |


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| | |
|---|---|
| Context | **configure** application-assurance group *number* partition *number* aa-sub-congestion-detection admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **rat-type** [rat-type-name] *keyword*

| | |
|---|---|
| Synopsis | Enter the **rat-type** list instance |
| Context | **configure** application-assurance group *number* partition *number* aa-sub-congestion-detection rat-type *keyword* |
| Tree | rat-type |
| Description | Commands in this context configure the RAT types for which unique RTT thresholds are configured. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**rat-type-name**] *keyword*

| | |
|---|---|
| Synopsis | Mobile radio access technology (RAT) type |
| Context | **configure** application-assurance group *number* partition *number* aa-sub-congestion-detection rat-type *keyword* |
| Tree | rat-type |
| Options | utran, geran, wlan, gan, hspa-evol, eutran, virtual, eutran-nb, ehrpd, hrpd, cdma-1x, umb, wifi, nr, lte-m |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **rtt-threshold** *(number | keyword)*

| | |
|---|---|
| Synopsis | Round trip time congestion threshold for a RAT type |
| Context | **configure** application-assurance group *number* partition *number* aa-sub-congestion-detection rat-type *keyword* rtt-threshold *(number | keyword)* |
| Tree | rtt-threshold |


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| | |
|---|---|
| Description | This command configures the maximum acceptable round trip time (RTT) under no congestion. Any measured RTT above the threshold is considered an indication of possible congestion. |
| Range | 1 to 500 |
| Units | milliseconds |
| Options | not-applicable |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **rtt-threshold** *(number | keyword)*

| | |
|---|---|
| Synopsis | Round trip time congestion threshold |
| Context | **configure** application-assurance group *number* partition *number* aa-sub-congestion-detection rtt-threshold *(number \| keyword)* |
| Tree | rtt-threshold |
| Description | This command configures the default round trip delay threshold used by the DEM gateway algorithm to determine subscriber congestion for NLB-DEM. This default value is used when the current RAT-Type is not known, or has no associated configured RTT threshold. |
| Range | 1 to 500 |
| Units | milliseconds |
| Options | not-applicable |
| Default | 173 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **rtt-threshold-tolerance** *number*

| | |
|---|---|
| Synopsis | RTT threshold tolerance for congestion detection |
| Context | **configure** application-assurance group *number* partition *number* aa-sub-congestion-detection rtt-threshold-tolerance *number* |
| Tree | rtt-threshold-tolerance |
| Description | This command configures the round trip delay threshold tolerance used by the DEM gateway algorithm to determine subscriber-level congestion. |
| Range | 0 to 100 |
| Units | percent |


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| | |
|---|---|
| Default | 50 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **aa-sub-remote** *boolean*

| | |
|---|---|
| Synopsis | Reverse subscriber traffic direction |
| Context | **configure** application-assurance group *number* partition *number* aa-sub-remote *boolean* |
| Tree | aa-sub-remote |
| Description | When configured to **true**, the direction of the from-subscriber and to-subscriber traffic is reversed for this group partition. |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **access-network-location**

| | |
|---|---|
| Synopsis | Enter the **access-network-location** context |
| Context | **configure** application-assurance group *number* partition *number* access-network-location |
| Tree | access-network-location |
| Description | Commands in this context configure parameters related to dynamic experience management, also known as Access Network Location (ANL). |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **source** [source-type] *keyword*

| | |
|---|---|
| Synopsis | Enter the **source** list instance |
| Context | **configure** application-assurance group *number* partition *number* access-network-location source *keyword* |
| Tree | source |
| Description | Commands in this context configure location sources for dynamic experience management. |
| Max. instances | 1 |


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| | |
|---|---|
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**source-type**] *keyword*

| | |
|---|---|
| Synopsis | Access network location source |
| Context | **configure** application-assurance group *number* partition *number* access-network-location source *keyword* |
| Tree | source |
| Description | This command specifies the location or access technology. AA supports access points for WLGW access points or ULI-2gpp for mobile (for example, FWA). |
| Options | mobile-3g, access-point, uli-3gpp |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **rat-type** [rat-type-name] *keyword*

| | |
|---|---|
| Synopsis | Enter the **rat-type** list instance |
| Context | **configure** application-assurance group *number* partition *number* access-network-location source *keyword* rat-type *keyword* |
| Tree | rat-type |
| Description | Commands in this context configure the RAT types for which unique RTT thresholds are configured. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**rat-type-name**] *keyword*

| | |
|---|---|
| Synopsis | Access network location RAT type |
| Context | **configure** application-assurance group *number* partition *number* access-network-location source *keyword* rat-type *keyword* |
| Tree | rat-type |
| Options | utran, geran, wlan, gan, hspa-evol, eutran, virtual, eutran-nb, ehrpd, hrpd, cdma-1x, umb, wifi, nr, lte-m |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **rtt-threshold** *(number | keyword)*

| | |
|---|---|
| Synopsis | RTT congestion threshold for a RAT type |
| Context | **configure** application-assurance group *number* partition *number* access-network-location source *keyword* rat-type *keyword* rtt-threshold *(number \| keyword)* |
| Tree | rtt-threshold |
| Description | This command specifies the maximum acceptable round trip time (RTT) under no congestion. Any measured RTT above the threshold is considered an indication of possible congestion. |
| Range | 1 to 500 |
| Units | milliseconds |
| Options | not-applicable |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **rtt-threshold** *(number | keyword)*

| | |
|---|---|
| Synopsis | Source round trip time congestion threshold |
| Context | **configure** application-assurance group *number* partition *number* access-network-location source *keyword* rtt-threshold *(number \| keyword)* |
| Tree | rtt-threshold |
| Description | This command configures the default round trip delay threshold used by the DEM gateway algorithm to determine ANL congestion. This default value is used when either the ANL RAT-Type is not known or has no associated configured RTT threshold. |
| Range | 1 to 500 |
| Units | milliseconds |
| Options | not-applicable |
| Default | 173 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **rtt-threshold-tolerance** *number*

| | |
|---|---|
| Synopsis | Source round trip time congestion threshold tolerance |
| Context | **configure** application-assurance group *number* partition *number* access-network-location source *keyword* rtt-threshold-tolerance *number* |
| Tree | rtt-threshold-tolerance |
| Description | This command configures the ANL round trip delay threshold tolerance used by the DEM gateway algorithm to determine ANL-level congestion. |
| Range | 0 to 100 |
| Units | percent |
| Default | 50 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **source-level** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Access network location source level |
| Context | **configure** application-assurance group *number* partition *number* access-network-location source *keyword* source-level *keyword* |
| Tree | source-level |
| Options | cell, transport-network-link, mac-vlan |
| Default | cell |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **aqp-initial-lookup** *boolean*

| | |
|---|---|
| Synopsis | Enable AQP initial lookup |
| Context | **configure** application-assurance group *number* partition *number* aqp-initial-lookup *boolean* |
| Tree | aqp-initial-lookup |
| Description | When configured to **true**, this command allows AA to perform application QoS policy (AQP) lookups on flows prior to complete application identification. As usual, AQP will be looked up again when identification is complete. Without this, AA executes AQPs that |


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are part of the sub-default policy. The sub-default policy is formed by regular AQPs that contain ASOs, subID, or flow direction as matching conditions.

This behavior is required, for example, to apply GTP and SCTP filtering on the first packet of a new GTP/SCTP flow (AQP matching conditions).

When configured to **false**, AA only performs AQP lookups when identification is complete.

| | |
|---|---|
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## cflowd

| | |
|---|---|
| Synopsis | Enter the **cflowd** context |
| Context | **configure** application-assurance group *number* partition *number* cflowd |
| Tree | cflowd |
| Description | Commands in this context configure the AA partition-based cflowd fields. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **export-type** [flow-export-type] *keyword*

| | |
|---|---|
| Synopsis | Enter the **export-type** list instance |
| Context | **configure** application-assurance group *number* partition *number* cflowd export-type *keyword* |
| Tree | export-type |
| Description | Commands in this context configure the scope of traffic subjected to AA cflowd export. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## [**flow-export-type**] *keyword*

| | |
|---|---|
| Synopsis | Cflowd flow export type for the partition |
| Context | **configure** application-assurance group *number* partition *number* cflowd export-type *keyword* |
| Tree | export-type |
| Description | This command allows the operator to configure the scope of traffic that can be sampled for cflowd export for the configured cflowd template. |


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| | |
|---|---|
| Options | volume, tcp-performance, comprehensive |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of cflowd export |
| Context | **configure** application-assurance group *number* partition *number* cflowd export-type *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **app-group** [app-group-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **app-group** list instance |
| Context | **configure** application-assurance group *number* partition *number* cflowd export-type *keyword* app-group *reference* |
| Tree | app-group |
| Description | Commands in this context configure application groups for flow sampling and cflowd export. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**app-group-name**] *reference*

| | |
|---|---|
| Synopsis | Application group name |
| Context | **configure** application-assurance group *number* partition *number* cflowd export-type *keyword* app-group *reference* |
| Tree | app-group |
| Reference | **configure** application-assurance group *number* partition *number* policy app-group *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **rate-choice** *keyword*

| | |
|---|---|
| Synopsis | Cflowd rate to use for sampling |
| Context | **configure** application-assurance group *number* partition *number* cflowd export-type *keyword* app-group *reference* rate-choice *keyword* |
| Tree | rate-choice |
| Options | flow-rate, flow-rate-2 |
| Default | flow-rate |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **application** [application-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **application** list instance |
| Context | **configure** application-assurance group *number* partition *number* cflowd export-type *keyword* application *reference* |
| Tree | application |
| Description | Commands in this context configure applications for flow sampling and cflowd export. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**application-name**] *reference*

| | |
|---|---|
| Synopsis | Application name |
| Context | **configure** application-assurance group *number* partition *number* cflowd export-type *keyword* application *reference* |
| Tree | application |
| Reference | **configure** application-assurance group *number* partition *number* policy application *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **rate-choice** *keyword*

| | |
|---|---|
| Synopsis | Cflowd rate to use for sampling |
| Context | **configure** application-assurance group *number* partition *number* cflowd export-type *keyword* application *reference* rate-choice *keyword* |
| Tree | rate-choice |
| Options | flow-rate, flow-rate-2 |
| Default | flow-rate |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** application-assurance group *number* partition *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **event-log** [event-log-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **event-log** list instance |
| Context | **configure** application-assurance group *number* partition *number* event-log *named-item* |
| Tree | event-log |
| Description | Commands in this context configure an event log. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**event-log-name**] *named-item*

| | |
|---|---|
| Synopsis | Partition event log name |
| Context | **configure** application-assurance group *number* partition *number* event-log *named-item* |
| Tree | event-log |
| String length | 1 to 32 |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the event log |
| Context | **configure** application-assurance group *number* partition *number* event-log *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **buffer-type** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Event log buffer type |
| Context | **configure** application-assurance group *number* partition *number* event-log *named-item* buffer-type *keyword* |
| Tree | buffer-type |
| Options | linear, circular, syslog |
| Default | linear |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **max-entries** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum number of entries for the event log |


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| | |
|---|---|
| Context | **configure** application-assurance group *number* partition *number* event-log *named-item* max-entries *number* |
| Tree | max-entries |
| Range | 1 to 100000 |
| Default | 500 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## syslog

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **syslog** context |
| Context | **configure** application-assurance group *number* partition *number* event-log *named-item* syslog |
| Tree | syslog |
| Description | Commands in this context configure the syslog options for the partition. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## address *(ipv4-address-no-zone | ipv6-address-no-zone)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Syslog host IP address |
| Context | **configure** application-assurance group *number* partition *number* event-log *named-item* syslog address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | address |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## description *description*

| | |
|---|---|
| Synopsis | Text description |


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| | |
|---|---|
| Context | **configure** application-assurance group *number* partition *number* event-log *named-item* syslog description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **facility** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | AA syslog facility |
| Context | **configure** application-assurance group *number* partition *number* event-log *named-item* syslog facility *keyword* |
| Tree | facility |
| Description | This command configures the syslog facility. The syslog facility is an information field associated with a syslog message. It is defined by the syslog protocol and provides an indication of which part of the system originated the message. |
| Options | kernel, user, mail, systemd, auth, syslogd, printer, netnews, uucp, cron, authpriv, ftp, ntp, logaudit, logalert, cron2, local0, local1, local2, local3, local4, local5, local6, local7 |
| Default | local7 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **port** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | UDP port for syslog events |
| Context | **configure** application-assurance group *number* partition *number* event-log *named-item* syslog port *number* |
| Tree | port |
| Max. range | 0 to 65535 |
| Default | 514 |


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| | |
|---|---|
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **severity** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Syslog message severity level threshold |
| Context | **configure** application-assurance group *number* partition *number* event-log *named-item* syslog severity *keyword* |
| Tree | severity |
| Options | emergency, alert, critical, error, warning, notice, info, debug |
| Default | info |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **vlan-id** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | ISA service port VLAN ID for sending syslog traffic |
| Context | **configure** application-assurance group *number* partition *number* event-log *named-item* syslog vlan-id *number* |
| Tree | vlan-id |
| Description | This command configures the service port VLAN ID to be used by application assurance to provide syslog events. This VLAN ID also needs to be configured for the application assurance interface. |
| Range | 1 to 4094 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **gtp**

| | |
|---|---|
| Synopsis | Enter the **gtp** context |


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| | |
|---|---|
| Context | **configure** application-assurance group *number* partition *number* gtp |
| Tree | gtp |
| Description | Commands in this context configure GTP parameters. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of GTP |
| Context | **configure** application-assurance group *number* partition *number* gtp admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **gtp-filter** [gtp-filter-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **gtp-filter** list instance |
| Context | **configure** application-assurance group *number* partition *number* gtp gtp-filter *named-item* |
| Tree | gtp-filter |
| Description | Commands in this context allow AA to treat traffic on UDP port number 2152 as GTP-U. Without further specifying any other parameters within this GTP context, AA performs basic GTP-U header sanity checks and discards packets that are malformed. This GTP context also allows the operator to configure various GTP filters. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**gtp-filter-name**] *named-item*

| | |
|---|---|
| Synopsis | GTP filter name |
| Context | **configure** application-assurance group *number* partition *number* gtp gtp-filter *named-item* |
| Tree | gtp-filter |
| String length | 1 to 32 |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** application-assurance group *number* partition *number* gtp gtp-filter *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **gtp-in-gtp** *keyword*

| | |
|---|---|
| Synopsis | GTP in GTP packet filtering |
| Context | **configure** application-assurance group *number* partition *number* gtp gtp-filter *named-item* gtp-in-gtp *keyword* |
| Tree | gtp-in-gtp |
| Options | deny, permit |
| Default | permit |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **gtp-tunnel-database**

| | |
|---|---|
| Synopsis | Enter the **gtp-tunnel-database** context |
| Context | **configure** application-assurance group *number* partition *number* gtp gtp-filter *named-item* gtp-tunnel-database |
| Tree | gtp-tunnel-database |
| Description | Commands in this context configure GTP advanced firewall functions, such as validating GTP tunnels, sequence numbers, and source IP addresses). |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **default-tunnel-endpoint-limit** *number*

| | |
|---|---|
| Synopsis | Default GTP tunnel endpoint limit |
| Context | **configure** application-assurance group *number* partition *number* gtp gtp-filter *named-item* gtp-tunnel-database default-tunnel-endpoint-limit *number* |
| Tree | default-tunnel-endpoint-limit |
| Description | This command configures the maximum number of GTP endpoints requested in GTP-C messages by using, for example, the PDP Context Create message type.<br>The **validate-gtp-tunnels** command must be enabled before using this command. |
| Range | 1 to 4294967295 |
| Default | 4294967295 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **validate-gtp-tunnels** *boolean*

| | |
|---|---|
| Synopsis | Enable GTP tunnel validation |
| Context | **configure** application-assurance group *number* partition *number* gtp gtp-filter *named-item* gtp-tunnel-database validate-gtp-tunnels *boolean* |
| Tree | validate-gtp-tunnels |
| Description | When configured to **true**, this command configures GTP tunnel validation. This allows for the validation of TEIDs and is a prerequisite for sequence checking and UE IP address validation. This command is only applicable when AA GTP FW is deployed on S8/S5/Gp/Gn interfaces. The **gtpc-inspection** command in the **configure application-assurance group partition gtp** context must be configured to true before using this command.<br>When configured to **false**, the GTP tunnels cannot be validated. |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **validate-sequence-number** *boolean*

| | |
|---|---|
| Synopsis | Enable GTP sequence number checking |
| Context | **configure** application-assurance group *number* partition *number* gtp gtp-filter *named-item* gtp-tunnel-database validate-sequence-number *boolean* |
| Tree | validate-sequence-number |


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| | |
|---|---|
| Description | When configured to **true**, this command enables GTP sequence number checking. GTP packets that fail the sequence number check are discarded.<br>The **validate-gtp-tunnels** command in the **configure application-assurance group partition gtp gtp-filter gtp-tunnel-database** context must be configured to **true** before using this command.<br>When configured to **false**, the GTP packet sequence number cannot be checked. |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **validate-source-ip-addr** *boolean*

| | |
|---|---|
| Synopsis | Validate source IP address in GTP frames |
| Context | **configure** application-assurance group *number* partition *number* gtp gtp-filter *named-item* gtp-tunnel-database validate-source-ip-addr *boolean* |
| Tree | validate-source-ip-addr |
| Description | When configured to **true**, this command enables checking for spoofed or invalid UE IP addresses. Upstream GTP packets that contain invalid UE IP addresses are discarded. When a packet is dropped due to source-ip-address “invalid source IP add”, the statistics counter is updated.<br>The **validate-gtp-tunnels** command in the **configure application-assurance group partition gtp gtp-filter gtp-tunnel-database** context must be configured to **true** before using this command.<br>When configured to **false**, the spoofed or invalid UE IP addresses cannot be checked. |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **imsi-apn-filter**

| | |
|---|---|
| Synopsis | Enter the **imsi-apn-filter** context |
| Context | **configure** application-assurance group *number* partition *number* gtp gtp-filter *named-item* imsi-apn-filter |
| Tree | imsi-apn-filter |
| Description | Commands in this context configure IMSI and APN filtering.<br>The **gtpc-inspection** command in the **configure application-assurance group partition gtp** context must be configured to true before using this command.<br>This command is only applicable to the GTP packets that contain IMSI or APN information elements (IEs). |


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| | |
|---|---|
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **default-action** *keyword*

| | |
|---|---|
| Synopsis | IMSI APN filter default action |
| Context | **configure** application-assurance group *number* partition *number* gtp gtp-filter *named-item* imsi-apn-filter default-action *keyword* |
| Tree | default-action |
| Options | deny, permit |
| Default | permit |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **entry** [entry-id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** application-assurance group *number* partition *number* gtp gtp-filter *named-item* imsi-apn-filter entry *number* |
| Tree | entry |
| Description | Commands in this context configure an entry within the IMSI-APN filter to allow for IMSI-APN match and action configuration. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**entry-id**] *number*

| | |
|---|---|
| Synopsis | AA IMSI-APN filter entry ID |
| Context | **configure** application-assurance group *number* partition *number* gtp gtp-filter *named-item* imsi-apn-filter entry *number* |
| Tree | entry |
| Description | This command specifies the index in the IMSI-APN list that defines a custom filtering action. |
| Range | 1031 to 2030 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |


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Platforms 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR

## **action** *keyword*

Synopsis IMSI APN filter entry action

Context **configure** application-assurance group *number* partition *number* gtp gtp-filter *named-item* imsi-apn-filter entry *number* action *keyword*

Tree action

Options deny, permit

Default permit

Introduced 21.10.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR

## **apn** *display-string*

Synopsis APN as GTP filter match criterion

Context **configure** application-assurance group *number* partition *number* gtp gtp-filter *named-item* imsi-apn-filter entry *number* apn *display-string*

Tree apn

Description This command configures a matching condition for an APN configured as a GTP filter. If no APN is specified, the entry is not checked for the APN IE in GTP-C packets. The values for this command are:

- string:The extracted APN must match string exactly.
- ^string: The extracted APN must start with string.
- string$: The extracted APN must end with string.
- WILDCARD_APN: Special string that indicates that the extracted APN must be “*” (that is, a length octet with value one, followed by the ASCII code for the asterisk)
- EMPTY_APN: Special string that indicates that the extracted APN must be empty (that is, “”)
- ANY_APN: Special string that indicates that the extracted APN IE must be present and can have any value in order for the filter entry to match

String length 1 to 100

Introduced 21.10.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR


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## **imsi-mcc-mnc-prefix** *display-string*

| | |
|---|---|
| Synopsis | IMSI (MCC-MNC) prefix as GTP filter match criterion |
| Context | **configure** application-assurance group *number* partition *number* gtp gtp-filter *named-item* imsi-apn-filter entry *number* imsi-mcc-mnc-prefix *display-string* |
| Tree | imsi-mcc-mnc-prefix |
| Description | This command configures a matching condition for the IMSI (MCC-MNC) prefix. This string represents the IMSI prefix to be matched against the IMSI IE of the packet, or the special value ANY_IMSI to indicate that an IMSI IE must be present as a matching condition regardless of the IMSI IE value. If no MCC-MNC prefix is specified, the entry will match GTP packets that have an IMSI IE containing any value. |
| String length | 1 to 8 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **src-gsn**

| | |
|---|---|
| Synopsis | Enter the **src-gsn** context |
| Context | **configure** application-assurance group *number* partition *number* gtp gtp-filter *named-item* imsi-apn-filter entry *number* src-gsn |
| Tree | src-gsn |
| Description | Commands in this context configure a matching condition for the GSN IP address. The IP address value is checked only against the source IP address of the GTP packets that contain an APN IE or an IMSI IE. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **ip-prefix** *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Source GSN IP address prefix as filter match criterion |
| Context | **configure** application-assurance group *number* partition *number* gtp gtp-filter *named-item* imsi-apn-filter entry *number* src-gsn ip-prefix *(ipv4-prefix \| ipv6-prefix)* |
| Tree | ip-prefix |
| Description | This command specifies a valid unicast address associated with the IMSI-APN filter entry. |
| Notes | The following elements are part of a choice: **ip-prefix** or **ip-prefix-list**. |
| Introduced | 21.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **ip-prefix-list** *reference*

| | |
|---|---|
| Synopsis | Source GSN IP address prefix list as match criterion |
| Context | **configure** application-assurance group *number* partition *number* gtp gtp-filter *named-item* imsi-apn-filter entry *number* src-gsn ip-prefix-list *reference* |
| Tree | ip-prefix-list |
| Reference | **configure** application-assurance group *number* partition *number* ip-prefix-list *named-item* |
| Notes | The following elements are part of a choice: **ip-prefix** or **ip-prefix-list**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **log**

| | |
|---|---|
| Synopsis | Enter the **log** context |
| Context | **configure** application-assurance group *number* partition *number* gtp gtp-filter *named-item* log |
| Tree | log |
| Description | Commands in this context configure the AA group partition GTP filter log. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **action** *keyword*

| | |
|---|---|
| Synopsis | GTP filter action to be logged |
| Context | **configure** application-assurance group *number* partition *number* gtp gtp-filter *named-item* log action *keyword* |
| Tree | action |
| Options | deny, permit, all |
| Default | deny |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **event-log** *reference*

| | |
|---|---|
| Synopsis | Event-log name to capture GTP filter events |
| Context | **configure** application-assurance group *number* partition *number* gtp gtp-filter *named-item* log event-log *reference* |
| Tree | event-log |
| Reference | **configure** application-assurance group *number* partition *number* event-log *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **max-payload-length** *number*

| | |
|---|---|
| Synopsis | Maximum allowed GTP payload length |
| Context | **configure** application-assurance group *number* partition *number* gtp gtp-filter *named-item* max-payload-length *number* |
| Tree | max-payload-length |
| Range | 0 to 65535 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **message-type**

| | |
|---|---|
| Synopsis | Enter the **message-type** context |
| Context | **configure** application-assurance group *number* partition *number* gtp gtp-filter *named-item* message-type |
| Tree | message-type |
| Description | Commands in this context configure the GTP message-type filtering. If no message type is specified within a filter, all GTP message types are allowed. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **default-action** *keyword*

| | |
|---|---|
| Synopsis | GTP message type default action |
| Context | **configure** application-assurance group *number* partition *number* gtp gtp-filter *named-item* message-type default-action *keyword* |


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| | |
|---|---|
| Tree | default-action |
| Options | deny, permit |
| Default | permit |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **entry** [entry-id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** application-assurance group *number* partition *number* gtp gtp-filter *named-item* message-type entry *number* |
| Tree | entry |
| Description | Commands in this context configure an entry for a specific GTPv1 message type value. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**entry-id**] *number*

| | |
|---|---|
| Synopsis | GTP filter entry ID |
| Context | **configure** application-assurance group *number* partition *number* gtp gtp-filter *named-item* message-type entry *number* |
| Tree | entry |
| Description | This command specifies the index in the GTPv1 message value list that defines a custom message-type action. |
| Range | 1 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **action** *keyword*

| | |
|---|---|
| Synopsis | GTPv1 filter message entry action |
| Context | **configure** application-assurance group *number* partition *number* gtp gtp-filter *named-item* message-type entry *number* action *keyword* |
| Tree | action |
| Options | deny, permit |


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| | |
|---|---|
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **value** *(number | keyword)*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | GTPv1 filter message type value |
| Context | **configure** application-assurance group *number* partition *number* gtp gtp-filter *named-item* message-type entry *number* value *(number \| keyword)* |
| Tree | value |
| Range | 1 to 255 |
| Options | echo-request, echo-response, version-not-supported, node-alive-request, node-alive-response, redirection-request, redirection-response, create-pdp-context-request, create-pdp-context-response, update-pdp-context-request, update-pdp-context-response, delete-pdp-context-request, delete-pdp-context-response, initiate-pdp-context-activation-request, initiate-pdp-context-activation-response, error-indication, pdu-notification-request, pdu-notification-response, pdu-notification-reject-request, pdu-notification-reject-response, supported-extension-headers-notification, send-routing-information-for-gprs-request, send-routing-information-for-gprs-response, failure-report-request, failure-report-response, note-ms-gprs-present-request, note-ms-gprs-present-response, identification-request, identification-response, sgsn-context-request, sgsn-context-response, sgsn-context-acknowledge, forward-relocation-request, forward-relocation-response, forward-relocation-complete, relocation-cancel-request, relocation-cancel-response, forward-srns-context, forward-relocation-complete-acknowledge, forward-srns-context-acknowledge, ran-information-relay, mbms-notification-request, mbms-notification-response, mbms-notification-reject-request, mbms-notification-reject-response, create-mbms-context-request, create-mbms-context-response, update-mbms-context-request, update-mbms-context-response, delete-mbms-context-request, delete-mbms-context-response, mbms-registration-request, mbms-registration-response, mbms-de-registration-request, mbms-de-registration-response, mbms-session-start-request, mbms-session-start-response, mbms-session-stop-request, mbms-session-stop-response, mbms-session-update-request, mbms-session-update-response, ms-info-change-notification-request, ms-info-change-notification-response, data-record-transfer-request, data-record-transfer-response, tunnel-status, end-marker, g-pdu |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |


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Platforms 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR

## message-type-gtp-v2

Synopsis Enter the **message-type-gtp-v2** context

Context **configure** application-assurance group *number* partition *number* gtp gtp-filter *named-item* message-type-gtp-v2

Tree message-type-gtp-v2

Description Commands in this context configure the GTPv2 message-type filtering.

If message-type GTPv2 is not specified within a filter, all GTP message types are allowed, except for the messages that are dropped by GTP-C inspection because they violate the expected GTP protocol for the deployment interface (for example, roaming deployment).

The **gtpc-inspection** command in the **configure application-assurance group partition gtp** context must be configured to true before configuring GTPv2 message-type filtering.

Introduced 21.10.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR

## default-action *keyword*

Synopsis GTPv2 message type default action

Context **configure** application-assurance group *number* partition *number* gtp gtp-filter *named-item* message-type-gtp-v2 default-action *keyword*

Tree default-action

Options deny, permit

Default permit

Introduced 21.10.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR

## entry [entry-id] *number*

Synopsis Enter the **entry** list instance

Context **configure** application-assurance group *number* partition *number* gtp gtp-filter *named-item* message-type-gtp-v2 entry *number*

Tree entry

Description Commands in this context configure an entry for a specific GTPv2 message type value.


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| | |
|---|---|
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**entry-id**] *number*

| | |
|---|---|
| Synopsis | GTPv2 filter entry ID |
| Context | **configure** application-assurance group *number* partition *number* gtp gtp-filter *named-item* message-type-gtp-v2 entry *number* |
| Tree | entry |
| Description | This command configures the index in the GTP message value list that defines a custom message-type action. |
| Range | 516 to 770 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **action** *keyword*

| | |
|---|---|
| Synopsis | GTPv2 filter message entry action |
| Context | **configure** application-assurance group *number* partition *number* gtp gtp-filter *named-item* message-type-gtp-v2 entry *number* action *keyword* |
| Tree | action |
| Description | This command specifies the action to take for packets that match this GTPv2 filter message entry. |
| Options | deny, permit |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **value** *(number | keyword)*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | GTPv2 filter message type value |


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| | |
|---|---|
| Context | **configure** application-assurance group *number* partition *number* gtp gtp-filter *named-item* message-type-gtp-v2 entry *number* value *(number \| keyword)* |
| Tree | value |
| Range | 1 to 255 |
| Options | echo-request, echo-response, version-not-supported-indication, create-session-request, create-session-response, modify-bearer-request, modify-bearer-response, delete-session-request, delete-session-response, change-notification-request, change-notification-response, remote-ue-report-notification, remote-ue-report-acknowledge, modify-bearer-command, modify-bearer-failure-indication, delete-bearer-command, delete-bearer-failure-indication, bearer-resource-command, bearer-resource-failure-indication, downlink-data-notification-failure-indication, trace-session-activation, trace-session-deactivation, stop-paging-indication, create-bearer-request, create-bearer-response, update-bearer-request, update-bearer-response, delete-bearer-request, delete-bearer-response, delete-pdn-connection-set-request, delete-pdn-connection-set-response, pgw-downlink-triggering-notification, pgw-downlink-triggering-acknowledge, identification-request, identification-response, context-request, context-response, context-acknowledge, forward-relocation-request, forward-relocation-response, forward-relocation-complete-notification, forward-relocation-complete-acknowledge, forward-access-context-notification, forward-access-context-acknowledge, relocation-cancel-request, relocation-cancel-response, configuration-transfer-tunnel, detach-notification, detach-acknowledge, cs-paging-indication, ran-information-relay, alert-mme-notification, alert-mme-acknowledge, ue-activity-notification, ue-activity-acknowledge, isr-status-indication, create-forwarding-tunnel-request, create-forwarding-tunnel-response, suspend-notification, suspend-acknowledge, resume-notification, resume-acknowledge, create-indirect-data-forwarding-tunnel-request, create-indirect-data-forwarding-tunnel-response, delete-indirect-data-forwarding-tunnel-request, delete-indirect-data-forwarding-tunnel-response, release-access-bearers-request, release-access-bearers-response, downlink-data-notification, downlink-data-notification-acknowledge, pgw-restart-notification, pgw-restart-notification-acknowledge, update-pdn-connection-set-request, update-pdn-connection-set-response, modify-access-bearers-request, modify-access-bearers-response, mbms-session-start-request, mbms-session-start-response, mbms-session-update-request, mbms-session-update-response, mbms-session-stop-request, mbms-session-stop-response |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **gtpc-inspection** *boolean*

| | |
|---|---|
| Synopsis | Enable inspection of GTP-C packets |


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| | |
|---|---|
| Context | **configure** application-assurance group *number* partition *number* gtp gtpc-inspection *boolean* |
| Tree | gtpc-inspection |
| Description | When configured to **true**, this command enables the inspection of GTP-C packets. This is relevant only when AA GTP FW is deployed on S8/S5/Gp/Gn interfaces. This command must be enabled before configuring related features, such as APN filtering, GTP tunnel validation, message-type-v2 filtering, sequence number validation, and SRC IP validation.<br>When configured to **false**, GTP-C packet inspection cannot be performed. |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## log

| | |
|---|---|
| Synopsis | Enter the **log** context |
| Context | **configure** application-assurance group *number* partition *number* gtp log |
| Tree | log |
| Description | Commands in this context configure the AA group partition GTP log. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## action *keyword*

| | |
|---|---|
| Synopsis | GTP log action |
| Context | **configure** application-assurance group *number* partition *number* gtp log action *keyword* |
| Tree | action |
| Description | This command specifies the action on which the GTP log is raised. |
| Options | deny, permit, all |
| Default | deny |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## event-log *reference*

| | |
|---|---|
| Synopsis | Event log reference for logging GTP events |


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| | |
|---|---|
| Context | **configure** application-assurance group *number* partition *number* gtp log event-log *reference* |
| Tree | event-log |
| Reference | **configure** application-assurance group *number* partition *number* event-log *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **mode** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | GTP mode |
| Context | **configure** application-assurance group *number* partition *number* gtp mode *keyword* |
| Tree | mode |
| Options | filtering, untunneling |
| Default | filtering |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **http-match-all-requests** *boolean*

| | |
|---|---|
| Synopsis | Enable HTTP matching for all requests for an expression |
| Context | **configure** application-assurance group *number* partition *number* http-match-all-requests *boolean* |
| Tree | http-match-all-requests |
| Description | When configured to **true**, this command enables HTTP matching for all requests for an HTTP expression.<br>When configured to **false**, this command restores the default and removes the matching request for this particular expression. |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **http-x-online-host** *boolean*

| | |
|---|---|
| Synopsis | Enable X-Online-Host header field |
| Context | **configure** application-assurance group *number* partition *number* http-x-online-host *boolean* |
| Tree | http-x-online-host |
| Description | When configured to **true**, this command enables the X-Online-Host header field as a replacement for the HTTP Host header field. |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ip-identification-contribute** *boolean*

| | |
|---|---|
| Synopsis | Contribute traffic info from this partition to group |
| Context | **configure** application-assurance group *number* partition *number* ip-identification-contribute *boolean* |
| Tree | ip-identification-contribute |
| Description | When configured to **true**, the router collects information from traffic in this partition and contributes it to the database that is built by the IP identification assist feature at the group level. |
| Default | true |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ip-prefix-list** [ip-prefix-list-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **ip-prefix-list** list instance |
| Context | **configure** application-assurance group *number* partition *number* ip-prefix-list *named-item* |
| Tree | ip-prefix-list |
| Description | Commands in this context configure an IP prefix list. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### [**ip-prefix-list-name**] *named-item*

| | |
|---|---|
| Synopsis | AA IP prefix list name |
| Context | **configure** application-assurance group *number* partition *number* ip-prefix-list *named-item* |
| Tree | ip-prefix-list |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** application-assurance group *number* partition *number* ip-prefix-list *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **prefix** [ip-prefix] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Enter the **prefix** list instance |
| Context | **configure** application-assurance group *number* partition *number* ip-prefix-list *named-item* prefix *(ipv4-prefix | ipv6-prefix)* |
| Tree | prefix |
| Description | Commands in this context configure an IP prefix within the list. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**ip-prefix**] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | AA IP prefix |
| Context | **configure** application-assurance group *number* partition *number* ip-prefix-list *named-item* prefix *(ipv4-prefix | ipv6-prefix)* |


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| | |
|---|---|
| Tree | prefix |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **name** *named-item*

| | |
|---|---|
| Synopsis | AA IP prefix name |
| Context | **configure** application-assurance group *number* partition *number* ip-prefix-list *named-item* prefix *(ipv4-prefix \| ipv6-prefix)* name *named-item* |
| Tree | name |
| String length | 1 to 32 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### policy

| | |
|---|---|
| Synopsis | Enter the **policy** context |
| Context | **configure** application-assurance group *number* partition *number* policy |
| Tree | policy |
| Description | Commands in this context configure the fields for the Application Assurance policy. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### app-filter

| | |
|---|---|
| Synopsis | Enter the **app-filter** context |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter |
| Tree | app-filter |
| Description | Commands in this context configure an application filter for Application Assurance. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **entry** [entry-id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* |
| Tree | entry |
| Description | Commands in this context create an application filter entry.<br>Application filter entries are an ordered list. The lowest numerical entry that matches the flow defines the application for that flow.<br>An application filter entry or entries configure match attributes of an application. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## [**entry-id**] *number*

| | |
|---|---|
| Synopsis | Application filter entry ID |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* |
| Tree | entry |
| Range | 1 to 65535 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the AA application filter entry |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **application** *reference*

| | |
|---|---|
| Synopsis | Application name |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* application *reference* |
| Tree | application |
| Reference | **configure** application-assurance group *number* partition *number* policy application *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **expression** [expr-index] *number*

| | |
|---|---|
| Synopsis | Enter the **expression** list instance |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* expression *number* |
| Tree | expression |
| Description | Commands in this context configure string values to use in the application definition. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**expr-index**] *number*

| | |
|---|---|
| Synopsis | Application filter matching expression identifier |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* expression *number* |


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| | |
|---|---|
| Tree | expression |
| Range | 1 to 4 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **eq** *display-string*

| | |
|---|---|
| Synopsis | Exact match for application filter matching expression |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* expression *number* eq *display-string* |
| Tree | eq |
| String length | 1 to 255 |
| Notes | The following elements are part of a mandatory choice: **eq** or **neq**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **neq** *display-string*

| | |
|---|---|
| Synopsis | Non-match for application filter matching expression |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* expression *number* neq *display-string* |
| Tree | neq |
| String length | 1 to 255 |
| Notes | The following elements are part of a mandatory choice: **eq** or **neq**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **type** *keyword*

| | |
|---|---|
| Synopsis | Application filter matching expression type |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* expression *number* type *keyword* |
| Tree | type |
| Options | http-host, http-uri, http-referer, sip-ua, sip-uri, sip-mt, citrix-app, http-user-agent, h323-product-id, tls-cert-subj-org-name, tls-cert-subj-common-name, rtsp-host, rtsp-uri, |


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| | |
|---|---|
| | rtsp-ua, rtmp-page-host, rtmp-page-uri, rtmp-swf-host, rtmp-swf-uri, rtmp-tc-host, rtmp-tc-uri, dns-domain-name |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **flow-setup-direction** *keyword*

| | |
|---|---|
| Synopsis | Traffic flow direction for the application filter entry |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* flow-setup-direction *keyword* |
| Tree | flow-setup-direction |
| Options | subscriber-to-network, network-to-subscriber, both |
| Default | both |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **http-match-all-requests** *boolean*

| | |
|---|---|
| Synopsis | Enable HTTP matching for all requests |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* http-match-all-requests *boolean* |
| Tree | http-match-all-requests |
| Description | When configured to **true**, this command enables HTTP matching for all requests for an HTTP expression.<br>When configured to **false**, this command restores the default for this app-filter entry which matches the first request. |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **http-port**

| | |
|---|---|
| Synopsis | Enter the **http-port** context |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* http-port |
| Tree | http-port |


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| | |
|---|---|
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## eq

| | |
|---|---|
| Synopsis | Enter the **eq** context |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* http-port eq |
| Tree | eq |
| Description | Commands in this context configure the exact value as the match criterion. |
| Notes | The following elements are part of a choice: **eq** or **neq**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## port-list *reference*

| | |
|---|---|
| Synopsis | Port list name |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* http-port eq port-list *reference* |
| Tree | port-list |
| Reference | **configure** application-assurance group *number* partition *number* port-list *named-item* |
| Notes | The following elements are part of a choice: **port-list** or **port-number**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## port-number *number*

| | |
|---|---|
| Synopsis | Server port number |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* http-port eq port-number *number* |
| Tree | port-number |
| Range | 0 \| 1 to 65535 |
| Default | 0 |
| Notes | The following elements are part of a choice: **port-list** or **port-number**. |
| Introduced | 21.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## neq

| | |
|---|---|
| Synopsis | Enter the **neq** context |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* http-port neq |
| Tree | neq |
| Description | Commands in this context configure the non-match criterion used. |
| Notes | The following elements are part of a choice: **eq** or **neq**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## port-list *reference*

| | |
|---|---|
| Synopsis | Port list name |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* http-port neq port-list *reference* |
| Tree | port-list |
| Reference | **configure** application-assurance group *number* partition *number* port-list *named-item* |
| Notes | The following elements are part of a choice: **port-list** or **port-number**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## port-number *number*

| | |
|---|---|
| Synopsis | Server port number |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* http-port neq port-number *number* |
| Tree | port-number |
| Range | 0 \| 1 to 65535 |
| Default | 0 |
| Notes | The following elements are part of a choice: **port-list** or **port-number**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **ip-identification-assist** *boolean*

| | |
|---|---|
| Synopsis | Enable IP identification assist for this entry |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* ip-identification-assist *boolean* |
| Tree | ip-identification-assist |
| Description | When configured to **true**, the router performs a network IP address lookup that overrides the assigned application if it finds the network IP address in its internal application-IP database.<br>If an IP match is found, the application assigned from the app-filter is overridden with the application from the IP lookup. This also affects the app-group and charging group.<br>If an IP match is not found, the application assigned from the app-filter is not overridden and remains (including the app-group and charging group).<br>When configured to **false**, this command disables the router from performing a network IP address lookup and overriding the assigned application. |
| Default | false |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ip-protocol**

| | |
|---|---|
| Synopsis | Enter the **ip-protocol** context |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* ip-protocol |
| Tree | ip-protocol |
| Description | Commands in this context configure the IP protocol to use in the application definition. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **eq** *(number | keyword)*

| | |
|---|---|
| Synopsis | Exact match criterion used for the IP protocol number |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* ip-protocol eq *(number | keyword)* |
| Tree | eq |
| Range | 0 to 255 |


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| | |
|---|---|
| Options | tcp-udp, icmp, igmp, ip, tcp, egp, igp, udp, rdp, ipv6, ipv6-route, ipv6-frag, idrp, rsvp, gre, ipv6-icmp, ipv6-no-nxt, ipv6-opts, iso-ip, eigrp, ospf-igp, ether-ip, encap, pnni, pim, vrrp, l2tp, stp, ptp, isis, crtp, crudp, sctp |
| Notes | The following elements are part of a choice: **eq** or **neq**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **neq** *(number | keyword)*

| | |
|---|---|
| Synopsis | Non-match criterion used for the IP protocol number |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* ip-protocol neq *(number | keyword)* |
| Tree | neq |
| Range | 0 to 255 |
| Options | tcp-udp, icmp, igmp, ip, tcp, egp, igp, udp, rdp, ipv6, ipv6-route, ipv6-frag, idrp, rsvp, gre, ipv6-icmp, ipv6-no-nxt, ipv6-opts, iso-ip, eigrp, ospf-igp, ether-ip, encap, pnni, pim, vrrp, l2tp, stp, ptp, isis, crtp, crudp, sctp |
| Notes | The following elements are part of a choice: **eq** or **neq**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### network-address

| | |
|---|---|
| Synopsis | Enter the **network-address** context |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* network-address |
| Tree | network-address |
| Description | Commands in this context configure the network address to use for the application filter entry. The network address is the address on the network side of AA, independent of whether the subscriber is acting as a client or server and is not normally used in AA app-filters. The network address will match the destination IP address in a from-sub flow or the source IP address in a to-sub flow. |
| Notes | The following elements are part of a choice: **network-address** or **server-address**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## eq

| | |
|---|---|
| Synopsis | Enter the **eq** context |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* network-address eq |
| Tree | eq |
| Description | Commands in this context specify an exact value as the match criterion for the network address. |
| Notes | The following elements are part of a choice: **eq** or **neq**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## ip-prefix *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | IP prefix |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* network-address eq ip-prefix *(ipv4-prefix \| ipv6-prefix)* |
| Tree | ip-prefix |
| Notes | The following elements are part of a choice: **ip-prefix** or **ip-prefix-list**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## ip-prefix-list *reference*

| | |
|---|---|
| Synopsis | IP prefix list |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* network-address eq ip-prefix-list *reference* |
| Tree | ip-prefix-list |
| Reference | **configure** application-assurance group *number* partition *number* ip-prefix-list *named-item* |
| Notes | The following elements are part of a choice: **ip-prefix** or **ip-prefix-list**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## neq

| | |
|---|---|
| Synopsis | Enter the **neq** context |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* network-address neq |
| Tree | neq |
| Description | Commands in this context specify the non-match criterion used for the network address. |
| Notes | The following elements are part of a choice: **eq** or **neq**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## ip-prefix *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | IP prefix |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* network-address neq ip-prefix *(ipv4-prefix \| ipv6-prefix)* |
| Tree | ip-prefix |
| Notes | The following elements are part of a choice: **ip-prefix** or **ip-prefix-list**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## ip-prefix-list *reference*

| | |
|---|---|
| Synopsis | IP prefix list |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* network-address neq ip-prefix-list *reference* |
| Tree | ip-prefix-list |
| Reference | **configure** application-assurance group *number* partition *number* ip-prefix-list *named-item* |
| Notes | The following elements are part of a choice: **ip-prefix** or **ip-prefix-list**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## protocol

| | |
|---|---|
| Synopsis | Enter the **protocol** context |


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| | |
|---|---|
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* protocol |
| Tree | protocol |
| Description | Commands in this context configure the protocol signature in the application definition. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **eq** *(string | named-item)*

| | |
|---|---|
| Synopsis | Exact match criterion used for the AA protocol name |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* protocol eq *(string | named-item)* |
| Tree | eq |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **eq** or **neq**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **neq** *(string | named-item)*

| | |
|---|---|
| Synopsis | Non-match criterion used for the AA protocol name |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* protocol neq *(string | named-item)* |
| Tree | neq |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **eq** or **neq**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **server-address**

| | |
|---|---|
| Synopsis | Enter the **server-address** context |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* server-address |
| Tree | server-address |


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| | |
|---|---|
| Description | Commands in this context configure the server address to use for the application filter entry. The server address is the address on the server end of a client-server session. |
| Notes | The following elements are part of a choice: **network-address** or **server-address**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## eq

| | |
|---|---|
| Synopsis | Enter the **eq** context |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* server-address eq |
| Tree | eq |
| Description | Commands in this context configure the attributes of the IP address used for the exact match criterion for the application flow. |
| Notes | The following elements are part of a choice: **eq** or **neq**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## dns-ip-cache *reference*

| | |
|---|---|
| Synopsis | DNS IP cache name |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* server-address eq dns-ip-cache *reference* |
| Tree | dns-ip-cache |
| Reference | **configure** application-assurance group *number* dns-ip-cache *named-item* |
| Notes | The following elements are part of a choice: **dns-ip-cache**, **ip-prefix**, **ip-prefix-list**, or **masked-ip**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## ip-prefix *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | IP prefix |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* server-address eq ip-prefix *(ipv4-prefix | ipv6-prefix)* |
| Tree | ip-prefix |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **dns-ip-cache**, **ip-prefix**, **ip-prefix-list**, or **masked-ip**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **ip-prefix-list** *reference*

| | |
|---|---|
| Synopsis | IP prefix list |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* server-address eq ip-prefix-list *reference* |
| Tree | ip-prefix-list |
| Reference | **configure** application-assurance group *number* partition *number* ip-prefix-list *named-item* |
| Notes | The following elements are part of a choice: **dns-ip-cache**, **ip-prefix**, **ip-prefix-list**, or **masked-ip**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **masked-ip**

| | |
|---|---|
| Synopsis | Enter the **masked-ip** context |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* server-address eq masked-ip |
| Tree | masked-ip |
| Description | Commands in this context configure the attributes of a masked IP address. |
| Notes | The following elements are part of a choice: **dns-ip-cache**, **ip-prefix**, **ip-prefix-list**, or **masked-ip**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IPv4 or IPv6 address mask |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* server-address eq masked-ip address *(ipv4-address-no-zone | ipv6-address-no-zone)* |
| Tree | address |


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| | |
|---|---|
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **netmask** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IPv4 or IPv6 address mask |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* server-address eq masked-ip netmask *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | netmask |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **neq**

| | |
|---|---|
| Synopsis | Enter the **neq** context |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* server-address neq |
| Tree | neq |
| Description | Commands in this context configure the attributes of the IP address used for non-matching criteria in the application flow. |
| Notes | The following elements are part of a choice: **eq** or **neq**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **dns-ip-cache** *reference*

| | |
|---|---|
| Synopsis | DNS IP cache name |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* server-address neq dns-ip-cache *reference* |
| Tree | dns-ip-cache |
| Reference | **configure** application-assurance group *number* dns-ip-cache *named-item* |
| Notes | The following elements are part of a choice: **dns-ip-cache**, **ip-prefix**, **ip-prefix-list**, or **masked-ip**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **ip-prefix** *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | IP prefix |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* server-address neq ip-prefix *(ipv4-prefix \| ipv6-prefix)* |
| Tree | ip-prefix |
| Notes | The following elements are part of a choice: **dns-ip-cache**, **ip-prefix**, **ip-prefix-list**, or **masked-ip**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **ip-prefix-list** *reference*

| | |
|---|---|
| Synopsis | IP prefix list |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* server-address neq ip-prefix-list *reference* |
| Tree | ip-prefix-list |
| Reference | **configure** application-assurance group *number* partition *number* ip-prefix-list *named-item* |
| Notes | The following elements are part of a choice: **dns-ip-cache**, **ip-prefix**, **ip-prefix-list**, or **masked-ip**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **masked-ip**

| | |
|---|---|
| Synopsis | Enter the **masked-ip** context |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* server-address neq masked-ip |
| Tree | masked-ip |
| Description | Commands in this context configure the attributes of a masked IP address. |
| Notes | The following elements are part of a choice: **dns-ip-cache**, **ip-prefix**, **ip-prefix-list**, or **masked-ip**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IPv4 or IPv6 address mask |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* server-address neq masked-ip address *(ipv4-address-no-zone | ipv6-address-no-zone)* |
| Tree | address |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **netmask** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IPv4 or IPv6 address mask |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* server-address neq masked-ip netmask *(ipv4-address-no-zone | ipv6-address-no-zone)* |
| Tree | netmask |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **server-port**

| | |
|---|---|
| Synopsis | Enter the **server-port** context |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* server-port |
| Tree | server-port |
| Description | Commands in this context specify the server TCP or UDP port number to use in the application definition. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **eq**

| | |
|---|---|
| Synopsis | Enter the **eq** context |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* server-port eq |
| Tree | eq |


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| | |
|---|---|
| Description | Commands in this context configure the exact value as the match criterion for the server TCP or UDP number in the app-filter. |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **neq**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **first-packet-policy** *keyword*

| | |
|---|---|
| Synopsis | TCP/UDP port application to apply |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* server-port eq first-packet-policy *keyword* |
| Tree | first-packet-policy |
| Options | first-packet-trusted, first-packet-validate |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **port-list** *reference*

| | |
|---|---|
| Synopsis | Port-list name used in application filter criteria |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* server-port eq port-list *reference* |
| Tree | port-list |
| Reference | **configure** application-assurance group *number* partition *number* port-list *named-item* |
| Notes | The following elements are part of a choice: **port-list**, **port-number**, or **range**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **port-number** *number*

| | |
|---|---|
| Synopsis | Server port number used as match criterion |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* server-port eq port-number *number* |
| Tree | port-number |
| Range | 0 \| 1 to 65535 |
| Default | 0 |
| Notes | The following elements are part of a choice: **port-list**, **port-number**, or **range**. |


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| | |
|---|---|
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## range

| | |
|---|---|
| Synopsis | Enter the **range** context |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* server-port eq range |
| Tree | range |
| Description | Commands in this context specify the match value as the match criterion based on the starting or ending port number. |
| Notes | The following elements are part of a choice: **port-list**, **port-number**, or **range**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## end *number*

| | |
|---|---|
| Synopsis | TCP/UDP ending port number |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* server-port eq range end *number* |
| Tree | end |
| Range | 0 \| 1 to 65535 |
| Default | 1 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## start *number*

| | |
|---|---|
| Synopsis | TCP/UDP starting port number |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* server-port eq range start *number* |
| Tree | start |
| Range | 0 \| 1 to 65535 |
| Default | 0 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## gt

| | |
|---|---|
| Synopsis | Enter the **gt** context |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* server-port gt |
| Tree | gt |
| Description | Commands in this context specify the greater than value as the match criterion for the server port number for the app-filter. |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **neq**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## port-number *number*

| | |
|---|---|
| Synopsis | Server port number used as match criterion |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* server-port gt port-number *number* |
| Tree | port-number |
| Range | 0 \| 1 to 65535 |
| Default | 0 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## lt

| | |
|---|---|
| Synopsis | Enter the **lt** context |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* server-port lt |
| Tree | lt |
| Description | Commands in this context specify the less than value as the match criterion for the server port number for the app-filter. |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **neq**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **port-number** *number*

| | |
|---|---|
| Synopsis | Server port number used as match criterion |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* server-port lt port-number *number* |
| Tree | port-number |
| Range | 0 \| 1 to 65535 |
| Default | 0 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **neq**

| | |
|---|---|
| Synopsis | Enter the **neq** context |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* server-port neq |
| Tree | neq |
| Description | Commands in this context configure non-match criterion used for the server TCP or UDP number in the app-filter. |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **neq**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **port-list** *reference*

| | |
|---|---|
| Synopsis | Port-list name used in application filter criteria |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* server-port neq port-list *reference* |
| Tree | port-list |
| Reference | **configure** application-assurance group *number* partition *number* port-list *named-item* |
| Notes | The following elements are part of a choice: **port-list**, **port-number**, or **range**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **port-number** *number*

| | |
|---|---|
| Synopsis | Server port number used as match criterion |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* server-port neq port-number *number* |
| Tree | port-number |
| Range | 0 \| 1 to 65535 |
| Default | 0 |
| Notes | The following elements are part of a choice: **port-list**, **port-number**, or **range**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **range**

| | |
|---|---|
| Synopsis | Enter the **range** context |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* server-port neq range |
| Tree | range |
| Description | Commands in this context specify the match value as the match criterion based on the starting or ending port number. |
| Notes | The following elements are part of a choice: **port-list**, **port-number**, or **range**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **end** *number*

| | |
|---|---|
| Synopsis | TCP/UDP ending port number |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* server-port neq range end *number* |
| Tree | end |
| Range | 0 \| 1 to 65535 |
| Default | 1 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **start** *number*

| | |
|---|---|
| Synopsis | TCP/UDP starting port number |
| Context | **configure** application-assurance group *number* partition *number* policy app-filter entry *number* server-port neq range start *number* |
| Tree | start |
| Range | 0 \| 1 to 65535 |
| Default | 0 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **app-group** [application-group-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **app-group** list instance |
| Context | **configure** application-assurance group *number* partition *number* policy app-group *named-item* |
| Tree | app-group |
| Description | Commands in this context create an application group for an application assurance policy. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**application-group-name**] *named-item*

| | |
|---|---|
| Synopsis | Application group name |
| Context | **configure** application-assurance group *number* partition *number* policy app-group *named-item* |
| Tree | app-group |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **charging-group** *reference*

| | |
|---|---|
| Synopsis | Charging group used in the AA application group policy |


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| | |
|---|---|
| Context | **configure** application-assurance group *number* partition *number* policy app-group *named-item* charging-group *reference* |
| Tree | charging-group |
| Reference | **configure** application-assurance group *number* partition *number* policy charging-group *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** application-assurance group *number* partition *number* policy app-group *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **export-id** *number*

| | |
|---|---|
| Synopsis | App group export ID used in RADIUS accounting export |
| Context | **configure** application-assurance group *number* partition *number* policy app-group *named-item* export-id *number* |
| Tree | export-id |
| Description | This command assigns an export ID value to a charging group, an application group, or an application that RADIUS accounting uses for accounting export identification. This export ID is encoded in the top two bytes of the RADIUS accounting VSA to identify which charging group the counter value represents.<br><br>If no export ID is assigned, the counter cannot be added to the AA subscriber stats RADIUS export-type. After a charging group index is referenced, it cannot be deleted without removing the reference. |
| Range | 1 to 255 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **app-profile** [app-profile-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **app-profile** list instance |


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| | |
|---|---|
| Context | **configure** application-assurance group *number* partition *number* policy app-profile *named-item* |
| Tree | app-profile |
| Description | Commands in this context configure an application profile. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## [**app-profile-name**] *named-item*

| | |
|---|---|
| Synopsis | Application profile name |
| Context | **configure** application-assurance group *number* partition *number* policy app-profile *named-item* |
| Tree | app-profile |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **aa-sub-distribute-traffic-by-ip** *boolean*

| | |
|---|---|
| Synopsis | Allow application assurance to divert traffic |
| Context | **configure** application-assurance group *number* partition *number* policy app-profile *named-item* aa-sub-distribute-traffic-by-ip *boolean* |
| Tree | aa-sub-distribute-traffic-by-ip |
| Description | When configured to **true**, the system diverts traffic on the parent SAPor spoke-SDP to multiple ISAs or ESAs based on the source IP address. This is useful when the bandwidth of a single SAP is larger than the capacity of a single ISA or ESA. This is only supported for the auto-created transit IP subscribers.<br>The traffic is diverted when the hashing is enabled at the AA group level and in the parent SAP application profile. |
| Default | false |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

## **aa-sub-suppressible** *boolean*

| | |
|---|---|
| Synopsis | Enable AA suppression for subs with this app profile |


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| | |
|---|---|
| Context | **configure** application-assurance group *number* partition *number* policy app-profile *named-item* aa-sub-suppressible *boolean* |
| Tree | aa-sub-suppressible |
| Description | When configured to **true**, this command configures the ability to suppress Application Assurance for subscribers with this application profile.<br>This function is used in the context of an SRRP group interface. If an SRRP group interface is configured as **configure service ies subscriber-interface group-interface suppress-aa-sub** or **configure service vprn subscriber-interface group-interface suppress-aa-sub**, subscribers with an application profile configured as suppressible are not diverted to Application Assurance. |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **capacity-cost** *number*

| | |
|---|---|
| Synopsis | Application profile capacity cost |
| Context | **configure** application-assurance group *number* partition *number* policy app-profile *named-item* capacity-cost *number* |
| Tree | capacity-cost |
| Description | This command configures an application profile capacity cost.<br>Capacity cost based load balancing allows a cost to be assigned to diverted SAPs (with the application profile). This allows for load balancing SAPs between ISAs and acts as a threshold to notify the operator if capacity planning is exceeded. |
| Range | 1 to 65535 |
| Default | 1 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **characteristic** [characteristic-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **characteristic** list instance |
| Context | **configure** application-assurance group *number* partition *number* policy app-profile *named-item* characteristic *reference* |
| Tree | characteristic |
| Description | Commands in this context assign one of the existing values of an existing application service option characteristic to the application profile. |
| Introduced | 21.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**characteristic-name**] *reference*

| | |
|---|---|
| Synopsis | Application service option characteristic name |
| Context | **configure** application-assurance group *number* partition *number* policy app-profile *named-item* characteristic *reference* |
| Tree | characteristic |
| Reference | **configure** application-assurance group *number* partition *number* policy app-service-options characteristic *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **value** *reference*

| | |
|---|---|
| Synopsis | ASO characteristic value name |
| Context | **configure** application-assurance group *number* partition *number* policy app-profile *named-item* characteristic *reference* value *reference* |
| Tree | value |
| Reference | **configure** application-assurance group *number* partition *number* policy app-service-options characteristic *named-item* value *named-item* |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** application-assurance group *number* partition *number* policy app-profile *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **divert** *boolean*

| | |
|---|---|
| Synopsis | Enable traffic redirection to AA ISAs or ESA VMs |
| Context | **configure** application-assurance group *number* partition *number* policy app-profile *named-item* divert *boolean* |
| Tree | divert |
| Description | When configured to **true**, this command enables the redirection of traffic to AA ISAs or ESA VMs for the system-wide forwarding classes diverted to Application Assurance (**configure isa application-assurance-group divert-fc**) for AA subscribers using this application profile.<br>When configured to **false**, this command stops the redirection of traffic to AA ISAs or ESA VMs for the AA subscribers using this application profile. |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **app-qos-policy**

| | |
|---|---|
| Synopsis | Enter the **app-qos-policy** context |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy |
| Tree | app-qos-policy |
| Description | Commands in this context configure an application QoS policy. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **entry** [entry-id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* |
| Tree | entry |
| Description | Commands in this context create an application QoS policy (AQP) entry.<br>A flow that matches multiple AQP entries will have multiple AQP entries actions applied. If a conflict occurs for two or more actions, the action from the AQP entry with the lowest numerical value takes precedence. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### [**entry-id**] *number*

| | |
|---|---|
| Synopsis | AQP entry ID |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* |
| Tree | entry |
| Range | 1 to 65535 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **action**

| | |
|---|---|
| Synopsis | Enter the **action** context |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* action |
| Tree | action |
| Description | Commands in this context configure AQP actions to be performed on flows that match the match criteria of the AQP entry. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **abandon-tcp-optimization** *boolean*

| | |
|---|---|
| Synopsis | Abandon TCPO for this entry |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* action abandon-tcp-optimization *boolean* |
| Tree | abandon-tcp-optimization |
| Description | When configured to **true**, this command disables TCPO for flows matching this AQP entry. |
| Default | false |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## bandwidth-policer

| | |
|---|---|
| Synopsis | Enter the **bandwidth-policer** context |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* action bandwidth-policer |
| Tree | bandwidth-policer |
| Description | Commands in this context assign an existing bandwidth policer as an action on flows matching this AQP entry.<br>The match criteria for the AQP entry must specify a unidirectional traffic direction before a policer action can be configured. If a policer is used in one direction in an AQP match entry, the same policer name cannot be used by another AQP entry that uses different traffic direction match criteria.<br>When multiple policers apply to a single flow, the final action on a packet is the worst case of all policer outcomes (for example, if one of the policers marks packet out of profile, the final marking will reflect that). |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## anl *reference*

| | |
|---|---|
| Synopsis | Access network locator bandwidth policer |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* action bandwidth-policer anl *reference* |
| Tree | anl |
| Description | This command creates an Application Assurance policy profile for a policer instance for each ANL that limits traffic bandwidth in the scope of that ANL. For ANL, only single-bucket bandwidth policers can be configured. |
| Reference | **configure** application-assurance group *number* policer anl-bandwidth-policer *named-item* |
| Notes | The following elements are part of a choice: **anl**, **dual-bucket**, **flow**, or **single-bucket**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## dual-bucket *reference*

| | |
|---|---|
| Synopsis | Dual bucket bandwidth limiting policer |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* action bandwidth-policer dual-bucket *reference* |


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| | |
|---|---|
| Tree | dual-bucket |
| Description | This command creates an Application Assurance policy profile for a dual bucket (PIR) bandwidth limiting policer. |
| Reference | **configure** application-assurance group *number* policer dual-bucket-bandwidth-policer *named-item* |
| Notes | The following elements are part of a choice: **anl**, **dual-bucket**, **flow**, or **single-bucket**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **flow** *reference*

| | |
|---|---|
| Synopsis | Flow policer |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* action bandwidth-policer flow *reference* |
| Tree | flow |
| Reference | **configure** application-assurance group *number* policer flow-bandwidth-policer *named-item* |
| Notes | The following elements are part of a choice: **anl**, **dual-bucket**, **flow**, or **single-bucket**. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **single-bucket** *reference*

| | |
|---|---|
| Synopsis | Single bucket bandwidth limiting policer |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* action bandwidth-policer single-bucket *reference* |
| Tree | single-bucket |
| Description | This command creates an Application Assurance policy profile for a single bucket (PIR) bandwidth limiting policer. |
| Reference | **configure** application-assurance group *number* policer single-bucket-bandwidth-policer *named-item* |
| Notes | The following elements are part of a choice: **anl**, **dual-bucket**, **flow**, or **single-bucket**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **dns-ip-cache** *reference*

| | |
|---|---|
| Synopsis | DNS IP cache name |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* action dns-ip-cache *reference* |
| Tree | dns-ip-cache |
| Reference | **configure** application-assurance group *number* dns-ip-cache *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **drop** *boolean*

| | |
|---|---|
| Synopsis | Enable drop action for the AQP entry |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* action drop *boolean* |
| Tree | drop |
| Description | When configured to **true**, all flow traffic matching this AQP entry is dropped.<br>The drop action is performed first and no other action is invoked on that flow even if multiple other actions exist for the flow because of one or more AQP entry matches.<br>When configured to **false**, this command disables the drop action on flows matching this AQP entry. |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **error-drop**

| | |
|---|---|
| Synopsis | Enable the **error-drop** context |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* action error-drop |
| Tree | error-drop |
| Description | Commands in this context configure a drop action for error flows (for instance, bad IP checksums or TCP/UDP port 0). |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **event-log** *reference*

| | |
|---|---|
| Synopsis | Event log action for the AQP entry |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* action error-drop event-log *reference* |
| Tree | event-log |
| Reference | **configure** application-assurance group *number* partition *number* event-log *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **flow-count-limit-policer**

| | |
|---|---|
| Synopsis | Enter the **flow-count-limit-policer** context |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* action flow-count-limit-policer |
| Tree | flow-count-limit-policer |
| Description | Commands in this context assign an existing flow count limit policer as an action on flows matching this AQP entry.<br>The match criteria for the AQP entry must specify a unidirectional traffic direction before a policer action can be configured. If a policer is used in one direction in an AQP match entry, the same policer name cannot be used by another AQP entry that uses different traffic direction match criteria.<br>When multiple policers are applied to a single flow, the final action on a packet is the worst case of all policer outcomes (for example, if one of the policers marks packet out of profile, the final marking will reflect that). |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **event-log** *reference*

| | |
|---|---|
| Synopsis | Event log name |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* action flow-count-limit-policer event-log *reference* |
| Tree | event-log |
| Reference | **configure** application-assurance group *number* partition *number* event-log *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **policer-name** *reference*

| | |
|---|---|
| Synopsis | Policer name |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* action flow-count-limit-policer policer-name *reference* |
| Tree | policer-name |
| Description | This command specifies the name of the flow count limit policer for flows matching the AQP entry. The policer name is configured in the **configure application-assurance group policer** context. |
| Reference | **configure** application-assurance group *number* policer flow-count-limit-policer *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **flow-setup-rate-policer**

| | |
|---|---|
| Synopsis | Enter the **flow-setup-rate-policer** context |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* action flow-setup-rate-policer |
| Tree | flow-setup-rate-policer |
| Description | Commands in this context assign an existing flow setup rate policer as an action on flows matching this AQP entry.<br>The match criteria for the AQP entry must specify a unidirectional traffic direction before a policer action can be configured. If a policer is used in one direction in an AQP match entry, the same policer name cannot be used for another AQP entry that uses different traffic direction match criteria.<br>When multiple policers are applied to a single flow, the final action on a packet is the worst case of all policer outcomes (for example, if one of the policers marks a packet out of profile, the final marking reflects that). |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **event-log** *reference*

| | |
|---|---|
| Synopsis | Events log name for flow-setup rate policer |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* action flow-setup-rate-policer event-log *reference* |
| Tree | event-log |


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| | |
|---|---|
| Reference | **configure** application-assurance group *number* partition *number* event-log *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **policer-name** *reference*

| | |
|---|---|
| Synopsis | Policer name |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* action flow-setup-rate-policer policer-name *reference* |
| Tree | policer-name |
| Description | This command specifies the name of the flow setup rate policer for flows matching this AQP entry. |
| Reference | **configure** application-assurance group *number* policer flow-setup-rate-policer *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **fragment-drop**

| | |
|---|---|
| Synopsis | Enter the **fragment-drop** context |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* action fragment-drop |
| Tree | fragment-drop |
| Description | Commands in this context specify the drop action options to apply to fragments. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **drop-scope** *keyword*

| | |
|---|---|
| Synopsis | Fragment-drop scope |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* action fragment-drop drop-scope *keyword* |
| Tree | drop-scope |
| Description | This command specifies which fragments to drop as an action on flows matching this AQP entry. |
| Options | all, out-of-order |


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| | |
|---|---|
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **event-log** *reference*

| | |
|---|---|
| Synopsis | Event log name |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* action fragment-drop event-log *reference* |
| Tree | event-log |
| Reference | **configure** application-assurance group *number* partition *number* event-log *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **gtp-filter** *reference*

| | |
|---|---|
| Synopsis | GTP filter executed for flows matching this AQP entry |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* action gtp-filter *reference* |
| Tree | gtp-filter |
| Reference | **configure** application-assurance group *number* partition *number* gtp gtp-filter *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **http-enrich** *reference*

| | |
|---|---|
| Synopsis | HTTP header enrichment action for the AQP entry |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* action http-enrich *reference* |
| Tree | http-enrich |
| Description | This command configures the HTTP header enrichment template name that is applied as defined in the tmnxBsxHttpEnrichTable. An empty value specifies no HTTP header enrichment template. |
| Reference | **configure** application-assurance group *number* http-enrich *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **http-error-redirect** *reference*

| | |
|---|---|
| Synopsis | HTTP error redirect for the AQP entry |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* action http-error-redirect *reference* |
| Tree | http-error-redirect |
| Description | This command specifies the HTTP error redirect that is applied as defined in the redirect table. An empty value specifies no HTTP error redirect. |
| Reference | **configure** application-assurance group *number* http-error-redirect *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **http-notification** *reference*

| | |
|---|---|
| Synopsis | HTTP notification to use for flows matching AQP entry |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* action http-notification *reference* |
| Tree | http-notification |
| Reference | **configure** application-assurance group *number* http-notification *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **http-redirect**

| | |
|---|---|
| Synopsis | Enter the **http-redirect** context |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* action http-redirect |
| Tree | http-redirect |
| Description | Commands in this context assign an existing HTTP redirect policy as an action on flows matching this AQP entry. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **flow-type** *keyword*

| | |
|---|---|
| Synopsis | Flow type for HTTP redirect of flows matching the entry |


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| | |
|---|---|
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* action http-redirect flow-type *keyword* |
| Tree | flow-type |
| Description | This command assigns an existing HTTP redirect policy as an action on flows matching this AQP entry. The redirect only takes effect if the matching flows are HTTP and the condition specified is met.<br>The condition specified by dropped flows means the flow is dropped due to an AQP action, such as flow rate, count policers, or drop actions. The admitted flows condition allows the operator to redirect HTTP traffic to a web portal while allowing non-HTTP traffic matching the same AQP rule to be forwarded.<br>No HTTP redirect takes place if the HTTP redirect action and a drop/flow-police action are part of the default AQP policy. In this case, any flow drop actions take place before identification of the application/application-group. |
| Options | dropped-flows, admitted-flows |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **name** *reference*

| | |
|---|---|
| Synopsis | HTTP redirect policy name |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* action http-redirect name *reference* |
| Tree | name |
| Description | This command specifies the name of an existing HTTP policy redirect. |
| Reference | **configure** application-assurance group *number* http-redirect *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **mirror-source**

| | |
|---|---|
| Synopsis | Enter the **mirror-source** context |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* action mirror-source |
| Tree | mirror-source |
| Description | Commands in this context configure an application-based policy mirroring service that uses the AQP entry of this AA ISA as a mirror source.<br>When configured, the AQP entry becomes a mirror source for IP packets seen by AA. The mirrored packet is an IP packet analyzed by AA and does not include encapsulations present on the incoming interfaces. |


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| | |
|---|---|
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **all-inclusive** *boolean*

| | |
|---|---|
| Synopsis | Mirror flows matching the AQP subscriber default policy |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* action mirror-source all-inclusive *boolean* |
| Tree | all-inclusive |
| Description | This command specifies that all packets during the identification phase that could match a given AQP rule are mirrored in addition to packets after an application identification completes that match the AQP rule. This ensures that all packets of a flow are mirrored at a cost of sending some unidentified packets, which after the application is identified no longer match this AQP entry. |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **mirror-service** *reference*

| | |
|---|---|
| Synopsis | Mirror source service ID for flows matching the entry |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* action mirror-source mirror-service *reference* |
| Tree | mirror-service |
| Description | This command specifies the mirror source service ID to use for flows that match this policy. |
| Reference | **configure** mirror mirror-dest *service-name* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **overload-drop**

| | |
|---|---|
| Synopsis | Enable the **overload-drop** context |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* action overload-drop |
| Tree | overload-drop |


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| | |
|---|---|
| Description | Commands in this context configure a drop action for cases where flow records are not created (overload). This command is only applicable to ISA2 hardware. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **event-log** *reference*

| | |
|---|---|
| Synopsis | Event log name |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* action overload-drop event-log *reference* |
| Tree | event-log |
| Reference | **configure** application-assurance group *number* partition *number* event-log *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **remark**

| | |
|---|---|
| Synopsis | Enter the **remark** context |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* action remark |
| Tree | remark |
| Description | Commands in this context configure the remark action on flows matching this AQP entry. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **dscp**

| | |
|---|---|
| Synopsis | Enter the **dscp** context |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* action remark dscp |
| Tree | dscp |
| Description | Commands in this context configure the DSCP remark action or actions on flows matching this AQP entry.<br>All packets for all flows matching this AQP entry are remarked to the configured DSCP name. |


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DSCP remark can only be applied when the entry remarks forwarding class or forwarding class and priority. In-profile and out-of-profile of a packet for DSCP remark is assessed after all AQP policing and priority remarking actions have taken place.

Introduced 21.10.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR

## **in-profile** *keyword*

Synopsis DSCP name to remark matching in-profile flows

Context **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* action remark dscp in-profile *keyword*

Tree in-profile

Options be, cp1, cp2, cp3, cp4, cp5, cp6, cp7, cs1, cp9, af11, cp11, af12, cp13, af13, cp15, cs2, cp17, af21, cp19, af22, cp21, af23, cp23, cs3, cp25, af31, cp27, af32, cp29, af33, cp31, cs4, cp33, af41, cp35, af42, cp37, af43, cp39, cs5, cp41, cp42, cp43, cp44, cp45, ef, cp47, nc1, cp49, cp50, cp51, cp52, cp53, cp54, cp55, nc2, cp57, cp58, cp59, cp60, cp61, cp62, cp63

Introduced 21.10.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR

## **out-profile** *keyword*

Synopsis DSCP name to remark matching out-of-profile flows

Context **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* action remark dscp out-profile *keyword*

Tree out-profile

Options be, cp1, cp2, cp3, cp4, cp5, cp6, cp7, cs1, cp9, af11, cp11, af12, cp13, af13, cp15, cs2, cp17, af21, cp19, af22, cp21, af23, cp23, cs3, cp25, af31, cp27, af32, cp29, af33, cp31, cs4, cp33, af41, cp35, af42, cp37, af43, cp39, cs5, cp41, cp42, cp43, cp44, cp45, ef, cp47, nc1, cp49, cp50, cp51, cp52, cp53, cp54, cp55, nc2, cp57, cp58, cp59, cp60, cp61, cp62, cp63

Introduced 21.10.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR

## **fc** *keyword*

Synopsis FC remark action for flows matching this entry

Context **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* action remark fc *keyword*


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| | |
|---|---|
| Tree | fc |
| Options | be – Best effort<br>l2 – Low 2 (best effort)<br>af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority)<br>ef – Expedited forwarding (high priority)<br>h1 – High 1 (high priority)<br>nc – Network control (high priority) |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **priority** *keyword*

| | |
|---|---|
| Synopsis | Priority to use to remark flows matching this entry |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* action remark priority *keyword* |
| Tree | priority |
| Options | low, high, auto |
| Default | auto |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **sctp-filter** *reference*

| | |
|---|---|
| Synopsis | SCTP filter to use for flows matching the AQP entry |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* action sctp-filter *reference* |
| Tree | sctp-filter |
| Reference | **configure** application-assurance group *number* partition *number* sctp-filter *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **session-filter** *reference*

| | |
|---|---|
| Synopsis | Session filter to use for flows matching the AQP entry |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* action session-filter *reference* |


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| | |
|---|---|
| Tree | session-filter |
| Reference | **configure** application-assurance group *number* partition *number* session-filter *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **tcp-mss-adjust** *number*

| | |
|---|---|
| Synopsis | TCP MSS adjustment traffic action and size |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* action tcp-mss-adjust *number* |
| Tree | tcp-mss-adjust |
| Range | 160 to 10240 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **tcp-validate** *reference*

| | |
|---|---|
| Synopsis | TCP validation policy action for entry matching flows |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* action tcp-validate *reference* |
| Tree | tcp-validate |
| Description | This command assigns an existing TCP validation policy as an action on flows matching this AQP entry.<br>TCP validation can only be called from AQP entries that:<br>• have no matching conditions that relate to information extracted from the incoming IP packets; for example, no application or IP address.<br>• allow the following match conditions: none, aa-sub, characteristic, traffic-direction (both only), traffic-direction cannot be unidirectional (from or to sub). It can either be set to both or left unspecified. |
| Reference | **configure** application-assurance group *number* partition *number* tcp-validate *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **tls-enrich** *reference*

| | |
|---|---|
| Synopsis | HTTP TLS enrichment action for the AQP entry |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* action tls-enrich *reference* |
| Tree | tls-enrich |
| Reference | **configure** application-assurance group *number* http-enrich *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **url-filter**

| | |
|---|---|
| Synopsis | Enter the **url-filter** context |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* action url-filter |
| Tree | url-filter |
| Description | Commands in this context configure a URL filter action for flows matching this entry. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **characteristic** *reference*

| | |
|---|---|
| Synopsis | URL filter characteristic used for matching AQP entries |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* action url-filter characteristic *reference* |
| Tree | characteristic |
| Reference | **configure** application-assurance group *number* partition *number* policy app-service-options characteristic *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **name** *reference*

| | |
|---|---|
| Synopsis | URL filter name |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* action url-filter name *reference* |


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| | |
|---|---|
| Tree | name |
| Reference | **configure** application-assurance group *number* url-filter *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the AA AQP entry |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **match**

| | |
|---|---|
| Synopsis | Enter the **match** context |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match |
| Tree | match |
| Description | Commands in this context configure flow match rules for this AQP entry. A flow matches this AQP entry only if it matches all match rules defined (logical AND of all rules). If no match rule is specified, the entry will match all flows. |
| Introduced | 21.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## aa-sub

| | |
|---|---|
| Synopsis | Enter the **aa-sub** context |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match aa-sub |
| Tree | aa-sub |
| Description | Commands in this context specify a Service Access Point (SAP) or an Enhanced Subscriber Management (ESM) subscriber as matching criteria. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## esm

| | |
|---|---|
| Synopsis | Enter the **esm** context |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match aa-sub esm |
| Tree | esm |
| Description | Commands in this context configure the ESM fields for the AA subscriber match entry. |
| Notes | The following elements are part of a choice: **esm**, **esm-mac**, **sap**, **spoke-sdp**, or **transit**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## eq *named-item*

| | |
|---|---|
| Synopsis | Exact match criterion used for the ESM subscriber |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match aa-sub esm eq *named-item* |
| Tree | eq |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **eq** or **neq**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **neq** *named-item*

| | |
|---|---|
| Synopsis | Non-match criterion used for ESM subscriber |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match aa-sub esm neq *named-item* |
| Tree | neq |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **eq** or **neq**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **esm-mac**

| | |
|---|---|
| Synopsis | Enter the **esm-mac** context |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match aa-sub esm-mac |
| Tree | esm-mac |
| Description | Commands in this context configure the ESM MAC fields for the AA subscriber match entry. |
| Notes | The following elements are part of a choice: **esm**, **esm-mac**, **sap**, **spoke-sdp**, or **transit**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **eq** *named-item*

| | |
|---|---|
| Synopsis | Exact match criterion used for ESM MAC subscriber |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match aa-sub esm-mac eq *named-item* |
| Tree | eq |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **eq** or **neq**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **neq** *named-item*

| | |
|---|---|
| Synopsis | Non-match criterion used for AA subscriber ESM MAC |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match aa-sub esm-mac neq *named-item* |
| Tree | neq |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **eq** or **neq**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **sap**

| | |
|---|---|
| Synopsis | Enter the **sap** context |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match aa-sub sap |
| Tree | sap |
| Description | Commands in this context configure the SAP fields for the AA subscriber match entry. |
| Notes | The following elements are part of a choice: **esm**, **esm-mac**, **sap**, **spoke-sdp**, or **transit**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **eq** *sap*

| | |
|---|---|
| Synopsis | Exact match criterion used for the SAP subscriber |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match aa-sub sap eq *sap* |
| Tree | eq |
| String length | 1 to 45 |
| Notes | The following elements are part of a choice: **eq** or **neq**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **neq** *sap*

| | |
|---|---|
| Synopsis | Non-match criterion used for the SAP subscriber |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match aa-sub sap neq *sap* |
| Tree | neq |
| String length | 1 to 45 |
| Notes | The following elements are part of a choice: **eq** or **neq**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **spoke-sdp**

| | |
|---|---|
| Synopsis | Enter the **spoke-sdp** context |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match aa-sub spoke-sdp |
| Tree | spoke-sdp |
| Description | Commands in this context configure the spoke SDP fields for the AA subscriber match entry. |
| Notes | The following elements are part of a choice: **esm**, **esm-mac**, **sap**, **spoke-sdp**, or **transit**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **eq** *sdp-bind-id*

| | |
|---|---|
| Synopsis | Exact match criterion used for a spoke SDP subscriber |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match aa-sub spoke-sdp eq *sdp-bind-id* |
| Tree | eq |
| String length | 3 to 16 |
| Notes | The following elements are part of a choice: **eq** or **neq**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **neq** *sdp-bind-id*

| | |
|---|---|
| Synopsis | Non-match criterion used for a spoke SDP subscriber |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match aa-sub spoke-sdp neq *sdp-bind-id* |
| Tree | neq |
| String length | 3 to 16 |
| Notes | The following elements are part of a choice: **eq** or **neq**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **transit**

| | |
|---|---|
| Synopsis | Enter the **transit** context |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match aa-sub transit |
| Tree | transit |
| Description | Commands in this context configure the transit fields for the AA subscriber match entry. |
| Notes | The following elements are part of a choice: **esm**, **esm-mac**, **sap**, **spoke-sdp**, or **transit**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **eq** *named-item*

| | |
|---|---|
| Synopsis | Exact match criterion used for a transit AA subscriber |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match aa-sub transit eq *named-item* |
| Tree | eq |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **eq** or **neq**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **neq** *named-item*

| | |
|---|---|
| Synopsis | Non-match criterion used for a transit AA subscriber |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match aa-sub transit neq *named-item* |
| Tree | neq |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **eq** or **neq**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **aa-sub-tethering** *keyword*

| | |
|---|---|
| Synopsis | Tethering detection status for flow match criterion |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match aa-sub-tethering *keyword* |
| Tree | aa-sub-tethering |
| Description | This command configures the match criteria for subscribers in a tethering state. |
| Options | not-applicable, detected, not-detected |
| Default | not-applicable |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **app-group**

| | |
|---|---|
| Synopsis | Enter the **app-group** context |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match app-group |
| Tree | app-group |
| Description | Commands in this context add an application group to the match criteria used by this AQP entry. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **eq** *reference*

| | |
|---|---|
| Synopsis | Exact match criterion used for the application group |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match app-group eq *reference* |
| Tree | eq |
| Reference | **configure** application-assurance group *number* partition *number* policy app-group *named-item* |
| Notes | The following elements are part of a choice: **eq** or **neq**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **neq** *reference*

| | |
|---|---|
| Synopsis | Non-match criterion used for the application group |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match app-group neq *reference* |
| Tree | neq |
| Reference | **configure** application-assurance group *number* partition *number* policy app-group *named-item* |
| Notes | The following elements are part of a choice: **eq** or **neq**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **application**

| | |
|---|---|
| Synopsis | Enter the **application** context |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match application |
| Tree | application |
| Description | Commands in this context add an application to match criteria used by this AQP entry. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **eq** *reference*

| | |
|---|---|
| Synopsis | Exact match criterion used for the application |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match application eq *reference* |
| Tree | eq |
| Reference | **configure** application-assurance group *number* partition *number* policy application *named-item* |
| Notes | The following elements are part of a choice: **eq** or **neq**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **neq** *reference*

| | |
|---|---|
| Synopsis | Non-match criterion used for the application |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match application neq *reference* |
| Tree | neq |
| Reference | **configure** application-assurance group *number* partition *number* policy application *named-item* |
| Notes | The following elements are part of a choice: **eq** or **neq**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **characteristic** [characteristic-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **characteristic** list instance |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match characteristic *reference* |
| Tree | characteristic |
| Description | Commands in this context configure an existing characteristic and its value to the match criteria used by this AQP entry. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### [**characteristic-name**] *reference*

| | |
|---|---|
| Synopsis | ASO characteristic name for AQP entry matching |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match characteristic *reference* |
| Tree | characteristic |
| Reference | **configure** application-assurance group *number* partition *number* policy app-service-options characteristic *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **eq** *reference*

| | |
|---|---|
| Synopsis | Match criterion used for AQP match characteristic |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match characteristic *reference* eq *reference* |
| Tree | eq |
| Reference | **configure** application-assurance group *number* partition *number* policy app-service-options characteristic *named-item* value *named-item* |
| Notes | The following elements are part of a mandatory choice: **eq** or **neq**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **neq** *reference*

| | |
|---|---|
| Synopsis | Non-match criterion used for AQP match characteristic |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match characteristic *reference* neq *reference* |
| Tree | neq |
| Reference | **configure** application-assurance group *number* partition *number* policy app-service-options characteristic *named-item* value *named-item* |
| Notes | The following elements are part of a mandatory choice: **eq** or **neq**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## charging-group

| | |
|---|---|
| Synopsis | Enter the **charging-group** context |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match charging-group |
| Tree | charging-group |
| Description | Commands in this context add a charging group to match criteria used by this AQP entry. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **eq** *reference*

| | |
|---|---|
| Synopsis | Match criterion used for the charging group |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match charging-group eq *reference* |
| Tree | eq |
| Reference | **configure** application-assurance group *number* partition *number* policy charging-group *named-item* |
| Notes | The following elements are part of a choice: **eq** or **neq**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **neq** *reference*

| | |
|---|---|
| Synopsis | Non-match criterion used for the charging group |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match charging-group neq *reference* |
| Tree | neq |
| Reference | **configure** application-assurance group *number* partition *number* policy charging-group *named-item* |
| Notes | The following elements are part of a choice: **eq** or **neq**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## dscp

| | |
|---|---|
| Synopsis | Enter the **dscp** context |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match dscp |
| Tree | dscp |
| Description | Commands in this context add a DSCP name to the match criteria used by this entry. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **eq** *keyword*

| | |
|---|---|
| Synopsis | Exact match criterion used for the DSCP |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match dscp eq *keyword* |
| Tree | eq |
| Options | be, cp1, cp2, cp3, cp4, cp5, cp6, cp7, cs1, cp9, af11, cp11, af12, cp13, af13, cp15, cs2, cp17, af21, cp19, af22, cp21, af23, cp23, cs3, cp25, af31, cp27, af32, cp29, af33, cp31, cs4, cp33, af41, cp35, af42, cp37, af43, cp39, cs5, cp41, cp42, cp43, cp44, cp45, ef, cp47, nc1, cp49, cp50, cp51, cp52, cp53, cp54, cp55, nc2, cp57, cp58, cp59, cp60, cp61, cp62, cp63 |
| Notes | The following elements are part of a choice: **eq** or **neq**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **neq** *keyword*

| | |
|---|---|
| Synopsis | Non-match criterion used for the DSCP |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match dscp neq *keyword* |
| Tree | neq |
| Options | be, cp1, cp2, cp3, cp4, cp5, cp6, cp7, cs1, cp9, af11, cp11, af12, cp13, af13, cp15, cs2, cp17, af21, cp19, af22, cp21, af23, cp23, cs3, cp25, af31, cp27, af32, cp29, af33, cp31, cs4, cp33, af41, cp35, af42, cp37, af43, cp39, cs5, cp41, cp42, cp43, cp44, cp45, ef, cp47, nc1, cp49, cp50, cp51, cp52, cp53, cp54, cp55, nc2, cp57, cp58, cp59, cp60, cp61, cp62, cp63 |
| Notes | The following elements are part of a choice: **eq** or **neq**. |
| Introduced | 21.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## dst-ip

| | |
|---|---|
| Synopsis | Enter the **dst-ip** context |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match dst-ip |
| Tree | dst-ip |
| Description | Commands in this context configure a destination IP address to use as match criteria. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## eq

| | |
|---|---|
| Synopsis | Enter the **eq** context |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match dst-ip eq |
| Tree | eq |
| Description | Commands in this context specify the exact match value as the match criterion. A successful match occurs when the flow matches the specified address or prefix. |
| Notes | The following elements are part of a choice: **eq** or **neq**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## ip-prefix *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | IP address prefix used for match criterion |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match dst-ip eq ip-prefix *(ipv4-prefix \| ipv6-prefix)* |
| Tree | ip-prefix |
| Notes | The following elements are part of a choice: **ip-prefix** or **ip-prefix-list**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **ip-prefix-list** *reference*

| | |
|---|---|
| Synopsis | IP address prefix list used for match criterion |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match dst-ip eq ip-prefix-list *reference* |
| Tree | ip-prefix-list |
| Reference | **configure** application-assurance group *number* partition *number* ip-prefix-list *named-item* |
| Notes | The following elements are part of a choice: **ip-prefix** or **ip-prefix-list**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **neq**

| | |
|---|---|
| Synopsis | Enter the **neq** context |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match dst-ip neq |
| Tree | neq |
| Description | Commands in this context specify the non-match value as the match criterion. A successful match occurs when the flow does not match the specified address or prefix. |
| Notes | The following elements are part of a choice: **eq** or **neq**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ip-prefix** *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | IP address prefix used for match criterion |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match dst-ip neq ip-prefix *(ipv4-prefix \| ipv6-prefix)* |
| Tree | ip-prefix |
| Notes | The following elements are part of a choice: **ip-prefix** or **ip-prefix-list**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **ip-prefix-list** *reference*

| | |
|---|---|
| Synopsis | IP address prefix list used for match criterion |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match dst-ip neq ip-prefix-list *reference* |
| Tree | ip-prefix-list |
| Reference | **configure** application-assurance group *number* partition *number* ip-prefix-list *named-item* |
| Notes | The following elements are part of a choice: **ip-prefix** or **ip-prefix-list**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **dst-port**

| | |
|---|---|
| Synopsis | Enter the **dst-port** context |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match dst-port |
| Tree | dst-port |
| Description | Commands in this context configure a destination TCP/UDP port, a destination port list, or a destination range to use as match criteria. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **eq**

| | |
|---|---|
| Synopsis | Enter the **eq** context |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match dst-port eq |
| Tree | eq |
| Description | Commands in this context specify the exact match criterion. A successful match occurs when the flow matches the specified port. |
| Notes | The following elements are part of a choice: **eq** or **neq**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **port-list** *reference*

| | |
|---|---|
| Synopsis | IP port list used as match criterion |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match dst-port eq port-list *reference* |
| Tree | port-list |
| Reference | **configure** application-assurance group *number* partition *number* port-list *named-item* |
| Notes | The following elements are part of a choice: **port-list**, **port-number**, or **range**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **port-number** *number*

| | |
|---|---|
| Synopsis | Server port number used as match criterion |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match dst-port eq port-number *number* |
| Tree | port-number |
| Range | 0 \| 1 to 65535 |
| Default | 0 |
| Notes | The following elements are part of a choice: **port-list**, **port-number**, or **range**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **range**

| | |
|---|---|
| Synopsis | Enter the **range** context |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match dst-port eq range |
| Tree | range |
| Description | Commands in this context specify the match value as the match criterion based on the starting or ending port number. |
| Notes | The following elements are part of a choice: **port-list**, **port-number**, or **range**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **end** *number*

| | |
|---|---|
| Synopsis | TCP/UDP ending port number |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match dst-port eq range end *number* |
| Tree | end |
| Range | 0 \| 1 to 65535 |
| Default | 1 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **start** *number*

| | |
|---|---|
| Synopsis | TCP/UDP starting port number |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match dst-port eq range start *number* |
| Tree | start |
| Range | 0 \| 1 to 65535 |
| Default | 0 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **neq**

| | |
|---|---|
| Synopsis | Enter the **neq** context |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match dst-port neq |
| Tree | neq |
| Description | Commands in this context specify the non-match value as the match criterion. A successful match occurs when the flow does not match the specified port. |
| Notes | The following elements are part of a choice: **eq** or **neq**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **port-list** *reference*

| | |
|---|---|
| Synopsis | IP port list used as match criterion |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match dst-port neq port-list *reference* |
| Tree | port-list |
| Reference | **configure** application-assurance group *number* partition *number* port-list *named-item* |
| Notes | The following elements are part of a choice: **port-list**, **port-number**, or **range**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **port-number** *number*

| | |
|---|---|
| Synopsis | Server port number used as match criterion |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match dst-port neq port-number *number* |
| Tree | port-number |
| Range | 0 \| 1 to 65535 |
| Default | 0 |
| Notes | The following elements are part of a choice: **port-list**, **port-number**, or **range**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **range**

| | |
|---|---|
| Synopsis | Enter the **range** context |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match dst-port neq range |
| Tree | range |
| Description | Commands in this context specify the match value as the match criterion based on the starting or ending port number. |
| Notes | The following elements are part of a choice: **port-list**, **port-number**, or **range**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **end** *number*

| | |
|---|---|
| Synopsis | TCP/UDP ending port number |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match dst-port neq range end *number* |
| Tree | end |
| Range | 0 \| 1 to 65535 |
| Default | 1 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **start** *number*

| | |
|---|---|
| Synopsis | TCP/UDP starting port number |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match dst-port neq range start *number* |
| Tree | start |
| Range | 0 \| 1 to 65535 |
| Default | 0 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **flow-attribute** [flow-attribute-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **flow-attribute** list instance |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match flow-attribute *named-item* |
| Tree | flow-attribute |
| Description | Commands in this context configure a flow attribute to use as match criteria. The supported options are:<br>• abr_service<br>• audio<br>• download<br>• encrypted<br>• esni<br>• real_time_communication<br>• upload |


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| | |
|---|---|
| | • video |
| Max. instances | 10 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## [**flow-attribute-name**] *named-item*

| | |
|---|---|
| Synopsis | Flow attribute name used as match criterion |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match flow-attribute *named-item* |
| Tree | flow-attribute |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## confidence

| | |
|---|---|
| Synopsis | Enter the **confidence** context |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match flow-attribute *named-item* confidence |
| Tree | confidence |
| Description | Commands in this context configure the confidence level of the flow attribute for use as match criteria. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **eq** *number*

| | |
|---|---|
| Synopsis | Exact match criterion for the flow-attribute confidence |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match flow-attribute *named-item* confidence eq *number* |
| Tree | eq |
| Range | 0 to 100 |
| Notes | The following elements are part of a choice: **eq**, **gte**, or **lt**. |


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| | |
|---|---|
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **gte** *number*

| | |
|---|---|
| Synopsis | Greater than or equal to for confidence match criterion |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match flow-attribute *named-item* confidence gte *number* |
| Tree | gte |
| Range | 0 to 100 |
| Notes | The following elements are part of a choice: **eq**, **gte**, or **lt**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **lt** *number*

| | |
|---|---|
| Synopsis | Less than value for confidence match criterion |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match flow-attribute *named-item* confidence lt *number* |
| Tree | lt |
| Range | 1 to 100 |
| Notes | The following elements are part of a choice: **eq**, **gte**, or **lt**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **ip-protocol**

| | |
|---|---|
| Synopsis | Enter the **ip-protocol** context |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match ip-protocol |
| Tree | ip-protocol |
| Description | Commands in this context configure the IP protocol to use in the application definition. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **eq** *(number | keyword)*

| | |
|---|---|
| Synopsis | Exact match criterion used for the IP protocol |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match ip-protocol eq *(number \| keyword)* |
| Tree | eq |
| Range | 0 to 255 |
| Options | tcp-udp, icmp, igmp, ip, tcp, egp, igp, udp, rdp, ipv6, ipv6-route, ipv6-frag, idrp, rsvp, gre, ipv6-icmp, ipv6-no-nxt, ipv6-opts, iso-ip, eigrp, ospf-igp, ether-ip, encap, pnni, pim, vrrp, l2tp, stp, ptp, isis, crtp, crudp, sctp |
| Notes | The following elements are part of a choice: **eq** or **neq**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **neq** *(number | keyword)*

| | |
|---|---|
| Synopsis | Non-match criterion used for the IP protocol |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match ip-protocol neq *(number \| keyword)* |
| Tree | neq |
| Range | 0 to 255 |
| Options | tcp-udp, icmp, igmp, ip, tcp, egp, igp, udp, rdp, ipv6, ipv6-route, ipv6-frag, idrp, rsvp, gre, ipv6-icmp, ipv6-no-nxt, ipv6-opts, iso-ip, eigrp, ospf-igp, ether-ip, encap, pnni, pim, vrrp, l2tp, stp, ptp, isis, crtp, crudp, sctp |
| Notes | The following elements are part of a choice: **eq** or **neq**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **src-ip**

| | |
|---|---|
| Synopsis | Enter the **src-ip** context |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match src-ip |
| Tree | src-ip |
| Description | Commands in this context configure a source IP address to use as match criteria. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## eq

| | |
|---|---|
| Synopsis | Enter the **eq** context |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match src-ip eq |
| Tree | eq |
| Description | Commands in this context specify the exact match value as the match criterion. A successful match occurs when the flow matches the specified address or prefix. |
| Notes | The following elements are part of a choice: **eq** or **neq**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## ip-prefix *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | IP address prefix used for match criterion |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match src-ip eq ip-prefix *(ipv4-prefix \| ipv6-prefix)* |
| Tree | ip-prefix |
| Notes | The following elements are part of a choice: **ip-prefix** or **ip-prefix-list**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## ip-prefix-list *reference*

| | |
|---|---|
| Synopsis | IP address prefix list used for match criterion |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match src-ip eq ip-prefix-list *reference* |
| Tree | ip-prefix-list |
| Reference | **configure** application-assurance group *number* partition *number* ip-prefix-list *named-item* |
| Notes | The following elements are part of a choice: **ip-prefix** or **ip-prefix-list**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## neq

| | |
|---|---|
| Synopsis | Enter the **neq** context |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match src-ip neq |
| Tree | neq |
| Description | Commands in this context specify the non-match value as the match criterion. A successful match occurs when the flow does not match the specified address or prefix. |
| Notes | The following elements are part of a choice: **eq** or **neq**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## ip-prefix *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | IP address prefix used for match criterion |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match src-ip neq ip-prefix *(ipv4-prefix \| ipv6-prefix)* |
| Tree | ip-prefix |
| Notes | The following elements are part of a choice: **ip-prefix** or **ip-prefix-list**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## ip-prefix-list *reference*

| | |
|---|---|
| Synopsis | IP address prefix list used for match criterion |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match src-ip neq ip-prefix-list *reference* |
| Tree | ip-prefix-list |
| Reference | **configure** application-assurance group *number* partition *number* ip-prefix-list *named-item* |
| Notes | The following elements are part of a choice: **ip-prefix** or **ip-prefix-list**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## src-port

| | |
|---|---|
| Synopsis | Enter the **src-port** context |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match src-port |
| Tree | src-port |
| Description | Commands in this context specify a source IP port, a source port list, or a source range to use as match criteria. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## eq

| | |
|---|---|
| Synopsis | Enter the **eq** context |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match src-port eq |
| Tree | eq |
| Description | Commands in this context specify the exact match criterion. A successful match occurs when the flow matches the specified port. |
| Notes | The following elements are part of a choice: **eq** or **neq**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## port-list *reference*

| | |
|---|---|
| Synopsis | IP port list used as match criterion |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match src-port eq port-list *reference* |
| Tree | port-list |
| Reference | **configure** application-assurance group *number* partition *number* port-list *named-item* |
| Notes | The following elements are part of a choice: **port-list**, **port-number**, or **range**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **port-number** *number*

| | |
|---|---|
| Synopsis | Server port number used as match criterion |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match src-port eq port-number *number* |
| Tree | port-number |
| Range | 0 \| 1 to 65535 |
| Default | 0 |
| Notes | The following elements are part of a choice: **port-list**, **port-number**, or **range**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **range**

| | |
|---|---|
| Synopsis | Enter the **range** context |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match src-port eq range |
| Tree | range |
| Description | Commands in this context specify the match value as the match criterion based on the starting or ending port number. |
| Notes | The following elements are part of a choice: **port-list**, **port-number**, or **range**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **end** *number*

| | |
|---|---|
| Synopsis | TCP/UDP ending port number |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match src-port eq range end *number* |
| Tree | end |
| Range | 0 \| 1 to 65535 |
| Default | 1 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **start** *number*

| | |
|---|---|
| Synopsis | TCP/UDP starting port number |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match src-port eq range start *number* |
| Tree | start |
| Range | 0 \| 1 to 65535 |
| Default | 0 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **neq**

| | |
|---|---|
| Synopsis | Enter the **neq** context |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match src-port neq |
| Tree | neq |
| Description | Commands in this context specify the non-match value as the match criterion. A successful match occurs when the flow does not match the specified port. |
| Notes | The following elements are part of a choice: **eq** or **neq**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **port-list** *reference*

| | |
|---|---|
| Synopsis | IP port list used as match criterion |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match src-port neq port-list *reference* |
| Tree | port-list |
| Reference | **configure** application-assurance group *number* partition *number* port-list *named-item* |
| Notes | The following elements are part of a choice: **port-list**, **port-number**, or **range**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **port-number** *number*

| | |
|---|---|
| Synopsis | Server port number used as match criterion |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match src-port neq port-number *number* |
| Tree | port-number |
| Range | 0 \| 1 to 65535 |
| Default | 0 |
| Notes | The following elements are part of a choice: **port-list**, **port-number**, or **range**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **range**

| | |
|---|---|
| Synopsis | Enter the **range** context |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match src-port neq range |
| Tree | range |
| Description | Commands in this context specify the match value as the match criterion based on the starting or ending port number. |
| Notes | The following elements are part of a choice: **port-list**, **port-number**, or **range**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **end** *number*

| | |
|---|---|
| Synopsis | TCP/UDP ending port number |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match src-port neq range end *number* |
| Tree | end |
| Range | 0 \| 1 to 65535 |
| Default | 1 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **start** *number*

| | |
|---|---|
| Synopsis | TCP/UDP starting port number |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match src-port neq range start *number* |
| Tree | start |
| Range | 0 \| 1 to 65535 |
| Default | 0 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **traffic-direction** *keyword*

| | |
|---|---|
| Synopsis | Traffic direction to which AQP match entry is applied |
| Context | **configure** application-assurance group *number* partition *number* policy app-qos-policy entry *number* match traffic-direction *keyword* |
| Tree | traffic-direction |
| Options | subscriber-to-network, network-to-subscriber, both |
| Default | both |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **app-service-options**

| | |
|---|---|
| Synopsis | Enter the **app-service-options** context |
| Context | **configure** application-assurance group *number* partition *number* policy app-service-options |
| Tree | app-service-options |
| Description | Commands in this context configure application service option characteristics. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **characteristic** [characteristic-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **characteristic** list instance |


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| | |
|---|---|
| Context | **configure** application-assurance group *number* partition *number* policy app-service-options characteristic *named-item* |
| Tree | characteristic |
| Description | Commands in this context create the characteristic of the application service options. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**characteristic-name**] *named-item*

| | |
|---|---|
| Synopsis | ASO characteristic name |
| Context | **configure** application-assurance group *number* partition *number* policy app-service-options characteristic *named-item* |
| Tree | characteristic |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **default-value** *named-item*

| | |
|---|---|
| Synopsis | ASO characteristic default value |
| Context | **configure** application-assurance group *number* partition *number* policy app-service-options characteristic *named-item* default-value *named-item* |
| Tree | default-value |
| String length | 1 to 32 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **value** [value-name] *named-item*

| | |
|---|---|
| Synopsis | Add a list entry for **value** |
| Context | **configure** application-assurance group *number* partition *number* policy app-service-options characteristic *named-item* value *named-item* |
| Tree | value |
| Description | Commands in this context configure a characteristic value. |


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| | |
|---|---|
| Max. instances | 64 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**value-name**] *named-item*

| | |
|---|---|
| Synopsis | ASO characteristic value name |
| Context | **configure** application-assurance group *number* partition *number* policy app-service-options characteristic *named-item* value *named-item* |
| Tree | value |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **application** [application-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **application** list instance |
| Context | **configure** application-assurance group *number* partition *number* policy application *named-item* |
| Tree | application |
| Description | Commands in this context configure the policy application of the Application Assurance group partition. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**application-name**] *named-item*

| | |
|---|---|
| Synopsis | Application name |
| Context | **configure** application-assurance group *number* partition *number* policy application *named-item* |
| Tree | application |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **app-group** *reference*

| | |
|---|---|
| Synopsis | Application group associated with the application |
| Context | **configure** application-assurance group *number* partition *number* policy application *named-item* app-group *reference* |
| Tree | app-group |
| Reference | **configure** application-assurance group *number* partition *number* policy app-group *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **charging-group** *reference*

| | |
|---|---|
| Synopsis | Charging group associated with the application |
| Context | **configure** application-assurance group *number* partition *number* policy application *named-item* charging-group *reference* |
| Tree | charging-group |
| Reference | **configure** application-assurance group *number* partition *number* policy charging-group *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** application-assurance group *number* partition *number* policy application *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **export-id** *number*

| | |
|---|---|
| Synopsis | Application export ID used for RADIUS accounting |


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| | |
|---|---|
| Context | **configure** application-assurance group *number* partition *number* policy application *named-item* export-id *number* |
| Tree | export-id |
| Range | 1 to 255 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### charging-filter

| | |
|---|---|
| Synopsis | Enter the **charging-filter** context |
| Context | **configure** application-assurance group *number* partition *number* policy charging-filter |
| Tree | charging-filter |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **entry** [entry-id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** application-assurance group *number* partition *number* policy charging-filter entry *number* |
| Tree | entry |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**entry-id**] *number*

| | |
|---|---|
| Synopsis | Charging filter entry ID in the AA partition policy |
| Context | **configure** application-assurance group *number* partition *number* policy charging-filter entry *number* |
| Tree | entry |
| Description | This command defines a charging filter entry ID. Charging filter entries are an ordered list; the lowest numerical entry that matches the flow, defines the charging filter for this flow. |
| Range | 1 to 65535 |
| Notes | This element is part of a list key. |
| Introduced | 22.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the AA charging filter entry |
| Context | **configure** application-assurance group *number* partition *number* policy charging-filter entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **charging-group** *reference*

| | |
|---|---|
| Synopsis | Charging group to associate to flows matching the entry |
| Context | **configure** application-assurance group *number* partition *number* policy charging-filter entry *number* charging-group *reference* |
| Tree | charging-group |
| Description | This command associates a charging group to the flows that match the charging filter entry. |
| Reference | **configure** application-assurance group *number* partition *number* policy charging-group *named-item* |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** application-assurance group *number* partition *number* policy charging-filter entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## match

| | |
|---|---|
| Synopsis | Enter the **match** context |
| Context | **configure** application-assurance group *number* partition *number* policy charging-filter entry *number* match |
| Tree | match |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## app-group

| | |
|---|---|
| Synopsis | Enter the **app-group** context |
| Context | **configure** application-assurance group *number* partition *number* policy charging-filter entry *number* match app-group |
| Tree | app-group |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## eq *reference*

| | |
|---|---|
| Synopsis | Exact value as the match criterion |
| Context | **configure** application-assurance group *number* partition *number* policy charging-filter entry *number* match app-group eq *reference* |
| Tree | eq |
| Description | This command specifies that the value configured and the value in the flow must be equal for a match to occur. |
| Reference | **configure** application-assurance group *number* partition *number* policy app-group *named-item* |
| Notes | The following elements are part of a choice: **eq** or **neq**. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## neq *reference*

| | |
|---|---|
| Synopsis | Non-matching application to resolve to a charging group |
| Context | **configure** application-assurance group *number* partition *number* policy charging-filter entry *number* match app-group neq *reference* |


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| | |
|---|---|
| Tree | neq |
| Description | This command specifies that the value configured and the value in the flow must differ for a match to occur. |
| Reference | **configure** application-assurance group *number* partition *number* policy app-group *named-item* |
| Notes | The following elements are part of a choice: **eq** or **neq**. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## application

| | |
|---|---|
| Synopsis | Enter the **application** context |
| Context | **configure** application-assurance group *number* partition *number* policy charging-filter entry *number* match application |
| Tree | application |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **eq** *reference*

| | |
|---|---|
| Synopsis | Exact value as the match criterion |
| Context | **configure** application-assurance group *number* partition *number* policy charging-filter entry *number* match application eq *reference* |
| Tree | eq |
| Description | This command specifies that the value configured and the value in the flow must be equal for a match to occur. |
| Reference | **configure** application-assurance group *number* partition *number* policy application *named-item* |
| Notes | The following elements are part of a choice: **eq** or **neq**. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **neq** *reference*

| | |
|---|---|
| Synopsis | Non-matching application to resolve to a charging group |
| Context | **configure** application-assurance group *number* partition *number* policy charging-filter entry *number* match application neq *reference* |


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| | |
|---|---|
| Tree | neq |
| Description | This command specifies that the value configured and the value in the flow must differ for a match to occur. |
| Reference | **configure** application-assurance group *number* partition *number* policy application *named-item* |
| Notes | The following elements are part of a choice: **eq** or **neq**. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **flow-attribute** [flow-attribute-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **flow-attribute** list instance |
| Context | **configure** application-assurance group *number* partition *number* policy charging-filter entry *number* match flow-attribute *named-item* |
| Tree | flow-attribute |
| Max. instances | 10 |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## [**flow-attribute-name**] *named-item*

| | |
|---|---|
| Synopsis | Flow attribute name match criteria |
| Context | **configure** application-assurance group *number* partition *number* policy charging-filter entry *number* match flow-attribute *named-item* |
| Tree | flow-attribute |
| Description | This command adds a flow attribute to the match criteria used by this charging filter entry. |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **confidence**

| | |
|---|---|
| Synopsis | Enter the **confidence** context |


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| | |
|---|---|
| Context | **configure** application-assurance group *number* partition *number* policy charging-filter entry *number* match flow-attribute *named-item* confidence |
| Tree | confidence |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **eq** *number*

| | |
|---|---|
| Synopsis | Exact value as the match criterion |
| Context | **configure** application-assurance group *number* partition *number* policy charging-filter entry *number* match flow-attribute *named-item* confidence eq *number* |
| Tree | eq |
| Description | This command specifies that a successful match occurs when the flow attribute confidence level is equal to the specified value. |
| Range | 0 to 100 |
| Notes | The following elements are part of a choice: **eq**, **gte**, or **lt**. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **gte** *number*

| | |
|---|---|
| Synopsis | Confidence value to resolve to a charging group |
| Context | **configure** application-assurance group *number* partition *number* policy charging-filter entry *number* match flow-attribute *named-item* confidence gte *number* |
| Tree | gte |
| Description | This command specifies that a successful match occurs when the flow attribute confidence level is greater than or equal to the specified value. |
| Range | 0 to 100 |
| Notes | The following elements are part of a choice: **eq**, **gte**, or **lt**. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **lt** *number*

| | |
|---|---|
| Synopsis | Less than value as the match criterion |


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| | |
|---|---|
| Context | **configure** application-assurance group *number* partition *number* policy charging-filter entry *number* match flow-attribute *named-item* confidence lt *number* |
| Tree | lt |
| Description | This command specifies that a successful match occurs when the flow attribute confidence level is less than the specified value. |
| Range | 1 to 100 |
| Notes | The following elements are part of a choice: **eq**, **gte**, or **lt**. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## tethered-flow

| | |
|---|---|
| Synopsis | Enable the **tethered-flow** context |
| Context | **configure** application-assurance group *number* partition *number* policy charging-filter entry *number* match tethered-flow |
| Tree | tethered-flow |
| Description | Commands in this context add the tethering status to the match criteria used by this charging filter entry. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **charging-group** [charging-group-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **charging-group** list instance |
| Context | **configure** application-assurance group *number* partition *number* policy charging-group *named-item* |
| Tree | charging-group |
| Description | Commands in this context create a charging group for an Application Assurance policy. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## [**charging-group-name**] *named-item*

| | |
|---|---|
| Synopsis | Charging group name |
| Context | **configure** application-assurance group *number* partition *number* policy charging-group *named-item* |


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| | |
|---|---|
| Tree | charging-group |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** application-assurance group *number* partition *number* policy charging-group *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **export-id** *number*

| | |
|---|---|
| Synopsis | Charging group export ID used for RADIUS accounting |
| Context | **configure** application-assurance group *number* partition *number* policy charging-group *named-item* export-id *number* |
| Tree | export-id |
| Description | This command assigns an export ID value to a charging group, an app application group, or an application to be used for accounting export identification in RADIUS accounting. This ID is encoded in the top 2 bytes of the RADIUS accounting VSA to identify which charging group the counter value represents. |
| Range | 1 to 255 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **notify-start-stop** *keyword*

| | |
|---|---|
| Synopsis | Start and stop notification for the charging group |
| Context | **configure** application-assurance group *number* partition *number* policy charging-group *named-item* notify-start-stop *keyword* |
| Tree | notify-start-stop |
| Options | none, flow, charging-group |


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| | |
|---|---|
| Default | none |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **custom-protocol** [custom-protocol-id] *custom-protocol-name*

| | |
|---|---|
| Synopsis | Enter the **custom-protocol** list instance |
| Context | **configure** application-assurance group *number* partition *number* policy custom-protocol *custom-protocol-name* |
| Tree | custom-protocol |
| Description | Commands in this context configure custom protocols.<br>Custom protocols allow the creation of TCP and UDP-based custom protocols that employ pattern-match at offset in the protocol signature definition.<br>Operator-configurable custom protocols are evaluated ahead of any Nokia-provided protocol signature in order of custom protocol ID within the context the protocol is defined. The lower ID is matched first in case of flow matching multiple custom protocols.<br>Custom protocols must be created before they can be used in an application definition but do not have to be enabled. To reference a custom protocol in an application definition, or any other CLI configuration one must use the protocol name that is a concatenation of “custom_” and, (for example, custom_01, custom_02 ... custom_10, and so on). This concatenation is also used when reporting custom protocol statistics. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## [**custom-protocol-id**] *custom-protocol-name*

| | |
|---|---|
| Synopsis | Custom protocol ID for the AA policy custom protocol |
| Context | **configure** application-assurance group *number* partition *number* policy custom-protocol *custom-protocol-name* |
| Tree | custom-protocol |
| Description | This command configures the index into the protocol list that defines a custom protocol for Application Assurance. |
| String length | 9 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the custom protocol |
| Context | **configure** application-assurance group *number* partition *number* policy custom-protocol *custom-protocol-name* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** application-assurance group *number* partition *number* policy custom-protocol *custom-protocol-name* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **expression** [expr-index] *number*

| | |
|---|---|
| Synopsis | Enter the **expression** list instance |
| Context | **configure** application-assurance group *number* partition *number* policy custom-protocol *custom-protocol-name* expression *number* |
| Tree | expression |
| Description | Commands in this context configure an expression string value for pattern-based custom protocols match.<br>A flow matches a custom protocol if the specified string is found at an offset of a TCP/UDP of the first payload packet. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**expr-index**] *number*

| | |
|---|---|
| Synopsis | Expression substring index for custom protocol matching |


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| | |
|---|---|
| Context | **configure** application-assurance group *number* partition *number* policy custom-protocol *custom-protocol-name* expression *number* |
| Tree | expression |
| Range | 1 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **direction** *keyword*

| | |
|---|---|
| Synopsis | Flow direction for custom-protocol expression matching |
| Context | **configure** application-assurance group *number* partition *number* policy custom-protocol *custom-protocol-name* expression *number* direction *keyword* |
| Tree | direction |
| Description | This command configures the protocol direction to match against for a custom protocol. |
| Options | client-to-server, server-to-client, any |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **eq** *display-string*

| | |
|---|---|
| Synopsis | Exact match criterion for custom protocol expression |
| Context | **configure** application-assurance group *number* partition *number* policy custom-protocol *custom-protocol-name* expression *number* eq *display-string* |
| Tree | eq |
| String length | 1 to 255 |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **offset** *number*

| | |
|---|---|
| Synopsis | Offset in protocol flow to start custom-protocol match |
| Context | **configure** application-assurance group *number* partition *number* policy custom-protocol *custom-protocol-name* expression *number* offset *number* |


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| | |
|---|---|
| Tree | offset |
| Description | This command configures the offset into the protocol payload where the expr-string match criteria starts. |
| Range | 0 to 127 |
| Default | 0 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **ip-protocol** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IP protocol number for custom-protocol match criterion |
| Context | **configure** application-assurance group *number* partition *number* policy custom-protocol *custom-protocol-name* ip-protocol *keyword* |
| Tree | ip-protocol |
| Description | This command configures the IP protocol number of the TCP and UDP-based custom protocols. |
| Options | tcp, udp |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **default-charging-group** *reference*

| | |
|---|---|
| Synopsis | Default charging group |
| Context | **configure** application-assurance group *number* partition *number* policy default-charging-group *reference* |
| Tree | default-charging-group |
| Description | This command associates a charging group with any applications or application groups that do not have an explicitly assigned charging group for the Application Assurance policy. |
| Reference | **configure** application-assurance group *number* partition *number* policy charging-group *named-item* |
| Introduced | 21.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **default-tethered-charging-group** *reference*

| | |
|---|---|
| Synopsis | Default charging group for tethered traffic |
| Context | **configure** application-assurance group *number* partition *number* policy default-tethered-charging-group *reference* |
| Tree | default-tethered-charging-group |
| Description | This command configures the default charging group to be assigned to all flows which are classified as tethered.<br>For flows that have been identified as tethered, the AA will replace the charging group configured at the application level with the charging group configured for tethered traffic (that is, configured with **default-tethered-charging-group**). |
| Reference | **configure** application-assurance group *number* partition *number* policy charging-group *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **policy-override**

| | |
|---|---|
| Synopsis | Enter the **policy-override** context |
| Context | **configure** application-assurance group *number* partition *number* policy-override |
| Tree | policy-override |
| Description | Commands in this context configure policy override parameters. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **aa-sub**

| | |
|---|---|
| Synopsis | Enter the **aa-sub** context |
| Context | **configure** application-assurance group *number* partition *number* policy-override aa-sub |
| Tree | aa-sub |
| Description | Commands in this context configure the AA policy override subscriber fields. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **sap** [sap-id] *sap*

| | |
|---|---|
| Synopsis | Enter the **sap** list instance |
| Context | **configure** application-assurance group *number* partition *number* policy-override aa-sub sap *sap* |
| Tree | sap |
| Description | Commands in this context configure the Service Access Point (SAP) within the partition. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**sap-id**] *sap*

| | |
|---|---|
| Synopsis | AA subscriber SAP ID |
| Context | **configure** application-assurance group *number* partition *number* policy-override aa-sub sap *sap* |
| Tree | sap |
| String length | 1 to 45 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **characteristic** [characteristic-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **characteristic** list instance |
| Context | **configure** application-assurance group *number* partition *number* policy-override aa-sub sap *sap* characteristic *reference* |
| Tree | characteristic |
| Description | Commands in this context configure an override characteristic and value. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**characteristic-name**] *reference*

| | |
|---|---|
| Synopsis | ASO characteristic name |
| Context | **configure** application-assurance group *number* partition *number* policy-override aa-sub sap *sap* characteristic *reference* |


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| | |
|---|---|
| Tree | characteristic |
| Reference | **configure** application-assurance group *number* partition *number* policy app-service-options characteristic *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **value** *reference*

| | |
|---|---|
| Synopsis | Characteristic value used in subscriber policy override |
| Context | **configure** application-assurance group *number* partition *number* policy-override aa-sub sap *sap* characteristic *reference* value *reference* |
| Tree | value |
| Reference | **configure** application-assurance group *number* partition *number* policy app-service-options characteristic *named-item* value *named-item* |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **spoke-sdp** [sdp-bind-id] *sdp-bind-id*

| | |
|---|---|
| Synopsis | Enter the **spoke-sdp** list instance |
| Context | **configure** application-assurance group *number* partition *number* policy-override aa-sub spoke-sdp *sdp-bind-id* |
| Tree | spoke-sdp |
| Description | Commands in this context configure the Service Destination Point (SDP) for the policy override. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**sdp-bind-id**] *sdp-bind-id*

| | |
|---|---|
| Synopsis | Spoke SDP ID for an AA subscriber |
| Context | **configure** application-assurance group *number* partition *number* policy-override aa-sub spoke-sdp *sdp-bind-id* |
| Tree | spoke-sdp |


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| | |
|---|---|
| String length | 3 to 16 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **characteristic** [characteristic-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **characteristic** list instance |
| Context | **configure** application-assurance group *number* partition *number* policy-override aa-sub spoke-sdp *sdp-bind-id* characteristic *reference* |
| Tree | characteristic |
| Description | Commands in this context configure an override characteristic and value. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**characteristic-name**] *reference*

| | |
|---|---|
| Synopsis | ASO characteristic name |
| Context | **configure** application-assurance group *number* partition *number* policy-override aa-sub spoke-sdp *sdp-bind-id* characteristic *reference* |
| Tree | characteristic |
| Reference | **configure** application-assurance group *number* partition *number* policy app-service-options characteristic *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **value** *reference*

| | |
|---|---|
| Synopsis | Characteristic value used in subscriber policy override |
| Context | **configure** application-assurance group *number* partition *number* policy-override aa-sub spoke-sdp *sdp-bind-id* characteristic *reference* value *reference* |
| Tree | value |
| Reference | **configure** application-assurance group *number* partition *number* policy app-service-options characteristic *named-item* value *named-item* |
| Notes | This element is mandatory. |


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| | |
|---|---|
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **transit** [transit-sub-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **transit** list instance |
| Context | **configure** application-assurance group *number* partition *number* policy-override aa-sub transit *named-item* |
| Tree | transit |
| Description | Commands in this context configure the AA transit subscriber fields. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**transit-sub-name**] *named-item*

| | |
|---|---|
| Synopsis | Transit subscriber name |
| Context | **configure** application-assurance group *number* partition *number* policy-override aa-sub transit *named-item* |
| Tree | transit |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **characteristic** [characteristic-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **characteristic** list instance |
| Context | **configure** application-assurance group *number* partition *number* policy-override aa-sub transit *named-item* characteristic *reference* |
| Tree | characteristic |
| Description | Commands in this context configure an override characteristic and value. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### [**characteristic-name**] *reference*

| | |
|---|---|
| Synopsis | ASO characteristic name |
| Context | **configure** application-assurance group *number* partition *number* policy-override aa-sub transit *named-item* characteristic *reference* |
| Tree | characteristic |
| Reference | **configure** application-assurance group *number* partition *number* policy app-service-options characteristic *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **value** *reference*

| | |
|---|---|
| Synopsis | Characteristic value used in subscriber policy override |
| Context | **configure** application-assurance group *number* partition *number* policy-override aa-sub transit *named-item* characteristic *reference* value *reference* |
| Tree | value |
| Reference | **configure** application-assurance group *number* partition *number* policy app-service-options characteristic *named-item* value *named-item* |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **port-list** [port-list-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **port-list** list instance |
| Context | **configure** application-assurance group *number* partition *number* port-list *named-item* |
| Tree | port-list |
| Description | Commands in this context define an AA group or partition named port list, which contains a list of port numbers or port ranges.<br>The port list is then referenced in AA policy application filters, allowing increased flexibility in the use of server ports or HTTP proxy ports for application definition. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### [**port-list-name**] *named-item*

| | |
|---|---|
| Synopsis | Port list name |
| Context | **configure** application-assurance group *number* partition *number* port-list *named-item* |
| Tree | port-list |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** application-assurance group *number* partition *number* port-list *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **port** [port-number] *number*

| | |
|---|---|
| Synopsis | Add a list entry for **port** |
| Context | **configure** application-assurance group *number* partition *number* port-list *named-item* port *number* |
| Tree | port |
| Description | Commands in this context specify the server TCP or UDP port number to use in the port list definition. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**port-number**] *number*

| | |
|---|---|
| Synopsis | Port number |
| Context | **configure** application-assurance group *number* partition *number* port-list *named-item* port *number* |


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| | |
|---|---|
| Tree | port |
| Range | 0 to 65535 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **range** start *number* end *number*

| | |
|---|---|
| Synopsis | Add a list entry for **range** |
| Context | **configure** application-assurance group *number* partition *number* port-list *named-item* range start *number* end *number* |
| Tree | range |
| Description | Commands in this context configure the AA group or partition named port-list range. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **start** *number*

| | |
|---|---|
| Synopsis | Start value for the port range in the AA port list |
| Context | **configure** application-assurance group *number* partition *number* port-list *named-item* range start *number* end *number* |
| Tree | range |
| Range | 0 to 65534 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **end** *number*

| | |
|---|---|
| Synopsis | End value for the port range in the AA port list |
| Context | **configure** application-assurance group *number* partition *number* port-list *named-item* range start *number* end *number* |
| Tree | range |
| Range | 1 to 65535 |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **sctp-filter** [sctp-filter-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **sctp-filter** list instance |
| Context | **configure** application-assurance group *number* partition *number* sctp-filter *named-item* |
| Tree | sctp-filter |
| Description | Commands in this context configure the Stream Control Transmission Protocol (SCTP) fields. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**sctp-filter-name**] *named-item*

| | |
|---|---|
| Synopsis | SCTP filter name |
| Context | **configure** application-assurance group *number* partition *number* sctp-filter *named-item* |
| Tree | sctp-filter |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** application-assurance group *number* partition *number* sctp-filter *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **event-log** *reference*

| | |
|---|---|
| Synopsis | Event log for packets dropped by the SCTP filter |


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| | |
|---|---|
| Context | **configure** application-assurance group *number* partition *number* sctp-filter *named-item* event-log *reference* |
| Tree | event-log |
| Reference | **configure** application-assurance group *number* partition *number* event-log *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## ppid

| | |
|---|---|
| Synopsis | Enter the **ppid** context |
| Context | **configure** application-assurance group *number* partition *number* sctp-filter *named-item* ppid |
| Tree | ppid |
| Description | Commands in this context configure actions for specific or default Payload Protocol Identifiers (PPIDs). |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## default-action *keyword*

| | |
|---|---|
| Synopsis | Default action for all SCTP PPIDs |
| Context | **configure** application-assurance group *number* partition *number* sctp-filter *named-item* ppid default-action *keyword* |
| Tree | default-action |
| Options | deny, permit |
| Default | permit |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## entry [entry-id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** application-assurance group *number* partition *number* sctp-filter *named-item* ppid entry *number* |
| Tree | entry |
| Description | Commands in this context specify SCTP PPID values and the corresponding action to apply. |


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| | |
|---|---|
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**entry-id**] *number*

| | |
|---|---|
| Synopsis | SCTP filter PPID entry ID |
| Context | **configure** application-assurance group *number* partition *number* sctp-filter *named-item* ppid entry *number* |
| Tree | entry |
| Range | 1 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **action** *keyword*

| | |
|---|---|
| Synopsis | SCTP filter PPID entry action |
| Context | **configure** application-assurance group *number* partition *number* sctp-filter *named-item* ppid entry *number* action *keyword* |
| Tree | action |
| Options | deny, permit |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **value** *(number | keyword)*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | PPID entry value |
| Context | **configure** application-assurance group *number* partition *number* sctp-filter *named-item* ppid entry *number* value *(number \| keyword)* |
| Tree | value |
| Range | 0 to 4294967295 |


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| | |
|---|---|
| Options | iua, m2ua, m3ua, sua, m2pa, v5ua, h.248, bicc/q.2150.3, tali, dua, asap, enrp, h.323, q.ipc/q.2150.3, simco, ddp-segment-chunk, ddp-stream-session-control, s1-application-protocol, rua, hnbap, forces-hp, forces-mp, forces-lp, sbc-ap, nbap, x2ap, ircp, lcs-ap, mpich2, service-area-broadcast-protocol, fractal-generator-protocol, ping-pong-protocol, calcapp-protocol, scripting-service-protocol, netperfmeter-protocol-control-channel, netperfmeter-protocol-data-channel, echo, discard, daytime, character-generator, 3gpp-rna, 3gpp-m2ap, 3gpp-m3ap, ssh-over-sctp, diameter-in-a-sctp-data-chunk, diameter-in-a-dtls/sctp-data-chunk, r14p.-ber-encoded-asn.1-over-sctp, webrtc-control, domstring-last, binary-data-partial, binary-data-last, domstring-partial, 3gpp-pua, webrtc-string-empty, webrtc-binary-empty, 3gpp-xwap, 3gpp-xw-control-plane, 3gpp-ng-application-protocol, 3gpp-xn-application-protocol, 3gpp-f1-application-protocol, http-sctp, 3gpp-e1-application-protocol, ele2-lawful-interception, 3gpp-ngap-over-dtls-over-sctp, 3gpp-xnap-over-dtls-over-sctp, 3gpp-f1ap-over-dtls-over-sctp, 3gpp-e1ap-over-dtls-over-sctp, e2-cp, e2-up, e2-du, 3gpp-w1ap |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## ppid-range

| | |
|---|---|
| Synopsis | Enter the **ppid-range** context |
| Context | **configure** application-assurance group *number* partition *number* sctp-filter *named-item* ppid-range |
| Tree | ppid-range |
| Description | Commands in this context specify the range of PPID values that are allowed by the AA SCTP filter firewall. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## max *number*

| | |
|---|---|
| Synopsis | Maximum PPID value |
| Context | **configure** application-assurance group *number* partition *number* sctp-filter *named-item* ppid-range max *number* |
| Tree | max |
| Description | This command configures the maximum SCTP Payload Protocol Identifier (PPID) to be permitted by the SCTP filter. The value must be greater or equal to the minimum PPID value. |
| Range | 0 to 4294967295 |


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| | |
|---|---|
| Default | 4294967295 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **min** *number*

| | |
|---|---|
| Synopsis | Minimum PPID value |
| Context | **configure** application-assurance group *number* partition *number* sctp-filter *named-item* ppid-range min *number* |
| Tree | min |
| Description | This command configures the minimum SCTP Payload Protocol Identifier (PPID) to be permitted by the SCTP filter. The value must be less than or equal to the maximum PPID value. |
| Range | 0 to 4294967295 |
| Default | 0 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **session-filter** [session-filter-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **session-filter** list instance |
| Context | **configure** application-assurance group *number* partition *number* session-filter *named-item* |
| Tree | session-filter |
| Description | Commands in this context create a session filter. |
| Max. instances | 1000 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**session-filter-name**] *named-item*

| | |
|---|---|
| Synopsis | Session filter name |
| Context | **configure** application-assurance group *number* partition *number* session-filter *named-item* |
| Tree | session-filter |
| String length | 1 to 32 |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## default-action

| | |
|---|---|
| Synopsis | Enter the **default-action** context |
| Context | **configure** application-assurance group *number* partition *number* session-filter *named-item* default-action |
| Tree | default-action |
| Description | Commands in this context specify the default action to take for packets that do not match any filter entries. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## action *keyword*

| | |
|---|---|
| Synopsis | Default action for packets not matching filter entries |
| Context | **configure** application-assurance group *number* partition *number* session-filter *named-item* default-action action *keyword* |
| Tree | action |
| Options | deny, permit |
| Default | deny |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## event-log *reference*

| | |
|---|---|
| Synopsis | Event logging of default action |
| Context | **configure** application-assurance group *number* partition *number* session-filter *named-item* default-action event-log *reference* |
| Tree | event-log |
| Reference | **configure** application-assurance group *number* partition *number* event-log *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** application-assurance group *number* partition *number* session-filter *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **entry** [entry-id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** application-assurance group *number* partition *number* session-filter *named-item* entry *number* |
| Tree | entry |
| Description | Commands in this context configure an AA session filter match entry. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**entry-id**] *number*

| | |
|---|---|
| Synopsis | Entry ID for the session filter entry |
| Context | **configure** application-assurance group *number* partition *number* session-filter *named-item* entry *number* |
| Tree | entry |
| Range | 1 to 65535 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **action**

| | |
|---|---|
| Synopsis | Enter the **action** context |
| Context | **configure** application-assurance group *number* partition *number* session-filter *named-item* entry *number* action |


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| | |
|---|---|
| Tree | action |
| Description | Commands in this context configure the action for this entry. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## deny

| | |
|---|---|
| Synopsis | Deny sessions matching the criteria |
| Context | **configure** application-assurance group *number* partition *number* session-filter *named-item* entry *number* action deny |
| Tree | deny |
| Notes | The following elements are part of a choice: **deny**, **http-redirect**, **l3-l4-redirect**, **permit**, or **tcp-optimizer**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## event-log *reference*

| | |
|---|---|
| Synopsis | Event log name used to log the action |
| Context | **configure** application-assurance group *number* partition *number* session-filter *named-item* entry *number* action event-log *reference* |
| Tree | event-log |
| Reference | **configure** application-assurance group *number* partition *number* event-log *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## http-redirect *reference*

| | |
|---|---|
| Synopsis | HTTP redirect for matching sessions |
| Context | **configure** application-assurance group *number* partition *number* session-filter *named-item* entry *number* action http-redirect *reference* |
| Tree | http-redirect |
| Reference | **configure** application-assurance group *number* http-redirect *named-item* |
| Notes | The following elements are part of a choice: **deny**, **http-redirect**, **l3-l4-redirect**, **permit**, or **tcp-optimizer**. |
| Introduced | 21.10.R1 |


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Platforms 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR

## l3-l4-redirect

Synopsis Enter the **l3-l4-redirect** context

Context **configure** application-assurance group *number* partition *number* session-filter *named-item* entry *number* action l3-l4-redirect

Tree l3-l4-redirect

Description Commands in this context specify sessions matching the criteria are redirected to a different destination using Layer 3 and Layer 4 redirect.

If the redirect action is removed from a session filter, the existing redirected flows are not affected, redirect still occurs. However, no redirect will be applied to newly-established flows.

Notes The following elements are part of a choice: **deny**, **http-redirect**, **l3-l4-redirect**, **permit**, or **tcp-optimizer**.

Introduced 24.3.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR

## dst-ip-address *(ipv4-address-no-zone | ipv6-address-no-zone)*

Synopsis Destination IP address for traffic redirection

Context **configure** application-assurance group *number* partition *number* session-filter *named-item* entry *number* action l3-l4-redirect dst-ip-address *(ipv4-address-no-zone | ipv6-address-no-zone)*

Tree dst-ip-address

Description This command specifies a valid unicast server IPv4 or IPv6 address to forward the traffic to. The destination IP address (Layer 3) is modified as indicated. In the reverse direction (toward the subscriber), AA restores the original IP address as the source IP field.

Introduced 24.3.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR

## dst-port *number*

Synopsis Destination port for traffic redirection

Context **configure** application-assurance group *number* partition *number* session-filter *named-item* entry *number* action l3-l4-redirect dst-port *number*

Tree dst-port


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| | |
|---|---|
| Description | This command specifies a valid TCP/UDP server destination port number. The destination port is modified as indicated. In the reverse direction (toward the subscriber), AA restores the original port number as the port field. |
| Range | 0 \| 1 to 65535 |
| Default | 0 |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## permit

| | |
|---|---|
| Synopsis | Permit sessions that match the criteria |
| Context | **configure** application-assurance group *number* partition *number* session-filter *named-item* entry *number* action permit |
| Tree | permit |
| Notes | The following elements are part of a choice: **deny**, **http-redirect**, **l3-l4-redirect**, **permit**, or **tcp-optimizer**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## tcp-optimizer *reference*

| | |
|---|---|
| Synopsis | TCP optimizer to handle sessions matching the criteria |
| Context | **configure** application-assurance group *number* partition *number* session-filter *named-item* entry *number* action tcp-optimizer *reference* |
| Tree | tcp-optimizer |
| Reference | **configure** application-assurance group *number* tcp-optimizer *named-item* |
| Notes | The following elements are part of a choice: **deny**, **http-redirect**, **l3-l4-redirect**, **permit**, or **tcp-optimizer**. |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## description *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** application-assurance group *number* partition *number* session-filter *named-item* entry *number* description *description* |
| Tree | description |


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| | |
|---|---|
| String length | 1 to 80 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## match

| | |
|---|---|
| Synopsis | Enter the **match** context |
| Context | **configure** application-assurance group *number* partition *number* session-filter *named-item* entry *number* match |
| Tree | match |
| Description | Commands in this context configure session conditions for this entry. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## dst-ip

| | |
|---|---|
| Synopsis | Enter the **dst-ip** context |
| Context | **configure** application-assurance group *number* partition *number* session-filter *named-item* entry *number* match dst-ip |
| Tree | dst-ip |
| Description | Commands in this context configure the destination IP address to match. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## dns-ip-cache *reference*

| | |
|---|---|
| Synopsis | Destination IPs in specified DNS IP Cache |
| Context | **configure** application-assurance group *number* partition *number* session-filter *named-item* entry *number* match dst-ip dns-ip-cache *reference* |
| Tree | dns-ip-cache |
| Reference | **configure** application-assurance group *number* dns-ip-cache *named-item* |
| Notes | The following elements are part of a choice: **dns-ip-cache**, **ip-prefix**, or **ip-prefix-list**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **ip-prefix** *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Destination IP address prefix as match criterion |
| Context | **configure** application-assurance group *number* partition *number* session-filter *named-item* entry *number* match dst-ip ip-prefix *(ipv4-prefix \| ipv6-prefix)* |
| Tree | ip-prefix |
| Notes | The following elements are part of a choice: **dns-ip-cache**, **ip-prefix**, or **ip-prefix-list**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ip-prefix-list** *reference*

| | |
|---|---|
| Synopsis | IP address prefix list as match criterion |
| Context | **configure** application-assurance group *number* partition *number* session-filter *named-item* entry *number* match dst-ip ip-prefix-list *reference* |
| Tree | ip-prefix-list |
| Reference | **configure** application-assurance group *number* partition *number* ip-prefix-list *named-item* |
| Notes | The following elements are part of a choice: **dns-ip-cache**, **ip-prefix**, or **ip-prefix-list**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **dst-port**

| | |
|---|---|
| Synopsis | Enter the **dst-port** context |
| Context | **configure** application-assurance group *number* partition *number* session-filter *named-item* entry *number* match dst-port |
| Tree | dst-port |
| Description | Commands in this context specify a destination TCP/UDP port, a destination port list, or a destination range to use as match criteria. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **eq** *number*

| | |
|---|---|
| Synopsis | Match criterion used for destination or source port |


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| | |
|---|---|
| Context | **configure** application-assurance group *number* partition *number* session-filter *named-item* entry *number* match dst-port eq *number* |
| Tree | eq |
| Range | 0 \| 1 to 65535 |
| Default | 0 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **gt** *number*

| | |
|---|---|
| Synopsis | Greater than match criterion for the port number |
| Context | **configure** application-assurance group *number* partition *number* session-filter *named-item* entry *number* match dst-port gt *number* |
| Tree | gt |
| Range | 0 \| 1 to 65535 |
| Default | 0 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **lt** *number*

| | |
|---|---|
| Synopsis | Less than match criterion for the port |
| Context | **configure** application-assurance group *number* partition *number* session-filter *named-item* entry *number* match dst-port lt *number* |
| Tree | lt |
| Range | 0 \| 1 to 65535 |
| Default | 0 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **port-list** *reference*

| | |
|---|---|
| Synopsis | Destination or source port list |


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| | |
|---|---|
| Context | **configure** application-assurance group *number* partition *number* session-filter *named-item* entry *number* match dst-port port-list *reference* |
| Tree | port-list |
| Reference | **configure** application-assurance group *number* partition *number* port-list *named-item* |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## range

| | |
|---|---|
| Synopsis | Enable the **range** context |
| Context | **configure** application-assurance group *number* partition *number* session-filter *named-item* entry *number* match dst-port range |
| Tree | range |
| Description | Commands in this context specify a destination IP port, a destination port list, or a destination range to use as match criteria. |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## end *number*

| | |
|---|---|
| Synopsis | Upper bound of the port range as match criterion |
| Context | **configure** application-assurance group *number* partition *number* session-filter *named-item* entry *number* match dst-port range end *number* |
| Tree | end |
| Range | 0 \| 1 to 65535 |
| Default | 1 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## start *number*

| | |
|---|---|
| Synopsis | Lower bound of the port range as match criterion |
| Context | **configure** application-assurance group *number* partition *number* session-filter *named-item* entry *number* match dst-port range start *number* |


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| | |
|---|---|
| Tree | start |
| Range | 0 \| 1 to 65535 |
| Default | 0 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **ip-protocol** *(number | keyword)*

| | |
|---|---|
| Synopsis | IP protocol as a match criterion |
| Context | **configure** application-assurance group *number* partition *number* session-filter *named-item* entry *number* match ip-protocol *(number \| keyword)* |
| Tree | ip-protocol |
| Range | 0 to 255 |
| Options | tcp-udp, icmp, igmp, ip, tcp, egp, igp, udp, rdp, ipv6, ipv6-route, ipv6-frag, idrp, rsvp, gre, ipv6-icmp, ipv6-no-nxt, ipv6-opts, iso-ip, eigrp, ospf-igp, ether-ip, encap, pnni, pim, vrrp, l2tp, stp, ptp, isis, crtp, crudp, sctp |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **src-ip**

| | |
|---|---|
| Synopsis | Enter the **src-ip** context |
| Context | **configure** application-assurance group *number* partition *number* session-filter *named-item* entry *number* match src-ip |
| Tree | src-ip |
| Description | Commands in this context specify a source IP address to use as match criteria. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **ip-prefix** *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Source IP address prefix as match criterion |
| Context | **configure** application-assurance group *number* partition *number* session-filter *named-item* entry *number* match src-ip ip-prefix *(ipv4-prefix \| ipv6-prefix)* |
| Tree | ip-prefix |
| Notes | The following elements are part of a choice: **ip-prefix** or **ip-prefix-list**. |


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| | |
|---|---|
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **ip-prefix-list** *reference*

| | |
|---|---|
| Synopsis | Source IP address prefix list as match criterion |
| Context | **configure** application-assurance group *number* partition *number* session-filter *named-item* entry *number* match src-ip ip-prefix-list *reference* |
| Tree | ip-prefix-list |
| Reference | **configure** application-assurance group *number* partition *number* ip-prefix-list *named-item* |
| Notes | The following elements are part of a choice: **ip-prefix** or **ip-prefix-list**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **src-port**

| | |
|---|---|
| Synopsis | Enter the **src-port** context |
| Context | **configure** application-assurance group *number* partition *number* session-filter *named-item* entry *number* match src-port |
| Tree | src-port |
| Description | Commands in this context specify a source IP port, a source port list, or a source range to use as match criteria. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **eq** *number*

| | |
|---|---|
| Synopsis | Match criterion used for destination or source port |
| Context | **configure** application-assurance group *number* partition *number* session-filter *named-item* entry *number* match src-port eq *number* |
| Tree | eq |
| Range | 0 \| 1 to 65535 |
| Default | 0 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 21.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **gt** *number*

| | |
|---|---|
| Synopsis | Greater than match criterion for the port number |
| Context | **configure** application-assurance group *number* partition *number* session-filter *named-item* entry *number* match src-port gt *number* |
| Tree | gt |
| Range | 0 \| 1 to 65535 |
| Default | 0 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **lt** *number*

| | |
|---|---|
| Synopsis | Less than match criterion for the port |
| Context | **configure** application-assurance group *number* partition *number* session-filter *named-item* entry *number* match src-port lt *number* |
| Tree | lt |
| Range | 0 \| 1 to 65535 |
| Default | 0 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **port-list** *reference*

| | |
|---|---|
| Synopsis | Destination or source port list |
| Context | **configure** application-assurance group *number* partition *number* session-filter *named-item* entry *number* match src-port port-list *reference* |
| Tree | port-list |
| Reference | **configure** application-assurance group *number* partition *number* port-list *named-item* |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 21.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## range

| | |
|---|---|
| Synopsis | Enable the **range** context |
| Context | **configure** application-assurance group *number* partition *number* session-filter *named-item* entry *number* match src-port range |
| Tree | range |
| Description | Commands in this context specify a destination IP port, a destination port list, or a destination range to use as match criteria. |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## end *number*

| | |
|---|---|
| Synopsis | Upper bound of the port range as match criterion |
| Context | **configure** application-assurance group *number* partition *number* session-filter *named-item* entry *number* match src-port range end *number* |
| Tree | end |
| Range | 0 \| 1 to 65535 |
| Default | 1 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## start *number*

| | |
|---|---|
| Synopsis | Lower bound of the port range as match criterion |
| Context | **configure** application-assurance group *number* partition *number* session-filter *named-item* entry *number* match src-port range start *number* |
| Tree | start |
| Range | 0 \| 1 to 65535 |
| Default | 0 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **shallow-inspection** *boolean*

| | |
|---|---|
| Synopsis | Enable shallow inspection |
| Context | **configure** application-assurance group *number* partition *number* shallow-inspection *boolean* |
| Tree | shallow-inspection |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **statistics**

| | |
|---|---|
| Synopsis | Enter the **statistics** context |
| Context | **configure** application-assurance group *number* partition *number* statistics |
| Tree | statistics |
| Description | Commands in this context configure accounting and billing statistics for this AA group. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **aa-admit-deny**

| | |
|---|---|
| Synopsis | Enter the **aa-admit-deny** context |
| Context | **configure** application-assurance group *number* partition *number* statistics aa-admit-deny |
| Tree | aa-admit-deny |
| Description | Commands in this context configure admit-deny statistics generation. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **accounting-policy** *reference*

| | |
|---|---|
| Synopsis | Accounting policy |
| Context | **configure** application-assurance group *number* partition *number* statistics aa-admit-deny accounting-policy *reference* |
| Tree | accounting-policy |
| Reference | **configure** log accounting-policy *number* |


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| | |
|---|---|
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **collect-stats** *boolean*

| | |
|---|---|
| Synopsis | Collect statistics |
| Context | **configure** application-assurance group *number* partition *number* statistics aa-admit-deny collect-stats *boolean* |
| Tree | collect-stats |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **gtp-filter-stats** *boolean*

| | |
|---|---|
| Synopsis | Include GTP filter admit-deny statistics in records |
| Context | **configure** application-assurance group *number* partition *number* statistics aa-admit-deny gtp-filter-stats *boolean* |
| Tree | gtp-filter-stats |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **policer-stats** *boolean*

| | |
|---|---|
| Synopsis | Include admit-deny policer statistics in records |
| Context | **configure** application-assurance group *number* partition *number* statistics aa-admit-deny policer-stats *boolean* |
| Tree | policer-stats |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **policer-stats-resources** *boolean*

| | |
|---|---|
| Synopsis | Allocate resources for policer admit-deny statistics |


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| | |
|---|---|
| Context | **configure** application-assurance group *number* partition *number* statistics aa-admit-deny policer-stats-resources *boolean* |
| Tree | policer-stats-resources |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **sctp-filter-stats** *boolean*

| | |
|---|---|
| Synopsis | Include SCTP filter admit-deny statistics in accounting |
| Context | **configure** application-assurance group *number* partition *number* statistics aa-admit-deny sctp-filter-stats *boolean* |
| Tree | sctp-filter-stats |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **session-filter-stats** *boolean*

| | |
|---|---|
| Synopsis | Include session filter admit-deny statistics in records |
| Context | **configure** application-assurance group *number* partition *number* statistics aa-admit-deny session-filter-stats *boolean* |
| Tree | session-filter-stats |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **tcp-validate-stats** *boolean*

| | |
|---|---|
| Synopsis | Include TCP validate admit-deny statistics in records |
| Context | **configure** application-assurance group *number* partition *number* statistics aa-admit-deny tcp-validate-stats *boolean* |
| Tree | tcp-validate-stats |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## aa-app-group

| | |
|---|---|
| Synopsis | Enter the **aa-app-group** context |
| Context | **configure** application-assurance group *number* partition *number* statistics aa-app-group |
| Tree | aa-app-group |
| Description | Commands in this context configure the AA application group statistics fields. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## accounting-policy *reference*

| | |
|---|---|
| Synopsis | Accounting policy ID |
| Context | **configure** application-assurance group *number* partition *number* statistics aa-app-group accounting-policy *reference* |
| Tree | accounting-policy |
| Reference | **configure** log accounting-policy *number* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## collect-stats *boolean*

| | |
|---|---|
| Synopsis | Collect statistics |
| Context | **configure** application-assurance group *number* partition *number* statistics aa-app-group collect-stats *boolean* |
| Tree | collect-stats |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## aa-application

| | |
|---|---|
| Synopsis | Enter the **aa-application** context |
| Context | **configure** application-assurance group *number* partition *number* statistics aa-application |
| Tree | aa-application |
| Description | Commands in this context configure the application statistics fields. |


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| | |
|---|---|
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **accounting-policy** *reference*

| | |
|---|---|
| Synopsis | Accounting policy ID |
| Context | **configure** application-assurance group *number* partition *number* statistics aa-application accounting-policy *reference* |
| Tree | accounting-policy |
| Reference | **configure** log accounting-policy *number* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **collect-stats** *boolean*

| | |
|---|---|
| Synopsis | Collect statistics |
| Context | **configure** application-assurance group *number* partition *number* statistics aa-application collect-stats *boolean* |
| Tree | collect-stats |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **aa-partition**

| | |
|---|---|
| Synopsis | Enter the **aa-partition** context |
| Context | **configure** application-assurance group *number* partition *number* statistics aa-partition |
| Tree | aa-partition |
| Description | Commands in this context configure the AA partition statistics fields. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **accounting-policy** *reference*

| | |
|---|---|
| Synopsis | Accounting policy |


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| | |
|---|---|
| Context | **configure** application-assurance group *number* partition *number* statistics aa-partition accounting-policy *reference* |
| Tree | accounting-policy |
| Reference | **configure** log accounting-policy *number* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **collect-stats** *boolean*

| | |
|---|---|
| Synopsis | Collect statistics |
| Context | **configure** application-assurance group *number* partition *number* statistics aa-partition collect-stats *boolean* |
| Tree | collect-stats |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **tethering-stats** *boolean*

| | |
|---|---|
| Synopsis | Collect tethering statistics |
| Context | **configure** application-assurance group *number* partition *number* statistics aa-partition tethering-stats *boolean* |
| Tree | tethering-stats |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **traffic-type-stats** *boolean*

| | |
|---|---|
| Synopsis | Collect traffic type statistics |
| Context | **configure** application-assurance group *number* partition *number* statistics aa-partition traffic-type-stats *boolean* |
| Tree | traffic-type-stats |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## aa-protocol

| | |
|---|---|
| Synopsis | Enter the **aa-protocol** context |
| Context | **configure** application-assurance group *number* partition *number* statistics aa-protocol |
| Tree | aa-protocol |
| Description | Commands in this context configure the AA protocol statistics fields. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## accounting-policy *reference*

| | |
|---|---|
| Synopsis | Accounting policy ID |
| Context | **configure** application-assurance group *number* partition *number* statistics aa-protocol accounting-policy *reference* |
| Tree | accounting-policy |
| Reference | **configure** log accounting-policy *number* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of protocol statistics |
| Context | **configure** application-assurance group *number* partition *number* statistics aa-protocol admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## collect-stats *boolean*

| | |
|---|---|
| Synopsis | Collect statistics |
| Context | **configure** application-assurance group *number* partition *number* statistics aa-protocol collect-stats *boolean* |
| Tree | collect-stats |


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| | |
|---|---|
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## aa-sub

| | |
|---|---|
| Synopsis | Enter the **aa-sub** context |
| Context | **configure** application-assurance group *number* partition *number* statistics aa-sub |
| Tree | aa-sub |
| Description | Commands in this context configure accounting and statistics collection parameters for Application Assurance subscribers. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## accounting-policy *reference*

| | |
|---|---|
| Synopsis | Accounting policy ID |
| Context | **configure** application-assurance group *number* partition *number* statistics aa-sub accounting-policy *reference* |
| Tree | accounting-policy |
| Reference | **configure** log accounting-policy *number* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## aggregate-stats-export-using *keyword*

| | |
|---|---|
| Synopsis | Method of statistics export to be used |
| Context | **configure** application-assurance group *number* partition *number* statistics aa-sub aggregate-stats-export-using *keyword* |
| Tree | aggregate-stats-export-using |
| Options | accounting-policy, radius-accounting-policy |
| Max. instances | 2 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **app-group** [app-group-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **app-group** list instance |
| Context | **configure** application-assurance group *number* partition *number* statistics aa-sub app-group *reference* |
| Tree | app-group |
| Description | Commands in this context configure accounting and statistics collection parameters for AA application groups for a specific AA group/partition. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## [**app-group-name**] *reference*

| | |
|---|---|
| Synopsis | Application group name |
| Context | **configure** application-assurance group *number* partition *number* statistics aa-sub app-group *reference* |
| Tree | app-group |
| Reference | **configure** application-assurance group *number* partition *number* policy app-group *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **export-using** *keyword*

| | |
|---|---|
| Synopsis | Method used to export statistics |
| Context | **configure** application-assurance group *number* partition *number* statistics aa-sub app-group *reference* export-using *keyword* |
| Tree | export-using |
| Options | accounting-policy, radius-accounting-policy |
| Max. instances | 2 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **application** [application-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **application** list instance |
| Context | **configure** application-assurance group *number* partition *number* statistics aa-sub application *reference* |
| Tree | application |
| Description | Commands in this context configure the AA subscriber accounting statistics for the export of AA applications for an AA group/partition. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**application-name**] *reference*

| | |
|---|---|
| Synopsis | Application name |
| Context | **configure** application-assurance group *number* partition *number* statistics aa-sub application *reference* |
| Tree | application |
| Reference | **configure** application-assurance group *number* partition *number* policy application *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **export-using** *keyword*

| | |
|---|---|
| Synopsis | Method used to export statistics |
| Context | **configure** application-assurance group *number* partition *number* statistics aa-sub application *reference* export-using *keyword* |
| Tree | export-using |
| Options | accounting-policy, radius-accounting-policy |
| Max. instances | 2 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **charging-group** [charging-group-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **charging-group** list instance |
| Context | **configure** application-assurance group *number* partition *number* statistics aa-sub charging-group *reference* |
| Tree | charging-group |
| Description | Commands in this context configure AA subscriber accounting statistics for the export of AA charging groups of an AA group/partition. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**charging-group-name**] *reference*

| | |
|---|---|
| Synopsis | Charging group name |
| Context | **configure** application-assurance group *number* partition *number* statistics aa-sub charging-group *reference* |
| Tree | charging-group |
| Description | This command specifies the AA charging group to be included in the exported accounting records. |
| Reference | **configure** application-assurance group *number* partition *number* policy charging-group *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **export-using** *keyword*

| | |
|---|---|
| Synopsis | Method used to export statistics |
| Context | **configure** application-assurance group *number* partition *number* statistics aa-sub charging-group *reference* export-using *keyword* |
| Tree | export-using |
| Options | accounting-policy, radius-accounting-policy |
| Max. instances | 2 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **collect-stats** *boolean*

| | |
|---|---|
| Synopsis | Collect statistics |
| Context | **configure** application-assurance group *number* partition *number* statistics aa-sub collect-stats *boolean* |
| Tree | collect-stats |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **exclude-tcp-retrans** *boolean*

| | |
|---|---|
| Synopsis | Exclude TCP retransmission and error statistics |
| Context | **configure** application-assurance group *number* partition *number* statistics aa-sub exclude-tcp-retrans *boolean* |
| Tree | exclude-tcp-retrans |
| Description | When configured to **true**, TCP errors and retransmission packets are not counted for the purpose of content-based billing. **Note:** This command is only applicable to EPC.This setting has no impact on app/app-group aggregate AA stats. |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **max-throughput-stats** *boolean*

| | |
|---|---|
| Synopsis | Collect maximum throughput statistics |
| Context | **configure** application-assurance group *number* partition *number* statistics aa-sub max-throughput-stats *boolean* |
| Tree | max-throughput-stats |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **protocol** [protocol-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **protocol** list instance |


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| | |
|---|---|
| Context | **configure** application-assurance group *number* partition *number* statistics aa-sub protocol *named-item* |
| Tree | protocol |
| Description | Commands in this context configure AA subscriber accounting statistics for the export of aa-sub protocols of an AA group/partition. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## [**protocol-name**] *named-item*

| | |
|---|---|
| Synopsis | AA protocol name |
| Context | **configure** application-assurance group *number* partition *number* statistics aa-sub protocol *named-item* |
| Tree | protocol |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **export-using** *keyword*

| | |
|---|---|
| Synopsis | Method used to export statistics |
| Context | **configure** application-assurance group *number* partition *number* statistics aa-sub protocol *named-item* export-using *keyword* |
| Tree | export-using |
| Options | accounting-policy, radius-accounting-policy |
| Max. instances | 2 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **radius-accounting-policy** *reference*

| | |
|---|---|
| Synopsis | RADIUS accounting policy name |
| Context | **configure** application-assurance group *number* partition *number* statistics aa-sub radius-accounting-policy *reference* |
| Tree | radius-accounting-policy |


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| | |
|---|---|
| Reference | **configure** application-assurance radius-accounting-policy *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **usage-monitoring** *boolean*

| | |
|---|---|
| Synopsis | Collect usage monitoring statistics |
| Context | **configure** application-assurance group *number* partition *number* statistics aa-sub usage-monitoring *boolean* |
| Tree | usage-monitoring |
| Description | When configured to **true**, this command allows the system to activate Gx usage monitoring at AA group/partition level, if enough usage monitoring resources exist for all existing subs.<br>When configured to **false**, this command silently removes all monitoring instances (no PCRF notifications) for AA subscribers and all subsequent AA Gx usage monitoring messages are ignored. |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **aa-sub-study** [study-type] *keyword*

| | |
|---|---|
| Synopsis | Enter the **aa-sub-study** list instance |
| Context | **configure** application-assurance group *number* partition *number* statistics aa-sub-study *keyword* |
| Tree | aa-sub-study |
| Description | Commands in this context configure accounting and statistics collection parameters per AA special study subscribers. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**study-type**] *keyword*

| | |
|---|---|
| Synopsis | Statistic type that the study is using |
| Context | **configure** application-assurance group *number* partition *number* statistics aa-sub-study *keyword* |
| Tree | aa-sub-study |


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| | |
|---|---|
| Options | protocol, application |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## aa-sub

| | |
|---|---|
| Synopsis | Enter the **aa-sub** context |
| Context | **configure** application-assurance group *number* partition *number* statistics aa-sub-study *keyword* aa-sub |
| Tree | aa-sub |
| Description | Commands in this context add an existing subscriber identification to a group of special study subscribers.<br>Identifying a group of special study subscribers allows statistics and accounting records for those subscribers to be collected for protocols and applications through Application Assurance. When adding a subscriber to the special study group, accounting records and statistics generation commence immediately. When removing a subscriber from the group, special study statistics and accounting records for that subscriber in the current interval are lost. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **esm** [esm-sub-name] *named-item*

| | |
|---|---|
| Synopsis | Add a list entry for **esm** |
| Context | **configure** application-assurance group *number* partition *number* statistics aa-sub-study *keyword* aa-sub esm *named-item* |
| Tree | esm |
| Description | Commands in this context configure the ESM fields. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## [**esm-sub-name**] *named-item*

| | |
|---|---|
| Synopsis | ESM subscriber name |
| Context | **configure** application-assurance group *number* partition *number* statistics aa-sub-study *keyword* aa-sub esm *named-item* |
| Tree | esm |


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| | |
|---|---|
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **esm-mac** [esm-mac-sub-name] *named-item*

| | |
|---|---|
| Synopsis | Add a list entry for **esm-mac** |
| Context | **configure** application-assurance group *number* partition *number* statistics aa-sub-study *keyword* aa-sub esm-mac *named-item* |
| Tree | esm-mac |
| Description | Commands in this context configure the ESM MAC fields. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**esm-mac-sub-name**] *named-item*

| | |
|---|---|
| Synopsis | ESM MAC subscriber name |
| Context | **configure** application-assurance group *number* partition *number* statistics aa-sub-study *keyword* aa-sub esm-mac *named-item* |
| Tree | esm-mac |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **sap** [sap-id] *sap*

| | |
|---|---|
| Synopsis | Add a list entry for **sap** |
| Context | **configure** application-assurance group *number* partition *number* statistics aa-sub-study *keyword* aa-sub sap *sap* |
| Tree | sap |
| Description | Commands in this context configure the Service Access Point (SAP) for the purpose of enabling special study statistics. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### [**sap-id**] *sap*

| | |
|---|---|
| Synopsis | AA subscriber SAP ID |
| Context | **configure** application-assurance group *number* partition *number* statistics aa-sub-study *keyword* aa-sub sap *sap* |
| Tree | sap |
| String length | 1 to 45 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **spoke-sdp** [sdp-bind-id] *sdp-bind-id*

| | |
|---|---|
| Synopsis | Add a list entry for **spoke-sdp** |
| Context | **configure** application-assurance group *number* partition *number* statistics aa-sub-study *keyword* aa-sub spoke-sdp *sdp-bind-id* |
| Tree | spoke-sdp |
| Description | Commands in this context specify the spoke SDP ID and VC ID for the purpose of including the subscriber into AA special study statistics. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**sdp-bind-id**] *sdp-bind-id*

| | |
|---|---|
| Synopsis | Spoke SDP ID for an AA subscriber |
| Context | **configure** application-assurance group *number* partition *number* statistics aa-sub-study *keyword* aa-sub spoke-sdp *sdp-bind-id* |
| Tree | spoke-sdp |
| String length | 3 to 16 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **transit** [transit-sub-name] *named-item*

| | |
|---|---|
| Synopsis | Add a list entry for **transit** |


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| | |
|---|---|
| Context | **configure** application-assurance group *number* partition *number* statistics aa-sub-study *keyword* aa-sub transit *named-item* |
| Tree | transit |
| Description | Commands in the context specify an existing transit subscriber to be included in AA sub special study statistics. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**transit-sub-name**] *named-item*

| | |
|---|---|
| Synopsis | Transit subscriber name |
| Context | **configure** application-assurance group *number* partition *number* statistics aa-sub-study *keyword* aa-sub transit *named-item* |
| Tree | transit |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **accounting-policy** *reference*

| | |
|---|---|
| Synopsis | Accounting policy ID |
| Context | **configure** application-assurance group *number* partition *number* statistics aa-sub-study *keyword* accounting-policy *reference* |
| Tree | accounting-policy |
| Reference | **configure** log accounting-policy *number* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **collect-stats** *boolean*

| | |
|---|---|
| Synopsis | Collect statistics |
| Context | **configure** application-assurance group *number* partition *number* statistics aa-sub-study *keyword* collect-stats *boolean* |
| Tree | collect-stats |
| Default | false |


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| | |
|---|---|
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **tcp-validate** [tcp-validate-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **tcp-validate** list instance |
| Context | **configure** application-assurance group *number* partition *number* tcp-validate *named-item* |
| Tree | tcp-validate |
| Description | Commands in this context configure a TCP validation policy. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**tcp-validate-name**] *named-item*

| | |
|---|---|
| Synopsis | TCP validation policy name |
| Context | **configure** application-assurance group *number* partition *number* tcp-validate *named-item* |
| Tree | tcp-validate |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** application-assurance group *number* partition *number* tcp-validate *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## log

| | |
|---|---|
| Synopsis | Enter the **log** context |
| Context | **configure** application-assurance group *number* partition *number* tcp-validate *named-item* log |
| Tree | log |
| Description | Commands in this context enable event logging of traffic dropped by TCP validation. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **all** *boolean*

| | |
|---|---|
| Synopsis | Enable logging of all dropped TCP packets |
| Context | **configure** application-assurance group *number* partition *number* tcp-validate *named-item* log all *boolean* |
| Tree | all |
| Description | When configured to **true**, all dropped TCP packets are logged, including the following:<br>• packets received after an RST and discarded<br>• packets received before TCP session establishment (before SYN) and discarded<br>An event log must also be configured to enable logging of all dropped packets.<br>When configured to **false**, discards related to the described cases are not captured in any event log. |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **event-log** *reference*

| | |
|---|---|
| Synopsis | Event log name |
| Context | **configure** application-assurance group *number* partition *number* tcp-validate *named-item* log event-log *reference* |
| Tree | event-log |
| Reference | **configure** application-assurance group *number* partition *number* event-log *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **strict** *boolean*

| | |
|---|---|
| Synopsis | Enable strict checking of TCP traffic |
| Context | **configure** application-assurance group *number* partition *number* tcp-validate *named-item* strict *boolean* |
| Tree | strict |
| Description | When configured to **true**, the command specifies whether enforcement of TCP sequence and acknowledgment numbers are applied. If a packet does not meet the expected sequence or acknowledgment number, it is dropped. This command should only be enabled if the expected bit error rate or packet loss is low.<br>For example, if acknowledgments are lost before being detected by AA, the server timeouts are triggered and retransmissions occur. If strict is enabled, these retransmissions resemble a reply attack and are dropped by AA.<br>When configured to **false**, the command removes the TCP sequence and acknowledgment number enforcement. |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **tethering-detection**

| | |
|---|---|
| Synopsis | Enter the **tethering-detection** context |
| Context | **configure** application-assurance group *number* partition *number* tethering-detection |
| Tree | tethering-detection |
| Description | Commands in this context configure tethering detection for the group. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of tethering detection |
| Context | **configure** application-assurance group *number* partition *number* tethering-detection admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## single-device

| | |
|---|---|
| Synopsis | Enter the **single-device** context |
| Context | **configure** application-assurance group *number* partition *number* tethering-detection single-device |
| Tree | single-device |
| Description | Commands in this context configure the single-device fields and expected TTL values for flow-level tethering detection. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## expected-ttl [ttl] *number*

| | |
|---|---|
| Synopsis | Add a list entry for **expected-ttl** |
| Context | **configure** application-assurance group *number* partition *number* tethering-detection single-device expected-ttl *number* |
| Tree | expected-ttl |
| Description | Commands in this context configure the TTL values for single-device tethering detection. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## [ttl] *number*

| | |
|---|---|
| Synopsis | Expected TTL traffic value from host devices |
| Context | **configure** application-assurance group *number* partition *number* tethering-detection single-device expected-ttl *number* |
| Tree | expected-ttl |
| Range | 1 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **invert-match** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Mark flows with expected TTL values as tethered |
| Context | **configure** application-assurance group *number* partition *number* tethering-detection single-device invert-match *boolean* |
| Tree | invert-match |
| Description | When configured to **true**, AA classifies flows with expected TTL values as coming from a connected device (tethered).<br>When configured to **false**, AA classifies flows with expected TTL values as coming from the host device (untethered). |
| Default | false |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **ttl-monitor**

| | |
|---|---|
| Synopsis | Enter the **ttl-monitor** context |
| Context | **configure** application-assurance group *number* partition *number* tethering-detection ttl-monitor |
| Tree | ttl-monitor |
| Description | Commands in this context configure the scope of analysis for TCP and UDP traffic for tethering detection. |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **tcp-protocols** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Scope of analysis for TCP traffic |
| Context | **configure** application-assurance group *number* partition *number* tethering-detection ttl-monitor tcp-protocols *keyword* |


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| | |
|---|---|
| Tree | tcp-protocols |
| Description | This command configures whether AA analyzes all TCP traffic or only traffic from standard applications that generate consistent TTL values. Configuring AA to analyze all TCP traffic is typically recommended. |
| Options | standard – Protocols with reliable TTL-tethering state association<br>all – All protocols |
| Default | standard |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## udp-protocols *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Scope of analysis for UDP traffic |
| Context | **configure** application-assurance group *number* partition *number* tethering-detection ttl-monitor udp-protocols *keyword* |
| Tree | udp-protocols |
| Description | This command configures whether AA analyzes all UDP traffic or only traffic from standard applications that generate consistent TTL values. Configuring AA to analyze only standard UDP traffic is recommended. |
| Options | standard – Protocols with reliable TTL-tethering state association<br>all – All protocols |
| Default | standard |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## threshold-crossing-alert

| | |
|---|---|
| Synopsis | Enter the **threshold-crossing-alert** context |
| Context | **configure** application-assurance group *number* partition *number* threshold-crossing-alert |
| Tree | threshold-crossing-alert |
| Description | Commands in this context configure the generation of threshold crossing alerts (TCAs). |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **criteria** [criteria-id] *keyword* direction *keyword*

| | |
|---|---|
| Synopsis | Enter the **criteria** list instance |
| Context | **configure** application-assurance group *number* partition *number* threshold-crossing-alert criteria *keyword* direction *keyword* |
| Tree | criteria |
| Description | Commands in this context configure the TCA criteria for the partition. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**criteria-id**] *keyword*

| | |
|---|---|
| Synopsis | Statistics TCA criteria ID |
| Context | **configure** application-assurance group *number* partition *number* threshold-crossing-alert criteria *keyword* direction *keyword* |
| Tree | criteria |
| Options | error-drop, fragment-drop-out-of-order, fragment-drop-all, overload-drop, gtp-sanity-drop |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **direction** *keyword*

| | |
|---|---|
| Synopsis | Direction of traffic for the criteria statistics TCA |
| Context | **configure** application-assurance group *number* partition *number* threshold-crossing-alert criteria *keyword* direction *keyword* |
| Tree | criteria |
| Options | from-sub, to-sub |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **high-watermark** *number*

| | |
|---|---|
| Synopsis | High watermark threshold |


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| | |
|---|---|
| Context | **configure** application-assurance group *number* partition *number* threshold-crossing-alert criteria *keyword* direction *keyword* high-watermark *number* |
| Tree | high-watermark |
| Range | 1 to 4294967295 |
| Default | 4294967295 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **low-watermark** *number*

| | |
|---|---|
| Synopsis | Low watermark threshold |
| Context | **configure** application-assurance group *number* partition *number* threshold-crossing-alert criteria *keyword* direction *keyword* low-watermark *number* |
| Tree | low-watermark |
| Range | 0 to 4294967294 |
| Default | 0 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **gtp-filter** [gtp-filter-name] *reference* criteria *keyword* direction *keyword*

| | |
|---|---|
| Synopsis | Enter the **gtp-filter** list instance |
| Context | **configure** application-assurance group *number* partition *number* threshold-crossing-alert gtp-filter *reference* criteria *keyword* direction *keyword* |
| Tree | gtp-filter |
| Description | Commands in this context configure TCA generation for a GTP filter. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**gtp-filter-name**] *reference*

| | |
|---|---|
| Synopsis | GTP filter name for TCA generation |
| Context | **configure** application-assurance group *number* partition *number* threshold-crossing-alert gtp-filter *reference* criteria *keyword* direction *keyword* |
| Tree | gtp-filter |


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| | |
|---|---|
| Reference | **configure** application-assurance group *number* partition *number* gtp gtp-filter *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **criteria** *keyword*

| | |
|---|---|
| Synopsis | Criteria ID for GTP filter TCA |
| Context | **configure** application-assurance group *number* partition *number* threshold-crossing-alert gtp-filter *reference* criteria *keyword* direction *keyword* |
| Tree | gtp-filter |
| Options | max-payload-length, message-type-default-action, header-sanity, message-type-gtpv2-default-action, imsi-apn-filter-default-action, validate-gtp-tunnels, validate-sequence-number, validate-src-ip-addr, missing-mandatory-ie, gtp-in-gtp, gtp-tunnel-database-full, gtp-tunnel-endpoint-limit |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **direction** *keyword*

| | |
|---|---|
| Synopsis | Direction of traffic for the GTP filter TCA |
| Context | **configure** application-assurance group *number* partition *number* threshold-crossing-alert gtp-filter *reference* criteria *keyword* direction *keyword* |
| Tree | gtp-filter |
| Options | from-sub, to-sub |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **high-watermark** *number*

| | |
|---|---|
| Synopsis | High watermark threshold |
| Context | **configure** application-assurance group *number* partition *number* threshold-crossing-alert gtp-filter *reference* criteria *keyword* direction *keyword* high-watermark *number* |
| Tree | high-watermark |


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| | |
|---|---|
| Range | 1 to 4294967295 |
| Default | 4294967295 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **low-watermark** *number*

| | |
|---|---|
| Synopsis | Low watermark threshold |
| Context | **configure** application-assurance group *number* partition *number* threshold-crossing-alert gtp-filter *reference* criteria *keyword* direction *keyword* low-watermark *number* |
| Tree | low-watermark |
| Range | 0 to 4294967294 |
| Default | 0 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **gtp-filter-entry** [gtp-filter-name] *reference* entry-id *number* direction *keyword*

| | |
|---|---|
| Synopsis | Enter the **gtp-filter-entry** list instance |
| Context | **configure** application-assurance group *number* partition *number* threshold-crossing-alert gtp-filter-entry *reference* entry-id *number* direction *keyword* |
| Tree | gtp-filter-entry |
| Description | Commands in this context configure the AA GTP filter entry TCA fields. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**gtp-filter-name**] *reference*

| | |
|---|---|
| Synopsis | AA GTP filter name for TCA configuration |
| Context | **configure** application-assurance group *number* partition *number* threshold-crossing-alert gtp-filter-entry *reference* entry-id *number* direction *keyword* |
| Tree | gtp-filter-entry |
| Reference | **configure** application-assurance group *number* partition *number* gtp gtp-filter *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **entry-id** *number*

| | |
|---|---|
| Synopsis | Entry ID |
| Context | **configure** application-assurance group *number* partition *number* threshold-crossing-alert gtp-filter-entry *reference* entry-id *number* direction *keyword* |
| Tree | gtp-filter-entry |
| Description | This command configures the identifier for the statistics TCA GTP filter V1 message type entry, V2 message type entry, or imsi-apn filter entry. |
| Max. range | 0 to 4294967295 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **direction** *keyword*

| | |
|---|---|
| Synopsis | Traffic direction for GTP filter entry TCA |
| Context | **configure** application-assurance group *number* partition *number* threshold-crossing-alert gtp-filter-entry *reference* entry-id *number* direction *keyword* |
| Tree | gtp-filter-entry |
| Options | from-sub, to-sub |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **high-watermark** *number*

| | |
|---|---|
| Synopsis | High watermark threshold |
| Context | **configure** application-assurance group *number* partition *number* threshold-crossing-alert gtp-filter-entry *reference* entry-id *number* direction *keyword* high-watermark *number* |
| Tree | high-watermark |
| Range | 1 to 4294967295 |
| Default | 4294967295 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **low-watermark** *number*

| | |
|---|---|
| Synopsis | Low watermark threshold |
| Context | **configure** application-assurance group *number* partition *number* threshold-crossing-alert gtp-filter-entry *reference* entry-id *number* direction *keyword* low-watermark *number* |
| Tree | low-watermark |
| Range | 0 to 4294967294 |
| Default | 0 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **policer** [policer-name] *named-item* direction *keyword*

| | |
|---|---|
| Synopsis | Enter the **policer** list instance |
| Context | **configure** application-assurance group *number* partition *number* threshold-crossing-alert policer *named-item* direction *keyword* |
| Tree | policer |
| Description | Commands in this context configure a TCA for the counter capturing drops or admit events. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**policer-name**] *named-item*

| | |
|---|---|
| Synopsis | Policer name for TCA generation |
| Context | **configure** application-assurance group *number* partition *number* threshold-crossing-alert policer *named-item* direction *keyword* |
| Tree | policer |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **direction** *keyword*

| | |
|---|---|
| Synopsis | Direction of traffic for the policer TCA |


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| | |
|---|---|
| Context | **configure** application-assurance group *number* partition *number* threshold-crossing-alert policer *named-item* direction *keyword* |
| Tree | policer |
| Options | from-sub, to-sub |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **high-watermark** *number*

| | |
|---|---|
| Synopsis | High watermark threshold |
| Context | **configure** application-assurance group *number* partition *number* threshold-crossing-alert policer *named-item* direction *keyword* high-watermark *number* |
| Tree | high-watermark |
| Range | 1 to 4294967295 |
| Default | 4294967295 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **low-watermark** *number*

| | |
|---|---|
| Synopsis | Low watermark threshold |
| Context | **configure** application-assurance group *number* partition *number* threshold-crossing-alert policer *named-item* direction *keyword* low-watermark *number* |
| Tree | low-watermark |
| Range | 0 to 4294967294 |
| Default | 0 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **sctp-filter** [sctp-filter-name] *reference* criteria *keyword* direction *keyword*

| | |
|---|---|
| Synopsis | Enter the **sctp-filter** list instance |
| Context | **configure** application-assurance group *number* partition *number* threshold-crossing-alert sctp-filter *reference* criteria *keyword* direction *keyword* |
| Tree | sctp-filter |


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| | |
|---|---|
| Description | Commands in this context configure TCA generation for an SCTP filter. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## [**sctp-filter-name**] *reference*

| | |
|---|---|
| Synopsis | SCTP filter name for TCA generation |
| Context | **configure** application-assurance group *number* partition *number* threshold-crossing-alert sctp-filter *reference* criteria *keyword* direction *keyword* |
| Tree | sctp-filter |
| Reference | **configure** application-assurance group *number* partition *number* sctp-filter *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **criteria** *keyword*

| | |
|---|---|
| Synopsis | Criteria ID for SCTP filter TCA |
| Context | **configure** application-assurance group *number* partition *number* threshold-crossing-alert sctp-filter *reference* criteria *keyword* direction *keyword* |
| Tree | sctp-filter |
| Options | ppid-default-action, packet-sanity, ppid-range |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **direction** *keyword*

| | |
|---|---|
| Synopsis | Direction of traffic for SCTP filter TCA |
| Context | **configure** application-assurance group *number* partition *number* threshold-crossing-alert sctp-filter *reference* criteria *keyword* direction *keyword* |
| Tree | sctp-filter |
| Options | from-sub, to-sub |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **high-watermark** *number*

| | |
|---|---|
| Synopsis | High watermark threshold |
| Context | **configure** application-assurance group *number* partition *number* threshold-crossing-alert sctp-filter *reference* criteria *keyword* direction *keyword* high-watermark *number* |
| Tree | high-watermark |
| Range | 1 to 4294967295 |
| Default | 4294967295 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **low-watermark** *number*

| | |
|---|---|
| Synopsis | Low watermark threshold |
| Context | **configure** application-assurance group *number* partition *number* threshold-crossing-alert sctp-filter *reference* criteria *keyword* direction *keyword* low-watermark *number* |
| Tree | low-watermark |
| Range | 0 to 4294967294 |
| Default | 0 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **sctp-filter-entry** [sctp-filter-name] *reference* entry-id *reference* direction *keyword*

| | |
|---|---|
| Synopsis | Enter the **sctp-filter-entry** list instance |
| Context | **configure** application-assurance group *number* partition *number* threshold-crossing-alert sctp-filter-entry *reference* entry-id *reference* direction *keyword* |
| Tree | sctp-filter-entry |
| Description | Commands in this context configure the AA SCTP filter PPID entry TCA fields. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### [**sctp-filter-name**] *reference*

| | |
|---|---|
| Synopsis | AA SCTP filter name for TCA configuration |
| Context | **configure** application-assurance group *number* partition *number* threshold-crossing-alert sctp-filter-entry *reference* entry-id *reference* direction *keyword* |
| Tree | sctp-filter-entry |
| Reference | **configure** application-assurance group *number* partition *number* sctp-filter *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **entry-id** *reference*

| | |
|---|---|
| Synopsis | ID for SCTP filter entry TCA |
| Context | **configure** application-assurance group *number* partition *number* threshold-crossing-alert sctp-filter-entry *reference* entry-id *reference* direction *keyword* |
| Tree | sctp-filter-entry |
| Reference | **configure** application-assurance group *number* partition *number* sctp-filter *named-item* ppid entry *number* |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **direction** *keyword*

| | |
|---|---|
| Synopsis | Direction of traffic for TCA configuration |
| Context | **configure** application-assurance group *number* partition *number* threshold-crossing-alert sctp-filter-entry *reference* entry-id *reference* direction *keyword* |
| Tree | sctp-filter-entry |
| Options | from-sub, to-sub |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **high-watermark** *number*

| | |
|---|---|
| Synopsis | High watermark threshold |
| Context | **configure** application-assurance group *number* partition *number* threshold-crossing-alert sctp-filter-entry *reference* entry-id *reference* direction *keyword* high-watermark *number* |
| Tree | high-watermark |
| Range | 1 to 4294967295 |
| Default | 4294967295 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **low-watermark** *number*

| | |
|---|---|
| Synopsis | Low watermark threshold |
| Context | **configure** application-assurance group *number* partition *number* threshold-crossing-alert sctp-filter-entry *reference* entry-id *reference* direction *keyword* low-watermark *number* |
| Tree | low-watermark |
| Range | 0 to 4294967294 |
| Default | 0 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **session-filter** [session-filter-name] *reference* criteria *keyword* direction *keyword*

| | |
|---|---|
| Synopsis | Enter the **session-filter** list instance |
| Context | **configure** application-assurance group *number* partition *number* threshold-crossing-alert session-filter *reference* criteria *keyword* direction *keyword* |
| Tree | session-filter |
| Description | Commands in this context configure TCA generation for a session filter. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**session-filter-name**] *reference*

| | |
|---|---|
| Synopsis | AA session filter name for TCA configuration |


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| | |
|---|---|
| Context | **configure** application-assurance group *number* partition *number* threshold-crossing-alert session-filter *reference* criteria *keyword* direction *keyword* |
| Tree | session-filter |
| Reference | **configure** application-assurance group *number* partition *number* session-filter *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **criteria** *keyword*

| | |
|---|---|
| Synopsis | ID for session filter entry TCA |
| Context | **configure** application-assurance group *number* partition *number* threshold-crossing-alert session-filter *reference* criteria *keyword* direction *keyword* |
| Tree | session-filter |
| Options | default-action |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **direction** *keyword*

| | |
|---|---|
| Synopsis | Direction of traffic for TCA configuration |
| Context | **configure** application-assurance group *number* partition *number* threshold-crossing-alert session-filter *reference* criteria *keyword* direction *keyword* |
| Tree | session-filter |
| Options | from-sub, to-sub |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **high-watermark** *number*

| | |
|---|---|
| Synopsis | High watermark threshold |
| Context | **configure** application-assurance group *number* partition *number* threshold-crossing-alert session-filter *reference* criteria *keyword* direction *keyword* high-watermark *number* |


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| | |
|---|---|
| Tree | high-watermark |
| Range | 1 to 4294967295 |
| Default | 4294967295 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **low-watermark** *number*

| | |
|---|---|
| Synopsis | Low watermark threshold |
| Context | **configure** application-assurance group *number* partition *number* threshold-crossing-alert session-filter *reference* criteria *keyword* direction *keyword* low-watermark *number* |
| Tree | low-watermark |
| Range | 0 to 4294967294 |
| Default | 0 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **session-filter-entry** [session-filter-name] *reference* entry-id *reference* direction *keyword*

| | |
|---|---|
| Synopsis | Enter the **session-filter-entry** list instance |
| Context | **configure** application-assurance group *number* partition *number* threshold-crossing-alert session-filter-entry *reference* entry-id *reference* direction *keyword* |
| Tree | session-filter-entry |
| Description | Commands in this context configure the AA session filter entry TCA fields for the partition. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**session-filter-name**] *reference*

| | |
|---|---|
| Synopsis | AA session filter name for TCA configuration |
| Context | **configure** application-assurance group *number* partition *number* threshold-crossing-alert session-filter-entry *reference* entry-id *reference* direction *keyword* |
| Tree | session-filter-entry |
| Reference | **configure** application-assurance group *number* partition *number* session-filter *named-item* |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **entry-id** *reference*

| | |
|---|---|
| Synopsis | ID for session filter entry TCA |
| Context | **configure** application-assurance group *number* partition *number* threshold-crossing-alert session-filter-entry *reference* entry-id *reference* direction *keyword* |
| Tree | session-filter-entry |
| Reference | **configure** application-assurance group *number* partition *number* session-filter *named-item* entry *number* |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **direction** *keyword*

| | |
|---|---|
| Synopsis | Direction of traffic for TCA configuration |
| Context | **configure** application-assurance group *number* partition *number* threshold-crossing-alert session-filter-entry *reference* entry-id *reference* direction *keyword* |
| Tree | session-filter-entry |
| Options | from-sub, to-sub |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **high-watermark** *number*

| | |
|---|---|
| Synopsis | High watermark threshold |
| Context | **configure** application-assurance group *number* partition *number* threshold-crossing-alert session-filter-entry *reference* entry-id *reference* direction *keyword* high-watermark *number* |
| Tree | high-watermark |
| Range | 1 to 4294967295 |
| Default | 4294967295 |


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| | |
|---|---|
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **low-watermark** *number*

| | |
|---|---|
| Synopsis | Low watermark threshold |
| Context | **configure** application-assurance group *number* partition *number* threshold-crossing-alert session-filter-entry *reference* entry-id *reference* direction *keyword* low-watermark *number* |
| Tree | low-watermark |
| Range | 0 to 4294967294 |
| Default | 0 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **tcp-validate** [tcp-validate-name] *reference* direction *keyword*

| | |
|---|---|
| Synopsis | Enter the **tcp-validate** list instance |
| Context | **configure** application-assurance group *number* partition *number* threshold-crossing-alert tcp-validate *reference* direction *keyword* |
| Tree | tcp-validate |
| Description | Commands in this context configure TCP validation policy TCA fields for the partition. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**tcp-validate-name**] *reference*

| | |
|---|---|
| Synopsis | AA TCP validate name for configuration |
| Context | **configure** application-assurance group *number* partition *number* threshold-crossing-alert tcp-validate *reference* direction *keyword* |
| Tree | tcp-validate |
| Reference | **configure** application-assurance group *number* partition *number* tcp-validate *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **direction** *keyword*

| | |
|---|---|
| Synopsis | Direction of traffic for TCA configuration |
| Context | **configure** application-assurance group *number* partition *number* threshold-crossing-alert tcp-validate *reference* direction *keyword* |
| Tree | tcp-validate |
| Options | from-sub, to-sub |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **high-watermark** *number*

| | |
|---|---|
| Synopsis | High watermark threshold |
| Context | **configure** application-assurance group *number* partition *number* threshold-crossing-alert tcp-validate *reference* direction *keyword* high-watermark *number* |
| Tree | high-watermark |
| Range | 1 to 4294967295 |
| Default | 4294967295 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **low-watermark** *number*

| | |
|---|---|
| Synopsis | Low watermark threshold |
| Context | **configure** application-assurance group *number* partition *number* threshold-crossing-alert tcp-validate *reference* direction *keyword* low-watermark *number* |
| Tree | low-watermark |
| Range | 0 to 4294967294 |
| Default | 0 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **transit-ip-policy** [ip-policy-id] *number*

| | |
|---|---|
| Synopsis | Enter the **transit-ip-policy** list instance |


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| | |
|---|---|
| Context | **configure** application-assurance group *number* partition *number* transit-ip-policy *number* |
| Tree | transit-ip-policy |
| Description | Commands in this context define a transit AA subscriber IP policy. Transit AA subscribers are managed by the system through the use of this policy assigned to services, which determines how transit subs are created and removed for that service. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**ip-policy-id**] *number*

| | |
|---|---|
| Synopsis | IP transit policy ID |
| Context | **configure** application-assurance group *number* partition *number* transit-ip-policy *number* |
| Tree | transit-ip-policy |
| Range | 1 to 65535 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **default-app-profile** *reference*

| | |
|---|---|
| Synopsis | Default AA application profile |
| Context | **configure** application-assurance group *number* partition *number* transit-ip-policy *number* default-app-profile *reference* |
| Tree | default-app-profile |
| Reference | **configure** application-assurance group *number* partition *number* policy app-profile *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** application-assurance group *number* partition *number* transit-ip-policy *number* description *description* |
| Tree | description |


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| | |
|---|---|
| String length | 1 to 80 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **detect-seen-ip** *boolean*

| | |
|---|---|
| Synopsis | Detect transit subscribers based on IP address |
| Context | **configure** application-assurance group *number* partition *number* transit-ip-policy *number* detect-seen-ip *boolean* |
| Tree | detect-seen-ip |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **dhcp**

| | |
|---|---|
| Synopsis | Enter the **dhcp** context |
| Context | **configure** application-assurance group *number* partition *number* transit-ip-policy *number* dhcp |
| Tree | dhcp |
| Description | Commands in this context enable dynamic DHCP-based management of transit aa-subs for the transit IP policy. Dynamic DHCP-based management and other types of management of transit subs for a transit IP policy are mutually exclusive. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state for learning DHCP dynamic transits |
| Context | **configure** application-assurance group *number* partition *number* transit-ip-policy *number* dhcp admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## diameter

| | |
|---|---|
| Synopsis | Enter the **diameter** context |
| Context | **configure** application-assurance group *number* partition *number* transit-ip-policy *number* diameter |
| Tree | diameter |
| Description | Commands in this context configure dynamic Diameter-based management of transit AA subs for the transit IP policy. This is mutually exclusive to other types of management of transit subs for a given transit IP policy. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state for Diameter dynamic transits |
| Context | **configure** application-assurance group *number* partition *number* transit-ip-policy *number* diameter admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## application-policy *reference*

| | |
|---|---|
| Synopsis | Diameter application policy name for IP transit policy |
| Context | **configure** application-assurance group *number* partition *number* transit-ip-policy *number* diameter application-policy *reference* |
| Tree | application-policy |
| Reference | **configure** subscriber-mgmt diameter-gx-policy *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## ipv6-address-prefix-length *number*

| | |
|---|---|
| Synopsis | Length of the AA transit IP policy IPv6 address prefix |


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| | |
|---|---|
| Context | **configure** application-assurance group *number* partition *number* transit-ip-policy *number* ipv6-address-prefix-length *number* |
| Tree | ipv6-address-prefix-length |
| Range | 32 to 64 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## radius

| | |
|---|---|
| Synopsis | Enter the **radius** context |
| Context | **configure** application-assurance group *number* partition *number* transit-ip-policy *number* radius |
| Tree | radius |
| Description | Commands in this context enable dynamic RADIUS-based management of transit aa-subs for the transit IP policy. This is mutually exclusive to other types of management of transit subs for a given transit IP policy. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of learning RADIUS dynamic transit |
| Context | **configure** application-assurance group *number* partition *number* transit-ip-policy *number* radius admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## authentication-policy *reference*

| | |
|---|---|
| Synopsis | RADIUS authentication policy |
| Context | **configure** application-assurance group *number* partition *number* transit-ip-policy *number* radius authentication-policy *reference* |
| Tree | authentication-policy |
| Reference | **configure** subscriber-mgmt radius-authentication-policy *named-item* |


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| | |
|---|---|
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **seen-ip-radius-acct-policy** *reference*

| | |
|---|---|
| Synopsis | RADIUS accounting policy to enable seen-IP notification |
| Context | **configure** application-assurance group *number* partition *number* transit-ip-policy *number* radius seen-ip-radius-acct-policy *reference* |
| Tree | seen-ip-radius-acct-policy |
| Reference | **configure** application-assurance radius-accounting-policy *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **static-aa-sub** [transit-aa-sub-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **static-aa-sub** list instance |
| Context | **configure** application-assurance group *number* partition *number* transit-ip-policy *number* static-aa-sub *named-item* |
| Tree | static-aa-sub |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**transit-aa-sub-name**] *named-item*

| | |
|---|---|
| Synopsis | Static transit subscriber name |
| Context | **configure** application-assurance group *number* partition *number* transit-ip-policy *number* static-aa-sub *named-item* |
| Tree | static-aa-sub |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **app-profile** *reference*

| | |
|---|---|
| Synopsis | Application profile name |


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| | |
|---|---|
| Context | **configure** application-assurance group *number* partition *number* transit-ip-policy *number* static-aa-sub *named-item* app-profile *reference* |
| Tree | app-profile |
| Reference | **configure** application-assurance group *number* partition *number* policy app-profile *named-item* |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **ip** [address] *(ipv4-unicast-address | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Add a list entry for **ip** |
| Context | **configure** application-assurance group *number* partition *number* transit-ip-policy *number* static-aa-sub *named-item* ip *(ipv4-unicast-address | ipv6-prefix)* |
| Tree | ip |
| Description | Commands in this context configure the IP address for a static transit aa-sub. |
| Max. instances | 32 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## [**address**] *(ipv4-unicast-address | ipv6-prefix)*

| | |
|---|---|
| Synopsis | IP address for an AA static transit subscriber |
| Context | **configure** application-assurance group *number* partition *number* transit-ip-policy *number* static-aa-sub *named-item* ip *(ipv4-unicast-address | ipv6-prefix)* |
| Tree | ip |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **sub-ident-policy** *reference*

| | |
|---|---|
| Synopsis | Subscriber identification policy |
| Context | **configure** application-assurance group *number* partition *number* transit-ip-policy *number* sub-ident-policy *reference* |


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| | |
|---|---|
| Tree | sub-ident-policy |
| Description | This command defines the subscriber identification policy for the transit IP policy that will be associated with a SAP. The subscriber identification policy must be defined prior to associating the profile with a SAP in the **configure subscriber-mgmt sub-ident-policy** context. Subscribers are managed by the system through the use of subscriber identification strings. A subscriber identification string uniquely identifies a subscriber. For static hosts, the subscriber identification string is explicitly defined with each static subscriber host.<br><br>For dynamic hosts, the subscriber identification string must be derived from the DHCP ACK message sent to the subscriber host. The default value for the string is the content of Option 82 CIRCUIT-ID and REMOTE-ID fields interpreted as an octet string. As an option, the DHCP ACK message may be processed by a subscriber identification policy which has the capability to parse the message into an alternative ASCII or octet string value.<br><br>When multiple hosts on the same port are associated with the same subscriber identification string, they are considered to be host members of the same subscriber. A subscriber identification policy can also be used for identifying dynamic transit subscriber names. |
| Reference | **configure** subscriber-mgmt sub-ident-policy *external-named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## transit-auto-create

| | |
|---|---|
| Synopsis | Enter the **transit-auto-create** context |
| Context | **configure** application-assurance group *number* partition *number* transit-ip-policy *number* transit-auto-create |
| Tree | transit-auto-create |
| Description | Commands in this context enable the seen-IP auto creation of transit subscribers using the transit IP policy name and subscriber IP address as the aa-sub name. The default app-profile configured against the transit IP policy is applied to these subscribers. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the automatic dynamic transits |
| Context | **configure** application-assurance group *number* partition *number* transit-ip-policy *number* transit-auto-create admin-state *keyword* |
| Tree | admin-state |


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| | |
|---|---|
| Options | enable, disable |
| Default | disable |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **inactivity-monitor** *boolean*

| | |
|---|---|
| Synopsis | Monitor inactivity on auto-created transit subscribers |
| Context | **configure** application-assurance group *number* partition *number* transit-ip-policy *number* transit-auto-create inactivity-monitor *boolean* |
| Tree | inactivity-monitor |
| Description | When configured to **true**, this command enables the auto-removal of inactive transit subscribers. Periodically, AA removes any inactive auto-created subscribers. An inactive subscriber is defined as having no active flows in the last period.<br>When configured to **false**, this command disables the auto-removal of inactive transit subscribers. |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **transit-prefix-policy** [prefix-policy-id] *number*

| | |
|---|---|
| Synopsis | Enter the **transit-prefix-policy** list instance |
| Context | **configure** application-assurance group *number* partition *number* transit-prefix-policy *number* |
| Tree | transit-prefix-policy |
| Description | Commands in this context define a transit AA subscriber prefix policy. Transit AA subscribers are managed by the system through the use of this policy assigned to services, which determines how transit subscribers are created and removed for that service. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**prefix-policy-id**] *number*

| | |
|---|---|
| Synopsis | Transit prefix policy ID |
| Context | **configure** application-assurance group *number* partition *number* transit-prefix-policy *number* |


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| | |
|---|---|
| Tree | transit-prefix-policy |
| Range | 1 to 65535 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** application-assurance group *number* partition *number* transit-prefix-policy *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **entry** [entry-id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** application-assurance group *number* partition *number* transit-prefix-policy *number* entry *number* |
| Tree | entry |
| Description | Commands in this context configure the index to a specific entry of a transit prefix policy. |
| Max. instances | 4095 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**entry-id**] *number*

| | |
|---|---|
| Synopsis | ID for a transit prefix policy entry |
| Context | **configure** application-assurance group *number* partition *number* transit-prefix-policy *number* entry *number* |
| Tree | entry |
| Range | 1 to 4294967295 |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **aa-sub** *reference*

| | |
|---|---|
| Synopsis | Name of the transit prefix AA subscriber |
| Context | **configure** application-assurance group *number* partition *number* transit-prefix-policy *number* entry *number* aa-sub *reference* |
| Tree | aa-sub |
| Reference | **configure** application-assurance group *number* partition *number* transit-prefix-policy *number* static-aa-sub *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **match**

| | |
|---|---|
| Synopsis | Enter the **match** context |
| Context | **configure** application-assurance group *number* partition *number* transit-prefix-policy *number* entry *number* match |
| Tree | match |
| Description | Commands in this context configure transit prefix policy entry match criteria. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **aa-sub-ip** *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | AA subscriber IP address prefix |
| Context | **configure** application-assurance group *number* partition *number* transit-prefix-policy *number* entry *number* match aa-sub-ip *(ipv4-prefix \| ipv6-prefix)* |
| Tree | aa-sub-ip |
| Description | This command configures a transit prefix subscriber IP address prefix. It is used when the site is on the local side, the same side of the system as the parent SAP. The local aa-sub-ip addresses represent the source IP in the from-SAP direction and destination IP in the to-SAP direction. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **network-ip** *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Network IP address prefix |
| Context | **configure** application-assurance group *number* partition *number* transit-prefix-policy *number* entry *number* match network-ip *(ipv4-prefix | ipv6-prefix)* |
| Tree | network-ip |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **static-aa-sub** [transit-aa-sub-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **static-aa-sub** list instance |
| Context | **configure** application-assurance group *number* partition *number* transit-prefix-policy *number* static-aa-sub *named-item* |
| Tree | static-aa-sub |
| Max. instances | 4095 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**transit-aa-sub-name**] *named-item*

| | |
|---|---|
| Synopsis | Static transit subscriber name |
| Context | **configure** application-assurance group *number* partition *number* transit-prefix-policy *number* static-aa-sub *named-item* |
| Tree | static-aa-sub |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **app-profile** *reference*

| | |
|---|---|
| Synopsis | Application profile name |
| Context | **configure** application-assurance group *number* partition *number* transit-prefix-policy *number* static-aa-sub *named-item* app-profile *reference* |
| Tree | app-profile |


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| | |
|---|---|
| Reference | **configure** application-assurance group *number* partition *number* policy app-profile *named-item* |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **is-remote** *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Set transit subscriber as remote |
| Context | **configure** application-assurance group *number* partition *number* transit-prefix-policy *number* static-aa-sub *named-item* is-remote *boolean* |
| Tree | is-remote |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **wap1x**

| | |
|---|---|
| Synopsis | Enter the **wap1x** context |
| Context | **configure** application-assurance group *number* partition *number* wap1x |
| Tree | wap1x |
| Description | Commands in this context configure the Wireless Application Protocol (WAP) 1.X. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of WAP1x detection |
| Context | **configure** application-assurance group *number* partition *number* wap1x admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |


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| | |
|---|---|
| Default | disable |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## policer

| | |
|---|---|
| Synopsis | Enter the **policer** context |
| Context | **configure** application-assurance group *number* policer |
| Tree | policer |
| Description | Commands in this context create application assurance policer profiles of a specified type. Policers can be bandwidth or flow-limiting and can have a granularity of system scope (limits traffic entering AA ISA for all or a subset of AA subscribers) or a subscriber scope (limits apply to each AA subscriber traffic).<br><br>The policer type and granularity can only be configured during creation. They cannot be modified. The policer profile must be removed from all AQPs to be removed. Changes to policer profile parameters take effect immediately for policers instantiated as a result of AQP actions using this profile. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## anl-bandwidth-policer [policer-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **anl-bandwidth-policer** list instance |
| Context | **configure** application-assurance group *number* policer anl-bandwidth-policer *named-item* |
| Tree | anl-bandwidth-policer |
| Description | Commands in this context configure the AA ANL policer. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## [policer-name] *named-item*

| | |
|---|---|
| Synopsis | Policer name |
| Context | **configure** application-assurance group *number* policer anl-bandwidth-policer *named-item* |
| Tree | anl-bandwidth-policer |
| String length | 1 to 32 |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **action** *keyword*

| | |
|---|---|
| Synopsis | Action for packets violating configured policer rate |
| Context | **configure** application-assurance group *number* policer anl-bandwidth-policer *named-item* action *keyword* |
| Tree | action |
| Description | This command configures the action to be performed by single-bucket bandwidth policers for non-conformant traffic.<br>Dual bucket bandwidth policers cannot have their action configured and always mark traffic below CIR as in-profile, between CIR and PIR as out-of-profile, and drop traffic above PIR. Flow policers always discard non-conformant traffic.<br>When multiple application assurance policers are configured against a single flow (including policers at both subscriber and system), the flow/packet is dropped if one of the policers requires the packet to be discarded. This occurs regardless of the action of the other policers. |
| Options | permit-deny, priority-mark, monitor |
| Default | permit-deny |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **adaptation-rule**

| | |
|---|---|
| Synopsis | Enter the **adaptation-rule** context |
| Context | **configure** application-assurance group *number* policer anl-bandwidth-policer *named-item* adaptation-rule |
| Tree | adaptation-rule |
| Description | Commands in this context configure the AA policer adaptation rule fields and define the method used by the system to derive the operational CIR and PIR values when the queue is provisioned. For the CIR and PIR values individually, the system attempts to find the best operational rate depending on the defined option. To change the CIR adaptation rule only, the current PIR rule must be part of the command executed. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **pir** *keyword*

| | |
|---|---|
| Synopsis | Peak information rate value for the adaptation rule |
| Context | **configure** application-assurance group *number* policer anl-bandwidth-policer *named-item* adaptation-rule pir *keyword* |
| Tree | pir |
| Description | This command configures the adaptation rule to be used while computing the operational PIR value. The adaptation rule specifies the rules to compute the operational values while maintaining minimum offset. |
| Options | max, min, closest |
| Default | closest |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** application-assurance group *number* policer anl-bandwidth-policer *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **mbs** *number*

| | |
|---|---|
| Synopsis | ANL bandwidth policer maximum burst size |
| Context | **configure** application-assurance group *number* policer anl-bandwidth-policer *named-item* mbs *number* |
| Tree | mbs |
| Description | This command configures the maximum burst size (MBS) for the policer. Nokia recommends configuring MBS larger than twice the MTU for the traffic handled by the policer to allow for some burstiness of the traffic. MBS is configurable for single-bucket, dual-bucket bandwidth, and flow setup rate policers only. |
| Range | 0 to 131071 |
| Units | kilobytes |
| Default | 0 |


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| | |
|---|---|
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **rate-percentage** *number*

| | |
|---|---|
| Synopsis | Rate used by Access-Network-Location policers |
| Context | **configure** application-assurance group *number* policer anl-bandwidth-policer *named-item* rate-percentage *number* |
| Tree | rate-percentage |
| Description | This command configures the stage 1 congestion percentage used by Access-Network-Location (ANL) policers. Because ANL total bandwidth is dynamically measured and estimated by AA, this command allows the operator to configure the ratio of that measured bandwidth to be used by the ANL policer as the policer rate.<br>No limiting is performed if not specified. |
| Range | 0 to 200 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **rate-percentage-stage-2** *number*

| | |
|---|---|
| Synopsis | Rate used by Access-Network-Location policers |
| Context | **configure** application-assurance group *number* policer anl-bandwidth-policer *named-item* rate-percentage-stage-2 *number* |
| Tree | rate-percentage-stage-2 |
| Description | This command configures the stage 2 congestion percentage rate used by Access-Network-Location (ANL) policers. Because ANL stage2 total bandwidth is dynamically measured and estimated by AA, this command allows the operator to configure the ratio of that measured bandwidth to be used by the ANL stage2 policer as the policer rate.<br>When unconfigured, limiting is not performed. |
| Range | 0 to 200 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **dual-bucket-bandwidth-policer** [policer-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **dual-bucket-bandwidth-policer** list instance |
| Context | **configure** application-assurance group *number* policer dual-bucket-bandwidth-policer *named-item* |


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| | |
|---|---|
| Tree | dual-bucket-bandwidth-policer |
| Description | Commands in this context configure the dual-bucket bandwidth policer. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## [**policer-name**] *named-item*

| | |
|---|---|
| Synopsis | Policer name |
| Context | **configure** application-assurance group *number* policer dual-bucket-bandwidth-policer *named-item* |
| Tree | dual-bucket-bandwidth-policer |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## adaptation-rule

| | |
|---|---|
| Synopsis | Enter the **adaptation-rule** context |
| Context | **configure** application-assurance group *number* policer dual-bucket-bandwidth-policer *named-item* adaptation-rule |
| Tree | adaptation-rule |
| Description | Commands in this context configure the AA policer adaptation rule fields and define the method used by the system to derive the operational CIR and PIR values when the queue is provisioned. For the CIR and PIR values individually, the system attempts to find the best operational rate depending on the defined option. To change the CIR adaptation rule only, the current PIR rule must be part of the command executed. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **cir** *keyword*

| | |
|---|---|
| Synopsis | Committed information rate value for adaptation rule |
| Context | **configure** application-assurance group *number* policer dual-bucket-bandwidth-policer *named-item* adaptation-rule cir *keyword* |
| Tree | cir |


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| | |
|---|---|
| Description | This command configures the CIR for the dual-bucket-bandwidth-policer adaptation rule policer. Nokia recommends configuring CIR larger than twice the maximum MTU for the traffic handled by the policer to allow for some burstiness of the traffic. The CIR is configurable for dual-bucket bandwidth policers only. |
| Options | max, min, closest |
| Default | closest |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **pir** *keyword*

| | |
|---|---|
| Synopsis | Peak information rate value for the adaptation rule |
| Context | **configure** application-assurance group *number* policer dual-bucket-bandwidth-policer *named-item* adaptation-rule pir *keyword* |
| Tree | pir |
| Description | This command configures the adaptation rule to be used while computing the operational PIR value. The adaptation rule specifies the rules to compute the operational values while maintaining minimum offset. |
| Options | max, min, closest |
| Default | closest |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **cbs** *number*

| | |
|---|---|
| Synopsis | Committed burst size when in congested state |
| Context | **configure** application-assurance group *number* policer dual-bucket-bandwidth-policer *named-item* cbs *number* |
| Tree | cbs |
| Description | This command configures the committed burst size (CBS) for a policer. Nokia recommends that CBS is configured larger than twice the maximum MTU for the traffic handled by the policer to allow for some burstiness of the traffic. CBS is configurable for dual-bucket bandwidth policers only. |
| Range | 0 to 131071 |
| Units | kilobytes |
| Default | 0 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **cir** *(number | keyword)*

| | |
|---|---|
| Synopsis | Committed information rate value for the policer |
| Context | **configure** application-assurance group *number* policer dual-bucket-bandwidth-policer *named-item* cir *(number \| keyword)* |
| Tree | cir |
| Description | This command configures the CIR for the dual-bucket-bandwidth-policer policer. Nokia recommends that the CIR is configured larger than twice the maximum MTU for the traffic handled by the policer to allow for some burstiness of the traffic. The CIR is configurable for dual-bucket bandwidth policers only. |
| Range | 0 to 100000000 |
| Units | kilobps |
| Options | max |
| Default | 0 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **congestion-override**

| | |
|---|---|
| Synopsis | Enter the **congestion-override** context |
| Context | **configure** application-assurance group *number* policer dual-bucket-bandwidth-policer *named-item* congestion-override |
| Tree | congestion-override |
| Description | Commands in this context configure the congestion bandwidth policer override rates. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **cbs** *number*

| | |
|---|---|
| Synopsis | Committed burst size in a congested stage 2 state |
| Context | **configure** application-assurance group *number* policer dual-bucket-bandwidth-policer *named-item* congestion-override cbs *number* |
| Tree | cbs |
| Description | This command configures the committed burst size for a policer. The configured CBS should be larger than twice the maximum MTU for the traffic handled by the policer to allow for some burstiness of the traffic. CBS is configurable for dual-bucket bandwidth policers only. |


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| | |
|---|---|
| Range | 0 to 131071 |
| Units | kilobytes |
| Default | 0 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **cir** *(number | keyword)*

| | |
|---|---|
| Synopsis | Committed information rate value for policer override |
| Context | **configure** application-assurance group *number* policer dual-bucket-bandwidth-policer *named-item* congestion-override cir *(number | keyword)* |
| Tree | cir |
| Description | This command configures the CIR for the dual-bucket bandwidth policer congestion override. Nokia recommends that the CIR is configured larger than twice the maximum MTU for the traffic handled by the policer to allow for some burstiness of the traffic. The CIR is configurable for dual-bucket bandwidth policers only. |
| Range | 0 to 100000000 |
| Units | kilobps |
| Options | max |
| Default | 0 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **mbs** *number*

| | |
|---|---|
| Synopsis | Maximum burst size when in a congested state |
| Context | **configure** application-assurance group *number* policer dual-bucket-bandwidth-policer *named-item* congestion-override mbs *number* |
| Tree | mbs |
| Description | This command configures the maximum burst size (MBS) for the policer. Nokia recommends configuring MBS larger than twice the MTU for the traffic handled by the policer to allow for some burstiness of the traffic. MBS is configurable for single-bucket, dual-bucket bandwidth, and flow setup rate policers only. |
| Range | 0 to 131071 |
| Units | kilobytes |
| Default | 0 |
| Introduced | 21.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | Peak information rate value for the congestion override |
| Context | **configure** application-assurance group *number* policer dual-bucket-bandwidth-policer *named-item* congestion-override pir *(number \| keyword)* |
| Tree | pir |
| Range | 1 to 100000000 |
| Units | kilobps |
| Options | max |
| Default | max |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **congestion-override-stage-2**

| | |
|---|---|
| Synopsis | Enter the **congestion-override-stage-2** context |
| Context | **configure** application-assurance group *number* policer dual-bucket-bandwidth-policer *named-item* congestion-override-stage-2 |
| Tree | congestion-override-stage-2 |
| Description | This command enables the context to configure per-subscriber stage 2 congestion bandwidth policer override rates. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **cbs** *number*

| | |
|---|---|
| Synopsis | Committed burst size in a congested stage 2 state |
| Context | **configure** application-assurance group *number* policer dual-bucket-bandwidth-policer *named-item* congestion-override-stage-2 cbs *number* |
| Tree | cbs |
| Description | This command configures the committed burst size for a policer. The configured CBS should be larger than twice the maximum MTU for the traffic handled by the policer to allow for some burstiness of the traffic. CBS is configurable for dual-bucket bandwidth policers only. |
| Range | 0 to 131071 |


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| | |
|---|---|
| Units | kilobytes |
| Default | 0 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **cir** *(number | keyword)*

| | |
|---|---|
| Synopsis | Committed information rate value for policer override |
| Context | **configure** application-assurance group *number* policer dual-bucket-bandwidth-policer *named-item* congestion-override-stage-2 cir *(number \| keyword)* |
| Tree | cir |
| Description | This command configures the CIR for the dual-bucket bandwidth policer congestion override. Nokia recommends that the CIR is configured larger than twice the maximum MTU for the traffic handled by the policer to allow for some burstiness of the traffic. The CIR is configurable for dual-bucket bandwidth policers only. |
| Range | 0 to 100000000 |
| Units | kilobps |
| Options | max |
| Default | 0 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **mbs** *number*

| | |
|---|---|
| Synopsis | Maximum burst size when in a congested state |
| Context | **configure** application-assurance group *number* policer dual-bucket-bandwidth-policer *named-item* congestion-override-stage-2 mbs *number* |
| Tree | mbs |
| Description | This command configures the maximum burst size (MBS) for the policer. Nokia recommends configuring MBS larger than twice the MTU for the traffic handled by the policer to allow for some burstiness of the traffic. MBS is configurable for single-bucket, dual-bucket bandwidth, and flow setup rate policers only. |
| Range | 0 to 131071 |
| Units | kilobytes |
| Default | 0 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | Peak information rate value for the congestion override |
| Context | **configure** application-assurance group *number* policer dual-bucket-bandwidth-policer *named-item* congestion-override-stage-2 pir *(number \| keyword)* |
| Tree | pir |
| Range | 1 to 100000000 |
| Units | kilobps |
| Options | max |
| Default | max |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** application-assurance group *number* policer dual-bucket-bandwidth-policer *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **mbs** *number*

| | |
|---|---|
| Synopsis | Bandwidth policer maximum burst size |
| Context | **configure** application-assurance group *number* policer dual-bucket-bandwidth-policer *named-item* mbs *number* |
| Tree | mbs |
| Description | This command configures the maximum burst size (MBS) for the policer. Nokia recommends configuring MBS larger than twice the MTU for the traffic handled by the policer to allow for some burstiness of the traffic. MBS is configurable for single-bucket, dual-bucket bandwidth, and flow setup rate policers only. |
| Range | 0 to 131071 |
| Units | kilobytes |
| Default | 0 |
| Introduced | 21.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | Peak information rate value for the bandwidth policer |
| Context | **configure** application-assurance group *number* policer dual-bucket-bandwidth-policer *named-item* pir *(number \| keyword)* |
| Tree | pir |
| Range | 1 to 100000000 |
| Units | kilobps |
| Options | max |
| Default | max |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **time-of-day-override** [tod-override-id] *number*

| | |
|---|---|
| Synopsis | Enter the **time-of-day-override** list instance |
| Context | **configure** application-assurance group *number* policer dual-bucket-bandwidth-policer *named-item* time-of-day-override *number* |
| Tree | time-of-day-override |
| Description | Commands in this context configure the time of day override policy for a given policer. Rate/mbs/cbs/flow-rate/flow-count configured in each override-id will override the default policer values at the specified time of day configured in the override. |
| Max. instances | 8 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**tod-override-id**] *number*

| | |
|---|---|
| Synopsis | ID for time of day override |
| Context | **configure** application-assurance group *number* policer dual-bucket-bandwidth-policer *named-item* time-of-day-override *number* |
| Tree | time-of-day-override |
| Range | 1 to 255 |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of this time of day policer |
| Context | **configure** application-assurance group *number* policer dual-bucket-bandwidth-policer *named-item* time-of-day-override *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **cbs** *number*

| | |
|---|---|
| Synopsis | Committed burst size for time of day override policer |
| Context | **configure** application-assurance group *number* policer dual-bucket-bandwidth-policer *named-item* time-of-day-override *number* cbs *number* |
| Tree | cbs |
| Description | This command configures the committed burst size (CBS) for a policer. Nokia recommends configuring CBS larger than twice the maximum MTU for the traffic handled by the policer to allow for some burstiness of the traffic. CBS is configurable for dual-bucket bandwidth policers only. |
| Range | 0 to 131071 |
| Units | kilobytes |
| Default | 0 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **cir** *(number | keyword)*

| | |
|---|---|
| Synopsis | Committed information rate for time of day override |
| Context | **configure** application-assurance group *number* policer dual-bucket-bandwidth-policer *named-item* time-of-day-override *number* cir *(number \| keyword)* |
| Tree | cir |


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| | |
|---|---|
| Description | This command configures the committed information rate (CIR) for the dual-bucket-bandwidth-policer policer time of day override. Nokia recommends that the CIR is configured larger than twice the maximum MTU for the traffic handled by the policer to allow for some burstiness of the traffic. The CIR is configurable for dual-bucket bandwidth policers only. |
| Range | 0 to 100000000 |
| Units | kilobps |
| Options | max |
| Default | 0 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** application-assurance group *number* policer dual-bucket-bandwidth-policer *named-item* time-of-day-override *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **mbs** *number*

| | |
|---|---|
| Synopsis | Maximum burst size for the policer time of day override |
| Context | **configure** application-assurance group *number* policer dual-bucket-bandwidth-policer *named-item* time-of-day-override *number* mbs *number* |
| Tree | mbs |
| Description | This command configures the maximum burst size (MBS) for the policer. Nokia recommends that MBS is configured larger than twice the MTU for the traffic handled by the policer to allow for some burstiness of the traffic. MBS is configurable for single-bucket, dual-bucket bandwidth, and flow setup rate policers only. |
| Range | 0 to 131071 |
| Units | kilobytes |
| Default | 0 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | Peak information rate value for time of day override |
| Context | **configure** application-assurance group *number* policer dual-bucket-bandwidth-policer *named-item* time-of-day-override *number* pir *(number \| keyword)* |
| Tree | pir |
| Range | 1 to 100000000 |
| Units | kilobps |
| Options | max |
| Default | max |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### time-range

| | |
|---|---|
| Synopsis | Enter the **time-range** context |
| Context | **configure** application-assurance group *number* policer dual-bucket-bandwidth-policer *named-item* time-of-day-override *number* time-range |
| Tree | time-range |
| Description | Commands in this context configure the days of the week policer override is enabled as well as the time policer override starts and ends. When using a daily override the operator can select which days during the week from Sunday to Saturday it is applicable along with the start/end hour/min time range repeated over these days.When using a weekly override the operator can select between which days in the week the policy start up to the hours/min for both start day and end day. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### daily

| | |
|---|---|
| Synopsis | Enable the **daily** context |
| Context | **configure** application-assurance group *number* policer dual-bucket-bandwidth-policer *named-item* time-of-day-override *number* time-range daily |
| Tree | daily |
| Description | Commands in this context configure the daily start and end times for policer override. |
| Notes | The following elements are part of a choice: **daily** or **weekly**. |
| Introduced | 21.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## all-days

| | |
|---|---|
| Synopsis | Enable policer override on every day |
| Context | **configure** application-assurance group *number* policer dual-bucket-bandwidth-policer *named-item* time-of-day-override *number* time-range daily all-days |
| Tree | all-days |
| Notes | The following elements are part of a choice: **all-days** or **on**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## end *policer-end-time*

| | |
|---|---|
| Synopsis | Daily end time |
| Context | **configure** application-assurance group *number* policer dual-bucket-bandwidth-policer *named-item* time-of-day-override *number* time-range daily end *policer-end-time* |
| Tree | end |
| Description | This command configures the daily end time of the policer override.<br>The time format must be [hh:mm]. The hh value is 00 to 24. The mm value is 00, 15, 30, or 45. If hh is 24, mm must be 00. |
| String length | 3 to 5 |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## on *keyword*

| | |
|---|---|
| Synopsis | Policer override on selected days |
| Context | **configure** application-assurance group *number* policer dual-bucket-bandwidth-policer *named-item* time-of-day-override *number* time-range daily on *keyword* |
| Tree | on |
| Options | sunday, monday, tuesday, wednesday, thursday, friday, saturday |
| Max. instances | 6 |
| Notes | The following elements are part of a choice: **all-days** or **on**. |


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| | |
|---|---|
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **start** *policer-start-time*

| | |
|---|---|
| Synopsis | Daily start time |
| Context | **configure** application-assurance group *number* policer dual-bucket-bandwidth-policer *named-item* time-of-day-override *number* time-range daily start *policer-start-time* |
| Tree | start |
| Description | This command configures the daily start time of the policer override.<br>The time format must be [hh:mm]. The hh value is 00 to 24. The mm value is 00, 15, 30, or 45. If hh is 24, mm must be 00. |
| String length | 3 to 5 |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **weekly**

| | |
|---|---|
| Synopsis | Enable the **weekly** context |
| Context | **configure** application-assurance group *number* policer dual-bucket-bandwidth-policer *named-item* time-of-day-override *number* time-range weekly |
| Tree | weekly |
| Description | Commands in this context configure the weekly start and end times for policer override. |
| Notes | The following elements are part of a choice: **daily** or **weekly**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **end**

| | |
|---|---|
| Synopsis | Enable the **end** context |
| Context | **configure** application-assurance group *number* policer dual-bucket-bandwidth-policer *named-item* time-of-day-override *number* time-range weekly end |
| Tree | end |


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| | |
|---|---|
| Description | Commands in this context configure the weekly end time for policer override.When using a weekly override, the operator can select between which days in the week the policy ends up to the hours or minutes for both start of the day and end of the day. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **day** *keyword*

| | |
|---|---|
| Synopsis | Weekly end day |
| Context | **configure** application-assurance group *number* policer dual-bucket-bandwidth-policer *named-item* time-of-day-override *number* time-range weekly end day *keyword* |
| Tree | day |
| Options | sunday, monday, tuesday, wednesday, thursday, friday, saturday |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **time** *policer-end-time*

| | |
|---|---|
| Synopsis | Weekly end time |
| Context | **configure** application-assurance group *number* policer dual-bucket-bandwidth-policer *named-item* time-of-day-override *number* time-range weekly end time *policer-end-time* |
| Tree | time |
| Description | This command configures the weekly end time of the policer override.<br>The time format must be [hh:mm]. The hh value is 00 to 24. The mm value is 00, 15, 30, or 45. If hh is 24, mm must be 00. |
| String length | 3 to 5 |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **start**

| | |
|---|---|
| Synopsis | Enable the **start** context |
| Context | **configure** application-assurance group *number* policer dual-bucket-bandwidth-policer *named-item* time-of-day-override *number* time-range weekly start |
| Tree | start |


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| | |
|---|---|
| Description | Commands in this context configure the weekly start time for policer override. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **day** *keyword*

| | |
|---|---|
| Synopsis | Weekly start day |
| Context | **configure** application-assurance group *number* policer dual-bucket-bandwidth-policer *named-item* time-of-day-override *number* time-range weekly start day *keyword* |
| Tree | day |
| Options | sunday, monday, tuesday, wednesday, thursday, friday, saturday |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **time** *policer-start-time*

| | |
|---|---|
| Synopsis | Weekly start time |
| Context | **configure** application-assurance group *number* policer dual-bucket-bandwidth-policer *named-item* time-of-day-override *number* time-range weekly start time *policer-start-time* |
| Tree | time |
| Description | This command configures the weekly start time of the policer override.<br>The time format must be [hh:mm]. The hh value is 00 to 24. The mm value is 00, 15, 30, or 45. If hh is 24, mm must be 00. |
| String length | 3 to 5 |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **flow-bandwidth-policer** [policer-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **flow-bandwidth-policer** list instance |
| Context | **configure** application-assurance group *number* policer flow-bandwidth-policer *named-item* |
| Tree | flow-bandwidth-policer |
| Introduced | 24.3.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**policer-name**] *named-item*

| | |
|---|---|
| Synopsis | Policer name |
| Context | **configure** application-assurance group *number* policer flow-bandwidth-policer *named-item* |
| Tree | flow-bandwidth-policer |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **action** *keyword*

| | |
|---|---|
| Synopsis | Action for packets violating configured policer rate |
| Context | **configure** application-assurance group *number* policer flow-bandwidth-policer *named-item* action *keyword* |
| Tree | action |
| Description | This command configures the action to be performed by single-bucket bandwidth policers for non-conformant traffic.<br>Dual bucket bandwidth policers cannot have their action configured and always mark traffic below CIR as in-profile, between CIR and PIR as out-of-profile, and drop traffic above PIR. Flow policers always discard non-conformant traffic.<br>When multiple application assurance policers are configured against a single flow (including policers at both subscriber and system), the flow/packet is dropped if one of the policers requires the packet to be discarded. This occurs regardless of the action of the other policers. |
| Options | permit-deny, priority-mark, monitor |
| Default | permit-deny |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **adaptation-rule**

| | |
|---|---|
| Synopsis | Enter the **adaptation-rule** context |
| Context | **configure** application-assurance group *number* policer flow-bandwidth-policer *named-item* adaptation-rule |


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| | |
|---|---|
| Tree | adaptation-rule |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **pir** *keyword*

| | |
|---|---|
| Synopsis | Peak information rate value for the adaptation rule |
| Context | **configure** application-assurance group *number* policer flow-bandwidth-policer *named-item* adaptation-rule pir *keyword* |
| Tree | pir |
| Description | This command configures the adaptation rule to be used while computing the operational PIR value. The adaptation rule specifies the rules to compute the operational values while maintaining minimum offset. |
| Options | max, min, closest |
| Default | closest |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## congestion-override

| | |
|---|---|
| Synopsis | Enter the **congestion-override** context |
| Context | **configure** application-assurance group *number* policer flow-bandwidth-policer *named-item* congestion-override |
| Tree | congestion-override |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **mbs** *number*

| | |
|---|---|
| Synopsis | Maximum burst size when in a congested state |
| Context | **configure** application-assurance group *number* policer flow-bandwidth-policer *named-item* congestion-override mbs *number* |
| Tree | mbs |
| Description | This command configures the maximum burst size (MBS) for the policer. Nokia recommends configuring MBS larger than twice the MTU for the traffic handled by the policer to allow for some burstiness of the traffic. MBS is configurable for single-bucket, dual-bucket bandwidth, and flow setup rate policers only. |


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| | |
|---|---|
| Range | 0 to 131071 |
| Units | kilobytes |
| Default | 0 |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | Peak information rate value for the congestion override |
| Context | **configure** application-assurance group *number* policer flow-bandwidth-policer *named-item* congestion-override pir *(number \| keyword)* |
| Tree | pir |
| Range | 1 to 100000000 |
| Units | kilobps |
| Options | max |
| Default | max |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **congestion-override-stage-2**

| | |
|---|---|
| Synopsis | Enter the **congestion-override-stage-2** context |
| Context | **configure** application-assurance group *number* policer flow-bandwidth-policer *named-item* congestion-override-stage-2 |
| Tree | congestion-override-stage-2 |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **mbs** *number*

| | |
|---|---|
| Synopsis | Maximum burst size when in a congested state |
| Context | **configure** application-assurance group *number* policer flow-bandwidth-policer *named-item* congestion-override-stage-2 mbs *number* |
| Tree | mbs |
| Description | This command configures the maximum burst size (MBS) for the policer. Nokia recommends configuring MBS larger than twice the MTU for the traffic handled by the |


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policer to allow for some burstiness of the traffic. MBS is configurable for single-bucket, dual-bucket bandwidth, and flow setup rate policers only.

| | |
|---|---|
| Range | 0 to 131071 |
| Units | kilobytes |
| Default | 0 |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | Peak information rate value for the congestion override |
| Context | **configure** application-assurance group *number* policer flow-bandwidth-policer *named-item* congestion-override-stage-2 pir *(number \| keyword)* |
| Tree | pir |
| Range | 1 to 100000000 |
| Units | kilobps |
| Options | max |
| Default | max |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** application-assurance group *number* policer flow-bandwidth-policer *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **mbs** *number*

| | |
|---|---|
| Synopsis | Bandwidth policer maximum burst size |
| Context | **configure** application-assurance group *number* policer flow-bandwidth-policer *named-item* mbs *number* |


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| | |
|---|---|
| Tree | mbs |
| Description | This command configures the maximum burst size (MBS) for the policer. Nokia recommends configuring MBS larger than twice the MTU for the traffic handled by the policer to allow for some burstiness of the traffic. MBS is configurable for single-bucket, dual-bucket bandwidth, and flow setup rate policers only. |
| Range | 0 to 131071 |
| Units | kilobytes |
| Default | 0 |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | Peak information rate value for the bandwidth policer |
| Context | **configure** application-assurance group *number* policer flow-bandwidth-policer *named-item* pir *(number | keyword)* |
| Tree | pir |
| Range | 1 to 100000000 |
| Units | kilobps |
| Options | max |
| Default | max |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **time-of-day-override** [tod-override-id] *number*

| | |
|---|---|
| Synopsis | Enter the **time-of-day-override** list instance |
| Context | **configure** application-assurance group *number* policer flow-bandwidth-policer *named-item* time-of-day-override *number* |
| Tree | time-of-day-override |
| Max. instances | 8 |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### [**tod-override-id**] *number*

| | |
|---|---|
| Synopsis | ID for time of day override |
| Context | **configure** application-assurance group *number* policer flow-bandwidth-policer *named-item* time-of-day-override *number* |
| Tree | time-of-day-override |
| Range | 1 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of this time of day policer |
| Context | **configure** application-assurance group *number* policer flow-bandwidth-policer *named-item* time-of-day-override *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** application-assurance group *number* policer flow-bandwidth-policer *named-item* time-of-day-override *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **mbs** *number*

| | |
|---|---|
| Synopsis | Bandwidth policer MBS for time of day override |


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| | |
|---|---|
| Context | **configure** application-assurance group *number* policer flow-bandwidth-policer *named-item* time-of-day-override *number* mbs *number* |
| Tree | mbs |
| Description | This command configures the maximum burst size (MBS) for the policer. Nokia recommends configuring MBS larger than twice the MTU for the traffic handled by the policer to allow for some burstiness of the traffic. MBS is configurable for single-bucket, dual-bucket bandwidth, and flow setup rate policers only. |
| Range | 0 to 131071 |
| Units | kilobytes |
| Default | 0 |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | Peak information rate value for time of day override |
| Context | **configure** application-assurance group *number* policer flow-bandwidth-policer *named-item* time-of-day-override *number* pir *(number | keyword)* |
| Tree | pir |
| Range | 1 to 100000000 |
| Units | kilobps |
| Options | max |
| Default | max |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **time-range**

| | |
|---|---|
| Synopsis | Enter the **time-range** context |
| Context | **configure** application-assurance group *number* policer flow-bandwidth-policer *named-item* time-of-day-override *number* time-range |
| Tree | time-range |
| Description | Commands in this context configure the days of the week policer override is enabled as well as the time policer override starts and ends. When using a daily override the operator can select which days during the week from Sunday to Saturday it is applicable along with the start/end hour/min time range repeated over these days.When using a weekly override the operator can select between which days in the week the policy start up to the hours/min for both start day and end day. |


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| | |
|---|---|
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## daily

| | |
|---|---|
| Synopsis | Enable the **daily** context |
| Context | **configure** application-assurance group *number* policer flow-bandwidth-policer *named-item* time-of-day-override *number* time-range daily |
| Tree | daily |
| Description | Commands in this context configure the daily start and end times for policer override. |
| Notes | The following elements are part of a choice: **daily** or **weekly**. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## all-days

| | |
|---|---|
| Synopsis | Enable policer override on every day |
| Context | **configure** application-assurance group *number* policer flow-bandwidth-policer *named-item* time-of-day-override *number* time-range daily all-days |
| Tree | all-days |
| Notes | The following elements are part of a choice: **all-days** or **on**. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## end *policer-end-time*

| | |
|---|---|
| Synopsis | Daily end time |
| Context | **configure** application-assurance group *number* policer flow-bandwidth-policer *named-item* time-of-day-override *number* time-range daily end *policer-end-time* |
| Tree | end |
| Description | This command configures the daily end time of the policer override.<br>The time format must be [hh:mm]. The hh value is 00 to 24. The mm value is 00, 15, 30, or 45. If hh is 24, mm must be 00. |
| String length | 3 to 5 |
| Notes | This element is mandatory. |
| Introduced | 24.3.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **on** *keyword*

| | |
|---|---|
| Synopsis | Policer override on selected days |
| Context | **configure** application-assurance group *number* policer flow-bandwidth-policer *named-item* time-of-day-override *number* time-range daily on *keyword* |
| Tree | on |
| Options | sunday, monday, tuesday, wednesday, thursday, friday, saturday |
| Max. instances | 6 |
| Notes | The following elements are part of a choice: **all-days** or **on**. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **start** *policer-start-time*

| | |
|---|---|
| Synopsis | Daily start time |
| Context | **configure** application-assurance group *number* policer flow-bandwidth-policer *named-item* time-of-day-override *number* time-range daily start *policer-start-time* |
| Tree | start |
| Description | This command configures the daily start time of the policer override.<br>The time format must be [hh:mm]. The hh value is 00 to 24. The mm value is 00, 15, 30, or 45. If hh is 24, mm must be 00. |
| String length | 3 to 5 |
| Notes | This element is mandatory. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **weekly**

| | |
|---|---|
| Synopsis | Enable the **weekly** context |
| Context | **configure** application-assurance group *number* policer flow-bandwidth-policer *named-item* time-of-day-override *number* time-range weekly |
| Tree | weekly |
| Description | Commands in this context configure the weekly start and end times for policer override. |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **daily** or **weekly**. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## end

| | |
|---|---|
| Synopsis | Enable the **end** context |
| Context | **configure** application-assurance group *number* policer flow-bandwidth-policer *named-item* time-of-day-override *number* time-range weekly end |
| Tree | end |
| Description | Commands in this context configure the weekly end time for policer override.When using a weekly override, the operator can select between which days in the week the policy ends up to the hours or minutes for both start of the day and end of the day. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## day *keyword*

| | |
|---|---|
| Synopsis | Weekly end day |
| Context | **configure** application-assurance group *number* policer flow-bandwidth-policer *named-item* time-of-day-override *number* time-range weekly end day *keyword* |
| Tree | day |
| Options | sunday, monday, tuesday, wednesday, thursday, friday, saturday |
| Notes | This element is mandatory. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## time *policer-end-time*

| | |
|---|---|
| Synopsis | Weekly end time |
| Context | **configure** application-assurance group *number* policer flow-bandwidth-policer *named-item* time-of-day-override *number* time-range weekly end time *policer-end-time* |
| Tree | time |
| Description | This command configures the weekly end time of the policer override.<br>The time format must be [hh:mm]. The hh value is 00 to 24. The mm value is 00, 15, 30, or 45. If hh is 24, mm must be 00. |
| String length | 3 to 5 |


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| | |
|---|---|
| Notes | This element is mandatory. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## start

| | |
|---|---|
| Synopsis | Enable the **start** context |
| Context | **configure** application-assurance group *number* policer flow-bandwidth-policer *named-item* time-of-day-override *number* time-range weekly start |
| Tree | start |
| Description | Commands in this context configure the weekly start time for policer override. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## day *keyword*

| | |
|---|---|
| Synopsis | Weekly start day |
| Context | **configure** application-assurance group *number* policer flow-bandwidth-policer *named-item* time-of-day-override *number* time-range weekly start day *keyword* |
| Tree | day |
| Options | sunday, monday, tuesday, wednesday, thursday, friday, saturday |
| Notes | This element is mandatory. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## time *policer-start-time*

| | |
|---|---|
| Synopsis | Weekly start time |
| Context | **configure** application-assurance group *number* policer flow-bandwidth-policer *named-item* time-of-day-override *number* time-range weekly start time *policer-start-time* |
| Tree | time |
| Description | This command configures the weekly start time of the policer override.<br>The time format must be [hh:mm]. The hh value is 00 to 24. The mm value is 00, 15, 30, or 45. If hh is 24, mm must be 00. |
| String length | 3 to 5 |
| Notes | This element is mandatory. |


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| | |
|---|---|
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **flow-count-limit-policer** [policer-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **flow-count-limit-policer** list instance |
| Context | **configure** application-assurance group *number* policer flow-count-limit-policer *named-item* |
| Tree | flow-count-limit-policer |
| Description | Commands in this context configure the AA flow count limit policer. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**policer-name**] *named-item*

| | |
|---|---|
| Synopsis | Policer name |
| Context | **configure** application-assurance group *number* policer flow-count-limit-policer *named-item* |
| Tree | flow-count-limit-policer |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **action** *keyword*

| | |
|---|---|
| Synopsis | Action for packets violating configured policer rate |
| Context | **configure** application-assurance group *number* policer flow-count-limit-policer *named-item* action *keyword* |
| Tree | action |
| Description | This command configures the action to be performed by single-bucket bandwidth policers for non-conformant traffic.<br>Dual bucket bandwidth policers cannot have their action configured and always mark traffic below CIR as in-profile, between CIR and PIR as out-of-profile, and drop traffic above PIR. Flow policers always discard non-conformant traffic.<br>When multiple application assurance policers are configured against a single flow (including policers at both subscriber and system), the flow/packet is dropped if one of |


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| | |
|---|---|
| | the policers requires the packet to be discarded. This occurs regardless of the action of the other policers. |
| Options | permit-deny, priority-mark, monitor |
| Default | permit-deny |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** application-assurance group *number* policer flow-count-limit-policer *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **granularity** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Policer granularity |
| Context | **configure** application-assurance group *number* policer flow-count-limit-policer *named-item* granularity *keyword* |
| Tree | granularity |
| Options | system, subscriber |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **limit-gtp-flows** *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.


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| | |
|---|---|
| Synopsis | Limit concurrent GTP flows |
| Context | **configure** application-assurance group *number* policer flow-count-limit-policer *named-item* limit-gtp-flows *boolean* |
| Tree | limit-gtp-flows |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **peak-flow-count** *(number | keyword)*

| | |
|---|---|
| Synopsis | Peak flow count limit |
| Context | **configure** application-assurance group *number* policer flow-count-limit-policer *named-item* peak-flow-count *(number | keyword)* |
| Tree | peak-flow-count |
| Range | 0 to 100000000 |
| Units | flows |
| Options | max |
| Default | max |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **time-of-day-override** [tod-override-id] *number*

| | |
|---|---|
| Synopsis | Enter the **time-of-day-override** list instance |
| Context | **configure** application-assurance group *number* policer flow-count-limit-policer *named-item* time-of-day-override *number* |
| Tree | time-of-day-override |
| Description | Commands in this context configure the time of day override policy for a specific policer. Rate/mbs/cbs/flow-rate/flow-count configured in each override ID overrides the default policer values at the specified time of day configured in the override. |
| Max. instances | 8 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### [**tod-override-id**] *number*

| | |
|---|---|
| Synopsis | ID for time of day override |
| Context | **configure** application-assurance group *number* policer flow-count-limit-policer *named-item* time-of-day-override *number* |
| Tree | time-of-day-override |
| Range | 1 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of this time of day policer |
| Context | **configure** application-assurance group *number* policer flow-count-limit-policer *named-item* time-of-day-override *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** application-assurance group *number* policer flow-count-limit-policer *named-item* time-of-day-override *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **peak-flow-count** *(number* | *keyword)*

| | |
|---|---|
| Synopsis | Peak flow count limit |


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| | |
|---|---|
| Context | **configure** application-assurance group *number* policer flow-count-limit-policer *named-item* time-of-day-override *number* peak-flow-count *(number \| keyword)* |
| Tree | peak-flow-count |
| Range | 0 to 100000000 |
| Units | flows |
| Options | max |
| Default | max |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## time-range

| | |
|---|---|
| Synopsis | Enter the **time-range** context |
| Context | **configure** application-assurance group *number* policer flow-count-limit-policer *named-item* time-of-day-override *number* time-range |
| Tree | time-range |
| Description | Commands in this context configure the days of the week policer override is enabled as well as the time policer override starts and ends. When using a daily override the operator can select which days during the week from Sunday to Saturday it is applicable along with the start/end hour/min time range repeated over these days.When using a weekly override the operator can select between which days in the week the policy start up to the hours/min for both start day and end day. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## daily

| | |
|---|---|
| Synopsis | Enable the **daily** context |
| Context | **configure** application-assurance group *number* policer flow-count-limit-policer *named-item* time-of-day-override *number* time-range daily |
| Tree | daily |
| Description | Commands in this context configure the daily start and end times for policer override. |
| Notes | The following elements are part of a choice: **daily** or **weekly**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## all-days

| | |
|---|---|
| Synopsis | Enable policer override on every day |
| Context | **configure** application-assurance group *number* policer flow-count-limit-policer *named-item* time-of-day-override *number* time-range daily all-days |
| Tree | all-days |
| Notes | The following elements are part of a choice: **all-days** or **on**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## end *policer-end-time*

| | |
|---|---|
| Synopsis | Daily end time |
| Context | **configure** application-assurance group *number* policer flow-count-limit-policer *named-item* time-of-day-override *number* time-range daily end *policer-end-time* |
| Tree | end |
| Description | This command configures the daily end time of the policer override.<br>The time format must be [hh:mm]. The hh value is 00 to 24. The mm value is 00, 15, 30, or 45. If hh is 24, mm must be 00. |
| String length | 3 to 5 |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## on *keyword*

| | |
|---|---|
| Synopsis | Policer override on selected days |
| Context | **configure** application-assurance group *number* policer flow-count-limit-policer *named-item* time-of-day-override *number* time-range daily on *keyword* |
| Tree | on |
| Options | sunday, monday, tuesday, wednesday, thursday, friday, saturday |
| Max. instances | 6 |
| Notes | The following elements are part of a choice: **all-days** or **on**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **start** *policer-start-time*

| | |
|---|---|
| Synopsis | Daily start time |
| Context | **configure** application-assurance group *number* policer flow-count-limit-policer *named-item* time-of-day-override *number* time-range daily start *policer-start-time* |
| Tree | start |
| Description | This command configures the daily start time of the policer override.<br>The time format must be [hh:mm]. The hh value is 00 to 24. The mm value is 00, 15, 30, or 45. If hh is 24, mm must be 00. |
| String length | 3 to 5 |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### weekly

| | |
|---|---|
| Synopsis | Enable the **weekly** context |
| Context | **configure** application-assurance group *number* policer flow-count-limit-policer *named-item* time-of-day-override *number* time-range weekly |
| Tree | weekly |
| Description | Commands in this context configure the weekly start and end times for policer override. |
| Notes | The following elements are part of a choice: **daily** or **weekly**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### end

| | |
|---|---|
| Synopsis | Enable the **end** context |
| Context | **configure** application-assurance group *number* policer flow-count-limit-policer *named-item* time-of-day-override *number* time-range weekly end |
| Tree | end |
| Description | Commands in this context configure the weekly end time for policer override.When using a weekly override, the operator can select between which days in the week the policy ends up to the hours or minutes for both start of the day and end of the day. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **day** *keyword*

| | |
|---|---|
| Synopsis | Weekly end day |
| Context | **configure** application-assurance group *number* policer flow-count-limit-policer *named-item* time-of-day-override *number* time-range weekly end day *keyword* |
| Tree | day |
| Options | sunday, monday, tuesday, wednesday, thursday, friday, saturday |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **time** *policer-end-time*

| | |
|---|---|
| Synopsis | Weekly end time |
| Context | **configure** application-assurance group *number* policer flow-count-limit-policer *named-item* time-of-day-override *number* time-range weekly end time *policer-end-time* |
| Tree | time |
| Description | This command configures the weekly end time of the policer override.<br>The time format must be [hh:mm]. The hh value is 00 to 24. The mm value is 00, 15, 30, or 45. If hh is 24, mm must be 00. |
| String length | 3 to 5 |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **start**

| | |
|---|---|
| Synopsis | Enable the **start** context |
| Context | **configure** application-assurance group *number* policer flow-count-limit-policer *named-item* time-of-day-override *number* time-range weekly start |
| Tree | start |
| Description | Commands in this context configure the weekly start time for policer override. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **day** *keyword*

| | |
|---|---|
| Synopsis | Weekly start day |
| Context | **configure** application-assurance group *number* policer flow-count-limit-policer *named-item* time-of-day-override *number* time-range weekly start day *keyword* |
| Tree | day |
| Options | sunday, monday, tuesday, wednesday, thursday, friday, saturday |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **time** *policer-start-time*

| | |
|---|---|
| Synopsis | Weekly start time |
| Context | **configure** application-assurance group *number* policer flow-count-limit-policer *named-item* time-of-day-override *number* time-range weekly start time *policer-start-time* |
| Tree | time |
| Description | This command configures the weekly start time of the policer override.<br>The time format must be [hh:mm]. The hh value is 00 to 24. The mm value is 00, 15, 30, or 45. If hh is 24, mm must be 00. |
| String length | 3 to 5 |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **flow-setup-rate-policer** [policer-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **flow-setup-rate-policer** list instance |
| Context | **configure** application-assurance group *number* policer flow-setup-rate-policer *named-item* |
| Tree | flow-setup-rate-policer |
| Description | Commands in this context configure the flow setup rate policer. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## [**policer-name**] *named-item*

| | |
|---|---|
| Synopsis | Policer name |
| Context | **configure** application-assurance group *number* policer flow-setup-rate-policer *named-item* |
| Tree | flow-setup-rate-policer |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **action** *keyword*

| | |
|---|---|
| Synopsis | Action for packets violating configured policer rate |
| Context | **configure** application-assurance group *number* policer flow-setup-rate-policer *named-item* action *keyword* |
| Tree | action |
| Description | This command configures the action to be performed by single-bucket bandwidth policers for non-conformant traffic.<br>Dual bucket bandwidth policers cannot have their action configured and always mark traffic below CIR as in-profile, between CIR and PIR as out-of-profile, and drop traffic above PIR. Flow policers always discard non-conformant traffic.<br>When multiple application assurance policers are configured against a single flow (including policers at both subscriber and system), the flow/packet is dropped if one of the policers requires the packet to be discarded. This occurs regardless of the action of the other policers. |
| Options | permit-deny, priority-mark, monitor |
| Default | permit-deny |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **adaptation-rule**

| | |
|---|---|
| Synopsis | Enter the **adaptation-rule** context |
| Context | **configure** application-assurance group *number* policer flow-setup-rate-policer *named-item* adaptation-rule |
| Tree | adaptation-rule |


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| | |
|---|---|
| Description | Commands in this context configure the AA policer adaptation rule fields and define the method used by the system to derive the operational CIR and PIR values when the queue is provisioned. For the CIR and PIR values individually, the system attempts to find the best operational rate depending on the defined option. To change the CIR adaptation rule only, the current PIR rule must be part of the command executed. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **peak-flow-setup-rate** *keyword*

| | |
|---|---|
| Synopsis | Peak flow setup rate adaptation rule |
| Context | **configure** application-assurance group *number* policer flow-setup-rate-policer *named-item* adaptation-rule peak-flow-setup-rate *keyword* |
| Tree | peak-flow-setup-rate |
| Options | max, min, closest |
| Default | closest |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** application-assurance group *number* policer flow-setup-rate-policer *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **flow-setup-rate-burst-size** *number*

| | |
|---|---|
| Synopsis | Maximum flow setup rate burst size |
| Context | **configure** application-assurance group *number* policer flow-setup-rate-policer *named-item* flow-setup-rate-burst-size *number* |
| Tree | flow-setup-rate-burst-size |
| Range | 0 to 131071 |
| Units | flows |


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| | |
|---|---|
| Default | 0 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **granularity** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Policer granularity |
| Context | **configure** application-assurance group *number* policer flow-setup-rate-policer *named-item* granularity *keyword* |
| Tree | granularity |
| Options | system, subscriber |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **peak-flow-setup-rate** *(number | keyword)*

| | |
|---|---|
| Synopsis | Peak flow setup rate |
| Context | **configure** application-assurance group *number* policer flow-setup-rate-policer *named-item* peak-flow-setup-rate *(number | keyword)* |
| Tree | peak-flow-setup-rate |
| Range | 1 to 100000000 |
| Units | flows per second |
| Options | max |
| Default | max |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **time-of-day-override** [tod-override-id] *number*

| | |
|---|---|
| Synopsis | Enter the **time-of-day-override** list instance |
| Context | **configure** application-assurance group *number* policer flow-setup-rate-policer *named-item* time-of-day-override *number* |


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| | |
|---|---|
| Tree | time-of-day-override |
| Description | Commands in this context configure the time of day override policy for a given policer. Rate/mbs/cbs/flow-rate/flow-count configured in each override-id will override the default policer values at the specified time of day configured in the override. |
| Max. instances | 8 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## [**tod-override-id**] *number*

| | |
|---|---|
| Synopsis | ID for time of day override |
| Context | **configure** application-assurance group *number* policer flow-setup-rate-policer *named-item* time-of-day-override *number* |
| Tree | time-of-day-override |
| Range | 1 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of this time of day policer |
| Context | **configure** application-assurance group *number* policer flow-setup-rate-policer *named-item* time-of-day-override *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** application-assurance group *number* policer flow-setup-rate-policer *named-item* time-of-day-override *number* description *description* |
| Tree | description |


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| | |
|---|---|
| String length | 1 to 80 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **flow-setup-rate-burst-size** *number*

| | |
|---|---|
| Synopsis | Maximum flow setup rate burst size |
| Context | **configure** application-assurance group *number* policer flow-setup-rate-policer *named-item* time-of-day-override *number* flow-setup-rate-burst-size *number* |
| Tree | flow-setup-rate-burst-size |
| Range | 0 to 131071 |
| Units | flows |
| Default | 0 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **peak-flow-setup-rate** *(number | keyword)*

| | |
|---|---|
| Synopsis | Peak flow setup rate |
| Context | **configure** application-assurance group *number* policer flow-setup-rate-policer *named-item* time-of-day-override *number* peak-flow-setup-rate *(number \| keyword)* |
| Tree | peak-flow-setup-rate |
| Range | 1 to 100000000 |
| Units | flows per second |
| Options | max |
| Default | max |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **time-range**

| | |
|---|---|
| Synopsis | Enter the **time-range** context |
| Context | **configure** application-assurance group *number* policer flow-setup-rate-policer *named-item* time-of-day-override *number* time-range |
| Tree | time-range |


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| | |
|---|---|
| Description | Commands in this context configure the days of the week policer override is enabled as well as the time policer override starts and ends. When using a daily override the operator can select which days during the week from Sunday to Saturday it is applicable along with the start/end hour/min time range repeated over these days.When using a weekly override the operator can select between which days in the week the policy start up to the hours/min for both start day and end day. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## daily

| | |
|---|---|
| Synopsis | Enable the **daily** context |
| Context | **configure** application-assurance group *number* policer flow-setup-rate-policer *named-item* time-of-day-override *number* time-range daily |
| Tree | daily |
| Description | Commands in this context configure the daily start and end times for policer override. |
| Notes | The following elements are part of a choice: **daily** or **weekly**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## all-days

| | |
|---|---|
| Synopsis | Enable policer override on every day |
| Context | **configure** application-assurance group *number* policer flow-setup-rate-policer *named-item* time-of-day-override *number* time-range daily all-days |
| Tree | all-days |
| Notes | The following elements are part of a choice: **all-days** or **on**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## end *policer-end-time*

| | |
|---|---|
| Synopsis | Daily end time |
| Context | **configure** application-assurance group *number* policer flow-setup-rate-policer *named-item* time-of-day-override *number* time-range daily end *policer-end-time* |
| Tree | end |
| Description | This command configures the daily end time of the policer override. |


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| | |
|---|---|
| | The time format must be [hh:mm]. The hh value is 00 to 24. The mm value is 00, 15, 30, or 45. If hh is 24, mm must be 00. |
| String length | 3 to 5 |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **on** *keyword*

| | |
|---|---|
| Synopsis | Policer override on selected days |
| Context | **configure** application-assurance group *number* policer flow-setup-rate-policer *named-item* time-of-day-override *number* time-range daily on *keyword* |
| Tree | on |
| Options | sunday, monday, tuesday, wednesday, thursday, friday, saturday |
| Max. instances | 6 |
| Notes | The following elements are part of a choice: **all-days** or **on**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **start** *policer-start-time*

| | |
|---|---|
| Synopsis | Daily start time |
| Context | **configure** application-assurance group *number* policer flow-setup-rate-policer *named-item* time-of-day-override *number* time-range daily start *policer-start-time* |
| Tree | start |
| Description | This command configures the daily start time of the policer override.<br>The time format must be [hh:mm]. The hh value is 00 to 24. The mm value is 00, 15, 30, or 45. If hh is 24, mm must be 00. |
| String length | 3 to 5 |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## weekly

| | |
|---|---|
| Synopsis | Enable the **weekly** context |
| Context | **configure** application-assurance group *number* policer flow-setup-rate-policer *named-item* time-of-day-override *number* time-range weekly |
| Tree | weekly |
| Description | Commands in this context configure the weekly start and end times for policer override. |
| Notes | The following elements are part of a choice: **daily** or **weekly**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## end

| | |
|---|---|
| Synopsis | Enable the **end** context |
| Context | **configure** application-assurance group *number* policer flow-setup-rate-policer *named-item* time-of-day-override *number* time-range weekly end |
| Tree | end |
| Description | Commands in this context configure the weekly end time for policer override.When using a weekly override, the operator can select between which days in the week the policy ends up to the hours or minutes for both start of the day and end of the day. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## day *keyword*

| | |
|---|---|
| Synopsis | Weekly end day |
| Context | **configure** application-assurance group *number* policer flow-setup-rate-policer *named-item* time-of-day-override *number* time-range weekly end day *keyword* |
| Tree | day |
| Options | sunday, monday, tuesday, wednesday, thursday, friday, saturday |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **time** *policer-end-time*

| | |
|---|---|
| Synopsis | Weekly end time |
| Context | **configure** application-assurance group *number* policer flow-setup-rate-policer *named-item* time-of-day-override *number* time-range weekly end time *policer-end-time* |
| Tree | time |
| Description | This command configures the weekly end time of the policer override.<br>The time format must be [hh:mm]. The hh value is 00 to 24. The mm value is 00, 15, 30, or 45. If hh is 24, mm must be 00. |
| String length | 3 to 5 |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **start**

| | |
|---|---|
| Synopsis | Enable the **start** context |
| Context | **configure** application-assurance group *number* policer flow-setup-rate-policer *named-item* time-of-day-override *number* time-range weekly start |
| Tree | start |
| Description | Commands in this context configure the weekly start time for policer override. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **day** *keyword*

| | |
|---|---|
| Synopsis | Weekly start day |
| Context | **configure** application-assurance group *number* policer flow-setup-rate-policer *named-item* time-of-day-override *number* time-range weekly start day *keyword* |
| Tree | day |
| Options | sunday, monday, tuesday, wednesday, thursday, friday, saturday |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **time** *policer-start-time*

| | |
|---|---|
| Synopsis | Weekly start time |
| Context | **configure** application-assurance group *number* policer flow-setup-rate-policer *named-item* time-of-day-override *number* time-range weekly start time *policer-start-time* |
| Tree | time |
| Description | This command configures the weekly start time of the policer override.<br>The time format must be [hh:mm]. The hh value is 00 to 24. The mm value is 00, 15, 30, or 45. If hh is 24, mm must be 00. |
| String length | 3 to 5 |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **single-bucket-bandwidth-policer** [policer-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **single-bucket-bandwidth-policer** list instance |
| Context | **configure** application-assurance group *number* policer single-bucket-bandwidth-policer *named-item* |
| Tree | single-bucket-bandwidth-policer |
| Description | Commands in this context configure the single-bucket bandwidth policer. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**policer-name**] *named-item*

| | |
|---|---|
| Synopsis | Policer name |
| Context | **configure** application-assurance group *number* policer single-bucket-bandwidth-policer *named-item* |
| Tree | single-bucket-bandwidth-policer |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **action** *keyword*

| | |
|---|---|
| Synopsis | Action for packets violating configured policer rate |
| Context | **configure** application-assurance group *number* policer single-bucket-bandwidth-policer *named-item* action *keyword* |
| Tree | action |
| Description | This command configures the action to be performed by single-bucket bandwidth policers for non-conformant traffic.<br>Dual bucket bandwidth policers cannot have their action configured and always mark traffic below CIR as in-profile, between CIR and PIR as out-of-profile, and drop traffic above PIR. Flow policers always discard non-conformant traffic.<br>When multiple application assurance policers are configured against a single flow (including policers at both subscriber and system), the flow/packet is dropped if one of the policers requires the packet to be discarded. This occurs regardless of the action of the other policers. |
| Options | permit-deny, priority-mark, monitor |
| Default | permit-deny |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **adaptation-rule**

| | |
|---|---|
| Synopsis | Enter the **adaptation-rule** context |
| Context | **configure** application-assurance group *number* policer single-bucket-bandwidth-policer *named-item* adaptation-rule |
| Tree | adaptation-rule |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **pir** *keyword*

| | |
|---|---|
| Synopsis | Peak information rate value for the adaptation rule |
| Context | **configure** application-assurance group *number* policer single-bucket-bandwidth-policer *named-item* adaptation-rule pir *keyword* |
| Tree | pir |
| Description | This command configures the adaptation rule to be used while computing the operational PIR value. The adaptation rule specifies the rules to compute the operational values while maintaining minimum offset. |


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| | |
|---|---|
| Options | max, min, closest |
| Default | closest |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## congestion-override

| | |
|---|---|
| Synopsis | Enter the **congestion-override** context |
| Context | **configure** application-assurance group *number* policer single-bucket-bandwidth-policer *named-item* congestion-override |
| Tree | congestion-override |
| Description | Commands in this context configure the congestion bandwidth policer override rates. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **mbs** *number*

| | |
|---|---|
| Synopsis | Maximum burst size when in a congested state |
| Context | **configure** application-assurance group *number* policer single-bucket-bandwidth-policer *named-item* congestion-override mbs *number* |
| Tree | mbs |
| Description | This command configures the maximum burst size (MBS) for the policer. Nokia recommends configuring MBS larger than twice the MTU for the traffic handled by the policer to allow for some burstiness of the traffic. MBS is configurable for single-bucket, dual-bucket bandwidth, and flow setup rate policers only. |
| Range | 0 to 131071 |
| Units | kilobytes |
| Default | 0 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | Peak information rate value for the congestion override |
| Context | **configure** application-assurance group *number* policer single-bucket-bandwidth-policer *named-item* congestion-override pir *(number | keyword)* |
| Tree | pir |


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| | |
|---|---|
| Range | 1 to 100000000 |
| Units | kilobps |
| Options | max |
| Default | max |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## congestion-override-stage-2

| | |
|---|---|
| Synopsis | Enter the **congestion-override-stage-2** context |
| Context | **configure** application-assurance group *number* policer single-bucket-bandwidth-policer *named-item* congestion-override-stage-2 |
| Tree | congestion-override-stage-2 |
| Description | Commands in this context configure per-subscriber stage 2 congestion bandwidth policer override rates. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## mbs *number*

| | |
|---|---|
| Synopsis | Maximum burst size when in a congested state |
| Context | **configure** application-assurance group *number* policer single-bucket-bandwidth-policer *named-item* congestion-override-stage-2 mbs *number* |
| Tree | mbs |
| Description | This command configures the maximum burst size (MBS) for the policer. Nokia recommends configuring MBS larger than twice the MTU for the traffic handled by the policer to allow for some burstiness of the traffic. MBS is configurable for single-bucket, dual-bucket bandwidth, and flow setup rate policers only. |
| Range | 0 to 131071 |
| Units | kilobytes |
| Default | 0 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## pir *(number | keyword)*

| | |
|---|---|
| Synopsis | Peak information rate value for the congestion override |


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| | |
|---|---|
| Context | **configure** application-assurance group *number* policer single-bucket-bandwidth-policer *named-item* congestion-override-stage-2 pir *(number \| keyword)* |
| Tree | pir |
| Range | 1 to 100000000 |
| Units | kilobps |
| Options | max |
| Default | max |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** application-assurance group *number* policer single-bucket-bandwidth-policer *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **granularity** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Policer granularity |
| Context | **configure** application-assurance group *number* policer single-bucket-bandwidth-policer *named-item* granularity *keyword* |
| Tree | granularity |
| Options | system, subscriber |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **mbs** *number*

| | |
|---|---|
| Synopsis | Bandwidth policer maximum burst size |
| Context | **configure** application-assurance group *number* policer single-bucket-bandwidth-policer *named-item* mbs *number* |
| Tree | mbs |
| Description | This command configures the maximum burst size (MBS) for the policer. Nokia recommends configuring MBS larger than twice the MTU for the traffic handled by the policer to allow for some burstiness of the traffic. MBS is configurable for single-bucket, dual-bucket bandwidth, and flow setup rate policers only. |
| Range | 0 to 131071 |
| Units | kilobytes |
| Default | 0 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | Peak information rate value for the bandwidth policer |
| Context | **configure** application-assurance group *number* policer single-bucket-bandwidth-policer *named-item* pir *(number | keyword)* |
| Tree | pir |
| Range | 1 to 100000000 |
| Units | kilobps |
| Options | max |
| Default | max |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **time-of-day-override** [tod-override-id] *number*

| | |
|---|---|
| Synopsis | Enter the **time-of-day-override** list instance |
| Context | **configure** application-assurance group *number* policer single-bucket-bandwidth-policer *named-item* time-of-day-override *number* |
| Tree | time-of-day-override |


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| | |
|---|---|
| Description | Commands in this context configure the time of day override policy for a given policer. Rate/mbs/cbs/flow-rate/flow-count configured in each override-id will override the default policer values at the specified time of day configured in the override. |
| Max. instances | 8 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## [**tod-override-id**] *number*

| | |
|---|---|
| Synopsis | ID for time of day override |
| Context | **configure** application-assurance group *number* policer single-bucket-bandwidth-policer *named-item* time-of-day-override *number* |
| Tree | time-of-day-override |
| Range | 1 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of this time of day policer |
| Context | **configure** application-assurance group *number* policer single-bucket-bandwidth-policer *named-item* time-of-day-override *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** application-assurance group *number* policer single-bucket-bandwidth-policer *named-item* time-of-day-override *number* description *description* |
| Tree | description |
| String length | 1 to 80 |


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| | |
|---|---|
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **mbs** *number*

| | |
|---|---|
| Synopsis | Bandwidth policer MBS for time of day override |
| Context | **configure** application-assurance group *number* policer single-bucket-bandwidth-policer *named-item* time-of-day-override *number* mbs *number* |
| Tree | mbs |
| Description | This command configures the maximum burst size (MBS) for the policer. Nokia recommends configuring MBS larger than twice the MTU for the traffic handled by the policer to allow for some burstiness of the traffic. MBS is configurable for single-bucket, dual-bucket bandwidth, and flow setup rate policers only. |
| Range | 0 to 131071 |
| Units | kilobytes |
| Default | 0 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | Peak information rate value for time of day override |
| Context | **configure** application-assurance group *number* policer single-bucket-bandwidth-policer *named-item* time-of-day-override *number* pir *(number | keyword)* |
| Tree | pir |
| Range | 1 to 100000000 |
| Units | kilobps |
| Options | max |
| Default | max |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **time-range**

| | |
|---|---|
| Synopsis | Enter the **time-range** context |
| Context | **configure** application-assurance group *number* policer single-bucket-bandwidth-policer *named-item* time-of-day-override *number* time-range |


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| | |
|---|---|
| Tree | time-range |
| Description | Commands in this context configure the days of the week policer override is enabled as well as the time policer override starts and ends. When using a daily override the operator can select which days during the week from Sunday to Saturday it is applicable along with the start/end hour/min time range repeated over these days.When using a weekly override the operator can select between which days in the week the policy start up to the hours/min for both start day and end day. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## daily

| | |
|---|---|
| Synopsis | Enable the **daily** context |
| Context | **configure** application-assurance group *number* policer single-bucket-bandwidth-policer *named-item* time-of-day-override *number* time-range daily |
| Tree | daily |
| Description | Commands in this context configure the daily start and end times for policer override. |
| Notes | The following elements are part of a choice: **daily** or **weekly**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## all-days

| | |
|---|---|
| Synopsis | Enable policer override on every day |
| Context | **configure** application-assurance group *number* policer single-bucket-bandwidth-policer *named-item* time-of-day-override *number* time-range daily all-days |
| Tree | all-days |
| Notes | The following elements are part of a choice: **all-days** or **on**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **end** *policer-end-time*

| | |
|---|---|
| Synopsis | Daily end time |
| Context | **configure** application-assurance group *number* policer single-bucket-bandwidth-policer *named-item* time-of-day-override *number* time-range daily end *policer-end-time* |
| Tree | end |


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| | |
|---|---|
| Description | This command configures the daily end time of the policer override.<br>The time format must be [hh:mm]. The hh value is 00 to 24. The mm value is 00, 15, 30, or 45. If hh is 24, mm must be 00. |
| String length | 3 to 5 |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **on** *keyword*

| | |
|---|---|
| Synopsis | Policer override on selected days |
| Context | **configure** application-assurance group *number* policer single-bucket-bandwidth-policer *named-item* time-of-day-override *number* time-range daily on *keyword* |
| Tree | on |
| Options | sunday, monday, tuesday, wednesday, thursday, friday, saturday |
| Max. instances | 6 |
| Notes | The following elements are part of a choice: **all-days** or **on**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **start** *policer-start-time*

| | |
|---|---|
| Synopsis | Daily start time |
| Context | **configure** application-assurance group *number* policer single-bucket-bandwidth-policer *named-item* time-of-day-override *number* time-range daily start *policer-start-time* |
| Tree | start |
| Description | This command configures the daily start time of the policer override.<br>The time format must be [hh:mm]. The hh value is 00 to 24. The mm value is 00, 15, 30, or 45. If hh is 24, mm must be 00. |
| String length | 3 to 5 |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## weekly

| | |
|---|---|
| Synopsis | Enable the **weekly** context |
| Context | **configure** application-assurance group *number* policer single-bucket-bandwidth-policer *named-item* time-of-day-override *number* time-range weekly |
| Tree | weekly |
| Description | Commands in this context configure the weekly start and end times for policer override. |
| Notes | The following elements are part of a choice: **daily** or **weekly**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## end

| | |
|---|---|
| Synopsis | Enable the **end** context |
| Context | **configure** application-assurance group *number* policer single-bucket-bandwidth-policer *named-item* time-of-day-override *number* time-range weekly end |
| Tree | end |
| Description | Commands in this context configure the weekly end time for policer override.When using a weekly override, the operator can select between which days in the week the policy ends up to the hours or minutes for both start of the day and end of the day. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## day *keyword*

| | |
|---|---|
| Synopsis | Weekly end day |
| Context | **configure** application-assurance group *number* policer single-bucket-bandwidth-policer *named-item* time-of-day-override *number* time-range weekly end day *keyword* |
| Tree | day |
| Options | sunday, monday, tuesday, wednesday, thursday, friday, saturday |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **time** *policer-end-time*

| | |
|---|---|
| Synopsis | Weekly end time |
| Context | **configure** application-assurance group *number* policer single-bucket-bandwidth-policer *named-item* time-of-day-override *number* time-range weekly end time *policer-end-time* |
| Tree | time |
| Description | This command configures the weekly end time of the policer override.<br>The time format must be [hh:mm]. The hh value is 00 to 24. The mm value is 00, 15, 30, or 45. If hh is 24, mm must be 00. |
| String length | 3 to 5 |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **start**

| | |
|---|---|
| Synopsis | Enable the **start** context |
| Context | **configure** application-assurance group *number* policer single-bucket-bandwidth-policer *named-item* time-of-day-override *number* time-range weekly start |
| Tree | start |
| Description | Commands in this context configure the weekly start time for policer override. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **day** *keyword*

| | |
|---|---|
| Synopsis | Weekly start day |
| Context | **configure** application-assurance group *number* policer single-bucket-bandwidth-policer *named-item* time-of-day-override *number* time-range weekly start day *keyword* |
| Tree | day |
| Options | sunday, monday, tuesday, wednesday, thursday, friday, saturday |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **time** *policer-start-time*

| | |
|---|---|
| Synopsis | Weekly start time |
| Context | **configure** application-assurance group *number* policer single-bucket-bandwidth-policer *named-item* time-of-day-override *number* time-range weekly start time *policer-start-time* |
| Tree | time |
| Description | This command configures the weekly start time of the policer override.<br>The time format must be [hh:mm]. The hh value is 00 to 24. The mm value is 00, 15, 30, or 45. If hh is 24, mm must be 00. |
| String length | 3 to 5 |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **tcp-optimizer** [tcp-optimizer-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **tcp-optimizer** list instance |
| Context | **configure** application-assurance group *number* tcp-optimizer *named-item* |
| Tree | tcp-optimizer |
| Description | Commands in this context configure the TCP optimizer policy. When a TCP optimizer policy is removed or deleted, the existing flows using this policy are abandoned, and optimization is stopped. |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**tcp-optimizer-name**] *named-item*

| | |
|---|---|
| Synopsis | TCP optimizer name |
| Context | **configure** application-assurance group *number* tcp-optimizer *named-item* |
| Tree | tcp-optimizer |
| Description | This command configures the name of the TCP optimizer policy. |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **dack-timeout** *number*

| | |
|---|---|
| Synopsis | Delayed acknowledgment timeout for client and server |
| Context | **configure** application-assurance group *number* tcp-optimizer *named-item* dack-timeout *number* |
| Tree | dack-timeout |
| Description | This command configures a delay ACK (DACK) timeout for the TCP optimizer.<br>By entering this command a default of 200 ms timeout is enabled for delayed acknowledgment. This value is not configurable. |
| Range | 200 |
| Units | milliseconds |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** application-assurance group *number* tcp-optimizer *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **high-cpu-backoff** *boolean*

| | |
|---|---|
| Synopsis | Stop optimizing sessions when CPU capacity is limited |
| Context | **configure** application-assurance group *number* tcp-optimizer *named-item* high-cpu-backoff *boolean* |
| Tree | high-cpu-backoff |
| Description | When configured to **true**, AA stops optimizing TCP sessions when the CPU capacity is limited.<br>AA implements the following CPU utilization thresholds:<br>•<br>level 1 - 75%<br>•<br>level 2 - 85% |


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- level 3 - 90%

The following describes the functionality of the preceding thresholds:

- **early random bypass stage (level 1)**

  When the CPU utilization is between level 1 and level 2, AA randomly optimizes or bypasses new TCP sessions proportional to the position of the CPU utilization within the range between level 1 and level 2.

- **stop optimization of new flows stage (level 2)**

  When the CPU utilization is at or above level 2, AA stops optimizing new TCP sessions.

- **abandon stage (level 3)**

  When the CPU utilization is at or above level 3, AA abandons existing optimized TCP sessions.

**Note:** The CPU utilization is measured once per second in each core or worker. The CPU utilization may differ between cores.

When configured to **false**, AA optimizes TCP sessions, regardless of the CPU capacity.

| | |
|---|---|
| Default | false |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **initial-cwnd** *number*

| | |
|---|---|
| Synopsis | MSS of the TCP optimizer initial congestion window |
| Context | **configure** application-assurance group *number* tcp-optimizer *named-item* initial-cwnd *number* |
| Tree | initial-cwnd |
| Description | This command configures the maximum segment size (MSS) of the initial congestion window used by the TCP optimizer (TCPO) during the Slow Start (SS) period. |
| Range | 1 to 256 |
| Default | 8 |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **initial-ss-threshold** *(number | keyword)*

| | |
|---|---|
| Synopsis | Initial TCP Slow Start threshold for client and server |
| Context | **configure** application-assurance group *number* tcp-optimizer *named-item* initial-ss-threshold *(number \| keyword)* |
| Tree | initial-ss-threshold |
| Description | This command configures the initial Slow Start (SS) threshold for a specific TCP optimizer policy. Nokia recommends setting the threshold close to the access network Bandwidth Delay Product (BDP). |
| Range | 0 to 1000000 |
| Units | kilobytes |
| Options | auto |
| Default | 1000000 |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **network-rtt-threshold** *number*

| | |
|---|---|
| Synopsis | Network round trip time threshold |
| Context | **configure** application-assurance group *number* tcp-optimizer *named-item* network-rtt-threshold *number* |
| Tree | network-rtt-threshold |
| Description | This command configures the threshold of the Round Trip Time (RTT) delay of the network side (between AA and the content provider) above which TCP Optimization (TCPO) is performed. This enables the operator to disable optimization for content that is served from a location close to the TCP optimizer. |
| Range | 1 to 100 |
| Units | milliseconds |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **tcp-stack** *keyword*

| | |
|---|---|
| Synopsis | TCP stack congestion control algorithm |
| Context | **configure** application-assurance group *number* tcp-optimizer *named-item* tcp-stack *keyword* |
| Tree | tcp-stack |


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| | |
|---|---|
| Description | This command configures the TCP stack used toward the subscriber.<br>**Note:** The TCP stack used toward the core network is new-reno, and it is not configurable. TCP BBR, BBRv2, TCP Illinois, and TCP Westwood implement a sender-side modification of the TCP congestion window algorithm that improves the performance of TCP Reno in wireless networks with lossy links. |
| Options | westwood, illinois, new-reno, bbr, bbrv2 |
| Default | westwood |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **url-filter** [url-filter-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **url-filter** list instance |
| Context | **configure** application-assurance group *number* url-filter *named-item* |
| Tree | url-filter |
| Description | Commands in this context configure a URL filter action for flows of a specific type matching this entry. If no URL filters are specified, then no URL filters are evaluated. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**url-filter-name**] *named-item*

| | |
|---|---|
| Synopsis | URL filter name |
| Context | **configure** application-assurance group *number* url-filter *named-item* |
| Tree | url-filter |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the AA URL filter |
| Context | **configure** application-assurance group *number* url-filter *named-item* admin-state *keyword* |
| Tree | admin-state |


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| | |
|---|---|
| Options | enable, disable |
| Default | disable |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## apply-function-specific-behaviour *boolean*

| | |
|---|---|
| Synopsis | Use function-specific behavior for action or redirect |
| Context | **configure** application-assurance group *number* url-filter *named-item* apply-function-specific-behaviour *boolean* |
| Tree | apply-function-specific-behaviour |
| Description | When configured to **true**, the function-specific configurations for URL list, ICAP, and web service (**url-list**, **icap**, and **web-service)** are used for default action (**default-action**) and HTTP redirect (**http-redirect**).<br>When configured to **false**, the configuration at the URL filter level (**url-filter**) is used for default action and HTTP redirect. |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## default-action

| | |
|---|---|
| Synopsis | Enter the **default-action** context |
| Context | **configure** application-assurance group *number* url-filter *named-item* default-action |
| Tree | default-action |
| Description | Commands in this context configure the default action to take effect when the URL filter cannot be used. This may occur in the following cases:<br>• for the local URL list when the URL list is shut down or the file is not loaded due to an error.<br>• in the case of ICAP or web filtering when all TCP connections are busy or down. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## allow

| | |
|---|---|
| Synopsis | Allow all requests as the default URL filter action |
| Context | **configure** application-assurance group *number* url-filter *named-item* default-action allow |


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| | |
|---|---|
| Tree | allow |
| Description | When configured, the router allows all requests as the default URL filter action when the URL filter cannot be used. |
| Notes | The following elements are part of a choice: **allow**, **block-all**, or **block-http-redirect**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## block-all

| | |
|---|---|
| Synopsis | Block all requests as the default URL filter action |
| Context | **configure** application-assurance group *number* url-filter *named-item* default-action block-all |
| Tree | block-all |
| Description | When configured, the router blocks all requests as the default URL filter action when the URL filter cannot be used. |
| Notes | The following elements are part of a choice: **allow**, **block-all**, or **block-http-redirect**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## block-http-redirect *reference*

| | |
|---|---|
| Synopsis | HTTP URL name for block and redirect request action |
| Context | **configure** application-assurance group *number* url-filter *named-item* default-action block-http-redirect *reference* |
| Tree | block-http-redirect |
| Description | This command specifies the URL that the user is directed to when the router blocks traffic. The information page can be different from the page the user is redirected to when the site that the user tried to access is found in the URL filter. This page is configured using the **configure application-assurance group url-filter http-redirect** command. |
| Reference | **configure** application-assurance group *number* http-redirect *named-item* |
| Notes | The following elements are part of a choice: **allow**, **block-all**, or **block-http-redirect**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** application-assurance group *number* url-filter *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **http-redirect** *reference*

| | |
|---|---|
| Synopsis | HTTP redirect for a blocked HTTP request |
| Context | **configure** application-assurance group *number* url-filter *named-item* http-redirect *reference* |
| Tree | http-redirect |
| Reference | **configure** application-assurance group *number* http-redirect *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **http-request-filtering** *keyword*

| | |
|---|---|
| Synopsis | HTTP filtering for all HTTP requests |
| Context | **configure** application-assurance group *number* url-filter *named-item* http-request-filtering *keyword* |
| Tree | http-request-filtering |
| Options | all, first |
| Default | all |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **icap**

| | |
|---|---|
| Synopsis | Enter the **icap** context |
| Context | **configure** application-assurance group *number* url-filter *named-item* icap |
| Tree | icap |


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| | |
|---|---|
| Description | Commands in this context configure the URL filter ICAP policy fields. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **custom-x-header** *named-item*

| | |
|---|---|
| Synopsis | Custom x-header field name to include in ICAP requests |
| Context | **configure** application-assurance group *number* url-filter *named-item* icap custom-x-header *named-item* |
| Tree | custom-x-header |
| Description | This command configures the URL filter ICAP policy to include a new x-header field; the content of the x-header is populated based on the AQP URL filter action which can optionally specify the ASO characteristic value to include in the x-header. |
| String length | 1 to 32 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **default-action**

| | |
|---|---|
| Synopsis | Enter the **default-action** context |
| Context | **configure** application-assurance group *number* url-filter *named-item* icap default-action |
| Tree | default-action |
| Description | Commands in this context configure a default action for the URL filter. The default action takes effect when the URL filter cannot be used. This may happen when all TCP connections are busy or down. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **allow**

| | |
|---|---|
| Synopsis | Allow all requests as the default action |
| Context | **configure** application-assurance group *number* url-filter *named-item* icap default-action allow |
| Tree | allow |
| Description | When configured, this command allows all traffic when the URL filter cannot be used. |
| Notes | The following elements are part of a choice: **allow**, **block-all**, or **block-http-redirect**. |


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| | |
|---|---|
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## block-all

| | |
|---|---|
| Synopsis | Block all requests as the default action |
| Context | **configure** application-assurance group *number* url-filter *named-item* icap default-action block-all |
| Tree | block-all |
| Description | When configured, this command blocks all traffic when the URL filter cannot be used. |
| Notes | The following elements are part of a choice: **allow**, **block-all**, or **block-http-redirect**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## block-http-redirect *reference*

| | |
|---|---|
| Synopsis | HTTP URL for redirection when URL filter cannot be used |
| Context | **configure** application-assurance group *number* url-filter *named-item* icap default-action block-http-redirect *reference* |
| Tree | block-http-redirect |
| Description | This command blocks traffic and redirects the user to an information page, which can be different than the page the user is redirected to when the site they attempted to access was found in the URL filter; this page is configured using the **configure application-assurance group url-filter http-redirect** command. |
| Reference | **configure** application-assurance group *number* http-redirect *named-item* |
| Notes | The following elements are part of a choice: **allow**, **block-all**, or **block-http-redirect**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## http-redirect *reference*

| | |
|---|---|
| Synopsis | HTTP redirect object used when ICAP blocks HTTP request |
| Context | **configure** application-assurance group *number* url-filter *named-item* icap http-redirect *reference* |
| Tree | http-redirect |
| Reference | **configure** application-assurance group *number* http-redirect *named-item* |


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| | |
|---|---|
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **server** [ip-address] *(ipv4-address-no-zone | ipv6-address-no-zone)* port *number*

| | |
|---|---|
| Synopsis | Enter the **server** list instance |
| Context | **configure** application-assurance group *number* url-filter *named-item* icap server *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* |
| Tree | server |
| Description | Commands in this context configure the IP address and server port of the ICAP server.<br>In the current release, the system supports IPv4 addresses only for the ICAP server. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**ip-address**] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | ICAP server IP address |
| Context | **configure** application-assurance group *number* url-filter *named-item* icap server *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* |
| Tree | server |
| Description | This command configures the ICAP server address.<br>In the current release, the system supports IPv4 addresses only for the ICAP server. |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **port** *number*

| | |
|---|---|
| Synopsis | ICAP server port |
| Context | **configure** application-assurance group *number* url-filter *named-item* icap server *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* |
| Tree | server |
| Range | 1 to 65535 |
| MD-CLI default | 1344 |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of this URL filter ICAP server |
| Context | **configure** application-assurance group *number* url-filter *named-item* icap server *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** application-assurance group *number* url-filter *named-item* icap server *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **vlan-id** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | VLAN ID of the ICAP server service port |
| Context | **configure** application-assurance group *number* url-filter *named-item* icap vlan-id *number* |
| Tree | vlan-id |
| Range | 1 to 4094 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## local-filtering

| | |
|---|---|
| Synopsis | Enter the **local-filtering** context |
| Context | **configure** application-assurance group *number* url-filter *named-item* local-filtering |
| Tree | local-filtering |
| Description | Commands in this context configure a URL filter policy for local filtering to filter traffic based on a list of URLs located on a file stored in the router compact flash. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## allow-list *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Local filtering URL list for allowed URLs |
| Context | **configure** application-assurance group *number* url-filter *named-item* local-filtering allow-list *reference* |
| Tree | allow-list |
| Reference | **configure** application-assurance group *number* url-list *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## deny-list [url-list-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **deny-list** list instance |
| Context | **configure** application-assurance group *number* url-filter *named-item* local-filtering deny-list *reference* |
| Tree | deny-list |
| Description | Commands in this context configure a list of denied URLs to be added to the local URL filter policy. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### [**url-list-name**] *reference*

| | |
|---|---|
| Synopsis | URL list name |
| Context | **configure** application-assurance group *number* url-filter *named-item* local-filtering deny-list *reference* |
| Tree | deny-list |
| Description | This command adds a deny-list URL list to the local URL filter policy. |
| Reference | **configure** application-assurance group *number* url-list *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### default-action

| | |
|---|---|
| Synopsis | Enter the **default-action** context |
| Context | **configure** application-assurance group *number* url-filter *named-item* local-filtering deny-list *reference* default-action |
| Tree | default-action |
| Description | Commands in this context configure a default action for the URL filter. The default action takes effect when the URL filter cannot be used. This may happen in the case of a local URL list when the URL list is disabled or the file is not loaded due to an error. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### allow

| | |
|---|---|
| Synopsis | Allow all requests as the default action |
| Context | **configure** application-assurance group *number* url-filter *named-item* local-filtering deny-list *reference* default-action allow |
| Tree | allow |
| Description | This command allows all traffic when the URL filter cannot be used. |
| Notes | The following elements are part of a choice: **allow**, **block-all**, or **block-http-redirect**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## block-all

| | |
|---|---|
| Synopsis | Block all requests as the default action |
| Context | **configure** application-assurance group *number* url-filter *named-item* local-filtering deny-list *reference* default-action block-all |
| Tree | block-all |
| Description | This command blocks all traffic when the URL filter cannot be used. |
| Notes | The following elements are part of a choice: **allow**, **block-all**, or **block-http-redirect**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## block-http-redirect *reference*

| | |
|---|---|
| Synopsis | HTTP URL for redirection when URL filter cannot be used |
| Context | **configure** application-assurance group *number* url-filter *named-item* local-filtering deny-list *reference* default-action block-http-redirect *reference* |
| Tree | block-http-redirect |
| Description | This command blocks traffic and redirects the user to an information page, which can be different than the page the user is redirected to when the site they attempted to access was found in the URL filter; this page is configured using the **configure application-assurance group url-filter http-redirect** command. |
| Reference | **configure** application-assurance group *number* http-redirect *named-item* |
| Notes | The following elements are part of a choice: **allow**, **block-all**, or **block-http-redirect**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## http-redirect *reference*

| | |
|---|---|
| Synopsis | HTTP redirect object applied to blocked HTTP requests |
| Context | **configure** application-assurance group *number* url-filter *named-item* local-filtering deny-list *reference* http-redirect *reference* |
| Tree | http-redirect |
| Reference | **configure** application-assurance group *number* http-redirect *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## web-service

| | |
|---|---|
| Synopsis | Enter the **web-service** context |
| Context | **configure** application-assurance group *number* url-filter *named-item* web-service |
| Tree | web-service |
| Description | Commands in this context configure the URL filter policy using web-service filtering. The operator must configure the web service, hostname, DNS server to use, the AA interface VLAN ID, and provision the category profiles. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## category-set *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Web service category ID |
| Context | **configure** application-assurance group *number* url-filter *named-item* web-service category-set *number* |
| Tree | category-set |
| Range | 1 to 65535 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## classification-overrides

| | |
|---|---|
| Synopsis | Enter the **classification-overrides** context |
| Context | **configure** application-assurance group *number* url-filter *named-item* web-service classification-overrides |
| Tree | classification-overrides |
| Description | Commands in this context create a classification override and allow the operator to manually set the category of a hostname. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **entry** [entry-id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** application-assurance group *number* url-filter *named-item* web-service classification-overrides entry *number* |
| Tree | entry |
| Description | Commands in this context configure a classification override, manually setting the category of a hostname. |
| Max. instances | 200 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**entry-id**] *number*

| | |
|---|---|
| Synopsis | Classification override entry ID |
| Context | **configure** application-assurance group *number* url-filter *named-item* web-service classification-overrides entry *number* |
| Tree | entry |
| Range | 1 to 65535 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **category-name** *named-item*

| | |
|---|---|
| Synopsis | Web service category name |
| Context | **configure** application-assurance group *number* url-filter *named-item* web-service classification-overrides entry *number* category-name *named-item* |
| Tree | category-name |
| String length | 1 to 32 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **expression** *display-string*

| | |
|---|---|
| Synopsis | Hostname of the configured override category |
| Context | **configure** application-assurance group *number* url-filter *named-item* web-service classification-overrides entry *number* expression *display-string* |
| Tree | expression |
| String length | 1 to 255 |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **classifier** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Web service classifier |
| Context | **configure** application-assurance group *number* url-filter *named-item* web-service classifier *keyword* |
| Tree | classifier |
| Options | web-service-1 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **default-action**

| | |
|---|---|
| Synopsis | Enter the **default-action** context |
| Context | **configure** application-assurance group *number* url-filter *named-item* web-service default-action |
| Tree | default-action |
| Description | Commands in this context configure a default action for the URL filter. The default action takes effect when the URL filter cannot be used. This may happen when all TCP connections are busy or down. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## allow

| | |
|---|---|
| Synopsis | Allow all requests as the default action |
| Context | **configure** application-assurance group *number* url-filter *named-item* web-service default-action allow |
| Tree | allow |
| Description | This command allows all traffic when the web service is unavailable. |
| Notes | The following elements are part of a choice: **allow**, **block-all**, or **block-http-redirect**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## block-all

| | |
|---|---|
| Synopsis | Block all requests as the default action |
| Context | **configure** application-assurance group *number* url-filter *named-item* web-service default-action block-all |
| Tree | block-all |
| Description | This command blocks all traffic when the web service is unavailable. |
| Notes | The following elements are part of a choice: **allow**, **block-all**, or **block-http-redirect**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## block-http-redirect *reference*

| | |
|---|---|
| Synopsis | HTTP URL for redirection when traffic is blocked |
| Context | **configure** application-assurance group *number* url-filter *named-item* web-service default-action block-http-redirect *reference* |
| Tree | block-http-redirect |
| Description | This command specifies the HTTP URL to be redirected to when traffic is blocked. This URL can be different than the URL the user is redirected to when the site they attempted to access was found in the URL filter (which is configured in the **configure application-assurance group url-filter http-redirect** command). |
| Reference | **configure** application-assurance group *number* http-redirect *named-item* |
| Notes | The following elements are part of a choice: **allow**, **block-all**, or **block-http-redirect**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **default-profile** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Web service default profile |
| Context | **configure** application-assurance group *number* url-filter *named-item* web-service default-profile *reference* |
| Tree | default-profile |
| Reference | **configure** application-assurance group *number* url-filter *named-item* web-service profile *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **dns-server** *(ipv4-address-no-zone | ipv6-address-no-zone)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Web service DNS server |
| Context | **configure** application-assurance group *number* url-filter *named-item* web-service dns-server *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | dns-server |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **fqdn** *display-string*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Web service fully qualified domain name |
| Context | **configure** application-assurance group *number* url-filter *named-item* web-service fqdn *display-string* |
| Tree | fqdn |
| String length | 1 to 255 |


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| | |
|---|---|
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **http-redirect** *reference*

| | |
|---|---|
| Synopsis | Web service HTTP redirect |
| Context | **configure** application-assurance group *number* url-filter *named-item* web-service http-redirect *reference* |
| Tree | http-redirect |
| Reference | **configure** application-assurance group *number* http-redirect *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **profile** [profile-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **profile** list instance |
| Context | **configure** application-assurance group *number* url-filter *named-item* web-service profile *named-item* |
| Tree | profile |
| Description | Commands in this context configure the category profiles of the web service. |
| Max. instances | 8 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**profile-name**] *named-item*

| | |
|---|---|
| Synopsis | Web service profile name |
| Context | **configure** application-assurance group *number* url-filter *named-item* web-service profile *named-item* |
| Tree | profile |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## block

| | |
|---|---|
| Synopsis | Enter the **block** context |
| Context | **configure** application-assurance group *number* url-filter *named-item* web-service profile *named-item* block |
| Tree | block |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **category** [category-name] *web-serv-category-name*

| | |
|---|---|
| Synopsis | Add a list entry for **category** |
| Context | **configure** application-assurance group *number* url-filter *named-item* web-service profile *named-item* block category *web-serv-category-name* |
| Tree | category |
| Description | Commands in this context configure the category that is blocked in the category profile. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## [**category-name**] *web-serv-category-name*

| | |
|---|---|
| Synopsis | Web service profile category name to be blocked |
| Context | **configure** application-assurance group *number* url-filter *named-item* web-service profile *named-item* block category *web-serv-category-name* |
| Tree | category |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** application-assurance group *number* url-filter *named-item* web-service profile *named-item* description *description* |
| Tree | description |


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| | |
|---|---|
| String length | 1 to 80 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **server** [ip-address] *(ipv4-address-no-zone | ipv6-address-no-zone)* port *number*

| | |
|---|---|
| Synopsis | Enter the **server** list instance |
| Context | **configure** application-assurance group *number* url-filter *named-item* web-service server *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* |
| Tree | server |
| Max. instances | 4 |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**ip-address**] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | AA web service server IP address |
| Context | **configure** application-assurance group *number* url-filter *named-item* web-service server *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* |
| Tree | server |
| Notes | This element is part of a list key. |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **port** *number*

| | |
|---|---|
| Synopsis | AA web service server port |
| Context | **configure** application-assurance group *number* url-filter *named-item* web-service server *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* |
| Tree | server |
| Range | 1 to 65535 |
| MD-CLI default | 8080 |
| Notes | This element is part of a list key. |
| Introduced | 23.3.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of URL filter web service server |
| Context | **configure** application-assurance group *number* url-filter *named-item* web-service server *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** application-assurance group *number* url-filter *named-item* web-service server *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **vlan-id** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Web-service VLAN ID |
| Context | **configure** application-assurance group *number* url-filter *named-item* web-service vlan-id *number* |
| Tree | vlan-id |
| Description | This command configures the VLAN ID on which the AA ISA emits the traffic mapping to a preconfigured AA interface. |
| Range | 1 to 4094 |
| Introduced | 21.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **url-list** [url-list-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **url-list** list instance |
| Context | **configure** application-assurance group *number* url-list *named-item* |
| Tree | url-list |
| Description | Commands in this context configure a URL list object. The URL list points to a file containing a list of URLs located on the system Compact Flash and is then referenced in a URL filter object to filter and redirect subscribers when a URL from this file is accessed. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**url-list-name**] *named-item*

| | |
|---|---|
| Synopsis | URL list name |
| Context | **configure** application-assurance group *number* url-list *named-item* |
| Tree | url-list |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the URL list |
| Context | **configure** application-assurance group *number* url-list *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** application-assurance group *number* url-list *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **file** *display-string*

| | |
|---|---|
| Synopsis | File name of the URL list on compact flash |
| Context | **configure** application-assurance group *number* url-list *named-item* file *display-string* |
| Tree | file |
| String length | 1 to 180 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **host-expressions** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Allow URL list to contain hostnames with wildcards |
| Context | **configure** application-assurance group *number* url-list *named-item* host-expressions *boolean* |
| Tree | host-expressions |
| Description | When configured to **true**, this command adds hostnames with wildcards to the URL list.<br>When configured to **false**, the URL list containing hostnames with wildcards is removed from the configuration. |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **key** *encrypted-leaf*

| | |
|---|---|
| Synopsis | URL list decryption key |
| Context | **configure** application-assurance group *number* url-list *named-item* key *encrypted-leaf* |
| Tree | key |
| Description | This command configures the secret key for decrypting the URL list. |
| String length | 1 to 115 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **size** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Size limit of the URL list |
| Context | **configure** application-assurance group *number* url-list *named-item* size *keyword* |
| Tree | size |
| Options | standard, extended |
| Default | standard |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **http-enrich**

| | |
|---|---|
| Synopsis | Enter the **http-enrich** context |
| Context | **configure** application-assurance http-enrich |
| Tree | http-enrich |
| Description | Commands in this context should not be used by the operators. Configuring them has no effect. Operators should use the commands in the **application-assurance group** context. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **field** [field-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **field** list instance |
| Context | **configure** application-assurance http-enrich field *named-item* |
| Tree | field |
| Description | Commands in this context should not be used by the operators. Configuring them has no effect. Operators should use the commands in the **application-assurance group** context. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**field-name**] *named-item*

| | |
|---|---|
| Synopsis | HTTP enrich field name (void, do not use) |
| Context | **configure** application-assurance http-enrich field *named-item* |
| Tree | field |
| Description | This command should not be used by the operators. Configuring it has no effect. Operators should use the commands in the **application-assurance group** context. |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **comment** *named-item*

| | |
|---|---|
| Synopsis | User information comment |
| Context | **configure** application-assurance http-enrich field *named-item* comment *named-item* |
| Tree | comment |
| String length | 1 to 32 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **http-error-redirect**

| | |
|---|---|
| Synopsis | Enter the **http-error-redirect** context |
| Context | **configure** application-assurance http-error-redirect |


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| | |
|---|---|
| Tree | http-error-redirect |
| Description | Commands in this context should not be used by the operators. Configuring them has no effect. Operators should use the commands in the **application-assurance group** context. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **error-code** [error-code-number] *number*

| | |
|---|---|
| Synopsis | Enter the **error-code** list instance |
| Context | **configure** application-assurance http-error-redirect error-code *number* |
| Tree | error-code |
| Description | Commands in this context should not be used by the operators. Configuring them has no effect. Operators should use the commands in the **application-assurance group** context. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**error-code-number**] *number*

| | |
|---|---|
| Synopsis | Error code for HTTP error redirection |
| Context | **configure** application-assurance http-error-redirect error-code *number* |
| Tree | error-code |
| Range | 400 to 999 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **comment** *named-item*

| | |
|---|---|
| Synopsis | User information comment |
| Context | **configure** application-assurance http-error-redirect error-code *number* comment *named-item* |
| Tree | comment |
| String length | 1 to 32 |
| Introduced | 21.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **template** [template-id] *number*

| | |
|---|---|
| Synopsis | Enter the **template** list instance |
| Context | **configure** application-assurance http-error-redirect template *number* |
| Tree | template |
| Description | Commands in this context should not be used by the operators. Configuring them has no effect. Operators should use the commands in the **application-assurance group** context. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**template-id**] *number*

| | |
|---|---|
| Synopsis | HTTP error redirect template ID |
| Context | **configure** application-assurance http-error-redirect template *number* |
| Tree | template |
| Max. range | 0 to 4294967295 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **comment** *named-item*

| | |
|---|---|
| Synopsis | User information comment |
| Context | **configure** application-assurance http-error-redirect template *number* comment *named-item* |
| Tree | comment |
| String length | 1 to 32 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **http-notification**

| | |
|---|---|
| Synopsis | Enter the **http-notification** context |


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| | |
|---|---|
| Context | **configure** application-assurance http-notification |
| Tree | http-notification |
| Description | Commands in this context should not be used by the operators. Configuring them has no effect. Operators should use the commands in the **application-assurance group** context. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **template** [template-id] *number*

| | |
|---|---|
| Synopsis | Enter the **template** list instance |
| Context | **configure** application-assurance http-notification template *number* |
| Tree | template |
| Description | Commands in this context should not be used by the operators. Configuring them has no effect. Operators should use the commands in the **application-assurance group** context. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## [**template-id**] *number*

| | |
|---|---|
| Synopsis | HTTP notification template ID |
| Context | **configure** application-assurance http-notification template *number* |
| Tree | template |
| Max. range | 0 to 4294967295 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **comment** *named-item*

| | |
|---|---|
| Synopsis | User information comment |
| Context | **configure** application-assurance http-notification template *number* comment *named-item* |
| Tree | comment |
| String length | 1 to 32 |


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| | |
|---|---|
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## http-redirect

| | |
|---|---|
| Synopsis | Enter the **http-redirect** context |
| Context | **configure** application-assurance http-redirect |
| Tree | http-redirect |
| Description | Commands in this context should not be used by the operators. Configuring them has no effect. Operators should use the commands in the **application-assurance group** context. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **template** [template-id] *number*

| | |
|---|---|
| Synopsis | Enter the **template** list instance |
| Context | **configure** application-assurance http-redirect template *number* |
| Tree | template |
| Description | Commands in this context should not be used by the operators. Configuring them has no effect. Operators should use the commands in the **application-assurance group** context. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## [**template-id**] *number*

| | |
|---|---|
| Synopsis | HTTP redirect template ID |
| Context | **configure** application-assurance http-redirect template *number* |
| Tree | template |
| Description | This command specifies the HTTP policy redirect template ID.<br>The available options are:<br>**1** - JavaScript based redirect embedded in HTTP 200 OK response with a predefined number of arguments automatically appended to the redirect URL<br>**2** - HTTP 302 redirect with a predefined number of arguments automatically appended to the redirect URL<br>**3** - HTTP 302 redirect with no parameters appended to the URL (empty) |


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| | |
|---|---|
| | **4** - Empty redirect format using JavaScript<br>**5** - Redirect supporting macro substitution using HTTP 302<br>**6** - Redirect supporting macro substitution using JavaScript |
| Max. range | 0 to 4294967295 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **comment** *named-item*

| | |
|---|---|
| Synopsis | User information comment |
| Context | **configure** application-assurance http-redirect template *number* comment *named-item* |
| Tree | comment |
| String length | 1 to 32 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **protocol** [protocol-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **protocol** list instance |
| Context | **configure** application-assurance protocol *named-item* |
| Tree | protocol |
| Description | Commands in this context configure the administrative state of system-wide protocols.Some protocols are always enabled and cannot be disabled. These are "base protocols" that were present in R1 of the release.Some protocols are disabled by default and can be enabled. There are protocols that were introduced post R1, which are all enabled by default but may be disabled if not desired. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**protocol-name**] *named-item*

| | |
|---|---|
| Synopsis | AA protocol name |
| Context | **configure** application-assurance protocol *named-item* |
| Tree | protocol |
| String length | 1 to 32 |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the protocol |
| Context | **configure** application-assurance protocol *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **radius-accounting-policy** [rad-acct-plcy-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **radius-accounting-policy** list instance |
| Context | **configure** application-assurance radius-accounting-policy *named-item* |
| Tree | radius-accounting-policy |
| Description | Commands in this context configure an existing subscriber RADIUS-based accounting policy to use for AA. RADIUS accounting policies are configured in the **configure application-assurance radius-accounting-policy** context. |
| Max. instances | 8 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**rad-acct-plcy-name**] *named-item*

| | |
|---|---|
| Synopsis | AA RADIUS accounting policy name |
| Context | **configure** application-assurance radius-accounting-policy *named-item* |
| Tree | radius-accounting-policy |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** application-assurance radius-accounting-policy *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **interim-update-interval** *number*

| | |
|---|---|
| Synopsis | AA RADIUS accounting policy interim update interval |
| Context | **configure** application-assurance radius-accounting-policy *named-item* interim-update-interval *number* |
| Tree | interim-update-interval |
| Range | 5 to 1080 |
| Units | minutes |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **radius-accounting-server**

| | |
|---|---|
| Synopsis | Enter the **radius-accounting-server** context |
| Context | **configure** application-assurance radius-accounting-policy *named-item* radius-accounting-server |
| Tree | radius-accounting-server |
| Description | Commands in this context configure an existing subscriber RADIUS-based accounting policy to use for AA. RADIUS accounting policies are configured in the **configure application-assurance radius-accounting-policy** context. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **access-algorithm** *keyword*

| | |
|---|---|
| Synopsis | Access algorithm for the list of RADIUS servers |


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| | |
|---|---|
| Context | **configure** application-assurance radius-accounting-policy *named-item* radius-accounting-server access-algorithm *keyword* |
| Tree | access-algorithm |
| Options | direct, round-robin |
| Default | direct |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **retry** *number*

| | |
|---|---|
| Synopsis | Number of retries for contacting the RADIUS server |
| Context | **configure** application-assurance radius-accounting-policy *named-item* radius-accounting-server retry *number* |
| Tree | retry |
| Range | 1 to 10 |
| Default | 3 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **router-instance** *string*

| | |
|---|---|
| Synopsis | Router or VPRN service name |
| Context | **configure** application-assurance radius-accounting-policy *named-item* radius-accounting-server router-instance *string* |
| Tree | router-instance |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **server** [server-index] *number*

| | |
|---|---|
| Synopsis | Enter the **server** list instance |
| Context | **configure** application-assurance radius-accounting-policy *named-item* radius-accounting-server server *number* |
| Tree | server |
| Description | Commands in this context configure the RADIUS server and the RADIUS server IP address, index, and key values. |


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RADIUS servers are accessed in order from lowest to highest index for authentication requests until a response from a server is received. A higher indexed server is only queried if no response is received from a lower indexed server (which implies that the server is not available). If a response from a server is received, no other RADIUS servers are queried.

| | |
|---|---|
| Max. instances | 5 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**server-index**] *number*

| | |
|---|---|
| Synopsis | RADIUS accounting server index |
| Context | **configure** application-assurance radius-accounting-policy *named-item* radius-accounting-server server *number* |
| Tree | server |
| Description | This command configures the index for the RADIUS server. The index determines the sequence in which the servers are queried for authentication requests. Servers are queried in order from lowest to highest index. |
| Range | 1 to 5 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | RADIUS server IP address |
| Context | **configure** application-assurance radius-accounting-policy *named-item* radius-accounting-server server *number* address *ipv4-unicast-address* |
| Tree | address |
| Description | This command configures the IP address of the RADIUS server. Two RADIUS servers cannot have the same IP address. An error message is generated if the server address is a duplicate. |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **port** *number*

| | |
|---|---|
| Synopsis | RADIUS server UDP port used for authentication |
| Context | **configure** application-assurance radius-accounting-policy *named-item* radius-accounting-server server *number* port *number* |
| Tree | port |
| Range | 1 to 65535 |
| Default | 1813 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **secret** *encrypted-leaf*

| | |
|---|---|
| Synopsis | RADIUS server secret key |
| Context | **configure** application-assurance radius-accounting-policy *named-item* radius-accounting-server server *number* secret *encrypted-leaf* |
| Tree | secret |
| Description | This command configures the secret key to access the RADIUS server. This secret key must match the password on the RADIUS server. |
| String length | 1 to 54 |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **source-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Source IP address of RADIUS packets |
| Context | **configure** application-assurance radius-accounting-policy *named-item* radius-accounting-server source-address *ipv4-unicast-address* |
| Tree | source-address |
| Description | This command configures the source IP address of the RADIUS packet.<br>The system IP address must be configured for the RADIUS client to work. The system IP address must only be configured if the source address is not specified. When this command reverts to its default, the source address is determined at the moment the request is sent.<br>This address is also used in the **nas-ip-address** command in the **configure aaa radius isa-policy accounting include-attributes** and **configure aaa radius isa-policy** |


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| | |
|---|---|
| | **authentication include-attributes** contexts as it is set to the system IP address if no source address was given. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **timeout** *number*

| | |
|---|---|
| Synopsis | RADIUS accounting server response timeout |
| Context | **configure** application-assurance radius-accounting-policy *named-item* radius-accounting-server timeout *number* |
| Tree | timeout |
| Range | 1 to 90 |
| Units | seconds |
| Default | 5 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **significant-change** *number*

| | |
|---|---|
| Synopsis | Change delta for RADIUS accounting record updates |
| Context | **configure** application-assurance radius-accounting-policy *named-item* significant-change *number* |
| Tree | significant-change |
| Description | This command configures the number of changes required to generate the record. |
| Range | 1 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **usage-alert-thresholds**

| | |
|---|---|
| Synopsis | Enter the **usage-alert-thresholds** context |
| Context | **configure** application-assurance usage-alert-thresholds |
| Tree | usage-alert-thresholds |
| Description | Commands in this context configure the AA performance monitoring alerts. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **bit-rate-high-wmark** *(number | keyword)*

| | |
|---|---|
| Synopsis | High watermark for bit rate alarms |
| Context | **configure** application-assurance usage-alert-thresholds bit-rate-high-wmark *(number \| keyword)* |
| Tree | bit-rate-high-wmark |
| Description | This command configures the high watermark for bit rate alarms. The value must be larger than or equal to the low watermark value. |
| Range | 1 to 100000 |
| Units | megabps |
| Options | max |
| Default | max |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **bit-rate-low-wmark** *number*

| | |
|---|---|
| Synopsis | Low watermark for bit rate alarms |
| Context | **configure** application-assurance usage-alert-thresholds bit-rate-low-wmark *number* |
| Tree | bit-rate-low-wmark |
| Description | This command configures the utilization of the flow records on the ISA-AA group when the full alarm is cleared by the agent. |
| Range | 0 to 99999 |
| Default | 0 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **datapath-cpu-high-wmark** *(number | keyword)*

| | |
|---|---|
| Synopsis | High watermark for datapath CPU alarms |
| Context | **configure** application-assurance usage-alert-thresholds datapath-cpu-high-wmark *(number \| keyword)* |
| Tree | datapath-cpu-high-wmark |
| Description | This command configures the system-wide high watermark threshold as a percentage of the per-ISA datapath core CPU utilization, where an alarm is raised by the agent. CPU usage is the average usage across all datapath cores. |


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| | |
|---|---|
| Range | 0 to 100 |
| Units | percent |
| Options | max |
| Default | 95 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **datapath-cpu-low-wmark** *number*

| | |
|---|---|
| Synopsis | Low watermark for datapath CPU alarms |
| Context | **configure** application-assurance usage-alert-thresholds datapath-cpu-low-wmark *number* |
| Tree | datapath-cpu-low-wmark |
| Description | This command configures the system-wide low watermark threshold as a percentage of the per-ISA datapath core CPU utilization, where an alarm is raised by the agent. CPU usage is the average usage across all datapath cores. |
| Range | 0 to 100 |
| Units | percent |
| Default | 90 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **flow-setup-rate-high-wmark** *(number | keyword)*

| | |
|---|---|
| Synopsis | High watermark for flow setup rate |
| Context | **configure** application-assurance usage-alert-thresholds flow-setup-rate-high-wmark *(number | keyword)* |
| Tree | flow-setup-rate-high-wmark |
| Description | This command configures the system-wide high watermark threshold for per-ISA throughput in packets/second when an alarm is raised by the agent. The value must be larger than or equal to the **packet-rate-low-wmark** value. |
| Range | 1 to 2000000 |
| Options | max |
| Default | max |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **flow-setup-rate-low-wmark** *number*

| | |
|---|---|
| Synopsis | Low watermark for flow setup rate |
| Context | **configure** application-assurance usage-alert-thresholds flow-setup-rate-low-wmark *number* |
| Tree | flow-setup-rate-low-wmark |
| Description | This command configures the flow setup rate on the ISA-AA when a flow setup alarm is raised by the agent. |
| Range | 0 to 1999999 |
| Default | 0 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **flow-table-high-wmark** *number*

| | |
|---|---|
| Synopsis | Flow table high watermark |
| Context | **configure** application-assurance usage-alert-thresholds flow-table-high-wmark *number* |
| Tree | flow-table-high-wmark |
| Description | This command configures the system-wide high watermark threshold as a percentage of the flow table size for the per-ISA utilization of the flow records when a full alarm is raised by the agent. |
| Range | 0 to 100 |
| Units | percent |
| Default | 95 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **flow-table-low-wmark** *number*

| | |
|---|---|
| Synopsis | Flow table low watermark |
| Context | **configure** application-assurance usage-alert-thresholds flow-table-low-wmark *number* |
| Tree | flow-table-low-wmark |
| Description | This command configures the system-wide low watermark threshold as a percentage of the flow table size for per-ISA. |
| Range | 0 to 100 |
| Units | percent |


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| | |
|---|---|
| Default | 90 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **packet-rate-high-wmark** *(number | keyword)*

| | |
|---|---|
| Synopsis | Packet rate high watermark |
| Context | **configure** application-assurance usage-alert-thresholds packet-rate-high-wmark *(number | keyword)* |
| Tree | packet-rate-high-wmark |
| Description | This command configures the packet rate on the ISA-AA when a packet rate alarm is raised by the agent. |
| Range | 1 to 148809524 |
| Options | max |
| Default | max |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **packet-rate-low-wmark** *number*

| | |
|---|---|
| Synopsis | Packet rate low watermark |
| Context | **configure** application-assurance usage-alert-thresholds packet-rate-low-wmark *number* |
| Tree | packet-rate-low-wmark |
| Description | This command configures the packet rate on the ISA-AA when a packet rate alarm is cleared by the agent. |
| Range | 0 to 148809523 |
| Default | 0 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## 4.4 aps commands

```
configure
   –  aps number
      –  advertise-interval number
      –  annexb
         –  wait-to-restore-time number
         –  working-circuit reference
      –  apply-groups reference
      –  apply-groups-exclude reference
      –  hold-time number
      –  neighbor (ipv4-address-no-zone | ipv6-address-no-zone)
      –  protect-circuit reference
      –  revert
         –  time number
      –  switching-mode keyword
      –  working-circuit reference
```


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### 4.4.1 aps command descriptions

#### **aps** [group-id] *number*

| | |
|---|---|
| Synopsis | Enter the **aps** list instance |
| Context | **configure** aps *number* |
| Tree | aps |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

#### [**group-id**] *number*

| | |
|---|---|
| Synopsis | APS group ID |
| Context | **configure** aps *number* |
| Tree | aps |
| Range | 1 to 128 |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

#### **advertise-interval** *number*

| | |
|---|---|
| Synopsis | Time between subsequent advertisement messages |
| Context | **configure** aps *number* advertise-interval *number* |
| Tree | advertise-interval |
| Range | 10 to 650 |
| Units | deciseconds |
| Default | 10 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

#### **annexb**

| | |
|---|---|
| Synopsis | Enable the **annexb** context |
| Context | **configure** aps *number* annexb |


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| | |
|---|---|
| Tree | annexb |
| Notes | The following elements are part of a choice: **annexb** or (**neighbor**, **protect-circuit**, **revert**, and **working-circuit**). |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **wait-to-restore-time** *number*

| | |
|---|---|
| Synopsis | Annex B mode operation wait to restore time |
| Context | **configure** aps *number* annexb wait-to-restore-time *number* |
| Tree | wait-to-restore-time |
| Description | This command specifies the delay after which the newly active section becomes the primary section after a switchover from the primary section to the secondary section occurs and the switch request clears normally. |
| Range | 0 to 3600 |
| Units | seconds |
| Default | 300 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **working-circuit** *reference*

| | |
|---|---|
| Synopsis | Working circuit port for the APS group |
| Context | **configure** aps *number* annexb working-circuit *reference* |
| Tree | working-circuit |
| Reference | **configure** port *port* |
| Max. instances | 2 |
| Notes | This element is ordered by the user. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **hold-time** *number*

| | |
|---|---|
| Synopsis | Time to wait for an advertisement packet |
| Context | **configure** aps *number* hold-time *number* |


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| | |
|---|---|
| Tree | hold-time |
| Range | 10 to 650 |
| Units | deciseconds |
| Default | 30 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **neighbor** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Neighbor IP address for multi-chassis APS |
| Context | **configure** aps *number* neighbor *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | neighbor |
| Notes | The following elements are part of a choice: **annexb** or (**neighbor**, **protect-circuit**, **revert**, and **working-circuit**). |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **protect-circuit** *reference*

| | |
|---|---|
| Synopsis | Protection circuit port for the APS group |
| Context | **configure** aps *number* protect-circuit *reference* |
| Tree | protect-circuit |
| Reference | **configure** port *port* |
| Notes | The following elements are part of a choice: **annexb** or (**neighbor**, **protect-circuit**, **revert**, and **working-circuit**). |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **revert**

| | |
|---|---|
| Synopsis | Enable the **revert** context |
| Context | **configure** aps *number* revert |
| Tree | revert |
| Notes | The following elements are part of a choice: **annexb** or (**neighbor**, **protect-circuit**, **revert**, and **working-circuit**). |


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| | |
|---|---|
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **time** *number*

| | |
|---|---|
| Synopsis | Wait time before switching back to the working circuit |
| Context | **configure** aps *number* revert time *number* |
| Tree | time |
| Range | 0 \| 60 to 3600 |
| Units | seconds |
| Default | 300 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **switching-mode** *keyword*

| | |
|---|---|
| Synopsis | Switching mode for the APS port |
| Context | **configure** aps *number* switching-mode *keyword* |
| Tree | switching-mode |
| Options | uni-directional, bi-directional |
| Default | bi-directional |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **working-circuit** *reference*

| | |
|---|---|
| Synopsis | Working circuit port for the APS group |
| Context | **configure** aps *number* working-circuit *reference* |
| Tree | working-circuit |
| Reference | **configure** port *port* |
| Notes | The following elements are part of a choice: **annexb** or (**neighbor**, **protect-circuit**, **revert**, and **working-circuit**). |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |


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## 4.5 bfd commands

```
configure
   - bfd
      - apply-groups reference
      - apply-groups-exclude reference
      - bfd-template named-item
         - apply-groups reference
         - apply-groups-exclude reference
         - echo-receive number
         - multiplier number
         - receive-interval number
         - transmit-interval number
         - type keyword
      - seamless-bfd
         - reflector named-item
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - discriminator number
            - local-state keyword
```


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## 4.5.1 bfd command descriptions

### bfd

| | |
|---|---|
| Synopsis | Enter the **bfd** context |
| Context | **configure** bfd |
| Tree | bfd |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bfd-template** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **bfd-template** list instance |
| Context | **configure** bfd bfd-template *named-item* |
| Tree | bfd-template |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | BFD template name |
| Context | **configure** bfd bfd-template *named-item* |
| Tree | bfd-template |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **echo-receive** *number*

| | |
|---|---|
| Synopsis | Echo receive interval |
| Context | **configure** bfd bfd-template *named-item* echo-receive *number* |
| Tree | echo-receive |
| Range | 100 to 100000 |
| Units | milliseconds |


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| | |
|---|---|
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **multiplier** *number*

| | |
|---|---|
| Synopsis | Detection multiplier |
| Context | **configure** bfd bfd-template *named-item* multiplier *number* |
| Tree | multiplier |
| Range | 1 to 20 |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **receive-interval** *number*

| | |
|---|---|
| Synopsis | Receive interval |
| Context | **configure** bfd bfd-template *named-item* receive-interval *number* |
| Tree | receive-interval |
| Range | 10 to 100000 |
| Units | milliseconds |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **transmit-interval** *number*

| | |
|---|---|
| Synopsis | Transmit interval |
| Context | **configure** bfd bfd-template *named-item* transmit-interval *number* |
| Tree | transmit-interval |
| Range | 10 to 100000 |
| Units | milliseconds |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **type** *keyword*

| | |
|---|---|
| Synopsis | Local termination point for the BFD session |
| Context | **configure** bfd bfd-template *named-item* type *keyword* |
| Tree | type |
| Options | cpm-np, fp |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **seamless-bfd**

| | |
|---|---|
| Synopsis | Enter the **seamless-bfd** context |
| Context | **configure** bfd seamless-bfd |
| Tree | seamless-bfd |
| Introduced | 19.7.R1 |
| Platforms | All |

### **reflector** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **reflector** list instance |
| Context | **configure** bfd seamless-bfd reflector *named-item* |
| Tree | reflector |
| Max. instances | 1 |
| Introduced | 19.7.R1 |
| Platforms | All |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | S-BFD reflector name |
| Context | **configure** bfd seamless-bfd reflector *named-item* |
| Tree | reflector |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 19.7.R1 |


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| | |
|---|---|
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the seamless BFD reflector |
| Context | **configure** bfd seamless-bfd reflector *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 19.7.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** bfd seamless-bfd reflector *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 19.7.R1 |
| Platforms | All |

### **discriminator** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Discriminator of the seamless BFD reflector |
| Context | **configure** bfd seamless-bfd reflector *named-item* discriminator *number* |
| Tree | discriminator |
| Range | 80000 to 82047 \| 524288 to 526335 |
| Introduced | 19.7.R1 |
| Platforms | All |


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### **local-state** *keyword*

| | |
|---|---|
| Synopsis | Local state of the seamless BFD reflector |
| Context | **configure** bfd seamless-bfd reflector *named-item* local-state *keyword* |
| Tree | local-state |
| Options | admin-down, up |
| Default | up |
| Introduced | 19.7.R1 |
| Platforms | All |


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## 4.6 bmp commands

```
configure
   –  bmp
      –  admin-state keyword
      –  apply-groups reference
      –  apply-groups-exclude reference
      –  collector
         –  admin-state keyword
         –  apply-groups reference
         –  apply-groups-exclude reference
         –  connection
            –  ipv4
               –  address ipv4-unicast-address
               –  port number
            –  ipv6
               –  address ipv6-unicast-address
               –  port number
      –  station named-item
         –  admin-state keyword
         –  apply-groups reference
         –  apply-groups-exclude reference
         –  connection
            –  connect-retry number
            –  local-address (ipv4-address-no-zone | ipv6-address-no-zone)
            –  router-instance string
            –  station-address
               –  ip-address (ipv4-address-no-zone | ipv6-address-no-zone)
               –  port number
            –  tcp-keepalive
               –  admin-state keyword
               –  keep-count number
               –  keep-idle number
               –  keep-interval number
         –  description description
         –  family
            –  evpn boolean
            –  ipv4 boolean
            –  ipv6 boolean
            –  l2-vpn boolean
            –  label-ipv4 boolean
            –  label-ipv6 boolean
            –  mcast-ipv4 boolean
            –  mcast-ipv6 boolean
            –  mcast-vpn-ipv4 boolean
            –  mcast-vpn-ipv6 boolean
            –  sr-policy-ipv4 boolean
            –  sr-policy-ipv6 boolean
            –  vpn-ipv4 boolean
            –  vpn-ipv6 boolean
         –  initiation-message string
         –  report-local-routes boolean
         –  stats-report-interval number
```


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## 4.6.1 bmp command descriptions

### bmp

| | |
|---|---|
| Synopsis | Enter the **bmp** context |
| Context | **configure** bmp |
| Tree | bmp |
| Introduced | 16.0.R1 |
| Platforms | All |

### admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the BMP operation |
| Context | **configure** bmp admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### collector

| | |
|---|---|
| Synopsis | Enter the **collector** context |
| Context | **configure** bmp collector |
| Tree | collector |
| Introduced | 19.10.R1 |
| Platforms | VSR-NRC |

### admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the BMP collector |
| Context | **configure** bmp collector admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |


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| | |
|---|---|
| Introduced | 19.10.R1 |
| Platforms | VSR-NRC |

## connection

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **connection** context |
| Context | **configure** bmp collector connection |
| Tree | connection |
| Introduced | 19.10.R1 |
| Platforms | VSR-NRC |

## ipv4

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |
| Context | **configure** bmp collector connection ipv4 |
| Tree | ipv4 |
| Introduced | 19.10.R1 |
| Platforms | VSR-NRC |

## address *ipv4-unicast-address*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IPv4 address |
| Context | **configure** bmp collector connection ipv4 address *ipv4-unicast-address* |
| Tree | address |
| Introduced | 19.10.R1 |


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| | |
|---|---|
| Platforms | VSR-NRC |

## **port** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IPv4 TCP destination port number |
| Context | **configure** bmp collector connection ipv4 port *number* |
| Tree | port |
| Range | 1 to 65535 |
| Default | 4210 |
| Introduced | 19.10.R1 |
| Platforms | VSR-NRC |

## **ipv6**

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **ipv6** context |
| Context | **configure** bmp collector connection ipv6 |
| Tree | ipv6 |
| Introduced | 19.10.R1 |
| Platforms | VSR-NRC |

## **address** *ipv6-unicast-address*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IPv6 address |
| Context | **configure** bmp collector connection ipv6 address *ipv6-unicast-address* |
| Tree | address |
| Introduced | 19.10.R1 |


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| | |
|---|---|
| Platforms | VSR-NRC |

### **port** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IPv6 TCP destination port |
| Context | **configure** bmp collector connection ipv6 port *number* |
| Tree | port |
| Range | 1 to 65535 |
| Default | 4210 |
| Introduced | 19.10.R1 |
| Platforms | VSR-NRC |

### **station** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **station** list instance |
| Context | **configure** bmp station *named-item* |
| Tree | station |
| Max. instances | 8 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | BMP monitoring station name |
| Context | **configure** bmp station *named-item* |
| Tree | station |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the BMP monitoring station |
| Context | **configure** bmp station *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **connection**

| | |
|---|---|
| Synopsis | Enter the **connection** context |
| Context | **configure** bmp station *named-item* connection |
| Tree | connection |
| Introduced | 16.0.R1 |
| Platforms | All |

### **connect-retry** *number*

| | |
|---|---|
| Synopsis | Maximum time between connection attempts |
| Context | **configure** bmp station *named-item* connection connect-retry *number* |
| Tree | connect-retry |
| Range | 1 to 65535 |
| Units | seconds |
| Default | 120 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **local-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Local IP address to communicate with monitoring station |
| Context | **configure** bmp station *named-item* connection local-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | local-address |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **router-instance** *string*

| | |
|---|---|
| Synopsis | Router instance used to reach the BMP station |
| Context | **configure** bmp station *named-item* connection router-instance *string* |
| Tree | router-instance |
| Default | Base |
| Introduced | 16.0.R4 |
| Platforms | All |

### **station-address**

| | |
|---|---|
| Synopsis | Enter the **station-address** context |
| Context | **configure** bmp station *named-item* connection station-address |
| Tree | station-address |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ip-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the remote BMP monitoring station |
| Context | **configure** bmp station *named-item* connection station-address ip-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | ip-address |
| Introduced | 16.0.R1 |
| Platforms | All |

### **port** *number*

| | |
|---|---|
| Synopsis | BMP monitoring station port |
| Context | **configure** bmp station *named-item* connection station-address port *number* |
| Tree | port |
| Range | 1 to 65535 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## tcp-keepalive

| | |
|---|---|
| Synopsis | Enter the **tcp-keepalive** context |
| Context | **configure** bmp station *named-item* connection tcp-keepalive |
| Tree | tcp-keepalive |
| Introduced | 16.0.R1 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the TCP keepalive |
| Context | **configure** bmp station *named-item* connection tcp-keepalive admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

## keep-count *number*

| | |
|---|---|
| Synopsis | Keepalive threshold before connection is declared down |
| Context | **configure** bmp station *named-item* connection tcp-keepalive keep-count *number* |
| Tree | keep-count |
| Range | 3 to 100 |
| Default | 4 |
| Introduced | 16.0.R1 |
| Platforms | All |

## keep-idle *number*

| | |
|---|---|
| Synopsis | Time until the first TCP keepalive probe is sent |
| Context | **configure** bmp station *named-item* connection tcp-keepalive keep-idle *number* |
| Tree | keep-idle |


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| | |
|---|---|
| Range | 1 to 100000 |
| Units | seconds |
| Default | 600 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **keep-interval** *number*

| | |
|---|---|
| Synopsis | Time between two TCP keepalive probes |
| Context | **configure** bmp station *named-item* connection tcp-keepalive keep-interval *number* |
| Tree | keep-interval |
| Range | 1 to 100000 |
| Units | seconds |
| Default | 15 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** bmp station *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **family**

| | |
|---|---|
| Synopsis | Enter the **family** context |
| Context | **configure** bmp station *named-item* family |
| Tree | family |
| Description | Commands in this context specify the address families that are reported to a BMP monitoring station. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **evpn** *boolean*

| | |
|---|---|
| Synopsis | Support EVPN address family |
| Context | **configure** bmp station *named-item* family evpn *boolean* |
| Tree | evpn |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **ipv4** *boolean*

| | |
|---|---|
| Synopsis | Support IPv4 address family |
| Context | **configure** bmp station *named-item* family ipv4 *boolean* |
| Tree | ipv4 |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv6** *boolean*

| | |
|---|---|
| Synopsis | Support IPv6 address family |
| Context | **configure** bmp station *named-item* family ipv6 *boolean* |
| Tree | ipv6 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **l2-vpn** *boolean*

| | |
|---|---|
| Synopsis | Support L2 VPN address family |
| Context | **configure** bmp station *named-item* family l2-vpn *boolean* |
| Tree | l2-vpn |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **label-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Support labeled IPv4 address family |
| Context | **configure** bmp station *named-item* family label-ipv4 *boolean* |
| Tree | label-ipv4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **label-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Support labeled IPv6 address family |
| Context | **configure** bmp station *named-item* family label-ipv6 *boolean* |
| Tree | label-ipv6 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mcast-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Support IPv4 multicast address family |
| Context | **configure** bmp station *named-item* family mcast-ipv4 *boolean* |
| Tree | mcast-ipv4 |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **mcast-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Support IPv6 multicast address family |
| Context | **configure** bmp station *named-item* family mcast-ipv6 *boolean* |
| Tree | mcast-ipv6 |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **mcast-vpn-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Support IPv4 VPN multicast address family |
| Context | **configure** bmp station *named-item* family mcast-vpn-ipv4 *boolean* |
| Tree | mcast-vpn-ipv4 |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **mcast-vpn-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Support IPv6 VPN multicast address family |
| Context | **configure** bmp station *named-item* family mcast-vpn-ipv6 *boolean* |
| Tree | mcast-vpn-ipv6 |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **sr-policy-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Support SR policy IPv4 address family |
| Context | **configure** bmp station *named-item* family sr-policy-ipv4 *boolean* |
| Tree | sr-policy-ipv4 |
| Default | false |
| Introduced | 22.5.R1 |
| Platforms | All |

### **sr-policy-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Support SR policy IPv6 address family |
| Context | **configure** bmp station *named-item* family sr-policy-ipv6 *boolean* |
| Tree | sr-policy-ipv6 |
| Default | false |
| Introduced | 22.5.R1 |
| Platforms | All |


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### **vpn-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Support VPN IPv4 address family |
| Context | **configure** bmp station *named-item* family vpn-ipv4 *boolean* |
| Tree | vpn-ipv4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **vpn-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Support VPN IPv6 address family |
| Context | **configure** bmp station *named-item* family vpn-ipv6 *boolean* |
| Tree | vpn-ipv6 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **initiation-message** *string*

| | |
|---|---|
| Synopsis | Free form initiation message sent to monitoring station |
| Context | **configure** bmp station *named-item* initiation-message *string* |
| Tree | initiation-message |
| String length | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **report-local-routes** *boolean*

| | |
|---|---|
| Synopsis | Allow local route reporting to BMP monitoring station |
| Context | **configure** bmp station *named-item* report-local-routes *boolean* |
| Tree | report-local-routes |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **stats-report-interval** *number*

| | |
|---|---|
| Synopsis | Frequency of reports sent to the BMP monitoring station |
| Context | **configure** bmp station *named-item* stats-report-interval *number* |
| Tree | stats-report-interval |
| Range | 15 to 65535 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |


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## 4.7 bof commands

```
bof
   –  auto-boot
      –  dhcp
         –  client-id (keyword | hex-string | string)
         –  inband
            –  disabled boolean
            –  null-encapsulation boolean
            –  vlan number
            –  vlan-discovery boolean
         –  include-user-class boolean
         –  ipv4 boolean
         –  ipv6 boolean
         –  management-port boolean
      –  ospf
         –  mtu number
         –  neid hex-string
         –  neip-ipv4 ipv4-unicast-address
         –  neip-ipv6 ipv6-address
         –  vendor-id number
      –  port-mtu number
      –  timeout number
   –  auto-configure
      –  ipv4
         –  dhcp
            –  client-id (hex-string | string)
            –  include-user-class boolean
            –  timeout number
      –  ipv6
         –  dhcp
            –  client-id (hex-string | string)
            –  client-type keyword
            –  include-user-class boolean
            –  timeout number
   –  configuration
      –  encrypt boolean
      –  encryption-key encrypted-leaf
      –  password encrypted-leaf
      –  primary-location bof-cflash-and-url
      –  secondary-location bof-cflash-and-url
      –  tertiary-location bof-cflash-and-url
   –  console
      –  speed number
      –  wait-time number
   –  dns
      –  domain string
      –  primary-server (ipv4-address-no-zone | ipv6-address-no-zone)
      –  secondary-server (ipv4-address-no-zone | ipv6-address-no-zone)
      –  tertiary-server (ipv4-address-no-zone | ipv6-address-no-zone)
   –  image
      –  primary-location bof-cflash-and-url
      –  secondary-location bof-cflash-and-url
      –  tertiary-location bof-cflash-and-url
   –  li
      –  local-save boolean
      –  separate boolean
   –  license
      –  primary-location bof-cflash-and-url
   –  port named-item-64
      –  autonegotiate keyword
```


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bof port duplex

```
      –  duplex keyword
      –  speed number
   –  router named-item-64
      –  interface interface-name
         –  cpm keyword
            –  ipv4
               –  ip-address ipv4-unicast-address
               –  prefix-length number
            –  ipv6
               –  ipv6-address ipv6-address
               –  prefix-length number
         –  ip-mtu number
      –  static-routes
         –  route (ipv4-prefix | ipv6-prefix)
            –  next-hop (ipv4-address-no-zone | ipv6-address-no-zone)
   –  system
      –  base-mac-address mac-unicast-address
      –  fips-140 boolean
      –  persistent-indices boolean
      –  profile keyword
```


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## 4.7.1 bof command descriptions

### bof

| | |
|---|---|
| Synopsis | Configure system boot options |
| Context | bof |
| Tree | bof |
| Description | This command creates or edits the boot option file (BOF) for the specified local storage device.<br>A BOF file specifies where the system searches for runtime images, configuration files, and other operational parameters during system initialization.<br>BOF parameters can be modified. Changes can be saved to a specified compact flash. The BOF must be located in the root directory of either an internal or external compact flash local to the system and have the mandatory filename of bof.cfg.<br>When modifications are made to in-memory parameters that are currently in use or operating, the changes are effective immediately. For example, if the IP address of the management port is changed, the change takes place immediately.<br>Only one entry of the BOF configuration command statement can be saved once the statement has been found to be syntactically correct.<br>When opening an existing BOF that is not the BOF used in the most recent boot, a message is issued notifying the user that the parameters will not affect the operation of the node.<br>No default boot option file exists. The router boots with the factory default boot sequence and options. |
| Introduced | 20.10.R1 |
| Platforms | All |

### auto-boot

**Note:**
The new value of this element takes effect when the router boots.

| | |
|---|---|
| Synopsis | Enable the **auto-boot** context |
| Context | bof auto-boot |
| Tree | auto-boot |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS-7, 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-7, 7750 SR-1e, 7750 SR-2e, 7750 SR-s |


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## dhcp

**Note:**
The new value of this element takes effect when the router boots.

| | |
|---|---|
| Synopsis | Enable the **dhcp** context |
| Context | bof auto-boot dhcp |
| Tree | dhcp |
| Notes | The following elements are part of a choice: **dhcp** or **ospf**. |
| Introduced | 21.2.R1 |
| Platforms | 7450 ESS-7, 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-7, 7750 SR-1e, 7750 SR-2e, 7750 SR-s |

## client-id *(keyword | hex-string | string)*

**Note:**
The new value of this element takes effect when the router boots.

| | |
|---|---|
| Synopsis | DHCP client ID |
| Context | bof auto-boot dhcp client-id *(keyword \| hex-string \| string)* |
| Tree | client-id |
| String length | 3 to 118 (*hex-string*)<br>1 to 58 (*string*) |
| Options | use-chassis-mac-address |
| Introduced | 21.2.R1 |
| Platforms | 7450 ESS-7, 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-7, 7750 SR-1e, 7750 SR-2e, 7750 SR-s |

## inband

**Note:**
The new value of this element takes effect when the router boots.

| | |
|---|---|
| Synopsis | Enable the **inband** context |
| Context | bof auto-boot dhcp inband |
| Tree | inband |
| Introduced | 21.2.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS-7, 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-7, 7750 SR-1e, 7750 SR-2e, 7750 SR-s |

### **disabled** *boolean*

**Note:**
The new value of this element takes effect when the router boots.

| | |
|---|---|
| Synopsis | Do not use in-band ports |
| Context | bof auto-boot dhcp inband disabled *boolean* |
| Tree | disabled |
| Default | true |
| Notes | The following elements are part of a choice: **disabled**, **null-encapsulation**, **vlan**, or **vlan-discovery**. |
| Introduced | 21.2.R1 |
| Platforms | 7450 ESS-7, 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-7, 7750 SR-1e, 7750 SR-2e, 7750 SR-s |

### **null-encapsulation** *boolean*

**Note:**
The new value of this element takes effect when the router boots.

| | |
|---|---|
| Synopsis | Use null encapsulation |
| Context | bof auto-boot dhcp inband null-encapsulation *boolean* |
| Tree | null-encapsulation |
| Default | true |
| Notes | The following elements are part of a choice: **disabled**, **null-encapsulation**, **vlan**, or **vlan-discovery**. |
| Introduced | 21.2.R1 |
| Platforms | 7450 ESS-7, 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-7, 7750 SR-1e, 7750 SR-2e, 7750 SR-s |

### **vlan** *number*

**Note:**
The new value of this element takes effect when the router boots.


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| | |
|---|---|
| Synopsis | In-band VLAN ID |
| Context | bof auto-boot dhcp inband vlan *number* |
| Tree | vlan |
| Range | 1 to 4094 |
| Notes | The following elements are part of a choice: **disabled**, **null-encapsulation**, **vlan**, or **vlan-discovery**. |
| Introduced | 21.2.R1 |
| Platforms | 7450 ESS-7, 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-7, 7750 SR-1e, 7750 SR-2e, 7750 SR-s |

## **vlan-discovery** *boolean*

**Note:**
The new value of this element takes effect when the router boots.

| | |
|---|---|
| Synopsis | Use VLAN discovery |
| Context | bof auto-boot dhcp inband vlan-discovery *boolean* |
| Tree | vlan-discovery |
| Default | true |
| Notes | The following elements are part of a choice: **disabled**, **null-encapsulation**, **vlan**, or **vlan-discovery**. |
| Introduced | 21.2.R1 |
| Platforms | 7450 ESS-7, 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-7, 7750 SR-1e, 7750 SR-2e, 7750 SR-s |

## **include-user-class** *boolean*

**Note:**
The new value of this element takes effect when the router boots.

| | |
|---|---|
| Synopsis | Include user class in auto boot provisioning |
| Context | bof auto-boot dhcp include-user-class *boolean* |
| Tree | include-user-class |
| Default | true |
| Introduced | 21.2.R1 |
| Platforms | 7450 ESS-7, 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-7, 7750 SR-1e, 7750 SR-2e, 7750 SR-s |


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### **ipv4** *boolean*

**Note:**
The new value of this element takes effect when the router boots.

| | |
|---|---|
| Synopsis | Use auto boot with IPv4 |
| Context | bof auto-boot dhcp ipv4 *boolean* |
| Tree | ipv4 |
| Default | true |
| Introduced | 21.2.R1 |
| Platforms | 7450 ESS-7, 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-7, 7750 SR-1e, 7750 SR-2e, 7750 SR-s |

### **ipv6** *boolean*

**Note:**
The new value of this element takes effect when the router boots.

| | |
|---|---|
| Synopsis | Use auto boot with IPv6 |
| Context | bof auto-boot dhcp ipv6 *boolean* |
| Tree | ipv6 |
| Default | true |
| Introduced | 21.2.R1 |
| Platforms | 7450 ESS-7, 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-7, 7750 SR-1e, 7750 SR-2e, 7750 SR-s |

### **management-port** *boolean*

**Note:**
The new value of this element takes effect when the router boots.

| | |
|---|---|
| Synopsis | Use auto boot on the management port |
| Context | bof auto-boot dhcp management-port *boolean* |
| Tree | management-port |
| Default | true |
| Introduced | 21.2.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS-7, 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-7, 7750 SR-1e, 7750 SR-2e, 7750 SR-s |

## ospf

**Note:**
The new value of this element takes effect when the router boots.

| | |
|---|---|
| Synopsis | Enable the **ospf** context |
| Context | bof auto-boot ospf |
| Tree | ospf |
| Notes | The following elements are part of a choice: **dhcp** or **ospf**. |
| Introduced | 21.2.R1 |
| Platforms | 7450 ESS-7, 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-7, 7750 SR-1e, 7750 SR-2e, 7750 SR-s |

## mtu *number*

**Note:**
The new value of this element takes effect when the router boots.

| | |
|---|---|
| Synopsis | OSPF MTU |
| Context | bof auto-boot ospf mtu *number* |
| Tree | mtu |
| Range | 512 to 9786 |
| Units | bytes |
| Default | 1500 |
| Introduced | 21.2.R1 |
| Platforms | 7450 ESS-7, 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-7, 7750 SR-1e, 7750 SR-2e, 7750 SR-s |

## neid *hex-string*

**Note:**
The new value of this element takes effect when the router boots.

| | |
|---|---|
| Synopsis | Network element ID |


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| | |
|---|---|
| Context | bof auto-boot ospf neid *hex-string* |
| Tree | neid |
| String length | 3 |
| Introduced | 21.2.R1 |
| Platforms | 7450 ESS-7, 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-7, 7750 SR-1e, 7750 SR-2e, 7750 SR-s |

### **neip-ipv4** *ipv4-unicast-address*

**Note:**
The new value of this element takes effect when the router boots.

| | |
|---|---|
| Synopsis | Network element IPv4 address |
| Context | bof auto-boot ospf neip-ipv4 *ipv4-unicast-address* |
| Tree | neip-ipv4 |
| Introduced | 21.2.R1 |
| Platforms | 7450 ESS-7, 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-7, 7750 SR-1e, 7750 SR-2e, 7750 SR-s |

### **neip-ipv6** *ipv6-address*

**Note:**
The new value of this element takes effect when the router boots.

| | |
|---|---|
| Synopsis | Network element IPv6 address |
| Context | bof auto-boot ospf neip-ipv6 *ipv6-address* |
| Tree | neip-ipv6 |
| Introduced | 21.2.R1 |
| Platforms | 7450 ESS-7, 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-7, 7750 SR-1e, 7750 SR-2e, 7750 SR-s |

### **vendor-id** *number*

**Note:**
The new value of this element takes effect when the router boots.

| | |
|---|---|
| Synopsis | Vendor ID |
| Context | bof auto-boot ospf vendor-id *number* |


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| | |
|---|---|
| Tree | vendor-id |
| Range | 1 to 254 |
| Default | 140 |
| Introduced | 21.2.R1 |
| Platforms | 7450 ESS-7, 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-7, 7750 SR-1e, 7750 SR-2e, 7750 SR-s |

### **port-mtu** *number*

**Note:**
The new value of this element takes effect when the router boots.

| | |
|---|---|
| Synopsis | Port MTU setting |
| Context | bof auto-boot port-mtu *number* |
| Tree | port-mtu |
| Range | 512 to 9800 |
| Units | bytes |
| Introduced | 21.2.R1 |
| Platforms | 7450 ESS-7, 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-7, 7750 SR-1e, 7750 SR-2e, 7750 SR-s |

### **timeout** *number*

**Note:**
The new value of this element takes effect when the router boots.

| | |
|---|---|
| Synopsis | ZTP timeout |
| Context | bof auto-boot timeout *number* |
| Tree | timeout |
| Description | This command configures the Zero Touch Provisioning timeout, which is the total time allowed for the ZTP process to execute successfully. If the ZTP process is unsuccessful (in the case of auto-boot using OSPF, if no OSPF adjacency is found), the node is first rebooted, then the ZTP process is retried. |
| Range | 30 to 1440 |
| Units | minutes |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS-7, 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-7, 7750 SR-1e, 7750 SR-2e, 7750 SR-s |


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## auto-configure

| | |
|---|---|
| Synopsis | Enter the **auto-configure** context |
| Context | bof auto-configure |
| Tree | auto-configure |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS-7, 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-7, 7750 SR-1e, 7750 SR-2e, 7750 SR-s |

## ipv4

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |
| Context | bof auto-configure ipv4 |
| Tree | ipv4 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS-7, 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-7, 7750 SR-1e, 7750 SR-2e, 7750 SR-s |

## dhcp

**Note:**
The new value of this element takes effect when the router boots.

| | |
|---|---|
| Synopsis | Enable the **dhcp** context |
| Context | bof auto-configure ipv4 dhcp |
| Tree | dhcp |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS-7, 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-7, 7750 SR-1e, 7750 SR-2e, 7750 SR-s |

## client-id *(hex-string | string)*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.


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**Note:**
The new value of this element takes effect when the router boots.

| | |
|---|---|
| Synopsis | DHCP client ID |
| Context | bof auto-configure ipv4 dhcp client-id *(hex-string* \| *string)* |
| Tree | client-id |
| String length | 3 to 256 (*hex-string*)<br>1 to 127 (*string*) |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS-7, 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-7, 7750 SR-1e, 7750 SR-2e, 7750 SR-s |

## **include-user-class** *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

**Note:**
The new value of this element takes effect when the router boots.

| | |
|---|---|
| Synopsis | Include user class information |
| Context | bof auto-configure ipv4 dhcp include-user-class *boolean* |
| Tree | include-user-class |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS-7, 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-7, 7750 SR-1e, 7750 SR-2e, 7750 SR-s |

## **timeout** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

**Note:**
The new value of this element takes effect when the router boots.

| | |
|---|---|
| Synopsis | DHCP timeout |


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| | |
|---|---|
| Context | bof auto-configure ipv4 dhcp timeout *number* |
| Tree | timeout |
| Range | 1 to 65535 |
| Default | 30 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS-7, 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-7, 7750 SR-1e, 7750 SR-2e, 7750 SR-s |

## ipv6

| | |
|---|---|
| Synopsis | Enter the **ipv6** context |
| Context | bof auto-configure ipv6 |
| Tree | ipv6 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS-7, 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-7, 7750 SR-1e, 7750 SR-2e, 7750 SR-s |

## dhcp

**Note:**
The new value of this element takes effect when the router boots.

| | |
|---|---|
| Synopsis | Enable the **dhcp** context |
| Context | bof auto-configure ipv6 dhcp |
| Tree | dhcp |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS-7, 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-7, 7750 SR-1e, 7750 SR-2e, 7750 SR-s |

## client-id *(hex-string | string)*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

**Note:**
The new value of this element takes effect when the router boots.


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| | |
|---|---|
| Synopsis | DHCP client ID |
| Context | bof auto-configure ipv6 dhcp client-id *(hex-string* \| *string)* |
| Tree | client-id |
| String length | 3 to 250 (*hex-string*)<br>1 to 124 (*string*) |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS-7, 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-7, 7750 SR-1e, 7750 SR-2e, 7750 SR-s |

## **client-type** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

**Note:**
The new value of this element takes effect when the router boots.

| | |
|---|---|
| Synopsis | DHCP client type |
| Context | bof auto-configure ipv6 dhcp client-type *keyword* |
| Tree | client-type |
| Options | duid-enterprise, duid-link-local |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS-7, 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-7, 7750 SR-1e, 7750 SR-2e, 7750 SR-s |

## **include-user-class** *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

**Note:**
The new value of this element takes effect when the router boots.

| | |
|---|---|
| Synopsis | Include user class information |
| Context | bof auto-configure ipv6 dhcp include-user-class *boolean* |
| Tree | include-user-class |
| Default | false |


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| | |
|---|---|
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS-7, 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-7, 7750 SR-1e, 7750 SR-2e, 7750 SR-s |

## **timeout** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

**Note:**
The new value of this element takes effect when the router boots.

| | |
|---|---|
| Synopsis | DHCP timeout |
| Context | bof auto-configure ipv6 dhcp timeout *number* |
| Tree | timeout |
| Range | 1 to 65535 |
| Default | 30 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS-7, 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-7, 7750 SR-1e, 7750 SR-2e, 7750 SR-s |

## **configuration**

| | |
|---|---|
| Synopsis | Enter the **configuration** context |
| Context | bof configuration |
| Tree | configuration |
| Introduced | 20.10.R1 |
| Platforms | All |

## **encrypt** *boolean*

**Note:**
The new value of this element takes effect when the candidate is committed.

| | |
|---|---|
| Synopsis | Enable encryption of BOF configuration files |
| Context | bof configuration encrypt *boolean* |
| Tree | encrypt |


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| | |
|---|---|
| Description | When configured to **true**, this command enables encryption of the BOF using AES256 and SHA256.<br>When the BOF is encrypted on the compact flash, it is still reachable using the BOF interactive menu during node startup, and fields can be modified using the BOF interactive menu. |
| Default | false |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **encryption-key** *encrypted-leaf*

**Note:**
The new value of this element takes effect when the candidate is committed.

| | |
|---|---|
| Synopsis | Secret key for encryption of configuration files |
| Context | bof configuration encryption-key *encrypted-leaf* |
| Tree | encryption-key |
| Description | This command creates a key to be used by AES256 and SHA256 for configuration file encryption and hashing. This key is used for all configuration files (primary, secondary, and tertiary).<br>After creating or deleting a key, save the configuration file with the current encryption key state. |
| String length | 1 to 71 |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **password** *encrypted-leaf*

**Note:**
The new value of this element takes effect when the router boots.

| | |
|---|---|
| Synopsis | Password for boot-time modification of boot options |
| Context | bof configuration password *encrypted-leaf* |
| Tree | password |
| String length | 1 to 71 |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **primary-location** *bof-cflash-and-url*

**Note:**
The new value of this element takes effect when the candidate is committed.

| | |
|---|---|
| Synopsis | Primary configuration location |
| Context | bof configuration primary-location *bof-cflash-and-url* |
| Tree | primary-location |
| String length | 1 to 199 |
| Introduced | 20.10.R1 |
| Platforms | All |

### **secondary-location** *bof-cflash-and-url*

**Note:**
The new value of this element takes effect when the candidate is committed.

| | |
|---|---|
| Synopsis | Secondary configuration location |
| Context | bof configuration secondary-location *bof-cflash-and-url* |
| Tree | secondary-location |
| String length | 1 to 199 |
| Introduced | 20.10.R1 |
| Platforms | All |

### **tertiary-location** *bof-cflash-and-url*

**Note:**
The new value of this element takes effect when the candidate is committed.

| | |
|---|---|
| Synopsis | Tertiary configuration location |
| Context | bof configuration tertiary-location *bof-cflash-and-url* |
| Tree | tertiary-location |
| String length | 1 to 199 |
| Introduced | 20.10.R1 |
| Platforms | All |


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## console

| | |
|---|---|
| Synopsis | Enter the **console** context |
| Context | bof console |
| Tree | console |
| Introduced | 20.10.R1 |
| Platforms | All |

## speed *number*

**Note:**
The new value of this element takes effect when the candidate is committed.

| | |
|---|---|
| Synopsis | Console port speed |
| Context | bof console speed *number* |
| Tree | speed |
| Range | 9600 \| 19200 \| 38400 \| 57600 \| 115200 |
| Units | bps |
| Default | 115200 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-1, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e, 7750 SR-1s, 7750 SR-2s, 7750 SR-7s, 7750 SR-14s, 7950 XRS, VSR |

## wait-time *number*

**Note:**
The new value of this element takes effect when the router boots.

| | |
|---|---|
| Synopsis | Wait time for interrupt to change boot parameters |
| Context | bof console wait-time *number* |
| Tree | wait-time |
| Range | 1 to 10 |
| Units | seconds |
| Default | 3 |
| Introduced | 20.10.R1 |
| Platforms | All |


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## dns

| | |
|---|---|
| Synopsis | Enter the **dns** context |
| Context | bof dns |
| Tree | dns |
| Introduced | 20.10.R1 |
| Platforms | All |

## domain *string*

**Note:**
The new value of this element takes effect when the candidate is committed.

| | |
|---|---|
| Synopsis | System DNS domain name for DNS address resolution |
| Context | bof dns domain *string* |
| Tree | domain |
| String length | 1 to 178 |
| Introduced | 20.10.R1 |
| Platforms | All |

## primary-server *(ipv4-address-no-zone | ipv6-address-no-zone)*

**Note:**
The new value of this element takes effect when the candidate is committed.

| | |
|---|---|
| Synopsis | Primary DNS server |
| Context | bof dns primary-server *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | primary-server |
| Introduced | 20.10.R1 |
| Platforms | All |

## secondary-server *(ipv4-address-no-zone | ipv6-address-no-zone)*

**Note:**
The new value of this element takes effect when the candidate is committed.

| | |
|---|---|
| Synopsis | Secondary DNS server |


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| | |
|---|---|
| Context | bof dns secondary-server *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | secondary-server |
| Introduced | 20.10.R1 |
| Platforms | All |

### **tertiary-server** *(ipv4-address-no-zone | ipv6-address-no-zone)*

**Note:**
The new value of this element takes effect when the candidate is committed.

| | |
|---|---|
| Synopsis | Tertiary DNS server |
| Context | bof dns tertiary-server *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | tertiary-server |
| Introduced | 20.10.R1 |
| Platforms | All |

### **image**

| | |
|---|---|
| Synopsis | Enter the **image** context |
| Context | bof image |
| Tree | image |
| Introduced | 20.10.R1 |
| Platforms | All |

### **primary-location** *bof-cflash-and-url*

**Note:**
The new value of this element takes effect when the router boots.

| | |
|---|---|
| Synopsis | Primary image location |
| Context | bof image primary-location *bof-cflash-and-url* |
| Tree | primary-location |
| String length | 1 to 199 |
| Introduced | 20.10.R1 |
| Platforms | All |


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### **secondary-location** *bof-cflash-and-url*

**Note:**
The new value of this element takes effect when the router boots.

| | |
|---|---|
| Synopsis | Secondary image location |
| Context | bof image secondary-location *bof-cflash-and-url* |
| Tree | secondary-location |
| String length | 1 to 199 |
| Introduced | 20.10.R1 |
| Platforms | All |

### **tertiary-location** *bof-cflash-and-url*

**Note:**
The new value of this element takes effect when the router boots.

| | |
|---|---|
| Synopsis | Tertiary image location |
| Context | bof image tertiary-location *bof-cflash-and-url* |
| Tree | tertiary-location |
| String length | 1 to 199 |
| Introduced | 20.10.R1 |
| Platforms | All |

### **li**

| | |
|---|---|
| Synopsis | Enter the **li** context |
| Context | bof li |
| Tree | li |
| Introduced | 20.10.R1 |
| Platforms | All |

### **local-save** *boolean*

**Note:**
The new value of this element takes effect when the router boots.


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| | |
|---|---|
| Synopsis | Save the LI configuration locally |
| Context | bof li local-save *boolean* |
| Tree | local-save |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | All |

### **separate** *boolean*

**Note:**
The new value of this element takes effect when the router boots.

| | |
|---|---|
| Synopsis | Separate access to the LI information |
| Context | bof li separate *boolean* |
| Tree | separate |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | All |

### **license**

| | |
|---|---|
| Synopsis | Enter the **license** context |
| Context | bof license |
| Tree | license |
| Introduced | 20.10.R1 |
| Platforms | All |

### **primary-location** *bof-cflash-and-url*

**Note:**
The new value of this element takes effect when the candidate is committed.

| | |
|---|---|
| Synopsis | Primary license file location |
| Context | bof license primary-location *bof-cflash-and-url* |
| Tree | primary-location |
| String length | 1 to 199 |


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| | |
|---|---|
| Introduced | 20.10.R1 |
| Platforms | All |

### **port** [router-name] *named-item-64*

**Note:**
The new value of this element takes effect when the candidate is committed.

| | |
|---|---|
| Synopsis | Enter the **port** list instance |
| Context | bof port *named-item-64* |
| Tree | port |
| Max. instances | 1 |
| Introduced | 20.10.R1 |
| Platforms | All |

### [**router-name**] *named-item-64*

| | |
|---|---|
| Synopsis | Administrative router name |
| Context | bof port *named-item-64* |
| Tree | port |
| String length | 1 to 64 |
| MD-CLI default | management |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | All |

### **autonegotiate** *keyword*

**Note:**
The new value of this element takes effect when the candidate is committed.

| | |
|---|---|
| Synopsis | Auto-negotiate speed and duplex type on Ethernet port |
| Context | bof port *named-item-64* autonegotiate *keyword* |
| Tree | autonegotiate |
| Options | false, true |


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| | |
|---|---|
| Default | true |
| Introduced | 20.10.R1 |
| Platforms | All |

### **duplex** *keyword*

**Note:**
The new value of this element takes effect when the candidate is committed.

| | |
|---|---|
| Synopsis | Duplex type for the Ethernet port |
| Context | bof port *named-item-64* duplex *keyword* |
| Tree | duplex |
| Options | full, half |
| Default | full |
| Introduced | 20.10.R1 |
| Platforms | All |

### **speed** *number*

**Note:**
The new value of this element takes effect when the candidate is committed.

| | |
|---|---|
| Synopsis | Speed of the Ethernet port |
| Context | bof port *named-item-64* speed *number* |
| Tree | speed |
| Range | 10 \| 100 \| 1000 |
| Units | megabps |
| Default | 100 |
| Introduced | 20.10.R1 |
| Platforms | All |

### **router** [router-name] *named-item-64*

**Note:**
The new value of this element takes effect when the candidate is committed.

| | |
|---|---|
| Synopsis | Enter the **router** list instance |


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| | |
|---|---|
| Context | bof router *named-item-64* |
| Tree | router |
| Description | This command creates a router instance which represents a virtual router in the system. There will always be at least two instances in the system. The Base or transport router and the management router are created when the system is initialized and cannot be deleted. |
| Max. instances | 1 |
| Introduced | 20.10.R1 |
| Platforms | All |

## [**router-name**] *named-item-64*

| | |
|---|---|
| Synopsis | Administrative router name |
| Context | bof router *named-item-64* |
| Tree | router |
| String length | 1 to 64 |
| MD-CLI default | management |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | All |

## **interface** [interface-name] *interface-name*

**Note:**
The new value of this element takes effect when the candidate is committed.

| | |
|---|---|
| Synopsis | Enter the **interface** list instance |
| Context | bof router *named-item-64* interface *interface-name* |
| Tree | interface |
| Description | Commands in this context create a logical IP routing or unnumbered MPLS-TP interface. Once created, an IP address, port, or system can be associated with the IP interface. |
| Max. instances | 1 |
| Introduced | 20.10.R1 |
| Platforms | All |


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### [**interface-name**] *interface-name*

| | |
|---|---|
| Synopsis | Router interface name |
| Context | bof router *named-item-64* interface *interface-name* |
| Tree | interface |
| String length | 1 to 32 |
| MD-CLI default | management |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | All |

### **cpm** [cpm-type] *keyword*

**Note:**
The new value of this element takes effect when the candidate is committed.

| | |
|---|---|
| Synopsis | Enter the **cpm** list instance |
| Context | bof router *named-item-64* interface *interface-name* cpm *keyword* |
| Tree | cpm |
| Introduced | 20.10.R1 |
| Platforms | All |

### [**cpm-type**] *keyword*

| | |
|---|---|
| Synopsis | CPM type |
| Context | bof router *named-item-64* interface *interface-name* cpm *keyword* |
| Tree | cpm |
| Options | active, standby, a, b, c, d |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | All |


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## ipv4

**Note:**
The new value of this element takes effect when the candidate is committed.

| | |
|---|---|
| Synopsis | Enable the **ipv4** context |
| Context | bof router *named-item-64* interface *interface-name* cpm *keyword* ipv4 |
| Tree | ipv4 |
| Introduced | 20.10.R1 |
| Platforms | All |

## ip-address *ipv4-unicast-address*

**Note:**
The new value of this element takes effect when the candidate is committed.

| | |
|---|---|
| Synopsis | IPv4 address assigned to the interface |
| Context | bof router *named-item-64* interface *interface-name* cpm *keyword* ipv4 ip-address *ipv4-unicast-address* |
| Tree | ip-address |
| Description | This command assigns an IP address to the management Ethernet port on a CPM. The active and standby IP addresses mut be on the same subnet. |
| Notes | This element is mandatory. |
| Introduced | 20.10.R1 |
| Platforms | All |

## prefix-length *number*

**Note:**
The new value of this element takes effect when the candidate is committed.

| | |
|---|---|
| Synopsis | IPv4 address prefix length |
| Context | bof router *named-item-64* interface *interface-name* cpm *keyword* ipv4 prefix-length *number* |
| Tree | prefix-length |
| Range | 0 to 32 |
| Notes | This element is mandatory. |


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| | |
|---|---|
| Introduced | 20.10.R1 |
| Platforms | All |

## ipv6

**Note:**
The new value of this element takes effect when the candidate is committed.

| | |
|---|---|
| Synopsis | Enable the **ipv6** context |
| Context | bof router *named-item-64* interface *interface-name* cpm *keyword* ipv6 |
| Tree | ipv6 |
| Introduced | 20.10.R1 |
| Platforms | All |

## ipv6-address *ipv6-address*

**Note:**
The new value of this element takes effect when the candidate is committed.

| | |
|---|---|
| Synopsis | IPv6 address assigned to the interface |
| Context | bof router *named-item-64* interface *interface-name* cpm *keyword* ipv6 ipv6-address *ipv6-address* |
| Tree | ipv6-address |
| Description | This command assigns an IP address to the management Ethernet port on a CPM. The active and standby IP addresses mut be on the same subnet. |
| Introduced | 20.10.R1 |
| Platforms | All |

## prefix-length *number*

**Note:**
The new value of this element takes effect when the candidate is committed.

| | |
|---|---|
| Synopsis | IPv6 address prefix length |
| Context | bof router *named-item-64* interface *interface-name* cpm *keyword* ipv6 prefix-length *number* |
| Tree | prefix-length |


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| | |
|---|---|
| Range | 0 to 128 |
| Notes | This element is mandatory. |
| Introduced | 20.10.R1 |
| Platforms | All |

### **ip-mtu** *number*

**Note:**
The new value of this element takes effect when the candidate is committed.

| | |
|---|---|
| Synopsis | Interface IP MTU |
| Context | bof router *named-item-64* interface *interface-name* ip-mtu *number* |
| Tree | ip-mtu |
| Description | This command configures the MTU for IP packets transmitted out the interface of the management router instance associated to the management port.<br>The operational MTU for the port is set to the lesser of the values configured with this command and the management port MTU.<br>If the interface supports IPv6 packets, the command value must be set to 1280 or higher. |
| Range | 512 to 9786 |
| Units | bytes |
| Introduced | 20.10.R1 |
| Platforms | All |

### **static-routes**

| | |
|---|---|
| Synopsis | Enter the **static-routes** context |
| Context | bof router *named-item-64* static-routes |
| Tree | static-routes |
| Introduced | 20.10.R1 |
| Platforms | All |

### **route** [ip-prefix] *(ipv4-prefix | ipv6-prefix)*

**Note:**
The new value of this element takes effect when the candidate is committed.


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| | |
|---|---|
| Synopsis | Enter the **route** list instance |
| Context | bof router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* |
| Tree | route |
| Introduced | 20.10.R1 |
| Platforms | All |

### [**ip-prefix**] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | IP prefix for the static route |
| Context | bof router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* |
| Tree | route |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | All |

### **next-hop** *(ipv4-address-no-zone | ipv6-address-no-zone)*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

**Note:**
The new value of this element takes effect when the candidate is committed.

| | |
|---|---|
| Synopsis | Next-hop IP address |
| Context | bof router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* next-hop *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | next-hop |
| Notes | This element is mandatory. |
| Introduced | 20.10.R1 |
| Platforms | All |

### **system**

| | |
|---|---|
| Synopsis | Enter the **system** context |
| Context | bof system |


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| | |
|---|---|
| Tree | system |
| Introduced | 20.10.R1 |
| Platforms | All |

### **base-mac-address** *mac-unicast-address*

**Note:**
The new value of this element takes effect when the router boots.

| | |
|---|---|
| Synopsis | Base system MAC address |
| Context | bof system base-mac-address *mac-unicast-address* |
| Tree | base-mac-address |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS-20, 7950 XRS-20e, VSR |

### **fips-140** *boolean*

**Note:**
The new value of this element takes effect when the router boots.

| | |
|---|---|
| Synopsis | Operate in FIPS mode |
| Context | bof system fips-140 *boolean* |
| Tree | fips-140 |
| Default | false |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **persistent-indices** *boolean*

**Note:**
The new value of this element takes effect when the router boots.

| | |
|---|---|
| Synopsis | Classic and mixed management mode persistent indices |
| Context | bof system persistent-indices *boolean* |
| Tree | persistent-indices |
| Default | false |


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| | |
|---|---|
| Introduced | 20.10.R1 |
| Platforms | All |

## **profile** *keyword*

**Note:**
The new value of this element takes effect when the router boots.

| | |
|---|---|
| Synopsis | System capabilities profile |
| Context | bof system profile *keyword* |
| Tree | profile |
| Options | profile-a, profile-b |
| Introduced | 20.10.R1 |
| Platforms | All |


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## 4.8 call-trace commands

```
configure
   –  call-trace
      –  apply-groups reference
      –  apply-groups-exclude reference
      –  buffering boolean
      –  location keyword
         –  admin-state keyword
         –  apply-groups reference
         –  apply-groups-exclude reference
         –  size-limit (number | keyword)
      –  max-files-number number
      –  primary-cf keyword
      –  trace-profile named-item
         –  applications
            –  connectivity-management boolean
            –  gx boolean
            –  gy boolean
            –  ludb boolean
            –  msap boolean
            –  nasreq boolean
            –  pfcp boolean
            –  ppp-event boolean
            –  python boolean
            –  radius-acct boolean
            –  radius-auth boolean
         –  apply-groups reference
         –  apply-groups-exclude reference
         –  description description
         –  events keyword
         –  output
            –  debug
            –  live
               –  fqdn string
               –  ip-address (ipv4-address-no-zone | ipv6-address-no-zone)
               –  port number
               –  router-instance string
            –  local-storage
         –  size-limit number
         –  time-limit number
```


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## 4.8.1 call-trace command descriptions

### call-trace

| | |
|---|---|
| Synopsis | Enter the **call-trace** context |
| Context | **configure** call-trace |
| Tree | call-trace |
| Description | Commands in this context configure the attributes of the call trace debugging functionality. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### buffering *boolean*

| | |
|---|---|
| Synopsis | Buffer messages until the trace key is known |
| Context | **configure** call-trace buffering *boolean* |
| Tree | buffering |
| Description | When configured to **true**, the router buffers initial messages for sessions where the trace key is not yet known, for example, a username for a PPP session.<br>When the trace key, for example, a username, indicates a match for a traced session, the router sends the buffered messages immediately. If the key does not match a trace, the router discards the buffered messages.<br>When configured to **false**, the router does not buffer any messages and therefore initial messages may not be traced. |
| Default | false |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### location [location-type] *keyword*

| | |
|---|---|
| Synopsis | Enter the **location** list instance |
| Context | **configure** call-trace location *keyword* |
| Tree | location |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### [**location-type**] *keyword*

| | |
|---|---|
| Synopsis | Compact flash card to be used |
| Context | **configure** call-trace location *keyword* |
| Tree | location |
| Options | cf1, cf2 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of compact flash for log storage |
| Context | **configure** call-trace location *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **size-limit** *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum cumulative size of call trace files on the card |
| Context | **configure** call-trace location *keyword* size-limit *(number | keyword)* |
| Tree | size-limit |
| Range | 1 to 65536 |
| Options | unlimited |
| Default | 1000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **max-files-number** *number*

| | |
|---|---|
| Synopsis | Maximum number of files call trace can create |
| Context | **configure** call-trace max-files-number *number* |


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| | |
|---|---|
| Tree | max-files-number |
| Range | 1 to 1024 |
| Default | 200 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **primary-cf** *keyword*

| | |
|---|---|
| Synopsis | Primary CF card as local storage location |
| Context | **configure** call-trace primary-cf *keyword* |
| Tree | primary-cf |
| Options | cf1, cf2 |
| Default | cf1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **trace-profile** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **trace-profile** list instance |
| Context | **configure** call-trace trace-profile *named-item* |
| Tree | trace-profile |
| Description | Commands in this context configure the attributes of the call-trace profile list. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | Call trace profile name |
| Context | **configure** call-trace trace-profile *named-item* |
| Tree | trace-profile |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## applications

| | |
|---|---|
| Synopsis | Enter the **applications** context |
| Context | **configure** call-trace trace-profile *named-item* applications |
| Tree | applications |
| Description | Commands in this context configure call trace attributes for the specified application. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## connectivity-management *boolean*

| | |
|---|---|
| Synopsis | Trace messages used for connectivity protocols |
| Context | **configure** call-trace trace-profile *named-item* applications connectivity-management *boolean* |
| Tree | connectivity-management |
| Description | When configured to **true**, this command enables call trace for connectivity protocols, such as DHCP, ARP, and DHCPv6, and events related to connectivity management; for example, migrant or data-triggered host creation, idling, or session timeout. In the CUPS context, this command traces uplink IBCP messages.<br>When configured to **false**, connectivity protocols are not traced. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## gx *boolean*

| | |
|---|---|
| Synopsis | Trace Diameter messages used for the Gx application |
| Context | **configure** call-trace trace-profile *named-item* applications gx *boolean* |
| Tree | gx |
| Description | When configured to **true**, this command enables call trace for Diameter messages used for the Gx application.<br>When configured to **false**, Diameter Gx messages are not traced. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **gy** *boolean*

| | |
|---|---|
| Synopsis | Trace Diameter messages used for the Gy application |
| Context | **configure** call-trace trace-profile *named-item* applications gy *boolean* |
| Tree | gy |
| Description | When configured to **true**, this command enables call trace for Diameter messages used for the Gy application.<br>When configured to **false**, Diameter Gy messages are not traced. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ludb** *boolean*

| | |
|---|---|
| Synopsis | Trace local user database lookups |
| Context | **configure** call-trace trace-profile *named-item* applications ludb *boolean* |
| Tree | ludb |
| Description | When configured to **true**, this command enables call trace for Local User Data Base (LUDB) lookups.<br>When configured to **false**, LUDB lookups are not traced. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **msap** *boolean*

| | |
|---|---|
| Synopsis | Trace MSAP creation events |
| Context | **configure** call-trace trace-profile *named-item* applications msap *boolean* |
| Tree | msap |
| Description | When configured to **true**, this command enables tracing of Managed Service Access Point (MSAP) creation events.<br>When configured to **false**, MSAP create events are not traced. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **nasreq** *boolean*

| | |
|---|---|
| Synopsis | Trace Diameter messages used for NASREQ application |
| Context | **configure** call-trace trace-profile *named-item* applications nasreq *boolean* |
| Tree | nasreq |
| Description | When configured to **true**, this command enables call trace for Diameter messages used for the Diameter Network Access Server Requirements (NASREQ) application.<br>When configured to **false**, Diameter NASREQ messages are not traced. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **pfcp** *boolean*

| | |
|---|---|
| Synopsis | Trace PFCP messages |
| Context | **configure** call-trace trace-profile *named-item* applications pfcp *boolean* |
| Tree | pfcp |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ppp-event** *boolean*

| | |
|---|---|
| Synopsis | Allow tracing for PPP state machine related events |
| Context | **configure** call-trace trace-profile *named-item* applications ppp-event *boolean* |
| Tree | ppp-event |
| Description | When configured to **true**, events related to the PPP state machine are traced.<br>This configuration may result in a large amount of event messages.<br>When configured to **false**, tracing is not activated for PPP state machine events. |
| Default | false |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **python** *boolean*

| | |
|---|---|
| Synopsis | Trace Python script execution |
| Context | **configure** call-trace trace-profile *named-item* applications python *boolean* |


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| | |
|---|---|
| Tree | python |
| Description | When configured to **true**, this command enables tracing of Python script execution.<br>When configured to **false**, Python script execution is not traced. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **radius-acct** *boolean*

| | |
|---|---|
| Synopsis | Trace messages and events for RADIUS-based accounting |
| Context | **configure** call-trace trace-profile *named-item* applications radius-acct *boolean* |
| Tree | radius-acct |
| Description | When configured to **true**, this command enables tracing of messages and events related to RADIUS-based accounting.<br>When configured to **false**, RADIUS-based accounting messages and events are not traced. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **radius-auth** *boolean*

| | |
|---|---|
| Synopsis | Trace RADIUS authentication messages and events |
| Context | **configure** call-trace trace-profile *named-item* applications radius-auth *boolean* |
| Tree | radius-auth |
| Description | When configured to **true**, this command enables tracing of messages and events related to RADIUS authentication, including CoA and Disconnect.<br>When configured to **false**, messages and events related to RADIUS authentication are not traced. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |


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| | |
|---|---|
| Context | **configure** call-trace trace-profile *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **events** *keyword*

| | |
|---|---|
| Synopsis | Events to include in the captured trace |
| Context | **configure** call-trace trace-profile *named-item* events *keyword* |
| Tree | events |
| Options | public-only, all |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **output**

| | |
|---|---|
| Synopsis | Enter the **output** context |
| Context | **configure** call-trace trace-profile *named-item* output |
| Tree | output |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **debug**

| | |
|---|---|
| Synopsis | Enable output to the debug log |
| Context | **configure** call-trace trace-profile *named-item* output debug |
| Tree | debug |
| Notes | The following elements are part of a choice: **debug**, **live**, or **local-storage**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **live**

| | |
|---|---|
| Synopsis | Enable the **live** context |


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| | |
|---|---|
| Context | **configure** call-trace trace-profile *named-item* output live |
| Tree | live |
| Notes | The following elements are part of a choice: **debug**, **live**, or **local-storage**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **fqdn** *string*

| | |
|---|---|
| Synopsis | Fully qualified domain name of live output destination |
| Context | **configure** call-trace trace-profile *named-item* output live fqdn *string* |
| Tree | fqdn |
| String length | 1 to 255 |
| Notes | The following elements are part of a mandatory choice: **fqdn** or **ip-address**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ip-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the live output destination server |
| Context | **configure** call-trace trace-profile *named-item* output live ip-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | ip-address |
| Notes | The following elements are part of a mandatory choice: **fqdn** or **ip-address**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **port** *number*

| | |
|---|---|
| Synopsis | TCP IP port |
| Context | **configure** call-trace trace-profile *named-item* output live port *number* |
| Tree | port |
| Range | 1 to 65536 |
| Default | 29770 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **router-instance** *string*

| | |
|---|---|
| Synopsis | Router instance or VPRN service name |
| Context | **configure** call-trace trace-profile *named-item* output live router-instance *string* |
| Tree | router-instance |
| Default | Base |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **local-storage**

| | |
|---|---|
| Synopsis | Destination for output |
| Context | **configure** call-trace trace-profile *named-item* output local-storage |
| Tree | local-storage |
| Notes | The following elements are part of a choice: **debug**, **live**, or **local-storage**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **size-limit** *number*

| | |
|---|---|
| Synopsis | Maximum data output for a single call trace operation |
| Context | **configure** call-trace trace-profile *named-item* size-limit *number* |
| Tree | size-limit |
| Range | 1 to 1000 |
| Units | megabytes |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **time-limit** *number*

| | |
|---|---|
| Synopsis | Maximum time for a single call trace job |
| Context | **configure** call-trace trace-profile *named-item* time-limit *number* |
| Tree | time-limit |
| Range | 1 to 604800 |


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| | |
|---|---|
| Units | seconds |
| Default | 86400 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## 4.9 card commands

```
configure
  - card number
    - admin-state keyword
    - apply-groups reference
    - apply-groups-exclude reference
    - card-type keyword
    - fail-on-error boolean
    - filter-profile keyword
    - fp number
      - apply-groups reference
      - apply-groups-exclude reference
      - egress
        - hs-fixed-high-thresh-delta number
        - hs-pool-policy reference
        - wred-queue-control
          - admin-state keyword
          - buffer-allocation decimal-number
          - reserved-cbs decimal-number
          - slope-policy reference
      - fp-resource-policy reference
      - hi-bw-mcast-src
        - alarm boolean
        - default-paths-only boolean
        - group number
      - ingress
        - access
          - queue-group reference instance-id number
            - accounting-policy reference
            - apply-groups reference
            - apply-groups-exclude reference
            - collect-stats boolean
            - description description
            - policer-control-policy
              - overrides
                - apply-groups reference
                - apply-groups-exclude reference
                - max-rate (number | keyword)
                - priority-mbs-thresholds
                  - min-threshold-separation (number | keyword)
                  - priority number
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - mbs-contribution (number | keyword)
              - policy-name reference
            - policer-overrides
              - policer reference
                - apply-groups reference
                - apply-groups-exclude reference
                - cbs (number | keyword)
                - mbs (number | keyword)
                - packet-byte-offset number
                - rate
                  - cir (number | keyword)
                  - pir (number | keyword)
                - stat-mode keyword
        - dist-cpu-protection
          - dynamic-enforcement-policer-pool number
        - mcast-path-management
          - admin-state keyword
```


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configure card fp ingress mcast-path-management bandwidth-policy

```
                - bandwidth-policy reference
            - network
                - pool named-item
                    - amber-alarm-threshold number
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - monitor-pool-depth
                        - admin-state keyword
                        - alarm-thresholds
                            - reserved-pool-in-use decimal-number
                            - shared-pool-in-use decimal-number
                            - total-pool-in-use decimal-number
                    - red-alarm-threshold number
                    - resv-cbs
                        - amber-alarm-action
                            - max number
                            - step number
                        - cbs number
                    - slope-policy reference
                - queue-group reference instance-id number
                    - accounting-policy reference
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - collect-stats boolean
                    - description description
                    - policer-control-policy
                        - overrides
                            - apply-groups reference
                            - apply-groups-exclude reference
                            - max-rate (number | keyword)
                            - priority-mbs-thresholds
                                - min-threshold-separation (number | keyword)
                                - priority number
                                    - apply-groups reference
                                    - apply-groups-exclude reference
                                    - mbs-contribution (number | keyword)
                        - policy-name reference
                    - policer-overrides
                        - policer reference
                            - apply-groups reference
                            - apply-groups-exclude reference
                            - cbs (number | keyword)
                            - mbs (number | keyword)
                            - packet-byte-offset number
                            - rate
                                - cir (number | keyword)
                                - pir (number | keyword)
                            - stat-mode keyword
                - queue-policy reference
            - policy-accounting
                - classes number
                - policers number
        - ingress-buffer-allocation decimal-number
        - init-extract-prio-mode keyword
        - stable-pool-sizing boolean
    - level keyword
    - mda number
        - access
            - apply-groups reference
            - apply-groups-exclude reference
            - egress
                - apply-groups reference
                - apply-groups-exclude reference
            - ingress
```


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```
            - apply-groups reference
            - apply-groups-exclude reference
        - admin-state keyword
        - apply-groups reference
        - apply-groups-exclude reference
        - egress-xpl
            - threshold number
            - window number
        - event keyword
            - action keyword
            - apply-groups reference
            - apply-groups-exclude reference
        - fail-on-error boolean
        - ingress-xpl
            - threshold number
            - window number
        - level keyword
        - mda-type keyword
        - network
            - apply-groups reference
            - apply-groups-exclude reference
            - egress
                - apply-groups reference
                - apply-groups-exclude reference
            - ingress
                - apply-groups reference
                - apply-groups-exclude reference
        - power-priority-level number
        - reset-on-recoverable-error boolean
        - sync-e keyword
        - upgrade number
            - apply-groups reference
            - apply-groups-exclude reference
            - path keyword
        - xconnect
            - mac number
                - apply-groups reference
                - apply-groups-exclude reference
                - description very-long-description-or-empty
                - loopback number
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - bandwidth number
                    - description very-long-description-or-empty
    - power-save boolean
    - reset-on-recoverable-error boolean
    - upgrade number
        - apply-groups reference
        - apply-groups-exclude reference
        - path keyword
    - virtual-scheduler-adjustment
        - apply-groups reference
        - apply-groups-exclude reference
        - internal-scheduler-weight-mode keyword
        - interval
            - rate-calculation-minimum
                - fast-queue decimal-number
                - slow-queue decimal-number
            - scheduler-run-minimum decimal-number
            - task-scheduling decimal-number
        - slow-queue-threshold-rate number
        - workload-performance
            - manual
                - admin-state keyword
```


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configure card virtual-scheduler-adjustment workload-performance manual control

```
            - control named-item
               - apply-groups reference
               - apply-groups-exclude reference
               - percentage decimal-number
   - xiom string
      - admin-state keyword
      - apply-groups reference
      - apply-groups-exclude reference
      - fail-on-error boolean
      - level keyword
      - mda number
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - mda-type keyword
         - power-priority-level number
         - sync-e keyword
         - xconnect
            - mac number
               - apply-groups reference
               - apply-groups-exclude reference
               - description very-long-description-or-empty
               - loopback number
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - bandwidth number
                  - description very-long-description-or-empty
      - reset-on-recoverable-error boolean
      - upgrade number
         - apply-groups reference
         - apply-groups-exclude reference
         - path keyword
      - xiom-type keyword
```


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## 4.9.1 card command descriptions

### **card** [slot-number] *number*

| | |
|---|---|
| Synopsis | Enter the **card** list instance |
| Context | **configure** card *number* |
| Tree | card |
| Description | Commands in this context cover attributes for specific chassis slots for physical cards.<br>In SR OS, cards cover IOM, IMM, and XCM. |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**slot-number**] *number*

| | |
|---|---|
| Synopsis | Slot number within the chassis |
| Context | **configure** card *number* |
| Tree | card |
| Description | This command configures a unique value that identifies the card slot within a chassis in the system. |
| Range | 1 to 20 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the card |
| Context | **configure** card *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **card-type** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Card type |
| Context | **configure** card *number* card-type *keyword* |
| Tree | card-type |
| Description | This command adds an IOM, IMM, XCM to the device configuration for the slot.<br><br>The card type can be pre-provisioned, meaning that the card does not need to be installed in the chassis.<br><br>A card must be provisioned before any contained object can be configured: MDA, XIOM, XMA, MDA-s, connector, or port. A card can only be provisioned in a slot if the card type is allowed in the slot. An error message is generated if an attempt is made to provision a card type that is not allowed.<br><br>If a card is inserted that does not match the configured card type for the slot, a log event and facility alarm is raised. The alarm is cleared when the correct card type is installed or the configuration is modified. A log event and facility alarm are raised if an administratively enabled card is removed from the chassis. The alarm is cleared when the correct card type is installed or the configuration is modified. A log event is issued when a card is removed that is administratively disabled.<br><br>Because IMMs do not have the capability to install separate MDAs, the configuration of the MDAs is automatic. This configuration only includes the default options such as default buffer policies. Commands to manage the MDA remain in the MDA configuration context.<br><br>Some card hardware can support two different firmware loads. One load includes the base Ethernet functionality, including 10G WAN mode, but does not include 1588 port-based timestamping. The second load includes the base Ethernet functionality and 1588 port-based timestamping, but does not include 10G WAN mode. These are identified as two card types that are the same, except for a “-ptp” suffix to indicate the second loadset. A hard reset of the card occurs when switching between the two provisioned types.<br><br>An appropriate alarm is raised if a partial or complete card failure is detected. The alarm is cleared when the error condition ceases. |
| Options | xcm-x20, imm40-10gb-sfp, imm4-100gb-cxp, iom4-e, iom-a, imm-1pac-fp3, imm-2pac-fp3, iom4-e-hs, imm4-100gb-cfp4, iom-e, iom-v, iom4-e-b, iom-sar-hm, xcm2-x20, iom-1, xcm-14s, imm40-10gb-sfp-ptp, iom-ixr-r6, imm36-100g-qsfp28, imm48-sfp+2-qsfp28, iom5-e, xcm-7s, imm48-sfp++6-qsfp28, xcm-1s, xcm-2s, imm24-sfp++8-sfp28+2-qsfp28, iom-sar-hmc, imm14-10g-sfp++4-1g-tx, iom-ixr-r4, imm6-qsfpdd+48-sfp56, imm32-qsfp28+4-qsfpdd, i48-800g-qsfpdd-1x, imm36-qsfpdd, imm4-1g-tx+20-1g-sfp+6-10g-sfp+, iom-ixr-r6d, xcm2-7s, i24-800g-qsfpdd-1, imm36-800g-qsfpdd, xcm2-14s, i48-400g-qsfpdd-1, i80-200g-sfpdd+12-400g-qsfpdd-1, i40-200g-sfpdd+6-800g-qsfpdd-1, i80-200g-sfpdd+12-800g-qsfpdd-1x, |


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xcm-2se, xcm-14s-b, xcm-7s-b, imm2-qsfpdd+2-qsfp28+24-sfp28, xcmc-2se, imm12-sfp28+2-qsfp28, dms24-800g-qsfpdd-1

Introduced 16.0.R1

Platforms All

## **fail-on-error** *boolean*

Synopsis Set operational state of the card to Failed upon error

Context **configure** card *number* fail-on-error *boolean*

Tree fail-on-error

Description When configured to **true**, this command controls the behavior of the card when any one of a specific set of card level errors is encountered in the system.

When this command is set to **true**, and any one (or more) of the specific errors is detected, the operational state of the card is set to failed. This failed state persists until the **clear card** command is issued (reset) or the card is removed and reinserted (reseated). If the condition persists after reseating the card, contact Nokia support to investigate more.

Nokia only recommends configuring this command to **true** when the network is designed to be able to route traffic around a failed card (redundant cards, nodes, or other paths exist).

The list of specific errors includes the following:

CHASSIS event ID# 2063 - tmnxEqCardPChipMemoryEvent

CHASSIS event ID# 2076 - tmnxEqCardPChipCamEvent

CHASSIS event ID# 2059 - tmnxEqCardPChipError (for ingress Ethernet only)

CHASSIS event ID# 2098 - tmnxEqCardQChipBufMemoryEvent

CHASSIS event ID# 2099 - tmnxEqCardQChipStatsMemoryEvent

CHASSIS event ID# 2101 - tmnxEqCardQChipIntMemoryEvent

CHASSIS event ID# 2103 - tmnxEqCardChipIfCellEvent

On platforms with integrated CPM and IOM, IMM, or XCM, the node is rebooted if this command is set to **true** and one of the card level errors is encountered. The tmnx EqCardPChipError is only considered as a trigger for this command for ingress FCS errors (not egress FCS errors).

**Note:** On the detection of the event or error in the system, the reporting of the event (logs) and the fail-on-error behavior of the card are independent. Log event control configuration determines whether the events are reported in logs (or SNMP traps, and so on) and the fail-on-error configuration determines the behavior of the card. This implies that the card can be configured to fail-on-error even if the events are suppressed (some may be suppressed in the system by default). To facilitate post-failure analysis, Nokia recommends reporting the specific events or errors and that **configure log log-events** be enabled when this command is set to **true**.

Default false


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter-profile** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Filter profile for the card |
| Context | **configure** card *number* filter-profile *keyword* |
| Tree | filter-profile |
| Description | This command controls the resources allocated to ingress and egress IPv4 and IPv6 filters on a per-line card basis on the SR-a platform. |
| Options | none, profile-a |
| Default | none |
| Introduced | 19.10.R1 |
| Platforms | 7750 SR-a |

### **fp** [fp-number] *number*

| | |
|---|---|
| Synopsis | Enter the **fp** list instance |
| Context | **configure** card *number* fp *number* |
| Tree | fp |
| Description | Commands in this context configure forwarding plane (FP) specific options on the card. |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**fp-number**] *number*

| | |
|---|---|
| Synopsis | Forwarding plane within the card |
| Context | **configure** card *number* fp *number* |
| Tree | fp |
| Range | 1 to 12 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## egress

| | |
|---|---|
| Synopsis | Enter the **egress** context |
| Context | **configure** card *number* fp *number* egress |
| Tree | egress |
| Introduced | 16.0.R1 |
| Platforms | All |

## hs-fixed-high-thresh-delta *number*

| | |
|---|---|
| Synopsis | High threshold delta on the forwarding plane |
| Context | **configure** card *number* fp *number* egress hs-fixed-high-thresh-delta *number* |
| Tree | hs-fixed-high-thresh-delta |
| Description | This command specifies the egress aggregate shaper high burst limit threshold delta for this HSQ IOM FP.<br><br>An aggregate rate can be applied to each egress HSQ queue group, HS secondary shaper, and (for subscribers configured with HS SLA expanded mode) primary shaper that manages the maximum burst limit over a specified shaping rate. Each aggregate shaper supports two thresholds that are used in conjunction with the low burst class setting. The system uses the lowest value attainable for each low threshold aggregate burst limit without causing shaper under run conditions.<br><br>The high burst limit threshold is determined by adding the configured value of this command to the aggregate low burst limit threshold value. An operator must set this configured value to at least two times the maximum frame size to prevent lower threshold class forwarding from also affecting the higher threshold classes when forwarding larger packet sizes. An insufficiently high threshold delta defeats the intended purpose of mapping classes to the higher threshold. |
| Range | 0 to 65536 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

## hs-pool-policy *reference*

| | |
|---|---|
| Synopsis | HS pool policy |
| Context | **configure** card *number* fp *number* egress hs-pool-policy *reference* |
| Tree | hs-pool-policy |


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| | |
|---|---|
| Description | This command specifies the HS pool policy for the FP.<br>An HS pool policy contains the required parameters to create and size root and mid-tier buffer pools on an HSQ IOM, and applies a slope policy to each. A single HS pool policy is supported per port FP.<br>This command is only applicable to the HSQ IOM (iom4-e-hs) and fails if configured on other card types. |
| Reference | **configure** qos hs-pool-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

## wred-queue-control

| | |
|---|---|
| Synopsis | Enter the **wred-queue-control** context |
| Context | **configure** card *number* fp *number* egress wred-queue-control |
| Tree | wred-queue-control |
| Description | Commands in this context configure the aggregate Weighted Random Early Detection (WRED) queue options for all WRED queues on an egress forwarding plane. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the WRED queue control function |
| Context | **configure** card *number* fp *number* egress wred-queue-control admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## buffer-allocation *decimal-number*

| | |
|---|---|
| Synopsis | Buffer allocation for WRED queue buffer pools |
| Context | **configure** card *number* fp *number* egress wred-queue-control buffer-allocation *decimal-number* |
| Tree | buffer-allocation |


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| | |
|---|---|
| Description | This command defines the percentage of buffers to set aside for WRED queue buffer pools. |
| Range | 0.01 to 99.99 |
| Units | percent |
| Default | 25.00 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **reserved-cbs** *decimal-number*

| | |
|---|---|
| Synopsis | Buffers for queues operating within CBS thresholds |
| Context | **configure** card *number* fp *number* egress wred-queue-control reserved-cbs *decimal-number* |
| Tree | reserved-cbs |
| Description | This command specifies the percentage of buffers within the WRED mega-pool to set aside for WRED queues operating within the configured CBS thresholds. The forwarding plane protects against WRED queue buffer starvation by setting aside a portion of the buffers within the WRED mega-pool.<br>This threshold defines when a WRED queue requests buffers from the reserved portion of the WRED mega-pool and when it starts requesting buffers from the shared portion of the mega-pool. With proper oversubscription provisioning, a seldom active queue is not denied a buffer from the mega-pool when the shared portion of the mega-pool is congested. |
| Range | 0.01 to 99.99 |
| Units | percent |
| Default | 25.00 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **slope-policy** *reference*

| | |
|---|---|
| Synopsis | Slope policy for the forwarding plane |
| Context | **configure** card *number* fp *number* egress wred-queue-control slope-policy *reference* |
| Tree | slope-policy |
| Reference | **configure** qos slope-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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## **fp-resource-policy** *reference*

**WARNING:**
Modifying this element resets the associated cards/XIOMs/MDAs for the new value to take effect. On the 7750 SR-1, the configuration must be saved and the router must be rebooted for the new value to take effect.

| | |
|---|---|
| Synopsis | Resource policy to manage resources on the FP |
| Context | **configure** card *number* fp *number* fp-resource-policy *reference* |
| Tree | fp-resource-policy |
| Description | This command configures an FP resource policy used to manage resources on a forwarding plane that is FP4-based and later.<br>The system creates a default policy that applies to all FP4 and later FPs. If an FP resource policy is removed from an FP, the system automatically applies the default policy to that FP. The system prevents the modification or deletion of the default policy, and the deletion of any user-created policy that is applied to an FP. |
| Reference | **configure** qos fp-resource-policy *fp-resource-policy-name* |
| Introduced | 20.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## **hi-bw-mcast-src**

| | |
|---|---|
| Synopsis | Enable the **hi-bw-mcast-src** context |
| Context | **configure** card *number* fp *number* hi-bw-mcast-src |
| Tree | hi-bw-mcast-src |
| Description | Commands in this context configure the attributes to designate the FP as a high-bandwidth IP multicast source, expecting the ingress traffic to include high-bandwidth IP multicast traffic.<br>When configured, the system attempts to allocate a dedicated multicast switch fabric plane (MSFP) to the forwarding plane. When a group is specified, all FPs in the group share the same MSFP. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-1x-48D, 7750 SR-1x-92S, 7750 SR-7/12/12e, 7750 SR-s, 7950 XRS |

## **alarm** *boolean*

| | |
|---|---|
| Synopsis | Raise an alarm when multiple traffic taps share a plane |
| Context | **configure** card *number* fp *number* hi-bw-mcast-src alarm *boolean* |


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| | |
|---|---|
| Tree | alarm |
| Description | When configured to **true**, the router generates an event if the MDA must share an MSFP with another MDA in a different group. MDAs within the same group that share an MSFP do not generate an event. Additionally, if a failure occurs during normal operation or resources are removed, the system generates an event if it cannot maintain separation of MSFPs for the MDAs.<br>When configured to **false**, the router does not generate events. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-1x-48D, 7750 SR-1x-92S, 7750 SR-7/12/12e, 7750 SR-s, 7950 XRS |

## **default-paths-only** *boolean*

| | |
|---|---|
| Synopsis | Allocate the default paths to dedicated MSFPs |
| Context | **configure** card *number* fp *number* hi-bw-mcast-src default-paths-only *boolean* |
| Tree | default-paths-only |
| Description | When configured to **true**, the system only attempts to allocate the two default paths (one high priority and one low priority) to dedicated MSFPs.<br>When configured to **false**, the default path allocation is disabled. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-1x-48D, 7750 SR-1x-92S, 7750 SR-7/12/12e, 7750 SR-s, 7950 XRS |

## **group** *number*

| | |
|---|---|
| Synopsis | Logical MSFP group for the MDA |
| Context | **configure** card *number* fp *number* hi-bw-mcast-src group *number* |
| Tree | group |
| Description | This command specifies the logical MSFP group for the MDA.<br>If a group is specified, all FPs in the group share the same MSFP. |
| Range | 0 to 32 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-1x-48D, 7750 SR-1x-92S, 7750 SR-7/12/12e, 7750 SR-s, 7950 XRS |


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## ingress

| | |
|---|---|
| Synopsis | Enter the **ingress** context |
| Context | **configure** card *number* fp *number* ingress |
| Tree | ingress |
| Introduced | 16.0.R1 |
| Platforms | All |

## access

| | |
|---|---|
| Synopsis | Enter the **access** context |
| Context | **configure** card *number* fp *number* ingress access |
| Tree | access |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## **queue-group** [queue-group-name] *reference* instance-id *number*

| | |
|---|---|
| Synopsis | Enter the **queue-group** list instance |
| Context | **configure** card *number* fp *number* ingress access queue-group *reference* instance-id *number* |
| Tree | queue-group |
| Description | Commands in this context create a named queue group template on the ingress forwarding plane of an IOM or IMM. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## [**queue-group-name**] *reference*

| | |
|---|---|
| Synopsis | Queue group name |
| Context | **configure** card *number* fp *number* ingress access queue-group *reference* instance-id *number* |
| Tree | queue-group |
| Reference | **configure** qos queue-group-templates ingress queue-group *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## **instance-id** *number*

| | |
|---|---|
| Synopsis | Instance ID |
| Context | **configure** card *number* fp *number* ingress access queue-group *reference* instance-id *number* |
| Tree | queue-group |
| Range | 1 to 65535 |
| MD-CLI default | 1 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## **accounting-policy** *reference*

| | |
|---|---|
| Synopsis | Accounting policy for the FP ingress queue group |
| Context | **configure** card *number* fp *number* ingress access queue-group *reference* instance-id *number* accounting-policy *reference* |
| Tree | accounting-policy |
| Description | This command configures an accounting policy for the FP ingress queue group. You can only apply accounting policies associated with service billing to SAPs. Only associate the accounting policy with one interface at a time. |
| Reference | **configure** log accounting-policy *number* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## **collect-stats** *boolean*

| | |
|---|---|
| Synopsis | Collect statistics on FP ingress queue group |
| Context | **configure** card *number* fp *number* ingress access queue-group *reference* instance-id *number* collect-stats *boolean* |
| Tree | collect-stats |
| Description | When configured to **true**, the system collects accounting and statistical data for the queue group on the FP. |


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When configured to **false**, the system still accumulates the statistics; however, the CPU does not obtain the results and write them to the billing file.

If this command is set to **true** (after it had previously been set to **false**), the counters written to the billing file include the traffic collected when the command was set to **false**.

| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** card *number* fp *number* ingress access queue-group *reference* instance-id *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## **policer-control-policy**

| | |
|---|---|
| Synopsis | Enter the **policer-control-policy** context |
| Context | **configure** card *number* fp *number* ingress access queue-group *reference* instance-id *number* policer-control-policy |
| Tree | policer-control-policy |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## **overrides**

| | |
|---|---|
| Synopsis | Enable the **overrides** context |
| Context | **configure** card *number* fp *number* ingress access queue-group *reference* instance-id *number* policer-control-policy overrides |
| Tree | overrides |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |


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## **max-rate** *(number | keyword)*

Synopsis Maximum rate override

Context **configure** card *number* fp *number* ingress access queue-group *reference* instance-id *number* policer-control-policy overrides max-rate *(number | keyword)*

Tree max-rate

Description This command defines the PIR leaky bucket decrement rate of the parent policer. Each time you apply the policer control policy to a SAP or subscriber instance a parent policer is created. Packets not discarded by the child policer associated with the SAP or subscriber instance are evaluated against the leaky bucket of the parent policer.

For each packet, the system first decrements the bucket by the correct amount based on the decrement rate to derive the current bucket depth. The system compares the current depth to one of two discard thresholds associated with the packet. The first discard threshold is applied if the Fair Information Rate (FIR) leaky bucket of the child policer is in the confirming state. The second discard threshold is applied if the FIR leaky bucket of the child policer is in the exceed state.

Only one of the two thresholds is applied per packet. If the current depth of the parent policer PIR bucket is less than the threshold value, the parent PIR bucket is in the conform state for that particular packet. If the depth is equal to or greater than the applied threshold, the bucket is in the violate state for the packet.

If the result is conform, the bucket depth is increased by the size of the packet (plus or minus the per-packet offset setting in the child policer) and the parent policer does not discard the packet. If the result is violate, the bucket depth is not increased and the parent policer discards the packet. When the parent policer discards a packet, the bucket depth increases (PIR, CIR, and FIR) in the parent policer are canceled. This prevents packets that the parent policer discards from consuming the PIR, CIR, and FIR bandwidth of the child policers.

Range 1 to 2000000000

Units kilobps

Options max

Introduced 16.0.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR

## **priority-mbs-thresholds**

Synopsis Enter the **priority-mbs-thresholds** context

Context **configure** card *number* fp *number* ingress access queue-group *reference* instance-id *number* policer-control-policy overrides priority-mbs-thresholds

Tree priority-mbs-thresholds

Description Commands in this context configure the derivative for the shared portion and fair portion for each priority level.


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The system uses the shared portion and fair portion values to calculate the discard-unfair and discard-all MBS thresholds that enforce priority-sensitive rate-based discards within the root arbiter parent policer.

Introduced 16.0.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR

### **min-threshold-separation** *(number | keyword)*

Synopsis Minimum separation between any two active thresholds

Context **configure** card *number* fp *number* ingress access queue-group *reference* instance-id *number* policer-control-policy overrides priority-mbs-thresholds min-threshold-separation *(number | keyword)*

Tree min-threshold-separation

Description This command configures the minimum separation between any two active thresholds in the parent policer.

Range 0 to 16777216

Units bytes

Options auto

Introduced 16.0.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR

### **priority** [level] *number*

Synopsis Enter the **priority** list instance

Context **configure** card *number* fp *number* ingress access queue-group *reference* instance-id *number* policer-control-policy overrides priority-mbs-thresholds priority *number*

Tree priority

Introduced 16.0.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR

### [**level**] *number*

Synopsis Priority level, higher number is stricter

Context **configure** card *number* fp *number* ingress access queue-group *reference* instance-id *number* policer-control-policy overrides priority-mbs-thresholds priority *number*

Tree priority

Range 1 to 8


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## **mbs-contribution** *(number | keyword)*

| | |
|---|---|
| Synopsis | MBS contribution size override |
| Context | **configure** card *number* fp *number* ingress access queue-group *reference* instance-id *number* policer-control-policy overrides priority-mbs-thresholds priority *number* mbs-contribution *(number \| keyword)* |
| Tree | mbs-contribution |
| Description | This command specifies the packet burst capacity required at the parent policer for a specified priority level with at least one child, and where the total capacity also includes the capacity of all lower thresholds. |
| Range | 0 to 16777216 |
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## **policy-name** *reference*

| | |
|---|---|
| Synopsis | Policer control policy name |
| Context | **configure** card *number* fp *number* ingress access queue-group *reference* instance-id *number* policer-control-policy policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos policer-control-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## **policer-overrides**

| | |
|---|---|
| Synopsis | Enter the **policer-overrides** context |
| Context | **configure** card *number* fp *number* ingress access queue-group *reference* instance-id *number* policer-overrides |
| Tree | policer-overrides |


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| | |
|---|---|
| Description | Commands in this context configure specific overrides to one or more policers created on the SAP through SAP ingress QoS policies. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## **policer** [policer-id] *reference*

| | |
|---|---|
| Synopsis | Enter the **policer** list instance |
| Context | **configure** card *number* fp *number* ingress access queue-group *reference* instance-id *number* policer-overrides policer *reference* |
| Tree | policer |
| Description | Commands in this context create, modify, or delete a policer. Policers are created and used in a similar manner to queues. Unlike queues that have dedicated counters, policers allow various stat-mode settings that define the counters to be associated with the policer. Packet byte offset provides a policer with the ability to modify the size of each packet based on a defined number of bytes. All policers must be created within the QoS policies.<br>After a policer is created, it cannot be deleted from the QoS policy unless all forwarding classes mapped to the policer are first moved to other policers or queues.<br>The system allows a policer to be created on a SAP QoS policy regardless of the ability to support policers on objects where the policy is currently applied. The system only scans the current objects for policer support and sufficient resources to create the policer when a forwarding class is first mapped to the policer ID. If the policer cannot be created because one or more instances of the policy do not support policing or have insufficient resources to create the policer, the forwarding class mapping fails. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## [**policer-id**] *reference*

| | |
|---|---|
| Synopsis | Policer ID |
| Context | **configure** card *number* fp *number* ingress access queue-group *reference* instance-id *number* policer-overrides policer *reference* |
| Tree | policer |
| Reference | **configure** qos queue-group-templates ingress queue-group *named-item* policer *number* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |


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## **cbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | CBS tolerance allowed by the policer |
| Context | **configure** card *number* fp *number* ingress access queue-group *reference* instance-id *number* policer-overrides policer *reference* cbs *(number \| keyword)* |
| Tree | cbs |
| Description | This command configures the CIR leaky bucket exceed threshold of the policer.<br>If the forwarding rate of the policer is equal to or less than the defined CIR, the CIR bucket depth hovers around the 0 depth, with spikes up to the maximum packet size in the offered load. If the forwarding rate increases beyond the profiling rate, the threshold caps the amount of data allowed to be in-profile above the rate. |
| Range | 0 to 268435456 |
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## **mbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum burst tolerance allowed by the policer |
| Context | **configure** card *number* fp *number* ingress access queue-group *reference* instance-id *number* policer-overrides policer *reference* mbs *(number \| keyword)* |
| Tree | mbs |
| Description | This command configures the PIR leaky bucket violate threshold of the policer.<br>Ingress, trusted in-profile packets and untrusted high priority packets use the high priority violate threshold and trusted out-of-profile. Untrusted low priority packets use the low priority violate threshold.<br>If the offered rate of the policer is equal to or less than the defined rate, the PIR bucket depth hovers around the 0 depth, with spikes up to the maximum packet size in the offered load. If the offered rate increases beyond the metering rate, the threshold caps the amount of data allowed above the rate.<br>The low priority violate threshold provides a smaller burst size for the lower priority traffic associated with the policer. Because all lower priority traffic is discarded at the lower burst tolerance size, the remaining burst tolerance is available for higher priority traffic. |
| Range | 0 to 268435456 |
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |


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Platforms 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR

### **packet-byte-offset** *number*

Synopsis Packet size adjustment

Context **configure** card *number* fp *number* ingress access queue-group *reference* instance-id *number* policer-overrides policer *reference* packet-byte-offset *number*

Tree packet-byte-offset

Description This command modifies the size of each packet handled by the policer by adding or subtracting a number of bytes. The actual packet size is not modified; only the size used to determine the bucket depth impact is changed.

Use this command to add downstream frame encapsulation or remove portions of packet headers.

When child policers add to or subtract from the packet size, the minimum threshold separation value of the parent policer must be modified by the same amount.

Range -32 to 31

Introduced 16.0.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR

### **rate**

Synopsis Enter the **rate** context

Context **configure** card *number* fp *number* ingress access queue-group *reference* instance-id *number* policer-overrides policer *reference* rate

Tree rate

Description Commands in this context configure the metering and optional profiling rates of the policer.

The metering rate is used by the system to configure the PIR leaky bucket decrement rate and the profiling rate configures the CIR leaky bucket decrement rate. The decrement function empties the bucket; packets applied to the bucket attempt to fill it based on its packet size. If the bucket fills faster than the rate that it empties, the bucket depth eventually reaches its exceeded (CIR) or violate (PIR) threshold.

Introduced 16.0.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR

### **cir** *(number | keyword)*

Synopsis CIR for the policer


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| | |
|---|---|
| Context | **configure** card *number* fp *number* ingress access queue-group *reference* instance-id *number* policer-overrides policer *reference* rate cir *(number \| keyword)* |
| Tree | cir |
| Description | This command overrides the default CIR rate of the policer.<br>When the policer is first created, the profiling rate defaults to 0 kb/s.<br>When **max** is configured, the maximum policer rate used is equal to the maximum capacity of the card that the policer is configured for. If the policer rate is set to a value larger than the maximum rate possible for the card, the CIR used is equivalent to maximum. |
| Range | 0 to 2000000000 |
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | PIR for the policer |
| Context | **configure** card *number* fp *number* ingress access queue-group *reference* instance-id *number* policer-overrides policer *reference* rate pir *(number \| keyword)* |
| Tree | pir |
| Description | This command configures the metering rate of the policer for the PIR leaky bucket.<br>When the policer is first created, the metering rate defaults to max.<br>When **max** is configured, the maximum policer rate used is equal to the maximum capacity of the card that the policer is configured for. If the policer rate is set to a value larger than the maximum rate possible for the card, the PIR used is equivalent to maximum. |
| Range | 1 to 2000000000 |
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **stat-mode** *keyword*

| | |
|---|---|
| Synopsis | Stat mode for the policer |
| Context | **configure** card *number* fp *number* ingress access queue-group *reference* instance-id *number* policer-overrides policer *reference* stat-mode *keyword* |


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| | |
|---|---|
| Tree | stat-mode |
| Description | This command specifies the forwarding plane counters that allow offered, output, and discard accounting to occur for the policer. |
| Options | no-stats, minimal, offered-profile-no-cir, offered-total-cir, offered-priority-no-cir, offered-profile-cir, offered-priority-cir, offered-limited-profile-cir, offered-profile-capped-cir, offered-limited-capped-cir |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## dist-cpu-protection

| | |
|---|---|
| Synopsis | Enter the **dist-cpu-protection** context |
| Context | **configure** card *number* fp *number* ingress dist-cpu-protection |
| Tree | dist-cpu-protection |
| Description | Commands in this context configure the distributed CPU protection forwarding plane settings. |
| Introduced | 21.2.R1 |
| Platforms | All |

## dynamic-enforcement-policer-pool *number*

| | |
|---|---|
| Synopsis | Number of policers reserved as enforcement policers use |
| Context | **configure** card *number* fp *number* ingress dist-cpu-protection dynamic-enforcement-policer-pool *number* |
| Tree | dynamic-enforcement-policer-pool |
| Description | This command reserves a set of policers for use as dynamic enforcement policers for the Distributed CPU Protection (DCP) feature. Policers are allocated from this pool and instantiated as per-object per-protocol dynamic enforcement policers after a local monitor is triggered for an object, such as a SAP or network interface.<br><br>A change to this configured value automatically clears the high water mark, timestamp, and failed allocation count.<br><br>If the command is configured to a value below the currently used or allocated number, all dynamic policers are returned to the free pool (and traffic returns to the local monitors). |
| Range | 1000 to 32000 |
| Introduced | 21.2.R1 |
| Platforms | All |


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## mcast-path-management

| | |
|---|---|
| Synopsis | Enter the **mcast-path-management** context |
| Context | **configure** card *number* fp *number* ingress mcast-path-management |
| Tree | mcast-path-management |
| Description | Commands in this context configure the IOM ingress multicast path management forwarding plane settings. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-1x-48D, 7750 SR-1x-92S, 7750 SR-7/12/12e, 7750 SR-s, 7950 XRS, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of multicast path management |
| Context | **configure** card *number* fp *number* ingress mcast-path-management admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-1x-48D, 7750 SR-1x-92S, 7750 SR-7/12/12e, 7750 SR-s, 7950 XRS, VSR |

## bandwidth-policy *reference*

| | |
|---|---|
| Synopsis | Bandwidth policy for ingress multicast path management |
| Context | **configure** card *number* fp *number* ingress mcast-path-management bandwidth-policy *reference* |
| Tree | bandwidth-policy |
| Description | This command specifies the bandwidth policy associated with the forwarding plane.<br>The bandwidth policy defines the dynamic rate table and the multicast paths bandwidth and queuing parameters.<br>If a bandwidth policy is not explicitly associated with a forwarding plane, the default bandwidth policy is used with ingress multicast path management. |
| Reference | **configure** multicast-management bandwidth-policy *named-item* |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR-1x-48D, 7750 SR-1x-92S, 7750 SR-7/12/12e, 7750 SR-s, 7950 XRS, VSR |

## network

| | |
|---|---|
| Synopsis | Enter the **network** context |
| Context | **configure** card *number* fp *number* ingress network |
| Tree | network |
| Description | Commands in this context configure the IOM ingress network forwarding plane settings. |
| Introduced | 16.0.R1 |
| Platforms | All |

## pool [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **pool** list instance |
| Context | **configure** card *number* fp *number* ingress network pool *named-item* |
| Tree | pool |
| Description | Commands in this context configure the list of forwarding plane ingress network pool settings. |
| Introduced | 19.5.R1 |
| Platforms | All |

## [**name**] *named-item*

| | |
|---|---|
| Synopsis | Network ingress pool name for the FP |
| Context | **configure** card *number* fp *number* ingress network pool *named-item* |
| Tree | pool |
| String length | 1 to 32 |
| MD-CLI default | default |
| Notes | This element is part of a list key. |
| Introduced | 19.5.R1 |
| Platforms | All |


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### **amber-alarm-threshold** *number*

| | |
|---|---|
| Synopsis | Amber alarm threshold allowed on oversubscription |
| Context | **configure** card *number* fp *number* ingress network pool *named-item* amber-alarm-threshold *number* |
| Tree | amber-alarm-threshold |
| Description | This command configures the threshold for the amber alarm on oversubscription.<br>If both amber and red alarm thresholds are configured, the amber alarm threshold must be equal to or less than the red alarm threshold. |
| Range | 1 to 1000 |
| Units | percent |
| Introduced | 19.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **monitor-pool-depth**

| | |
|---|---|
| Synopsis | Enter the **monitor-pool-depth** context |
| Context | **configure** card *number* fp *number* ingress network pool *named-item* monitor-pool-depth |
| Tree | monitor-pool-depth |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of pool-depth monitoring |
| Context | **configure** card *number* fp *number* ingress network pool *named-item* monitor-pool-depth admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **alarm-thresholds**

| | |
|---|---|
| Synopsis | Enter the **alarm-thresholds** context |


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| | |
|---|---|
| Context | **configure** card *number* fp *number* ingress network pool *named-item* monitor-pool-depth alarm-thresholds |
| Tree | alarm-thresholds |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **reserved-pool-in-use** *decimal-number*

| | |
|---|---|
| Synopsis | Alarm threshold for reserved buffer pool usage |
| Context | **configure** card *number* fp *number* ingress network pool *named-item* monitor-pool-depth alarm-thresholds reserved-pool-in-use *decimal-number* |
| Tree | reserved-pool-in-use |
| Description | This command configures the reserved pool in-use threshold. A tmnxResvPoolUse ThreshExcd trap is generated when the reserved pool usage exceeds this threshold percentage. When the usage returns below the threshold percentage, the tmnxResvPool UseThreshNotExcd trap is generated. |
| Range | 0.00 to 100.00 |
| Units | centipercent |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **shared-pool-in-use** *decimal-number*

| | |
|---|---|
| Synopsis | Alarm threshold for shared of buffer pool usage |
| Context | **configure** card *number* fp *number* ingress network pool *named-item* monitor-pool-depth alarm-thresholds shared-pool-in-use *decimal-number* |
| Tree | shared-pool-in-use |
| Description | This command configures the shared pool in-use threshold. A tmnxSharedPoolUse ThreshExcd trap is generated when the shared pool usage exceeds this threshold percentage. When the usage returns below the threshold percentage, the tmnxShared PoolUseThreshNotExcd trap is generated. |
| Range | 0.00 to 100.00 |
| Units | centipercent |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **total-pool-in-use** *decimal-number*

| | |
|---|---|
| Synopsis | Alarm threshold for usage of total buffer pool |
| Context | **configure** card *number* fp *number* ingress network pool *named-item* monitor-pool-depth alarm-thresholds total-pool-in-use *decimal-number* |
| Tree | total-pool-in-use |
| Description | This command configures the total pool in-use threshold. A tmnxTotalPoolUseThresh Excd trap is generated when the total pool usage exceeds this threshold percentage. When the usage returns below the threshold percentage, the tmnxTotalPoolUseThresh NotExcd trap is generated. |
| Range | 0.00 to 100.00 |
| Units | centipercent |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **red-alarm-threshold** *number*

| | |
|---|---|
| Synopsis | Red alarm threshold allowed on oversubscription |
| Context | **configure** card *number* fp *number* ingress network pool *named-item* red-alarm-threshold *number* |
| Tree | red-alarm-threshold |
| Description | This command configures the threshold for the red alarm on oversubscription.<br>If both amber and red alarm thresholds are configured, the red alarm threshold must be equal to or exceed the amber alarm threshold. |
| Range | 1 to 1000 |
| Units | percent |
| Introduced | 19.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **resv-cbs**

| | |
|---|---|
| Synopsis | Enter the **resv-cbs** context |
| Context | **configure** card *number* fp *number* ingress network pool *named-item* resv-cbs |
| Tree | resv-cbs |
| Description | Commands in this context specify the pool buffer settings.<br>The commands do not set aside buffers within the buffer pool for CBS reservation. The CBS value per queue only determines the point at which enqueuing packets are subject |


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to a RED slope. CBS oversubscription can result in a queue operating within its CBS configuration and still being unable to enqueue a packet due to unavailable buffers.

Introduced 19.5.R1

Platforms All

## amber-alarm-action

Synopsis Enter the **amber-alarm-action** context

Context **configure** card *number* fp *number* ingress network pool *named-item* resv-cbs amber-alarm-action

Tree amber-alarm-action

Description Commands in this context specify settings for the reserved Committed Burst Size (CBS) and step change when the amber alert threshold is exceeded.

The reserved CBS defines the amount of buffer space within the pool that is not considered shared.

Introduced 19.5.R1

Platforms All

## max *number*

Synopsis Maximum reserved CBS size of the pool

Context **configure** card *number* fp *number* ingress network pool *named-item* resv-cbs amber-alarm-action max *number*

Tree max

Description This command configures the maximum reserved CBS size of the pool.

To enable adaptive CBS sizing, this command and the **step** command must be configured.

The value for this command must not be more than the **configure card fp ingress network pool resv-cbs cbs** command.

When the **configure card fp ingress network pool resv-cbs cbs** command is set to a value of zero (0), adaptive CBS sizing is disabled.

Range 1 to 100

Units percent

Introduced 19.5.R1

Platforms All


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### **step** *number*

| | |
|---|---|
| Synopsis | Step-size percentage for reserved CBS size of the pool |
| Context | **configure** card *number* fp *number* ingress network pool *named-item* resv-cbs amber-alarm-action step *number* |
| Tree | step |
| Description | This command configures the step-size percentage for the reserved CBS size of the pool.<br>To enable adaptive CBS sizing, this command and the **max** command must be configured.<br>When the **configure card fp ingress network pool resv-cbs cbs** command is set to a value of zero (0), adaptive CBS sizing is disabled. |
| Range | 1 to 100 |
| Units | percent |
| Introduced | 19.5.R1 |
| Platforms | All |

### **cbs** *number*

| | |
|---|---|
| Synopsis | Pool size reserved for CBS |
| Context | **configure** card *number* fp *number* ingress network pool *named-item* resv-cbs cbs *number* |
| Tree | cbs |
| Description | This command configures the percentage of pool size reserved for CBS.<br>For network, the default value is computed as the sum of the CBS request by the entities using the pool. For access, the default value is 30%. |
| Range | 0 to 100 |
| Units | percent |
| Introduced | 19.5.R1 |
| Platforms | All |

### **slope-policy** *reference*

| | |
|---|---|
| Synopsis | Slope policy |
| Context | **configure** card *number* fp *number* ingress network pool *named-item* slope-policy *reference* |
| Tree | slope-policy |


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| | |
|---|---|
| Description | This command specifies the slope policy that defines the high and low priority RED slope parameters and the time average factor. |
| Reference | **configure** qos slope-policy *named-item* |
| Introduced | 19.5.R1 |
| Platforms | All |

### **queue-group** [queue-group-name] *reference* instance-id *number*

| | |
|---|---|
| Synopsis | Enter the **queue-group** list instance |
| Context | **configure** card *number* fp *number* ingress network queue-group *reference* instance-id *number* |
| Tree | queue-group |
| Description | Commands in this context configure IOM ingress network forwarding plane queue-group settings. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### [**queue-group-name**] *reference*

| | |
|---|---|
| Synopsis | Queue group name |
| Context | **configure** card *number* fp *number* ingress network queue-group *reference* instance-id *number* |
| Tree | queue-group |
| Reference | **configure** qos queue-group-templates ingress queue-group *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **instance-id** *number*

| | |
|---|---|
| Synopsis | Instance ID |
| Context | **configure** card *number* fp *number* ingress network queue-group *reference* instance-id *number* |
| Tree | queue-group |
| Range | 1 to 65535 |


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| | |
|---|---|
| MD-CLI default | 1 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## **accounting-policy** *reference*

| | |
|---|---|
| Synopsis | Accounting policy for the FP ingress queue group |
| Context | **configure** card *number* fp *number* ingress network queue-group *reference* instance-id *number* accounting-policy *reference* |
| Tree | accounting-policy |
| Description | This command configures an accounting policy for the FP ingress queue group. You can only apply accounting policies associated with service billing to SAPs. Only associate the accounting policy with one interface at a time. |
| Reference | **configure** log accounting-policy *number* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## **collect-stats** *boolean*

| | |
|---|---|
| Synopsis | Collect statistics on FP ingress queue group |
| Context | **configure** card *number* fp *number* ingress network queue-group *reference* instance-id *number* collect-stats *boolean* |
| Tree | collect-stats |
| Description | When configured to **true**, the system collects accounting and statistical data for the queue group on the FP.<br>When configured to **false**, the system still accumulates the statistics; however, the CPU does not obtain the results and write them to the billing file.<br>If this command is set to **true** (after it had previously been set to **false**), the counters written to the billing file include the traffic collected when the command was set to **false**. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |


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### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** card *number* fp *number* ingress network queue-group *reference* instance-id *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **policer-control-policy**

| | |
|---|---|
| Synopsis | Enter the **policer-control-policy** context |
| Context | **configure** card *number* fp *number* ingress network queue-group *reference* instance-id *number* policer-control-policy |
| Tree | policer-control-policy |
| Description | Commands in this context configure the IOM ingress network forwarding plane queue-group policer control policy settings. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **overrides**

| | |
|---|---|
| Synopsis | Enable the **overrides** context |
| Context | **configure** card *number* fp *number* ingress network queue-group *reference* instance-id *number* policer-control-policy overrides |
| Tree | overrides |
| Description | Commands in this context configure the IOM ingress network forwarding plane queue-group policer control policy override settings. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **max-rate** *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum rate override |
| Context | **configure** card *number* fp *number* ingress network queue-group *reference* instance-id *number* policer-control-policy overrides max-rate *(number | keyword)* |


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| | |
|---|---|
| Tree | max-rate |
| Description | This command defines the PIR leaky bucket decrement rate of the parent policer. Each time you apply the policer control policy to a SAP or subscriber instance a parent policer is created. Packets not discarded by the child policer associated with the SAP or subscriber instance are evaluated against the leaky bucket of the parent policer.<br><br>For each packet, the system first decrements the bucket by the correct amount based on the decrement rate to derive the current bucket depth. The system compares the current depth to one of two discard thresholds associated with the packet. The first discard threshold is applied if the Fair Information Rate (FIR) leaky bucket of the child policer is in the confirming state. The second discard threshold is applied if the FIR leaky bucket of the child policer is in the exceed state.<br><br>Only one of the two thresholds is applied per packet. If the current depth of the parent policer PIR bucket is less than the threshold value, the parent PIR bucket is in the conform state for that particular packet. If the depth is equal to or greater than the applied threshold, the bucket is in the violate state for the packet.<br><br>If the result is conform, the bucket depth is increased by the size of the packet (plus or minus the per-packet offset setting in the child policer) and the parent policer does not discard the packet. If the result is violate, the bucket depth is not increased and the parent policer discards the packet. When the parent policer discards a packet, the bucket depth increases (PIR, CIR, and FIR) in the parent policer are canceled. This prevents packets that the parent policer discards from consuming the PIR, CIR, and FIR bandwidth of the child policers. |
| Range | 1 to 2000000000 |
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## priority-mbs-thresholds

| | |
|---|---|
| Synopsis | Enter the **priority-mbs-thresholds** context |
| Context | **configure** card *number* fp *number* ingress network queue-group *reference* instance-id *number* policer-control-policy overrides priority-mbs-thresholds |
| Tree | priority-mbs-thresholds |
| Description | Commands in this context configure settings to derive the shared portion and fair portion for each priority level.<br><br>The system uses the shared portion and fair portion values to calculate the discard-unfair and discard-all MBS thresholds that enforce priority-sensitive rate-based discards within the root arbiter parent policer. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |


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### **min-threshold-separation** *(number | keyword)*

| | |
|---|---|
| Synopsis | Minimum separation between any two active thresholds |
| Context | **configure** card *number* fp *number* ingress network queue-group *reference* instance-id *number* policer-control-policy overrides priority-mbs-thresholds min-threshold-separation *(number \| keyword)* |
| Tree | min-threshold-separation |
| Description | This command configures the minimum separation between any two active thresholds in the parent policer. |
| Range | 0 to 16777216 |
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **priority** [level] *number*

| | |
|---|---|
| Synopsis | Enter the **priority** list instance |
| Context | **configure** card *number* fp *number* ingress network queue-group *reference* instance-id *number* policer-control-policy overrides priority-mbs-thresholds priority *number* |
| Tree | priority |
| Description | Commands in this context configure the list of priority MBS threshold priority settings for IOM ingress network forwarding plane queue-group policer control policy overrides. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### [**level**] *number*

| | |
|---|---|
| Synopsis | Priority level, higher number is stricter |
| Context | **configure** card *number* fp *number* ingress network queue-group *reference* instance-id *number* policer-control-policy overrides priority-mbs-thresholds priority *number* |
| Tree | priority |
| Range | 1 to 8 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |


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### **mbs-contribution** *(number | keyword)*

| | |
|---|---|
| Synopsis | MBS contribution size override |
| Context | **configure** card *number* fp *number* ingress network queue-group *reference* instance-id *number* policer-control-policy overrides priority-mbs-thresholds priority *number* mbs-contribution *(number \| keyword)* |
| Tree | mbs-contribution |
| Description | This command specifies the packet burst capacity required at the parent policer for a specified priority level with at least one child, and where the total capacity also includes the capacity of all lower thresholds. |
| Range | 0 to 16777216 |
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **policy-name** *reference*

| | |
|---|---|
| Synopsis | Policer control policy name |
| Context | **configure** card *number* fp *number* ingress network queue-group *reference* instance-id *number* policer-control-policy policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos policer-control-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **policer-overrides**

| | |
|---|---|
| Synopsis | Enter the **policer-overrides** context |
| Context | **configure** card *number* fp *number* ingress network queue-group *reference* instance-id *number* policer-overrides |
| Tree | policer-overrides |
| Description | Commands in this context configure the policer overrides for the IOM ingress network forwarding plane queue-groups. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |


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### **policer** [policer-id] *reference*

| | |
|---|---|
| Synopsis | Enter the **policer** list instance |
| Context | **configure** card *number* fp *number* ingress network queue-group *reference* instance-id *number* policer-overrides policer *reference* |
| Tree | policer |
| Description | Commands in this context configure the list of policer override parameters for IOM ingress network forwarding plane queue-groups. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### [**policer-id**] *reference*

| | |
|---|---|
| Synopsis | Policer ID |
| Context | **configure** card *number* fp *number* ingress network queue-group *reference* instance-id *number* policer-overrides policer *reference* |
| Tree | policer |
| Reference | **configure** qos queue-group-templates ingress queue-group *named-item* policer *number* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **cbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | CBS tolerance allowed by the policer |
| Context | **configure** card *number* fp *number* ingress network queue-group *reference* instance-id *number* policer-overrides policer *reference* cbs *(number \| keyword)* |
| Tree | cbs |
| Description | This command configures the CIR leaky bucket exceed threshold of the policer.<br>If the forwarding rate of the policer is equal to or less than the defined CIR, the CIR bucket depth hovers around the 0 depth, with spikes up to the maximum packet size in the offered load. If the forwarding rate increases beyond the profiling rate, the threshold caps the amount of data allowed to be in-profile above the rate. |
| Range | 0 to 268435456 |
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |


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Platforms 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR

## **mbs** *(number | keyword)*

Synopsis Maximum burst tolerance allowed by the policer

Context **configure** card *number* fp *number* ingress network queue-group *reference* instance-id *number* policer-overrides policer *reference* mbs *(number | keyword)*

Tree mbs

Description This command configures the PIR leaky bucket violate threshold of the policer.

Ingress, trusted in-profile packets and untrusted high priority packets use the high priority violate threshold and trusted out-of-profile. Untrusted low priority packets use the low priority violate threshold.

If the offered rate of the policer is equal to or less than the defined rate, the PIR bucket depth hovers around the 0 depth, with spikes up to the maximum packet size in the offered load. If the offered rate increases beyond the metering rate, the threshold caps the amount of data allowed above the rate.

The low priority violate threshold provides a smaller burst size for the lower priority traffic associated with the policer. Because all lower priority traffic is discarded at the lower burst tolerance size, the remaining burst tolerance is available for higher priority traffic.

Range 0 to 268435456

Units bytes

Options auto

Introduced 16.0.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR

## **packet-byte-offset** *number*

Synopsis Packet size adjustment

Context **configure** card *number* fp *number* ingress network queue-group *reference* instance-id *number* policer-overrides policer *reference* packet-byte-offset *number*

Tree packet-byte-offset

Description This command modifies the size of each packet handled by the policer by adding or subtracting a number of bytes. The actual packet size is not modified; only the size used to determine the bucket depth impact is changed.

Use this command to add downstream frame encapsulation or remove portions of packet headers.

When child policers add to or subtract from the packet size, the minimum threshold separation value of the parent policer must be modified by the same amount.

Range -32 to 31


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## rate

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** card *number* fp *number* ingress network queue-group *reference* instance-id *number* policer-overrides policer *reference* rate |
| Tree | rate |
| Description | Commands in this context configure the metering and optional profiling rates of the policer.<br>The metering rate is used by the system to configure the PIR leaky bucket decrement rate and the profiling rate configures the CIR leaky bucket decrement rate. The decrement function empties the bucket; packets applied to the bucket attempt to fill it based on its packet size. If the bucket fills faster than the rate that it empties, the bucket depth eventually reaches its exceeded (CIR) or violate (PIR) threshold. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## **cir** *(number | keyword)*

| | |
|---|---|
| Synopsis | CIR for the policer |
| Context | **configure** card *number* fp *number* ingress network queue-group *reference* instance-id *number* policer-overrides policer *reference* rate cir *(number \| keyword)* |
| Tree | cir |
| Description | This command overrides the default CIR rate of the policer.<br>When the policer is first created, the profiling rate defaults to 0 kb/s.<br>When **max** is configured, the maximum policer rate used is equal to the maximum capacity of the card that the policer is configured for. If the policer rate is set to a value larger than the maximum rate possible for the card, the CIR used is equivalent to maximum. |
| Range | 0 to 2000000000 |
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |


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### **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | PIR for the policer |
| Context | **configure** card *number* fp *number* ingress network queue-group *reference* instance-id *number* policer-overrides policer *reference* rate pir *(number \| keyword)* |
| Tree | pir |
| Description | This command configures the metering rate of the policer for the PIR leaky bucket.<br>When the policer is first created, the metering rate defaults to max.<br>When **max** is configured, the maximum policer rate used is equal to the maximum capacity of the card that the policer is configured for. If the policer rate is set to a value larger than the maximum rate possible for the card, the PIR used is equivalent to maximum. |
| Range | 1 to 2000000000 |
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **stat-mode** *keyword*

| | |
|---|---|
| Synopsis | Stat mode for the policer |
| Context | **configure** card *number* fp *number* ingress network queue-group *reference* instance-id *number* policer-overrides policer *reference* stat-mode *keyword* |
| Tree | stat-mode |
| Description | This command specifies the forwarding plane counters that allow offered, output, and discard accounting to occur for the policer. |
| Options | no-stats, minimal, offered-profile-no-cir, offered-total-cir, offered-priority-no-cir, offered-profile-cir, offered-priority-cir, offered-limited-profile-cir, offered-profile-capped-cir, offered-limited-capped-cir |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **queue-policy** *reference*

| | |
|---|---|
| Synopsis | Network queue policy |
| Context | **configure** card *number* fp *number* ingress network queue-policy *reference* |
| Tree | queue-policy |


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| | |
|---|---|
| Reference | **configure** qos network-queue *named-item* |
| Introduced | 19.5.R1 |
| Platforms | All |

## policy-accounting

| | |
|---|---|
| Synopsis | Enter the **policy-accounting** context |
| Context | **configure** card *number* fp *number* ingress policy-accounting |
| Tree | policy-accounting |
| Description | Commands in this context configure policy accounting.<br>Use policy accounting to collect statistics about the amount of traffic matching particular routes or to police traffic associated with certain routes as destinations of the traffic. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## classes *number*

| | |
|---|---|
| Synopsis | Number of accounting classes for the forwarding plane |
| Context | **configure** card *number* fp *number* ingress policy-accounting classes *number* |
| Tree | classes |
| Description | This command specifies the maximum number of source and destination classes that can be instantiated for accounting purposes on the interfaces of a specific card or FP.<br>When unconfigured, resources are not reserved for source or destination classes. |
| Range | 1000 to 128000 |
| Introduced | 21.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## policers *number*

| | |
|---|---|
| Synopsis | Number of policer resources for policy accounting |
| Context | **configure** card *number* fp *number* ingress policy-accounting policers *number* |
| Tree | policers |
| Range | 1 to 64000 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |


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### **ingress-buffer-allocation** *decimal-number*

| | |
|---|---|
| Synopsis | Ingress buffer pool allocation for the forwarding plane |
| Context | **configure** card *number* fp *number* ingress-buffer-allocation *decimal-number* |
| Tree | ingress-buffer-allocation |
| Description | This command configures an ingress buffer allocation for the FP.<br>Ingress buffer allocation applies to user-accessible buffers (total buffers less those reserved for system use). The ingress buffer allocation determines how much of the user-accessible buffers are available for ingress purposes. The remaining buffers are available for egress purposes. |
| Range | 20.00 to 80.00 |
| Units | percent |
| Default | 50.00 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e, 7950 XRS |

### **init-extract-prio-mode** *keyword*

| | |
|---|---|
| Synopsis | Initial drop priority mode of extracted traffic |
| Context | **configure** card *number* fp *number* init-extract-prio-mode *keyword* |
| Tree | init-extract-prio-mode |
| Description | This command specifies the scheme to select the initial drop priority of extracted control plane traffic.<br>The initial drop priority of extracted packets can be either low or high priority. The drop priority can be altered subsequently by mechanisms such as CPU protection.<br>High priority traffic receives preferential treatment in control plane congestion situations over low priority traffic. |
| Options | uniform, l3-classify |
| Default | uniform |
| Introduced | 16.0.R1 |
| Platforms | All |

### **stable-pool-sizing** *boolean*

| | |
|---|---|
| Synopsis | Enable stable pool sizing for the forwarding plane |
| Context | **configure** card *number* fp *number* stable-pool-sizing *boolean* |
| Tree | stable-pool-sizing |


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| | |
|---|---|
| Description | When configured to **true**, the router provides a stable buffer pool allocation environment for all default port buffer pools on the forwarding plane. This stable environment is provided at the expense of optimal buffer allocation between the various port buffer pools.<br><br>When configured to **false**, the router disables stable pool sizing on the forwarding plane. Existing buffer pools are resized according to normal pool sizing behavior. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **level** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | License level of the card |
| Context | **configure** card *number* level *keyword* |
| Tree | level |
| Description | This command configures the license level of the card.<br><br>New generations of cards include variants controlled by hardware and software licensing. For these cards, the license level must be provisioned in addition to the card type. A card cannot become operational unless the provisioned license level matches the license level of the card installed into the slot.The set of license levels varies by card type.<br><br>The provisioned level controls aspects related to connector provisioning and the consumption of hardware egress user queues and egress policers. Changes to the provisioned license level may be blocked if configuration exists that would not be permitted with the new target license level.<br><br>If the license level is not specified, the level is set to the highest license level for that card. |
| Options | unrestricted, he, er, cr, he1200g+, er1200g+, cr1200g+, he400g, er400g, cr400g, he400g+, er400g+, cr400g+, he800g+, er800g+, cr800g+, he4800g+, er4800g+, cr4800g+, he4800g, er4800g, cr4800g, he2400g+, er2400g+, cr2400g+, he2400g, er2400g, cr2400g, he9600g, er9600g, cr9600g, he14400g, er14400g, cr14400g, he14400g+, er14400g+, cr14400g+, he2800g+, er2800g+, cr2800g+, he6000g+, er6000g+, cr6000g+, he18000g+, er18000g+, cr18000g+, he19200g, er19200g, cr19200g |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-1se |


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### **mda** [mda-slot] *number*

| | |
|---|---|
| Synopsis | Enter the **mda** list instance |
| Context | **configure** card *number* mda *number* |
| Tree | mda |
| Description | Commands in this context cover attributes for specific MDA and XMA. |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**mda-slot**] *number*

| | |
|---|---|
| Synopsis | MDA or XMA slot |
| Context | **configure** card *number* mda *number* |
| Tree | mda |
| Range | 1 to 6 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **access**

| | |
|---|---|
| Synopsis | Enter the **access** context |
| Context | **configure** card *number* mda *number* access |
| Tree | access |
| Description | Commands in this context configure egress and ingress pool policy parameters.<br>Access egress and ingress pools are only allocated on channelized MDAs. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **egress**

| | |
|---|---|
| Synopsis | Enter the **egress** context |
| Context | **configure** card *number* mda *number* access egress |
| Tree | egress |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## ingress

| | |
|---|---|
| Synopsis | Enter the **ingress** context |
| Context | **configure** card *number* mda *number* access ingress |
| Tree | ingress |
| Introduced | 16.0.R1 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the MDA |
| Context | **configure** card *number* mda *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

## egress-xpl

| | |
|---|---|
| Synopsis | Enter the **egress-xpl** context |
| Context | **configure** card *number* mda *number* egress-xpl |
| Tree | egress-xpl |
| Description | Commands in this context specify settings for the fail-on-error feature. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## threshold *number*

| | |
|---|---|
| Synopsis | Threshold value for XPL errors |
| Context | **configure** card *number* mda *number* egress-xpl threshold *number* |
| Tree | threshold |


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| | |
|---|---|
| Description | This command configures the threshold for XPL errors. If the number of XPL errors exceeds the threshold value defined by the **window** *value* command, the MDA is placed in the failed state. |
| Range | 1 to 1000000 |
| Units | xpl errors |
| Default | 1000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **window** *number*

| | |
|---|---|
| Synopsis | Time interval to measure XPL error frequency |
| Context | **configure** card *number* mda *number* egress-xpl window *number* |
| Tree | window |
| Description | This command configures the time interval used to measure the frequency of XPL errors for the fail-on-error feature. If the number of XPL errors exceeds the threshold value in defined by this command, the MDA is placed in the Failed state. |
| Range | 1 to 1440 |
| Units | minutes |
| Default | 60 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **event** [type] *keyword*

| | |
|---|---|
| Synopsis | Enter the **event** list instance |
| Context | **configure** card *number* mda *number* event *keyword* |
| Tree | event |
| Description | Commands in this context allow the user to control the action taken when a specific hardware error event is raised against the target MDA. If no event action has been created for a specific event type, the management plane of the router ignores the hardware errors related to that event type.<br>The log event raised for any event type (such as soft-error or memory-error) is tmnx EqHwEventDetected. |
| Introduced | 19.7.R1 |
| Platforms | All |


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### [**type**] *keyword*

| | |
|---|---|
| Synopsis | MDA event type being monitored |
| Context | **configure** card *number* mda *number* event *keyword* |
| Tree | event |
| Description | This command configures the type of event to be acted upon.<br>• soft-error — Defines the action to take when soft errors are detected on the MDA.<br>• internal-frame-loss — Provides system detected frame loss in the traffic transiting the MDA.<br>• memory-error — Provides the user options to handle MDA memory error events on MDAs. This feature is supported on FP2- and FP3-based Ethernet MDAs and IMMs.<br>• data-link-error — Provides the user options to handle datapath link errors on an MDA. |
| Options | soft-error, internal-frame-loss, memory-error, datapath-link-error |
| Notes | This element is part of a list key. |
| Introduced | 19.7.R1 |
| Platforms | All |

### **action** *keyword*

| | |
|---|---|
| Synopsis | Action when a specific hardware error event is raised |
| Context | **configure** card *number* mda *number* event *keyword* action *keyword* |
| Tree | action |
| Description | This command defines the action taken when a specific hardware error event is detected on the target MDA.<br>When no event action is specified for an event type, the hardware errors related to the event type are ignored by the management plane of the router.<br>Actions include the following:<br>• log-only — Pass the log event to log management. No other action is taken.<br>• reset-mda — Reset the MDA.<br>• fail-mda — Set the operational state of the MDA to Failed. This Failed state persists until the clear mda command is issued (reset) or the MDA is removed and reinserted (re-seated). |
| Options | none, log-only, reset, fail |
| Introduced | 19.7.R1 |
| Platforms | All |


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### **fail-on-error** *boolean*

| | |
|---|---|
| Synopsis | Set operational state to Failed if an error is detected |
| Context | **configure** card *number* mda *number* fail-on-error *boolean* |
| Tree | fail-on-error |
| Description | When configured to **true**, the fail-on-error feature is enabled on the MDA. When a defined rate of egress or ingress XPL errors occur on an MDA within a specified time interval, the MDA is placed in the Failed state. This can force an APS switchover or traffic to be rerouted.<br>The purpose of this feature is to avoid situations where traffic is forced to use a physical link that suffers from errors but is still technically operational. The feature uses values configured in the **configure card mda egress-xpl** and **configure card mda ingress-xpl** contexts.<br>See "Fail-on-error overview" in the *7450 ESS, 7750 SR, 7950 XRS, and VSR Troubleshooting Guide* for more information. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ingress-xpl**

| | |
|---|---|
| Synopsis | Enter the **ingress-xpl** context |
| Context | **configure** card *number* mda *number* ingress-xpl |
| Tree | ingress-xpl |
| Description | Commands in this context specify settings for ingress XPL error occurrences. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **threshold** *number*

| | |
|---|---|
| Synopsis | Threshold value for XPL errors |
| Context | **configure** card *number* mda *number* ingress-xpl threshold *number* |
| Tree | threshold |
| Description | This command configures the threshold for XPL errors. If the number of XPL errors exceeds the threshold value defined by the **window** *value* command, the MDA is placed in the failed state. |
| Range | 1 to 1000000 |


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| | |
|---|---|
| Units | xpl errors |
| Default | 1000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **window** *number*

| | |
|---|---|
| Synopsis | Time interval to measure XPL error frequency |
| Context | **configure** card *number* mda *number* ingress-xpl window *number* |
| Tree | window |
| Description | This command configures the time interval used to measure the frequency of XPL errors for the fail-on-error feature. If the number of XPL errors exceeds the threshold value in defined by this command, the MDA is placed in the Failed state. |
| Range | 1 to 1440 |
| Units | minutes |
| Default | 60 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **level** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | MDA card level |
| Context | **configure** card *number* mda *number* level *keyword* |
| Tree | level |
| Options | unrestricted, he2400g, he1600g, he1200g, er2400g, er1600g, er1200g, cr2400g, cr1600g, cr1200g, he2400g+, er2400g+, cr2400g+, he3600g, er3600g, cr3600g, he3600gdd, er3600gdd, cr3600gdd, he4800g, er4800g, cr4800g, he4800g+, er4800g+, cr4800g+, he600g, er600g, cr600g, he1200g+, er1200g+, cr1200g+, he2400g+4t, er2400g+4t, cr2400g+4t, he9600g, er9600g, cr9600g, he9600g+, er9600g+, cr9600g+, he14400g, er14400g, cr14400g, he14400g+, er14400g+, cr14400g+, he12000g+, er12000g+, cr12000g+, he18000g+, er18000g+, cr18000g+ |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-1s, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s, 7950 XRS |


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## **mda-type** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | MDA type for the slot |
| Context | **configure** card *number* mda *number* mda-type *keyword* |
| Tree | mda-type |
| Description | This command provisions a specific MDA type to the device configuration for the slot. The MDA can be pre-provisioned and an MDA must be provisioned before connectors or ports can be configured.<br><br>A maximum of two MDAs can be provisioned on an IOM or XCM. XMAs are provisioned using MDA commands.<br><br>A medium severity alarm is generated if an MDA is inserted that does not match the MDA type configured for the slot. This alarm is cleared when the correct MDA is inserted or the configuration is modified. A high severity alarm is raised when an administratively enabled MDA is removed from the chassis. This alarm is cleared if either the correct MDA type is inserted or the configuration is modified. A low severity alarm is issued if an MDA is removed that is administratively disabled.<br><br>An MDA can only be provisioned in a slot if the MDA type is allowed in the MDA slot. An error message is generated when an MDA is provisioned in a slot where it is not allowed.<br><br>Some MDA hardware can support two different firmware loads. One load includes the base Ethernet functionality, including 10G WAN mode, but does not include 1588 port-based timestamping. The second load includes the base Ethernet functionality and 1588 port-based timestamping, but does not include 10G WAN mode. These are identified as two MDA types that are the same, except for a “-ptp” suffix to indicate the second loadset. A hard reset of the MDA occurs when switching between the two provisioned types.<br><br>An alarm is raised if partial or complete MDA failure is detected. The alarm is cleared when the error condition ceases.<br><br>New generations of XMAs include variants controlled through hardware and software licensing. For these XMAs, the license level must be provisioned in addition to the MDA type. An XMA cannot become operational unless the provisioned license level matches the license level of the XMA installed into the slot.<br><br>The set of license levels varies by MDA type. The provisioned level controls aspects related to connector provisioning and the consumption of hardware egress queues and egress policers. Changes to the provisioned license level may be blocked if configuration that would not be permitted with the new target license level exists. If the license level is not specified, the level is set to the highest license level for that XMA. |
| Options | x12-400g-qsfpdd, x6-200g-cfp2-dco, cx20-10g-sfp, cx2-100g-cfp, p10-10g-sfp, p1-100g-cfp, p3-40g-qsfp, p6-10g-sfp, x40-10g-sfp, m40-10g-sfp, x4-100g-cxp, cx6-40g-qsfp, m4-100g-cxp, p20-1gb-sfp, s36-100gb-qsfp28-3.6t, p-isa2-ms, |


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p-isa2-ms-e, isa2-aa, isa2-tunnel, isa2-bb, x4-100g-cfp2, cx72-1g-csfp, maxp1-100gb-cfp, ma4-10gb-sfp+, maxp10-10gb-sfp+, me10-10gb-sfp+, ma2-10gb-sfp+12-1gb-sfp, maxp6-10gb-sfp+1-40gb-qsfp+, ma44-1gb-csfp, ma20-1gb-tx, m20-10g-sfp+, me1-100gb-cfp2, m4-100g-cfp4, maxp1-100gb-cfp2, maxp1-100gb-cfp4, isa-ms-v, isa-aa-v, isa-tunnel-v, isa-bb-v, m20-v, me-isa2-ms, me-isa2-ms-e, me40-1gb-csfp, m4-1g-tx+20-1g-sfp+6-10g-sfp+, me2-100gb-cfp4, me6-10gb-sfp+, isa2-video, me2-100gb-qsfp28, i6-10/100eth-tx, i2-sdi, i2-cellular, me12-10/1gb-sfp+, me16-25gb-sfp28+2-100gb-qsfp28, me6-100gb-qsfp28, x6-400g-cfp8, me2-100gb-ms-qsfp28, s18-100gb-qsfp28, x40-10g-sfp-ptp, m40-10g-sfp-ptp, m36-100g-qsfp28, m48-sfp+2-qsfp28, m10-10g-sfp+, m20-1g-csfp, m6-10g-sfp++1-100g-qsfp28, me3-200gb-cfp2-dco, x24-100g-qsfp28, me12-100gb-qsfp28, i1-wlan, s36-400gb-qsfpdd, m24-sfp++8-sfp28+2-qsfp28, s36-100gb-qsfp28, a32-chds1v2, m48-sfp++6-qsfp28, maxp10-10/1gb-msec-sfp+, m4-10g-sfp++1-100g-cfp2, i3-10/100eth-tx, me3-400gb-qsfpdd, m18-25g-sfp28, m14-10g-sfp++4-1g-tx, m6-10g-sfp++4-25g-sfp28, me6-400gb-qsfpdd, me8-10/25gb-sfp28, m10-1g-sfp+2-10g-sfp+, m6-qsfpdd+48-sfp56, m32-qsfp28+4-qsfpdd, m36-qsfpdd, m1-400g-qsfpdd+1-100g-qsfp28, m5-100g-qsfp28, m48-800g-qsfpdd-1x, m24-800g-qsfpdd-1, ms36-800g-qsfpdd, x2-s36-800g-qsfpdd-18.0t, m48-400g-qsfpdd-1, m80-200g-sfpdd+12-800g-qsfpdd-1x, m40-200g-sfpdd+6-800g-qsfpdd-1, m80-200g-sfpdd+12-400g-qsfpdd-1, m46-10g-sfp+, m2-cfp2, m2-qsfpdd+2-qsfp28+24-sfp28, x2-s36-800g-qsfpdd-12.0t, me16-25gb-sfp28+2-100gb-qsfp-b, m10-50g-sfp56, m32-1g-csfp, m80-1g-csfp, m12-sfp28+2-qsfp28, m2-100g-qsfp28+16-10g-sfp+, d24-800g-qsfpdd-1

Introduced 16.0.R1

Platforms All

## network

Synopsis Enter the **network** context

Context **configure** card *number* mda *number* network

Tree network

Description Commands in this context configure egress and ingress pool policy parameters for the network. Network egress pools are only allocated on channelized MDAs.

Introduced 16.0.R1

Platforms All

## egress

Synopsis Enter the **egress** context

Context **configure** card *number* mda *number* network egress

Tree egress

Introduced 16.0.R1


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| | |
|---|---|
| Platforms | All |

## ingress

| | |
|---|---|
| Synopsis | Enter the **ingress** context |
| Context | **configure** card *number* mda *number* network ingress |
| Tree | ingress |
| Introduced | 16.0.R1 |
| Platforms | All |

## power-priority-level *number*

| | |
|---|---|
| Synopsis | Power priority level for the MDA |
| Context | **configure** card *number* mda *number* power-priority-level *number* |
| Tree | power-priority-level |
| Range | 1 to 200 |
| Default | 150 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-1s, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

## reset-on-recoverable-error *boolean*

| | |
|---|---|
| Synopsis | Reset MDA for fatal memory parity error on a Q-chip |
| Context | **configure** card *number* mda *number* reset-on-recoverable-error *boolean* |
| Tree | reset-on-recoverable-error |
| Description | When configured to **true**, the MDA resets when a fatal memory parity error is detected on a Q-chip of the MDA, regardless of the setting of the **fail-on-error** configuration for the MDA.<br>When configured to **false**, the recovery action is taken instead of resetting the MDA. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-1s, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

## sync-e *keyword*

| | |
|---|---|
| Synopsis | Synchronous Ethernet capability |


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| | |
|---|---|
| Context | **configure** card *number* mda *number* sync-e *keyword* |
| Tree | sync-e |
| Description | This command enables synchronous Ethernet on the MDA. When enabled, any port on the MDA can be used as a source port in the central frequency clock configuration, under the **configure system central-frequency-clock** context. |
| Options | true, false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **upgrade** [upgrade-index] *number*

| | |
|---|---|
| Synopsis | Enter the **upgrade** list instance |
| Context | **configure** card *number* mda *number* upgrade *number* |
| Tree | upgrade |
| Description | Commands in this context configure the license level upgrade for the MDA. You can apply multiple upgrades to an MDA. The first upgrade must use index 1, then index 2, and so on. When removing upgrades, remove the largest index first, followed by the next largest, and so on.<br>Some upgrades require a hard reset of the MDA to take effect. In general, this is required when the full duplex bandwidth changes as a result of the upgrade. |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR-1s, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

## [**upgrade-index**] *number*

| | |
|---|---|
| Synopsis | Order of the upgrade instance |
| Context | **configure** card *number* mda *number* upgrade *number* |
| Tree | upgrade |
| Range | 1 to 6 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR-1s, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s, 7950 XRS |


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## **path** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Upgrade path of the MDA for the slot |
| Context | **configure** card *number* mda *number* upgrade *number* path *keyword* |
| Tree | path |
| Description | This command configures the upgrade path for the MDA in the slot. The path indicates the starting level and the new level that is applied due to the upgrade. |
| Options | cr1200g-cr1600g, cr1600g-cr2400g, er1200g-er1600g, er1600g-er2400g, he1200g-he1600g, he1600g-he2400g, cr1200g-er1200g, er1200g-he1200g, cr1600g-er1600g, er1600g-he1600g, cr2400g-er2400g, er2400g-he2400g, any2400g-2400g+, cr3600g-cr4800g, er3600g-er4800g, he3600g-he4800g, cr3600g-er3600g, er3600g-he3600g, cr4800g-er4800g, er4800g-he4800g, any3600g-3600gdd, any4800g-4800g+, cr600g-cr1200g, er600g-er1200g, he600g-he1200g, cr600g-er600g, er600g-he600g, any1200g-1200g+, any2400g-2400g+4t, cr-er9600g, er-he9600g, any9600g-9600g+, cr-er14400g, er-he14400g, any14400g-14400g+, he9600g-he12000g+, er9600g-er12000g+, cr9600g-cr12000g+, he14400g-he18000g+, er14400g-er18000g+, cr14400g-cr18000g+, cr-er12000g+, er-he12000g+, cr-er18000g+, er-he18000g+ |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR-1s, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

## **xconnect**

| | |
|---|---|
| Synopsis | Enter the **xconnect** context |
| Context | **configure** card *number* mda *number* xconnect |
| Tree | xconnect |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## **mac** [mac-id] *number*

| | |
|---|---|
| Synopsis | Enter the **mac** list instance |
| Context | **configure** card *number* mda *number* xconnect mac *number* |
| Tree | mac |


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| | |
|---|---|
| Description | Commands in this context configure the attributes of the MDA loopback (cross-connect) in the MAC chip. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### [**mac-id**] *number*

| | |
|---|---|
| Synopsis | MAC ID for the MDA cross-connect |
| Context | **configure** card *number* mda *number* xconnect mac *number* |
| Tree | mac |
| Range | 1 to 12 |
| Notes | This element is part of a list key. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### **description** *very-long-description-or-empty*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** card *number* mda *number* xconnect mac *number* description *very-long-description-or-empty* |
| Tree | description |
| String length | 0 to 255 |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### **loopback** [loopback-id] *number*

| | |
|---|---|
| Synopsis | Enter the **loopback** list instance |
| Context | **configure** card *number* mda *number* xconnect mac *number* loopback *number* |
| Tree | loopback |
| Description | Commands in this context configure the attributes of the loopback on a MAC chip. The system and services can start using the loopback only when a port is associated with it (for example, port 1/1/m1/1, where m1 represents the MAC ID). |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |


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### [**loopback-id**] *number*

| | |
|---|---|
| Synopsis | Loopback ID for the MDA cross-connect |
| Context | **configure** card *number* mda *number* xconnect mac *number* loopback *number* |
| Tree | loopback |
| Range | 1 to 2 |
| Notes | This element is part of a list key. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### **bandwidth** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum bandwidth for a Layer 2 rate for MAC loopback |
| Context | **configure** card *number* mda *number* xconnect mac *number* loopback *number* bandwidth *number* |
| Tree | bandwidth |
| Range | 10 \| 25 \| 40 \| 100 \| 400 \| 800 |
| Units | gigabps |
| Default | 100 |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### **description** *very-long-description-or-empty*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** card *number* mda *number* xconnect mac *number* loopback *number* description *very-long-description-or-empty* |
| Tree | description |
| String length | 0 to 255 |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |


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### **power-save** *boolean*

| | |
|---|---|
| Synopsis | Place card in power-save mode when not in use |
| Context | **configure** card *number* power-save *boolean* |
| Tree | power-save |
| Description | When configured to **true**, this command enables the power-save mode on the card when it is not in use. The power-save mode allows the card to be installed and configured in a platform for future use, while having minimal impact on the overall power consumption.<br>A card placed in the power-save mode is reset, forced into an idle state, and consumes minimal power. In power save mode, the download of a software image to the card is not allowed. The card must be administratively disabled before it is placed in the power-save mode.<br>Cards in the power save mode do not count in the intelligent power management budget and they also do not pass traffic.<br>When configured to **false**, this command removes the card from power-save mode. |
| Default | false |
| Introduced | 19.5.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a8, 7750 SR-2e, 7750 SR-3e, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

### **reset-on-recoverable-error** *boolean*

| | |
|---|---|
| Synopsis | Reset card for fatal memory parity error on a Q-chip |
| Context | **configure** card *number* reset-on-recoverable-error *boolean* |
| Tree | reset-on-recoverable-error |
| Description | When configured to **true**, the card is reset when a fatal memory parity error is detected on a Q-chip of the card, regardless of the setting of the **fail-on-error** configuration for the card.<br>When configured to **false**, the recovery action is taken instead of resetting the card. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e |

### **upgrade** [upgrade-index] *number*

| | |
|---|---|
| Synopsis | Enter the **upgrade** list instance |
| Context | **configure** card *number* upgrade *number* |


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| | |
|---|---|
| Tree | upgrade |
| Description | Commands in this context assign a license level upgrade to the card, XIOM, or XMA. There can be multiple upgrades applied to a card, XIOM, or XMA. The first upgrade must use index 1, and then next index 2, and so on. Also, when removing upgrades, the largest index must be removed first, and then the next largest removed, and so on.<br>The path indicates the starting level and the new level that will apply due to the upgrade. For example, "cr1200g-cr1600g" can be applied to an XMA that is currently at the cr1200g level and after application of the upgrade, the operational level of the XMA will be cr1600g.<br>There must be an upgrade license available for the path specified. Available upgrades can be checked using the **show licensing entitlements** command.<br>Some upgrades require a hard reset of the card or MDA to take effect. In general, this is required when the Full Duplex bandwidth is being changed. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-1se |

## [**upgrade-index**] *number*

| | |
|---|---|
| Synopsis | Order of the upgrade value |
| Context | **configure** card *number* upgrade *number* |
| Tree | upgrade |
| Range | 1 to 6 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-1se |

## **path** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Upgrade path of the target module for the slot |
| Context | **configure** card *number* upgrade *number* path *keyword* |
| Tree | path |
| Description | This command configures the upgrade path associated with the upgrade instance for the target module in the slot. The path indicates the starting level and the new level that applies during the upgrade. |


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| | |
|---|---|
| Options | cr-er, er-he, cr400g-cr1200g+, er400g-er1200g+, he400g-he1200g+, cr-er1200g+, er-he1200g+, cr-er400g+, er-he400g+, cr-er800g+, er-he800g+, cr400g-cr800g+, er400g-er800g+, he400g-he800g+, cr800g-cr1200g+, er800g-er1200g+, he800g-he1200g+, cr-er2400g, er-he2400g, any2400g-2400g+, cr-er4800g, er-he4800g, any4800g-4800g+, cr-er9600g, er-he9600g, cr-er14400g, er-he14400g, he9600g-he14400g, er9600g-er14400g, cr9600g-cr14400g, any14400g-14400g+, any2400g-2800g+, any4800g-6000g+, any14400g-18000g+, he2400g-he2800g+, er2400g-er2800g+, cr2400g-cr2800g+, he4800g-he6000g+, er4800g-er6000g+, cr4800g-cr6000g+, he14400g-he19200g, er14400g-er19200g, cr14400g-cr19200g, cr-er2800g+, er-he2800g+, cr-er6000g+, er-he6000g+, cr-er19200g, er-he19200g |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-1se |

## virtual-scheduler-adjustment

| | |
|---|---|
| Synopsis | Enter the **virtual-scheduler-adjustment** context |
| Context | **configure** card *number* virtual-scheduler-adjustment |
| Tree | virtual-scheduler-adjustment |
| Description | Commands in this context configure virtual scheduler options. This is applicable to queues and policiers associated to a scheduler. |
| Introduced | 16.0.R1 |
| Platforms | All |

## internal-scheduler-weight-mode *keyword*

| | |
|---|---|
| Synopsis | Internal scheduler weight mode |
| Context | **configure** card *number* virtual-scheduler-adjustment internal-scheduler-weight-mode *keyword* |
| Tree | internal-scheduler-weight-mode |
| Description | This command specifies the internal scheduler (tier 0) weight mode for all ingress queues on a LAG on the card on which it is applied. |
| Options | auto, force-equal, offered-load, capped-offered-load |
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | All |


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## interval

| | |
|---|---|
| Synopsis | Enter the **interval** context |
| Context | **configure** card *number* virtual-scheduler-adjustment interval |
| Tree | interval |
| Introduced | 16.0.R1 |
| Platforms | All |

## rate-calculation-minimum

| | |
|---|---|
| Synopsis | Enter the **rate-calculation-minimum** context |
| Context | **configure** card *number* virtual-scheduler-adjustment interval rate-calculation-minimum |
| Tree | rate-calculation-minimum |
| Description | Commands in this context override the default minimum time that must elapse before a policer or queue's offered rate can be recalculated. A minimum time between offered rate calculations is enforced to both prevent inaccurate estimation of the offered rate and excessive input to the virtual scheduler process.<br>To smooth out rapidly fluctuating offered rates, the system averages the measured offered rate with a window of previously measured offered traffic statistics and knowledge of the time between the samples. |
| Introduced | 16.0.R1 |
| Platforms | All |

## fast-queue *decimal-number*

| | |
|---|---|
| Synopsis | Minimum rate calculation time for fast queues |
| Context | **configure** card *number* virtual-scheduler-adjustment interval rate-calculation-minimum fast-queue *decimal-number* |
| Tree | fast-queue |
| Range | 0.01 to 1000.00 |
| Units | percent |
| Default | 100.00 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **slow-queue** *decimal-number*

| | |
|---|---|
| Synopsis | Minimum rate calculation time for slow queues |
| Context | **configure** card *number* virtual-scheduler-adjustment interval rate-calculation-minimum slow-queue *decimal-number* |
| Tree | slow-queue |
| Range | 0.01 to 1000.00 |
| Units | percent |
| Default | 100.00 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **scheduler-run-minimum** *decimal-number*

| | |
|---|---|
| Synopsis | Minimum time of the scheduler run |
| Context | **configure** card *number* virtual-scheduler-adjustment interval scheduler-run-minimum *decimal-number* |
| Tree | scheduler-run-minimum |
| Description | This command overrides the default minimum time that must elapse before a virtual scheduler can redistribute bandwidth based on changes to the offered rates of member policers or queues.<br><br>A minimum run interval is enforced to manage the number of batched queue changes before reacting to the changed rates. Because the periodic function of determining policer or queue offered rates is performed sequentially, the interval allows the policer and queue rates to be determined before the bandwidth distribution to the policers and queues. |
| Range | 0.01 to 1000.00 |
| Units | percent |
| Default | 100.00 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **task-scheduling** *decimal-number*

| | |
|---|---|
| Synopsis | Task scheduling interval |
| Context | **configure** card *number* virtual-scheduler-adjustment interval task-scheduling *decimal-number* |
| Tree | task-scheduling |


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| | |
|---|---|
| Description | This command overrides the system default time interval for scheduling the hierarchical virtual scheduler task.<br>By default, the system wakes the virtual scheduler task every 50 ms which is equivalent to five 10 ms timer ticks. |
| Range | 0.01 to 1000.00 |
| Units | percent |
| Default | 100.00 |
| Introduced | 16.0.R1 |
| Platforms | All |

## slow-queue-threshold-rate *number*

| | |
|---|---|
| Synopsis | Slow queue threshold rate |
| Context | **configure** card *number* virtual-scheduler-adjustment slow-queue-threshold-rate *number* |
| Tree | slow-queue-threshold-rate |
| Description | This command overrides the system default threshold rate used to place policers and queues in the slow queue category. Slow rate policers and queues use a different minimum rate calculation interval time than fast rate queues.<br>The fast rate threshold is derived by multiplying the adjusted slow rate threshold by a factor of 1.5.<br>Configuring a value of zero (0) forces all policers and queues to be treated as fast rate queues. |
| Range | 0 to 1000000 |
| Units | kilobps |
| Default | 1000 |
| Introduced | 16.0.R1 |
| Platforms | All |

## workload-performance

| | |
|---|---|
| Synopsis | Enter the **workload-performance** context |
| Context | **configure** card *number* virtual-scheduler-adjustment workload-performance |
| Tree | workload-performance |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### manual

| | |
|---|---|
| Synopsis | Enter the **manual** context |
| Context | **configure** card *number* virtual-scheduler-adjustment workload-performance manual |
| Tree | manual |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the manual controls |
| Context | **configure** card *number* virtual-scheduler-adjustment workload-performance manual admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### control [parameter-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **control** list instance |
| Context | **configure** card *number* virtual-scheduler-adjustment workload-performance manual control *named-item* |
| Tree | control |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### [**parameter-name**] *named-item*

| | |
|---|---|
| Synopsis | Control parameter name |
| Context | **configure** card *number* virtual-scheduler-adjustment workload-performance manual control *named-item* |
| Tree | control |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **percentage** *decimal-number*

| | |
|---|---|
| Synopsis | Tuning parameter |
| Context | **configure** card *number* virtual-scheduler-adjustment workload-performance manual control *named-item* percentage *decimal-number* |
| Tree | percentage |
| Range | 20.00 to 100.00 |
| Units | percent |
| Default | 100.00 |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **xiom** [xiom-slot] *string*

| | |
|---|---|
| Synopsis | Enter the **xiom** list instance |
| Context | **configure** card *number* xiom *string* |
| Tree | xiom |
| Introduced | 20.2.R1 |
| Platforms | 7750 SR-1s, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s |

### [**xiom-slot**] *string*

| | |
|---|---|
| Synopsis | XIOM slot ID |
| Context | **configure** card *number* xiom *string* |
| Tree | xiom |
| String length | 2 |
| Notes | This element is part of a list key. |
| Introduced | 20.2.R1 |
| Platforms | 7750 SR-1s, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the XIOM |
| Context | **configure** card *number* xiom *string* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 20.2.R1 |
| Platforms | 7750 SR-1s, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s |

### **fail-on-error** *boolean*

| | |
|---|---|
| Synopsis | Set operational state of the card to failed on error |
| Context | **configure** card *number* xiom *string* fail-on-error *boolean* |
| Tree | fail-on-error |
| Description | When configured to **true**, the operational state of the card is set to failed when at least one of a specific set of card-level errors is detected. The failed state persists until the operator reseats the card or resets it using the **clear** command. |
| Default | false |
| Introduced | 20.2.R1 |
| Platforms | 7750 SR-1s, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s |

### **level** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | License level of the XIOM |
| Context | **configure** card *number* xiom *string* level *keyword* |
| Tree | level |
| Description | This command provisions the license level of the XIOM, which controls aspects related to connector provisioning and consumption of hardware egress queues and policers.<br>An XIOM only becomes operational if the provisioned license level matches the license level of the card installed into the slot.<br>The set of license levels varies by XIOM type. Changes to the provisioned license level may be blocked if a configuration exists that is not permitted with the new target license level. |


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| | |
|---|---|
| | If the license level is not specified, the level is set to the highest license level for the XIOM. |
| Options | unrestricted, he800g+, er800g+, cr800g+, he1500g+, er1500g+, cr1500g+, he1600g+, er1600g+, cr1600g+, he2400g+, er2400g+, cr2400g+, he3000g+, er3000g+, cr3000g+, he2400g, er2400g, cr2400g, he4800g, er4800g, cr4800g, he6000g+, er6000g+, cr6000g+, he3200g+, er3200g+, cr3200g+ |
| Introduced | 20.2.R1 |
| Platforms | 7750 SR-1s, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s |

### **mda** [mda-slot] *number*

| | |
|---|---|
| Synopsis | Enter the **mda** list instance |
| Context | **configure** card *number* xiom *string* mda *number* |
| Tree | mda |
| Introduced | 20.2.R1 |
| Platforms | 7750 SR-1s, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s |

### [**mda-slot**] *number*

| | |
|---|---|
| Synopsis | MDA slot number |
| Context | **configure** card *number* xiom *string* mda *number* |
| Tree | mda |
| Range | 1 to 2 |
| Notes | This element is part of a list key. |
| Introduced | 20.2.R1 |
| Platforms | 7750 SR-1s, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the MDA |
| Context | **configure** card *number* xiom *string* mda *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 20.2.R1 |
| Platforms | 7750 SR-1s, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s |


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## **mda-type** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | MDA-s type provisioned for the XIOM slot |
| Context | **configure** card *number* xiom *string* mda *number* mda-type *keyword* |
| Tree | mda-type |
| Description | This command provisions the MDA-s type for the XIOM slot.<br>The MDA-s type can be preprovisioned, which means that the MDA-s does not have to be installed in the chassis.<br>You can preprovision the MDA type before you install the MDA in the chassis. An MDA-s can only be provisioned in a slot that is vacant. No other MDA-s can be provisioned (configured) for that particular slot. An error message or log event is generated if the wrong MDA type is provisioned or inserted. |
| Options | ms6-200gb-cfp2-dco, ms3-200gb-cfp2-dco, ms16-100gb-sfpdd+4-100gb-qsfp28, ms18-100gb-qsfp28, ms4-400gb-qsfpdd+4-100gb-qsfp28, ms24-10/100gb-sfpdd, ms2-400gb-qsfpdd+2-100gb-qsfp28, ms8-100gb-sfpdd+2-100gb-qsfp28, ms16-sdd+4-qsfp28-b, ms8-sdd+2-qsfp28-b, mse24-200g-sfpdd, mse6-800g-cfp2-dco, mse14-800g+4-400g, m36-800g-qsfpdd, mse6-800g-qsfpdd, m36-400g-qsfp112 |
| Introduced | 20.2.R1 |
| Platforms | 7750 SR-1s, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s |

## **power-priority-level** *number*

| | |
|---|---|
| Synopsis | Power priority level for the XIOM MDA-s |
| Context | **configure** card *number* xiom *string* mda *number* power-priority-level *number* |
| Tree | power-priority-level |
| Description | This command configures the power-priority level for the XIOM MDA-s.<br>Consider the following suggestions when configuring the power-priority level:<br>• The lowest number has the highest priority.<br>• Use the priority numbers from 1 to 100 for modules that are essential for system operation.<br>• Use the priority numbers from 101 to 200 for non-essential modules. |
| Range | 1 to 200 |
| Default | 150 |
| Introduced | 20.2.R1 |


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| | |
|---|---|
| Platforms | 7750 SR-1s, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s |

### **sync-e** *keyword*

| | |
|---|---|
| Synopsis | Synchronous Ethernet capability |
| Context | **configure** card *number* xiom *string* mda *number* sync-e *keyword* |
| Tree | sync-e |
| Options | true, false |
| Introduced | 20.2.R1 |
| Platforms | 7750 SR-1s, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s |

### **xconnect**

| | |
|---|---|
| Synopsis | Enter the **xconnect** context |
| Context | **configure** card *number* xiom *string* mda *number* xconnect |
| Tree | xconnect |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR-1s, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s |

### **mac** [mac-id] *number*

| | |
|---|---|
| Synopsis | Enter the **mac** list instance |
| Context | **configure** card *number* xiom *string* mda *number* xconnect mac *number* |
| Tree | mac |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR-1s, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s |

### [**mac-id**] *number*

| | |
|---|---|
| Synopsis | MAC ID for the MDA cross-connect |
| Context | **configure** card *number* xiom *string* mda *number* xconnect mac *number* |
| Tree | mac |
| Range | 1 to 12 |
| Notes | This element is part of a list key. |
| Introduced | 21.5.R1 |


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| | |
|---|---|
| Platforms | 7750 SR-1s, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s |

### **description** *very-long-description-or-empty*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** card *number* xiom *string* mda *number* xconnect mac *number* description *very-long-description-or-empty* |
| Tree | description |
| String length | 0 to 255 |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR-1s, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s |

### **loopback** [loopback-id] *number*

| | |
|---|---|
| Synopsis | Enter the **loopback** list instance |
| Context | **configure** card *number* xiom *string* mda *number* xconnect mac *number* loopback *number* |
| Tree | loopback |
| Description | Commands in this context configure a MAC loopback on a MAC chip. The system and services only start using the loopback when a port is associated with it. For example, port 1/1/m1/1, where m1 represents the MAC ID. |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR-1s, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s |

### [**loopback-id**] *number*

| | |
|---|---|
| Synopsis | Loopback ID for the MDA cross-connect |
| Context | **configure** card *number* xiom *string* mda *number* xconnect mac *number* loopback *number* |
| Tree | loopback |
| Range | 1 to 2 |
| Notes | This element is part of a list key. |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR-1s, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s |


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### **bandwidth** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum bandwidth for a Layer 2 rate for MAC loopback |
| Context | **configure** card *number* xiom *string* mda *number* xconnect mac *number* loopback *number* bandwidth *number* |
| Tree | bandwidth |
| Range | 10 \| 25 \| 40 \| 100 \| 400 \| 800 |
| Units | gigabps |
| Default | 100 |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR-1s, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s |

### **description** *very-long-description-or-empty*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** card *number* xiom *string* mda *number* xconnect mac *number* loopback *number* description *very-long-description-or-empty* |
| Tree | description |
| String length | 0 to 255 |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR-1s, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s |

### **reset-on-recoverable-error** *boolean*

| | |
|---|---|
| Synopsis | Reset XIOM for fatal memory parity error on a Q-chip |
| Context | **configure** card *number* xiom *string* reset-on-recoverable-error *boolean* |
| Tree | reset-on-recoverable-error |
| Description | When configured to **true**, the XIOM is reset when a fatal memory parity error is detected on a Q-chip of the XIOM, regardless of the setting of the **fail-on-error** configuration for the XIOM.<br>When configured to **false**, the recovery action is taken instead of resetting the XIOM. |
| Default | false |
| Introduced | 20.2.R1 |


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| | |
|---|---|
| Platforms | 7750 SR-1s, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s |

## **upgrade** [upgrade-index] *number*

| | |
|---|---|
| Synopsis | Enter the **upgrade** list instance |
| Context | **configure** card *number* xiom *string* upgrade *number* |
| Tree | upgrade |
| Description | Commands in this context assign a license level upgrade to the XIOM. Multiple upgrades can be applied to an XIOM. The first upgrade must use index 1, then index 2, and so on. When removing upgrades, the largest index must be removed first, followed by the next largest, and so on.<br>Some upgrades require a hard reset of the XIOM to take effect. In general, this is required when the Full Duplex bandwidth is changed as a result of the upgrade. |
| Introduced | 20.2.R1 |
| Platforms | 7750 SR-1s, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s |

## [**upgrade-index**] *number*

| | |
|---|---|
| Synopsis | Order of the upgrade value |
| Context | **configure** card *number* xiom *string* upgrade *number* |
| Tree | upgrade |
| Range | 1 to 6 |
| Notes | This element is part of a list key. |
| Introduced | 20.2.R1 |
| Platforms | 7750 SR-1s, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s |

## **path** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Upgrade name |
| Context | **configure** card *number* xiom *string* upgrade *number* path *keyword* |
| Tree | path |
| Description | This command specifies the upgrade name. An upgrade license must be available for the specified path. |


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Available upgrades can be checked using the **show licensing entitlements** command.

| | |
|---|---|
| Options | cr800g-cr1500g+, er800g-er1500g+, he800g-he1500g+, cr1600g-cr2400g+, er1600g-er2400g+, he1600g-he2400g+, cr2400g-cr3000g+, er2400g-er3000g+, he2400g-he3000g+, cr-er800g+, er-he800g+, cr-er1500g+, er-he1500g+, cr-er1600g+, er-he1600g+, cr-er2400g+, er-he2400g+, cr-er3000g+, er-he3000g+, cr4800g-cr6000g+, er4800g-er6000g+, he4800g-he6000g+, cr-er2400g, er-he2400g, cr-er4800g, er-he4800g, cr-er6000g+, er-he6000g+, cr1600g-cr3000g+, er1600g-er3000g+, he1600g-he3000g+, cr-er3200g+, er-he3200g+, cr3200g-cr6000g+, er3200g-er6000g+, he3200g-he6000g+ |
| Notes | This element is mandatory. |
| Introduced | 20.2.R1 |
| Platforms | 7750 SR-1s, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s |

## **xiom-type** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | XIOM type |
| Context | **configure** card *number* xiom *string* xiom-type *keyword* |
| Tree | xiom-type |
| Description | This command associates the XIOM type with the slot.<br>The XIOM type can be preprovisioned, which means that the XIOM does not have to be installed in the chassis.<br>An XIOM must be provisioned before an MDA-s, a connector, or a port can be configured. An XIOM can only be provisioned in a slot that is vacant. After an XIOM is provisioned in the slot, no other XIOM can be provisioned (configured) for the slot.<br>An XIOM can only be provisioned in a slot if the XIOM type is allowed in the slot. An error message is generated if an attempt is made to provision an XIOM type that is not allowed.<br>If an XIOM is inserted that does not match the configured XIOM type for the slot, then a log event and a facility alarm are raised. The alarm is cleared when the correct XIOM type is installed or the configuration is modified.<br>A log event and a facility alarm are raised if an administratively enabled XIOM is removed from the chassis. The alarm is cleared when the correct XIOM type is installed or the configuration is modified. A log event is issued when an XIOM is removed that is administratively disabled.<br>XIOMs are controlled by hardware and software licensing. In addition to the XIOM type, the license level must be provisioned using the **level** command. |
| Options | iom-s-3.0t, iom-s-1.5t, iom2-se-6.0t, iom2-se-3.0t, x2-s36-800g-qsfpdd-6.0t, x2-s36-400g-qsfp112-3.0t |


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| | |
|---|---|
| Introduced | 20.2.R1 |
| Platforms | 7750 SR-1s, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s |


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## 4.10 cflowd commands

```
configure
   –  cflowd
      –  active-flow-timeout number
      –  admin-state keyword
      –  analyze-gre-payload boolean
      –  analyze-l2tp-traffic boolean
      –  analyze-v4overv6-traffic boolean
      –  apply-groups reference
      –  apply-groups-exclude reference
      –  cache-size number
      –  collector (ipv4-address-no-zone | ipv6-address-no-zone) port number
         –  admin-state keyword
         –  aggregation
            –  as-matrix boolean
            –  destination-prefix boolean
            –  protocol-port boolean
            –  raw boolean
            –  source-destination-prefix boolean
            –  source-prefix boolean
         –  apply-groups reference
         –  apply-groups-exclude reference
         –  autonomous-system-type keyword
         –  description description
         –  export-filter
            –  family
               –  ipv4 boolean
               –  ipv6 boolean
               –  l2-ip boolean
               –  mcast-ipv4 boolean
               –  mcast-ipv6 boolean
               –  mpls boolean
               –  non-ip boolean
            –  interface-list
               –  router reference interface-name reference
                  –  apply-groups reference
                  –  apply-groups-exclude reference
                  –  direction keyword
               –  service
                  –  ies-group-interface service-name reference subscriber-interface-
name reference group-interface-name reference
                     –  apply-groups reference
                     –  apply-groups-exclude reference
                     –  direction keyword
                  –  ies-interface service-name reference interface-name reference
                     –  apply-groups reference
                     –  apply-groups-exclude reference
                     –  direction keyword
                  –  vprn-group-interface service-name reference subscriber-interface-
name reference group-interface-name reference
                     –  apply-groups reference
                     –  apply-groups-exclude reference
                     –  direction keyword
                  –  vprn-interface service-name reference interface-name reference
                     –  apply-groups reference
                     –  apply-groups-exclude reference
                     –  direction keyword
                  –  vprn-network-interface service-name reference network-interface-
name reference
                     –  apply-groups reference
```


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configure cflowd collector export-filter interface-list service vprn-network-interface apply-groups-exclude

```
                    –  apply-groups-exclude reference
                    –  direction keyword
            –  router string
         –  router-instance string
         –  template-set keyword
         –  version number
      –  enhanced-distribution boolean
      –  export-mode keyword
      –  inactive-flow-timeout number
      –  inband-collector-export-only boolean
      –  overflow number
      –  sample-profile number
         –  apply-groups reference
         –  apply-groups-exclude reference
         –  metering-process keyword
         –  sample-rate number
      –  template-retransmit number
      –  use-vrtr-if-index boolean
```


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## 4.10.1 cflowd command descriptions

### cflowd

| | |
|---|---|
| Synopsis | Enable the **cflowd** context |
| Context | **configure** cflowd |
| Tree | cflowd |
| Introduced | 16.0.R1 |
| Platforms | All |

### active-flow-timeout *number*

| | |
|---|---|
| Synopsis | Maximum time before an active flow is exported |
| Context | **configure** cflowd active-flow-timeout *number* |
| Tree | active-flow-timeout |
| Description | This command configures the maximum time before an active flow is aged out of the active cache. If an individual flow is active for the configured time, the flow is exported and a new flow is created on the next packet sampled for the flow.<br>This value is set for a flow when the flow is initially created in the active cache table and does not change dynamically. |
| Range | 30 to 36000 |
| Units | seconds |
| Default | 1800 |
| Introduced | 20.2.R1 |
| Platforms | All |

### admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of cflowd |
| Context | **configure** cflowd admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **analyze-gre-payload** *boolean*

| | |
|---|---|
| Synopsis | Perform cflowd analysis on the inner IP packet |
| Context | **configure** cflowd analyze-gre-payload *boolean* |
| Tree | analyze-gre-payload |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **analyze-l2tp-traffic** *boolean*

| | |
|---|---|
| Synopsis | Analyze the inner IP header of an L2TP packet |
| Context | **configure** cflowd analyze-l2tp-traffic *boolean* |
| Tree | analyze-l2tp-traffic |
| Description | When configured to **true**, cflowd looks for and analyzes the inner IP header of an L2TPv2 frame.<br>L2TPv2 traffic is identified by either the source or destination UDP port numbering that is set to 1701.<br>When configured to **false**, the analysis is not performed. |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **analyze-v4overv6-traffic** *boolean*

| | |
|---|---|
| Synopsis | Analyze the inner IPv4 packet within an IPv6 packet |
| Context | **configure** cflowd analyze-v4overv6-traffic *boolean* |
| Tree | analyze-v4overv6-traffic |
| Description | When configured to **true**, cflowd looks for and analyzes the inner IPv4 header of IPv4overIPv6 frames that include MAP-E as well as DSLite and SAM traffic.<br>When configured to **false**, the analysis is not performed. |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |


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### **cache-size** *number*

| | |
|---|---|
| Synopsis | Maximum number of active flows in the flow cache table |
| Context | **configure** cflowd cache-size *number* |
| Tree | cache-size |
| Range | 1000 to 4000000 |
| Units | flows |
| Introduced | 16.0.R1 |
| Platforms | All |

### **collector** [ip-address] *(ipv4-address-no-zone | ipv6-address-no-zone)* port *number*

| | |
|---|---|
| Synopsis | Enter the **collector** list instance |
| Context | **configure** cflowd collector *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* |
| Tree | collector |
| Max. instances | 8 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ip-address**] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the remote cflowd collector host |
| Context | **configure** cflowd collector *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* |
| Tree | collector |
| Description | This command specifies the IP address of the remote cflowd collector host to receive the exported cflowd data. |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **port** *number*

| | |
|---|---|
| Synopsis | UDP port number of the remote cflowd collector host |
| Context | **configure** cflowd collector *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* |


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| | |
|---|---|
| Tree | collector |
| Range | 1 to 65535 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the cflowd collector |
| Context | **configure** cflowd collector *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

## **aggregation**

| | |
|---|---|
| Synopsis | Enter the **aggregation** context |
| Context | **configure** cflowd collector *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* aggregation |
| Tree | aggregation |
| Introduced | 16.0.R1 |
| Platforms | All |

## **as-matrix** *boolean*

| | |
|---|---|
| Synopsis | Base aggregation data based on AS information |
| Context | **configure** cflowd collector *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* aggregation as-matrix *boolean* |
| Tree | as-matrix |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **destination-prefix** *boolean*

| | |
|---|---|
| Synopsis | Aggregate data based on destination prefix information |
| Context | **configure** cflowd collector *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* aggregation destination-prefix *boolean* |
| Tree | destination-prefix |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **protocol-port** *boolean*

| | |
|---|---|
| Synopsis | Aggregate flows based on the IP protocol and ports |
| Context | **configure** cflowd collector *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* aggregation protocol-port *boolean* |
| Tree | protocol-port |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **raw** *boolean*

| | |
|---|---|
| Synopsis | Export flow data without aggregation |
| Context | **configure** cflowd collector *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* aggregation raw *boolean* |
| Tree | raw |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **source-destination-prefix** *boolean*

| | |
|---|---|
| Synopsis | Aggregate data based on prefix information |
| Context | **configure** cflowd collector *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* aggregation source-destination-prefix *boolean* |
| Tree | source-destination-prefix |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **source-prefix** *boolean*

| | |
|---|---|
| Synopsis | Aggregate flows based on the source prefix information |
| Context | **configure** cflowd collector *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* aggregation source-prefix *boolean* |
| Tree | source-prefix |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **autonomous-system-type** *keyword*

| | |
|---|---|
| Synopsis | Basis of the AS information included in flow data |
| Context | **configure** cflowd collector *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* autonomous-system-type *keyword* |
| Tree | autonomous-system-type |
| Options | origin, peer |
| Default | origin |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** cflowd collector *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |


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## export-filter

| | |
|---|---|
| Synopsis | Enter the **export-filter** context |
| Context | **configure** cflowd collector *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* export-filter |
| Tree | export-filter |
| Description | Commands in this context configure the export filters that control which flows are sent to the Cflowd Collector. |
| Introduced | 16.0.R1 |
| Platforms | All |

## family

| | |
|---|---|
| Synopsis | Enter the **family** context |
| Context | **configure** cflowd collector *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* export-filter family |
| Tree | family |
| Description | Commands in this context configure the address families for the flow types prevented from going to the associated cflowd collector. |
| Introduced | 16.0.R1 |
| Platforms | All |

## ipv4 *boolean*

| | |
|---|---|
| Synopsis | Prevent IPv4 flow data from going to collector |
| Context | **configure** cflowd collector *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* export-filter family ipv4 *boolean* |
| Tree | ipv4 |
| Description | When configured to **true**, the router prevents IPv4 flow data from going to the associated cflowd collector. Cflowd collector version 9 or 10 must be configured to filter the IPv4 flow data.<br><br>When configured to **false**, the router allows IPv4 flow data to go to the associated cflowd collector. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **ipv6** *boolean*

| | |
|---|---|
| Synopsis | Prevent IPv6 flow data from going to collector |
| Context | **configure** cflowd collector *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* export-filter family ipv6 *boolean* |
| Tree | ipv6 |
| Description | When configured to **true**, the router prevents IPv6 flow data from going to the associated cflowd collector. Cflowd collector version 9 or 10 must be configured to filter the IPv6 flow data.<br>When configured to **false**, the router allows IPv6 flow data to go to the associated cflowd collector. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **l2-ip** *boolean*

| | |
|---|---|
| Synopsis | Prevent Layer 2 IP flow data from going to collector |
| Context | **configure** cflowd collector *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* export-filter family l2-ip *boolean* |
| Tree | l2-ip |
| Description | When configured to **true**, the router prevents Layer 2 IP flow data from going to the cflowd associated collector. Cflowd collector version 10 must be configured to filter the Layer 2 IP flow data.<br>When configured to **false**, the router allows the Layer 2 IP flow data to go to the associated cflowd collector. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mcast-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Prevent multicast IPv4 data from going to the collector |
| Context | **configure** cflowd collector *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* export-filter family mcast-ipv4 *boolean* |
| Tree | mcast-ipv4 |


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| | |
|---|---|
| Description | When configured to **true**, the router prevents multicast IPv4 flow data from going to the associated cflowd collector. Cflowd collector version 9 or 10 must be configured to filter the multicast IPv4 flow data.<br>When configured to **false**, the router allows multicast IPv4 flow data to go to the associated cflowd collector. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mcast-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Prevent multicast IPv6 data from going to collector |
| Context | **configure** cflowd collector *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* export-filter family mcast-ipv6 *boolean* |
| Tree | mcast-ipv6 |
| Description | When configured to **true**, the router prevents multicast IPv6 flow data from going to the associated cflowd collector. Cflowd collector version 9 or 10 must be configured to filter multicast IPv6 flow data.<br>When configured to **false**, the router allows multicast IPv6 flow data to go to the associated cflowd collector. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mpls** *boolean*

| | |
|---|---|
| Synopsis | Prevent MPLS flow data from going to collector |
| Context | **configure** cflowd collector *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* export-filter family mpls *boolean* |
| Tree | mpls |
| Description | When configured to **true**, the router prevents MPLS flow data from going to the associated cflowd collector. Cflowd collector version 9 or 10 must be configured to filter MPLS flow data.<br>When configured to **false**, the router allows MPLS flow data to go to the associated cflowd collector. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **non-ip** *boolean*

| | |
|---|---|
| Synopsis | Prevent non-IP flow data from going to collector |
| Context | **configure** cflowd collector *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* export-filter family non-ip *boolean* |
| Tree | non-ip |
| Description | When configured to **true**, the router prevents Layer 2 and MPLS carrying non-IP flow data from going to the associated cflowd collector. Collector version 10 must be configured to filter the non-IP address family flow type.<br>When configured to **false**, the router allows Layer 2 and MPLS carrying non-IP flow data to go to the associated cflowd collector. |
| Default | false |
| Introduced | 24.7.R1 |
| Platforms | All |

### **interface-list**

| | |
|---|---|
| Synopsis | Enter the **interface-list** context |
| Context | **configure** cflowd collector *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* export-filter interface-list |
| Tree | interface-list |
| Description | Commands in this context configure the match conditions for the interface that control which flow data is exported to the associated Cflowd Collector. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **router** [router-name] *reference* interface-name *reference*

| | |
|---|---|
| Synopsis | Enter the **router** list instance |
| Context | **configure** cflowd collector *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* export-filter interface-list router *reference* interface-name *reference* |
| Tree | router |
| Description | Commands in this context configure the interface the router uses to send ingress sampled data flows to the associated Cflowd Collector. |
| Introduced | 16.0.R4 |
| Platforms | All |


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### [**router-name**] *reference*

| | |
|---|---|
| Synopsis | Administrative router name |
| Context | **configure** cflowd collector *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* export-filter interface-list router *reference* interface-name *reference* |
| Tree | router |
| Reference | **configure** router *named-item-64* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **interface-name** *reference*

| | |
|---|---|
| Synopsis | Name for the router to the service interface or SAP |
| Context | **configure** cflowd collector *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* export-filter interface-list router *reference* interface-name *reference* |
| Tree | router |
| Reference | **configure** router *named-item-64* interface *interface-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **direction** *keyword*

| | |
|---|---|
| Synopsis | Flow match condition direction for the export filter |
| Context | **configure** cflowd collector *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* export-filter interface-list router *reference* interface-name *reference* direction *keyword* |
| Tree | direction |
| Description | This command configures the direction of the flows as a match condition for the associated export filter. The router only sends flows that match the specified direction to the associated Cflowd Collector. |
| Options | ingress, egress, both |
| Default | both |
| Introduced | 23.10.R1 |
| Platforms | All |


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### service

| | |
|---|---|
| Synopsis | Enter the **service** context |
| Context | **configure** cflowd collector *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* export-filter interface-list service |
| Tree | service |
| Description | Commands in this context configure which flow data this service interface sends to this Cflowd Collector. |
| Introduced | 16.0.R4 |
| Platforms | All |

### ies-group-interface service-name *reference* subscriber-interface-name *reference* group-interface-name *reference*

| | |
|---|---|
| Synopsis | Enter the **ies-group-interface** list instance |
| Context | **configure** cflowd collector *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* export-filter interface-list service ies-group-interface service-name *reference* subscriber-interface-name *reference* group-interface-name *reference* |
| Tree | ies-group-interface |
| Description | Commands in this context configure which IES group interface flow data the service sends to the Cflowd Collector. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### service-name *reference*

| | |
|---|---|
| Synopsis | Administrative service name |
| Context | **configure** cflowd collector *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* export-filter interface-list service ies-group-interface service-name *reference* subscriber-interface-name *reference* group-interface-name *reference* |
| Tree | ies-group-interface |
| Reference | **configure** service ies *service-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **subscriber-interface-name** *reference*

| | |
|---|---|
| Synopsis | Subscriber interface name |
| Context | **configure** cflowd collector *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* export-filter interface-list service ies-group-interface service-name *reference* subscriber-interface-name *reference* group-interface-name *reference* |
| Tree | ies-group-interface |
| Reference | **configure** service ies *service-name* subscriber-interface *interface-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **group-interface-name** *reference*

| | |
|---|---|
| Synopsis | Group interface name |
| Context | **configure** cflowd collector *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* export-filter interface-list service ies-group-interface service-name *reference* subscriber-interface-name *reference* group-interface-name *reference* |
| Tree | ies-group-interface |
| Reference | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **direction** *keyword*

| | |
|---|---|
| Synopsis | Flow match condition direction for the export filter |
| Context | **configure** cflowd collector *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* export-filter interface-list service ies-group-interface service-name *reference* subscriber-interface-name *reference* group-interface-name *reference* direction *keyword* |
| Tree | direction |
| Description | This command configures the direction of the flows as a match condition for the associated export filter. The router only sends flows that match the specified direction to the associated Cflowd Collector. |
| Options | ingress, egress, both |
| Default | both |


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| | |
|---|---|
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **ies-interface** service-name *reference* interface-name *reference*

| | |
|---|---|
| Synopsis | Enter the **ies-interface** list instance |
| Context | **configure** cflowd collector *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* export-filter interface-list service ies-interface service-name *reference* interface-name *reference* |
| Tree | ies-interface |
| Description | Commands in this context configure which IES service interface flow data the service sends to the Cflowd Collector. |
| Introduced | 16.0.R4 |
| Platforms | All |

## **service-name** *reference*

| | |
|---|---|
| Synopsis | Administrative service name |
| Context | **configure** cflowd collector *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* export-filter interface-list service ies-interface service-name *reference* interface-name *reference* |
| Tree | ies-interface |
| Reference | **configure** service ies *service-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

## **interface-name** *reference*

| | |
|---|---|
| Synopsis | IP interface name |
| Context | **configure** cflowd collector *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* export-filter interface-list service ies-interface service-name *reference* interface-name *reference* |
| Tree | ies-interface |
| Reference | **configure** service ies *service-name* interface *interface-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |


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| | |
|---|---|
| Platforms | All |

### **direction** *keyword*

| | |
|---|---|
| Synopsis | Flow match condition direction for the export filter |
| Context | **configure** cflowd collector *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* export-filter interface-list service ies-interface service-name *reference* interface-name *reference* direction *keyword* |
| Tree | direction |
| Description | This command configures the direction of the flows as a match condition for the associated export filter. The router only sends flows that match the specified direction to the associated Cflowd Collector. |
| Options | ingress, egress, both |
| Default | both |
| Introduced | 23.10.R1 |
| Platforms | All |

### **vprn-group-interface** service-name *reference* subscriber-interface-name *reference* group-interface-name *reference*

| | |
|---|---|
| Synopsis | Enter the **vprn-group-interface** list instance |
| Context | **configure** cflowd collector *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* export-filter interface-list service vprn-group-interface service-name *reference* subscriber-interface-name *reference* group-interface-name *reference* |
| Tree | vprn-group-interface |
| Description | Commands in this context configure which VPRN group interface flow data the service sends to the Cflowd Collector. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **service-name** *reference*

| | |
|---|---|
| Synopsis | Administrative service name |
| Context | **configure** cflowd collector *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* export-filter interface-list service vprn-group-interface service-name *reference* subscriber-interface-name *reference* group-interface-name *reference* |
| Tree | vprn-group-interface |
| Reference | **configure** service vprn *service-name* |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **subscriber-interface-name** *reference*

| | |
|---|---|
| Synopsis | Subscriber interface name |
| Context | **configure** cflowd collector *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* export-filter interface-list service vprn-group-interface service-name *reference* subscriber-interface-name *reference* group-interface-name *reference* |
| Tree | vprn-group-interface |
| Reference | **configure** service vprn *service-name* subscriber-interface *interface-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **group-interface-name** *reference*

| | |
|---|---|
| Synopsis | Group interface name |
| Context | **configure** cflowd collector *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* export-filter interface-list service vprn-group-interface service-name *reference* subscriber-interface-name *reference* group-interface-name *reference* |
| Tree | vprn-group-interface |
| Reference | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **direction** *keyword*

| | |
|---|---|
| Synopsis | Flow match condition direction for the export filter |
| Context | **configure** cflowd collector *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* export-filter interface-list service vprn-group-interface service-name *reference* subscriber-interface-name *reference* group-interface-name *reference* direction *keyword* |
| Tree | direction |


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| | |
|---|---|
| Description | This command configures the direction of the flows as a match condition for the associated export filter. The router only sends flows that match the specified direction to the associated Cflowd Collector. |
| Options | ingress, egress, both |
| Default | both |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **vprn-interface** service-name *reference* interface-name *reference*

| | |
|---|---|
| Synopsis | Enter the **vprn-interface** list instance |
| Context | **configure** cflowd collector *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* export-filter interface-list service vprn-interface service-name *reference* interface-name *reference* |
| Tree | vprn-interface |
| Description | Commands in this context configure which VPRN service interface flow data the service sends to the Cflowd Collector. |
| Introduced | 16.0.R4 |
| Platforms | All |

## **service-name** *reference*

| | |
|---|---|
| Synopsis | Administrative service name |
| Context | **configure** cflowd collector *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* export-filter interface-list service vprn-interface service-name *reference* interface-name *reference* |
| Tree | vprn-interface |
| Reference | **configure** service vprn *service-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

## **interface-name** *reference*

| | |
|---|---|
| Synopsis | IP interface name |


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| | |
|---|---|
| Context | **configure** cflowd collector *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* export-filter interface-list service vprn-interface service-name *reference* interface-name *reference* |
| Tree | vprn-interface |
| Reference | **configure** service vprn *service-name* interface *interface-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

## **direction** *keyword*

| | |
|---|---|
| Synopsis | Flow match condition direction for the export filter |
| Context | **configure** cflowd collector *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* export-filter interface-list service vprn-interface service-name *reference* interface-name *reference* direction *keyword* |
| Tree | direction |
| Description | This command configures the direction of the flows as a match condition for the associated export filter. The router only sends flows that match the specified direction to the associated Cflowd Collector. |
| Options | ingress, egress, both |
| Default | both |
| Introduced | 23.10.R1 |
| Platforms | All |

## **vprn-network-interface** service-name *reference* network-interface-name *reference*

| | |
|---|---|
| Synopsis | Enter the **vprn-network-interface** list instance |
| Context | **configure** cflowd collector *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* export-filter interface-list service vprn-network-interface service-name *reference* network-interface-name *reference* |
| Tree | vprn-network-interface |
| Description | Commands in this context configure which VPRN network interfaces flow data the service sends to the Cflowd Collector. |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **service-name** *reference*

| | |
|---|---|
| Synopsis | Administrative service name |
| Context | **configure** cflowd collector *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* export-filter interface-list service vprn-network-interface service-name *reference* network-interface-name *reference* |
| Tree | vprn-network-interface |
| Reference | **configure** service vprn *service-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **network-interface-name** *reference*

| | |
|---|---|
| Synopsis | Network interface name |
| Context | **configure** cflowd collector *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* export-filter interface-list service vprn-network-interface service-name *reference* network-interface-name *reference* |
| Tree | vprn-network-interface |
| Description | This command specifies the network interface name. Interface names must be unique within the group of defined IP interfaces for the **configure router interface** and **configure service ies interface** commands. An interface name cannot be in the form of an IP address. If the string contains special characters (#, $, spaces, and so on), the entire string must be enclosed within double quotes and must start with a letter. |
| Reference | **configure** service vprn *service-name* network-interface *interface-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **direction** *keyword*

| | |
|---|---|
| Synopsis | Flow match condition direction for the export filter |
| Context | **configure** cflowd collector *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* export-filter interface-list service vprn-network-interface service-name *reference* network-interface-name *reference* direction *keyword* |
| Tree | direction |


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| | |
|---|---|
| Description | This command configures the direction of the flows as a match condition for the associated export filter. The router only sends flows that match the specified direction to the associated Cflowd Collector. |
| Options | ingress, egress, both |
| Default | both |
| Introduced | 23.10.R1 |
| Platforms | All |

### **router** [router-instance] *string*

| | |
|---|---|
| Synopsis | Add a list entry for **router** |
| Context | **configure** cflowd collector *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* export-filter router *string* |
| Tree | router |
| Description | This command adds an entry to the list of router instances that can send flow data to the associated Cflowd Collector. |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**router-instance**] *string*

| | |
|---|---|
| Synopsis | Router instance name |
| Context | **configure** cflowd collector *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* export-filter router *string* |
| Tree | router |
| Description | This command specifies the router instance name. Only "Base" is supported. |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **router-instance** *string*

| | |
|---|---|
| Synopsis | Router or service name |
| Context | **configure** cflowd collector *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* router-instance *string* |
| Tree | router-instance |


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| | |
|---|---|
| Description | This command specifies the routing instance used to route traffic to the associated collector IP address.<br>The "Base" routing instance is the fallback if no route is found. No fallback mechanism is supported for "Base" and "VPRN". |
| Default | management |
| Introduced | 16.0.R1 |
| Platforms | All |

### **template-set** *keyword*

| | |
|---|---|
| Synopsis | Templates sent to the collector |
| Context | **configure** cflowd collector *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* template-set *keyword* |
| Tree | template-set |
| Description | This command specifies the set of templates sent to the collector when using cflowd Version 9 or Version 10. |
| Options | not-applicable, basic, mpls-ip, l2-ip, mpls-transport, compact, fastpath |
| Introduced | 16.0.R1 |
| Platforms | All |

### **version** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Flow data collector version |
| Context | **configure** cflowd collector *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* version *number* |
| Tree | version |
| Range | 5 \| 8 to 10 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **enhanced-distribution** *boolean*

| | |
|---|---|
| Synopsis | Include ingress port ID in hashing algorithm for cflowd |
| Context | **configure** cflowd enhanced-distribution *boolean* |
| Tree | enhanced-distribution |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-2se, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

### **export-mode** *keyword*

| | |
|---|---|
| Synopsis | Export mode for flow data |
| Context | **configure** cflowd export-mode *keyword* |
| Tree | export-mode |
| Options | automatic, manual |
| Default | automatic |
| Introduced | 16.0.R1 |
| Platforms | All |

### **inactive-flow-timeout** *number*

| | |
|---|---|
| Synopsis | Time without matching packet before flow is inactive |
| Context | **configure** cflowd inactive-flow-timeout *number* |
| Tree | inactive-flow-timeout |
| Description | This command configures the time interval that must elapse without a packet matching a flow before the flow is considered inactive.<br>This value is set for a flow when the flow is initially created in the active cache table and does not change dynamically. |
| Range | 10 to 600 |
| Units | seconds |
| Default | 15 |
| Introduced | 20.2.R1 |
| Platforms | All |


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### **inband-collector-export-only** *boolean*

| | |
|---|---|
| Synopsis | Export the traffic to all collectors only via in-band interfaces |
| Context | **configure** cflowd inband-collector-export-only *boolean* |
| Tree | inband-collector-export-only |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **overflow** *number*

| | |
|---|---|
| Synopsis | Percentage of entries to remove from Cflowd cache when the maximum number of entries is exceeded |
| Context | **configure** cflowd overflow *number* |
| Tree | overflow |
| Range | 1 to 50 |
| Units | percent |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sample-profile** [profile-id] *number*

| | |
|---|---|
| Synopsis | Enter the **sample-profile** list instance |
| Context | **configure** cflowd sample-profile *number* |
| Tree | sample-profile |
| Max. instances | 5 |
| Introduced | 19.5.R1 |
| Platforms | All |

### [**profile-id**] *number*

| | |
|---|---|
| Synopsis | The unique specifier of this sample-profile |
| Context | **configure** cflowd sample-profile *number* |
| Tree | sample-profile |


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| | |
|---|---|
| Range | 1 to 5 |
| Notes | This element is part of a list key. |
| Introduced | 19.5.R1 |
| Platforms | All |

### **metering-process** *keyword*

| | |
|---|---|
| Synopsis | Metering process for samples taken |
| Context | **configure** cflowd sample-profile *number* metering-process *keyword* |
| Tree | metering-process |
| Description | This command specifies the type of metering process to use for the samples taken from the associated interfaces. |
| Options | standard, fp-accelerated |
| Default | standard |
| Introduced | 21.10.R1 |
| Platforms | 7750 SR-7s, 7750 SR-14s, 7950 XRS-20e |

### **sample-rate** *number*

| | |
|---|---|
| Synopsis | Cflowd sampling rate for sample profile ID |
| Context | **configure** cflowd sample-profile *number* sample-rate *number* |
| Tree | sample-rate |
| Description | This command defines the cflowd sampling rate for the sample profile ID.<br>The sample rate indicates that the associated interface samples 1 in N packets for cflowd analysis. You can only associate one rate profile below 1:256 with a specific IOM, IMM, or XMA. |
| Range | 1 to 60000 |
| Default | 1000 |
| Introduced | 19.5.R1 |
| Platforms | All |

### **template-retransmit** *number*

| | |
|---|---|
| Synopsis | Time to resend template information |
| Context | **configure** cflowd template-retransmit *number* |
| Tree | template-retransmit |


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| | |
|---|---|
| Range | 10 to 600 |
| Units | seconds |
| Default | 600 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **use-vrtr-if-index** *boolean*

| | |
|---|---|
| Synopsis | Export flow data using virtual router interface indexes |
| Context | **configure** cflowd use-vrtr-if-index *boolean* |
| Tree | use-vrtr-if-index |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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## 4.11 chassis commands

```
configure
   –  chassis keyword chassis-number number
      –  apply-groups reference
      –  apply-groups-exclude reference
      –  monitor-filter-door boolean
      –  peq number
         –  admin-state keyword
         –  apply-groups reference
         –  apply-groups-exclude reference
         –  input-power-mode number
         –  peq-type keyword
      –  power-connection-module number
         –  apply-groups reference
         –  apply-groups-exclude reference
         –  pcm-type keyword
      –  power-shelf number
         –  admin-state keyword
         –  apply-groups reference
         –  apply-groups-exclude reference
         –  description description
         –  power-module number
            –  admin-state keyword
            –  apply-groups reference
            –  apply-groups-exclude reference
            –  power-module-type keyword
         –  power-shelf-type keyword
      –  power-supply number
         –  apply-groups reference
         –  apply-groups-exclude reference
         –  power-supply-type keyword
```


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## 4.11.1 chassis command descriptions

### **chassis** [chassis-class] *keyword* chassis-number *number*

| | |
|---|---|
| Synopsis | Enter the **chassis** list instance |
| Context | **configure** chassis *keyword* chassis-number *number* |
| Tree | chassis |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**chassis-class**] *keyword*

| | |
|---|---|
| Synopsis | Functional use of the physical chassis |
| Context | **configure** chassis *keyword* chassis-number *number* |
| Tree | chassis |
| Options | router, ethernet-satellite |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **chassis-number** *number*

| | |
|---|---|
| Synopsis | Unique index to identify this physical chassis |
| Context | **configure** chassis *keyword* chassis-number *number* |
| Tree | chassis |
| Range | 1 to 100 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **monitor-filter-door** *boolean*

| | |
|---|---|
| Synopsis | Allow filter door monitoring |
| Context | **configure** chassis *keyword* chassis-number *number* monitor-filter-door *boolean* |


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| | |
|---|---|
| Tree | monitor-filter-door |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7s, 7750 SR-14s |

### **peq** [peq-slot] *number*

| | |
|---|---|
| Synopsis | Enter the **peq** list instance |
| Context | **configure** chassis *keyword* chassis-number *number* peq *number* |
| Tree | peq |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-12e, 7950 XRS |

### [**peq-slot**] *number*

| | |
|---|---|
| Synopsis | Unique identifier index for a power supply tray in the chassis |
| Context | **configure** chassis *keyword* chassis-number *number* peq *number* |
| Tree | peq |
| Range | 1 to 31 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-12e, 7950 XRS |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the PEQ |
| Context | **configure** chassis *keyword* chassis-number *number* peq *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-12e, 7950 XRS |


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### **input-power-mode** *number*

| | |
|---|---|
| Synopsis | Input power mode of the PEQ |
| Context | **configure** chassis *keyword* chassis-number *number* peq *number* input-power-mode *number* |
| Tree | input-power-mode |
| Range | 60 \| 80 |
| Units | amperes |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-12e, 7950 XRS |

### **peq-type** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | APEQ type |
| Context | **configure** chassis *keyword* chassis-number *number* peq *number* peq-type *keyword* |
| Tree | peq-type |
| Options | apeq-dc-2000, apeq-dc-2200-2800, apeq-ac-3000, apeq-hvdc-3000, apeq-dc-4275, ixr-ac-hvdc-3000, ixr-dc-3000, apeq-ac-4400 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-12e, 7950 XRS |

### **power-connection-module** [pcm-slot] *number*

| | |
|---|---|
| Synopsis | Enter the **power-connection-module** list instance |
| Context | **configure** chassis *keyword* chassis-number *number* power-connection-module *number* |
| Tree | power-connection-module |
| Introduced | 16.0.R1 |
| Platforms | 7950 XRS-20e |

### [**pcm-slot**] *number*

| | |
|---|---|
| Synopsis | Unique identifier index for a power control module in the chassis |
| Context | **configure** chassis *keyword* chassis-number *number* power-connection-module *number* |


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| | |
|---|---|
| Tree | power-connection-module |
| Range | 1 to 12 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7950 XRS-20e |

## **pcm-type** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | PCM type |
| Context | **configure** chassis *keyword* chassis-number *number* power-connection-module *number* pcm-type *keyword* |
| Tree | pcm-type |
| Options | dual, quad |
| Introduced | 16.0.R1 |
| Platforms | 7950 XRS-20e |

## **power-shelf** [power-shelf-id] *number*

| | |
|---|---|
| Synopsis | Enter the **power-shelf** list instance |
| Context | **configure** chassis *keyword* chassis-number *number* power-shelf *number* |
| Tree | power-shelf |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-s |

## [**power-shelf-id**] *number*

| | |
|---|---|
| Synopsis | Unique identifier index for a power shelf in chassis |
| Context | **configure** chassis *keyword* chassis-number *number* power-shelf *number* |
| Tree | power-shelf |
| Range | 1 to 2 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7750 SR-s |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the power shelf |
| Context | **configure** chassis *keyword* chassis-number *number* power-shelf *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-s |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** chassis *keyword* chassis-number *number* power-shelf *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-s |

### **power-module** [power-module-id] *number*

| | |
|---|---|
| Synopsis | Enter the **power-module** list instance |
| Context | **configure** chassis *keyword* chassis-number *number* power-shelf *number* power-module *number* |
| Tree | power-module |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-s |

### [**power-module-id**] *number*

| | |
|---|---|
| Synopsis | Unique identifier for a power module in chassis |
| Context | **configure** chassis *keyword* chassis-number *number* power-shelf *number* power-module *number* |


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| | |
|---|---|
| Tree | power-module |
| Range | 1 to 12 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-s |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the power module |
| Context | **configure** chassis *keyword* chassis-number *number* power-shelf *number* power-module *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-s |

## **power-module-type** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Power module type |
| Context | **configure** chassis *keyword* chassis-number *number* power-shelf *number* power-module *number* power-module-type *keyword* |
| Tree | power-module-type |
| Options | ps-b-ac/hv-6000, ps-a-dc-4400, ps-a-dc-6000, ixr-ac-hvdc-3000, ixr-dc-3000 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-s |

## **power-shelf-type** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.


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| | |
|---|---|
| Synopsis | Power shelf type |
| Context | **configure** chassis *keyword* chassis-number *number* power-shelf *number* power-shelf-type *keyword* |
| Tree | power-shelf-type |
| Options | ps-a10-shelf-dc, ps-b10-shelf-ac/hv, ps-a4-shelf-dc, ps-b3-shelf-ac/hv |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-s |

### **power-supply** [power-supply-id] *number*

| | |
|---|---|
| Synopsis | Enter the **power-supply** list instance |
| Context | **configure** chassis *keyword* chassis-number *number* power-supply *number* |
| Tree | power-supply |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### [**power-supply-id**] *number*

| | |
|---|---|
| Synopsis | Unique identifier index for a power supply tray in the chassis |
| Context | **configure** chassis *keyword* chassis-number *number* power-supply *number* |
| Tree | power-supply |
| Range | 1 to 31 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **power-supply-type** *keyword*

| | |
|---|---|
| Synopsis | Power supply type |
| Context | **configure** chassis *keyword* chassis-number *number* power-supply *number* power-supply-type *keyword* |
| Tree | power-supply-type |
| Options | none, dc-single, ac-single, ac-multiple, auto, dc-multiple |
| Default | auto |
| Introduced | 16.0.R1 |


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Platforms 7450 ESS, 7750 SR-7/12


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## 4.12 connection-profile commands

```
configure
   –  connection-profile
      –  apply-groups reference
      –  apply-groups-exclude reference
      –  vlan number
         –  apply-groups reference
         –  apply-groups-exclude reference
         –  description description
         –  qtag-range number
            –  apply-groups reference
            –  apply-groups-exclude reference
            –  end number
```


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## 4.12.1 connection-profile command descriptions

### connection-profile

| | |
|---|---|
| Synopsis | Enter the **connection-profile** context |
| Context | **configure** connection-profile |
| Tree | connection-profile |
| Introduced | 16.0.R1 |
| Platforms | All |

### **vlan** [connection-profile-id] *number*

| | |
|---|---|
| Synopsis | Enter the **vlan** list instance |
| Context | **configure** connection-profile vlan *number* |
| Tree | vlan |
| Introduced | 16.0.R7 |
| Platforms | All |

### [**connection-profile-id**] *number*

| | |
|---|---|
| Synopsis | Identifier of this connection profile |
| Context | **configure** connection-profile vlan *number* |
| Tree | vlan |
| Range | 1 to 8000 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R7 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** connection-profile vlan *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R7 |


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| | |
|---|---|
| Platforms | All |

### **qtag-range** [start] *number*

| | |
|---|---|
| Synopsis | Enter the **qtag-range** list instance |
| Context | **configure** connection-profile vlan *number* qtag-range *number* |
| Tree | qtag-range |
| Introduced | 16.0.R7 |
| Platforms | All |

### [**start**] *number*

| | |
|---|---|
| Synopsis | Lower bound of VLAN range for connection profile |
| Context | **configure** connection-profile vlan *number* qtag-range *number* |
| Tree | qtag-range |
| Range | 1 to 4094 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R7 |
| Platforms | All |

### **end** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Upper bound of VLAN range for connection profile |
| Context | **configure** connection-profile vlan *number* qtag-range *number* end *number* |
| Tree | end |
| Range | 1 to 4094 |
| Introduced | 16.0.R7 |
| Platforms | All |


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## 4.13 debug commands

```
debug
   –  aaa
      –  diameter
         –  application
            –  failures boolean
            –  policy named-item
               –  failures boolean
               –  messages boolean
         –  node diam-fqdn
            –  failures boolean
            –  peer number
               –  failures boolean
               –  messages boolean
            –  relayed-messages boolean
   –  call-trace
      –  ipoe
         –  trace string
            –  circuit-id string
            –  mac string
            –  max-jobs number
            –  profile named-item
            –  remote-id string
            –  sap sap
            –  trace-existing-sessions boolean
      –  pppoe
         –  trace string
            –  circuit-id string
            –  mac string
            –  max-jobs number
            –  profile named-item
            –  remote-id string
            –  sap sap
            –  trace-existing-sessions boolean
            –  user-name string
      –  wlan-gw
         –  ue string
            –  mac mac-address
            –  profile named-item
   –  certificate
      –  auto-certificate-update pki-file-name
      –  auto-crl-update named-item
      –  cmpv2 named-item
      –  est named-item
      –  ocsp named-item
   –  ipsec
      –  certificate pki-file-name
      –  client-db named-item
      –  gateway named-item
         –  tunnel (ipv4-address-no-zone | ipv6-address-no-zone) port number
            –  detail boolean
            –  display-keys boolean
            –  suppress-dpd-debug boolean
         –  tunnel-nat ipv4-unicast-address port number pre-nat-ip-address ipv4-unicast-
address pre-nat-port number
            –  detail boolean
            –  display-keys boolean
            –  suppress-dpd-debug boolean
         –  tunnel-subnet (ipv4-prefix | ipv6-prefix) port (keyword | number)
            –  detail boolean
```


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```
            - display-keys boolean
            - suppress-dpd-debug boolean
      - transport-mode
         - ip-tunnel interface-name
            - detail boolean
            - display-keys boolean
            - suppress-dpd-debug boolean
      - tunnel named-item
         - detail boolean
         - display-keys boolean
         - suppress-dpd-debug boolean
   - l2tp
      - predictable-id-assignment boolean
   - lag lag-interface
      - bfd boolean
      - config boolean
      - iom-updates boolean
      - lacp-packets boolean
      - multi-chassis boolean
      - multi-chassis-packets boolean
      - port port
         - bfd boolean
         - config boolean
         - lacp-packets boolean
         - multi-chassis boolean
         - port-states boolean
         - redundancy boolean
         - selection-logic boolean
         - state-machine boolean
         - timers boolean
      - port-states boolean
      - redundancy boolean
      - selection-logic boolean
      - state-machine boolean
      - timers boolean
   - multicast-management
      - multicast-reporting-destination named-item
         - detail-level keyword
         - egress boolean
         - group-address ipv4-multicast-address
         - host-address ipv4-unicast-address
   - nat
      - l2-aware
         - subscriber subscriber-id
         - upnp
            - subscriber subscriber-id
               - events boolean
               - packets
                  - detail boolean
      - large-scale
         - dual-stack-lite
            - subscriber inside-router string b4-address ipv6-prefix
         - nat44
            - subscriber inside-router string ip-address ipv4-unicast-address
         - nat64
            - subscriber inside-router string ipv6-prefix ipv6-prefix
      - nat-import
         - route (ipv4-unicast-address | keyword) inside-router string
      - pcp
         - router string
            - server named-item
               - packets
                  - detail boolean
                  - direction keyword
```


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debug router

```
  - router string
    - bier
      - db
      - fib
      - management
      - red
      - rtm
      - template
      - tunnel
    - dhcp
      - all-packets
        - detail-level keyword
        - mode keyword
      - interface interface-name
        - detail-level keyword
        - mode keyword
      - mac mac-unicast-address-no-zero
        - detail-level keyword
        - mode keyword
      - sap sap
        - detail-level keyword
        - mode keyword
    - dhcp-server
      - dhcpv4 named-item
        - all-packets
          - detail-level keyword
          - mode keyword
        - lease ipv4-prefix
          - detail-level keyword
          - mode keyword
        - mac mac-address
          - detail-level keyword
          - mode keyword
      - dhcpv6 named-item
        - all-packets
          - detail-level keyword
          - mode keyword
        - lease ipv6-prefix
          - detail-level keyword
          - mode keyword
        - link-local-address ipv6-address
          - detail-level keyword
          - mode keyword
    - igmp
      - group-interface
        - all-group-interfaces
        - forwarding-service service-name
        - group-interface-name interface-name
      - host
        - group-interface
          - forwarding-service service-name
          - group-interface-name interface-name
        - ip-address ipv4-address
      - interface
        - all-interfaces
        - interface-name interface-name
      - mcs
        - all-interfaces
        - interface-name interface-name
      - miscellaneous boolean
      - packet
        - all-origins
        - dropped boolean
        - egress boolean
```


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debug router igmp packet group-interface-name

```
            –  group-interface-name interface-name
            –  host-ip-address ipv4-address
            –  ingress boolean
            –  interface-ip-address ipv4-address
            –  interface-name interface-name
            –  type keyword
      –  ip
         –  icmp
            –  all-packets
            –  interface interface-name
         –  icmp6
            –  all-packets
            –  interface interface-name
         –  interface-events
            –  all-events
            –  interface interface-name
         –  neighbor
            –  all-events
               –  address-family keyword
            –  interface interface-name
               –  address-family keyword
         –  packet
            –  all-packets
               –  address-family keyword
               –  headers boolean
               –  protocol-id number
            –  interface interface-name
               –  address-family keyword
               –  headers boolean
               –  protocol-id number
         –  route-table
            –  all
            –  filter
               –  ipv4
                  –  prefix ipv4-prefix
                     –  longest-prefix-match boolean
               –  ipv6
                  –  prefix ipv6-prefix
                     –  longest-prefix-match boolean
         –  tunnel-table
            –  all
            –  filter
               –  id
                  –  sdp-id number
                  –  tunnel-id number
               –  ipv4
                  –  prefix ipv4-prefix
                     –  longest-prefix-match boolean
                     –  tunnel-type (keyword | keyword)
               –  ipv6
                  –  prefix ipv6-prefix
                     –  longest-prefix-match boolean
                     –  tunnel-type (keyword | keyword)
      –  l2tp
         –  assignment-id string
            –  events
               –  all
               –  call-disconnect-notification boolean
               –  finite-state-machine boolean
               –  lac
                  –  state-recovery boolean
                  –  state-recovery-failed boolean
               –  lns
                  –  ppp
```


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debug router l2tp assignment-id events lns ppp terminate-only

```
                  –  terminate-only boolean
            –  stop-control-connection-notification boolean
         –  packets
            –  all
            –  detail-level keyword
            –  direction keyword
            –  l2tp boolean
            –  lns
               –  dhcp-client boolean
               –  ppp
                  –  all
                  –  chap boolean
                  –  ipcp boolean
                  –  ipv6cp boolean
                  –  lcp boolean
                  –  other boolean
                  –  pap boolean
      –  events
         –  all
         –  call-disconnect-notification boolean
         –  finite-state-machine boolean
         –  lac
            –  state-recovery boolean
            –  state-recovery-failed boolean
         –  lns
            –  ppp
               –  terminate-only boolean
         –  session-setup
            –  attempted-tunnels boolean
            –  skipped-tunnels boolean
         –  stop-control-connection-notification boolean
      –  group named-item-64
         –  events
            –  all
            –  call-disconnect-notification boolean
            –  finite-state-machine boolean
            –  lac
               –  state-recovery boolean
               –  state-recovery-failed boolean
            –  lns
               –  ppp
                  –  terminate-only boolean
            –  session-setup
               –  attempted-tunnels boolean
               –  skipped-tunnels boolean
            –  stop-control-connection-notification boolean
         –  packets
            –  all
            –  detail-level keyword
            –  direction keyword
            –  l2tp boolean
            –  lns
               –  dhcp-client boolean
               –  ppp
                  –  all
                  –  chap boolean
                  –  ipcp boolean
                  –  ipv6cp boolean
                  –  lcp boolean
                  –  other boolean
                  –  pap boolean
      –  ip-peer (ipv4-address-no-zone | ipv6-address-no-zone)
         –  events
            –  all
```


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```
            - call-disconnect-notification boolean
            - finite-state-machine boolean
            - lac
               - state-recovery boolean
               - state-recovery-failed boolean
            - lns
               - ppp
                  - terminate-only boolean
            - stop-control-connection-notification boolean
         - packets
            - all
            - detail-level keyword
            - direction keyword
            - l2tp boolean
            - lns
               - dhcp-client boolean
               - ppp
                  - all
                  - chap boolean
                  - ipcp boolean
                  - ipv6cp boolean
                  - lcp boolean
                  - other boolean
                  - pap boolean
      - packets
         - all
         - detail-level keyword
         - direction keyword
         - l2tp boolean
         - lns
            - dhcp-client boolean
            - ppp
               - all
               - chap boolean
               - ipcp boolean
               - ipv6cp boolean
               - lcp boolean
               - other boolean
               - pap boolean
      - tunnel number
         - events
            - all
            - call-disconnect-notification boolean
            - finite-state-machine boolean
            - lac
               - state-recovery boolean
               - state-recovery-failed boolean
            - lns
               - ppp
                  - terminate-only boolean
            - stop-control-connection-notification boolean
         - packets
            - all
            - detail-level keyword
            - direction keyword
            - l2tp boolean
            - lns
               - dhcp-client boolean
               - ppp
                  - all
                  - chap boolean
                  - ipcp boolean
                  - ipv6cp boolean
                  - lcp boolean
```


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debug router l2tp tunnel packets lns ppp other

```
                    – other boolean
                    – pap boolean
         – udp-peer (ipv4-address-no-zone | ipv6-address-no-zone) udp-port number
            – events
               – all
               – call-disconnect-notification boolean
               – finite-state-machine boolean
               – lac
                  – state-recovery boolean
                  – state-recovery-failed boolean
               – lns
                  – ppp
                     – terminate-only boolean
               – stop-control-connection-notification boolean
            – packets
               – all
               – detail-level keyword
               – direction keyword
               – l2tp boolean
               – lns
                  – dhcp-client boolean
                  – ppp
                     – all
                     – chap boolean
                     – ipcp boolean
                     – ipv6cp boolean
                     – lcp boolean
                     – other boolean
                     – pap boolean
      – ldp
         – interface interface-name
            – ipv4
               – event
                  – messages
               – packet
                  – hello
                     – detail boolean
            – ipv6
               – event
                  – messages
               – packet
                  – hello
                     – detail boolean
         – peer (ipv4-address-no-zone | ipv6-address-no-zone)
            – event
               – bindings
               – messages
            – packet
               – hello
                  – detail boolean
               – init
                  – detail boolean
               – keepalive
               – label
                  – detail boolean
      – mld
         – group-interface
            – all-group-interfaces
            – forwarding-service service-name
            – group-interface-name interface-name
         – host
            – group-interface
               – forwarding-service service-name
               – group-interface-name interface-name
```


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```
            - ip-address ipv6-address
         - interface
            - all-interfaces
            - interface-name interface-name
         - mcs
            - all-interfaces
            - interface-name interface-name
         - miscellaneous boolean
         - packet
            - all-origins
            - dropped boolean
            - egress boolean
            - group-interface-name interface-name
            - host-ip-address ipv6-address
            - ingress boolean
            - interface-ip-address ipv6-address
            - interface-name interface-name
            - type keyword
      - msdp
         - packet
            - all-packet-types
            - packet-types
               - keep-alive
                  - peer-address (ipv4-address-no-zone | ipv6-address-no-zone)
               - sa-request
                  - peer-address (ipv4-address-no-zone | ipv6-address-no-zone)
               - sa-response
                  - peer-address (ipv4-address-no-zone | ipv6-address-no-zone)
               - source-active
                  - peer-address (ipv4-address-no-zone | ipv6-address-no-zone)
         - pim
            - group-address ipv4-multicast-address
         - rtm
            - rp-address ipv4-address
         - sa-db
            - group-address ipv4-multicast-address
            - rp-address ipv4-address
            - source-address ipv4-address
      - mtrace
         - miscellaneous
         - packet
            - all-packet-types
            - packet-types
               - query boolean
               - request boolean
               - response boolean
      - mtrace2
         - miscellaneous
         - packet
            - all-packet-types
            - packet-types
               - query boolean
               - request boolean
               - response boolean
      - ospf number
         - area
            - all
            - area-id ipv4-address
         - area-range
            - all
            - range-address ipv4-address
         - cspf
            - all
            - cspf-addr ipv4-address
```


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```
        - graceful-restart boolean
        - interface
          - interface-ip-address ipv4-address
          - interface-name string
        - leak
          - all
          - dest-addr ipv4-address
        - lsdb
          - adv-rtr-id ipv4-address
          - area ipv4-address
          - ls-id ipv4-address
          - ls-type keyword
        - misc boolean
        - neighbor
          - interface-ip-address ipv4-address
          - interface-name string
        - nssa-range
          - all
          - range-address ipv4-address
        - packet
          - detail boolean
          - direction keyword
          - interface-name string
          - packet-type keyword
        - rsvp-shortcut
          - all
          - rsvp-ep ipv4-address
        - rtm
          - all
          - dest-addr ipv4-address
        - sham-neighbor
          - all
          - dest-addr ipv4-address
        - spf
          - all
          - destination-address ipv4-address
          - type keyword
        - tunnel-endpoint
          - leak
            - all
            - tunnel-endpoint ipv4-address
          - spf
            - all
            - spf-endpoint ipv4-address
        - virtual-neighbor
          - all
          - neighbor-id ipv4-address
    - ospf3 number
        - area
          - all
          - area-id ipv4-address
        - area-range
          - all
          - range-address (ipv4-address-no-zone | ipv6-address-no-zone)
        - graceful-restart boolean
        - interface
          - all
          - interface-name string
        - leak
          - all
          - dest-addr (ipv4-address-no-zone | ipv6-address-no-zone)
        - lsdb
          - adv-rtr-id ipv4-address
          - area ipv4-address
```


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```
            - ls-id ipv4-address
            - ls-type keyword
         - misc boolean
         - neighbor
            - interface-name string
            - router-id ipv4-address
         - nssa-range
            - all
            - range-address (ipv4-address-no-zone | ipv6-address-no-zone)
         - packet
            - detail boolean
            - direction keyword
            - interface-name string
            - packet-type keyword
         - rtm
            - all
            - dest-addr (ipv4-address-no-zone | ipv6-address-no-zone)
         - spf
            - all
            - destination-address (ipv4-address-no-zone | ipv6-address-no-zone)
            - type keyword
         - tunnel-endpoint
            - leak
               - all
               - tunnel-endpoint (ipv4-address-no-zone | ipv6-address-no-zone)
            - spf
               - all
               - spf-endpoint (ipv4-address-no-zone | ipv6-address-no-zone)
         - virtual-neighbor
            - all
            - neighbor-id ipv4-address
      - pim
         - events
            - adjacency
            - all
               - detail boolean
               - group-address (ipv4-address-no-zone | ipv6-address-no-zone)
               - source-address (ipv4-address-no-zone | ipv6-address-no-zone)
            - assert
               - detail boolean
               - group-address (ipv4-address-no-zone | ipv6-address-no-zone)
               - source-address (ipv4-address-no-zone | ipv6-address-no-zone)
            - auto-rp
            - bgp
               - group-address (ipv4-address-no-zone | ipv6-address-no-zone)
               - peer-address (ipv4-address-no-zone | ipv6-address-no-zone)
               - source-address (ipv4-address-no-zone | ipv6-address-no-zone)
            - bier-inband
               - detail boolean
            - bsr
               - detail boolean
            - data
               - detail boolean
               - group-address (ipv4-address-no-zone | ipv6-address-no-zone)
               - source-address (ipv4-address-no-zone | ipv6-address-no-zone)
            - db
               - detail boolean
               - group-address (ipv4-address-no-zone | ipv6-address-no-zone)
               - source-address (ipv4-address-no-zone | ipv6-address-no-zone)
            - dynmldp
               - detail boolean
            - extranet
               - detail boolean
            - graft
```


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```
            - detail boolean
            - group-address (ipv4-address-no-zone | ipv6-address-no-zone)
            - source-address (ipv4-address-no-zone | ipv6-address-no-zone)
         - interface
            - interface-name interface-name
         - jp
            - detail boolean
            - group-address (ipv4-address-no-zone | ipv6-address-no-zone)
            - source-address (ipv4-address-no-zone | ipv6-address-no-zone)
         - mofrr
         - mrib
            - detail boolean
            - group-address (ipv4-address-no-zone | ipv6-address-no-zone)
            - source-address (ipv4-address-no-zone | ipv6-address-no-zone)
         - msg
         - mvpn-rtcache
            - group-address (ipv4-address-no-zone | ipv6-address-no-zone)
            - peer-address (ipv4-address-no-zone | ipv6-address-no-zone)
         - red
            - detail boolean
         - register
            - detail boolean
            - group-address (ipv4-address-no-zone | ipv6-address-no-zone)
            - source-address (ipv4-address-no-zone | ipv6-address-no-zone)
         - rpfv
            - detail boolean
         - rtm
            - detail boolean
         - s-pmsi
            - detail boolean
            - vpn-source-address (ipv4-address-no-zone | ipv6-address-no-zone)
         - tunnel-interface
            - ldp-p2mp-id number
            - rsvp-p2mp named-item
            - sender-address ipv4-unicast-address
      - packet
         - all-origins
         - all-packet-types
         - egress boolean
         - ingress boolean
         - interface-name interface-name
         - ipv4 boolean
         - ipv6 boolean
         - packet-types
            - assert
               - all-origins
               - interface-name interface-name
            - auto-rp-announcement
               - all-origins
               - interface-name interface-name
            - auto-rp-mapping
               - all-origins
               - interface-name interface-name
            - bsr
               - all-origins
               - interface-name interface-name
            - crp
               - all-origins
               - interface-name interface-name
            - graft
               - all-origins
               - interface-name interface-name
            - graft-ack
               - all-origins
```


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```
                  - interface-name interface-name
               - hello
                  - all-origins
                  - interface-name interface-name
               - jp
                  - all-origins
                  - interface-name interface-name
               - mdt-tlv
                  - all-origins
                  - interface-name interface-name
               - register
                  - all-origins
                  - interface-name interface-name
               - register-stop
                  - all-origins
                  - interface-name interface-name
      - radius
         - proxy named-item
            - all-packet-types
            - client-address (ipv4-address-no-zone | ipv6-address-no-zone)
            - detail-level keyword
            - direction keyword
            - dropped-only boolean
            - packet-types
               - access-accept boolean
               - access-challenge boolean
               - access-reject boolean
               - access-request boolean
               - accounting-request boolean
               - accounting-response boolean
               - other boolean
         - servers
            - attribute string
               - extended-type number
               - transaction boolean
               - type number
               - value
                  - address (ipv4-address-no-zone | ipv6-address-no-zone)
                  - hex hex-string
                  - integer number
                  - prefix (ipv4-prefix | ipv6-prefix)
                  - string string
               - vendor-specific
                  - encoding
                     - length-size number
                     - type-size number
                  - vendor (number | keyword)
                  - vendor-type number
            - detail-level keyword
            - packet-types
               - accounting boolean
               - authentication boolean
               - coa boolean
            - server-address (ipv4-address-no-zone | ipv6-address-no-zone)
      - srrp
         - events
            - all-events
            - interface interface-name
         - packet
            - all-packets
            - interface interface-name
      - vrrp
         - events
            - all-events
```


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debug router vrrp events interface

```
            – interface interface-name
               – all-vrids
               – ipv4
                  – vrid number
               – ipv6
                  – vrid number
         – packet
            – all-packets
            – interface interface-name
               – all-vrids
               – ipv4
                  – vrid number
               – ipv6
                  – vrid number
      – wpp
         – packets
            – detail-level keyword
         – portal named-item
            – packets
               – detail-level keyword
   – service
      – ies service-name
         – ppp
            – circuit-id string
            – events
               – all
               – dhcp-client
                  – terminate-only boolean
               – l2tp
                  – terminate-only boolean
               – local-address-assignment
                  – terminate-only boolean
               – ppp
                  – terminate-only boolean
            – mac mac-address
            – packets
               – all
               – detail-level keyword
               – dhcp-client boolean
               – discovery
                  – all
                  – padi boolean
                  – pado boolean
                  – padr boolean
                  – pads boolean
                  – padt boolean
               – mode keyword
               – ppp-session
                  – all
                  – chap boolean
                  – ipcp boolean
                  – ipv6cp boolean
                  – lcp boolean
                  – pap boolean
            – remote-id string
            – sap sap
            – user-name string
         – video-interface interface-name
            – fcc-server
               – client ipv4-unicast-address
               – detail-or-error keyword
               – source-port number
            – packet-rx
               – client ipv4-unicast-address
```


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debug service ies video-interface packet-rx fcc-join

```
            - fcc-join boolean
            - fcc-leave boolean
            - ret-nack boolean
            - source-port number
         - perfect-stream
            - zone-channel-name named-item
         - rt-server
            - client ipv4-unicast-address
            - detail-or-error keyword
            - source-port number
         - sg
            - group ipv4-multicast-address
            - source ipv4-unicast-address
   - vpls service-name
      - igmp-snooping
         - packet
            - detail keyword
            - dropped boolean
            - egress boolean
            - evpn-mpls boolean
            - evpn-vxlan (ipv4-address-no-zone | ipv6-address-no-zone) vni number
            - ingress boolean
            - mac mac-address
            - sap sap
            - sdp-bind sdp-bind-id
      - mld-snooping
         - packet
            - detail keyword
            - dropped boolean
            - egress boolean
            - evpn-mpls boolean
            - evpn-vxlan (ipv4-address-no-zone | ipv6-address-no-zone) vni number
            - ingress boolean
            - mac mac-address
            - sap sap
            - sdp-bind sdp-bind-id
      - mrp
         - events
            - all-events
            - event-types
               - applicant-sm boolean
               - leave-all-sm boolean
               - mrpdu boolean
               - periodic-sm boolean
               - registrant-sm boolean
         - mmrp-mac mac-address
         - mvrp-vlan number
         - sap sap
         - sdp-bind sdp-bind-id
      - pim-snooping
         - events
            - adjacency
            - all
               - detail boolean
               - group-address (ipv4-address-no-zone | ipv6-address-no-zone)
               - source-address (ipv4-address-no-zone | ipv6-address-no-zone)
            - db
               - detail boolean
               - group-address (ipv4-address-no-zone | ipv6-address-no-zone)
               - source-address (ipv4-address-no-zone | ipv6-address-no-zone)
            - jp
               - detail boolean
               - group-address (ipv4-address-no-zone | ipv6-address-no-zone)
               - source-address (ipv4-address-no-zone | ipv6-address-no-zone)
```


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```
            - mcs
              - detail boolean
            - port
              - detail boolean
              - evpn-mpls
              - sap-id sap
              - sdp-bind-id sdp-bind-id
              - vni number
              - vtep (ipv4-address-no-zone | ipv6-address-no-zone)
            - red
              - detail boolean
         - packet
            - all-origins
            - all-packet-types
            - packet-types
              - hello boolean
              - jp boolean
            - port
              - evpn-mpls
              - sap-id sap
              - sdp-bind-id sdp-bind-id
              - vni number
              - vtep (ipv4-address-no-zone | ipv6-address-no-zone)
      - ppp
         - circuit-id string
         - events
            - all
            - dhcp-client
              - terminate-only boolean
            - l2tp
              - terminate-only boolean
            - local-address-assignment
              - terminate-only boolean
            - ppp
              - terminate-only boolean
         - mac mac-address
         - packets
            - all
            - detail-level keyword
            - dhcp-client boolean
            - discovery
              - all
              - padi boolean
              - pado boolean
              - padr boolean
              - pads boolean
              - padt boolean
            - mode keyword
            - ppp-session
              - all
              - chap boolean
              - ipcp boolean
              - ipv6cp boolean
              - lcp boolean
              - pap boolean
         - remote-id string
         - sap sap
         - user-name string
      - proxy-arp
         - all
         - ip
            - address ipv4-unicast-address
         - mac
            - address mac-address
```


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```
        – proxy-nd
          – all
          – ip
            – address ipv6-address
          – mac
            – address mac-address
        – spb
          – events
            – adjacency
              – sap sap
              – sdp-bind-id sdp-bind-id
              – system-id system-id
            – l2db boolean
            – lsdb
              – hostname (lsp-id | system-id)
            – spf
              – system-id system-id
          – interface
            – sap sap
            – sdp-bind-id sdp-bind-id
          – packet
            – detail boolean
            – sap sap
            – sdp-bind-id sdp-bind-id
            – type keyword
        – stp
          – events
            – all-events
            – event-types
              – bpdu boolean
              – core-connectivity boolean
              – exception boolean
              – fsm-state-changes boolean
              – fsm-timers boolean
              – port-role boolean
              – port-state boolean
          – sap sap
          – sdp-bind sdp-bind-id
      – vprn service-name
        – ppp
          – circuit-id string
          – events
            – all
            – dhcp-client
              – terminate-only boolean
            – l2tp
              – terminate-only boolean
            – local-address-assignment
              – terminate-only boolean
            – ppp
              – terminate-only boolean
          – mac mac-address
          – packets
            – all
            – detail-level keyword
            – dhcp-client boolean
            – discovery
              – all
              – padi boolean
              – pado boolean
              – padr boolean
              – pads boolean
              – padt boolean
            – mode keyword
```


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debug service vprn ppp packets ppp-session

```
                – ppp-session
                  – all
                  – chap boolean
                  – ipcp boolean
                  – ipv6cp boolean
                  – lcp boolean
                  – pap boolean
            – remote-id string
            – sap sap
            – user-name string
        – video-interface interface-name
            – fcc-server
                – client ipv4-unicast-address
                – detail-or-error keyword
                – source-port number
            – packet-rx
                – client ipv4-unicast-address
                – fcc-join boolean
                – fcc-leave boolean
                – ret-nack boolean
                – source-port number
            – perfect-stream
                – zone-channel-name named-item
            – rt-server
                – client ipv4-unicast-address
                – detail-or-error keyword
                – source-port number
            – sg
                – group ipv4-multicast-address
                – source ipv4-unicast-address
  – subscriber-mgmt
    – gtp
        – events boolean
        – imsi string
        – packets
            – detail-level keyword
            – mode keyword
        – peer (ipv4-address-no-zone | ipv6-address-no-zone) router string
            – udp-port number
    – local-user-db named-item
        – mode keyword
    – pfcp
        – packets
            – detail-level keyword
            – mode keyword
  – system
    – grpc
        – client
            – all
            – ip-address (ipv4-address-no-zone | ipv6-address-no-zone)
        – type keyword
    – grpc-tunnel
        – tunnel
            – all
            – name named-item
    – http-connections
        – client-ip-prefix (ipv4-prefix | ipv6-prefix | keyword)
    – management-interface
        – netconf keyword
        – remote-management
            – manager
                – all
                – manager-name named-item-64
            – service boolean
```


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```
        – snmp keyword
  – wlan-gw
     – group number
        – learn-ap-mac
           – tunnel-remote-address (ipv4-address-no-zone | ipv6-address-no-zone)
        – statistic keyword name named-item-64
           – capture-packet boolean
        – ue
           – bridge-domain number
           – mac-address mac-address
           – protocols
              – arp boolean
              – dhcp4 boolean
              – dhcp6 boolean
              – icmp4 boolean
              – icmp6 boolean
              – radius boolean
```


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## 4.13.1 debug command descriptions

### debug

| | |
|---|---|
| Synopsis | Configure application or protocol tracing |
| Context | debug |
| Tree | debug |
| Description | Commands in this context enable detailed debugging information for various protocols and router functions. |
| Introduced | 21.5.R1 |
| Platforms | All |

### aaa

| | |
|---|---|
| Synopsis | Enter the **aaa** context |
| Context | debug aaa |
| Tree | aaa |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### diameter

| | |
|---|---|
| Synopsis | Enter the **diameter** context |
| Context | debug aaa diameter |
| Tree | diameter |
| Description | Commands in this context configure Diameter Base parameters. |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### application

| | |
|---|---|
| Synopsis | Enter the **application** context |
| Context | debug aaa diameter application |
| Tree | application |


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| | |
|---|---|
| Description | Commands in this context configure debugging for Diameter session-aware application messages and application message processing failures, for example, in the case of an unknown Diameter session ID. |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **failures** *boolean*

| | |
|---|---|
| Synopsis | Debug Diameter application failures |
| Context | debug aaa diameter application failures *boolean* |
| Tree | failures |
| Default | false |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **policy** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **policy** list instance |
| Context | debug aaa diameter application policy *named-item* |
| Tree | policy |
| Max. instances | 32 |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | Diameter application policy name |
| Context | debug aaa diameter application policy *named-item* |
| Tree | policy |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **failures** *boolean*

| | |
|---|---|
| Synopsis | Debug Diameter application failures |
| Context | debug aaa diameter application policy *named-item* failures *boolean* |
| Tree | failures |
| Default | true |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **messages** *boolean*

| | |
|---|---|
| Synopsis | Debug Diameter application messages |
| Context | debug aaa diameter application policy *named-item* messages *boolean* |
| Tree | messages |
| Default | false |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **node** [origin-host] *diam-fqdn*

| | |
|---|---|
| Synopsis | Enter the **node** list instance |
| Context | debug aaa diameter node *diam-fqdn* |
| Tree | node |
| Max. instances | 32 |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**origin-host**] *diam-fqdn*

| | |
|---|---|
| Synopsis | Origin host of the Diameter node |
| Context | debug aaa diameter node *diam-fqdn* |
| Tree | node |
| String length | 1 to 80 |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **failures** *boolean*

| | |
|---|---|
| Synopsis | Debug Diameter node failures |
| Context | debug aaa diameter node *diam-fqdn* failures *boolean* |
| Tree | failures |
| Description | When configured to **true**, the system debugs Diameter node-level failures that occur before the peer is determined. For example, when no route for a message is found in the realm routing table. |
| Default | true |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **peer** [index] *number*

| | |
|---|---|
| Synopsis | Enter the **peer** list instance |
| Context | debug aaa diameter node *diam-fqdn* peer *number* |
| Tree | peer |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**index**] *number*

| | |
|---|---|
| Synopsis | Index of the peer in the Diameter node |
| Context | debug aaa diameter node *diam-fqdn* peer *number* |
| Tree | peer |
| Range | 1 to 5 |
| Notes | This element is part of a list key. |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **failures** *boolean*

| | |
|---|---|
| Synopsis | Debug Diameter peer failures |


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| | |
|---|---|
| Context | debug aaa diameter node *diam-fqdn* peer *number* failures *boolean* |
| Tree | failures |
| Default | true |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **messages** *boolean*

| | |
|---|---|
| Synopsis | Debug Diameter peer messages |
| Context | debug aaa diameter node *diam-fqdn* peer *number* messages *boolean* |
| Tree | messages |
| Description | When configured to **true**, the system debugs peer-level messages that are required to bring up, maintain, and tear down a peering connection, for example, Capabilities Exchange and Device Watchdog messages. |
| Default | false |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **relayed-messages** *boolean*

| | |
|---|---|
| Synopsis | Debug relayed Diameter messages |
| Context | debug aaa diameter node *diam-fqdn* relayed-messages *boolean* |
| Tree | relayed-messages |
| Default | false |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **call-trace**

| | |
|---|---|
| Synopsis | Enter the **call-trace** context |
| Context | debug call-trace |
| Tree | call-trace |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## ipoe

| | |
|---|---|
| Synopsis | Enter the **ipoe** context |
| Context | debug call-trace ipoe |
| Tree | ipoe |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **trace** [name] *string*

| | |
|---|---|
| Synopsis | Enter the **trace** list instance |
| Context | debug call-trace ipoe trace *string* |
| Tree | trace |
| Max. instances | 50 |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## [**name**] *string*

| | |
|---|---|
| Synopsis | Unique trace name |
| Context | debug call-trace ipoe trace *string* |
| Tree | trace |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **circuit-id** *string*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Circuit ID of the sessions to trace |
| Context | debug call-trace ipoe trace *string* circuit-id *string* |


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| | |
|---|---|
| Tree | circuit-id |
| Description | This command configures the circuit ID of the sessions to trace.<br>The circuit ID filter is ignored if it is not part of the IPoE session key. |
| String length | 1 to 255 |
| Notes | The following elements are part of a choice: **circuit-id** or **remote-id**. |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **mac** *string*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | MAC address of the sessions to trace |
| Context | debug call-trace ipoe trace *string* mac *string* |
| Tree | mac |
| String length | 1 to 17 |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **max-jobs** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum number of trace jobs |
| Context | debug call-trace ipoe trace *string* max-jobs *number* |
| Tree | max-jobs |
| Range | 1 to 50 |
| Default | 1 |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **profile** *named-item*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Call trace profile applied for the trace |
| Context | debug call-trace ipoe trace *string* profile *named-item* |
| Tree | profile |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **remote-id** *string*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Remote ID of the sessions to trace |
| Context | debug call-trace ipoe trace *string* remote-id *string* |
| Tree | remote-id |
| Description | This command configures the remote ID of the sessions to trace.<br>The remote ID filter is ignored if it is not part of the IPoE session key. |
| String length | 1 to 255 |
| Notes | The following elements are part of a choice: **circuit-id** or **remote-id**. |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sap** *sap*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | SAP ID of the sessions to trace |


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| | |
|---|---|
| Context | debug call-trace ipoe trace *string* sap *sap* |
| Tree | sap |
| String length | 1 to 45 |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **trace-existing-sessions** *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable call trace for existing sessions |
| Context | debug call-trace ipoe trace *string* trace-existing-sessions *boolean* |
| Tree | trace-existing-sessions |
| Description | When configured to **true**, the system traces existing sessions.<br>When configured to **false**, only new sessions are traced. |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **pppoe**

| | |
|---|---|
| Synopsis | Enter the **pppoe** context |
| Context | debug call-trace pppoe |
| Tree | pppoe |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **trace** [name] *string*

| | |
|---|---|
| Synopsis | Enter the **trace** list instance |
| Context | debug call-trace pppoe trace *string* |
| Tree | trace |
| Max. instances | 50 |


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| | |
|---|---|
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *string*

| | |
|---|---|
| Synopsis | Unique trace name |
| Context | debug call-trace pppoe trace *string* |
| Tree | trace |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **circuit-id** *string*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Circuit ID of the sessions to trace |
| Context | debug call-trace pppoe trace *string* circuit-id *string* |
| Tree | circuit-id |
| String length | 1 to 255 |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **mac** *string*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | MAC address of the sessions to trace |
| Context | debug call-trace pppoe trace *string* mac *string* |
| Tree | mac |
| String length | 1 to 17 |
| Introduced | 22.7.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **max-jobs** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum number of trace jobs |
| Context | debug call-trace pppoe trace *string* max-jobs *number* |
| Tree | max-jobs |
| Range | 1 to 50 |
| Default | 1 |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **profile** *named-item*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Call trace profile applied for the trace |
| Context | debug call-trace pppoe trace *string* profile *named-item* |
| Tree | profile |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **remote-id** *string*

**WARNING:**
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| | |
|---|---|
| Synopsis | Remote ID of the sessions to trace |


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| | |
|---|---|
| Context | debug call-trace pppoe trace *string* remote-id *string* |
| Tree | remote-id |
| String length | 1 to 255 |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sap** *sap*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | SAP ID of the sessions to trace |
| Context | debug call-trace pppoe trace *string* sap *sap* |
| Tree | sap |
| String length | 1 to 45 |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **trace-existing-sessions** *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable call trace for existing sessions |
| Context | debug call-trace pppoe trace *string* trace-existing-sessions *boolean* |
| Tree | trace-existing-sessions |
| Description | When configured to **true**, the system traces existing sessions.<br>When configured to **false**, only new sessions are traced. |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **user-name** *string*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | PPPoE username of the sessions to trace |
| Context | debug call-trace pppoe trace *string* user-name *string* |
| Tree | user-name |
| String length | 1 to 253 |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **wlan-gw**

| | |
|---|---|
| Synopsis | Enter the **wlan-gw** context |
| Context | debug call-trace wlan-gw |
| Tree | wlan-gw |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ue** [name] *string*

| | |
|---|---|
| Synopsis | Enter the **ue** list instance |
| Context | debug call-trace wlan-gw ue *string* |
| Tree | ue |
| Max. instances | 50 |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *string*

| | |
|---|---|
| Synopsis | Unique trace name |
| Context | debug call-trace wlan-gw ue *string* |
| Tree | ue |


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| | |
|---|---|
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **mac** *mac-address*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | MAC address of the sessions to trace |
| Context | debug call-trace wlan-gw ue *string* mac *mac-address* |
| Tree | mac |
| Notes | This element is mandatory. |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **profile** *named-item*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Call trace profile applied for the trace |
| Context | debug call-trace wlan-gw ue *string* profile *named-item* |
| Tree | profile |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **certificate**

| | |
|---|---|
| Synopsis | Enter the **certificate** context |
| Context | debug certificate |


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| | |
|---|---|
| Tree | certificate |
| Description | Commands in this context configure debugging for certificates. |
| Introduced | 24.3.R1 |
| Platforms | All |

### **auto-certificate-update** [filename] *pki-file-name*

| | |
|---|---|
| Synopsis | Add a list entry for **auto-certificate-update** |
| Context | debug certificate auto-certificate-update *pki-file-name* |
| Tree | auto-certificate-update |
| Max. instances | 256 |
| Introduced | 24.3.R1 |
| Platforms | All |

### [**filename**] *pki-file-name*

| | |
|---|---|
| Synopsis | Certificate filename |
| Context | debug certificate auto-certificate-update *pki-file-name* |
| Tree | auto-certificate-update |
| String length | 1 to 95 |
| Notes | This element is part of a list key. |
| Introduced | 24.3.R1 |
| Platforms | All |

### **auto-crl-update** [ca-profile-name] *named-item*

| | |
|---|---|
| Synopsis | Add a list entry for **auto-crl-update** |
| Context | debug certificate auto-crl-update *named-item* |
| Tree | auto-crl-update |
| Max. instances | 128 |
| Introduced | 24.3.R1 |
| Platforms | All |


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### [**ca-profile-name**] *named-item*

| | |
|---|---|
| Synopsis | Certificate Authority (CA) profile name |
| Context | debug certificate auto-crl-update *named-item* |
| Tree | auto-crl-update |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 24.3.R1 |
| Platforms | All |

### **cmpv2** [ca-profile-name] *named-item*

| | |
|---|---|
| Synopsis | Add a list entry for **cmpv2** |
| Context | debug certificate cmpv2 *named-item* |
| Tree | cmpv2 |
| Description | This command adds a list entry for a CA profile to debug Certificate Management Protocol version 2 (CMPv2). |
| Max. instances | 128 |
| Introduced | 24.3.R1 |
| Platforms | All |

### [**ca-profile-name**] *named-item*

| | |
|---|---|
| Synopsis | CA profile name |
| Context | debug certificate cmpv2 *named-item* |
| Tree | cmpv2 |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 24.3.R1 |
| Platforms | All |

### **est** [est-profile-name] *named-item*

| | |
|---|---|
| Synopsis | Add a list entry for **est** |


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| | |
|---|---|
| Context | debug certificate est *named-item* |
| Tree | est |
| Description | This command adds a list entry for debugging Enrollment over Secure Transport Protocol (EST). |
| Max. instances | 128 |
| Introduced | 24.3.R1 |
| Platforms | All |

### [**est-profile-name**] *named-item*

| | |
|---|---|
| Synopsis | EST profile name |
| Context | debug certificate est *named-item* |
| Tree | est |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 24.3.R1 |
| Platforms | All |

### **ocsp** [ca-profile-name] *named-item*

| | |
|---|---|
| Synopsis | Add a list entry for **ocsp** |
| Context | debug certificate ocsp *named-item* |
| Tree | ocsp |
| Description | This command adds a list entry for a CA profile to debug the Online Certificate Status Protocol (OCSP). |
| Max. instances | 128 |
| Introduced | 24.3.R1 |
| Platforms | All |

### [**ca-profile-name**] *named-item*

| | |
|---|---|
| Synopsis | CA profile name |
| Context | debug certificate ocsp *named-item* |
| Tree | ocsp |


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| | |
|---|---|
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 24.3.R1 |
| Platforms | All |

## ipsec

| | |
|---|---|
| Synopsis | Enter the **ipsec** context |
| Context | debug ipsec |
| Tree | ipsec |
| Description | Commands in this context configure debugging for IP security (IPsec) functionality. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **certificate** [filename] *pki-file-name*

| | |
|---|---|
| Synopsis | Add a list entry for **certificate** |
| Context | debug ipsec certificate *pki-file-name* |
| Tree | certificate |
| Description | This command adds a list entry for debugging certificate chain computation in the certificate profile. |
| Max. instances | 200 |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## [**filename**] *pki-file-name*

| | |
|---|---|
| Synopsis | Imported IPsec certificate filename |
| Context | debug ipsec certificate *pki-file-name* |
| Tree | certificate |
| String length | 1 to 95 |
| Notes | This element is part of a list key. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **client-db** [name] *named-item*

| | |
|---|---|
| Synopsis | Add a list entry for **client-db** |
| Context | debug ipsec client-db *named-item* |
| Tree | client-db |
| Description | This command adds a list entry for debugging the specified IPsec client database. |
| Max. instances | 1000 |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | IPsec client database name |
| Context | debug ipsec client-db *named-item* |
| Tree | client-db |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **gateway** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **gateway** list instance |
| Context | debug ipsec gateway *named-item* |
| Tree | gateway |
| Description | Commands in this context configure debugging for dynamic IPsec tunnels that terminate on the specified IPsec gateway.<br>Specify the tunnel to debug using either its source address or source subnet, by using the **debug ipsec gateway tunnel** command. If a subnet is specified, the system enables debugging for all tunnels with source addresses in the specified subnet. |
| Max. instances | 16 |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### [**name**] *named-item*

| | |
|---|---|
| Synopsis | IPsec gateway name |
| Context | debug ipsec gateway *named-item* |
| Tree | gateway |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **tunnel** [ip-address] *(ipv4-address-no-zone | ipv6-address-no-zone)* port *number*

| | |
|---|---|
| Synopsis | Enter the **tunnel** list instance |
| Context | debug ipsec gateway *named-item* tunnel *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* |
| Tree | tunnel |
| Description | Commands in this context configure debugging for the specified IPsec gateway tunnel. |
| Max. instances | 16 |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**ip-address**] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Gateway tunnel remote IP address |
| Context | debug ipsec gateway *named-item* tunnel *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* |
| Tree | tunnel |
| Notes | This element is part of a list key. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **port** *number*

| | |
|---|---|
| Synopsis | Gateway tunnel remote port |


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| | |
|---|---|
| Context | debug ipsec gateway *named-item* tunnel *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* |
| Tree | tunnel |
| Range | 1 to 65535 |
| MD-CLI default | 500 |
| Notes | This element is part of a list key. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **detail** *boolean*

| | |
|---|---|
| Synopsis | Display detailed debug information |
| Context | debug ipsec gateway *named-item* tunnel *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* detail *boolean* |
| Tree | detail |
| Default | false |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **display-keys** *boolean*

| | |
|---|---|
| Synopsis | Display keys in the debug output |
| Context | debug ipsec gateway *named-item* tunnel *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* display-keys *boolean* |
| Tree | display-keys |
| Default | false |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **suppress-dpd-debug** *boolean*

| | |
|---|---|
| Synopsis | Display debug output without DPD information |
| Context | debug ipsec gateway *named-item* tunnel *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* suppress-dpd-debug *boolean* |
| Tree | suppress-dpd-debug |


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| | |
|---|---|
| Default | false |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **tunnel-nat** [ip-address] *ipv4-unicast-address* port *number* pre-nat-ip-address *ipv4-unicast-address* pre-nat-port *number*

| | |
|---|---|
| Synopsis | Enter the **tunnel-nat** list instance |
| Context | debug ipsec gateway *named-item* tunnel-nat *ipv4-unicast-address* port *number* pre-nat-ip-address *ipv4-unicast-address* pre-nat-port *number* |
| Tree | tunnel-nat |
| Max. instances | 16 |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**ip-address**] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Gateway tunnel remote IP address |
| Context | debug ipsec gateway *named-item* tunnel-nat *ipv4-unicast-address* port *number* pre-nat-ip-address *ipv4-unicast-address* pre-nat-port *number* |
| Tree | tunnel-nat |
| Notes | This element is part of a list key. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **port** *number*

| | |
|---|---|
| Synopsis | Gateway tunnel remote port |
| Context | debug ipsec gateway *named-item* tunnel-nat *ipv4-unicast-address* port *number* pre-nat-ip-address *ipv4-unicast-address* pre-nat-port *number* |
| Tree | tunnel-nat |
| Range | 1 to 65535 |
| MD-CLI default | 500 |
| Notes | This element is part of a list key. |
| Introduced | 24.3.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **pre-nat-ip-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Gateway tunnel peer pre-NAT IP address |
| Context | debug ipsec gateway *named-item* tunnel-nat *ipv4-unicast-address* port *number* pre-nat-ip-address *ipv4-unicast-address* pre-nat-port *number* |
| Tree | tunnel-nat |
| Notes | This element is part of a list key. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **pre-nat-port** *number*

| | |
|---|---|
| Synopsis | Gateway tunnel peer pre-NAT port |
| Context | debug ipsec gateway *named-item* tunnel-nat *ipv4-unicast-address* port *number* pre-nat-ip-address *ipv4-unicast-address* pre-nat-port *number* |
| Tree | tunnel-nat |
| Range | 1 to 65535 |
| MD-CLI default | 500 |
| Notes | This element is part of a list key. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **detail** *boolean*

| | |
|---|---|
| Synopsis | Display detailed debug information |
| Context | debug ipsec gateway *named-item* tunnel-nat *ipv4-unicast-address* port *number* pre-nat-ip-address *ipv4-unicast-address* pre-nat-port *number* detail *boolean* |
| Tree | detail |
| Default | false |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **display-keys** *boolean*

| | |
|---|---|
| Synopsis | Display keys in the debug output |
| Context | debug ipsec gateway *named-item* tunnel-nat *ipv4-unicast-address* port *number* pre-nat-ip-address *ipv4-unicast-address* pre-nat-port *number* display-keys *boolean* |
| Tree | display-keys |
| Default | false |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **suppress-dpd-debug** *boolean*

| | |
|---|---|
| Synopsis | Display debug output without DPD information |
| Context | debug ipsec gateway *named-item* tunnel-nat *ipv4-unicast-address* port *number* pre-nat-ip-address *ipv4-unicast-address* pre-nat-port *number* suppress-dpd-debug *boolean* |
| Tree | suppress-dpd-debug |
| Default | false |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **tunnel-subnet** [ip-prefix] *(ipv4-prefix | ipv6-prefix)* port *(keyword | number)*

| | |
|---|---|
| Synopsis | Enter the **tunnel-subnet** list instance |
| Context | debug ipsec gateway *named-item* tunnel-subnet *(ipv4-prefix | ipv6-prefix)* port *(keyword | number)* |
| Tree | tunnel-subnet |
| Max. instances | 16 |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**ip-prefix**] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Gateway tunnel remote IP prefix |
| Context | debug ipsec gateway *named-item* tunnel-subnet *(ipv4-prefix | ipv6-prefix)* port *(keyword | number)* |
| Tree | tunnel-subnet |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **port** *(keyword | number)*

| | |
|---|---|
| Synopsis | Gateway tunnel remote port |
| Context | debug ipsec gateway *named-item* tunnel-subnet *(ipv4-prefix \| ipv6-prefix)* port *(keyword \| number)* |
| Tree | tunnel-subnet |
| Range | 1 to 65535 |
| Options | any |
| MD-CLI default | any |
| Notes | This element is part of a list key. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **detail** *boolean*

| | |
|---|---|
| Synopsis | Display detailed debug information |
| Context | debug ipsec gateway *named-item* tunnel-subnet *(ipv4-prefix \| ipv6-prefix)* port *(keyword \| number)* detail *boolean* |
| Tree | detail |
| Default | false |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **display-keys** *boolean*

| | |
|---|---|
| Synopsis | Display keys in the debug output |
| Context | debug ipsec gateway *named-item* tunnel-subnet *(ipv4-prefix \| ipv6-prefix)* port *(keyword \| number)* display-keys *boolean* |
| Tree | display-keys |
| Default | false |
| Introduced | 24.3.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **suppress-dpd-debug** *boolean*

| | |
|---|---|
| Synopsis | Display debug output without DPD information |
| Context | debug ipsec gateway *named-item* tunnel-subnet *(ipv4-prefix \| ipv6-prefix)* port *(keyword \| number)* suppress-dpd-debug *boolean* |
| Tree | suppress-dpd-debug |
| Default | false |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **transport-mode**

| | |
|---|---|
| Synopsis | Enter the **transport-mode** context |
| Context | debug ipsec transport-mode |
| Tree | transport-mode |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ip-tunnel** [name] *interface-name*

| | |
|---|---|
| Synopsis | Enter the **ip-tunnel** list instance |
| Context | debug ipsec transport-mode ip-tunnel *interface-name* |
| Tree | ip-tunnel |
| Max. instances | 16 |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *interface-name*

| | |
|---|---|
| Synopsis | IPsec transport mode IP tunnel name |
| Context | debug ipsec transport-mode ip-tunnel *interface-name* |
| Tree | ip-tunnel |
| String length | 1 to 32 |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **detail** *boolean*

| | |
|---|---|
| Synopsis | Display detailed debug information |
| Context | debug ipsec transport-mode ip-tunnel *interface-name* detail *boolean* |
| Tree | detail |
| Default | false |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **display-keys** *boolean*

| | |
|---|---|
| Synopsis | Display keys in the debug output |
| Context | debug ipsec transport-mode ip-tunnel *interface-name* display-keys *boolean* |
| Tree | display-keys |
| Default | false |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **suppress-dpd-debug** *boolean*

| | |
|---|---|
| Synopsis | Display debug output without DPD information |
| Context | debug ipsec transport-mode ip-tunnel *interface-name* suppress-dpd-debug *boolean* |
| Tree | suppress-dpd-debug |
| Default | false |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **tunnel** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **tunnel** list instance |
| Context | debug ipsec tunnel *named-item* |


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| | |
|---|---|
| Tree | tunnel |
| Description | Commands in this context configure debugging for the specified IPsec tunnel. |
| Max. instances | 16 |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | IPsec tunnel name |
| Context | debug ipsec tunnel *named-item* |
| Tree | tunnel |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **detail** *boolean*

| | |
|---|---|
| Synopsis | Display detailed debug information |
| Context | debug ipsec tunnel *named-item* detail *boolean* |
| Tree | detail |
| Default | false |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **display-keys** *boolean*

| | |
|---|---|
| Synopsis | Display keys in the debug output |
| Context | debug ipsec tunnel *named-item* display-keys *boolean* |
| Tree | display-keys |
| Default | false |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **suppress-dpd-debug** *boolean*

| | |
|---|---|
| Synopsis | Display debug output without DPD information |
| Context | debug ipsec tunnel *named-item* suppress-dpd-debug *boolean* |
| Tree | suppress-dpd-debug |
| Default | false |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **l2tp**

| | |
|---|---|
| Synopsis | Enter the **l2tp** context |
| Context | debug l2tp |
| Tree | l2tp |
| Introduced | 23.7.R1 |
| Platforms | All |

### **predictable-id-assignment** *boolean*

| | |
|---|---|
| Synopsis | Enable predictable tunnel and session ID assignment |
| Context | debug l2tp predictable-id-assignment *boolean* |
| Tree | predictable-id-assignment |
| Default | false |
| Introduced | 23.7.R1 |
| Platforms | All |

### **lag** [lag-name] *lag-interface*

| | |
|---|---|
| Synopsis | Enter the **lag** list instance |
| Context | debug lag *lag-interface* |
| Tree | lag |
| Description | Commands in this context configure debugging for Link Aggregation Group (LAG). |
| Introduced | 22.7.R1 |
| Platforms | All |


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### [**lag-name**] *lag-interface*

| | |
|---|---|
| Synopsis | LAG name |
| Context | debug lag *lag-interface* |
| Tree | lag |
| Description | This command specifies the LAG name.<br>In model-driven interfaces, the LAG name is used for configuration references and **show** commands. A service provider or administrator can use the defined LAG name to identify and manage LAGs within the SR OS platforms.<br>The LAG name must always start with "lag-". |
| String length | 1 to 27 |
| Notes | This element is part of a list key. |
| Introduced | 22.7.R1 |
| Platforms | All |

### **bfd** *boolean*

| | |
|---|---|
| Synopsis | Enable debugging for BFD |
| Context | debug lag *lag-interface* bfd *boolean* |
| Tree | bfd |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | All |

### **config** *boolean*

| | |
|---|---|
| Synopsis | Enable debugging for configuration changes |
| Context | debug lag *lag-interface* config *boolean* |
| Tree | config |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | All |

### **iom-updates** *boolean*

| | |
|---|---|
| Synopsis | Enable debugging for IOM updates |


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| | |
|---|---|
| Context | debug lag *lag-interface* iom-updates *boolean* |
| Tree | iom-updates |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | All |

### **lacp-packets** *boolean*

| | |
|---|---|
| Synopsis | Enable debugging for LACP packets |
| Context | debug lag *lag-interface* lacp-packets *boolean* |
| Tree | lacp-packets |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | All |

### **multi-chassis** *boolean*

| | |
|---|---|
| Synopsis | Enable debugging for multi-chassis LAG |
| Context | debug lag *lag-interface* multi-chassis *boolean* |
| Tree | multi-chassis |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | All |

### **multi-chassis-packets** *boolean*

| | |
|---|---|
| Synopsis | Enable debugging for multi-chassis packets |
| Context | debug lag *lag-interface* multi-chassis-packets *boolean* |
| Tree | multi-chassis-packets |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | All |


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### **port** [port-id] *port*

| | |
|---|---|
| Synopsis | Enter the **port** list instance |
| Context | debug lag *lag-interface* port *port* |
| Tree | port |
| Introduced | 22.7.R1 |
| Platforms | All |

### [**port-id**] *port*

| | |
|---|---|
| Synopsis | Unique identifier for the port in the LAG |
| Context | debug lag *lag-interface* port *port* |
| Tree | port |
| Notes | This element is part of a list key. |
| Introduced | 22.7.R1 |
| Platforms | All |

### **bfd** *boolean*

| | |
|---|---|
| Synopsis | Enable debugging for BFD |
| Context | debug lag *lag-interface* port *port* bfd *boolean* |
| Tree | bfd |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | All |

### **config** *boolean*

| | |
|---|---|
| Synopsis | Enable debugging for configuration changes |
| Context | debug lag *lag-interface* port *port* config *boolean* |
| Tree | config |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | All |


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### **lacp-packets** *boolean*

| | |
|---|---|
| Synopsis | Enable debugging for LACP packets |
| Context | debug lag *lag-interface* port *port* lacp-packets *boolean* |
| Tree | lacp-packets |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | All |

### **multi-chassis** *boolean*

| | |
|---|---|
| Synopsis | Enable debugging for multi-chassis LAG |
| Context | debug lag *lag-interface* port *port* multi-chassis *boolean* |
| Tree | multi-chassis |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | All |

### **port-states** *boolean*

| | |
|---|---|
| Synopsis | Enable debugging for port-state changes |
| Context | debug lag *lag-interface* port *port* port-states *boolean* |
| Tree | port-states |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | All |

### **redundancy** *boolean*

| | |
|---|---|
| Synopsis | Enable debugging for redundancy |
| Context | debug lag *lag-interface* port *port* redundancy *boolean* |
| Tree | redundancy |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | All |


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### **selection-logic** *boolean*

| | |
|---|---|
| Synopsis | Enable debugging for selection logic |
| Context | debug lag *lag-interface* port *port* selection-logic *boolean* |
| Tree | selection-logic |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | All |

### **state-machine** *boolean*

| | |
|---|---|
| Synopsis | Enable debugging for state-machine changes |
| Context | debug lag *lag-interface* port *port* state-machine *boolean* |
| Tree | state-machine |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | All |

### **timers** *boolean*

| | |
|---|---|
| Synopsis | Enable debugging for timers |
| Context | debug lag *lag-interface* port *port* timers *boolean* |
| Tree | timers |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | All |

### **port-states** *boolean*

| | |
|---|---|
| Synopsis | Enable debugging for port-state changes |
| Context | debug lag *lag-interface* port-states *boolean* |
| Tree | port-states |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | All |


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### **redundancy** *boolean*

| | |
|---|---|
| Synopsis | Enable debugging for redundancy |
| Context | debug lag *lag-interface* redundancy *boolean* |
| Tree | redundancy |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | All |

### **selection-logic** *boolean*

| | |
|---|---|
| Synopsis | Enable debugging for selection logic |
| Context | debug lag *lag-interface* selection-logic *boolean* |
| Tree | selection-logic |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | All |

### **state-machine** *boolean*

| | |
|---|---|
| Synopsis | Enable debugging for state-machine changes |
| Context | debug lag *lag-interface* state-machine *boolean* |
| Tree | state-machine |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | All |

### **timers** *boolean*

| | |
|---|---|
| Synopsis | Enable debugging for timers |
| Context | debug lag *lag-interface* timers *boolean* |
| Tree | timers |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | All |


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### multicast-management

| | |
|---|---|
| Synopsis | Enter the **multicast-management** context |
| Context | debug multicast-management |
| Tree | multicast-management |
| Description | Commands in this context debug multicast path management. |
| Introduced | 24.7.R1 |
| Platforms | All |

### multicast-reporting-destination [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **multicast-reporting-destination** list instance |
| Context | debug multicast-management multicast-reporting-destination *named-item* |
| Tree | multicast-reporting-destination |
| Description | Commands in this context debug multicast path management reporting destinations. |
| Introduced | 24.7.R1 |
| Platforms | All |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | Multicast reporting destination name |
| Context | debug multicast-management multicast-reporting-destination *named-item* |
| Tree | multicast-reporting-destination |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 24.7.R1 |
| Platforms | All |

### **detail-level** *keyword*

| | |
|---|---|
| Synopsis | Detail level of the debug output |
| Context | debug multicast-management multicast-reporting-destination *named-item* detail-level *keyword* |
| Tree | detail-level |
| Options | low, medium, high |


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| | |
|---|---|
| Default | medium |
| Introduced | 24.7.R1 |
| Platforms | All |

### **egress** *boolean*

| | |
|---|---|
| Synopsis | Enable tracing for outgoing messages |
| Context | debug multicast-management multicast-reporting-destination *named-item* egress *boolean* |
| Tree | egress |
| Default | true |
| Introduced | 24.7.R1 |
| Platforms | All |

### **group-address** *ipv4-multicast-address*

| | |
|---|---|
| Synopsis | Group address |
| Context | debug multicast-management multicast-reporting-destination *named-item* group-address *ipv4-multicast-address* |
| Tree | group-address |
| Introduced | 24.7.R1 |
| Platforms | All |

### **host-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Host address |
| Context | debug multicast-management multicast-reporting-destination *named-item* host-address *ipv4-unicast-address* |
| Tree | host-address |
| Introduced | 24.7.R1 |
| Platforms | All |

### **nat**

| | |
|---|---|
| Synopsis | Enter the **nat** context |
| Context | debug nat |


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| | |
|---|---|
| Tree | nat |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### l2-aware

| | |
|---|---|
| Synopsis | Enter the **l2-aware** context |
| Context | debug nat l2-aware |
| Tree | l2-aware |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **subscriber** [subscriber-id] *subscriber-id*

| | |
|---|---|
| Synopsis | Add a list entry for **subscriber** |
| Context | debug nat l2-aware subscriber *subscriber-id* |
| Tree | subscriber |
| Max. instances | 16 |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**subscriber-id**] *subscriber-id*

| | |
|---|---|
| Synopsis | L2-aware subscriber ID |
| Context | debug nat l2-aware subscriber *subscriber-id* |
| Tree | subscriber |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### upnp

| | |
|---|---|
| Synopsis | Enter the **upnp** context |


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| | |
|---|---|
| Context | debug nat l2-aware upnp |
| Tree | upnp |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **subscriber** [subscriber-id] *subscriber-id*

| | |
|---|---|
| Synopsis | Enter the **subscriber** list instance |
| Context | debug nat l2-aware upnp subscriber *subscriber-id* |
| Tree | subscriber |
| Max. instances | 10 |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**subscriber-id**] *subscriber-id*

| | |
|---|---|
| Synopsis | L2-aware subscriber ID |
| Context | debug nat l2-aware upnp subscriber *subscriber-id* |
| Tree | subscriber |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **events** *boolean*

| | |
|---|---|
| Synopsis | Enable UPnP event debugging |
| Context | debug nat l2-aware upnp subscriber *subscriber-id* events *boolean* |
| Tree | events |
| Default | true |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### packets

| | |
|---|---|
| Synopsis | Enable the **packets** context |
| Context | debug nat l2-aware upnp subscriber *subscriber-id* packets |
| Tree | packets |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### detail *boolean*

| | |
|---|---|
| Synopsis | Include IP, UDP, and TCP headers in UPnP packet debug |
| Context | debug nat l2-aware upnp subscriber *subscriber-id* packets detail *boolean* |
| Tree | detail |
| Default | false |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### large-scale

| | |
|---|---|
| Synopsis | Enter the **large-scale** context |
| Context | debug nat large-scale |
| Tree | large-scale |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### dual-stack-lite

| | |
|---|---|
| Synopsis | Enter the **dual-stack-lite** context |
| Context | debug nat large-scale dual-stack-lite |
| Tree | dual-stack-lite |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **subscriber** inside-router *string* b4-address *ipv6-prefix*

| | |
|---|---|
| Synopsis | Add a list entry for **subscriber** |
| Context | debug nat large-scale dual-stack-lite subscriber inside-router *string* b4-address *ipv6-prefix* |
| Tree | subscriber |
| Max. instances | 16 |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **inside-router** *string*

| | |
|---|---|
| Synopsis | Inside router instance name |
| Context | debug nat large-scale dual-stack-lite subscriber inside-router *string* b4-address *ipv6-prefix* |
| Tree | subscriber |
| MD-CLI default | Base |
| Notes | This element is part of a list key. |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **b4-address** *ipv6-prefix*

| | |
|---|---|
| Synopsis | IPv6 B4 address of the DS-Lite subscriber |
| Context | debug nat large-scale dual-stack-lite subscriber inside-router *string* b4-address *ipv6-prefix* |
| Tree | subscriber |
| Notes | This element is part of a list key. |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **nat44**

| | |
|---|---|
| Synopsis | Enter the **nat44** context |


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| | |
|---|---|
| Context | debug nat large-scale nat44 |
| Tree | nat44 |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **subscriber** inside-router *string* ip-address *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Add a list entry for **subscriber** |
| Context | debug nat large-scale nat44 subscriber inside-router *string* ip-address *ipv4-unicast-address* |
| Tree | subscriber |
| Max. instances | 16 |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **inside-router** *string*

| | |
|---|---|
| Synopsis | Inside router instance name |
| Context | debug nat large-scale nat44 subscriber inside-router *string* ip-address *ipv4-unicast-address* |
| Tree | subscriber |
| MD-CLI default | Base |
| Notes | This element is part of a list key. |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ip-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Inside IPv4 address of the NAT44 subscriber |
| Context | debug nat large-scale nat44 subscriber inside-router *string* ip-address *ipv4-unicast-address* |
| Tree | subscriber |
| Notes | This element is part of a list key. |
| Introduced | 22.7.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## nat64

| | |
|---|---|
| Synopsis | Enter the **nat64** context |
| Context | debug nat large-scale nat64 |
| Tree | nat64 |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **subscriber** inside-router *string* ipv6-prefix *ipv6-prefix*

| | |
|---|---|
| Synopsis | Add a list entry for **subscriber** |
| Context | debug nat large-scale nat64 subscriber inside-router *string* ipv6-prefix *ipv6-prefix* |
| Tree | subscriber |
| Max. instances | 16 |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **inside-router** *string*

| | |
|---|---|
| Synopsis | Inside router instance name |
| Context | debug nat large-scale nat64 subscriber inside-router *string* ipv6-prefix *ipv6-prefix* |
| Tree | subscriber |
| MD-CLI default | Base |
| Notes | This element is part of a list key. |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **ipv6-prefix** *ipv6-prefix*

| | |
|---|---|
| Synopsis | NAT64 IPv6 prefix of the subscriber |
| Context | debug nat large-scale nat64 subscriber inside-router *string* ipv6-prefix *ipv6-prefix* |
| Tree | subscriber |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### nat-import

| | |
|---|---|
| Synopsis | Enter the **nat-import** context |
| Context | debug nat nat-import |
| Tree | nat-import |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **route** [ip-address] *(ipv4-unicast-address* | *keyword)* inside-router *string*

| | |
|---|---|
| Synopsis | Add a list entry for **route** |
| Context | debug nat nat-import route *(ipv4-unicast-address* \| *keyword)* inside-router *string* |
| Tree | route |
| Max. instances | 32 |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**ip-address**] *(ipv4-unicast-address* | *keyword)*

| | |
|---|---|
| Synopsis | IPv4 address of imported route, or any |
| Context | debug nat nat-import route *(ipv4-unicast-address* \| *keyword)* inside-router *string* |
| Tree | route |
| Options | any |
| Notes | This element is part of a list key. |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **inside-router** *string*

| | |
|---|---|
| Synopsis | Router name or VPRN service name, or any |


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| | |
|---|---|
| Context | debug nat nat-import route *(ipv4-unicast-address \| keyword)* inside-router *string* |
| Tree | route |
| Notes | This element is part of a list key. |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### pcp

| | |
|---|---|
| Synopsis | Enter the **pcp** context |
| Context | debug nat pcp |
| Tree | pcp |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **router** [router-instance] *string*

| | |
|---|---|
| Synopsis | Enter the **router** list instance |
| Context | debug nat pcp router *string* |
| Tree | router |
| Max. instances | 8 |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**router-instance**] *string*

| | |
|---|---|
| Synopsis | Inside router instance name |
| Context | debug nat pcp router *string* |
| Tree | router |
| Notes | This element is part of a list key. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **server** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **server** list instance |
| Context | debug nat pcp router *string* server *named-item* |
| Tree | server |
| Max. instances | 8 |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | PCP server name |
| Context | debug nat pcp router *string* server *named-item* |
| Tree | server |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **packets**

| | |
|---|---|
| Synopsis | Enter the **packets** context |
| Context | debug nat pcp router *string* server *named-item* packets |
| Tree | packets |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **detail** *boolean*

| | |
|---|---|
| Synopsis | Enable the detailed PCP packet debug output |
| Context | debug nat pcp router *string* server *named-item* packets detail *boolean* |
| Tree | detail |
| Default | false |
| Introduced | 22.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **direction** *keyword*

| | |
|---|---|
| Synopsis | Direction of the PCP packet debugging |
| Context | debug nat pcp router *string* server *named-item* packets direction *keyword* |
| Tree | direction |
| Options | ingress, egress, both |
| Default | ingress |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **router** [router-instance] *string*

| | |
|---|---|
| Synopsis | Enter the **router** list instance |
| Context | debug router *string* |
| Tree | router |
| Introduced | 22.5.R1 |
| Platforms | All |

### [**router-instance**] *string*

| | |
|---|---|
| Synopsis | Router name or VPRN service name |
| Context | debug router *string* |
| Tree | router |
| MD-CLI default | Base |
| Notes | This element is part of a list key. |
| Introduced | 22.5.R1 |
| Platforms | All |

### **bier**

| | |
|---|---|
| Synopsis | Enter the **bier** context |
| Context | debug router *string* bier |


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| | |
|---|---|
| Tree | bier |
| Introduced | 24.3.R1 |
| Platforms | All |

## db

| | |
|---|---|
| Synopsis | Enable the **db** context |
| Context | debug router *string* bier db |
| Tree | db |
| Introduced | 24.3.R1 |
| Platforms | All |

## fib

| | |
|---|---|
| Synopsis | Enable the **fib** context |
| Context | debug router *string* bier fib |
| Tree | fib |
| Introduced | 24.3.R1 |
| Platforms | All |

## management

| | |
|---|---|
| Synopsis | Enable the **management** context |
| Context | debug router *string* bier management |
| Tree | management |
| Introduced | 24.3.R1 |
| Platforms | All |

## red

| | |
|---|---|
| Synopsis | Enable the **red** context |
| Context | debug router *string* bier red |
| Tree | red |
| Introduced | 24.3.R1 |
| Platforms | All |


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### rtm

| | |
|---|---|
| Synopsis | Enable the **rtm** context |
| Context | debug router *string* bier rtm |
| Tree | rtm |
| Introduced | 24.3.R1 |
| Platforms | All |

### template

| | |
|---|---|
| Synopsis | Enable the **template** context |
| Context | debug router *string* bier template |
| Tree | template |
| Introduced | 24.3.R1 |
| Platforms | All |

### tunnel

| | |
|---|---|
| Synopsis | Enable the **tunnel** context |
| Context | debug router *string* bier tunnel |
| Tree | tunnel |
| Introduced | 24.3.R1 |
| Platforms | All |

### dhcp

| | |
|---|---|
| Synopsis | Enter the **dhcp** context |
| Context | debug router *string* dhcp |
| Tree | dhcp |
| Description | Commands in this context enable DHCP debug for all packets in the specified routing instance or VPRN service, or for specific packets matching the specific MAC addresses, SAP identifiers, or interface names.<br><br>When a DHCP packet matches a specified filter and is conforming the configured debug mode for that filter, the packet debug is available in the specified detail level. DHCP debug filter criteria are applied in the following order:<br><br>**1.** MAC address<br>**2.** SAP identifier |


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3. interface names
4. all packets

Up to 8 MAC address filters, 8 SAP identifier filters, 4 interface name filters, and 4 all-packet filters can be specified simultaneously across all routing instances and VPRN services.

| | |
|---|---|
| Introduced | 22.10.R1 |
| Platforms | All |

## all-packets

| | |
|---|---|
| Synopsis | Enable the **all-packets** context |
| Context | debug router *string* dhcp all-packets |
| Tree | all-packets |
| Introduced | 22.10.R1 |
| Platforms | All |

## detail-level *keyword*

| | |
|---|---|
| Synopsis | Detail level of the DHCP debug output |
| Context | debug router *string* dhcp all-packets detail-level *keyword* |
| Tree | detail-level |
| Options | high, medium, low |
| Default | high |
| Introduced | 22.10.R1 |
| Platforms | All |

## mode *keyword*

| | |
|---|---|
| Synopsis | DHCP packets present in the debug output |
| Context | debug router *string* dhcp all-packets mode *keyword* |
| Tree | mode |
| Options | egress-ingress-and-dropped, dropped-only, ingress-and-dropped |
| Default | egress-ingress-and-dropped |
| Introduced | 22.10.R1 |
| Platforms | All |


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### **interface** [interface-name] *interface-name*

| | |
|---|---|
| Synopsis | Enter the **interface** list instance |
| Context | debug router *string* dhcp interface *interface-name* |
| Tree | interface |
| Introduced | 22.10.R1 |
| Platforms | All |

### [**interface-name**] *interface-name*

| | |
|---|---|
| Synopsis | Interface name |
| Context | debug router *string* dhcp interface *interface-name* |
| Tree | interface |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **detail-level** *keyword*

| | |
|---|---|
| Synopsis | Detail level of the DHCP debug output |
| Context | debug router *string* dhcp interface *interface-name* detail-level *keyword* |
| Tree | detail-level |
| Options | high, medium, low |
| Default | high |
| Introduced | 22.10.R1 |
| Platforms | All |

### **mode** *keyword*

| | |
|---|---|
| Synopsis | DHCP packets present in the debug output |
| Context | debug router *string* dhcp interface *interface-name* mode *keyword* |
| Tree | mode |
| Options | egress-ingress-and-dropped, dropped-only, ingress-and-dropped |
| Default | egress-ingress-and-dropped |


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| | |
|---|---|
| Introduced | 22.10.R1 |
| Platforms | All |

### **mac** [address] *mac-unicast-address-no-zero*

| | |
|---|---|
| Synopsis | Enter the **mac** list instance |
| Context | debug router *string* dhcp mac *mac-unicast-address-no-zero* |
| Tree | mac |
| Introduced | 22.10.R1 |
| Platforms | All |

### [**address**] *mac-unicast-address-no-zero*

| | |
|---|---|
| Synopsis | MAC address matching the client hardware address field |
| Context | debug router *string* dhcp mac *mac-unicast-address-no-zero* |
| Tree | mac |
| Notes | This element is part of a list key. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **detail-level** *keyword*

| | |
|---|---|
| Synopsis | Detail level of the DHCP debug output |
| Context | debug router *string* dhcp mac *mac-unicast-address-no-zero* detail-level *keyword* |
| Tree | detail-level |
| Options | high, medium, low |
| Default | high |
| Introduced | 22.10.R1 |
| Platforms | All |

### **mode** *keyword*

| | |
|---|---|
| Synopsis | DHCP packets present in the debug output |
| Context | debug router *string* dhcp mac *mac-unicast-address-no-zero* mode *keyword* |
| Tree | mode |


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| | |
|---|---|
| Options | egress-ingress-and-dropped, dropped-only, ingress-and-dropped |
| Default | egress-ingress-and-dropped |
| Introduced | 22.10.R1 |
| Platforms | All |

### **sap** [sap-id] *sap*

| | |
|---|---|
| Synopsis | Enter the **sap** list instance |
| Context | debug router *string* dhcp sap *sap* |
| Tree | sap |
| Introduced | 22.10.R1 |
| Platforms | All |

### [**sap-id**] *sap*

| | |
|---|---|
| Synopsis | SAP ID |
| Context | debug router *string* dhcp sap *sap* |
| Tree | sap |
| String length | 1 to 45 |
| Notes | This element is part of a list key. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **detail-level** *keyword*

| | |
|---|---|
| Synopsis | Detail level of the DHCP debug output |
| Context | debug router *string* dhcp sap *sap* detail-level *keyword* |
| Tree | detail-level |
| Options | high, medium, low |
| Default | high |
| Introduced | 22.10.R1 |
| Platforms | All |


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### **mode** *keyword*

| | |
|---|---|
| Synopsis | DHCP packets present in the debug output |
| Context | debug router *string* dhcp sap *sap* mode *keyword* |
| Tree | mode |
| Options | egress-ingress-and-dropped, dropped-only, ingress-and-dropped |
| Default | egress-ingress-and-dropped |
| Introduced | 22.10.R1 |
| Platforms | All |

### **dhcp-server**

| | |
|---|---|
| Synopsis | Enter the **dhcp-server** context |
| Context | debug router *string* dhcp-server |
| Tree | dhcp-server |
| Description | Commands in this context enable debugging for a local DHCP server. |
| Introduced | 24.10.R1 |
| Platforms | All |

### **dhcpv4** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **dhcpv4** list instance |
| Context | debug router *string* dhcp-server dhcpv4 *named-item* |
| Tree | dhcpv4 |
| Max. instances | 4 |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | DHCPv4 server name |
| Context | debug router *string* dhcp-server dhcpv4 *named-item* |
| Tree | dhcpv4 |
| String length | 1 to 32 |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## all-packets

| | |
|---|---|
| Synopsis | Enable the **all-packets** context |
| Context | debug router *string* dhcp-server dhcpv4 *named-item* all-packets |
| Tree | all-packets |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## detail-level *keyword*

| | |
|---|---|
| Synopsis | Detail level of the DHCP debug output |
| Context | debug router *string* dhcp-server dhcpv4 *named-item* all-packets detail-level *keyword* |
| Tree | detail-level |
| Options | high – High detail level for debugging<br>medium – Medium detail level for debugging<br>low – Low detail level for debugging |
| Default | medium |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## mode *keyword*

| | |
|---|---|
| Synopsis | DHCP packets present in the debug output |
| Context | debug router *string* dhcp-server dhcpv4 *named-item* all-packets mode *keyword* |
| Tree | mode |
| Options | egress-ingress-and-dropped – Display ingress, egress, and dropped packets<br>dropped-only – Display ingress, egress, and dropped packets<br>ingress-and-dropped – Display only ingress and dropped packets |
| Default | dropped-only |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **lease** [prefix] *ipv4-prefix*

| | |
|---|---|
| Synopsis | Enter the **lease** list instance |
| Context | debug router *string* dhcp-server dhcpv4 *named-item* lease *ipv4-prefix* |
| Tree | lease |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**prefix**] *ipv4-prefix*

| | |
|---|---|
| Synopsis | IPv4 prefix |
| Context | debug router *string* dhcp-server dhcpv4 *named-item* lease *ipv4-prefix* |
| Tree | lease |
| Notes | This element is part of a list key. |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **detail-level** *keyword*

| | |
|---|---|
| Synopsis | Detail level of the DHCP debug output |
| Context | debug router *string* dhcp-server dhcpv4 *named-item* lease *ipv4-prefix* detail-level *keyword* |
| Tree | detail-level |
| Options | high – High detail level for debugging<br>medium – Medium detail level for debugging<br>low – Low detail level for debugging |
| Default | medium |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **mode** *keyword*

| | |
|---|---|
| Synopsis | DHCP packets present in the debug output |
| Context | debug router *string* dhcp-server dhcpv4 *named-item* lease *ipv4-prefix* mode *keyword* |
| Tree | mode |
| Options | egress-ingress-and-dropped – Display ingress, egress, and dropped packets |


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| | |
|---|---|
| | dropped-only – Display ingress, egress, and dropped packets<br>ingress-and-dropped – Display only ingress and dropped packets |
| Default | dropped-only |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **mac** [mac-address] *mac-address*

| | |
|---|---|
| Synopsis | Enter the **mac** list instance |
| Context | debug router *string* dhcp-server dhcpv4 *named-item* mac *mac-address* |
| Tree | mac |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**mac-address**] *mac-address*

| | |
|---|---|
| Synopsis | MAC address matching the client hardware address field |
| Context | debug router *string* dhcp-server dhcpv4 *named-item* mac *mac-address* |
| Tree | mac |
| Notes | This element is part of a list key. |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **detail-level** *keyword*

| | |
|---|---|
| Synopsis | Detail level of the DHCP debug output |
| Context | debug router *string* dhcp-server dhcpv4 *named-item* mac *mac-address* detail-level *keyword* |
| Tree | detail-level |
| Options | high – High detail level for debugging<br>medium – Medium detail level for debugging<br>low – Low detail level for debugging |
| Default | medium |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **mode** *keyword*

| | |
|---|---|
| Synopsis | DHCP packets present in the debug output |
| Context | debug router *string* dhcp-server dhcpv4 *named-item* mac *mac-address* mode *keyword* |
| Tree | mode |
| Options | egress-ingress-and-dropped – Display ingress, egress, and dropped packets<br>dropped-only – Display ingress, egress, and dropped packets<br>ingress-and-dropped – Display only ingress and dropped packets |
| Default | dropped-only |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **dhcpv6** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **dhcpv6** list instance |
| Context | debug router *string* dhcp-server dhcpv6 *named-item* |
| Tree | dhcpv6 |
| Max. instances | 4 |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | DHCP server name |
| Context | debug router *string* dhcp-server dhcpv6 *named-item* |
| Tree | dhcpv6 |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **all-packets**

| | |
|---|---|
| Synopsis | Enable the **all-packets** context |
| Context | debug router *string* dhcp-server dhcpv6 *named-item* all-packets |


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| | |
|---|---|
| Tree | all-packets |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **detail-level** *keyword*

| | |
|---|---|
| Synopsis | Detail level of the DHCP debug output |
| Context | debug router *string* dhcp-server dhcpv6 *named-item* all-packets detail-level *keyword* |
| Tree | detail-level |
| Options | high – High detail level for debugging<br>medium – Medium detail level for debugging<br>low – Low detail level for debugging |
| Default | medium |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **mode** *keyword*

| | |
|---|---|
| Synopsis | DHCP packets present in the debug output |
| Context | debug router *string* dhcp-server dhcpv6 *named-item* all-packets mode *keyword* |
| Tree | mode |
| Options | egress-ingress-and-dropped – Display ingress, egress, and dropped packets<br>dropped-only – Display ingress, egress, and dropped packets<br>ingress-and-dropped – Display only ingress and dropped packets |
| Default | dropped-only |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **lease** [prefix] *ipv6-prefix*

| | |
|---|---|
| Synopsis | Enter the **lease** list instance |
| Context | debug router *string* dhcp-server dhcpv6 *named-item* lease *ipv6-prefix* |
| Tree | lease |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### [**prefix**] *ipv6-prefix*

| | |
|---|---|
| Synopsis | IPv6 prefix |
| Context | debug router *string* dhcp-server dhcpv6 *named-item* lease *ipv6-prefix* |
| Tree | lease |
| Notes | This element is part of a list key. |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **detail-level** *keyword*

| | |
|---|---|
| Synopsis | Detail level of the DHCP debug output |
| Context | debug router *string* dhcp-server dhcpv6 *named-item* lease *ipv6-prefix* detail-level *keyword* |
| Tree | detail-level |
| Options | high – High detail level for debugging<br>medium – Medium detail level for debugging<br>low – Low detail level for debugging |
| Default | medium |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **mode** *keyword*

| | |
|---|---|
| Synopsis | DHCP packets present in the debug output |
| Context | debug router *string* dhcp-server dhcpv6 *named-item* lease *ipv6-prefix* mode *keyword* |
| Tree | mode |
| Options | egress-ingress-and-dropped – Display ingress, egress, and dropped packets<br>dropped-only – Display ingress, egress, and dropped packets<br>ingress-and-dropped – Display only ingress and dropped packets |
| Default | dropped-only |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **link-local-address** [address] *ipv6-address*

| | |
|---|---|
| Synopsis | Enter the **link-local-address** list instance |


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| | |
|---|---|
| Context | debug router *string* dhcp-server dhcpv6 *named-item* link-local-address *ipv6-address* |
| Tree | link-local-address |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**address**] *ipv6-address*

| | |
|---|---|
| Synopsis | Link local address |
| Context | debug router *string* dhcp-server dhcpv6 *named-item* link-local-address *ipv6-address* |
| Tree | link-local-address |
| Notes | This element is part of a list key. |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **detail-level** *keyword*

| | |
|---|---|
| Synopsis | Detail level of the DHCP debug output |
| Context | debug router *string* dhcp-server dhcpv6 *named-item* link-local-address *ipv6-address* detail-level *keyword* |
| Tree | detail-level |
| Options | high – High detail level for debugging<br>medium – Medium detail level for debugging<br>low – Low detail level for debugging |
| Default | medium |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **mode** *keyword*

| | |
|---|---|
| Synopsis | DHCP packets present in the debug output |
| Context | debug router *string* dhcp-server dhcpv6 *named-item* link-local-address *ipv6-address* mode *keyword* |
| Tree | mode |
| Options | egress-ingress-and-dropped – Display ingress, egress, and dropped packets<br>dropped-only – Display ingress, egress, and dropped packets<br>ingress-and-dropped – Display only ingress and dropped packets |
| Default | dropped-only |


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| | |
|---|---|
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## igmp

| | |
|---|---|
| Synopsis | Enter the **igmp** context |
| Context | debug router *string* igmp |
| Tree | igmp |
| Introduced | 22.10.R1 |
| Platforms | All |

## group-interface

| | |
|---|---|
| Synopsis | Enable the **group-interface** context |
| Context | debug router *string* igmp group-interface |
| Tree | group-interface |
| Introduced | 22.10.R1 |
| Platforms | All |

## all-group-interfaces

| | |
|---|---|
| Synopsis | Trace all interfaces |
| Context | debug router *string* igmp group-interface all-group-interfaces |
| Tree | all-group-interfaces |
| Notes | The following elements are part of a mandatory choice: **all-group-interfaces** or (**forwarding-service** and **group-interface-name**). |
| Introduced | 22.10.R1 |
| Platforms | All |

## forwarding-service *service-name*

| | |
|---|---|
| Synopsis | ID of the forwarding service to trace |
| Context | debug router *string* igmp group-interface forwarding-service *service-name* |
| Tree | forwarding-service |
| String length | 1 to 64 |


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| | |
|---|---|
| Default | ../../router-instance |
| Notes | The following elements are part of a mandatory choice: **all-group-interfaces** or (**forwarding-service** and **group-interface-name**). |
| Introduced | 22.10.R1 |
| Platforms | All |

### **group-interface-name** *interface-name*

| | |
|---|---|
| Synopsis | Interface name |
| Context | debug router *string* igmp group-interface group-interface-name *interface-name* |
| Tree | group-interface-name |
| String length | 1 to 32 |
| Notes | The following elements are part of a mandatory choice: **all-group-interfaces** or (**forwarding-service** and **group-interface-name**). |
| Introduced | 22.10.R1 |
| Platforms | All |

### **host**

| | |
|---|---|
| Synopsis | Enable the **host** context |
| Context | debug router *string* igmp host |
| Tree | host |
| Introduced | 22.10.R1 |
| Platforms | All |

### **group-interface**

| | |
|---|---|
| Synopsis | Enter the **group-interface** context |
| Context | debug router *string* igmp host group-interface |
| Tree | group-interface |
| Introduced | 22.10.R1 |
| Platforms | All |

### **forwarding-service** *service-name*

| | |
|---|---|
| Synopsis | ID of the forwarding service to trace |


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| | |
|---|---|
| Context | debug router *string* igmp host group-interface forwarding-service *service-name* |
| Tree | forwarding-service |
| String length | 1 to 64 |
| Default | ../../router-instance |
| Introduced | 22.10.R1 |
| Platforms | All |

### **group-interface-name** *interface-name*

| | |
|---|---|
| Synopsis | Interface name |
| Context | debug router *string* igmp host group-interface group-interface-name *interface-name* |
| Tree | group-interface-name |
| String length | 1 to 32 |
| Introduced | 22.10.R1 |
| Platforms | All |

### **ip-address** *ipv4-address*

| | |
|---|---|
| Synopsis | IP address of the host to trace |
| Context | debug router *string* igmp host ip-address *ipv4-address* |
| Tree | ip-address |
| Introduced | 22.10.R1 |
| Platforms | All |

### **interface**

| | |
|---|---|
| Synopsis | Enable the **interface** context |
| Context | debug router *string* igmp interface |
| Tree | interface |
| Introduced | 22.10.R1 |
| Platforms | All |

### **all-interfaces**

| | |
|---|---|
| Synopsis | Trace all interfaces |


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| | |
|---|---|
| Context | debug router *string* igmp interface all-interfaces |
| Tree | all-interfaces |
| Notes | The following elements are part of a mandatory choice: **all-interfaces** or **interface-name**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **interface-name** *interface-name*

| | |
|---|---|
| Synopsis | Interface name |
| Context | debug router *string* igmp interface interface-name *interface-name* |
| Tree | interface-name |
| String length | 1 to 32 |
| Notes | The following elements are part of a mandatory choice: **all-interfaces** or **interface-name**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### mcs

| | |
|---|---|
| Synopsis | Enable the **mcs** context |
| Context | debug router *string* igmp mcs |
| Tree | mcs |
| Description | Commands in this context enable debugging for IGMP multicast servers. |
| Introduced | 22.10.R1 |
| Platforms | All |

### all-interfaces

| | |
|---|---|
| Synopsis | Trace all interfaces |
| Context | debug router *string* igmp mcs all-interfaces |
| Tree | all-interfaces |
| Notes | The following elements are part of a mandatory choice: **all-interfaces** or **interface-name**. |
| Introduced | 22.10.R1 |


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| | |
|---|---|
| Platforms | All |

### **interface-name** *interface-name*

| | |
|---|---|
| Synopsis | Interface name |
| Context | debug router *string* igmp mcs interface-name *interface-name* |
| Tree | interface-name |
| String length | 1 to 32 |
| Notes | The following elements are part of a mandatory choice: **all-interfaces** or **interface-name**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **miscellaneous** *boolean*

| | |
|---|---|
| Synopsis | Enable tracing of miscellaneous events |
| Context | debug router *string* igmp miscellaneous *boolean* |
| Tree | miscellaneous |
| Default | false |
| Introduced | 22.10.R1 |
| Platforms | All |

### **packet**

| | |
|---|---|
| Synopsis | Enable the **packet** context |
| Context | debug router *string* igmp packet |
| Tree | packet |
| Introduced | 22.10.R1 |
| Platforms | All |

### **all-origins**

| | |
|---|---|
| Synopsis | Trace all origins |
| Context | debug router *string* igmp packet all-origins |
| Tree | all-origins |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **all-origins**, **group-interface-name**, **host-ip-address**, **interface-ip-address**, or **interface-name**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **dropped** *boolean*

| | |
|---|---|
| Synopsis | Enable tracing for dropped packets |
| Context | debug router *string* igmp packet dropped *boolean* |
| Tree | dropped |
| Default | true |
| Introduced | 22.10.R1 |
| Platforms | All |

### **egress** *boolean*

| | |
|---|---|
| Synopsis | Enable tracing for transmitted packets |
| Context | debug router *string* igmp packet egress *boolean* |
| Tree | egress |
| Default | true |
| Introduced | 22.10.R1 |
| Platforms | All |

### **group-interface-name** *interface-name*

| | |
|---|---|
| Synopsis | Interface name |
| Context | debug router *string* igmp packet group-interface-name *interface-name* |
| Tree | group-interface-name |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **all-origins**, **group-interface-name**, **host-ip-address**, **interface-ip-address**, or **interface-name**. |
| Introduced | 22.10.R1 |
| Platforms | All |


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### **host-ip-address** *ipv4-address*

| | |
|---|---|
| Synopsis | Address of the host to trace |
| Context | debug router *string* igmp packet host-ip-address *ipv4-address* |
| Tree | host-ip-address |
| Notes | The following elements are part of a choice: **all-origins**, **group-interface-name**, **host-ip-address**, **interface-ip-address**, or **interface-name**. |
| Introduced | 22.10.R2 |
| Platforms | All |

### **ingress** *boolean*

| | |
|---|---|
| Synopsis | Enable tracing for received packets |
| Context | debug router *string* igmp packet ingress *boolean* |
| Tree | ingress |
| Default | true |
| Introduced | 22.10.R1 |
| Platforms | All |

### **interface-ip-address** *ipv4-address*

| | |
|---|---|
| Synopsis | Source address of the packet to trace |
| Context | debug router *string* igmp packet interface-ip-address *ipv4-address* |
| Tree | interface-ip-address |
| Notes | The following elements are part of a choice: **all-origins**, **group-interface-name**, **host-ip-address**, **interface-ip-address**, or **interface-name**. |
| Introduced | 22.10.R2 |
| Platforms | All |

### **interface-name** *interface-name*

| | |
|---|---|
| Synopsis | Interface name |
| Context | debug router *string* igmp packet interface-name *interface-name* |
| Tree | interface-name |
| String length | 1 to 32 |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **all-origins**, **group-interface-name**, **host-ip-address**, **interface-ip-address**, or **interface-name**. |
| Introduced | 22.10.R1 |
| Platforms | All |

## **type** *keyword*

| | |
|---|---|
| Synopsis | Packet type to trace |
| Context | debug router *string* igmp packet type *keyword* |
| Tree | type |
| Options | all – All IGMP packets<br>query – IGMP Query packets<br>v1-report – IGMP version 1 Report packets<br>v2-report – IGMP version 2 Report packets<br>v2-leave – IGMP version 2 Leave packets<br>v3-report – IGMP version 3 Report packets |
| Default | all |
| Introduced | 22.10.R1 |
| Platforms | All |

## ip

| | |
|---|---|
| Synopsis | Enter the **ip** context |
| Context | debug router *string* ip |
| Tree | ip |
| Introduced | 23.3.R1 |
| Platforms | All |

## icmp

| | |
|---|---|
| Synopsis | Enter the **icmp** context |
| Context | debug router *string* ip icmp |
| Tree | icmp |
| Introduced | 23.3.R1 |
| Platforms | All |


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### all-packets

| | |
|---|---|
| Synopsis | Enable the **all-packets** context |
| Context | debug router *string* ip icmp all-packets |
| Tree | all-packets |
| Introduced | 23.3.R1 |
| Platforms | All |

### interface [interface-name] *interface-name*

| | |
|---|---|
| Synopsis | Add a list entry for **interface** |
| Context | debug router *string* ip icmp interface *interface-name* |
| Tree | interface |
| Introduced | 23.3.R1 |
| Platforms | All |

### [interface-name] *interface-name*

| | |
|---|---|
| Synopsis | Interface name |
| Context | debug router *string* ip icmp interface *interface-name* |
| Tree | interface |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 23.3.R1 |
| Platforms | All |

### icmp6

| | |
|---|---|
| Synopsis | Enter the **icmp6** context |
| Context | debug router *string* ip icmp6 |
| Tree | icmp6 |
| Introduced | 23.3.R1 |
| Platforms | All |


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### all-packets

| | |
|---|---|
| Synopsis | Enable the **all-packets** context |
| Context | debug router *string* ip icmp6 all-packets |
| Tree | all-packets |
| Introduced | 23.3.R1 |
| Platforms | All |

### interface [interface-name] *interface-name*

| | |
|---|---|
| Synopsis | Add a list entry for **interface** |
| Context | debug router *string* ip icmp6 interface *interface-name* |
| Tree | interface |
| Introduced | 23.3.R1 |
| Platforms | All |

### [interface-name] *interface-name*

| | |
|---|---|
| Synopsis | Interface name |
| Context | debug router *string* ip icmp6 interface *interface-name* |
| Tree | interface |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 23.3.R1 |
| Platforms | All |

### interface-events

| | |
|---|---|
| Synopsis | Enter the **interface-events** context |
| Context | debug router *string* ip interface-events |
| Tree | interface-events |
| Introduced | 23.3.R1 |
| Platforms | All |


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### all-events

| | |
|---|---|
| Synopsis | Enable the **all-events** context |
| Context | debug router *string* ip interface-events all-events |
| Tree | all-events |
| Introduced | 23.3.R1 |
| Platforms | All |

### interface [interface-name] *interface-name*

| | |
|---|---|
| Synopsis | Add a list entry for **interface** |
| Context | debug router *string* ip interface-events interface *interface-name* |
| Tree | interface |
| Introduced | 23.3.R1 |
| Platforms | All |

### [interface-name] *interface-name*

| | |
|---|---|
| Synopsis | Interface name |
| Context | debug router *string* ip interface-events interface *interface-name* |
| Tree | interface |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 23.3.R1 |
| Platforms | All |

### neighbor

| | |
|---|---|
| Synopsis | Enter the **neighbor** context |
| Context | debug router *string* ip neighbor |
| Tree | neighbor |
| Introduced | 23.3.R1 |
| Platforms | All |


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### all-events

| | |
|---|---|
| Synopsis | Enable the **all-events** context |
| Context | debug router *string* ip neighbor all-events |
| Tree | all-events |
| Introduced | 23.3.R1 |
| Platforms | All |

### address-family *keyword*

| | |
|---|---|
| Synopsis | Debug the specified address family |
| Context | debug router *string* ip neighbor all-events address-family *keyword* |
| Tree | address-family |
| Options | ipv4, ipv6 |
| Introduced | 23.3.R1 |
| Platforms | All |

### interface [interface-name] *interface-name*

| | |
|---|---|
| Synopsis | Enter the **interface** list instance |
| Context | debug router *string* ip neighbor interface *interface-name* |
| Tree | interface |
| Introduced | 23.3.R1 |
| Platforms | All |

### [interface-name] *interface-name*

| | |
|---|---|
| Synopsis | Interface name |
| Context | debug router *string* ip neighbor interface *interface-name* |
| Tree | interface |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 23.3.R1 |
| Platforms | All |


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### **address-family** *keyword*

| | |
|---|---|
| Synopsis | Debug the specified address family |
| Context | debug router *string* ip neighbor interface *interface-name* address-family *keyword* |
| Tree | address-family |
| Options | ipv4, ipv6 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **packet**

| | |
|---|---|
| Synopsis | Enter the **packet** context |
| Context | debug router *string* ip packet |
| Tree | packet |
| Introduced | 23.3.R1 |
| Platforms | All |

### **all-packets**

| | |
|---|---|
| Synopsis | Enable the **all-packets** context |
| Context | debug router *string* ip packet all-packets |
| Tree | all-packets |
| Introduced | 23.3.R1 |
| Platforms | All |

### **address-family** *keyword*

| | |
|---|---|
| Synopsis | Debug the specified address family |
| Context | debug router *string* ip packet all-packets address-family *keyword* |
| Tree | address-family |
| Options | ipv4, ipv6 |
| Introduced | 23.3.R1 |
| Platforms | All |


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### **headers** *boolean*

| | |
|---|---|
| Synopsis | Display information associated with packet header only |
| Context | debug router *string* ip packet all-packets headers *boolean* |
| Tree | headers |
| Default | false |
| Introduced | 23.3.R1 |
| Platforms | All |

### **protocol-id** *number*

| | |
|---|---|
| Synopsis | IP protocol ID to trace |
| Context | debug router *string* ip packet all-packets protocol-id *number* |
| Tree | protocol-id |
| Range | 0 to 255 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **interface** [interface-name] *interface-name*

| | |
|---|---|
| Synopsis | Enter the **interface** list instance |
| Context | debug router *string* ip packet interface *interface-name* |
| Tree | interface |
| Introduced | 23.3.R1 |
| Platforms | All |

### [**interface-name**] *interface-name*

| | |
|---|---|
| Synopsis | Interface name |
| Context | debug router *string* ip packet interface *interface-name* |
| Tree | interface |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 23.3.R1 |
| Platforms | All |


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### **address-family** *keyword*

| | |
|---|---|
| Synopsis | Debug the specified address family |
| Context | debug router *string* ip packet interface *interface-name* address-family *keyword* |
| Tree | address-family |
| Options | ipv4, ipv6 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **headers** *boolean*

| | |
|---|---|
| Synopsis | Display information associated with packet header only |
| Context | debug router *string* ip packet interface *interface-name* headers *boolean* |
| Tree | headers |
| Default | false |
| Introduced | 23.3.R1 |
| Platforms | All |

### **protocol-id** *number*

| | |
|---|---|
| Synopsis | IP protocol ID to trace |
| Context | debug router *string* ip packet interface *interface-name* protocol-id *number* |
| Tree | protocol-id |
| Range | 0 to 255 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **route-table**

| | |
|---|---|
| Synopsis | Enable the **route-table** context |
| Context | debug router *string* ip route-table |
| Tree | route-table |
| Introduced | 23.3.R1 |
| Platforms | All |


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### all

| | |
|---|---|
| Synopsis | Allow trace for all route updates |
| Context | debug router *string* ip route-table all |
| Tree | all |
| Notes | The following elements are part of a mandatory choice: **all** or **filter**. |
| Introduced | 23.3.R1 |
| Platforms | All |

### filter

| | |
|---|---|
| Synopsis | Enter the **filter** context |
| Context | debug router *string* ip route-table filter |
| Tree | filter |
| Notes | The following elements are part of a mandatory choice: **all** or **filter**. |
| Introduced | 23.3.R1 |
| Platforms | All |

### ipv4

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |
| Context | debug router *string* ip route-table filter ipv4 |
| Tree | ipv4 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **prefix** [prefix] *ipv4-prefix*

| | |
|---|---|
| Synopsis | Enter the **prefix** list instance |
| Context | debug router *string* ip route-table filter ipv4 prefix *ipv4-prefix* |
| Tree | prefix |
| Max. instances | 1 |
| Introduced | 23.3.R1 |
| Platforms | All |


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### [**prefix**] *ipv4-prefix*

| | |
|---|---|
| Synopsis | IPv4 prefix |
| Context | debug router *string* ip route-table filter ipv4 prefix *ipv4-prefix* |
| Tree | prefix |
| Notes | This element is part of a list key. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **longest-prefix-match** *boolean*

| | |
|---|---|
| Synopsis | Allow match for greatest prefix values |
| Context | debug router *string* ip route-table filter ipv4 prefix *ipv4-prefix* longest-prefix-match *boolean* |
| Tree | longest-prefix-match |
| Default | false |
| Introduced | 23.3.R1 |
| Platforms | All |

### **ipv6**

| | |
|---|---|
| Synopsis | Enter the **ipv6** context |
| Context | debug router *string* ip route-table filter ipv6 |
| Tree | ipv6 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **prefix** [prefix] *ipv6-prefix*

| | |
|---|---|
| Synopsis | Enter the **prefix** list instance |
| Context | debug router *string* ip route-table filter ipv6 prefix *ipv6-prefix* |
| Tree | prefix |
| Max. instances | 1 |
| Introduced | 23.3.R1 |


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| | |
|---|---|
| Platforms | All |

### [**prefix**] *ipv6-prefix*

| | |
|---|---|
| Synopsis | IPv6 prefix |
| Context | debug router *string* ip route-table filter ipv6 prefix *ipv6-prefix* |
| Tree | prefix |
| Notes | This element is part of a list key. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **longest-prefix-match** *boolean*

| | |
|---|---|
| Synopsis | Allow match for greatest prefix values |
| Context | debug router *string* ip route-table filter ipv6 prefix *ipv6-prefix* longest-prefix-match *boolean* |
| Tree | longest-prefix-match |
| Default | false |
| Introduced | 23.3.R1 |
| Platforms | All |

### **tunnel-table**

| | |
|---|---|
| Synopsis | Enable the **tunnel-table** context |
| Context | debug router *string* ip tunnel-table |
| Tree | tunnel-table |
| Introduced | 23.3.R1 |
| Platforms | All |

### **all**

| | |
|---|---|
| Synopsis | Allow trace for all tunnel updates |
| Context | debug router *string* ip tunnel-table all |
| Tree | all |
| Notes | The following elements are part of a mandatory choice: **all** or **filter**. |


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| | |
|---|---|
| Introduced | 23.3.R1 |
| Platforms | All |

### filter

| | |
|---|---|
| Synopsis | Enter the **filter** context |
| Context | debug router *string* ip tunnel-table filter |
| Tree | filter |
| Notes | The following elements are part of a mandatory choice: **all** or **filter**. |
| Introduced | 23.3.R1 |
| Platforms | All |

### id

| | |
|---|---|
| Synopsis | Enter the **id** context |
| Context | debug router *string* ip tunnel-table filter id |
| Tree | id |
| Introduced | 23.3.R1 |
| Platforms | All |

### sdp-id *number*

| | |
|---|---|
| Synopsis | SDP ID for tracing |
| Context | debug router *string* ip tunnel-table filter id sdp-id *number* |
| Tree | sdp-id |
| Range | 1 to 32767 |
| Notes | The following elements are part of a choice: **sdp-id** or **tunnel-id**. |
| Introduced | 23.3.R1 |
| Platforms | All |

### tunnel-id *number*

| | |
|---|---|
| Synopsis | Tunnel ID for tracing |
| Context | debug router *string* ip tunnel-table filter id tunnel-id *number* |
| Tree | tunnel-id |


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| | |
|---|---|
| Max. range | 0 to 4294967295 |
| Notes | The following elements are part of a choice: **sdp-id** or **tunnel-id**. |
| Introduced | 23.3.R1 |
| Platforms | All |

## ipv4

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |
| Context | debug router *string* ip tunnel-table filter ipv4 |
| Tree | ipv4 |
| Introduced | 23.3.R1 |
| Platforms | All |

## **prefix** [prefix] *ipv4-prefix*

| | |
|---|---|
| Synopsis | Enter the **prefix** list instance |
| Context | debug router *string* ip tunnel-table filter ipv4 prefix *ipv4-prefix* |
| Tree | prefix |
| Max. instances | 1 |
| Introduced | 23.3.R1 |
| Platforms | All |

## [**prefix**] *ipv4-prefix*

| | |
|---|---|
| Synopsis | IPv4 prefix |
| Context | debug router *string* ip tunnel-table filter ipv4 prefix *ipv4-prefix* |
| Tree | prefix |
| Notes | This element is part of a list key. |
| Introduced | 23.3.R1 |
| Platforms | All |

## **longest-prefix-match** *boolean*

| | |
|---|---|
| Synopsis | Allow match for greatest prefix values |


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| | |
|---|---|
| Context | debug router *string* ip tunnel-table filter ipv4 prefix *ipv4-prefix* longest-prefix-match *boolean* |
| Tree | longest-prefix-match |
| Default | false |
| Introduced | 23.3.R1 |
| Platforms | All |

### **tunnel-type** *(keyword | keyword)*

| | |
|---|---|
| Synopsis | Tunnel type |
| Context | debug router *string* ip tunnel-table filter ipv4 prefix *ipv4-prefix* tunnel-type *(keyword | keyword)* |
| Tree | tunnel-type |
| Options | none, invalid, sdp, rsvp, ldp, ospf, isis, bypass, gre, bgp, sr-te, fpe, udp, ospfv3, mpls-fwd-policy, sr-policy, rib-api, bgp-epe, srv6-isis, srv6-policy, vxlan |
| Options | all |
| Default | all |
| Introduced | 23.3.R1 |
| Platforms | All |

### **ipv6**

| | |
|---|---|
| Synopsis | Enter the **ipv6** context |
| Context | debug router *string* ip tunnel-table filter ipv6 |
| Tree | ipv6 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **prefix** [prefix] *ipv6-prefix*

| | |
|---|---|
| Synopsis | Enter the **prefix** list instance |
| Context | debug router *string* ip tunnel-table filter ipv6 prefix *ipv6-prefix* |
| Tree | prefix |
| Max. instances | 1 |
| Introduced | 23.3.R1 |


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| | |
|---|---|
| Platforms | All |

### [**prefix**] *ipv6-prefix*

| | |
|---|---|
| Synopsis | IPv6 prefix |
| Context | debug router *string* ip tunnel-table filter ipv6 prefix *ipv6-prefix* |
| Tree | prefix |
| Notes | This element is part of a list key. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **longest-prefix-match** *boolean*

| | |
|---|---|
| Synopsis | Allow match for greatest prefix values |
| Context | debug router *string* ip tunnel-table filter ipv6 prefix *ipv6-prefix* longest-prefix-match *boolean* |
| Tree | longest-prefix-match |
| Default | false |
| Introduced | 23.3.R1 |
| Platforms | All |

### **tunnel-type** *(keyword | keyword)*

| | |
|---|---|
| Synopsis | Tunnel type |
| Context | debug router *string* ip tunnel-table filter ipv6 prefix *ipv6-prefix* tunnel-type *(keyword | keyword)* |
| Tree | tunnel-type |
| Options | none, invalid, sdp, rsvp, ldp, ospf, isis, bypass, gre, bgp, sr-te, fpe, udp, ospfv3, mpls-fwd-policy, sr-policy, rib-api, bgp-epe, srv6-isis, srv6-policy, vxlan |
| Options | all |
| Default | all |
| Introduced | 23.3.R1 |
| Platforms | All |


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### l2tp

| | |
|---|---|
| Synopsis | Enter the **l2tp** context |
| Context | debug router *string* l2tp |
| Tree | l2tp |
| Introduced | 23.7.R1 |
| Platforms | All |

### **assignment-id** [assignment-id] *string*

| | |
|---|---|
| Synopsis | Enter the **assignment-id** list instance |
| Context | debug router *string* l2tp assignment-id *string* |
| Tree | assignment-id |
| Max. instances | 8 |
| Introduced | 23.7.R1 |
| Platforms | All |

### [**assignment-id**] *string*

| | |
|---|---|
| Synopsis | Assignment ID of the L2TP tunnel to debug |
| Context | debug router *string* l2tp assignment-id *string* |
| Tree | assignment-id |
| String length | 1 to 63 |
| Notes | This element is part of a list key. |
| Introduced | 23.7.R1 |
| Platforms | All |

### events

| | |
|---|---|
| Synopsis | Enable the **events** context |
| Context | debug router *string* l2tp assignment-id *string* events |
| Tree | events |
| Introduced | 23.7.R1 |
| Platforms | All |


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### all

| | |
|---|---|
| Synopsis | Enable debugging for all events |
| Context | debug router *string* l2tp assignment-id *string* events all |
| Tree | all |
| Notes | The following elements are part of a mandatory choice: **all** or (**call-disconnect-notification**, **finite-state-machine**, **lac**, **lns**, and **stop-control-connection-notification**). |
| Introduced | 23.7.R1 |
| Platforms | All |

### call-disconnect-notification *boolean*

| | |
|---|---|
| Synopsis | Enable L2TP CDN event debugging |
| Context | debug router *string* l2tp assignment-id *string* events call-disconnect-notification *boolean* |
| Tree | call-disconnect-notification |
| Default | false |
| Notes | The following elements are part of a mandatory choice: **all** or (**call-disconnect-notification**, **finite-state-machine**, **lac**, **lns**, and **stop-control-connection-notification**). |
| Introduced | 23.7.R1 |
| Platforms | All |

### finite-state-machine *boolean*

| | |
|---|---|
| Synopsis | Enable L2TP FSM event debugging |
| Context | debug router *string* l2tp assignment-id *string* events finite-state-machine *boolean* |
| Tree | finite-state-machine |
| Default | false |
| Notes | The following elements are part of a mandatory choice: **all** or (**call-disconnect-notification**, **finite-state-machine**, **lac**, **lns**, and **stop-control-connection-notification**). |
| Introduced | 23.7.R1 |
| Platforms | All |


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## lac

| | |
|---|---|
| Synopsis | Enter the **lac** context |
| Context | debug router *string* l2tp assignment-id *string* events lac |
| Tree | lac |
| Notes | The following elements are part of a mandatory choice: **all** or (**call-disconnect-notification**, **finite-state-machine**, **lac**, **lns**, and **stop-control-connection-notification**). |
| Introduced | 23.7.R1 |
| Platforms | All |

## state-recovery *boolean*

| | |
|---|---|
| Synopsis | Enable L2TP LAC state recovery event debugging |
| Context | debug router *string* l2tp assignment-id *string* events lac state-recovery *boolean* |
| Tree | state-recovery |
| Default | false |
| Introduced | 23.7.R1 |
| Platforms | All |

## state-recovery-failed *boolean*

| | |
|---|---|
| Synopsis | Enable L2TP LAC state recovery failed event debugging |
| Context | debug router *string* l2tp assignment-id *string* events lac state-recovery-failed *boolean* |
| Tree | state-recovery-failed |
| Default | false |
| Introduced | 23.7.R1 |
| Platforms | All |

## lns

| | |
|---|---|
| Synopsis | Enter the **lns** context |
| Context | debug router *string* l2tp assignment-id *string* events lns |
| Tree | lns |


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| | |
|---|---|
| Notes | The following elements are part of a mandatory choice: **all** or (**call-disconnect-notification**, **finite-state-machine**, **lac**, **lns**, and **stop-control-connection-notification**). |
| Introduced | 23.7.R1 |
| Platforms | All |

## ppp

| | |
|---|---|
| Synopsis | Enable the **ppp** context |
| Context | debug router *string* l2tp assignment-id *string* events lns ppp |
| Tree | ppp |
| Introduced | 23.7.R1 |
| Platforms | All |

## terminate-only *boolean*

| | |
|---|---|
| Synopsis | Debug events for ungracefully terminated sessions only |
| Context | debug router *string* l2tp assignment-id *string* events lns ppp terminate-only *boolean* |
| Tree | terminate-only |
| Default | false |
| Introduced | 23.7.R1 |
| Platforms | All |

## stop-control-connection-notification *boolean*

| | |
|---|---|
| Synopsis | Enable L2TP StopCCN event debugging |
| Context | debug router *string* l2tp assignment-id *string* events stop-control-connection-notification *boolean* |
| Tree | stop-control-connection-notification |
| Default | false |
| Notes | The following elements are part of a mandatory choice: **all** or (**call-disconnect-notification**, **finite-state-machine**, **lac**, **lns**, and **stop-control-connection-notification**). |
| Introduced | 23.7.R1 |
| Platforms | All |


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### packets

| | |
|---|---|
| Synopsis | Enable the **packets** context |
| Context | debug router *string* l2tp assignment-id *string* packets |
| Tree | packets |
| Introduced | 23.7.R1 |
| Platforms | All |

### all

| | |
|---|---|
| Synopsis | Enable debugging for all session packets |
| Context | debug router *string* l2tp assignment-id *string* packets all |
| Tree | all |
| Notes | The following elements are part of a mandatory choice: **all** or (**l2tp** and **lns**). |
| Introduced | 23.7.R1 |
| Platforms | All |

### detail-level *keyword*

| | |
|---|---|
| Synopsis | Detail level of the L2TP packet debug output |
| Context | debug router *string* l2tp assignment-id *string* packets detail-level *keyword* |
| Tree | detail-level |
| Options | low, high |
| Default | low |
| Introduced | 23.7.R1 |
| Platforms | All |

### direction *keyword*

| | |
|---|---|
| Synopsis | Direction of the L2TP packet debugging |
| Context | debug router *string* l2tp assignment-id *string* packets direction *keyword* |
| Tree | direction |
| Options | ingress, egress, both |
| Default | both |
| Introduced | 23.7.R1 |


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| | |
|---|---|
| Platforms | All |

### **l2tp** *boolean*

| | |
|---|---|
| Synopsis | Enable L2TP packet debugging |
| Context | debug router *string* l2tp assignment-id *string* packets l2tp *boolean* |
| Tree | l2tp |
| Default | false |
| Notes | The following elements are part of a mandatory choice: **all** or (**l2tp** and **lns**). |
| Introduced | 23.7.R1 |
| Platforms | All |

### **lns**

| | |
|---|---|
| Synopsis | Enter the **lns** context |
| Context | debug router *string* l2tp assignment-id *string* packets lns |
| Tree | lns |
| Notes | The following elements are part of a mandatory choice: **all** or (**l2tp** and **lns**). |
| Introduced | 23.7.R1 |
| Platforms | All |

### **dhcp-client** *boolean*

| | |
|---|---|
| Synopsis | Enable DHCP client packet debugging |
| Context | debug router *string* l2tp assignment-id *string* packets lns dhcp-client *boolean* |
| Tree | dhcp-client |
| Default | false |
| Introduced | 23.7.R1 |
| Platforms | All |

### **ppp**

| | |
|---|---|
| Synopsis | Enter the **ppp** context |
| Context | debug router *string* l2tp assignment-id *string* packets lns ppp |
| Tree | ppp |


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| | |
|---|---|
| Introduced | 23.7.R1 |
| Platforms | All |

## all

| | |
|---|---|
| Synopsis | Enable PPP debugging for all PPP session packets |
| Context | debug router *string* l2tp assignment-id *string* packets lns ppp all |
| Tree | all |
| Notes | The following elements are part of a choice: **all** or (**chap**, **ipcp**, **ipv6cp**, **lcp**, **other**, and **pap**). |
| Introduced | 23.7.R1 |
| Platforms | All |

## chap *boolean*

| | |
|---|---|
| Synopsis | Enable PPP debugging for CHAP authentication packets |
| Context | debug router *string* l2tp assignment-id *string* packets lns ppp chap *boolean* |
| Tree | chap |
| Default | false |
| Notes | The following elements are part of a choice: **all** or (**chap**, **ipcp**, **ipv6cp**, **lcp**, **other**, and **pap**). |
| Introduced | 23.7.R1 |
| Platforms | All |

## ipcp *boolean*

| | |
|---|---|
| Synopsis | Enable PPP debugging for IPCP NCP packets |
| Context | debug router *string* l2tp assignment-id *string* packets lns ppp ipcp *boolean* |
| Tree | ipcp |
| Default | false |
| Notes | The following elements are part of a choice: **all** or (**chap**, **ipcp**, **ipv6cp**, **lcp**, **other**, and **pap**). |
| Introduced | 23.7.R1 |
| Platforms | All |


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### **ipv6cp** *boolean*

| | |
|---|---|
| Synopsis | Enable PPP debugging for IPv6CP NCP packets |
| Context | debug router *string* l2tp assignment-id *string* packets lns ppp ipv6cp *boolean* |
| Tree | ipv6cp |
| Default | false |
| Notes | The following elements are part of a choice: **all** or (**chap**, **ipcp**, **ipv6cp**, **lcp**, **other**, and **pap**). |
| Introduced | 23.7.R1 |
| Platforms | All |

### **lcp** *boolean*

| | |
|---|---|
| Synopsis | Enable PPP debugging for LCP link establishment packets |
| Context | debug router *string* l2tp assignment-id *string* packets lns ppp lcp *boolean* |
| Tree | lcp |
| Default | false |
| Notes | The following elements are part of a choice: **all** or (**chap**, **ipcp**, **ipv6cp**, **lcp**, **other**, and **pap**). |
| Introduced | 23.7.R1 |
| Platforms | All |

### **other** *boolean*

| | |
|---|---|
| Synopsis | Enable other PPP protocol packet debugging |
| Context | debug router *string* l2tp assignment-id *string* packets lns ppp other *boolean* |
| Tree | other |
| Default | false |
| Notes | The following elements are part of a choice: **all** or (**chap**, **ipcp**, **ipv6cp**, **lcp**, **other**, and **pap**). |
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| Platforms | All |

### **pap** *boolean*

| | |
|---|---|
| Synopsis | Enable PPP debugging for PAP authentication packets |


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| | |
|---|---|
| Context | debug router *string* l2tp assignment-id *string* packets lns ppp pap *boolean* |
| Tree | pap |
| Default | false |
| Notes | The following elements are part of a choice: **all** or (**chap**, **ipcp**, **ipv6cp**, **lcp**, **other**, and **pap**). |
| Introduced | 23.7.R1 |
| Platforms | All |

## events

| | |
|---|---|
| Synopsis | Enable the **events** context |
| Context | debug router *string* l2tp events |
| Tree | events |
| Introduced | 23.7.R1 |
| Platforms | All |

## all

| | |
|---|---|
| Synopsis | Enable debugging for all events |
| Context | debug router *string* l2tp events all |
| Tree | all |
| Notes | The following elements are part of a mandatory choice: **all** or (**call-disconnect-notification**, **finite-state-machine**, **lac**, **lns**, **session-setup**, and **stop-control-connection-notification**). |
| Introduced | 23.7.R1 |
| Platforms | All |

## call-disconnect-notification *boolean*

| | |
|---|---|
| Synopsis | Enable L2TP CDN event debugging |
| Context | debug router *string* l2tp events call-disconnect-notification *boolean* |
| Tree | call-disconnect-notification |
| Default | false |
| Notes | The following elements are part of a mandatory choice: **all** or (**call-disconnect-notification**, **finite-state-machine**, **lac**, **lns**, **session-setup**, and **stop-control-connection-notification**). |


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| | |
|---|---|
| Introduced | 23.7.R1 |
| Platforms | All |

### **finite-state-machine** *boolean*

| | |
|---|---|
| Synopsis | Enable L2TP FSM event debugging |
| Context | debug router *string* l2tp events finite-state-machine *boolean* |
| Tree | finite-state-machine |
| Default | false |
| Notes | The following elements are part of a mandatory choice: **all** or (**call-disconnect-notification**, **finite-state-machine**, **lac**, **lns**, **session-setup**, and **stop-control-connection-notification**). |
| Introduced | 23.7.R1 |
| Platforms | All |

### **lac**

| | |
|---|---|
| Synopsis | Enter the **lac** context |
| Context | debug router *string* l2tp events lac |
| Tree | lac |
| Notes | The following elements are part of a mandatory choice: **all** or (**call-disconnect-notification**, **finite-state-machine**, **lac**, **lns**, **session-setup**, and **stop-control-connection-notification**). |
| Introduced | 23.7.R1 |
| Platforms | All |

### **state-recovery** *boolean*

| | |
|---|---|
| Synopsis | Enable L2TP LAC state recovery event debugging |
| Context | debug router *string* l2tp events lac state-recovery *boolean* |
| Tree | state-recovery |
| Default | false |
| Introduced | 23.7.R1 |
| Platforms | All |


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### **state-recovery-failed** *boolean*

| | |
|---|---|
| Synopsis | Enable L2TP LAC state recovery failed event debugging |
| Context | debug router *string* l2tp events lac state-recovery-failed *boolean* |
| Tree | state-recovery-failed |
| Default | false |
| Introduced | 23.7.R1 |
| Platforms | All |

### **lns**

| | |
|---|---|
| Synopsis | Enter the **lns** context |
| Context | debug router *string* l2tp events lns |
| Tree | lns |
| Notes | The following elements are part of a mandatory choice: **all** or (**call-disconnect-notification**, **finite-state-machine**, **lac**, **lns**, **session-setup**, and **stop-control-connection-notification**). |
| Introduced | 23.7.R1 |
| Platforms | All |

### **ppp**

| | |
|---|---|
| Synopsis | Enable the **ppp** context |
| Context | debug router *string* l2tp events lns ppp |
| Tree | ppp |
| Introduced | 23.7.R1 |
| Platforms | All |

### **terminate-only** *boolean*

| | |
|---|---|
| Synopsis | Debug events for ungracefully terminated sessions only |
| Context | debug router *string* l2tp events lns ppp terminate-only *boolean* |
| Tree | terminate-only |
| Default | false |
| Introduced | 23.7.R1 |


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| | |
|---|---|
| Platforms | All |

## session-setup

| | |
|---|---|
| Synopsis | Enter the **session-setup** context |
| Context | debug router *string* l2tp events session-setup |
| Tree | session-setup |
| Notes | The following elements are part of a mandatory choice: **all** or (**call-disconnect-notification**, **finite-state-machine**, **lac**, **lns**, **session-setup**, and **stop-control-connection-notification**). |
| Introduced | 23.7.R1 |
| Platforms | All |

## attempted-tunnels *boolean*

| | |
|---|---|
| Synopsis | Enable debugging for attempted LNS tunnels |
| Context | debug router *string* l2tp events session-setup attempted-tunnels *boolean* |
| Tree | attempted-tunnels |
| Default | false |
| Introduced | 23.7.R1 |
| Platforms | All |

## skipped-tunnels *boolean*

| | |
|---|---|
| Synopsis | Enable debugging for skipped LNS tunnels |
| Context | debug router *string* l2tp events session-setup skipped-tunnels *boolean* |
| Tree | skipped-tunnels |
| Default | false |
| Introduced | 23.7.R1 |
| Platforms | All |

## stop-control-connection-notification *boolean*

| | |
|---|---|
| Synopsis | Enable L2TP StopCCN event debugging |
| Context | debug router *string* l2tp events stop-control-connection-notification *boolean* |
| Tree | stop-control-connection-notification |


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| | |
|---|---|
| Default | false |
| Notes | The following elements are part of a mandatory choice: **all** or (**call-disconnect-notification**, **finite-state-machine**, **lac**, **lns**, **session-setup**, and **stop-control-connection-notification**). |
| Introduced | 23.7.R1 |
| Platforms | All |

## **group** [tunnel-group-name] *named-item-64*

| | |
|---|---|
| Synopsis | Enter the **group** list instance |
| Context | debug router *string* l2tp group *named-item-64* |
| Tree | group |
| Max. instances | 8 |
| Introduced | 23.7.R1 |
| Platforms | All |

## [**tunnel-group-name**] *named-item-64*

| | |
|---|---|
| Synopsis | Tunnel group name of the L2TP tunnel to debug |
| Context | debug router *string* l2tp group *named-item-64* |
| Tree | group |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 23.7.R1 |
| Platforms | All |

## **events**

| | |
|---|---|
| Synopsis | Enable the **events** context |
| Context | debug router *string* l2tp group *named-item-64* events |
| Tree | events |
| Introduced | 23.7.R1 |
| Platforms | All |


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### all

| | |
|---|---|
| Synopsis | Enable debugging for all events |
| Context | debug router *string* l2tp group *named-item-64* events all |
| Tree | all |
| Notes | The following elements are part of a mandatory choice: **all** or (**call-disconnect-notification**, **finite-state-machine**, **lac**, **lns**, **session-setup**, and **stop-control-connection-notification**). |
| Introduced | 23.7.R1 |
| Platforms | All |

### call-disconnect-notification *boolean*

| | |
|---|---|
| Synopsis | Enable L2TP CDN event debugging |
| Context | debug router *string* l2tp group *named-item-64* events call-disconnect-notification *boolean* |
| Tree | call-disconnect-notification |
| Default | false |
| Notes | The following elements are part of a mandatory choice: **all** or (**call-disconnect-notification**, **finite-state-machine**, **lac**, **lns**, **session-setup**, and **stop-control-connection-notification**). |
| Introduced | 23.7.R1 |
| Platforms | All |

### finite-state-machine *boolean*

| | |
|---|---|
| Synopsis | Enable L2TP FSM event debugging |
| Context | debug router *string* l2tp group *named-item-64* events finite-state-machine *boolean* |
| Tree | finite-state-machine |
| Default | false |
| Notes | The following elements are part of a mandatory choice: **all** or (**call-disconnect-notification**, **finite-state-machine**, **lac**, **lns**, **session-setup**, and **stop-control-connection-notification**). |
| Introduced | 23.7.R1 |
| Platforms | All |


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## lac

| | |
|---|---|
| Synopsis | Enter the **lac** context |
| Context | debug router *string* l2tp group *named-item-64* events lac |
| Tree | lac |
| Notes | The following elements are part of a mandatory choice: **all** or (**call-disconnect-notification**, **finite-state-machine**, **lac**, **lns**, **session-setup**, and **stop-control-connection-notification**). |
| Introduced | 23.7.R1 |
| Platforms | All |

## state-recovery *boolean*

| | |
|---|---|
| Synopsis | Enable L2TP LAC state recovery event debugging |
| Context | debug router *string* l2tp group *named-item-64* events lac state-recovery *boolean* |
| Tree | state-recovery |
| Default | false |
| Introduced | 23.7.R1 |
| Platforms | All |

## state-recovery-failed *boolean*

| | |
|---|---|
| Synopsis | Enable L2TP LAC state recovery failed event debugging |
| Context | debug router *string* l2tp group *named-item-64* events lac state-recovery-failed *boolean* |
| Tree | state-recovery-failed |
| Default | false |
| Introduced | 23.7.R1 |
| Platforms | All |

## lns

| | |
|---|---|
| Synopsis | Enter the **lns** context |
| Context | debug router *string* l2tp group *named-item-64* events lns |
| Tree | lns |


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| | |
|---|---|
| Notes | The following elements are part of a mandatory choice: **all** or (**call-disconnect-notification**, **finite-state-machine**, **lac**, **lns**, **session-setup**, and **stop-control-connection-notification**). |
| Introduced | 23.7.R1 |
| Platforms | All |

## ppp

| | |
|---|---|
| Synopsis | Enable the **ppp** context |
| Context | debug router *string* l2tp group *named-item-64* events lns ppp |
| Tree | ppp |
| Introduced | 23.7.R1 |
| Platforms | All |

## terminate-only *boolean*

| | |
|---|---|
| Synopsis | Debug events for ungracefully terminated sessions only |
| Context | debug router *string* l2tp group *named-item-64* events lns ppp terminate-only *boolean* |
| Tree | terminate-only |
| Default | false |
| Introduced | 23.7.R1 |
| Platforms | All |

## session-setup

| | |
|---|---|
| Synopsis | Enter the **session-setup** context |
| Context | debug router *string* l2tp group *named-item-64* events session-setup |
| Tree | session-setup |
| Notes | The following elements are part of a mandatory choice: **all** or (**call-disconnect-notification**, **finite-state-machine**, **lac**, **lns**, **session-setup**, and **stop-control-connection-notification**). |
| Introduced | 23.7.R1 |
| Platforms | All |


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### **attempted-tunnels** *boolean*

| | |
|---|---|
| Synopsis | Enable debugging for attempted LNS tunnels |
| Context | debug router *string* l2tp group *named-item-64* events session-setup attempted-tunnels *boolean* |
| Tree | attempted-tunnels |
| Default | false |
| Introduced | 23.7.R1 |
| Platforms | All |

### **skipped-tunnels** *boolean*

| | |
|---|---|
| Synopsis | Enable debugging for skipped LNS tunnels |
| Context | debug router *string* l2tp group *named-item-64* events session-setup skipped-tunnels *boolean* |
| Tree | skipped-tunnels |
| Default | false |
| Introduced | 23.7.R1 |
| Platforms | All |

### **stop-control-connection-notification** *boolean*

| | |
|---|---|
| Synopsis | Enable L2TP StopCCN event debugging |
| Context | debug router *string* l2tp group *named-item-64* events stop-control-connection-notification *boolean* |
| Tree | stop-control-connection-notification |
| Default | false |
| Notes | The following elements are part of a mandatory choice: **all** or (**call-disconnect-notification**, **finite-state-machine**, **lac**, **lns**, **session-setup**, and **stop-control-connection-notification**). |
| Introduced | 23.7.R1 |
| Platforms | All |

### **packets**

| | |
|---|---|
| Synopsis | Enable the **packets** context |
| Context | debug router *string* l2tp group *named-item-64* packets |


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| | |
|---|---|
| Tree | packets |
| Introduced | 23.7.R1 |
| Platforms | All |

### all

| | |
|---|---|
| Synopsis | Enable debugging for all session packets |
| Context | debug router *string* l2tp group *named-item-64* packets all |
| Tree | all |
| Notes | The following elements are part of a mandatory choice: **all** or (**l2tp** and **lns**). |
| Introduced | 23.7.R1 |
| Platforms | All |

### detail-level *keyword*

| | |
|---|---|
| Synopsis | Detail level of the L2TP packet debug output |
| Context | debug router *string* l2tp group *named-item-64* packets detail-level *keyword* |
| Tree | detail-level |
| Options | low, high |
| Default | low |
| Introduced | 23.7.R1 |
| Platforms | All |

### direction *keyword*

| | |
|---|---|
| Synopsis | Direction of the L2TP packet debugging |
| Context | debug router *string* l2tp group *named-item-64* packets direction *keyword* |
| Tree | direction |
| Options | ingress, egress, both |
| Default | both |
| Introduced | 23.7.R1 |
| Platforms | All |


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### **l2tp** *boolean*

| | |
|---|---|
| Synopsis | Enable L2TP packet debugging |
| Context | debug router *string* l2tp group *named-item-64* packets l2tp *boolean* |
| Tree | l2tp |
| Default | false |
| Notes | The following elements are part of a mandatory choice: **all** or (**l2tp** and **lns**). |
| Introduced | 23.7.R1 |
| Platforms | All |

### **lns**

| | |
|---|---|
| Synopsis | Enter the **lns** context |
| Context | debug router *string* l2tp group *named-item-64* packets lns |
| Tree | lns |
| Notes | The following elements are part of a mandatory choice: **all** or (**l2tp** and **lns**). |
| Introduced | 23.7.R1 |
| Platforms | All |

### **dhcp-client** *boolean*

| | |
|---|---|
| Synopsis | Enable DHCP client packet debugging |
| Context | debug router *string* l2tp group *named-item-64* packets lns dhcp-client *boolean* |
| Tree | dhcp-client |
| Default | false |
| Introduced | 23.7.R1 |
| Platforms | All |

### **ppp**

| | |
|---|---|
| Synopsis | Enter the **ppp** context |
| Context | debug router *string* l2tp group *named-item-64* packets lns ppp |
| Tree | ppp |
| Introduced | 23.7.R1 |
| Platforms | All |


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### all

| | |
|---|---|
| Synopsis | Enable PPP debugging for all PPP session packets |
| Context | debug router *string* l2tp group *named-item-64* packets lns ppp all |
| Tree | all |
| Notes | The following elements are part of a choice: **all** or (**chap**, **ipcp**, **ipv6cp**, **lcp**, **other**, and **pap**). |
| Introduced | 23.7.R1 |
| Platforms | All |

### chap *boolean*

| | |
|---|---|
| Synopsis | Enable PPP debugging for CHAP authentication packets |
| Context | debug router *string* l2tp group *named-item-64* packets lns ppp chap *boolean* |
| Tree | chap |
| Default | false |
| Notes | The following elements are part of a choice: **all** or (**chap**, **ipcp**, **ipv6cp**, **lcp**, **other**, and **pap**). |
| Introduced | 23.7.R1 |
| Platforms | All |

### ipcp *boolean*

| | |
|---|---|
| Synopsis | Enable PPP debugging for IPCP NCP packets |
| Context | debug router *string* l2tp group *named-item-64* packets lns ppp ipcp *boolean* |
| Tree | ipcp |
| Default | false |
| Notes | The following elements are part of a choice: **all** or (**chap**, **ipcp**, **ipv6cp**, **lcp**, **other**, and **pap**). |
| Introduced | 23.7.R1 |
| Platforms | All |

### ipv6cp *boolean*

| | |
|---|---|
| Synopsis | Enable PPP debugging for IPv6CP NCP packets |
| Context | debug router *string* l2tp group *named-item-64* packets lns ppp ipv6cp *boolean* |


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| | |
|---|---|
| Tree | ipv6cp |
| Default | false |
| Notes | The following elements are part of a choice: **all** or (**chap**, **ipcp**, **ipv6cp**, **lcp**, **other**, and **pap**). |
| Introduced | 23.7.R1 |
| Platforms | All |

### **lcp** *boolean*

| | |
|---|---|
| Synopsis | Enable PPP debugging for LCP link establishment packets |
| Context | debug router *string* l2tp group *named-item-64* packets lns ppp lcp *boolean* |
| Tree | lcp |
| Default | false |
| Notes | The following elements are part of a choice: **all** or (**chap**, **ipcp**, **ipv6cp**, **lcp**, **other**, and **pap**). |
| Introduced | 23.7.R1 |
| Platforms | All |

### **other** *boolean*

| | |
|---|---|
| Synopsis | Enable other PPP protocol packet debugging |
| Context | debug router *string* l2tp group *named-item-64* packets lns ppp other *boolean* |
| Tree | other |
| Default | false |
| Notes | The following elements are part of a choice: **all** or (**chap**, **ipcp**, **ipv6cp**, **lcp**, **other**, and **pap**). |
| Introduced | 23.7.R1 |
| Platforms | All |

### **pap** *boolean*

| | |
|---|---|
| Synopsis | Enable PPP debugging for PAP authentication packets |
| Context | debug router *string* l2tp group *named-item-64* packets lns ppp pap *boolean* |
| Tree | pap |
| Default | false |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **all** or (**chap**, **ipcp**, **ipv6cp**, **lcp**, **other**, and **pap**). |
| Introduced | 23.7.R1 |
| Platforms | All |

### **ip-peer** [ip-address] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Enter the **ip-peer** list instance |
| Context | debug router *string* l2tp ip-peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | ip-peer |
| Max. instances | 8 |
| Introduced | 23.7.R1 |
| Platforms | All |

### [**ip-address**] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the L2TP peer to debug |
| Context | debug router *string* l2tp ip-peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | ip-peer |
| Notes | This element is part of a list key. |
| Introduced | 23.7.R1 |
| Platforms | All |

### **events**

| | |
|---|---|
| Synopsis | Enable the **events** context |
| Context | debug router *string* l2tp ip-peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* events |
| Tree | events |
| Introduced | 23.7.R1 |
| Platforms | All |

### **all**

| | |
|---|---|
| Synopsis | Enable debugging for all events |


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| | |
|---|---|
| Context | debug router *string* l2tp ip-peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* events all |
| Tree | all |
| Notes | The following elements are part of a mandatory choice: **all** or (**call-disconnect-notification**, **finite-state-machine**, **lac**, **lns**, and **stop-control-connection-notification**). |
| Introduced | 23.7.R1 |
| Platforms | All |

## call-disconnect-notification *boolean*

| | |
|---|---|
| Synopsis | Enable L2TP CDN event debugging |
| Context | debug router *string* l2tp ip-peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* events call-disconnect-notification *boolean* |
| Tree | call-disconnect-notification |
| Default | false |
| Notes | The following elements are part of a mandatory choice: **all** or (**call-disconnect-notification**, **finite-state-machine**, **lac**, **lns**, and **stop-control-connection-notification**). |
| Introduced | 23.7.R1 |
| Platforms | All |

## finite-state-machine *boolean*

| | |
|---|---|
| Synopsis | Enable L2TP FSM event debugging |
| Context | debug router *string* l2tp ip-peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* events finite-state-machine *boolean* |
| Tree | finite-state-machine |
| Default | false |
| Notes | The following elements are part of a mandatory choice: **all** or (**call-disconnect-notification**, **finite-state-machine**, **lac**, **lns**, and **stop-control-connection-notification**). |
| Introduced | 23.7.R1 |
| Platforms | All |

## lac

| | |
|---|---|
| Synopsis | Enter the **lac** context |


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| | |
|---|---|
| Context | debug router *string* l2tp ip-peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* events lac |
| Tree | lac |
| Notes | The following elements are part of a mandatory choice: **all** or (**call-disconnect-notification**, **finite-state-machine**, **lac**, **lns**, and **stop-control-connection-notification**). |
| Introduced | 23.7.R1 |
| Platforms | All |

## **state-recovery** *boolean*

| | |
|---|---|
| Synopsis | Enable L2TP LAC state recovery event debugging |
| Context | debug router *string* l2tp ip-peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* events lac state-recovery *boolean* |
| Tree | state-recovery |
| Default | false |
| Introduced | 23.7.R1 |
| Platforms | All |

## **state-recovery-failed** *boolean*

| | |
|---|---|
| Synopsis | Enable L2TP LAC state recovery failed event debugging |
| Context | debug router *string* l2tp ip-peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* events lac state-recovery-failed *boolean* |
| Tree | state-recovery-failed |
| Default | false |
| Introduced | 23.7.R1 |
| Platforms | All |

## **lns**

| | |
|---|---|
| Synopsis | Enter the **lns** context |
| Context | debug router *string* l2tp ip-peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* events lns |
| Tree | lns |


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| | |
|---|---|
| Notes | The following elements are part of a mandatory choice: **all** or (**call-disconnect-notification**, **finite-state-machine**, **lac**, **lns**, and **stop-control-connection-notification**). |
| Introduced | 23.7.R1 |
| Platforms | All |

## ppp

| | |
|---|---|
| Synopsis | Enable the **ppp** context |
| Context | debug router *string* l2tp ip-peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* events lns ppp |
| Tree | ppp |
| Introduced | 23.7.R1 |
| Platforms | All |

## terminate-only *boolean*

| | |
|---|---|
| Synopsis | Debug events for ungracefully terminated sessions only |
| Context | debug router *string* l2tp ip-peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* events lns ppp terminate-only *boolean* |
| Tree | terminate-only |
| Default | false |
| Introduced | 23.7.R1 |
| Platforms | All |

## stop-control-connection-notification *boolean*

| | |
|---|---|
| Synopsis | Enable L2TP StopCCN event debugging |
| Context | debug router *string* l2tp ip-peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* events stop-control-connection-notification *boolean* |
| Tree | stop-control-connection-notification |
| Default | false |
| Notes | The following elements are part of a mandatory choice: **all** or (**call-disconnect-notification**, **finite-state-machine**, **lac**, **lns**, and **stop-control-connection-notification**). |
| Introduced | 23.7.R1 |
| Platforms | All |


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## packets

| | |
|---|---|
| Synopsis | Enable the **packets** context |
| Context | debug router *string* l2tp ip-peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* packets |
| Tree | packets |
| Introduced | 23.7.R1 |
| Platforms | All |

## all

| | |
|---|---|
| Synopsis | Enable debugging for all session packets |
| Context | debug router *string* l2tp ip-peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* packets all |
| Tree | all |
| Notes | The following elements are part of a mandatory choice: **all** or (**l2tp** and **lns**). |
| Introduced | 23.7.R1 |
| Platforms | All |

## detail-level *keyword*

| | |
|---|---|
| Synopsis | Detail level of the L2TP packet debug output |
| Context | debug router *string* l2tp ip-peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* packets detail-level *keyword* |
| Tree | detail-level |
| Options | low, high |
| Default | low |
| Introduced | 23.7.R1 |
| Platforms | All |

## direction *keyword*

| | |
|---|---|
| Synopsis | Direction of the L2TP packet debugging |
| Context | debug router *string* l2tp ip-peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* packets direction *keyword* |
| Tree | direction |
| Options | ingress, egress, both |


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| | |
|---|---|
| Default | both |
| Introduced | 23.7.R1 |
| Platforms | All |

### **l2tp** *boolean*

| | |
|---|---|
| Synopsis | Enable L2TP packet debugging |
| Context | debug router *string* l2tp ip-peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* packets l2tp *boolean* |
| Tree | l2tp |
| Default | false |
| Notes | The following elements are part of a mandatory choice: **all** or (**l2tp** and **lns**). |
| Introduced | 23.7.R1 |
| Platforms | All |

### **lns**

| | |
|---|---|
| Synopsis | Enter the **lns** context |
| Context | debug router *string* l2tp ip-peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* packets lns |
| Tree | lns |
| Notes | The following elements are part of a mandatory choice: **all** or (**l2tp** and **lns**). |
| Introduced | 23.7.R1 |
| Platforms | All |

### **dhcp-client** *boolean*

| | |
|---|---|
| Synopsis | Enable DHCP client packet debugging |
| Context | debug router *string* l2tp ip-peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* packets lns dhcp-client *boolean* |
| Tree | dhcp-client |
| Default | false |
| Introduced | 23.7.R1 |
| Platforms | All |


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## ppp

| | |
|---|---|
| Synopsis | Enter the **ppp** context |
| Context | debug router *string* l2tp ip-peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* packets lns ppp |
| Tree | ppp |
| Introduced | 23.7.R1 |
| Platforms | All |

## all

| | |
|---|---|
| Synopsis | Enable PPP debugging for all PPP session packets |
| Context | debug router *string* l2tp ip-peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* packets lns ppp all |
| Tree | all |
| Notes | The following elements are part of a choice: **all** or (**chap**, **ipcp**, **ipv6cp**, **lcp**, **other**, and **pap**). |
| Introduced | 23.7.R1 |
| Platforms | All |

## chap *boolean*

| | |
|---|---|
| Synopsis | Enable PPP debugging for CHAP authentication packets |
| Context | debug router *string* l2tp ip-peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* packets lns ppp chap *boolean* |
| Tree | chap |
| Default | false |
| Notes | The following elements are part of a choice: **all** or (**chap**, **ipcp**, **ipv6cp**, **lcp**, **other**, and **pap**). |
| Introduced | 23.7.R1 |
| Platforms | All |

## ipcp *boolean*

| | |
|---|---|
| Synopsis | Enable PPP debugging for IPCP NCP packets |
| Context | debug router *string* l2tp ip-peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* packets lns ppp ipcp *boolean* |


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| | |
|---|---|
| Tree | ipcp |
| Default | false |
| Notes | The following elements are part of a choice: **all** or (**chap**, **ipcp**, **ipv6cp**, **lcp**, **other**, and **pap**). |
| Introduced | 23.7.R1 |
| Platforms | All |

### **ipv6cp** *boolean*

| | |
|---|---|
| Synopsis | Enable PPP debugging for IPv6CP NCP packets |
| Context | debug router *string* l2tp ip-peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* packets lns ppp ipv6cp *boolean* |
| Tree | ipv6cp |
| Default | false |
| Notes | The following elements are part of a choice: **all** or (**chap**, **ipcp**, **ipv6cp**, **lcp**, **other**, and **pap**). |
| Introduced | 23.7.R1 |
| Platforms | All |

### **lcp** *boolean*

| | |
|---|---|
| Synopsis | Enable PPP debugging for LCP link establishment packets |
| Context | debug router *string* l2tp ip-peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* packets lns ppp lcp *boolean* |
| Tree | lcp |
| Default | false |
| Notes | The following elements are part of a choice: **all** or (**chap**, **ipcp**, **ipv6cp**, **lcp**, **other**, and **pap**). |
| Introduced | 23.7.R1 |
| Platforms | All |

### **other** *boolean*

| | |
|---|---|
| Synopsis | Enable other PPP protocol packet debugging |
| Context | debug router *string* l2tp ip-peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* packets lns ppp other *boolean* |
| Tree | other |


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| | |
|---|---|
| Default | false |
| Notes | The following elements are part of a choice: **all** or (**chap**, **ipcp**, **ipv6cp**, **lcp**, **other**, and **pap**). |
| Introduced | 23.7.R1 |
| Platforms | All |

## **pap** *boolean*

| | |
|---|---|
| Synopsis | Enable PPP debugging for PAP authentication packets |
| Context | debug router *string* l2tp ip-peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* packets lns ppp pap *boolean* |
| Tree | pap |
| Default | false |
| Notes | The following elements are part of a choice: **all** or (**chap**, **ipcp**, **ipv6cp**, **lcp**, **other**, and **pap**). |
| Introduced | 23.7.R1 |
| Platforms | All |

## **packets**

| | |
|---|---|
| Synopsis | Enable the **packets** context |
| Context | debug router *string* l2tp packets |
| Tree | packets |
| Introduced | 23.7.R1 |
| Platforms | All |

## **all**

| | |
|---|---|
| Synopsis | Enable debugging for all session packets |
| Context | debug router *string* l2tp packets all |
| Tree | all |
| Notes | The following elements are part of a mandatory choice: **all** or (**l2tp** and **lns**). |
| Introduced | 23.7.R1 |
| Platforms | All |


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### **detail-level** *keyword*

| | |
|---|---|
| Synopsis | Detail level of the L2TP packet debug output |
| Context | debug router *string* l2tp packets detail-level *keyword* |
| Tree | detail-level |
| Options | low, high |
| Default | low |
| Introduced | 23.7.R1 |
| Platforms | All |

### **direction** *keyword*

| | |
|---|---|
| Synopsis | Direction of the L2TP packet debugging |
| Context | debug router *string* l2tp packets direction *keyword* |
| Tree | direction |
| Options | ingress, egress, both |
| Default | both |
| Introduced | 23.7.R1 |
| Platforms | All |

### **l2tp** *boolean*

| | |
|---|---|
| Synopsis | Enable L2TP packet debugging |
| Context | debug router *string* l2tp packets l2tp *boolean* |
| Tree | l2tp |
| Default | false |
| Notes | The following elements are part of a mandatory choice: **all** or (**l2tp** and **lns**). |
| Introduced | 23.7.R1 |
| Platforms | All |

### **lns**

| | |
|---|---|
| Synopsis | Enter the **lns** context |
| Context | debug router *string* l2tp packets lns |
| Tree | lns |


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| | |
|---|---|
| Notes | The following elements are part of a mandatory choice: **all** or (**l2tp** and **lns**). |
| Introduced | 23.7.R1 |
| Platforms | All |

### **dhcp-client** *boolean*

| | |
|---|---|
| Synopsis | Enable DHCP client packet debugging |
| Context | debug router *string* l2tp packets lns dhcp-client *boolean* |
| Tree | dhcp-client |
| Default | false |
| Introduced | 23.7.R1 |
| Platforms | All |

### **ppp**

| | |
|---|---|
| Synopsis | Enter the **ppp** context |
| Context | debug router *string* l2tp packets lns ppp |
| Tree | ppp |
| Introduced | 23.7.R1 |
| Platforms | All |

### **all**

| | |
|---|---|
| Synopsis | Enable PPP debugging for all PPP session packets |
| Context | debug router *string* l2tp packets lns ppp all |
| Tree | all |
| Notes | The following elements are part of a choice: **all** or (**chap**, **ipcp**, **ipv6cp**, **lcp**, **other**, and **pap**). |
| Introduced | 23.7.R1 |
| Platforms | All |

### **chap** *boolean*

| | |
|---|---|
| Synopsis | Enable PPP debugging for CHAP authentication packets |
| Context | debug router *string* l2tp packets lns ppp chap *boolean* |


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| | |
|---|---|
| Tree | chap |
| Default | false |
| Notes | The following elements are part of a choice: **all** or (**chap**, **ipcp**, **ipv6cp**, **lcp**, **other**, and **pap**). |
| Introduced | 23.7.R1 |
| Platforms | All |

### **ipcp** *boolean*

| | |
|---|---|
| Synopsis | Enable PPP debugging for IPCP NCP packets |
| Context | debug router *string* l2tp packets lns ppp ipcp *boolean* |
| Tree | ipcp |
| Default | false |
| Notes | The following elements are part of a choice: **all** or (**chap**, **ipcp**, **ipv6cp**, **lcp**, **other**, and **pap**). |
| Introduced | 23.7.R1 |
| Platforms | All |

### **ipv6cp** *boolean*

| | |
|---|---|
| Synopsis | Enable PPP debugging for IPv6CP NCP packets |
| Context | debug router *string* l2tp packets lns ppp ipv6cp *boolean* |
| Tree | ipv6cp |
| Default | false |
| Notes | The following elements are part of a choice: **all** or (**chap**, **ipcp**, **ipv6cp**, **lcp**, **other**, and **pap**). |
| Introduced | 23.7.R1 |
| Platforms | All |

### **lcp** *boolean*

| | |
|---|---|
| Synopsis | Enable PPP debugging for LCP link establishment packets |
| Context | debug router *string* l2tp packets lns ppp lcp *boolean* |
| Tree | lcp |
| Default | false |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **all** or (**chap**, **ipcp**, **ipv6cp**, **lcp**, **other**, and **pap**). |
| Introduced | 23.7.R1 |
| Platforms | All |

### **other** *boolean*

| | |
|---|---|
| Synopsis | Enable other PPP protocol packet debugging |
| Context | debug router *string* l2tp packets lns ppp other *boolean* |
| Tree | other |
| Default | false |
| Notes | The following elements are part of a choice: **all** or (**chap**, **ipcp**, **ipv6cp**, **lcp**, **other**, and **pap**). |
| Introduced | 23.7.R1 |
| Platforms | All |

### **pap** *boolean*

| | |
|---|---|
| Synopsis | Enable PPP debugging for PAP authentication packets |
| Context | debug router *string* l2tp packets lns ppp pap *boolean* |
| Tree | pap |
| Default | false |
| Notes | The following elements are part of a choice: **all** or (**chap**, **ipcp**, **ipv6cp**, **lcp**, **other**, and **pap**). |
| Introduced | 23.7.R1 |
| Platforms | All |

### **tunnel** [connection-id] *number*

| | |
|---|---|
| Synopsis | Enter the **tunnel** list instance |
| Context | debug router *string* l2tp tunnel *number* |
| Tree | tunnel |
| Max. instances | 8 |
| Introduced | 23.7.R1 |
| Platforms | All |


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### [**connection-id**] *number*

| | |
|---|---|
| Synopsis | Local control connection ID of the L2TP tunnel to debug |
| Context | debug router *string* l2tp tunnel *number* |
| Tree | tunnel |
| Max. range | 0 to 4294967295 |
| Notes | This element is part of a list key. |
| Introduced | 23.7.R1 |
| Platforms | All |

### events

| | |
|---|---|
| Synopsis | Enable the **events** context |
| Context | debug router *string* l2tp tunnel *number* events |
| Tree | events |
| Introduced | 23.7.R1 |
| Platforms | All |

### all

| | |
|---|---|
| Synopsis | Enable debugging for all events |
| Context | debug router *string* l2tp tunnel *number* events all |
| Tree | all |
| Notes | The following elements are part of a mandatory choice: **all** or (**call-disconnect-notification**, **finite-state-machine**, **lac**, **lns**, and **stop-control-connection-notification**). |
| Introduced | 23.7.R1 |
| Platforms | All |

### call-disconnect-notification *boolean*

| | |
|---|---|
| Synopsis | Enable L2TP CDN event debugging |
| Context | debug router *string* l2tp tunnel *number* events call-disconnect-notification *boolean* |
| Tree | call-disconnect-notification |
| Default | false |


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| | |
|---|---|
| Notes | The following elements are part of a mandatory choice: **all** or (**call-disconnect-notification**, **finite-state-machine**, **lac**, **lns**, and **stop-control-connection-notification**). |
| Introduced | 23.7.R1 |
| Platforms | All |

## **finite-state-machine** *boolean*

| | |
|---|---|
| Synopsis | Enable L2TP FSM event debugging |
| Context | debug router *string* l2tp tunnel *number* events finite-state-machine *boolean* |
| Tree | finite-state-machine |
| Default | false |
| Notes | The following elements are part of a mandatory choice: **all** or (**call-disconnect-notification**, **finite-state-machine**, **lac**, **lns**, and **stop-control-connection-notification**). |
| Introduced | 23.7.R1 |
| Platforms | All |

## **lac**

| | |
|---|---|
| Synopsis | Enter the **lac** context |
| Context | debug router *string* l2tp tunnel *number* events lac |
| Tree | lac |
| Notes | The following elements are part of a mandatory choice: **all** or (**call-disconnect-notification**, **finite-state-machine**, **lac**, **lns**, and **stop-control-connection-notification**). |
| Introduced | 23.7.R1 |
| Platforms | All |

## **state-recovery** *boolean*

| | |
|---|---|
| Synopsis | Enable L2TP LAC state recovery event debugging |
| Context | debug router *string* l2tp tunnel *number* events lac state-recovery *boolean* |
| Tree | state-recovery |
| Default | false |
| Introduced | 23.7.R1 |


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| | |
|---|---|
| Platforms | All |

### **state-recovery-failed** *boolean*

| | |
|---|---|
| Synopsis | Enable L2TP LAC state recovery failed event debugging |
| Context | debug router *string* l2tp tunnel *number* events lac state-recovery-failed *boolean* |
| Tree | state-recovery-failed |
| Default | false |
| Introduced | 23.7.R1 |
| Platforms | All |

### **lns**

| | |
|---|---|
| Synopsis | Enter the **lns** context |
| Context | debug router *string* l2tp tunnel *number* events lns |
| Tree | lns |
| Notes | The following elements are part of a mandatory choice: **all** or (**call-disconnect-notification**, **finite-state-machine**, **lac**, **lns**, and **stop-control-connection-notification**). |
| Introduced | 23.7.R1 |
| Platforms | All |

### **ppp**

| | |
|---|---|
| Synopsis | Enable the **ppp** context |
| Context | debug router *string* l2tp tunnel *number* events lns ppp |
| Tree | ppp |
| Introduced | 23.7.R1 |
| Platforms | All |

### **terminate-only** *boolean*

| | |
|---|---|
| Synopsis | Debug events for ungracefully terminated sessions only |
| Context | debug router *string* l2tp tunnel *number* events lns ppp terminate-only *boolean* |
| Tree | terminate-only |
| Default | false |


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| | |
|---|---|
| Introduced | 23.7.R1 |
| Platforms | All |

### **stop-control-connection-notification** *boolean*

| | |
|---|---|
| Synopsis | Enable L2TP StopCCN event debugging |
| Context | debug router *string* l2tp tunnel *number* events stop-control-connection-notification *boolean* |
| Tree | stop-control-connection-notification |
| Default | false |
| Notes | The following elements are part of a mandatory choice: **all** or (**call-disconnect-notification**, **finite-state-machine**, **lac**, **lns**, and **stop-control-connection-notification**). |
| Introduced | 23.7.R1 |
| Platforms | All |

### **packets**

| | |
|---|---|
| Synopsis | Enable the **packets** context |
| Context | debug router *string* l2tp tunnel *number* packets |
| Tree | packets |
| Introduced | 23.7.R1 |
| Platforms | All |

### **all**

| | |
|---|---|
| Synopsis | Enable debugging for all session packets |
| Context | debug router *string* l2tp tunnel *number* packets all |
| Tree | all |
| Notes | The following elements are part of a mandatory choice: **all** or (**l2tp** and **lns**). |
| Introduced | 23.7.R1 |
| Platforms | All |

### **detail-level** *keyword*

| | |
|---|---|
| Synopsis | Detail level of the L2TP packet debug output |


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| | |
|---|---|
| Context | debug router *string* l2tp tunnel *number* packets detail-level *keyword* |
| Tree | detail-level |
| Options | low, high |
| Default | low |
| Introduced | 23.7.R1 |
| Platforms | All |

### **direction** *keyword*

| | |
|---|---|
| Synopsis | Direction of the L2TP packet debugging |
| Context | debug router *string* l2tp tunnel *number* packets direction *keyword* |
| Tree | direction |
| Options | ingress, egress, both |
| Default | both |
| Introduced | 23.7.R1 |
| Platforms | All |

### **l2tp** *boolean*

| | |
|---|---|
| Synopsis | Enable L2TP packet debugging |
| Context | debug router *string* l2tp tunnel *number* packets l2tp *boolean* |
| Tree | l2tp |
| Default | false |
| Notes | The following elements are part of a mandatory choice: **all** or (**l2tp** and **lns**). |
| Introduced | 23.7.R1 |
| Platforms | All |

### **lns**

| | |
|---|---|
| Synopsis | Enter the **lns** context |
| Context | debug router *string* l2tp tunnel *number* packets lns |
| Tree | lns |
| Notes | The following elements are part of a mandatory choice: **all** or (**l2tp** and **lns**). |
| Introduced | 23.7.R1 |
| Platforms | All |


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### **dhcp-client** *boolean*

| | |
|---|---|
| Synopsis | Enable DHCP client packet debugging |
| Context | debug router *string* l2tp tunnel *number* packets lns dhcp-client *boolean* |
| Tree | dhcp-client |
| Default | false |
| Introduced | 23.7.R1 |
| Platforms | All |

### **ppp**

| | |
|---|---|
| Synopsis | Enter the **ppp** context |
| Context | debug router *string* l2tp tunnel *number* packets lns ppp |
| Tree | ppp |
| Introduced | 23.7.R1 |
| Platforms | All |

### **all**

| | |
|---|---|
| Synopsis | Enable PPP debugging for all PPP session packets |
| Context | debug router *string* l2tp tunnel *number* packets lns ppp all |
| Tree | all |
| Notes | The following elements are part of a choice: **all** or (**chap**, **ipcp**, **ipv6cp**, **lcp**, **other**, and **pap**). |
| Introduced | 23.7.R1 |
| Platforms | All |

### **chap** *boolean*

| | |
|---|---|
| Synopsis | Enable PPP debugging for CHAP authentication packets |
| Context | debug router *string* l2tp tunnel *number* packets lns ppp chap *boolean* |
| Tree | chap |
| Default | false |
| Notes | The following elements are part of a choice: **all** or (**chap**, **ipcp**, **ipv6cp**, **lcp**, **other**, and **pap**). |


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| | |
|---|---|
| Introduced | 23.7.R1 |
| Platforms | All |

### **ipcp** *boolean*

| | |
|---|---|
| Synopsis | Enable PPP debugging for IPCP NCP packets |
| Context | debug router *string* l2tp tunnel *number* packets lns ppp ipcp *boolean* |
| Tree | ipcp |
| Default | false |
| Notes | The following elements are part of a choice: **all** or (**chap**, **ipcp**, **ipv6cp**, **lcp**, **other**, and **pap**). |
| Introduced | 23.7.R1 |
| Platforms | All |

### **ipv6cp** *boolean*

| | |
|---|---|
| Synopsis | Enable PPP debugging for IPv6CP NCP packets |
| Context | debug router *string* l2tp tunnel *number* packets lns ppp ipv6cp *boolean* |
| Tree | ipv6cp |
| Default | false |
| Notes | The following elements are part of a choice: **all** or (**chap**, **ipcp**, **ipv6cp**, **lcp**, **other**, and **pap**). |
| Introduced | 23.7.R1 |
| Platforms | All |

### **lcp** *boolean*

| | |
|---|---|
| Synopsis | Enable PPP debugging for LCP link establishment packets |
| Context | debug router *string* l2tp tunnel *number* packets lns ppp lcp *boolean* |
| Tree | lcp |
| Default | false |
| Notes | The following elements are part of a choice: **all** or (**chap**, **ipcp**, **ipv6cp**, **lcp**, **other**, and **pap**). |
| Introduced | 23.7.R1 |
| Platforms | All |


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### **other** *boolean*

| | |
|---|---|
| Synopsis | Enable other PPP protocol packet debugging |
| Context | debug router *string* l2tp tunnel *number* packets lns ppp other *boolean* |
| Tree | other |
| Default | false |
| Notes | The following elements are part of a choice: **all** or (**chap**, **ipcp**, **ipv6cp**, **lcp**, **other**, and **pap**). |
| Introduced | 23.7.R1 |
| Platforms | All |

### **pap** *boolean*

| | |
|---|---|
| Synopsis | Enable PPP debugging for PAP authentication packets |
| Context | debug router *string* l2tp tunnel *number* packets lns ppp pap *boolean* |
| Tree | pap |
| Default | false |
| Notes | The following elements are part of a choice: **all** or (**chap**, **ipcp**, **ipv6cp**, **lcp**, **other**, and **pap**). |
| Introduced | 23.7.R1 |
| Platforms | All |

### **udp-peer** [ip-address] *(ipv4-address-no-zone | ipv6-address-no-zone)* udp-port *number*

| | |
|---|---|
| Synopsis | Enter the **udp-peer** list instance |
| Context | debug router *string* l2tp udp-peer *(ipv4-address-no-zone | ipv6-address-no-zone)* udp-port *number* |
| Tree | udp-peer |
| Max. instances | 8 |
| Introduced | 23.7.R1 |
| Platforms | All |

### [**ip-address**] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the L2TP peer to debug |


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| | |
|---|---|
| Context | debug router *string* l2tp udp-peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* udp-port *number* |
| Tree | udp-peer |
| Notes | This element is part of a list key. |
| Introduced | 23.7.R1 |
| Platforms | All |

## **udp-port** *number*

| | |
|---|---|
| Synopsis | UDP port of the L2TP peer to debug |
| Context | debug router *string* l2tp udp-peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* udp-port *number* |
| Tree | udp-peer |
| Range | 0 to 65535 |
| Notes | This element is part of a list key. |
| Introduced | 23.7.R1 |
| Platforms | All |

## events

| | |
|---|---|
| Synopsis | Enable the **events** context |
| Context | debug router *string* l2tp udp-peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* udp-port *number* events |
| Tree | events |
| Introduced | 23.7.R1 |
| Platforms | All |

## all

| | |
|---|---|
| Synopsis | Enable debugging for all events |
| Context | debug router *string* l2tp udp-peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* udp-port *number* events all |
| Tree | all |
| Notes | The following elements are part of a mandatory choice: **all** or (**call-disconnect-notification**, **finite-state-machine**, **lac**, **lns**, and **stop-control-connection-notification**). |
| Introduced | 23.7.R1 |


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Platforms All

## **call-disconnect-notification** *boolean*

Synopsis Enable L2TP CDN event debugging

Context debug router *string* l2tp udp-peer *(ipv4-address-no-zone | ipv6-address-no-zone)* udp-port *number* events call-disconnect-notification *boolean*

Tree call-disconnect-notification

Default false

Notes The following elements are part of a mandatory choice: **all** or (**call-disconnect-notification**, **finite-state-machine**, **lac**, **lns**, and **stop-control-connection-notification**).

Introduced 23.7.R1

Platforms All

## **finite-state-machine** *boolean*

Synopsis Enable L2TP FSM event debugging

Context debug router *string* l2tp udp-peer *(ipv4-address-no-zone | ipv6-address-no-zone)* udp-port *number* events finite-state-machine *boolean*

Tree finite-state-machine

Default false

Notes The following elements are part of a mandatory choice: **all** or (**call-disconnect-notification**, **finite-state-machine**, **lac**, **lns**, and **stop-control-connection-notification**).

Introduced 23.7.R1

Platforms All

## **lac**

Synopsis Enter the **lac** context

Context debug router *string* l2tp udp-peer *(ipv4-address-no-zone | ipv6-address-no-zone)* udp-port *number* events lac

Tree lac

Notes The following elements are part of a mandatory choice: **all** or (**call-disconnect-notification**, **finite-state-machine**, **lac**, **lns**, and **stop-control-connection-notification**).

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| | |
|---|---|
| Platforms | All |

### **state-recovery** *boolean*

| | |
|---|---|
| Synopsis | Enable L2TP LAC state recovery event debugging |
| Context | debug router *string* l2tp udp-peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* udp-port *number* events lac state-recovery *boolean* |
| Tree | state-recovery |
| Default | false |
| Introduced | 23.7.R1 |
| Platforms | All |

### **state-recovery-failed** *boolean*

| | |
|---|---|
| Synopsis | Enable L2TP LAC state recovery failed event debugging |
| Context | debug router *string* l2tp udp-peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* udp-port *number* events lac state-recovery-failed *boolean* |
| Tree | state-recovery-failed |
| Default | false |
| Introduced | 23.7.R1 |
| Platforms | All |

### **lns**

| | |
|---|---|
| Synopsis | Enter the **lns** context |
| Context | debug router *string* l2tp udp-peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* udp-port *number* events lns |
| Tree | lns |
| Notes | The following elements are part of a mandatory choice: **all** or (**call-disconnect-notification**, **finite-state-machine**, **lac**, **lns**, and **stop-control-connection-notification**). |
| Introduced | 23.7.R1 |
| Platforms | All |

### **ppp**

| | |
|---|---|
| Synopsis | Enable the **ppp** context |


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| | |
|---|---|
| Context | debug router *string* l2tp udp-peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* udp-port *number* events lns ppp |
| Tree | ppp |
| Introduced | 23.7.R1 |
| Platforms | All |

### **terminate-only** *boolean*

| | |
|---|---|
| Synopsis | Debug events for ungracefully terminated sessions only |
| Context | debug router *string* l2tp udp-peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* udp-port *number* events lns ppp terminate-only *boolean* |
| Tree | terminate-only |
| Default | false |
| Introduced | 23.7.R1 |
| Platforms | All |

### **stop-control-connection-notification** *boolean*

| | |
|---|---|
| Synopsis | Enable L2TP StopCCN event debugging |
| Context | debug router *string* l2tp udp-peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* udp-port *number* events stop-control-connection-notification *boolean* |
| Tree | stop-control-connection-notification |
| Default | false |
| Notes | The following elements are part of a mandatory choice: **all** or (**call-disconnect-notification**, **finite-state-machine**, **lac**, **lns**, and **stop-control-connection-notification**). |
| Introduced | 23.7.R1 |
| Platforms | All |

### **packets**

| | |
|---|---|
| Synopsis | Enable the **packets** context |
| Context | debug router *string* l2tp udp-peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* udp-port *number* packets |
| Tree | packets |
| Introduced | 23.7.R1 |
| Platforms | All |


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### **all**

| | |
|---|---|
| Synopsis | Enable debugging for all session packets |
| Context | debug router *string* l2tp udp-peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* udp-port *number* packets all |
| Tree | all |
| Notes | The following elements are part of a mandatory choice: **all** or (**l2tp** and **lns**). |
| Introduced | 23.7.R1 |
| Platforms | All |

### **detail-level** *keyword*

| | |
|---|---|
| Synopsis | Detail level of the L2TP packet debug output |
| Context | debug router *string* l2tp udp-peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* udp-port *number* packets detail-level *keyword* |
| Tree | detail-level |
| Options | low, high |
| Default | low |
| Introduced | 23.7.R1 |
| Platforms | All |

### **direction** *keyword*

| | |
|---|---|
| Synopsis | Direction of the L2TP packet debugging |
| Context | debug router *string* l2tp udp-peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* udp-port *number* packets direction *keyword* |
| Tree | direction |
| Options | ingress, egress, both |
| Default | both |
| Introduced | 23.7.R1 |
| Platforms | All |

### **l2tp** *boolean*

| | |
|---|---|
| Synopsis | Enable L2TP packet debugging |


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| | |
|---|---|
| Context | debug router *string* l2tp udp-peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* udp-port *number* packets l2tp *boolean* |
| Tree | l2tp |
| Default | false |
| Notes | The following elements are part of a mandatory choice: **all** or (**l2tp** and **lns**). |
| Introduced | 23.7.R1 |
| Platforms | All |

## lns

| | |
|---|---|
| Synopsis | Enter the **lns** context |
| Context | debug router *string* l2tp udp-peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* udp-port *number* packets lns |
| Tree | lns |
| Notes | The following elements are part of a mandatory choice: **all** or (**l2tp** and **lns**). |
| Introduced | 23.7.R1 |
| Platforms | All |

## dhcp-client *boolean*

| | |
|---|---|
| Synopsis | Enable DHCP client packet debugging |
| Context | debug router *string* l2tp udp-peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* udp-port *number* packets lns dhcp-client *boolean* |
| Tree | dhcp-client |
| Default | false |
| Introduced | 23.7.R1 |
| Platforms | All |

## ppp

| | |
|---|---|
| Synopsis | Enter the **ppp** context |
| Context | debug router *string* l2tp udp-peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* udp-port *number* packets lns ppp |
| Tree | ppp |
| Introduced | 23.7.R1 |
| Platforms | All |


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### all

| | |
|---|---|
| Synopsis | Enable PPP debugging for all PPP session packets |
| Context | debug router *string* l2tp udp-peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* udp-port *number* packets lns ppp all |
| Tree | all |
| Notes | The following elements are part of a choice: **all** or (**chap**, **ipcp**, **ipv6cp**, **lcp**, **other**, and **pap**). |
| Introduced | 23.7.R1 |
| Platforms | All |

### chap *boolean*

| | |
|---|---|
| Synopsis | Enable PPP debugging for CHAP authentication packets |
| Context | debug router *string* l2tp udp-peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* udp-port *number* packets lns ppp chap *boolean* |
| Tree | chap |
| Default | false |
| Notes | The following elements are part of a choice: **all** or (**chap**, **ipcp**, **ipv6cp**, **lcp**, **other**, and **pap**). |
| Introduced | 23.7.R1 |
| Platforms | All |

### ipcp *boolean*

| | |
|---|---|
| Synopsis | Enable PPP debugging for IPCP NCP packets |
| Context | debug router *string* l2tp udp-peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* udp-port *number* packets lns ppp ipcp *boolean* |
| Tree | ipcp |
| Default | false |
| Notes | The following elements are part of a choice: **all** or (**chap**, **ipcp**, **ipv6cp**, **lcp**, **other**, and **pap**). |
| Introduced | 23.7.R1 |
| Platforms | All |


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### **ipv6cp** *boolean*

| | |
|---|---|
| Synopsis | Enable PPP debugging for IPv6CP NCP packets |
| Context | debug router *string* l2tp udp-peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* udp-port *number* packets lns ppp ipv6cp *boolean* |
| Tree | ipv6cp |
| Default | false |
| Notes | The following elements are part of a choice: **all** or (**chap**, **ipcp**, **ipv6cp**, **lcp**, **other**, and **pap**). |
| Introduced | 23.7.R1 |
| Platforms | All |

### **lcp** *boolean*

| | |
|---|---|
| Synopsis | Enable PPP debugging for LCP link establishment packets |
| Context | debug router *string* l2tp udp-peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* udp-port *number* packets lns ppp lcp *boolean* |
| Tree | lcp |
| Default | false |
| Notes | The following elements are part of a choice: **all** or (**chap**, **ipcp**, **ipv6cp**, **lcp**, **other**, and **pap**). |
| Introduced | 23.7.R1 |
| Platforms | All |

### **other** *boolean*

| | |
|---|---|
| Synopsis | Enable other PPP protocol packet debugging |
| Context | debug router *string* l2tp udp-peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* udp-port *number* packets lns ppp other *boolean* |
| Tree | other |
| Default | false |
| Notes | The following elements are part of a choice: **all** or (**chap**, **ipcp**, **ipv6cp**, **lcp**, **other**, and **pap**). |
| Introduced | 23.7.R1 |
| Platforms | All |


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### **pap** *boolean*

| | |
|---|---|
| Synopsis | Enable PPP debugging for PAP authentication packets |
| Context | debug router *string* l2tp udp-peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* udp-port *number* packets lns ppp pap *boolean* |
| Tree | pap |
| Default | false |
| Notes | The following elements are part of a choice: **all** or (**chap**, **ipcp**, **ipv6cp**, **lcp**, **other**, and **pap**). |
| Introduced | 23.7.R1 |
| Platforms | All |

### **ldp**

| | |
|---|---|
| Synopsis | Enter the **ldp** context |
| Context | debug router *string* ldp |
| Tree | ldp |
| Introduced | 23.3.R1 |
| Platforms | All |

### **interface** [interface-name] *interface-name*

| | |
|---|---|
| Synopsis | Enter the **interface** list instance |
| Context | debug router *string* ldp interface *interface-name* |
| Tree | interface |
| Introduced | 23.3.R1 |
| Platforms | All |

### [**interface-name**] *interface-name*

| | |
|---|---|
| Synopsis | Interface name |
| Context | debug router *string* ldp interface *interface-name* |
| Tree | interface |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 23.3.R1 |
| Platforms | All |

## ipv4

| | |
|---|---|
| Synopsis | Enable the **ipv4** context |
| Context | debug router *string* ldp interface *interface-name* ipv4 |
| Tree | ipv4 |
| Introduced | 23.3.R1 |
| Platforms | All |

## event

| | |
|---|---|
| Synopsis | Enter the **event** context |
| Context | debug router *string* ldp interface *interface-name* ipv4 event |
| Tree | event |
| Introduced | 23.3.R1 |
| Platforms | All |

## messages

| | |
|---|---|
| Synopsis | Enable the **messages** context |
| Context | debug router *string* ldp interface *interface-name* ipv4 event messages |
| Tree | messages |
| Introduced | 23.3.R1 |
| Platforms | All |

## packet

| | |
|---|---|
| Synopsis | Enter the **packet** context |
| Context | debug router *string* ldp interface *interface-name* ipv4 packet |
| Tree | packet |
| Introduced | 23.3.R1 |
| Platforms | All |


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### hello

| | |
|---|---|
| Synopsis | Enable the **hello** context |
| Context | debug router *string* ldp interface *interface-name* ipv4 packet hello |
| Tree | hello |
| Introduced | 23.3.R1 |
| Platforms | All |

### detail *boolean*

| | |
|---|---|
| Synopsis | Display detailed information |
| Context | debug router *string* ldp interface *interface-name* ipv4 packet hello detail *boolean* |
| Tree | detail |
| Default | false |
| Introduced | 23.3.R1 |
| Platforms | All |

### ipv6

| | |
|---|---|
| Synopsis | Enable the **ipv6** context |
| Context | debug router *string* ldp interface *interface-name* ipv6 |
| Tree | ipv6 |
| Introduced | 23.3.R1 |
| Platforms | All |

### event

| | |
|---|---|
| Synopsis | Enter the **event** context |
| Context | debug router *string* ldp interface *interface-name* ipv6 event |
| Tree | event |
| Introduced | 23.3.R1 |
| Platforms | All |


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### messages

| | |
|---|---|
| Synopsis | Enable the **messages** context |
| Context | debug router *string* ldp interface *interface-name* ipv6 event messages |
| Tree | messages |
| Introduced | 23.3.R1 |
| Platforms | All |

### packet

| | |
|---|---|
| Synopsis | Enter the **packet** context |
| Context | debug router *string* ldp interface *interface-name* ipv6 packet |
| Tree | packet |
| Introduced | 23.3.R1 |
| Platforms | All |

### hello

| | |
|---|---|
| Synopsis | Enable the **hello** context |
| Context | debug router *string* ldp interface *interface-name* ipv6 packet hello |
| Tree | hello |
| Introduced | 23.3.R1 |
| Platforms | All |

### detail *boolean*

| | |
|---|---|
| Synopsis | Display detailed information |
| Context | debug router *string* ldp interface *interface-name* ipv6 packet hello detail *boolean* |
| Tree | detail |
| Default | false |
| Introduced | 23.3.R1 |
| Platforms | All |


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### **peer** [ip-address] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Enter the **peer** list instance |
| Context | debug router *string* ldp peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | peer |
| Introduced | 23.3.R1 |
| Platforms | All |

### [**ip-address**] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Peer IP address |
| Context | debug router *string* ldp peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | peer |
| Notes | This element is part of a list key. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **event**

| | |
|---|---|
| Synopsis | Enter the **event** context |
| Context | debug router *string* ldp peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* event |
| Tree | event |
| Introduced | 23.3.R1 |
| Platforms | All |

### **bindings**

| | |
|---|---|
| Synopsis | Enable the **bindings** context |
| Context | debug router *string* ldp peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* event bindings |
| Tree | bindings |
| Introduced | 23.3.R1 |
| Platforms | All |


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### messages

| | |
|---|---|
| Synopsis | Enable the **messages** context |
| Context | debug router *string* ldp peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* event messages |
| Tree | messages |
| Introduced | 23.3.R1 |
| Platforms | All |

### packet

| | |
|---|---|
| Synopsis | Enter the **packet** context |
| Context | debug router *string* ldp peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* packet |
| Tree | packet |
| Introduced | 23.3.R1 |
| Platforms | All |

### hello

| | |
|---|---|
| Synopsis | Enable the **hello** context |
| Context | debug router *string* ldp peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* packet hello |
| Tree | hello |
| Introduced | 23.3.R1 |
| Platforms | All |

### detail *boolean*

| | |
|---|---|
| Synopsis | Display detailed information |
| Context | debug router *string* ldp peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* packet hello detail *boolean* |
| Tree | detail |
| Default | false |
| Introduced | 23.3.R1 |
| Platforms | All |


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### init

| | |
|---|---|
| Synopsis | Enable the **init** context |
| Context | debug router *string* ldp peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* packet init |
| Tree | init |
| Introduced | 23.3.R1 |
| Platforms | All |

### detail *boolean*

| | |
|---|---|
| Synopsis | Display detailed information |
| Context | debug router *string* ldp peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* packet init detail *boolean* |
| Tree | detail |
| Default | false |
| Introduced | 23.3.R1 |
| Platforms | All |

### keepalive

| | |
|---|---|
| Synopsis | Enable the **keepalive** context |
| Context | debug router *string* ldp peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* packet keepalive |
| Tree | keepalive |
| Introduced | 23.3.R1 |
| Platforms | All |

### label

| | |
|---|---|
| Synopsis | Enable the **label** context |
| Context | debug router *string* ldp peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* packet label |
| Tree | label |
| Introduced | 23.3.R1 |
| Platforms | All |


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### **detail** *boolean*

| | |
|---|---|
| Synopsis | Display detailed information |
| Context | debug router *string* ldp peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* packet label detail *boolean* |
| Tree | detail |
| Default | false |
| Introduced | 23.3.R1 |
| Platforms | All |

### **mld**

| | |
|---|---|
| Synopsis | Enter the **mld** context |
| Context | debug router *string* mld |
| Tree | mld |
| Introduced | 22.10.R1 |
| Platforms | All |

### **group-interface**

| | |
|---|---|
| Synopsis | Enable the **group-interface** context |
| Context | debug router *string* mld group-interface |
| Tree | group-interface |
| Introduced | 22.10.R1 |
| Platforms | All |

### **all-group-interfaces**

| | |
|---|---|
| Synopsis | Trace all interfaces |
| Context | debug router *string* mld group-interface all-group-interfaces |
| Tree | all-group-interfaces |
| Notes | The following elements are part of a mandatory choice: **all-group-interfaces** or (**forwarding-service** and **group-interface-name**). |
| Introduced | 22.10.R1 |
| Platforms | All |


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### **forwarding-service** *service-name*

| | |
|---|---|
| Synopsis | ID of the forwarding service to trace |
| Context | debug router *string* mld group-interface forwarding-service *service-name* |
| Tree | forwarding-service |
| String length | 1 to 64 |
| Default | ../../router-instance |
| Notes | The following elements are part of a mandatory choice: **all-group-interfaces** or (**forwarding-service** and **group-interface-name**). |
| Introduced | 22.10.R1 |
| Platforms | All |

### **group-interface-name** *interface-name*

| | |
|---|---|
| Synopsis | Interface name |
| Context | debug router *string* mld group-interface group-interface-name *interface-name* |
| Tree | group-interface-name |
| String length | 1 to 32 |
| Notes | The following elements are part of a mandatory choice: **all-group-interfaces** or (**forwarding-service** and **group-interface-name**). |
| Introduced | 22.10.R1 |
| Platforms | All |

### **host**

| | |
|---|---|
| Synopsis | Enable the **host** context |
| Context | debug router *string* mld host |
| Tree | host |
| Introduced | 22.10.R1 |
| Platforms | All |

### **group-interface**

| | |
|---|---|
| Synopsis | Enter the **group-interface** context |
| Context | debug router *string* mld host group-interface |


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| | |
|---|---|
| Tree | group-interface |
| Introduced | 22.10.R1 |
| Platforms | All |

### **forwarding-service** *service-name*

| | |
|---|---|
| Synopsis | ID of the forwarding service to trace |
| Context | debug router *string* mld host group-interface forwarding-service *service-name* |
| Tree | forwarding-service |
| String length | 1 to 64 |
| Default | ../../router-instance |
| Introduced | 22.10.R1 |
| Platforms | All |

### **group-interface-name** *interface-name*

| | |
|---|---|
| Synopsis | Interface name |
| Context | debug router *string* mld host group-interface group-interface-name *interface-name* |
| Tree | group-interface-name |
| String length | 1 to 32 |
| Introduced | 22.10.R1 |
| Platforms | All |

### **ip-address** *ipv6-address*

| | |
|---|---|
| Synopsis | IP address of the host to trace |
| Context | debug router *string* mld host ip-address *ipv6-address* |
| Tree | ip-address |
| Introduced | 22.10.R1 |
| Platforms | All |

### **interface**

| | |
|---|---|
| Synopsis | Enable the **interface** context |
| Context | debug router *string* mld interface |


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| | |
|---|---|
| Tree | interface |
| Introduced | 22.10.R1 |
| Platforms | All |

### all-interfaces

| | |
|---|---|
| Synopsis | Trace all interfaces |
| Context | debug router *string* mld interface all-interfaces |
| Tree | all-interfaces |
| Notes | The following elements are part of a mandatory choice: **all-interfaces** or **interface-name**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### interface-name *interface-name*

| | |
|---|---|
| Synopsis | Interface name |
| Context | debug router *string* mld interface interface-name *interface-name* |
| Tree | interface-name |
| String length | 1 to 32 |
| Notes | The following elements are part of a mandatory choice: **all-interfaces** or **interface-name**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### mcs

| | |
|---|---|
| Synopsis | Enable the **mcs** context |
| Context | debug router *string* mld mcs |
| Tree | mcs |
| Introduced | 22.10.R1 |
| Platforms | All |

### all-interfaces

| | |
|---|---|
| Synopsis | Trace all interfaces |


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| | |
|---|---|
| Context | debug router *string* mld mcs all-interfaces |
| Tree | all-interfaces |
| Notes | The following elements are part of a mandatory choice: **all-interfaces** or **interface-name**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **interface-name** *interface-name*

| | |
|---|---|
| Synopsis | Interface name |
| Context | debug router *string* mld mcs interface-name *interface-name* |
| Tree | interface-name |
| String length | 1 to 32 |
| Notes | The following elements are part of a mandatory choice: **all-interfaces** or **interface-name**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **miscellaneous** *boolean*

| | |
|---|---|
| Synopsis | Enable the tracing of miscellaneous events |
| Context | debug router *string* mld miscellaneous *boolean* |
| Tree | miscellaneous |
| Default | false |
| Introduced | 22.10.R1 |
| Platforms | All |

### **packet**

| | |
|---|---|
| Synopsis | Enable the **packet** context |
| Context | debug router *string* mld packet |
| Tree | packet |
| Introduced | 22.10.R1 |
| Platforms | All |


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### all-origins

| | |
|---|---|
| Synopsis | Allow trace for all origins |
| Context | debug router *string* mld packet all-origins |
| Tree | all-origins |
| Notes | The following elements are part of a choice: **all-origins**, **group-interface-name**, **host-ip-address**, **interface-ip-address**, or **interface-name**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### dropped *boolean*

| | |
|---|---|
| Synopsis | Enable tracing for dropped packets |
| Context | debug router *string* mld packet dropped *boolean* |
| Tree | dropped |
| Default | true |
| Introduced | 22.10.R1 |
| Platforms | All |

### egress *boolean*

| | |
|---|---|
| Synopsis | Enable tracing for transmitted packets |
| Context | debug router *string* mld packet egress *boolean* |
| Tree | egress |
| Default | true |
| Introduced | 22.10.R1 |
| Platforms | All |

### group-interface-name *interface-name*

| | |
|---|---|
| Synopsis | Interface name |
| Context | debug router *string* mld packet group-interface-name *interface-name* |
| Tree | group-interface-name |
| String length | 1 to 32 |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **all-origins**, **group-interface-name**, **host-ip-address**, **interface-ip-address**, or **interface-name**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **host-ip-address** *ipv6-address*

| | |
|---|---|
| Synopsis | Address of the host to trace |
| Context | debug router *string* mld packet host-ip-address *ipv6-address* |
| Tree | host-ip-address |
| Notes | The following elements are part of a choice: **all-origins**, **group-interface-name**, **host-ip-address**, **interface-ip-address**, or **interface-name**. |
| Introduced | 22.10.R2 |
| Platforms | All |

### **ingress** *boolean*

| | |
|---|---|
| Synopsis | Enable tracing for received packets |
| Context | debug router *string* mld packet ingress *boolean* |
| Tree | ingress |
| Default | true |
| Introduced | 22.10.R1 |
| Platforms | All |

### **interface-ip-address** *ipv6-address*

| | |
|---|---|
| Synopsis | Source address of the packet to trace |
| Context | debug router *string* mld packet interface-ip-address *ipv6-address* |
| Tree | interface-ip-address |
| Notes | The following elements are part of a choice: **all-origins**, **group-interface-name**, **host-ip-address**, **interface-ip-address**, or **interface-name**. |
| Introduced | 22.10.R2 |
| Platforms | All |


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### **interface-name** *interface-name*

| | |
|---|---|
| Synopsis | Interface name |
| Context | debug router *string* mld packet interface-name *interface-name* |
| Tree | interface-name |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **all-origins**, **group-interface-name**, **host-ip-address**, **interface-ip-address**, or **interface-name**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **type** *keyword*

| | |
|---|---|
| Synopsis | Packet type |
| Context | debug router *string* mld packet type *keyword* |
| Tree | type |
| Options | all – All MLD packets<br>query – MLD Query packets<br>v1-report – MLD version 1 Report packets<br>v2-report – MLD version 2 Report packets |
| Default | all |
| Introduced | 22.10.R1 |
| Platforms | All |

### **msdp**

| | |
|---|---|
| Synopsis | Enter the **msdp** context |
| Context | debug router *string* msdp |
| Tree | msdp |
| Description | Commands in this context configure debugging for the Multicast Source Discovery Protocol (MSDP). |
| Introduced | 22.10.R1 |
| Platforms | All |


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## packet

| | |
|---|---|
| Synopsis | Enable the **packet** context |
| Context | debug router *string* msdp packet |
| Tree | packet |
| Introduced | 22.10.R1 |
| Platforms | All |

## all-packet-types

| | |
|---|---|
| Synopsis | Enable MSDP debugging for all packets |
| Context | debug router *string* msdp packet all-packet-types |
| Tree | all-packet-types |
| Notes | The following elements are part of a choice: **all-packet-types** or **packet-types**. |
| Introduced | 22.10.R1 |
| Platforms | All |

## packet-types

| | |
|---|---|
| Synopsis | Enter the **packet-types** context |
| Context | debug router *string* msdp packet packet-types |
| Tree | packet-types |
| Notes | The following elements are part of a choice: **all-packet-types** or **packet-types**. |
| Introduced | 22.10.R1 |
| Platforms | All |

## keep-alive

| | |
|---|---|
| Synopsis | Enable the **keep-alive** context |
| Context | debug router *string* msdp packet packet-types keep-alive |
| Tree | keep-alive |
| Introduced | 22.10.R1 |
| Platforms | All |


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### **peer-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Peer address used to trace packets |
| Context | debug router *string* msdp packet packet-types keep-alive peer-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | peer-address |
| Introduced | 22.10.R1 |
| Platforms | All |

### **sa-request**

| | |
|---|---|
| Synopsis | Enable the **sa-request** context |
| Context | debug router *string* msdp packet packet-types sa-request |
| Tree | sa-request |
| Introduced | 22.10.R1 |
| Platforms | All |

### **peer-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Peer address used to trace packets |
| Context | debug router *string* msdp packet packet-types sa-request peer-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | peer-address |
| Introduced | 22.10.R1 |
| Platforms | All |

### **sa-response**

| | |
|---|---|
| Synopsis | Enable the **sa-response** context |
| Context | debug router *string* msdp packet packet-types sa-response |
| Tree | sa-response |
| Introduced | 22.10.R1 |
| Platforms | All |


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### **peer-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Peer address used to trace packets |
| Context | debug router *string* msdp packet packet-types sa-response peer-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | peer-address |
| Introduced | 22.10.R1 |
| Platforms | All |

### **source-active**

| | |
|---|---|
| Synopsis | Enable the **source-active** context |
| Context | debug router *string* msdp packet packet-types source-active |
| Tree | source-active |
| Introduced | 22.10.R1 |
| Platforms | All |

### **peer-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Peer address used to trace packets |
| Context | debug router *string* msdp packet packet-types source-active peer-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | peer-address |
| Introduced | 22.10.R1 |
| Platforms | All |

### **pim**

| | |
|---|---|
| Synopsis | Enable the **pim** context |
| Context | debug router *string* msdp pim |
| Tree | pim |
| Description | Commands in this context enable MSDP PIM debugging. |
| Introduced | 22.10.R1 |
| Platforms | All |


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### **group-address** *ipv4-multicast-address*

| | |
|---|---|
| Synopsis | IP multicast group address used to trace events |
| Context | debug router *string* msdp pim group-address *ipv4-multicast-address* |
| Tree | group-address |
| Introduced | 22.10.R1 |
| Platforms | All |

### **rtm**

| | |
|---|---|
| Synopsis | Enable the **rtm** context |
| Context | debug router *string* msdp rtm |
| Tree | rtm |
| Description | Commands in this context enable MSDP route table manager (RTM) debugging. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **rp-address** *ipv4-address*

| | |
|---|---|
| Synopsis | IP multicast RP address used to trace events |
| Context | debug router *string* msdp rtm rp-address *ipv4-address* |
| Tree | rp-address |
| Introduced | 22.10.R1 |
| Platforms | All |

### **sa-db**

| | |
|---|---|
| Synopsis | Enable the **sa-db** context |
| Context | debug router *string* msdp sa-db |
| Tree | sa-db |
| Description | Commands in this context enable MSDP source-active database debugging. |
| Introduced | 22.10.R1 |
| Platforms | All |


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### **group-address** *ipv4-multicast-address*

| | |
|---|---|
| Synopsis | IP multicast group address used to trace events |
| Context | debug router *string* msdp sa-db group-address *ipv4-multicast-address* |
| Tree | group-address |
| Introduced | 22.10.R1 |
| Platforms | All |

### **rp-address** *ipv4-address*

| | |
|---|---|
| Synopsis | IP multicast RP address used to trace events |
| Context | debug router *string* msdp sa-db rp-address *ipv4-address* |
| Tree | rp-address |
| Introduced | 22.10.R1 |
| Platforms | All |

### **source-address** *ipv4-address*

| | |
|---|---|
| Synopsis | Source address used to trace events |
| Context | debug router *string* msdp sa-db source-address *ipv4-address* |
| Tree | source-address |
| Introduced | 22.10.R1 |
| Platforms | All |

### **mtrace**

| | |
|---|---|
| Synopsis | Enter the **mtrace** context |
| Context | debug router *string* mtrace |
| Tree | mtrace |
| Introduced | 22.10.R1 |
| Platforms | All |

### **miscellaneous**

| | |
|---|---|
| Synopsis | Enable the **miscellaneous** context |


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| | |
|---|---|
| Context | debug router *string* mtrace miscellaneous |
| Tree | miscellaneous |
| Introduced | 22.10.R1 |
| Platforms | All |

## packet

| | |
|---|---|
| Synopsis | Enable the **packet** context |
| Context | debug router *string* mtrace packet |
| Tree | packet |
| Introduced | 22.10.R1 |
| Platforms | All |

## all-packet-types

| | |
|---|---|
| Synopsis | Enable debugging for all packets |
| Context | debug router *string* mtrace packet all-packet-types |
| Tree | all-packet-types |
| Notes | The following elements are part of a choice: **all-packet-types** or **packet-types**. |
| Introduced | 22.10.R1 |
| Platforms | All |

## packet-types

| | |
|---|---|
| Synopsis | Enter the **packet-types** context |
| Context | debug router *string* mtrace packet packet-types |
| Tree | packet-types |
| Notes | The following elements are part of a choice: **all-packet-types** or **packet-types**. |
| Introduced | 22.10.R1 |
| Platforms | All |

## query *boolean*

| | |
|---|---|
| Synopsis | Debug query packets |
| Context | debug router *string* mtrace packet packet-types query *boolean* |


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| | |
|---|---|
| Tree | query |
| Default | false |
| Introduced | 22.10.R1 |
| Platforms | All |

### **request** *boolean*

| | |
|---|---|
| Synopsis | Debug request packets |
| Context | debug router *string* mtrace packet packet-types request *boolean* |
| Tree | request |
| Default | false |
| Introduced | 22.10.R1 |
| Platforms | All |

### **response** *boolean*

| | |
|---|---|
| Synopsis | Debug response packets |
| Context | debug router *string* mtrace packet packet-types response *boolean* |
| Tree | response |
| Default | false |
| Introduced | 22.10.R1 |
| Platforms | All |

### **mtrace2**

| | |
|---|---|
| Synopsis | Enter the **mtrace2** context |
| Context | debug router *string* mtrace2 |
| Tree | mtrace2 |
| Introduced | 22.10.R1 |
| Platforms | All |

### **miscellaneous**

| | |
|---|---|
| Synopsis | Enable the **miscellaneous** context |
| Context | debug router *string* mtrace2 miscellaneous |


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| | |
|---|---|
| Tree | miscellaneous |
| Introduced | 22.10.R1 |
| Platforms | All |

## packet

| | |
|---|---|
| Synopsis | Enable the **packet** context |
| Context | debug router *string* mtrace2 packet |
| Tree | packet |
| Introduced | 22.10.R1 |
| Platforms | All |

## all-packet-types

| | |
|---|---|
| Synopsis | Enable debugging for all packets |
| Context | debug router *string* mtrace2 packet all-packet-types |
| Tree | all-packet-types |
| Notes | The following elements are part of a choice: **all-packet-types** or **packet-types**. |
| Introduced | 22.10.R1 |
| Platforms | All |

## packet-types

| | |
|---|---|
| Synopsis | Enter the **packet-types** context |
| Context | debug router *string* mtrace2 packet packet-types |
| Tree | packet-types |
| Notes | The following elements are part of a choice: **all-packet-types** or **packet-types**. |
| Introduced | 22.10.R1 |
| Platforms | All |

## query *boolean*

| | |
|---|---|
| Synopsis | Debug query packets |
| Context | debug router *string* mtrace2 packet packet-types query *boolean* |
| Tree | query |


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| | |
|---|---|
| Default | false |
| Introduced | 22.10.R1 |
| Platforms | All |

### **request** *boolean*

| | |
|---|---|
| Synopsis | Debug request packets |
| Context | debug router *string* mtrace2 packet packet-types request *boolean* |
| Tree | request |
| Default | false |
| Introduced | 22.10.R1 |
| Platforms | All |

### **response** *boolean*

| | |
|---|---|
| Synopsis | Debug response packets |
| Context | debug router *string* mtrace2 packet packet-types response *boolean* |
| Tree | response |
| Default | false |
| Introduced | 22.10.R1 |
| Platforms | All |

### **ospf** [ospf-instance] *number*

| | |
|---|---|
| Synopsis | Enter the **ospf** list instance |
| Context | debug router *string* ospf *number* |
| Tree | ospf |
| Description | Commands in this context configure debugging for OSPF. |
| Introduced | 24.7.R1 |
| Platforms | All |

### [**ospf-instance**] *number*

| | |
|---|---|
| Synopsis | OSPF ID |
| Context | debug router *string* ospf *number* |


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| | |
|---|---|
| Tree | ospf |
| Max. range | 0 to 4294967295 |
| Notes | This element is part of a list key. |
| Introduced | 24.7.R1 |
| Platforms | All |

## area

| | |
|---|---|
| Synopsis | Enable the **area** context |
| Context | debug router *string* ospf *number* area |
| Tree | area |
| Description | Commands in this context configure debugging for an OSPF area. |
| Introduced | 24.7.R1 |
| Platforms | All |

## all

| | |
|---|---|
| Synopsis | Debug all OSPF areas |
| Context | debug router *string* ospf *number* area all |
| Tree | all |
| Notes | The following elements are part of a choice: **all** or **area-id**. |
| Introduced | 24.7.R1 |
| Platforms | All |

## area-id *ipv4-address*

| | |
|---|---|
| Synopsis | OSPF area ID |
| Context | debug router *string* ospf *number* area area-id *ipv4-address* |
| Tree | area-id |
| Notes | The following elements are part of a choice: **all** or **area-id**. |
| Introduced | 24.7.R1 |
| Platforms | All |


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### area-range

| | |
|---|---|
| Synopsis | Enable the **area-range** context |
| Context | debug router *string* ospf *number* area-range |
| Tree | area-range |
| Description | Commands in this context configure debugging for an OSPF area range. |
| Introduced | 24.7.R1 |
| Platforms | All |

### all

| | |
|---|---|
| Synopsis | Debug all OSPF area ranges |
| Context | debug router *string* ospf *number* area-range all |
| Tree | all |
| Notes | The following elements are part of a choice: **all** or **range-address**. |
| Introduced | 24.7.R1 |
| Platforms | All |

### range-address *ipv4-address*

| | |
|---|---|
| Synopsis | OSPF area range address |
| Context | debug router *string* ospf *number* area-range range-address *ipv4-address* |
| Tree | range-address |
| Notes | The following elements are part of a choice: **all** or **range-address**. |
| Introduced | 24.7.R1 |
| Platforms | All |

### cspf

| | |
|---|---|
| Synopsis | Enable the **cspf** context |
| Context | debug router *string* ospf *number* cspf |
| Tree | cspf |
| Description | Commands in this context configure debugging for an OSPF constraint-based SPF (CSPF). |
| Introduced | 24.7.R1 |


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| | |
|---|---|
| Platforms | All |

### all

| | |
|---|---|
| Synopsis | Debug all CSPFs |
| Context | debug router *string* ospf *number* cspf all |
| Tree | all |
| Notes | The following elements are part of a choice: **all** or **cspf-addr**. |
| Introduced | 24.7.R1 |
| Platforms | All |

### cspf-addr *ipv4-address*

| | |
|---|---|
| Synopsis | CSPF destination address |
| Context | debug router *string* ospf *number* cspf cspf-addr *ipv4-address* |
| Tree | cspf-addr |
| Notes | The following elements are part of a choice: **all** or **cspf-addr**. |
| Introduced | 24.7.R1 |
| Platforms | All |

### graceful-restart *boolean*

| | |
|---|---|
| Synopsis | Debug OSPF graceful restart |
| Context | debug router *string* ospf *number* graceful-restart *boolean* |
| Tree | graceful-restart |
| Default | false |
| Introduced | 24.7.R1 |
| Platforms | All |

### interface

| | |
|---|---|
| Synopsis | Enable the **interface** context |
| Context | debug router *string* ospf *number* interface |
| Tree | interface |
| Description | Commands in this context configure debugging for an OSPF interface. |


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| | |
|---|---|
| Introduced | 24.7.R1 |
| Platforms | All |

### **interface-ip-address** *ipv4-address*

| | |
|---|---|
| Synopsis | OSPF interface address |
| Context | debug router *string* ospf *number* interface interface-ip-address *ipv4-address* |
| Tree | interface-ip-address |
| Notes | The following elements are part of a choice: **interface-ip-address** or **interface-name**. |
| Introduced | 24.7.R1 |
| Platforms | All |

### **interface-name** *string*

| | |
|---|---|
| Synopsis | OSPF interface name |
| Context | debug router *string* ospf *number* interface interface-name *string* |
| Tree | interface-name |
| Notes | The following elements are part of a choice: **interface-ip-address** or **interface-name**. |
| Introduced | 24.7.R1 |
| Platforms | All |

### **leak**

| | |
|---|---|
| Synopsis | Enable the **leak** context |
| Context | debug router *string* ospf *number* leak |
| Tree | leak |
| Description | Commands in this context configure debugging for OSPF leaks. |
| Introduced | 24.7.R1 |
| Platforms | All |

### **all**

| | |
|---|---|
| Synopsis | Debug all external route leaks |
| Context | debug router *string* ospf *number* leak all |
| Tree | all |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **all** or **dest-addr**. |
| Introduced | 24.7.R1 |
| Platforms | All |

### **dest-addr** *ipv4-address*

| | |
|---|---|
| Synopsis | OSPF destination address |
| Context | debug router *string* ospf *number* leak dest-addr *ipv4-address* |
| Tree | dest-addr |
| Notes | The following elements are part of a choice: **all** or **dest-addr**. |
| Introduced | 24.7.R1 |
| Platforms | All |

### **lsdb**

| | |
|---|---|
| Synopsis | Enable the **lsdb** context |
| Context | debug router *string* ospf *number* lsdb |
| Tree | lsdb |
| Description | Commands in this context configure debugging for an OSPF link-state database (LSDB). |
| Introduced | 24.7.R1 |
| Platforms | All |

### **adv-rtr-id** *ipv4-address*

| | |
|---|---|
| Synopsis | LSDB advertising router ID |
| Context | debug router *string* ospf *number* lsdb adv-rtr-id *ipv4-address* |
| Tree | adv-rtr-id |
| Introduced | 24.7.R1 |
| Platforms | All |

### **area** *ipv4-address*

| | |
|---|---|
| Synopsis | LSDB area ID |
| Context | debug router *string* ospf *number* lsdb area *ipv4-address* |


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| | |
|---|---|
| Tree | area |
| Introduced | 24.7.R1 |
| Platforms | All |

### **ls-id** *ipv4-address*

| | |
|---|---|
| Synopsis | LSDB LS ID |
| Context | debug router *string* ospf *number* lsdb ls-id *ipv4-address* |
| Tree | ls-id |
| Introduced | 24.7.R1 |
| Platforms | All |

### **ls-type** *keyword*

| | |
|---|---|
| Synopsis | LSDB type |
| Context | debug router *string* ospf *number* lsdb ls-type *keyword* |
| Tree | ls-type |
| Options | router, network, summary, asbr, external, nssa, link-opaque, area-opaque, as-opaque |
| Introduced | 24.7.R1 |
| Platforms | All |

### **misc** *boolean*

| | |
|---|---|
| Synopsis | Debug OSPF miscellaneous events |
| Context | debug router *string* ospf *number* misc *boolean* |
| Tree | misc |
| Default | false |
| Introduced | 24.7.R1 |
| Platforms | All |

### **neighbor**

| | |
|---|---|
| Synopsis | Enable the **neighbor** context |
| Context | debug router *string* ospf *number* neighbor |
| Tree | neighbor |


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| | |
|---|---|
| Description | Commands in this context configure debugging for an OSPF neighbor. |
| Introduced | 24.7.R1 |
| Platforms | All |

### **interface-ip-address** *ipv4-address*

| | |
|---|---|
| Synopsis | OSPF neighbor interface address |
| Context | debug router *string* ospf *number* neighbor interface-ip-address *ipv4-address* |
| Tree | interface-ip-address |
| Notes | The following elements are part of a choice: **interface-ip-address** or **interface-name**. |
| Introduced | 24.7.R1 |
| Platforms | All |

### **interface-name** *string*

| | |
|---|---|
| Synopsis | OSPF neighbor interface name |
| Context | debug router *string* ospf *number* neighbor interface-name *string* |
| Tree | interface-name |
| Notes | The following elements are part of a choice: **interface-ip-address** or **interface-name**. |
| Introduced | 24.7.R1 |
| Platforms | All |

### **nssa-range**

| | |
|---|---|
| Synopsis | Enable the **nssa-range** context |
| Context | debug router *string* ospf *number* nssa-range |
| Tree | nssa-range |
| Description | Commands in this context configure debugging for a Not-So-Stubby area (NSSA) range. |
| Introduced | 24.7.R1 |
| Platforms | All |

### **all**

| | |
|---|---|
| Synopsis | Debug all OSPF NSSA ranges |
| Context | debug router *string* ospf *number* nssa-range all |


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| | |
|---|---|
| Tree | all |
| Notes | The following elements are part of a choice: **all** or **range-address**. |
| Introduced | 24.7.R1 |
| Platforms | All |

### **range-address** *ipv4-address*

| | |
|---|---|
| Synopsis | OSPF NSSA range address |
| Context | debug router *string* ospf *number* nssa-range range-address *ipv4-address* |
| Tree | range-address |
| Notes | The following elements are part of a choice: **all** or **range-address**. |
| Introduced | 24.7.R1 |
| Platforms | All |

### **packet**

| | |
|---|---|
| Synopsis | Enable the **packet** context |
| Context | debug router *string* ospf *number* packet |
| Tree | packet |
| Description | Commands in this context configure debugging for OSPF packets. |
| Introduced | 24.7.R1 |
| Platforms | All |

### **detail** *boolean*

| | |
|---|---|
| Synopsis | Display detailed debug information |
| Context | debug router *string* ospf *number* packet detail *boolean* |
| Tree | detail |
| Introduced | 24.7.R1 |
| Platforms | All |

### **direction** *keyword*

| | |
|---|---|
| Synopsis | OSPF packet direction |
| Context | debug router *string* ospf *number* packet direction *keyword* |


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| | |
|---|---|
| Tree | direction |
| Options | both, ingress, egress, dropped |
| Default | both |
| Introduced | 24.7.R1 |
| Platforms | All |

### **interface-name** *string*

| | |
|---|---|
| Synopsis | Interface name |
| Context | debug router *string* ospf *number* packet interface-name *string* |
| Tree | interface-name |
| Introduced | 24.7.R1 |
| Platforms | All |

### **packet-type** *keyword*

| | |
|---|---|
| Synopsis | Packet type |
| Context | debug router *string* ospf *number* packet packet-type *keyword* |
| Tree | packet-type |
| Options | hello, db-description, ls-request, ls-update, ls-ack |
| Introduced | 24.7.R1 |
| Platforms | All |

### **rsvp-shortcut**

| | |
|---|---|
| Synopsis | Enable the **rsvp-shortcut** context |
| Context | debug router *string* ospf *number* rsvp-shortcut |
| Tree | rsvp-shortcut |
| Introduced | 24.7.R1 |
| Platforms | All |

### **all**

| | |
|---|---|
| Synopsis | Debug all RSVP shortcuts |
| Context | debug router *string* ospf *number* rsvp-shortcut all |


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| | |
|---|---|
| Tree | all |
| Notes | The following elements are part of a choice: **all** or **rsvp-ep**. |
| Introduced | 24.7.R1 |
| Platforms | All |

### **rsvp-ep** *ipv4-address*

| | |
|---|---|
| Synopsis | RSVP shortcut endpoint |
| Context | debug router *string* ospf *number* rsvp-shortcut rsvp-ep *ipv4-address* |
| Tree | rsvp-ep |
| Notes | The following elements are part of a choice: **all** or **rsvp-ep**. |
| Introduced | 24.7.R1 |
| Platforms | All |

### **rtm**

| | |
|---|---|
| Synopsis | Enable the **rtm** context |
| Context | debug router *string* ospf *number* rtm |
| Tree | rtm |
| Description | Commands in this context configure debugging for the OSPF Routing Table Manager (RTM). |
| Introduced | 24.7.R1 |
| Platforms | All |

### **all**

| | |
|---|---|
| Synopsis | Debug the RTM for all destinations |
| Context | debug router *string* ospf *number* rtm all |
| Tree | all |
| Notes | The following elements are part of a choice: **all** or **dest-addr**. |
| Introduced | 24.7.R1 |
| Platforms | All |


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### **dest-addr** *ipv4-address*

| | |
|---|---|
| Synopsis | RTM destination address |
| Context | debug router *string* ospf *number* rtm dest-addr *ipv4-address* |
| Tree | dest-addr |
| Notes | The following elements are part of a choice: **all** or **dest-addr**. |
| Introduced | 24.7.R1 |
| Platforms | All |

### **sham-neighbor**

| | |
|---|---|
| Synopsis | Enable the **sham-neighbor** context |
| Context | debug router *string* ospf *number* sham-neighbor |
| Tree | sham-neighbor |
| Introduced | 24.7.R1 |
| Platforms | All |

### **all**

| | |
|---|---|
| Synopsis | Debug the shamlink neighbor for all addresses |
| Context | debug router *string* ospf *number* sham-neighbor all |
| Tree | all |
| Notes | The following elements are part of a choice: **all** or **dest-addr**. |
| Introduced | 24.7.R1 |
| Platforms | All |

### **dest-addr** *ipv4-address*

| | |
|---|---|
| Synopsis | Shamlink neighbor address |
| Context | debug router *string* ospf *number* sham-neighbor dest-addr *ipv4-address* |
| Tree | dest-addr |
| Notes | The following elements are part of a choice: **all** or **dest-addr**. |
| Introduced | 24.7.R1 |
| Platforms | All |


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## spf

| | |
|---|---|
| Synopsis | Enable the **spf** context |
| Context | debug router *string* ospf *number* spf |
| Tree | spf |
| Description | Commands in this context configure debugging for OSPF SPF. Debug information about overall SPF start and stop times are shown. To view detailed information about calculating the SPF of a specific route, the route must be specified as an optional argument. |
| Introduced | 24.7.R1 |
| Platforms | All |

## all

| | |
|---|---|
| Synopsis | Debug the SPF for any destination address |
| Context | debug router *string* ospf *number* spf all |
| Tree | all |
| Notes | The following elements are part of a choice: **all** or **destination-address**. |
| Introduced | 24.7.R1 |
| Platforms | All |

## destination-address *ipv4-address*

| | |
|---|---|
| Synopsis | OSPF SPF destination address |
| Context | debug router *string* ospf *number* spf destination-address *ipv4-address* |
| Tree | destination-address |
| Notes | The following elements are part of a choice: **all** or **destination-address**. |
| Introduced | 24.7.R1 |
| Platforms | All |

## type *keyword*

| | |
|---|---|
| Synopsis | OSPF SPF type |
| Context | debug router *string* ospf *number* spf type *keyword* |
| Tree | type |
| Options | intra-area, inter-area, external |


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| | |
|---|---|
| Introduced | 24.7.R1 |
| Platforms | All |

## tunnel-endpoint

| | |
|---|---|
| Synopsis | Enter the **tunnel-endpoint** context |
| Context | debug router *string* ospf *number* tunnel-endpoint |
| Tree | tunnel-endpoint |
| Description | Commands in this context configure debugging for an OSPF tunnel endpoint. |
| Introduced | 24.7.R1 |
| Platforms | All |

## leak

| | |
|---|---|
| Synopsis | Enable the **leak** context |
| Context | debug router *string* ospf *number* tunnel-endpoint leak |
| Tree | leak |
| Description | Commands in this context configure debugging for OSPF tunnel-endpoint leaks. |
| Introduced | 24.7.R1 |
| Platforms | All |

## all

| | |
|---|---|
| Synopsis | Debug OSPF leaked tunnels for all tunnel endpoints |
| Context | debug router *string* ospf *number* tunnel-endpoint leak all |
| Tree | all |
| Notes | The following elements are part of a choice: **all** or **tunnel-endpoint**. |
| Introduced | 24.7.R1 |
| Platforms | All |

## tunnel-endpoint *ipv4-address*

| | |
|---|---|
| Synopsis | OSPF leaked tunnel endpoint |
| Context | debug router *string* ospf *number* tunnel-endpoint leak tunnel-endpoint *ipv4-address* |
| Tree | tunnel-endpoint |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **all** or **tunnel-endpoint**. |
| Introduced | 24.7.R1 |
| Platforms | All |

## spf

| | |
|---|---|
| Synopsis | Enable the **spf** context |
| Context | debug router *string* ospf *number* tunnel-endpoint spf |
| Tree | spf |
| Introduced | 24.7.R1 |
| Platforms | All |

## all

| | |
|---|---|
| Synopsis | Debug SPF for all tunnel-endpoint destination addresses |
| Context | debug router *string* ospf *number* tunnel-endpoint spf all |
| Tree | all |
| Notes | The following elements are part of a choice: **all** or **spf-endpoint**. |
| Introduced | 24.7.R1 |
| Platforms | All |

## spf-endpoint *ipv4-address*

| | |
|---|---|
| Synopsis | SPF tunnel-endpoint destination address |
| Context | debug router *string* ospf *number* tunnel-endpoint spf spf-endpoint *ipv4-address* |
| Tree | spf-endpoint |
| Notes | The following elements are part of a choice: **all** or **spf-endpoint**. |
| Introduced | 24.7.R1 |
| Platforms | All |

## virtual-neighbor

| | |
|---|---|
| Synopsis | Enable the **virtual-neighbor** context |
| Context | debug router *string* ospf *number* virtual-neighbor |
| Tree | virtual-neighbor |


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| | |
|---|---|
| Description | Commands in this context configure debugging for an OSPF virtual neighbor. |
| Introduced | 24.7.R1 |
| Platforms | All |

### **all**

| | |
|---|---|
| Synopsis | Debug the virtual neighbor for all router IDs |
| Context | debug router *string* ospf *number* virtual-neighbor all |
| Tree | all |
| Notes | The following elements are part of a choice: **all** or **neighbor-id**. |
| Introduced | 24.7.R1 |
| Platforms | All |

### **neighbor-id** *ipv4-address*

| | |
|---|---|
| Synopsis | Virtual neighbor router ID |
| Context | debug router *string* ospf *number* virtual-neighbor neighbor-id *ipv4-address* |
| Tree | neighbor-id |
| Notes | The following elements are part of a choice: **all** or **neighbor-id**. |
| Introduced | 24.7.R1 |
| Platforms | All |

### **ospf3** [ospf-instance] *number*

| | |
|---|---|
| Synopsis | Enter the **ospf3** list instance |
| Context | debug router *string* ospf3 *number* |
| Tree | ospf3 |
| Description | Commands in this context configure debugging for OSPF3. |
| Introduced | 24.7.R1 |
| Platforms | All |

### [**ospf-instance**] *number*

| | |
|---|---|
| Synopsis | OSPF3 ID |
| Context | debug router *string* ospf3 *number* |


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| | |
|---|---|
| Tree | ospf3 |
| Max. range | 0 to 4294967295 |
| Notes | This element is part of a list key. |
| Introduced | 24.7.R1 |
| Platforms | All |

## area

| | |
|---|---|
| Synopsis | Enable the **area** context |
| Context | debug router *string* ospf3 *number* area |
| Tree | area |
| Description | Commands in this context configure debugging for an OSPF3 area. |
| Introduced | 24.7.R1 |
| Platforms | All |

## all

| | |
|---|---|
| Synopsis | Debug all OSPF3 areas |
| Context | debug router *string* ospf3 *number* area all |
| Tree | all |
| Notes | The following elements are part of a choice: **all** or **area-id**. |
| Introduced | 24.7.R1 |
| Platforms | All |

## area-id *ipv4-address*

| | |
|---|---|
| Synopsis | OSPF3 area ID |
| Context | debug router *string* ospf3 *number* area area-id *ipv4-address* |
| Tree | area-id |
| Notes | The following elements are part of a choice: **all** or **area-id**. |
| Introduced | 24.7.R1 |
| Platforms | All |


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### area-range

| | |
|---|---|
| Synopsis | Enable the **area-range** context |
| Context | debug router *string* ospf3 *number* area-range |
| Tree | area-range |
| Description | Commands in this context configure debugging for an OSPF3 area range. |
| Introduced | 24.7.R1 |
| Platforms | All |

### all

| | |
|---|---|
| Synopsis | Debug all OSPF3 area ranges |
| Context | debug router *string* ospf3 *number* area-range all |
| Tree | all |
| Notes | The following elements are part of a choice: **all** or **range-address**. |
| Introduced | 24.7.R1 |
| Platforms | All |

### range-address *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | OSPF3 area range address |
| Context | debug router *string* ospf3 *number* area-range range-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | range-address |
| Notes | The following elements are part of a choice: **all** or **range-address**. |
| Introduced | 24.7.R1 |
| Platforms | All |

### graceful-restart *boolean*

| | |
|---|---|
| Synopsis | Debug OSPF graceful restart |
| Context | debug router *string* ospf3 *number* graceful-restart *boolean* |
| Tree | graceful-restart |
| Default | false |
| Introduced | 24.7.R1 |


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| | |
|---|---|
| Platforms | All |

## interface

| | |
|---|---|
| Synopsis | Enable the **interface** context |
| Context | debug router *string* ospf3 *number* interface |
| Tree | interface |
| Description | Commands in this context configure debugging for an OSPF3 interface. |
| Introduced | 24.7.R1 |
| Platforms | All |

## all

| | |
|---|---|
| Synopsis | Debug all OSPF3 interfaces |
| Context | debug router *string* ospf3 *number* interface all |
| Tree | all |
| Notes | The following elements are part of a choice: **all** or **interface-name**. |
| Introduced | 24.7.R1 |
| Platforms | All |

## interface-name *string*

| | |
|---|---|
| Synopsis | OSPF3 interface name |
| Context | debug router *string* ospf3 *number* interface interface-name *string* |
| Tree | interface-name |
| Notes | The following elements are part of a choice: **all** or **interface-name**. |
| Introduced | 24.7.R1 |
| Platforms | All |

## leak

| | |
|---|---|
| Synopsis | Enable the **leak** context |
| Context | debug router *string* ospf3 *number* leak |
| Tree | leak |
| Description | Commands in this context configure debugging for OSPF3 leaks. |


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| | |
|---|---|
| Introduced | 24.7.R1 |
| Platforms | All |

### all

| | |
|---|---|
| Synopsis | Debug all external route leaks |
| Context | debug router *string* ospf3 *number* leak all |
| Tree | all |
| Notes | The following elements are part of a choice: **all** or **dest-addr**. |
| Introduced | 24.7.R1 |
| Platforms | All |

### dest-addr *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | OSPF3 destination address |
| Context | debug router *string* ospf3 *number* leak dest-addr *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | dest-addr |
| Notes | The following elements are part of a choice: **all** or **dest-addr**. |
| Introduced | 24.7.R1 |
| Platforms | All |

### lsdb

| | |
|---|---|
| Synopsis | Enable the **lsdb** context |
| Context | debug router *string* ospf3 *number* lsdb |
| Tree | lsdb |
| Description | Commands in this context configure debugging for an OSPF3 LSDB. |
| Introduced | 24.7.R1 |
| Platforms | All |

### adv-rtr-id *ipv4-address*

| | |
|---|---|
| Synopsis | LSDB advertising router ID |
| Context | debug router *string* ospf3 *number* lsdb adv-rtr-id *ipv4-address* |


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| | |
|---|---|
| Tree | adv-rtr-id |
| Introduced | 24.7.R1 |
| Platforms | All |

### **area** *ipv4-address*

| | |
|---|---|
| Synopsis | LSDB area ID |
| Context | debug router *string* ospf3 *number* lsdb area *ipv4-address* |
| Tree | area |
| Introduced | 24.7.R1 |
| Platforms | All |

### **ls-id** *ipv4-address*

| | |
|---|---|
| Synopsis | LSDB LS ID |
| Context | debug router *string* ospf3 *number* lsdb ls-id *ipv4-address* |
| Tree | ls-id |
| Introduced | 24.7.R1 |
| Platforms | All |

### **ls-type** *keyword*

| | |
|---|---|
| Synopsis | LSDB type |
| Context | debug router *string* ospf3 *number* lsdb ls-type *keyword* |
| Tree | ls-type |
| Options | router, network, inter-area-pfx, inter-area-rtr, nssa, intra-area-pfx, external, rtr-info-link, rtr-info-area, rtr-info-as |
| Introduced | 24.7.R1 |
| Platforms | All |

### **misc** *boolean*

| | |
|---|---|
| Synopsis | Debug OSPF miscellaneous events |
| Context | debug router *string* ospf3 *number* misc *boolean* |
| Tree | misc |
| Default | false |


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| | |
|---|---|
| Introduced | 24.7.R1 |
| Platforms | All |

## neighbor

| | |
|---|---|
| Synopsis | Enable the **neighbor** context |
| Context | debug router *string* ospf3 *number* neighbor |
| Tree | neighbor |
| Description | Commands in this context configure debugging for an OSPF3 neighbor. |
| Introduced | 24.7.R1 |
| Platforms | All |

## interface-name *string*

| | |
|---|---|
| Synopsis | OSPF3 neighbor interface name |
| Context | debug router *string* ospf3 *number* neighbor interface-name *string* |
| Tree | interface-name |
| Notes | The following elements are part of a choice: **interface-name** or **router-id**. |
| Introduced | 24.7.R1 |
| Platforms | All |

## router-id *ipv4-address*

| | |
|---|---|
| Synopsis | OSPF3 interface router ID |
| Context | debug router *string* ospf3 *number* neighbor router-id *ipv4-address* |
| Tree | router-id |
| Notes | The following elements are part of a choice: **interface-name** or **router-id**. |
| Introduced | 24.7.R1 |
| Platforms | All |

## nssa-range

| | |
|---|---|
| Synopsis | Enable the **nssa-range** context |
| Context | debug router *string* ospf3 *number* nssa-range |
| Tree | nssa-range |


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| | |
|---|---|
| Description | Commands in this context configure debugging for an NSSA range. |
| Introduced | 24.7.R1 |
| Platforms | All |

### all

| | |
|---|---|
| Synopsis | Debug all OSPF3 NSSA ranges |
| Context | debug router *string* ospf3 *number* nssa-range all |
| Tree | all |
| Notes | The following elements are part of a choice: **all** or **range-address**. |
| Introduced | 24.7.R1 |
| Platforms | All |

### range-address *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | OSPF3 NSSA range address |
| Context | debug router *string* ospf3 *number* nssa-range range-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | range-address |
| Notes | The following elements are part of a choice: **all** or **range-address**. |
| Introduced | 24.7.R1 |
| Platforms | All |

### packet

| | |
|---|---|
| Synopsis | Enable the **packet** context |
| Context | debug router *string* ospf3 *number* packet |
| Tree | packet |
| Description | Commands in this context configure debugging for OSPF3 packets. |
| Introduced | 24.7.R1 |
| Platforms | All |

### detail *boolean*

| | |
|---|---|
| Synopsis | Display detailed debug information |


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| | |
|---|---|
| Context | debug router *string* ospf3 *number* packet detail *boolean* |
| Tree | detail |
| Introduced | 24.7.R1 |
| Platforms | All |

### **direction** *keyword*

| | |
|---|---|
| Synopsis | OSPF3 packet direction |
| Context | debug router *string* ospf3 *number* packet direction *keyword* |
| Tree | direction |
| Options | both, ingress, egress, dropped |
| Default | both |
| Introduced | 24.7.R1 |
| Platforms | All |

### **interface-name** *string*

| | |
|---|---|
| Synopsis | Interface name |
| Context | debug router *string* ospf3 *number* packet interface-name *string* |
| Tree | interface-name |
| Introduced | 24.7.R1 |
| Platforms | All |

### **packet-type** *keyword*

| | |
|---|---|
| Synopsis | Packet type |
| Context | debug router *string* ospf3 *number* packet packet-type *keyword* |
| Tree | packet-type |
| Options | hello, db-description, ls-request, ls-update, ls-ack |
| Introduced | 24.7.R1 |
| Platforms | All |

### **rtm**

| | |
|---|---|
| Synopsis | Enable the **rtm** context |


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| | |
|---|---|
| Context | debug router *string* ospf3 *number* rtm |
| Tree | rtm |
| Description | Commands in this context configure debugging for the OSPF3 RTM. |
| Introduced | 24.7.R1 |
| Platforms | All |

## all

| | |
|---|---|
| Synopsis | Debug the RTM for all destinations |
| Context | debug router *string* ospf3 *number* rtm all |
| Tree | all |
| Notes | The following elements are part of a choice: **all** or **dest-addr**. |
| Introduced | 24.7.R1 |
| Platforms | All |

## dest-addr *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | RTM destination address |
| Context | debug router *string* ospf3 *number* rtm dest-addr *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | dest-addr |
| Notes | The following elements are part of a choice: **all** or **dest-addr**. |
| Introduced | 24.7.R1 |
| Platforms | All |

## spf

| | |
|---|---|
| Synopsis | Enable the **spf** context |
| Context | debug router *string* ospf3 *number* spf |
| Tree | spf |
| Description | Commands in this context configure debugging for OSPF3 SPF. Debug information about overall SPF start and stop times are shown. To view detailed information about calculating the SPF of a specific route, the route must be specified as an optional argument. |
| Introduced | 24.7.R1 |
| Platforms | All |


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### all

| | |
|---|---|
| Synopsis | Debug the SPF for all destination addresses |
| Context | debug router *string* ospf3 *number* spf all |
| Tree | all |
| Notes | The following elements are part of a choice: **all** or **destination-address**. |
| Introduced | 24.7.R1 |
| Platforms | All |

### destination-address *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | OSPF3 SPF destination address |
| Context | debug router *string* ospf3 *number* spf destination-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | destination-address |
| Notes | The following elements are part of a choice: **all** or **destination-address**. |
| Introduced | 24.7.R1 |
| Platforms | All |

### type *keyword*

| | |
|---|---|
| Synopsis | OSPF3 SPF type |
| Context | debug router *string* ospf3 *number* spf type *keyword* |
| Tree | type |
| Options | intra-area, inter-area, external |
| Introduced | 24.7.R1 |
| Platforms | All |

### tunnel-endpoint

| | |
|---|---|
| Synopsis | Enter the **tunnel-endpoint** context |
| Context | debug router *string* ospf3 *number* tunnel-endpoint |
| Tree | tunnel-endpoint |
| Description | Commands in this context configure debugging for an OSPF3 tunnel endpoint. |
| Introduced | 24.7.R1 |


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| | |
|---|---|
| Platforms | All |

## leak

| | |
|---|---|
| Synopsis | Enable the **leak** context |
| Context | debug router *string* ospf3 *number* tunnel-endpoint leak |
| Tree | leak |
| Description | Commands in this context configure debugging for OSPF3 tunnel-endpoint leaks. |
| Introduced | 24.7.R1 |
| Platforms | All |

## all

| | |
|---|---|
| Synopsis | Debug OSPF3 leaked tunnels for all tunnel endpoints |
| Context | debug router *string* ospf3 *number* tunnel-endpoint leak all |
| Tree | all |
| Notes | The following elements are part of a choice: **all** or **tunnel-endpoint**. |
| Introduced | 24.7.R1 |
| Platforms | All |

## tunnel-endpoint *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | OSPF3 leaked tunnel endpoint |
| Context | debug router *string* ospf3 *number* tunnel-endpoint leak tunnel-endpoint *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | tunnel-endpoint |
| Notes | The following elements are part of a choice: **all** or **tunnel-endpoint**. |
| Introduced | 24.7.R1 |
| Platforms | All |

## spf

| | |
|---|---|
| Synopsis | Enable the **spf** context |
| Context | debug router *string* ospf3 *number* tunnel-endpoint spf |
| Tree | spf |


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| | |
|---|---|
| Introduced | 24.7.R1 |
| Platforms | All |

### all

| | |
|---|---|
| Synopsis | Debug SPF for all tunnel-endpoint destination addresses |
| Context | debug router *string* ospf3 *number* tunnel-endpoint spf all |
| Tree | all |
| Notes | The following elements are part of a choice: **all** or **spf-endpoint**. |
| Introduced | 24.7.R1 |
| Platforms | All |

### spf-endpoint *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | SPF tunnel-endpoint destination address |
| Context | debug router *string* ospf3 *number* tunnel-endpoint spf spf-endpoint *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | spf-endpoint |
| Notes | The following elements are part of a choice: **all** or **spf-endpoint**. |
| Introduced | 24.7.R1 |
| Platforms | All |

### virtual-neighbor

| | |
|---|---|
| Synopsis | Enable the **virtual-neighbor** context |
| Context | debug router *string* ospf3 *number* virtual-neighbor |
| Tree | virtual-neighbor |
| Description | Commands in this context configure debugging for an OSPF3 virtual neighbor. |
| Introduced | 24.7.R1 |
| Platforms | All |

### all

| | |
|---|---|
| Synopsis | Debug the virtual neighbor for all router IDs |
| Context | debug router *string* ospf3 *number* virtual-neighbor all |


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| | |
|---|---|
| Tree | all |
| Notes | The following elements are part of a choice: **all** or **neighbor-id**. |
| Introduced | 24.7.R1 |
| Platforms | All |

### **neighbor-id** *ipv4-address*

| | |
|---|---|
| Synopsis | Virtual neighbor router ID |
| Context | debug router *string* ospf3 *number* virtual-neighbor neighbor-id *ipv4-address* |
| Tree | neighbor-id |
| Notes | The following elements are part of a choice: **all** or **neighbor-id**. |
| Introduced | 24.7.R1 |
| Platforms | All |

### **pim**

| | |
|---|---|
| Synopsis | Enter the **pim** context |
| Context | debug router *string* pim |
| Tree | pim |
| Introduced | 22.10.R1 |
| Platforms | All |

### **events**

| | |
|---|---|
| Synopsis | Enable the **events** context |
| Context | debug router *string* pim events |
| Tree | events |
| Introduced | 22.10.R1 |
| Platforms | All |

### **adjacency**

| | |
|---|---|
| Synopsis | Enable the **adjacency** context |
| Context | debug router *string* pim events adjacency |
| Tree | adjacency |


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| | |
|---|---|
| Notes | The following elements are part of a choice: (**adjacency**, **assert**, **auto-rp**, **bgp**, **bier-inband**, **bsr**, **data**, **db**, **dynmldp**, **extranet**, **graft**, **interface**, **jp**, **mofrr**, **mrib**, **msg**, **mvpn-rtcache**, **red**, **register**, **rpfv**, **rtm**, **s-pmsi**, and **tunnel-interface**) or **all**. |
| Introduced | 22.10.R1 |
| Platforms | All |

## all

| | |
|---|---|
| Synopsis | Enable the **all** context |
| Context | debug router *string* pim events all |
| Tree | all |
| Notes | The following elements are part of a choice: (**adjacency**, **assert**, **auto-rp**, **bgp**, **bier-inband**, **bsr**, **data**, **db**, **dynmldp**, **extranet**, **graft**, **interface**, **jp**, **mofrr**, **mrib**, **msg**, **mvpn-rtcache**, **red**, **register**, **rpfv**, **rtm**, **s-pmsi**, and **tunnel-interface**) or **all**. |
| Introduced | 22.10.R1 |
| Platforms | All |

## detail *boolean*

| | |
|---|---|
| Synopsis | Enable detail tracing |
| Context | debug router *string* pim events all detail *boolean* |
| Tree | detail |
| Default | false |
| Introduced | 22.10.R1 |
| Platforms | All |

## group-address *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP multicast group address used to trace events |
| Context | debug router *string* pim events all group-address *(ipv4-address-no-zone | ipv6-address-no-zone)* |
| Tree | group-address |
| Introduced | 22.10.R1 |
| Platforms | All |


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### **source-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source address used to trace events |
| Context | debug router *string* pim events all source-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | source-address |
| Introduced | 22.10.R1 |
| Platforms | All |

### **assert**

| | |
|---|---|
| Synopsis | Enable the **assert** context |
| Context | debug router *string* pim events assert |
| Tree | assert |
| Notes | The following elements are part of a choice: (**adjacency**, **assert**, **auto-rp**, **bgp**, **bier-inband**, **bsr**, **data**, **db**, **dynmldp**, **extranet**, **graft**, **interface**, **jp**, **mofrr**, **mrib**, **msg**, **mvpn-rtcache**, **red**, **register**, **rpfv**, **rtm**, **s-pmsi**, and **tunnel-interface**) or **all**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **detail** *boolean*

| | |
|---|---|
| Synopsis | Enable detail tracing |
| Context | debug router *string* pim events assert detail *boolean* |
| Tree | detail |
| Default | false |
| Introduced | 22.10.R1 |
| Platforms | All |

### **group-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP multicast group address used to trace events |
| Context | debug router *string* pim events assert group-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | group-address |
| Introduced | 22.10.R1 |


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| | |
|---|---|
| Platforms | All |

### **source-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source address used to trace events |
| Context | debug router *string* pim events assert source-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | source-address |
| Introduced | 22.10.R1 |
| Platforms | All |

### **auto-rp**

| | |
|---|---|
| Synopsis | Enable the **auto-rp** context |
| Context | debug router *string* pim events auto-rp |
| Tree | auto-rp |
| Notes | The following elements are part of a choice: (**adjacency**, **assert**, **auto-rp**, **bgp**, **bier-inband**, **bsr**, **data**, **db**, **dynmldp**, **extranet**, **graft**, **interface**, **jp**, **mofrr**, **mrib**, **msg**, **mvpn-rtcache**, **red**, **register**, **rpfv**, **rtm**, **s-pmsi**, and **tunnel-interface**) or **all**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **bgp**

| | |
|---|---|
| Synopsis | Enable the **bgp** context |
| Context | debug router *string* pim events bgp |
| Tree | bgp |
| Notes | The following elements are part of a choice: (**adjacency**, **assert**, **auto-rp**, **bgp**, **bier-inband**, **bsr**, **data**, **db**, **dynmldp**, **extranet**, **graft**, **interface**, **jp**, **mofrr**, **mrib**, **msg**, **mvpn-rtcache**, **red**, **register**, **rpfv**, **rtm**, **s-pmsi**, and **tunnel-interface**) or **all**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **group-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP multicast group address used to trace events |


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| | |
|---|---|
| Context | debug router *string* pim events bgp group-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | group-address |
| Introduced | 22.10.R1 |
| Platforms | All |

### **peer-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | BGP peer address used to trace events |
| Context | debug router *string* pim events bgp peer-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | peer-address |
| Introduced | 22.10.R1 |
| Platforms | All |

### **source-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source address used to trace events |
| Context | debug router *string* pim events bgp source-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | source-address |
| Introduced | 22.10.R1 |
| Platforms | All |

### **bier-inband**

| | |
|---|---|
| Synopsis | Enable the **bier-inband** context |
| Context | debug router *string* pim events bier-inband |
| Tree | bier-inband |
| Notes | The following elements are part of a choice: (**adjacency**, **assert**, **auto-rp**, **bgp**, **bier-inband**, **bsr**, **data**, **db**, **dynmldp**, **extranet**, **graft**, **interface**, **jp**, **mofrr**, **mrib**, **msg**, **mvpn-rtcache**, **red**, **register**, **rpfv**, **rtm**, **s-pmsi**, and **tunnel-interface**) or **all**. |
| Introduced | 22.10.R1 |
| Platforms | All |


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### **detail** *boolean*

| | |
|---|---|
| Synopsis | Enable detail tracing |
| Context | debug router *string* pim events bier-inband detail *boolean* |
| Tree | detail |
| Default | false |
| Introduced | 22.10.R1 |
| Platforms | All |

### **bsr**

| | |
|---|---|
| Synopsis | Enable the **bsr** context |
| Context | debug router *string* pim events bsr |
| Tree | bsr |
| Description | Commands in this context enable debugging for the PIM bootstrap mechanism. |
| Notes | The following elements are part of a choice: (**adjacency**, **assert**, **auto-rp**, **bgp**, **bier-inband**, **bsr**, **data**, **db**, **dynmldp**, **extranet**, **graft**, **interface**, **jp**, **mofrr**, **mrib**, **msg**, **mvpn-rtcache**, **red**, **register**, **rpfv**, **rtm**, **s-pmsi**, and **tunnel-interface**) or **all**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **detail** *boolean*

| | |
|---|---|
| Synopsis | Enable detail tracing |
| Context | debug router *string* pim events bsr detail *boolean* |
| Tree | detail |
| Default | false |
| Introduced | 22.10.R1 |
| Platforms | All |

### **data**

| | |
|---|---|
| Synopsis | Enable the **data** context |
| Context | debug router *string* pim events data |
| Tree | data |


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| | |
|---|---|
| Description | Commands in this context enable PIM data exception debugging. |
| Notes | The following elements are part of a choice: (**adjacency**, **assert**, **auto-rp**, **bgp**, **bier-inband**, **bsr**, **data**, **db**, **dynmldp**, **extranet**, **graft**, **interface**, **jp**, **mofrr**, **mrib**, **msg**, **mvpn-rtcache**, **red**, **register**, **rpfv**, **rtm**, **s-pmsi**, and **tunnel-interface**) or **all**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **detail** *boolean*

| | |
|---|---|
| Synopsis | Enable detail tracing |
| Context | debug router *string* pim events data detail *boolean* |
| Tree | detail |
| Default | false |
| Introduced | 22.10.R1 |
| Platforms | All |

### **group-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP multicast group address used to trace events |
| Context | debug router *string* pim events data group-address *(ipv4-address-no-zone | ipv6-address-no-zone)* |
| Tree | group-address |
| Introduced | 22.10.R1 |
| Platforms | All |

### **source-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source address used to trace events |
| Context | debug router *string* pim events data source-address *(ipv4-address-no-zone | ipv6-address-no-zone)* |
| Tree | source-address |
| Introduced | 22.10.R1 |
| Platforms | All |


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## db

| | |
|---|---|
| Synopsis | Enable the **db** context |
| Context | debug router *string* pim events db |
| Tree | db |
| Description | Commands in this context enable PIM database debugging. |
| Notes | The following elements are part of a choice: (**adjacency**, **assert**, **auto-rp**, **bgp**, **bier-inband**, **bsr**, **data**, **db**, **dynmldp**, **extranet**, **graft**, **interface**, **jp**, **mofrr**, **mrib**, **msg**, **mvpn-rtcache**, **red**, **register**, **rpfv**, **rtm**, **s-pmsi**, and **tunnel-interface**) or **all**. |
| Introduced | 22.10.R1 |
| Platforms | All |

## detail *boolean*

| | |
|---|---|
| Synopsis | Enable detail tracing |
| Context | debug router *string* pim events db detail *boolean* |
| Tree | detail |
| Default | false |
| Introduced | 22.10.R1 |
| Platforms | All |

## group-address *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP multicast group address used to trace events |
| Context | debug router *string* pim events db group-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | group-address |
| Introduced | 22.10.R1 |
| Platforms | All |

## source-address *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source address used to trace events |
| Context | debug router *string* pim events db source-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | source-address |


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| | |
|---|---|
| Introduced | 22.10.R1 |
| Platforms | All |

## dynmldp

| | |
|---|---|
| Synopsis | Enable the **dynmldp** context |
| Context | debug router *string* pim events dynmldp |
| Tree | dynmldp |
| Description | Commands in this context enable dynamic MLDP debugging. |
| Notes | The following elements are part of a choice: (**adjacency**, **assert**, **auto-rp**, **bgp**, **bier-inband**, **bsr**, **data**, **db**, **dynmldp**, **extranet**, **graft**, **interface**, **jp**, **mofrr**, **mrib**, **msg**, **mvpn-rtcache**, **red**, **register**, **rpfv**, **rtm**, **s-pmsi**, and **tunnel-interface**) or **all**. |
| Introduced | 22.10.R1 |
| Platforms | All |

## detail *boolean*

| | |
|---|---|
| Synopsis | Enable detail tracing |
| Context | debug router *string* pim events dynmldp detail *boolean* |
| Tree | detail |
| Default | false |
| Introduced | 22.10.R1 |
| Platforms | All |

## extranet

| | |
|---|---|
| Synopsis | Enable the **extranet** context |
| Context | debug router *string* pim events extranet |
| Tree | extranet |
| Notes | The following elements are part of a choice: (**adjacency**, **assert**, **auto-rp**, **bgp**, **bier-inband**, **bsr**, **data**, **db**, **dynmldp**, **extranet**, **graft**, **interface**, **jp**, **mofrr**, **mrib**, **msg**, **mvpn-rtcache**, **red**, **register**, **rpfv**, **rtm**, **s-pmsi**, and **tunnel-interface**) or **all**. |
| Introduced | 22.10.R1 |
| Platforms | All |


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### **detail** *boolean*

| | |
|---|---|
| Synopsis | Enable detail tracing |
| Context | debug router *string* pim events extranet detail *boolean* |
| Tree | detail |
| Default | false |
| Introduced | 22.10.R1 |
| Platforms | All |

### **graft**

| | |
|---|---|
| Synopsis | Enable the **graft** context |
| Context | debug router *string* pim events graft |
| Tree | graft |
| Notes | The following elements are part of a choice: (**adjacency**, **assert**, **auto-rp**, **bgp**, **bier-inband**, **bsr**, **data**, **db**, **dynmldp**, **extranet**, **graft**, **interface**, **jp**, **mofrr**, **mrib**, **msg**, **mvpn-rtcache**, **red**, **register**, **rpfv**, **rtm**, **s-pmsi**, and **tunnel-interface**) or **all**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **detail** *boolean*

| | |
|---|---|
| Synopsis | Enable detail tracing |
| Context | debug router *string* pim events graft detail *boolean* |
| Tree | detail |
| Default | false |
| Introduced | 22.10.R1 |
| Platforms | All |

### **group-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP multicast group address used to trace events |
| Context | debug router *string* pim events graft group-address *(ipv4-address-no-zone | ipv6-address-no-zone)* |
| Tree | group-address |
| Introduced | 22.10.R1 |


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| | |
|---|---|
| Platforms | All |

### **source-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source address used to trace events |
| Context | debug router *string* pim events graft source-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | source-address |
| Introduced | 22.10.R1 |
| Platforms | All |

### **interface**

| | |
|---|---|
| Synopsis | Enable the **interface** context |
| Context | debug router *string* pim events interface |
| Tree | interface |
| Notes | The following elements are part of a choice: (**adjacency**, **assert**, **auto-rp**, **bgp**, **bier-inband**, **bsr**, **data**, **db**, **dynmldp**, **extranet**, **graft**, **interface**, **jp**, **mofrr**, **mrib**, **msg**, **mvpn-rtcache**, **red**, **register**, **rpfv**, **rtm**, **s-pmsi**, and **tunnel-interface**) or **all**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **interface-name** *interface-name*

| | |
|---|---|
| Synopsis | Interface name |
| Context | debug router *string* pim events interface interface-name *interface-name* |
| Tree | interface-name |
| String length | 1 to 32 |
| Introduced | 22.10.R1 |
| Platforms | All |

### **jp**

| | |
|---|---|
| Synopsis | Enable the **jp** context |
| Context | debug router *string* pim events jp |
| Tree | jp |


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| | |
|---|---|
| Description | Commands in this context enable debugging for PIM join and prune mechanisms. |
| Notes | The following elements are part of a choice: (**adjacency**, **assert**, **auto-rp**, **bgp**, **bier-inband**, **bsr**, **data**, **db**, **dynmldp**, **extranet**, **graft**, **interface**, **jp**, **mofrr**, **mrib**, **msg**, **mvpn-rtcache**, **red**, **register**, **rpfv**, **rtm**, **s-pmsi**, and **tunnel-interface**) or **all**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **detail** *boolean*

| | |
|---|---|
| Synopsis | Enable detail tracing |
| Context | debug router *string* pim events jp detail *boolean* |
| Tree | detail |
| Default | false |
| Introduced | 22.10.R1 |
| Platforms | All |

### **group-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP multicast group address used to trace events |
| Context | debug router *string* pim events jp group-address *(ipv4-address-no-zone | ipv6-address-no-zone)* |
| Tree | group-address |
| Introduced | 22.10.R1 |
| Platforms | All |

### **source-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source address used to trace events |
| Context | debug router *string* pim events jp source-address *(ipv4-address-no-zone | ipv6-address-no-zone)* |
| Tree | source-address |
| Introduced | 22.10.R1 |
| Platforms | All |


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## mofrr

| | |
|---|---|
| Synopsis | Enable the **mofrr** context |
| Context | debug router *string* pim events mofrr |
| Tree | mofrr |
| Description | Commands in this context enable debugging for PIM Multicast-only Fast Reroute (MoFRR). |
| Notes | The following elements are part of a choice: (**adjacency**, **assert**, **auto-rp**, **bgp**, **bier-inband**, **bsr**, **data**, **db**, **dynmldp**, **extranet**, **graft**, **interface**, **jp**, **mofrr**, **mrib**, **msg**, **mvpn-rtcache**, **red**, **register**, **rpfv**, **rtm**, **s-pmsi**, and **tunnel-interface**) or **all**. |
| Introduced | 22.10.R1 |
| Platforms | All |

## mrib

| | |
|---|---|
| Synopsis | Enable the **mrib** context |
| Context | debug router *string* pim events mrib |
| Tree | mrib |
| Description | Commands in this context enable Multicast Routing Information Base (MRIB) debugging. |
| Notes | The following elements are part of a choice: (**adjacency**, **assert**, **auto-rp**, **bgp**, **bier-inband**, **bsr**, **data**, **db**, **dynmldp**, **extranet**, **graft**, **interface**, **jp**, **mofrr**, **mrib**, **msg**, **mvpn-rtcache**, **red**, **register**, **rpfv**, **rtm**, **s-pmsi**, and **tunnel-interface**) or **all**. |
| Introduced | 22.10.R1 |
| Platforms | All |

## detail *boolean*

| | |
|---|---|
| Synopsis | Enable detail tracing |
| Context | debug router *string* pim events mrib detail *boolean* |
| Tree | detail |
| Default | false |
| Introduced | 22.10.R1 |
| Platforms | All |


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### **group-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP multicast group address used to trace events |
| Context | debug router *string* pim events mrib group-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | group-address |
| Introduced | 22.10.R1 |
| Platforms | All |

### **source-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source address used to trace events |
| Context | debug router *string* pim events mrib source-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | source-address |
| Introduced | 22.10.R1 |
| Platforms | All |

### **msg**

| | |
|---|---|
| Synopsis | Enable the **msg** context |
| Context | debug router *string* pim events msg |
| Tree | msg |
| Notes | The following elements are part of a choice: (**adjacency**, **assert**, **auto-rp**, **bgp**, **bier-inband**, **bsr**, **data**, **db**, **dynmldp**, **extranet**, **graft**, **interface**, **jp**, **mofrr**, **mrib**, **msg**, **mvpn-rtcache**, **red**, **register**, **rpfv**, **rtm**, **s-pmsi**, and **tunnel-interface**) or **all**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **mvpn-rtcache**

| | |
|---|---|
| Synopsis | Enable the **mvpn-rtcache** context |
| Context | debug router *string* pim events mvpn-rtcache |
| Tree | mvpn-rtcache |
| Description | Commands in this context enable debugging for the PIM MVPN route cache. |


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| | |
|---|---|
| Notes | The following elements are part of a choice: (**adjacency**, **assert**, **auto-rp**, **bgp**, **bier-inband**, **bsr**, **data**, **db**, **dynmldp**, **extranet**, **graft**, **interface**, **jp**, **mofrr**, **mrib**, **msg**, **mvpn-rtcache**, **red**, **register**, **rpfv**, **rtm**, **s-pmsi**, and **tunnel-interface**) or **all**. |
| Introduced | 22.10.R1 |
| Platforms | All |

## **group-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Group address used to trace events |
| Context | debug router *string* pim events mvpn-rtcache group-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | group-address |
| Introduced | 22.10.R1 |
| Platforms | All |

## **peer-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Peer address used to trace events |
| Context | debug router *string* pim events mvpn-rtcache peer-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | peer-address |
| Introduced | 22.10.R1 |
| Platforms | All |

## **red**

| | |
|---|---|
| Synopsis | Enable the **red** context |
| Context | debug router *string* pim events red |
| Tree | red |
| Description | Commands in this context enable debugging for PIM redundancy messages to the standby CPM. |
| Notes | The following elements are part of a choice: (**adjacency**, **assert**, **auto-rp**, **bgp**, **bier-inband**, **bsr**, **data**, **db**, **dynmldp**, **extranet**, **graft**, **interface**, **jp**, **mofrr**, **mrib**, **msg**, **mvpn-rtcache**, **red**, **register**, **rpfv**, **rtm**, **s-pmsi**, and **tunnel-interface**) or **all**. |
| Introduced | 22.10.R1 |
| Platforms | All |


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### **detail** *boolean*

| | |
|---|---|
| Synopsis | Enable detail tracing |
| Context | debug router *string* pim events red detail *boolean* |
| Tree | detail |
| Default | false |
| Introduced | 22.10.R1 |
| Platforms | All |

### **register**

| | |
|---|---|
| Synopsis | Enable the **register** context |
| Context | debug router *string* pim events register |
| Tree | register |
| Notes | The following elements are part of a choice: (**adjacency**, **assert**, **auto-rp**, **bgp**, **bier-inband**, **bsr**, **data**, **db**, **dynmldp**, **extranet**, **graft**, **interface**, **jp**, **mofrr**, **mrib**, **msg**, **mvpn-rtcache**, **red**, **register**, **rpfv**, **rtm**, **s-pmsi**, and **tunnel-interface**) or **all**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **detail** *boolean*

| | |
|---|---|
| Synopsis | Enable detail tracing |
| Context | debug router *string* pim events register detail *boolean* |
| Tree | detail |
| Default | false |
| Introduced | 22.10.R1 |
| Platforms | All |

### **group-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP multicast group address used to trace events |
| Context | debug router *string* pim events register group-address *(ipv4-address-no-zone | ipv6-address-no-zone)* |
| Tree | group-address |
| Introduced | 22.10.R1 |


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| | |
|---|---|
| Platforms | All |

### **source-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source address used to trace events |
| Context | debug router *string* pim events register source-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | source-address |
| Introduced | 22.10.R1 |
| Platforms | All |

### **rpfv**

| | |
|---|---|
| Synopsis | Enable the **rpfv** context |
| Context | debug router *string* pim events rpfv |
| Tree | rpfv |
| Description | Commands in this context enable PIM RPF vector debugging. |
| Notes | The following elements are part of a choice: (**adjacency**, **assert**, **auto-rp**, **bgp**, **bier-inband**, **bsr**, **data**, **db**, **dynmldp**, **extranet**, **graft**, **interface**, **jp**, **mofrr**, **mrib**, **msg**, **mvpn-rtcache**, **red**, **register**, **rpfv**, **rtm**, **s-pmsi**, and **tunnel-interface**) or **all**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **detail** *boolean*

| | |
|---|---|
| Synopsis | Enable detail tracing |
| Context | debug router *string* pim events rpfv detail *boolean* |
| Tree | detail |
| Default | false |
| Introduced | 22.10.R1 |
| Platforms | All |

### **rtm**

| | |
|---|---|
| Synopsis | Enable the **rtm** context |
| Context | debug router *string* pim events rtm |


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| | |
|---|---|
| Tree | rtm |
| Notes | The following elements are part of a choice: (**adjacency**, **assert**, **auto-rp**, **bgp**, **bier-inband**, **bsr**, **data**, **db**, **dynmldp**, **extranet**, **graft**, **interface**, **jp**, **mofrr**, **mrib**, **msg**, **mvpn-rtcache**, **red**, **register**, **rpfv**, **rtm**, **s-pmsi**, and **tunnel-interface**) or **all**. |
| Introduced | 22.10.R1 |
| Platforms | All |

## **detail** *boolean*

| | |
|---|---|
| Synopsis | Enable detail tracing |
| Context | debug router *string* pim events rtm detail *boolean* |
| Tree | detail |
| Default | false |
| Introduced | 22.10.R1 |
| Platforms | All |

## **s-pmsi**

| | |
|---|---|
| Synopsis | Enable the **s-pmsi** context |
| Context | debug router *string* pim events s-pmsi |
| Tree | s-pmsi |
| Description | Commands in this context enable debugging for the PIM selective provider multicast service interface. |
| Notes | The following elements are part of a choice: (**adjacency**, **assert**, **auto-rp**, **bgp**, **bier-inband**, **bsr**, **data**, **db**, **dynmldp**, **extranet**, **graft**, **interface**, **jp**, **mofrr**, **mrib**, **msg**, **mvpn-rtcache**, **red**, **register**, **rpfv**, **rtm**, **s-pmsi**, and **tunnel-interface**) or **all**. |
| Introduced | 22.10.R1 |
| Platforms | All |

## **detail** *boolean*

| | |
|---|---|
| Synopsis | Enable detail tracing |
| Context | debug router *string* pim events s-pmsi detail *boolean* |
| Tree | detail |
| Default | false |
| Introduced | 22.10.R1 |


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| | |
|---|---|
| Platforms | All |

### **vpn-source-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | VPN source address used to trace events |
| Context | debug router *string* pim events s-pmsi vpn-source-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | vpn-source-address |
| Introduced | 22.10.R1 |
| Platforms | All |

### **tunnel-interface**

| | |
|---|---|
| Synopsis | Enable the **tunnel-interface** context |
| Context | debug router *string* pim events tunnel-interface |
| Tree | tunnel-interface |
| Notes | The following elements are part of a choice: (**adjacency**, **assert**, **auto-rp**, **bgp**, **bier-inband**, **bsr**, **data**, **db**, **dynmldp**, **extranet**, **graft**, **interface**, **jp**, **mofrr**, **mrib**, **msg**, **mvpn-rtcache**, **red**, **register**, **rpfv**, **rtm**, **s-pmsi**, and **tunnel-interface**) or **all**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **ldp-p2mp-id** *number*

| | |
|---|---|
| Synopsis | LDP P2MP ID |
| Context | debug router *string* pim events tunnel-interface ldp-p2mp-id *number* |
| Tree | ldp-p2mp-id |
| Range | 1 to 8192 |
| Introduced | 22.10.R1 |
| Platforms | All |

### **rsvp-p2mp** *named-item*

| | |
|---|---|
| Synopsis | RSVP P2MP LSP name |
| Context | debug router *string* pim events tunnel-interface rsvp-p2mp *named-item* |
| Tree | rsvp-p2mp |


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| | |
|---|---|
| String length | 1 to 32 |
| Introduced | 22.10.R1 |
| Platforms | All |

### **sender-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IP address of the sender |
| Context | debug router *string* pim events tunnel-interface sender-address *ipv4-unicast-address* |
| Tree | sender-address |
| Introduced | 22.10.R1 |
| Platforms | All |

### packet

| | |
|---|---|
| Synopsis | Enable the **packet** context |
| Context | debug router *string* pim packet |
| Tree | packet |
| Introduced | 22.10.R1 |
| Platforms | All |

### all-origins

| | |
|---|---|
| Synopsis | Enable trace for all origins |
| Context | debug router *string* pim packet all-origins |
| Tree | all-origins |
| Notes | The following elements are part of a choice: **all-origins** or **interface-name**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### all-packet-types

| | |
|---|---|
| Synopsis | Enable PIM debugging for all packets |
| Context | debug router *string* pim packet all-packet-types |
| Tree | all-packet-types |
| Notes | The following elements are part of a choice: **all-packet-types** or **packet-types**. |


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| | |
|---|---|
| Introduced | 22.10.R1 |
| Platforms | All |

### **egress** *boolean*

| | |
|---|---|
| Synopsis | Enable tracing for transmitted packets |
| Context | debug router *string* pim packet egress *boolean* |
| Tree | egress |
| Default | true |
| Introduced | 22.10.R1 |
| Platforms | All |

### **ingress** *boolean*

| | |
|---|---|
| Synopsis | Enable tracing for received packets |
| Context | debug router *string* pim packet ingress *boolean* |
| Tree | ingress |
| Default | true |
| Introduced | 22.10.R1 |
| Platforms | All |

### **interface-name** *interface-name*

| | |
|---|---|
| Synopsis | Interface name |
| Context | debug router *string* pim packet interface-name *interface-name* |
| Tree | interface-name |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **all-origins** or **interface-name**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **ipv4** *boolean*

| | |
|---|---|
| Synopsis | Enable tracing for PIM IPv4 packets |
| Context | debug router *string* pim packet ipv4 *boolean* |


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| | |
|---|---|
| Tree | ipv4 |
| Default | true |
| Introduced | 22.10.R1 |
| Platforms | All |

### **ipv6** *boolean*

| | |
|---|---|
| Synopsis | Enable tracing for PIM IPv6 packets |
| Context | debug router *string* pim packet ipv6 *boolean* |
| Tree | ipv6 |
| Default | true |
| Introduced | 22.10.R1 |
| Platforms | All |

### **packet-types**

| | |
|---|---|
| Synopsis | Enter the **packet-types** context |
| Context | debug router *string* pim packet packet-types |
| Tree | packet-types |
| Notes | The following elements are part of a choice: **all-packet-types** or **packet-types**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **assert**

| | |
|---|---|
| Synopsis | Enable the **assert** context |
| Context | debug router *string* pim packet packet-types assert |
| Tree | assert |
| Introduced | 22.10.R1 |
| Platforms | All |

### **all-origins**

| | |
|---|---|
| Synopsis | Enable trace for all origins |
| Context | debug router *string* pim packet packet-types assert all-origins |


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| | |
|---|---|
| Tree | all-origins |
| Notes | The following elements are part of a choice: **all-origins** or **interface-name**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **interface-name** *interface-name*

| | |
|---|---|
| Synopsis | Interface name |
| Context | debug router *string* pim packet packet-types assert interface-name *interface-name* |
| Tree | interface-name |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **all-origins** or **interface-name**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **auto-rp-announcement**

| | |
|---|---|
| Synopsis | Enable the **auto-rp-announcement** context |
| Context | debug router *string* pim packet packet-types auto-rp-announcement |
| Tree | auto-rp-announcement |
| Introduced | 22.10.R1 |
| Platforms | All |

### **all-origins**

| | |
|---|---|
| Synopsis | Enable trace for all origins |
| Context | debug router *string* pim packet packet-types auto-rp-announcement all-origins |
| Tree | all-origins |
| Notes | The following elements are part of a choice: **all-origins** or **interface-name**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **interface-name** *interface-name*

| | |
|---|---|
| Synopsis | Interface name |


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| | |
|---|---|
| Context | debug router *string* pim packet packet-types auto-rp-announcement interface-name *interface-name* |
| Tree | interface-name |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **all-origins** or **interface-name**. |
| Introduced | 22.10.R1 |
| Platforms | All |

## auto-rp-mapping

| | |
|---|---|
| Synopsis | Enable the **auto-rp-mapping** context |
| Context | debug router *string* pim packet packet-types auto-rp-mapping |
| Tree | auto-rp-mapping |
| Introduced | 22.10.R1 |
| Platforms | All |

## all-origins

| | |
|---|---|
| Synopsis | Enable trace for all origins |
| Context | debug router *string* pim packet packet-types auto-rp-mapping all-origins |
| Tree | all-origins |
| Notes | The following elements are part of a choice: **all-origins** or **interface-name**. |
| Introduced | 22.10.R1 |
| Platforms | All |

## interface-name *interface-name*

| | |
|---|---|
| Synopsis | Interface name |
| Context | debug router *string* pim packet packet-types auto-rp-mapping interface-name *interface-name* |
| Tree | interface-name |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **all-origins** or **interface-name**. |
| Introduced | 22.10.R1 |
| Platforms | All |


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### bsr

| | |
|---|---|
| Synopsis | Enable the **bsr** context |
| Context | debug router *string* pim packet packet-types bsr |
| Tree | bsr |
| Introduced | 22.10.R1 |
| Platforms | All |

### all-origins

| | |
|---|---|
| Synopsis | Enable trace for all origins |
| Context | debug router *string* pim packet packet-types bsr all-origins |
| Tree | all-origins |
| Notes | The following elements are part of a choice: **all-origins** or **interface-name**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### interface-name *interface-name*

| | |
|---|---|
| Synopsis | Interface name |
| Context | debug router *string* pim packet packet-types bsr interface-name *interface-name* |
| Tree | interface-name |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **all-origins** or **interface-name**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### crp

| | |
|---|---|
| Synopsis | Enable the **crp** context |
| Context | debug router *string* pim packet packet-types crp |
| Tree | crp |
| Introduced | 22.10.R1 |
| Platforms | All |


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### all-origins

| | |
|---|---|
| Synopsis | Enable trace for all origins |
| Context | debug router *string* pim packet packet-types crp all-origins |
| Tree | all-origins |
| Notes | The following elements are part of a choice: **all-origins** or **interface-name**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### interface-name *interface-name*

| | |
|---|---|
| Synopsis | Interface name |
| Context | debug router *string* pim packet packet-types crp interface-name *interface-name* |
| Tree | interface-name |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **all-origins** or **interface-name**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### graft

| | |
|---|---|
| Synopsis | Enable the **graft** context |
| Context | debug router *string* pim packet packet-types graft |
| Tree | graft |
| Introduced | 22.10.R1 |
| Platforms | All |

### all-origins

| | |
|---|---|
| Synopsis | Enable trace for all origins |
| Context | debug router *string* pim packet packet-types graft all-origins |
| Tree | all-origins |
| Notes | The following elements are part of a choice: **all-origins** or **interface-name**. |
| Introduced | 22.10.R1 |
| Platforms | All |


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### **interface-name** *interface-name*

| | |
|---|---|
| Synopsis | Interface name |
| Context | debug router *string* pim packet packet-types graft interface-name *interface-name* |
| Tree | interface-name |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **all-origins** or **interface-name**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **graft-ack**

| | |
|---|---|
| Synopsis | Enable the **graft-ack** context |
| Context | debug router *string* pim packet packet-types graft-ack |
| Tree | graft-ack |
| Introduced | 22.10.R1 |
| Platforms | All |

### **all-origins**

| | |
|---|---|
| Synopsis | Enable trace for all origins |
| Context | debug router *string* pim packet packet-types graft-ack all-origins |
| Tree | all-origins |
| Notes | The following elements are part of a choice: **all-origins** or **interface-name**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **interface-name** *interface-name*

| | |
|---|---|
| Synopsis | Interface name |
| Context | debug router *string* pim packet packet-types graft-ack interface-name *interface-name* |
| Tree | interface-name |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **all-origins** or **interface-name**. |
| Introduced | 22.10.R1 |


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| | |
|---|---|
| Platforms | All |

## hello

| | |
|---|---|
| Synopsis | Enable the **hello** context |
| Context | debug router *string* pim packet packet-types hello |
| Tree | hello |
| Introduced | 22.10.R1 |
| Platforms | All |

## all-origins

| | |
|---|---|
| Synopsis | Enable trace for all origins |
| Context | debug router *string* pim packet packet-types hello all-origins |
| Tree | all-origins |
| Notes | The following elements are part of a choice: **all-origins** or **interface-name**. |
| Introduced | 22.10.R1 |
| Platforms | All |

## interface-name *interface-name*

| | |
|---|---|
| Synopsis | Interface name |
| Context | debug router *string* pim packet packet-types hello interface-name *interface-name* |
| Tree | interface-name |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **all-origins** or **interface-name**. |
| Introduced | 22.10.R1 |
| Platforms | All |

## jp

| | |
|---|---|
| Synopsis | Enable the **jp** context |
| Context | debug router *string* pim packet packet-types jp |
| Tree | jp |
| Introduced | 22.10.R1 |


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| | |
|---|---|
| Platforms | All |

## all-origins

| | |
|---|---|
| Synopsis | Enable trace for all origins |
| Context | debug router *string* pim packet packet-types jp all-origins |
| Tree | all-origins |
| Notes | The following elements are part of a choice: **all-origins** or **interface-name**. |
| Introduced | 22.10.R1 |
| Platforms | All |

## interface-name *interface-name*

| | |
|---|---|
| Synopsis | Interface name |
| Context | debug router *string* pim packet packet-types jp interface-name *interface-name* |
| Tree | interface-name |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **all-origins** or **interface-name**. |
| Introduced | 22.10.R1 |
| Platforms | All |

## mdt-tlv

| | |
|---|---|
| Synopsis | Enable the **mdt-tlv** context |
| Context | debug router *string* pim packet packet-types mdt-tlv |
| Tree | mdt-tlv |
| Introduced | 22.10.R1 |
| Platforms | All |

## all-origins

| | |
|---|---|
| Synopsis | Enable trace for all origins |
| Context | debug router *string* pim packet packet-types mdt-tlv all-origins |
| Tree | all-origins |
| Notes | The following elements are part of a choice: **all-origins** or **interface-name**. |


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| | |
|---|---|
| Introduced | 22.10.R1 |
| Platforms | All |

### **interface-name** *interface-name*

| | |
|---|---|
| Synopsis | Interface name |
| Context | debug router *string* pim packet packet-types mdt-tlv interface-name *interface-name* |
| Tree | interface-name |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **all-origins** or **interface-name**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **register**

| | |
|---|---|
| Synopsis | Enable the **register** context |
| Context | debug router *string* pim packet packet-types register |
| Tree | register |
| Introduced | 22.10.R1 |
| Platforms | All |

### **all-origins**

| | |
|---|---|
| Synopsis | Enable trace for all origins |
| Context | debug router *string* pim packet packet-types register all-origins |
| Tree | all-origins |
| Notes | The following elements are part of a choice: **all-origins** or **interface-name**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **interface-name** *interface-name*

| | |
|---|---|
| Synopsis | Interface name |
| Context | debug router *string* pim packet packet-types register interface-name *interface-name* |
| Tree | interface-name |


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| | |
|---|---|
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **all-origins** or **interface-name**. |
| Introduced | 22.10.R1 |
| Platforms | All |

## register-stop

| | |
|---|---|
| Synopsis | Enable the **register-stop** context |
| Context | debug router *string* pim packet packet-types register-stop |
| Tree | register-stop |
| Introduced | 22.10.R1 |
| Platforms | All |

## all-origins

| | |
|---|---|
| Synopsis | Enable trace for all origins |
| Context | debug router *string* pim packet packet-types register-stop all-origins |
| Tree | all-origins |
| Notes | The following elements are part of a choice: **all-origins** or **interface-name**. |
| Introduced | 22.10.R1 |
| Platforms | All |

## interface-name *interface-name*

| | |
|---|---|
| Synopsis | Interface name |
| Context | debug router *string* pim packet packet-types register-stop interface-name *interface-name* |
| Tree | interface-name |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **all-origins** or **interface-name**. |
| Introduced | 22.10.R1 |
| Platforms | All |


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## radius

| | |
|---|---|
| Synopsis | Enter the **radius** context |
| Context | debug router *string* radius |
| Tree | radius |
| Introduced | 22.5.R1 |
| Platforms | All |

## **proxy** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **proxy** list instance |
| Context | debug router *string* radius proxy *named-item* |
| Tree | proxy |
| Max. instances | 8 |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## [**name**] *named-item*

| | |
|---|---|
| Synopsis | RADIUS proxy server name |
| Context | debug router *string* radius proxy *named-item* |
| Tree | proxy |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## all-packet-types

| | |
|---|---|
| Synopsis | Enable RADIUS proxy debugging for all packets |
| Context | debug router *string* radius proxy *named-item* all-packet-types |
| Tree | all-packet-types |
| Notes | The following elements are part of a mandatory choice: **all-packet-types** or **packet-types**. |


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| | |
|---|---|
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **client-address** [address] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Add a list entry for **client-address** |
| Context | debug router *string* radius proxy *named-item* client-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | client-address |
| Max. instances | 10 |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**address**] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the RADIUS client |
| Context | debug router *string* radius proxy *named-item* client-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | client-address |
| Notes | This element is part of a list key. |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **detail-level** *keyword*

| | |
|---|---|
| Synopsis | Detail level of the RADIUS proxy debug output |
| Context | debug router *string* radius proxy *named-item* detail-level *keyword* |
| Tree | detail-level |
| Options | low, high |
| Default | low |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **direction** *keyword*

| | |
|---|---|
| Synopsis | Direction of the RADIUS proxy packet debugging |
| Context | debug router *string* radius proxy *named-item* direction *keyword* |
| Tree | direction |
| Options | ingress, egress, both |
| Default | both |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **dropped-only** *boolean*

| | |
|---|---|
| Synopsis | Show dropped packets only |
| Context | debug router *string* radius proxy *named-item* dropped-only *boolean* |
| Tree | dropped-only |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **packet-types**

| | |
|---|---|
| Synopsis | Enter the **packet-types** context |
| Context | debug router *string* radius proxy *named-item* packet-types |
| Tree | packet-types |
| Notes | The following elements are part of a mandatory choice: **all-packet-types** or **packet-types**. |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **access-accept** *boolean*

| | |
|---|---|
| Synopsis | Debug Access-Accept packets |
| Context | debug router *string* radius proxy *named-item* packet-types access-accept *boolean* |
| Tree | access-accept |
| Default | false |


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| | |
|---|---|
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **access-challenge** *boolean*

| | |
|---|---|
| Synopsis | Debug Access-Challenge packets |
| Context | debug router *string* radius proxy *named-item* packet-types access-challenge *boolean* |
| Tree | access-challenge |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **access-reject** *boolean*

| | |
|---|---|
| Synopsis | Debug Access-Reject packets |
| Context | debug router *string* radius proxy *named-item* packet-types access-reject *boolean* |
| Tree | access-reject |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **access-request** *boolean*

| | |
|---|---|
| Synopsis | Debug Access-Request packets |
| Context | debug router *string* radius proxy *named-item* packet-types access-request *boolean* |
| Tree | access-request |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **accounting-request** *boolean*

| | |
|---|---|
| Synopsis | Debug Accounting-Request packets |
| Context | debug router *string* radius proxy *named-item* packet-types accounting-request *boolean* |
| Tree | accounting-request |


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| | |
|---|---|
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **accounting-response** *boolean*

| | |
|---|---|
| Synopsis | Debug Accounting-Response packets |
| Context | debug router *string* radius proxy *named-item* packet-types accounting-response *boolean* |
| Tree | accounting-response |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **other** *boolean*

| | |
|---|---|
| Synopsis | Debug other packet types |
| Context | debug router *string* radius proxy *named-item* packet-types other *boolean* |
| Tree | other |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **servers**

| | |
|---|---|
| Synopsis | Enable the **servers** context |
| Context | debug router *string* radius servers |
| Tree | servers |
| Introduced | 22.5.R1 |
| Platforms | All |

### **attribute** [name] *string*

| | |
|---|---|
| Synopsis | Enter the **attribute** list instance |
| Context | debug router *string* radius servers attribute *string* |
| Tree | attribute |


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| | |
|---|---|
| Max. instances | 10 |
| Introduced | 22.5.R1 |
| Platforms | All |

### [**name**] *string*

| | |
|---|---|
| Synopsis | Attribute filter name |
| Context | debug router *string* radius servers attribute *string* |
| Tree | attribute |
| Notes | This element is part of a list key. |
| Introduced | 22.5.R1 |
| Platforms | All |

### **extended-type** *number*

| | |
|---|---|
| Synopsis | RADIUS attribute extended type |
| Context | debug router *string* radius servers attribute *string* extended-type *number* |
| Tree | extended-type |
| Range | 1 to 255 |
| Introduced | 22.5.R1 |
| Platforms | All |

### **transaction** *boolean*

| | |
|---|---|
| Synopsis | Debug request and response transaction |
| Context | debug router *string* radius servers attribute *string* transaction *boolean* |
| Tree | transaction |
| Default | false |
| Introduced | 22.5.R1 |
| Platforms | All |

### **type** *number*

| | |
|---|---|
| Synopsis | RADIUS attribute type |


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| | |
|---|---|
| Context | debug router *string* radius servers attribute *string* type *number* |
| Tree | type |
| Range | 1 to 255 |
| Notes | This element is mandatory. |
| Introduced | 22.5.R1 |
| Platforms | All |

## value

| | |
|---|---|
| Synopsis | Enter the **value** context |
| Context | debug router *string* radius servers attribute *string* value |
| Tree | value |
| Introduced | 22.5.R1 |
| Platforms | All |

## address *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Attribute value specified as an IP address |
| Context | debug router *string* radius servers attribute *string* value address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | address |
| Notes | The following elements are part of a choice: **address**, **hex**, **integer**, **prefix**, or **string**. |
| Introduced | 22.5.R1 |
| Platforms | All |

## hex *hex-string*

| | |
|---|---|
| Synopsis | Attribute value specified as a hexadecimal string |
| Context | debug router *string* radius servers attribute *string* value hex *hex-string* |
| Tree | hex |
| String length | 1 to 253 |
| Notes | The following elements are part of a choice: **address**, **hex**, **integer**, **prefix**, or **string**. |
| Introduced | 22.5.R1 |
| Platforms | All |


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### **integer** *number*

| | |
|---|---|
| Synopsis | Attribute value specified as an integer |
| Context | debug router *string* radius servers attribute *string* value integer *number* |
| Tree | integer |
| Max. range | 0 to 4294967295 |
| Notes | The following elements are part of a choice: **address**, **hex**, **integer**, **prefix**, or **string**. |
| Introduced | 22.5.R1 |
| Platforms | All |

### **prefix** *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Attribute value specified as an IP prefix |
| Context | debug router *string* radius servers attribute *string* value prefix *(ipv4-prefix \| ipv6-prefix)* |
| Tree | prefix |
| Notes | The following elements are part of a choice: **address**, **hex**, **integer**, **prefix**, or **string**. |
| Introduced | 22.5.R1 |
| Platforms | All |

### **string** *string*

| | |
|---|---|
| Synopsis | Attribute value specified as a string |
| Context | debug router *string* radius servers attribute *string* value string *string* |
| Tree | string |
| String length | 1 to 253 |
| Notes | The following elements are part of a choice: **address**, **hex**, **integer**, **prefix**, or **string**. |
| Introduced | 22.5.R1 |
| Platforms | All |

### **vendor-specific**

| | |
|---|---|
| Synopsis | Enter the **vendor-specific** context |
| Context | debug router *string* radius servers attribute *string* vendor-specific |
| Tree | vendor-specific |
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| | |
|---|---|
| Platforms | All |

## encoding

| | |
|---|---|
| Synopsis | Enter the **encoding** context |
| Context | debug router *string* radius servers attribute *string* vendor-specific encoding |
| Tree | encoding |
| Introduced | 22.5.R1 |
| Platforms | All |

## length-size *number*

| | |
|---|---|
| Synopsis | Size of the vendor-length field |
| Context | debug router *string* radius servers attribute *string* vendor-specific encoding length-size *number* |
| Tree | length-size |
| Range | 0 to 2 |
| Default | 1 |
| Introduced | 22.5.R1 |
| Platforms | All |

## type-size *number*

| | |
|---|---|
| Synopsis | Size of the vendor-type field |
| Context | debug router *string* radius servers attribute *string* vendor-specific encoding type-size *number* |
| Tree | type-size |
| Range | 1 to 4 |
| Default | 1 |
| Introduced | 22.5.R1 |
| Platforms | All |

## vendor *(number | keyword)*

| | |
|---|---|
| Synopsis | RADIUS vendor ID |


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| | |
|---|---|
| Context | debug router *string* radius servers attribute *string* vendor-specific vendor *(number \| keyword)* |
| Tree | vendor |
| Range | 1 to 16777215 |
| Options | nokia |
| Introduced | 22.5.R1 |
| Platforms | All |

### **vendor-type** *number*

| | |
|---|---|
| Synopsis | RADIUS vendor specific type |
| Context | debug router *string* radius servers attribute *string* vendor-specific vendor-type *number* |
| Tree | vendor-type |
| Max. range | 0 to 4294967295 |
| Introduced | 22.5.R1 |
| Platforms | All |

### **detail-level** *keyword*

| | |
|---|---|
| Synopsis | Detail level of the RADIUS debug output |
| Context | debug router *string* radius servers detail-level *keyword* |
| Tree | detail-level |
| Options | low, medium, high |
| Default | medium |
| Introduced | 22.5.R1 |
| Platforms | All |

### **packet-types**

| | |
|---|---|
| Synopsis | Enter the **packet-types** context |
| Context | debug router *string* radius servers packet-types |
| Tree | packet-types |
| Introduced | 22.7.R1 |
| Platforms | All |


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### **accounting** *boolean*

| | |
|---|---|
| Synopsis | Debug accounting packets |
| Context | debug router *string* radius servers packet-types accounting *boolean* |
| Tree | accounting |
| Default | true |
| Introduced | 22.7.R1 |
| Platforms | All |

### **authentication** *boolean*

| | |
|---|---|
| Synopsis | Debug authentication packets |
| Context | debug router *string* radius servers packet-types authentication *boolean* |
| Tree | authentication |
| Default | true |
| Introduced | 22.7.R1 |
| Platforms | All |

### **coa** *boolean*

| | |
|---|---|
| Synopsis | Debug CoA and DM packets |
| Context | debug router *string* radius servers packet-types coa *boolean* |
| Tree | coa |
| Default | true |
| Introduced | 22.7.R1 |
| Platforms | All |

### **server-address** [address] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Add a list entry for **server-address** |
| Context | debug router *string* radius servers server-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | server-address |
| Max. instances | 10 |
| Introduced | 22.5.R1 |


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| | |
|---|---|
| Platforms | All |

### [**address**] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the RADIUS server |
| Context | debug router *string* radius servers server-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | server-address |
| Notes | This element is part of a list key. |
| Introduced | 22.5.R1 |
| Platforms | All |

### srrp

| | |
|---|---|
| Synopsis | Enter the **srrp** context |
| Context | debug router *string* srrp |
| Tree | srrp |
| Introduced | 24.10.R1 |
| Platforms | All |

### events

| | |
|---|---|
| Synopsis | Enter the **events** context |
| Context | debug router *string* srrp events |
| Tree | events |
| Introduced | 24.10.R1 |
| Platforms | All |

### all-events

| | |
|---|---|
| Synopsis | Enable the **all-events** context |
| Context | debug router *string* srrp events all-events |
| Tree | all-events |
| Introduced | 24.10.R1 |
| Platforms | All |


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### **interface** [interface-name] *interface-name*

| | |
|---|---|
| Synopsis | Add a list entry for **interface** |
| Context | debug router *string* srrp events interface *interface-name* |
| Tree | interface |
| Max. instances | 10 |
| Introduced | 24.10.R1 |
| Platforms | All |

### [**interface-name**] *interface-name*

| | |
|---|---|
| Synopsis | Interface name |
| Context | debug router *string* srrp events interface *interface-name* |
| Tree | interface |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 24.10.R1 |
| Platforms | All |

### **packet**

| | |
|---|---|
| Synopsis | Enter the **packet** context |
| Context | debug router *string* srrp packet |
| Tree | packet |
| Introduced | 24.10.R1 |
| Platforms | All |

### **all-packets**

| | |
|---|---|
| Synopsis | Enable the **all-packets** context |
| Context | debug router *string* srrp packet all-packets |
| Tree | all-packets |
| Introduced | 24.10.R1 |
| Platforms | All |


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### **interface** [interface-name] *interface-name*

| | |
|---|---|
| Synopsis | Add a list entry for **interface** |
| Context | debug router *string* srrp packet interface *interface-name* |
| Tree | interface |
| Max. instances | 10 |
| Introduced | 24.10.R1 |
| Platforms | All |

### [**interface-name**] *interface-name*

| | |
|---|---|
| Synopsis | Interface name |
| Context | debug router *string* srrp packet interface *interface-name* |
| Tree | interface |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 24.10.R1 |
| Platforms | All |

### **vrrp**

| | |
|---|---|
| Synopsis | Enter the **vrrp** context |
| Context | debug router *string* vrrp |
| Tree | vrrp |
| Introduced | 22.10.R1 |
| Platforms | All |

### **events**

| | |
|---|---|
| Synopsis | Enter the **events** context |
| Context | debug router *string* vrrp events |
| Tree | events |
| Description | Commands in this context enable debugging for VRRP events and state changes. |
| Introduced | 22.10.R1 |


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| | |
|---|---|
| Platforms | All |

### all-events

| | |
|---|---|
| Synopsis | Enable the **all-events** context |
| Context | debug router *string* vrrp events all-events |
| Tree | all-events |
| Introduced | 22.10.R1 |
| Platforms | All |

### interface [interface-name] *interface-name*

| | |
|---|---|
| Synopsis | Enter the **interface** list instance |
| Context | debug router *string* vrrp events interface *interface-name* |
| Tree | interface |
| Introduced | 22.10.R1 |
| Platforms | All |

### [interface-name] *interface-name*

| | |
|---|---|
| Synopsis | Interface name |
| Context | debug router *string* vrrp events interface *interface-name* |
| Tree | interface |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 22.10.R1 |
| Platforms | All |

### all-vrids

| | |
|---|---|
| Synopsis | Enable the **all-vrids** context |
| Context | debug router *string* vrrp events interface *interface-name* all-vrids |
| Tree | all-vrids |
| Introduced | 23.3.R1 |
| Platforms | All |


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### ipv4

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |
| Context | debug router *string* vrrp events interface *interface-name* ipv4 |
| Tree | ipv4 |
| Introduced | 22.10.R1 |
| Platforms | All |

### **vrid** [virtual-router-id] *number*

| | |
|---|---|
| Synopsis | Add a list entry for **vrid** |
| Context | debug router *string* vrrp events interface *interface-name* ipv4 vrid *number* |
| Tree | vrid |
| Max. instances | 4 |
| Introduced | 22.10.R1 |
| Platforms | All |

### [**virtual-router-id**] *number*

| | |
|---|---|
| Synopsis | Virtual router ID to debug |
| Context | debug router *string* vrrp events interface *interface-name* ipv4 vrid *number* |
| Tree | vrid |
| Range | 1 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 22.10.R1 |
| Platforms | All |

### ipv6

| | |
|---|---|
| Synopsis | Enter the **ipv6** context |
| Context | debug router *string* vrrp events interface *interface-name* ipv6 |
| Tree | ipv6 |
| Introduced | 22.10.R1 |
| Platforms | All |


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### **vrid** [virtual-router-id] *number*

| | |
|---|---|
| Synopsis | Add a list entry for **vrid** |
| Context | debug router *string* vrrp events interface *interface-name* ipv6 vrid *number* |
| Tree | vrid |
| Max. instances | 4 |
| Introduced | 22.10.R1 |
| Platforms | All |

### [**virtual-router-id**] *number*

| | |
|---|---|
| Synopsis | Virtual router ID to debug |
| Context | debug router *string* vrrp events interface *interface-name* ipv6 vrid *number* |
| Tree | vrid |
| Range | 1 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **packet**

| | |
|---|---|
| Synopsis | Enter the **packet** context |
| Context | debug router *string* vrrp packet |
| Tree | packet |
| Description | Commands in this context enable debugging for VRRP packet exchanges. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **all-packets**

| | |
|---|---|
| Synopsis | Enable the **all-packets** context |
| Context | debug router *string* vrrp packet all-packets |
| Tree | all-packets |
| Introduced | 22.10.R1 |


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| | |
|---|---|
| Platforms | All |

### **interface** [interface-name] *interface-name*

| | |
|---|---|
| Synopsis | Enter the **interface** list instance |
| Context | debug router *string* vrrp packet interface *interface-name* |
| Tree | interface |
| Introduced | 22.10.R1 |
| Platforms | All |

### [**interface-name**] *interface-name*

| | |
|---|---|
| Synopsis | Interface name |
| Context | debug router *string* vrrp packet interface *interface-name* |
| Tree | interface |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **all-vrids**

| | |
|---|---|
| Synopsis | Enable the **all-vrids** context |
| Context | debug router *string* vrrp packet interface *interface-name* all-vrids |
| Tree | all-vrids |
| Introduced | 23.3.R1 |
| Platforms | All |

### **ipv4**

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |
| Context | debug router *string* vrrp packet interface *interface-name* ipv4 |
| Tree | ipv4 |
| Introduced | 22.10.R1 |
| Platforms | All |


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### **vrid** [virtual-router-id] *number*

| | |
|---|---|
| Synopsis | Add a list entry for **vrid** |
| Context | debug router *string* vrrp packet interface *interface-name* ipv4 vrid *number* |
| Tree | vrid |
| Max. instances | 4 |
| Introduced | 22.10.R1 |
| Platforms | All |

### [**virtual-router-id**] *number*

| | |
|---|---|
| Synopsis | Virtual router ID to debug |
| Context | debug router *string* vrrp packet interface *interface-name* ipv4 vrid *number* |
| Tree | vrid |
| Range | 1 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **ipv6**

| | |
|---|---|
| Synopsis | Enter the **ipv6** context |
| Context | debug router *string* vrrp packet interface *interface-name* ipv6 |
| Tree | ipv6 |
| Introduced | 22.10.R1 |
| Platforms | All |

### **vrid** [virtual-router-id] *number*

| | |
|---|---|
| Synopsis | Add a list entry for **vrid** |
| Context | debug router *string* vrrp packet interface *interface-name* ipv6 vrid *number* |
| Tree | vrid |
| Max. instances | 4 |
| Introduced | 22.10.R1 |


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| | |
|---|---|
| Platforms | All |

### [**virtual-router-id**] *number*

| | |
|---|---|
| Synopsis | Virtual router ID to debug |
| Context | debug router *string* vrrp packet interface *interface-name* ipv6 vrid *number* |
| Tree | vrid |
| Range | 1 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 22.10.R1 |
| Platforms | All |

### wpp

| | |
|---|---|
| Synopsis | Enter the **wpp** context |
| Context | debug router *string* wpp |
| Tree | wpp |
| Introduced | 22.7.R1 |
| Platforms | All |

### packets

| | |
|---|---|
| Synopsis | Enable the **packets** context |
| Context | debug router *string* wpp packets |
| Tree | packets |
| Introduced | 22.7.R1 |
| Platforms | All |

### detail-level *keyword*

| | |
|---|---|
| Synopsis | Detail level of the WPP packet debug output |
| Context | debug router *string* wpp packets detail-level *keyword* |
| Tree | detail-level |
| Options | low, high |
| Default | low |


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| | |
|---|---|
| Introduced | 22.7.R1 |
| Platforms | All |

### **portal** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **portal** list instance |
| Context | debug router *string* wpp portal *named-item* |
| Tree | portal |
| Introduced | 22.7.R1 |
| Platforms | All |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | WPP portal name |
| Context | debug router *string* wpp portal *named-item* |
| Tree | portal |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 22.7.R1 |
| Platforms | All |

### **packets**

| | |
|---|---|
| Synopsis | Enter the **packets** context |
| Context | debug router *string* wpp portal *named-item* packets |
| Tree | packets |
| Introduced | 22.7.R1 |
| Platforms | All |

### **detail-level** *keyword*

| | |
|---|---|
| Synopsis | Detail level of the WPP packet debug output |
| Context | debug router *string* wpp portal *named-item* packets detail-level *keyword* |
| Tree | detail-level |
| Options | low, high |


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| | |
|---|---|
| Default | low |
| Introduced | 22.7.R1 |
| Platforms | All |

### service

| | |
|---|---|
| Synopsis | Enter the **service** context |
| Context | debug service |
| Tree | service |
| Introduced | 22.10.R1 |
| Platforms | All |

### ies [service-name] *service-name*

| | |
|---|---|
| Synopsis | Enter the **ies** list instance |
| Context | debug service ies *service-name* |
| Tree | ies |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**service-name**] *service-name*

| | |
|---|---|
| Synopsis | Administrative service name |
| Context | debug service ies *service-name* |
| Tree | ies |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### ppp

| | |
|---|---|
| Synopsis | Enter the **ppp** context |
| Context | debug service ies *service-name* ppp |
| Tree | ppp |


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| | |
|---|---|
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **circuit-id** [id] *string*

| | |
|---|---|
| Synopsis | Add a list entry for **circuit-id** |
| Context | debug service ies *service-name* ppp circuit-id *string* |
| Tree | circuit-id |
| Max. instances | 8 |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**id**] *string*

| | |
|---|---|
| Synopsis | Circuit ID of the PPPoE session to debug |
| Context | debug service ies *service-name* ppp circuit-id *string* |
| Tree | circuit-id |
| String length | 1 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **events**

| | |
|---|---|
| Synopsis | Enable the **events** context |
| Context | debug service ies *service-name* ppp events |
| Tree | events |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **all**

| | |
|---|---|
| Synopsis | Enable PPP debugging for all events |
| Context | debug service ies *service-name* ppp events all |


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| | |
|---|---|
| Tree | all |
| Notes | The following elements are part of a mandatory choice: **all** or (**dhcp-client**, **l2tp**, **local-address-assignment**, and **ppp**). |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## dhcp-client

| | |
|---|---|
| Synopsis | Enable the **dhcp-client** context |
| Context | debug service ies *service-name* ppp events dhcp-client |
| Tree | dhcp-client |
| Notes | The following elements are part of a mandatory choice: **all** or (**dhcp-client**, **l2tp**, **local-address-assignment**, and **ppp**). |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## terminate-only *boolean*

| | |
|---|---|
| Synopsis | Debug events for ungraceful terminated sessions only |
| Context | debug service ies *service-name* ppp events dhcp-client terminate-only *boolean* |
| Tree | terminate-only |
| Default | false |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## l2tp

| | |
|---|---|
| Synopsis | Enable the **l2tp** context |
| Context | debug service ies *service-name* ppp events l2tp |
| Tree | l2tp |
| Description | Commands in this context configure debugging events for L2TP sessions. |
| Notes | The following elements are part of a mandatory choice: **all** or (**dhcp-client**, **l2tp**, **local-address-assignment**, and **ppp**). |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **terminate-only** *boolean*

| | |
|---|---|
| Synopsis | Debug events for ungraceful terminated sessions only |
| Context | debug service ies *service-name* ppp events l2tp terminate-only *boolean* |
| Tree | terminate-only |
| Default | false |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **local-address-assignment**

| | |
|---|---|
| Synopsis | Enable the **local-address-assignment** context |
| Context | debug service ies *service-name* ppp events local-address-assignment |
| Tree | local-address-assignment |
| Notes | The following elements are part of a mandatory choice: **all** or (**dhcp-client**, **l2tp**, **local-address-assignment**, and **ppp**). |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **terminate-only** *boolean*

| | |
|---|---|
| Synopsis | Debug events for ungraceful terminated sessions only |
| Context | debug service ies *service-name* ppp events local-address-assignment terminate-only *boolean* |
| Tree | terminate-only |
| Default | false |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ppp**

| | |
|---|---|
| Synopsis | Enable the **ppp** context |
| Context | debug service ies *service-name* ppp events ppp |
| Tree | ppp |
| Notes | The following elements are part of a mandatory choice: **all** or (**dhcp-client**, **l2tp**, **local-address-assignment**, and **ppp**). |


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| | |
|---|---|
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **terminate-only** *boolean*

| | |
|---|---|
| Synopsis | Debug events for ungraceful terminated sessions only |
| Context | debug service ies *service-name* ppp events ppp terminate-only *boolean* |
| Tree | terminate-only |
| Default | false |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **mac** [address] *mac-address*

| | |
|---|---|
| Synopsis | Add a list entry for **mac** |
| Context | debug service ies *service-name* ppp mac *mac-address* |
| Tree | mac |
| Max. instances | 8 |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**address**] *mac-address*

| | |
|---|---|
| Synopsis | MAC address of the PPPoE session to debug |
| Context | debug service ies *service-name* ppp mac *mac-address* |
| Tree | mac |
| Notes | This element is part of a list key. |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **packets**

| | |
|---|---|
| Synopsis | Enable the **packets** context |
| Context | debug service ies *service-name* ppp packets |


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| | |
|---|---|
| Tree | packets |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### all

| | |
|---|---|
| Synopsis | Enable PPP debugging for all packets |
| Context | debug service ies *service-name* ppp packets all |
| Tree | all |
| Notes | The following elements are part of a mandatory choice: **all** or (**dhcp-client**, **discovery**, and **ppp-session**). |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### detail-level *keyword*

| | |
|---|---|
| Synopsis | Detail level of the PPP packet debug output |
| Context | debug service ies *service-name* ppp packets detail-level *keyword* |
| Tree | detail-level |
| Options | low, medium, high |
| Default | high |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### dhcp-client *boolean*

| | |
|---|---|
| Synopsis | Enable DHCP client packet debugging |
| Context | debug service ies *service-name* ppp packets dhcp-client *boolean* |
| Tree | dhcp-client |
| Default | false |
| Notes | The following elements are part of a mandatory choice: **all** or (**dhcp-client**, **discovery**, and **ppp-session**). |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## discovery

| | |
|---|---|
| Synopsis | Enter the **discovery** context |
| Context | debug service ies *service-name* ppp packets discovery |
| Tree | discovery |
| Notes | The following elements are part of a mandatory choice: **all** or (**dhcp-client**, **discovery**, and **ppp-session**). |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## all

| | |
|---|---|
| Synopsis | Enable PPP debugging for all discovery packets |
| Context | debug service ies *service-name* ppp packets discovery all |
| Tree | all |
| Notes | The following elements are part of a choice: **all** or (**padi**, **pado**, **padr**, **pads**, and **padt**). |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## padi *boolean*

| | |
|---|---|
| Synopsis | Enable PPP debugging for PADI discovery packets |
| Context | debug service ies *service-name* ppp packets discovery padi *boolean* |
| Tree | padi |
| Default | false |
| Notes | The following elements are part of a choice: **all** or (**padi**, **pado**, **padr**, **pads**, and **padt**). |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## pado *boolean*

| | |
|---|---|
| Synopsis | Enable PPP debugging for PADO discovery packets |
| Context | debug service ies *service-name* ppp packets discovery pado *boolean* |
| Tree | pado |
| Default | false |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **all** or (**padi**, **pado**, **padr**, **pads**, and **padt**). |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **padr** *boolean*

| | |
|---|---|
| Synopsis | Enable PPP debugging for PADR discovery packets |
| Context | debug service ies *service-name* ppp packets discovery padr *boolean* |
| Tree | padr |
| Default | false |
| Notes | The following elements are part of a choice: **all** or (**padi**, **pado**, **padr**, **pads**, and **padt**). |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **pads** *boolean*

| | |
|---|---|
| Synopsis | Enable PPP debugging for PADS discovery packets |
| Context | debug service ies *service-name* ppp packets discovery pads *boolean* |
| Tree | pads |
| Default | false |
| Notes | The following elements are part of a choice: **all** or (**padi**, **pado**, **padr**, **pads**, and **padt**). |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **padt** *boolean*

| | |
|---|---|
| Synopsis | Enable PPP debugging for PADT discovery packets |
| Context | debug service ies *service-name* ppp packets discovery padt *boolean* |
| Tree | padt |
| Default | false |
| Notes | The following elements are part of a choice: **all** or (**padi**, **pado**, **padr**, **pads**, and **padt**). |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **mode** *keyword*

| | |
|---|---|
| Synopsis | PPP packets present in the debug output |
| Context | debug service ies *service-name* ppp packets mode *keyword* |
| Tree | mode |
| Options | dropped-only, ingress-and-dropped, egress-ingress-and-dropped |
| Default | dropped-only |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ppp-session**

| | |
|---|---|
| Synopsis | Enter the **ppp-session** context |
| Context | debug service ies *service-name* ppp packets ppp-session |
| Tree | ppp-session |
| Notes | The following elements are part of a mandatory choice: **all** or (**dhcp-client**, **discovery**, and **ppp-session**). |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **all**

| | |
|---|---|
| Synopsis | Enable PPP debugging for all PPP session packets |
| Context | debug service ies *service-name* ppp packets ppp-session all |
| Tree | all |
| Notes | The following elements are part of a choice: **all** or (**chap**, **ipcp**, **ipv6cp**, **lcp**, and **pap**). |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **chap** *boolean*

| | |
|---|---|
| Synopsis | Enable PPP debugging for CHAP authentication packets |
| Context | debug service ies *service-name* ppp packets ppp-session chap *boolean* |
| Tree | chap |
| Default | false |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **all** or (**chap**, **ipcp**, **ipv6cp**, **lcp**, and **pap**). |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ipcp** *boolean*

| | |
|---|---|
| Synopsis | Enable PPP debugging for IPCP NCP packets |
| Context | debug service ies *service-name* ppp packets ppp-session ipcp *boolean* |
| Tree | ipcp |
| Default | false |
| Notes | The following elements are part of a choice: **all** or (**chap**, **ipcp**, **ipv6cp**, **lcp**, and **pap**). |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ipv6cp** *boolean*

| | |
|---|---|
| Synopsis | Enable PPP debugging for IPv6CP NCP packets |
| Context | debug service ies *service-name* ppp packets ppp-session ipv6cp *boolean* |
| Tree | ipv6cp |
| Default | false |
| Notes | The following elements are part of a choice: **all** or (**chap**, **ipcp**, **ipv6cp**, **lcp**, and **pap**). |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **lcp** *boolean*

| | |
|---|---|
| Synopsis | Enable PPP debugging for LCP link establishment packets |
| Context | debug service ies *service-name* ppp packets ppp-session lcp *boolean* |
| Tree | lcp |
| Default | false |
| Notes | The following elements are part of a choice: **all** or (**chap**, **ipcp**, **ipv6cp**, **lcp**, and **pap**). |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **pap** *boolean*

| | |
|---|---|
| Synopsis | Enable PPP debugging for PAP authentication packets |
| Context | debug service ies *service-name* ppp packets ppp-session pap *boolean* |
| Tree | pap |
| Default | false |
| Notes | The following elements are part of a choice: **all** or (**chap**, **ipcp**, **ipv6cp**, **lcp**, and **pap**). |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **remote-id** [id] *string*

| | |
|---|---|
| Synopsis | Add a list entry for **remote-id** |
| Context | debug service ies *service-name* ppp remote-id *string* |
| Tree | remote-id |
| Max. instances | 8 |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**id**] *string*

| | |
|---|---|
| Synopsis | Remote ID of the PPPoE session to debug |
| Context | debug service ies *service-name* ppp remote-id *string* |
| Tree | remote-id |
| String length | 1 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sap** [sap-id] *sap*

| | |
|---|---|
| Synopsis | Add a list entry for **sap** |
| Context | debug service ies *service-name* ppp sap *sap* |
| Tree | sap |


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| | |
|---|---|
| Max. instances | 8 |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**sap-id**] *sap*

| | |
|---|---|
| Synopsis | SAP ID of the PPPoE session to debug |
| Context | debug service ies *service-name* ppp sap *sap* |
| Tree | sap |
| String length | 1 to 45 |
| Notes | This element is part of a list key. |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **user-name** [name] *string*

| | |
|---|---|
| Synopsis | Add a list entry for **user-name** |
| Context | debug service ies *service-name* ppp user-name *string* |
| Tree | user-name |
| Max. instances | 8 |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *string*

| | |
|---|---|
| Synopsis | Username of the PPPoE session to debug |
| Context | debug service ies *service-name* ppp user-name *string* |
| Tree | user-name |
| Description | This command configures the username of the PPPoE sesssion to debug. Only packets after the PAP or CHAP authentication are logged. If the purpose is to include PPPoE discovery packets in the debug log, configure a MAC filter instead. |
| String length | 1 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 23.3.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **video-interface** [interface-name] *interface-name*

| | |
|---|---|
| Synopsis | Enter the **video-interface** list instance |
| Context | debug service ies *service-name* video-interface *interface-name* |
| Tree | video-interface |
| Description | Commands in this context configure debugging for video interfaces. |
| Max. instances | 9 |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### [**interface-name**] *interface-name*

| | |
|---|---|
| Synopsis | Video interface name to debug |
| Context | debug service ies *service-name* video-interface *interface-name* |
| Tree | video-interface |
| String length | 1 to 29 |
| Notes | This element is part of a list key. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **fcc-server**

| | |
|---|---|
| Synopsis | Enable the **fcc-server** context |
| Context | debug service ies *service-name* video-interface *interface-name* fcc-server |
| Tree | fcc-server |
| Description | Commands in this context configure debugging for the video interface Fast Channel Change (FCC) server. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **client** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Client IP address |


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| | |
|---|---|
| Context | debug service ies *service-name* video-interface *interface-name* fcc-server client *ipv4-unicast-address* |
| Tree | client |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## **detail-or-error** *keyword*

| | |
|---|---|
| Synopsis | Debug information for the FCC server |
| Context | debug service ies *service-name* video-interface *interface-name* fcc-server detail-or-error *keyword* |
| Tree | detail-or-error |
| Options | detail – Provide details about the FCC packet received<br>error – Capture only error cases |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## **source-port** *number*

| | |
|---|---|
| Synopsis | Client source port |
| Context | debug service ies *service-name* video-interface *interface-name* fcc-server source-port *number* |
| Tree | source-port |
| Range | 0 to 65535 |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## **packet-rx**

| | |
|---|---|
| Synopsis | Enable the **packet-rx** context |
| Context | debug service ies *service-name* video-interface *interface-name* packet-rx |
| Tree | packet-rx |
| Description | Commands in this context configure the debugging of received Real-time Transport Control Protocol (RTCP) messages. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |


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### **client** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Client IP address |
| Context | debug service ies *service-name* video-interface *interface-name* packet-rx client *ipv4-unicast-address* |
| Tree | client |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **fcc-join** *boolean*

| | |
|---|---|
| Synopsis | Enable debugging for FCC joins |
| Context | debug service ies *service-name* video-interface *interface-name* packet-rx fcc-join *boolean* |
| Tree | fcc-join |
| Default | true |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **fcc-leave** *boolean*

| | |
|---|---|
| Synopsis | Enable debugging for FCC leaves |
| Context | debug service ies *service-name* video-interface *interface-name* packet-rx fcc-leave *boolean* |
| Tree | fcc-leave |
| Default | true |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **ret-nack** *boolean*

| | |
|---|---|
| Synopsis | Enable debugging for retransmission NACK packets |
| Context | debug service ies *service-name* video-interface *interface-name* packet-rx ret-nack *boolean* |
| Tree | ret-nack |
| Default | true |


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| | |
|---|---|
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **source-port** *number*

| | |
|---|---|
| Synopsis | Client source port |
| Context | debug service ies *service-name* video-interface *interface-name* packet-rx source-port *number* |
| Tree | source-port |
| Range | 0 to 65535 |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **perfect-stream**

| | |
|---|---|
| Synopsis | Enable the **perfect-stream** context |
| Context | debug service ies *service-name* video-interface *interface-name* perfect-stream |
| Tree | perfect-stream |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **zone-channel-name** *named-item*

| | |
|---|---|
| Synopsis | Zone channel name |
| Context | debug service ies *service-name* video-interface *interface-name* perfect-stream zone-channel-name *named-item* |
| Tree | zone-channel-name |
| String length | 1 to 32 |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **rt-server**

| | |
|---|---|
| Synopsis | Enable the **rt-server** context |
| Context | debug service ies *service-name* video-interface *interface-name* rt-server |
| Tree | rt-server |


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| | |
|---|---|
| Description | Commands in this context configure debugging for the Retransmission (RET) server. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **client** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Client IP address |
| Context | debug service ies *service-name* video-interface *interface-name* rt-server client *ipv4-unicast-address* |
| Tree | client |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **detail-or-error** *keyword*

| | |
|---|---|
| Synopsis | Debug information for the RT server |
| Context | debug service ies *service-name* video-interface *interface-name* rt-server detail-or-error *keyword* |
| Tree | detail-or-error |
| Options | detail, error |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **source-port** *number*

| | |
|---|---|
| Synopsis | Client source port |
| Context | debug service ies *service-name* video-interface *interface-name* rt-server source-port *number* |
| Tree | source-port |
| Range | 0 to 65535 |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **sg**

| | |
|---|---|
| Synopsis | Enable the **sg** context |


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| | |
|---|---|
| Context | debug service ies *service-name* video-interface *interface-name* sg |
| Tree | sg |
| Description | Commands in this context configure channel debugging. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **group** *ipv4-multicast-address*

| | |
|---|---|
| Synopsis | Multicast channel address |
| Context | debug service ies *service-name* video-interface *interface-name* sg group *ipv4-multicast-address* |
| Tree | group |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **source** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Unicast source address |
| Context | debug service ies *service-name* video-interface *interface-name* sg source *ipv4-unicast-address* |
| Tree | source |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **vpls** [service-name] *service-name*

| | |
|---|---|
| Synopsis | Enter the **vpls** list instance |
| Context | debug service vpls *service-name* |
| Tree | vpls |
| Introduced | 22.10.R1 |
| Platforms | All |

### [**service-name**] *service-name*

| | |
|---|---|
| Synopsis | Administrative service name |
| Context | debug service vpls *service-name* |


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| | |
|---|---|
| Tree | vpls |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 22.10.R1 |
| Platforms | All |

## igmp-snooping

| | |
|---|---|
| Synopsis | Enter the **igmp-snooping** context |
| Context | debug service vpls *service-name* igmp-snooping |
| Tree | igmp-snooping |
| Introduced | 22.10.R1 |
| Platforms | All |

## packet

| | |
|---|---|
| Synopsis | Enable the **packet** context |
| Context | debug service vpls *service-name* igmp-snooping packet |
| Tree | packet |
| Introduced | 22.10.R1 |
| Platforms | All |

## detail *keyword*

| | |
|---|---|
| Synopsis | Detail level of the debug output |
| Context | debug service vpls *service-name* igmp-snooping packet detail *keyword* |
| Tree | detail |
| Options | low, medium, high |
| Default | medium |
| Introduced | 22.10.R1 |
| Platforms | All |

## dropped *boolean*

| | |
|---|---|
| Synopsis | Enable tracing for dropped packets |


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| | |
|---|---|
| Context | debug service vpls *service-name* igmp-snooping packet dropped *boolean* |
| Tree | dropped |
| Default | true |
| Introduced | 22.10.R1 |
| Platforms | All |

### **egress** *boolean*

| | |
|---|---|
| Synopsis | Enable tracing for transmitted packets |
| Context | debug service vpls *service-name* igmp-snooping packet egress *boolean* |
| Tree | egress |
| Default | true |
| Introduced | 22.10.R1 |
| Platforms | All |

### **evpn-mpls** *boolean*

| | |
|---|---|
| Synopsis | Allow debugging for EVPN-MPLS destinations |
| Context | debug service vpls *service-name* igmp-snooping packet evpn-mpls *boolean* |
| Tree | evpn-mpls |
| Default | false |
| Introduced | 22.10.R1 |
| Platforms | All |

### **evpn-vxlan** [ip-address] *(ipv4-address-no-zone | ipv6-address-no-zone)* vni *number*

| | |
|---|---|
| Synopsis | Add a list entry for **evpn-vxlan** |
| Context | debug service vpls *service-name* igmp-snooping packet evpn-vxlan *(ipv4-address-no-zone \| ipv6-address-no-zone)* vni *number* |
| Tree | evpn-vxlan |
| Max. instances | 8 |
| Introduced | 22.10.R1 |
| Platforms | All |


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### [**ip-address**] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the VXLAN Tunnel Endpoint |
| Context | debug service vpls *service-name* igmp-snooping packet evpn-vxlan *(ipv4-address-no-zone \| ipv6-address-no-zone)* vni *number* |
| Tree | evpn-vxlan |
| Notes | This element is part of a list key. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **vni** *number*

| | |
|---|---|
| Synopsis | VXLAN Network Identifier of the VXLAN binding |
| Context | debug service vpls *service-name* igmp-snooping packet evpn-vxlan *(ipv4-address-no-zone \| ipv6-address-no-zone)* vni *number* |
| Tree | evpn-vxlan |
| Range | 1 to 16777215 |
| Notes | This element is part of a list key. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **ingress** *boolean*

| | |
|---|---|
| Synopsis | Enable tracing for received packets |
| Context | debug service vpls *service-name* igmp-snooping packet ingress *boolean* |
| Tree | ingress |
| Default | true |
| Introduced | 22.10.R1 |
| Platforms | All |

### **mac** [mac-address] *mac-address*

| | |
|---|---|
| Synopsis | Add a list entry for **mac** |
| Context | debug service vpls *service-name* igmp-snooping packet mac *mac-address* |
| Tree | mac |


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| | |
|---|---|
| Max. instances | 8 |
| Introduced | 22.10.R1 |
| Platforms | All |

### [**mac-address**] *mac-address*

| | |
|---|---|
| Synopsis | MAC address |
| Context | debug service vpls *service-name* igmp-snooping packet mac *mac-address* |
| Tree | mac |
| Notes | This element is part of a list key. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **sap** [sap-id] *sap*

| | |
|---|---|
| Synopsis | Add a list entry for **sap** |
| Context | debug service vpls *service-name* igmp-snooping packet sap *sap* |
| Tree | sap |
| Max. instances | 8 |
| Introduced | 22.10.R1 |
| Platforms | All |

### [**sap-id**] *sap*

| | |
|---|---|
| Synopsis | SAP ID |
| Context | debug service vpls *service-name* igmp-snooping packet sap *sap* |
| Tree | sap |
| String length | 1 to 45 |
| Notes | This element is part of a list key. |
| Introduced | 22.10.R1 |
| Platforms | All |


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### **sdp-bind** [sdp-bind-id] *sdp-bind-id*

| | |
|---|---|
| Synopsis | Add a list entry for **sdp-bind** |
| Context | debug service vpls *service-name* igmp-snooping packet sdp-bind *sdp-bind-id* |
| Tree | sdp-bind |
| Max. instances | 8 |
| Introduced | 22.10.R1 |
| Platforms | All |

### [**sdp-bind-id**] *sdp-bind-id*

| | |
|---|---|
| Synopsis | SDP bind ID |
| Context | debug service vpls *service-name* igmp-snooping packet sdp-bind *sdp-bind-id* |
| Tree | sdp-bind |
| String length | 3 to 16 |
| Notes | This element is part of a list key. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **mld-snooping**

| | |
|---|---|
| Synopsis | Enter the **mld-snooping** context |
| Context | debug service vpls *service-name* mld-snooping |
| Tree | mld-snooping |
| Introduced | 22.10.R1 |
| Platforms | All |

### **packet**

| | |
|---|---|
| Synopsis | Enable the **packet** context |
| Context | debug service vpls *service-name* mld-snooping packet |
| Tree | packet |
| Introduced | 22.10.R1 |
| Platforms | All |


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### **detail** *keyword*

| | |
|---|---|
| Synopsis | Detail level of the debug output |
| Context | debug service vpls *service-name* mld-snooping packet detail *keyword* |
| Tree | detail |
| Options | low, medium, high |
| Default | medium |
| Introduced | 22.10.R1 |
| Platforms | All |

### **dropped** *boolean*

| | |
|---|---|
| Synopsis | Enable tracing for dropped packets |
| Context | debug service vpls *service-name* mld-snooping packet dropped *boolean* |
| Tree | dropped |
| Default | true |
| Introduced | 22.10.R1 |
| Platforms | All |

### **egress** *boolean*

| | |
|---|---|
| Synopsis | Enable tracing for transmitted packets |
| Context | debug service vpls *service-name* mld-snooping packet egress *boolean* |
| Tree | egress |
| Default | true |
| Introduced | 22.10.R1 |
| Platforms | All |

### **evpn-mpls** *boolean*

| | |
|---|---|
| Synopsis | Allow debugging for EVPN-MPLS destinations |
| Context | debug service vpls *service-name* mld-snooping packet evpn-mpls *boolean* |
| Tree | evpn-mpls |
| Default | false |
| Introduced | 22.10.R1 |


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| | |
|---|---|
| Platforms | All |

### **evpn-vxlan** [ip-address] *(ipv4-address-no-zone | ipv6-address-no-zone)* vni *number*

| | |
|---|---|
| Synopsis | Add a list entry for **evpn-vxlan** |
| Context | debug service vpls *service-name* mld-snooping packet evpn-vxlan *(ipv4-address-no-zone \| ipv6-address-no-zone)* vni *number* |
| Tree | evpn-vxlan |
| Max. instances | 8 |
| Introduced | 22.10.R1 |
| Platforms | All |

### [**ip-address**] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the VXLAN Tunnel Endpoint |
| Context | debug service vpls *service-name* mld-snooping packet evpn-vxlan *(ipv4-address-no-zone \| ipv6-address-no-zone)* vni *number* |
| Tree | evpn-vxlan |
| Notes | This element is part of a list key. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **vni** *number*

| | |
|---|---|
| Synopsis | VXLAN Network Identifier of the VXLAN binding |
| Context | debug service vpls *service-name* mld-snooping packet evpn-vxlan *(ipv4-address-no-zone \| ipv6-address-no-zone)* vni *number* |
| Tree | evpn-vxlan |
| Range | 1 to 16777215 |
| Notes | This element is part of a list key. |
| Introduced | 22.10.R1 |
| Platforms | All |


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### **ingress** *boolean*

| | |
|---|---|
| Synopsis | Enable tracing for received packets |
| Context | debug service vpls *service-name* mld-snooping packet ingress *boolean* |
| Tree | ingress |
| Default | true |
| Introduced | 22.10.R1 |
| Platforms | All |

### **mac** [mac-address] *mac-address*

| | |
|---|---|
| Synopsis | Add a list entry for **mac** |
| Context | debug service vpls *service-name* mld-snooping packet mac *mac-address* |
| Tree | mac |
| Max. instances | 8 |
| Introduced | 22.10.R1 |
| Platforms | All |

### [**mac-address**] *mac-address*

| | |
|---|---|
| Synopsis | MAC address |
| Context | debug service vpls *service-name* mld-snooping packet mac *mac-address* |
| Tree | mac |
| Notes | This element is part of a list key. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **sap** [sap-id] *sap*

| | |
|---|---|
| Synopsis | Add a list entry for **sap** |
| Context | debug service vpls *service-name* mld-snooping packet sap *sap* |
| Tree | sap |
| Max. instances | 8 |
| Introduced | 22.10.R1 |


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| | |
|---|---|
| Platforms | All |

### [**sap-id**] *sap*

| | |
|---|---|
| Synopsis | SAP ID |
| Context | debug service vpls *service-name* mld-snooping packet sap *sap* |
| Tree | sap |
| String length | 1 to 45 |
| Notes | This element is part of a list key. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **sdp-bind** [sdp-bind-id] *sdp-bind-id*

| | |
|---|---|
| Synopsis | Add a list entry for **sdp-bind** |
| Context | debug service vpls *service-name* mld-snooping packet sdp-bind *sdp-bind-id* |
| Tree | sdp-bind |
| Max. instances | 8 |
| Introduced | 22.10.R1 |
| Platforms | All |

### [**sdp-bind-id**] *sdp-bind-id*

| | |
|---|---|
| Synopsis | SDP bind ID |
| Context | debug service vpls *service-name* mld-snooping packet sdp-bind *sdp-bind-id* |
| Tree | sdp-bind |
| String length | 3 to 16 |
| Notes | This element is part of a list key. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **mrp**

| | |
|---|---|
| Synopsis | Enter the **mrp** context |


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| | |
|---|---|
| Context | debug service vpls *service-name* mrp |
| Tree | mrp |
| Introduced | 23.10.R1 |
| Platforms | All |

## events

| | |
|---|---|
| Synopsis | Enable the **events** context |
| Context | debug service vpls *service-name* mrp events |
| Tree | events |
| Introduced | 23.10.R1 |
| Platforms | All |

## all-events

| | |
|---|---|
| Synopsis | Trace all MRP events |
| Context | debug service vpls *service-name* mrp events all-events |
| Tree | all-events |
| Description | When specified, the system traces all MRP events, including applicant, leave all, periodic and registrant state machines, and received and transmitted MRP PDUs. |
| Notes | The following elements are part of a choice: **all-events** or **event-types**. |
| Introduced | 23.10.R1 |
| Platforms | All |

## event-types

| | |
|---|---|
| Synopsis | Enter the **event-types** context |
| Context | debug service vpls *service-name* mrp events event-types |
| Tree | event-types |
| Notes | The following elements are part of a choice: **all-events** or **event-types**. |
| Introduced | 23.10.R1 |
| Platforms | All |


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### **applicant-sm** *boolean*

| | |
|---|---|
| Synopsis | Trace the applicant state machine |
| Context | debug service vpls *service-name* mrp events event-types applicant-sm *boolean* |
| Tree | applicant-sm |
| Default | false |
| Introduced | 23.10.R1 |
| Platforms | All |

### **leave-all-sm** *boolean*

| | |
|---|---|
| Synopsis | Trace leave all state machine changes |
| Context | debug service vpls *service-name* mrp events event-types leave-all-sm *boolean* |
| Tree | leave-all-sm |
| Default | false |
| Introduced | 23.10.R1 |
| Platforms | All |

### **mrpdu** *boolean*

| | |
|---|---|
| Synopsis | Trace received and transmitted PDUs |
| Context | debug service vpls *service-name* mrp events event-types mrpdu *boolean* |
| Tree | mrpdu |
| Default | false |
| Introduced | 23.10.R1 |
| Platforms | All |

### **periodic-sm** *boolean*

| | |
|---|---|
| Synopsis | Trace periodic state machine changes |
| Context | debug service vpls *service-name* mrp events event-types periodic-sm *boolean* |
| Tree | periodic-sm |
| Default | false |
| Introduced | 23.10.R1 |
| Platforms | All |


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### **registrant-sm** *boolean*

| | |
|---|---|
| Synopsis | Trace registrant state machine changes |
| Context | debug service vpls *service-name* mrp events event-types registrant-sm *boolean* |
| Tree | registrant-sm |
| Default | false |
| Introduced | 23.10.R1 |
| Platforms | All |

### **mmrp-mac** [mac] *mac-address*

| | |
|---|---|
| Synopsis | Add a list entry for **mmrp-mac** |
| Context | debug service vpls *service-name* mrp mmrp-mac *mac-address* |
| Tree | mmrp-mac |
| Max. instances | 256 |
| Introduced | 23.10.R1 |
| Platforms | All |

### [**mac**] *mac-address*

| | |
|---|---|
| Synopsis | MAC address to trace |
| Context | debug service vpls *service-name* mrp mmrp-mac *mac-address* |
| Tree | mmrp-mac |
| Notes | This element is part of a list key. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **mvrp-vlan** [vlan] *number*

| | |
|---|---|
| Synopsis | Add a list entry for **mvrp-vlan** |
| Context | debug service vpls *service-name* mrp mvrp-vlan *number* |
| Tree | mvrp-vlan |
| Max. instances | 256 |
| Introduced | 23.10.R1 |


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| | |
|---|---|
| Platforms | All |

### [**vlan**] *number*

| | |
|---|---|
| Synopsis | VLAN ID to trace |
| Context | debug service vpls *service-name* mrp mvrp-vlan *number* |
| Tree | mvrp-vlan |
| Range | 0 to 4094 |
| Notes | This element is part of a list key. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **sap** [sap-id] *sap*

| | |
|---|---|
| Synopsis | Add a list entry for **sap** |
| Context | debug service vpls *service-name* mrp sap *sap* |
| Tree | sap |
| Max. instances | 256 |
| Introduced | 23.10.R1 |
| Platforms | All |

### [**sap-id**] *sap*

| | |
|---|---|
| Synopsis | SAP ID to trace |
| Context | debug service vpls *service-name* mrp sap *sap* |
| Tree | sap |
| String length | 1 to 45 |
| Notes | This element is part of a list key. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **sdp-bind** [sdp-bind-id] *sdp-bind-id*

| | |
|---|---|
| Synopsis | Add a list entry for **sdp-bind** |


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| | |
|---|---|
| Context | debug service vpls *service-name* mrp sdp-bind *sdp-bind-id* |
| Tree | sdp-bind |
| Max. instances | 256 |
| Introduced | 23.10.R1 |
| Platforms | All |

### [**sdp-bind-id**] *sdp-bind-id*

| | |
|---|---|
| Synopsis | SDP ID to trace |
| Context | debug service vpls *service-name* mrp sdp-bind *sdp-bind-id* |
| Tree | sdp-bind |
| String length | 3 to 16 |
| Notes | This element is part of a list key. |
| Introduced | 23.10.R1 |
| Platforms | All |

## pim-snooping

| | |
|---|---|
| Synopsis | Enter the **pim-snooping** context |
| Context | debug service vpls *service-name* pim-snooping |
| Tree | pim-snooping |
| Introduced | 22.10.R1 |
| Platforms | All |

## events

| | |
|---|---|
| Synopsis | Enable the **events** context |
| Context | debug service vpls *service-name* pim-snooping events |
| Tree | events |
| Introduced | 22.10.R1 |
| Platforms | All |


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## adjacency

| | |
|---|---|
| Synopsis | Enable the **adjacency** context |
| Context | debug service vpls *service-name* pim-snooping events adjacency |
| Tree | adjacency |
| Notes | The following elements are part of a choice: (**adjacency**, **db**, **jp**, **mcs**, **port**, and **red**) or **all**. |
| Introduced | 22.10.R1 |
| Platforms | All |

## all

| | |
|---|---|
| Synopsis | Enable the **all** context |
| Context | debug service vpls *service-name* pim-snooping events all |
| Tree | all |
| Notes | The following elements are part of a choice: (**adjacency**, **db**, **jp**, **mcs**, **port**, and **red**) or **all**. |
| Introduced | 22.10.R1 |
| Platforms | All |

## detail *boolean*

| | |
|---|---|
| Synopsis | Enable detail tracing |
| Context | debug service vpls *service-name* pim-snooping events all detail *boolean* |
| Tree | detail |
| Default | false |
| Introduced | 22.10.R1 |
| Platforms | All |

## group-address *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP multicast group address used to trace events |
| Context | debug service vpls *service-name* pim-snooping events all group-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | group-address |
| Introduced | 22.10.R1 |


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| | |
|---|---|
| Platforms | All |

### **source-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source address used to trace events |
| Context | debug service vpls *service-name* pim-snooping events all source-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | source-address |
| Introduced | 22.10.R1 |
| Platforms | All |

### **db**

| | |
|---|---|
| Synopsis | Enable the **db** context |
| Context | debug service vpls *service-name* pim-snooping events db |
| Tree | db |
| Notes | The following elements are part of a choice: (**adjacency**, **db**, **jp**, **mcs**, **port**, and **red**) or **all**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **detail** *boolean*

| | |
|---|---|
| Synopsis | Enable detail tracing |
| Context | debug service vpls *service-name* pim-snooping events db detail *boolean* |
| Tree | detail |
| Default | false |
| Introduced | 22.10.R1 |
| Platforms | All |

### **group-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP multicast group address used to trace events |
| Context | debug service vpls *service-name* pim-snooping events db group-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | group-address |


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| | |
|---|---|
| Introduced | 22.10.R1 |
| Platforms | All |

### **source-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source address used to trace events |
| Context | debug service vpls *service-name* pim-snooping events db source-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | source-address |
| Introduced | 22.10.R1 |
| Platforms | All |

### **jp**

| | |
|---|---|
| Synopsis | Enable the **jp** context |
| Context | debug service vpls *service-name* pim-snooping events jp |
| Tree | jp |
| Description | Commands in this context enable debugging for PIM join and prune mechanisms. |
| Notes | The following elements are part of a choice: (**adjacency**, **db**, **jp**, **mcs**, **port**, and **red**) or **all**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **detail** *boolean*

| | |
|---|---|
| Synopsis | Enable detail tracing |
| Context | debug service vpls *service-name* pim-snooping events jp detail *boolean* |
| Tree | detail |
| Default | false |
| Introduced | 22.10.R1 |
| Platforms | All |

### **group-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP multicast group address used to trace events |


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| | |
|---|---|
| Context | debug service vpls *service-name* pim-snooping events jp group-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | group-address |
| Introduced | 22.10.R1 |
| Platforms | All |

### **source-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source address used to trace events |
| Context | debug service vpls *service-name* pim-snooping events jp source-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | source-address |
| Introduced | 22.10.R1 |
| Platforms | All |

### **mcs**

| | |
|---|---|
| Synopsis | Enable the **mcs** context |
| Context | debug service vpls *service-name* pim-snooping events mcs |
| Tree | mcs |
| Description | Commands in this context enable debugging for PIM snooping multi-chassis synchronization. |
| Notes | The following elements are part of a choice: (**adjacency**, **db**, **jp**, **mcs**, **port**, and **red**) or **all**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **detail** *boolean*

| | |
|---|---|
| Synopsis | Enable detail tracing |
| Context | debug service vpls *service-name* pim-snooping events mcs detail *boolean* |
| Tree | detail |
| Default | false |
| Introduced | 22.10.R1 |
| Platforms | All |


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## port

| | |
|---|---|
| Synopsis | Enable the **port** context |
| Context | debug service vpls *service-name* pim-snooping events port |
| Tree | port |
| Notes | The following elements are part of a choice: (**adjacency**, **db**, **jp**, **mcs**, **port**, and **red**) or **all**. |
| Introduced | 22.10.R1 |
| Platforms | All |

## detail *boolean*

| | |
|---|---|
| Synopsis | Enable detail tracing |
| Context | debug service vpls *service-name* pim-snooping events port detail *boolean* |
| Tree | detail |
| Default | false |
| Introduced | 22.10.R1 |
| Platforms | All |

## evpn-mpls

| | |
|---|---|
| Synopsis | Enable tracing for EVPN-MPLS ports |
| Context | debug service vpls *service-name* pim-snooping events port evpn-mpls |
| Tree | evpn-mpls |
| Notes | The following elements are part of a mandatory choice: **evpn-mpls**, **sap-id**, **sdp-bind-id**, or (**vni** and **vtep**). |
| Introduced | 22.10.R1 |
| Platforms | All |

## sap-id *sap*

| | |
|---|---|
| Synopsis | SAP ID |
| Context | debug service vpls *service-name* pim-snooping events port sap-id *sap* |
| Tree | sap-id |
| String length | 1 to 45 |


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| | |
|---|---|
| Notes | The following elements are part of a mandatory choice: **evpn-mpls**, **sap-id**, **sdp-bind-id**, or (**vni** and **vtep**). |
| Introduced | 22.10.R1 |
| Platforms | All |

### **sdp-bind-id** *sdp-bind-id*

| | |
|---|---|
| Synopsis | SDP bind ID |
| Context | debug service vpls *service-name* pim-snooping events port sdp-bind-id *sdp-bind-id* |
| Tree | sdp-bind-id |
| String length | 3 to 16 |
| Notes | The following elements are part of a mandatory choice: **evpn-mpls**, **sap-id**, **sdp-bind-id**, or (**vni** and **vtep**). |
| Introduced | 22.10.R1 |
| Platforms | All |

### **vni** *number*

| | |
|---|---|
| Synopsis | VXLAN Network Identifier of the VXLAN binding |
| Context | debug service vpls *service-name* pim-snooping events port vni *number* |
| Tree | vni |
| Range | 1 to 16777215 |
| Notes | The following elements are part of a mandatory choice: **evpn-mpls**, **sap-id**, **sdp-bind-id**, or (**vni** and **vtep**). |
| Introduced | 22.10.R1 |
| Platforms | All |

### **vtep** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the tunnel endpoint |
| Context | debug service vpls *service-name* pim-snooping events port vtep *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | vtep |
| Notes | The following elements are part of a mandatory choice: **evpn-mpls**, **sap-id**, **sdp-bind-id**, or (**vni** and **vtep**). |
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| | |
|---|---|
| Platforms | All |

## red

| | |
|---|---|
| Synopsis | Enable the **red** context |
| Context | debug service vpls *service-name* pim-snooping events red |
| Tree | red |
| Description | Commands in this context enable debugging for PIM messages sent to the standby CPM. |
| Notes | The following elements are part of a choice: (**adjacency**, **db**, **jp**, **mcs**, **port**, and **red**) or **all**. |
| Introduced | 22.10.R1 |
| Platforms | All |

## detail *boolean*

| | |
|---|---|
| Synopsis | Enable detail tracing |
| Context | debug service vpls *service-name* pim-snooping events red detail *boolean* |
| Tree | detail |
| Default | false |
| Introduced | 22.10.R1 |
| Platforms | All |

## packet

| | |
|---|---|
| Synopsis | Enable the **packet** context |
| Context | debug service vpls *service-name* pim-snooping packet |
| Tree | packet |
| Introduced | 22.10.R1 |
| Platforms | All |

## all-origins

| | |
|---|---|
| Synopsis | Allow tracing on all ports |
| Context | debug service vpls *service-name* pim-snooping packet all-origins |
| Tree | all-origins |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **all-origins** or **port**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### all-packet-types

| | |
|---|---|
| Synopsis | Enable PIM debugging for all packets |
| Context | debug service vpls *service-name* pim-snooping packet all-packet-types |
| Tree | all-packet-types |
| Notes | The following elements are part of a choice: **all-packet-types** or **packet-types**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### packet-types

| | |
|---|---|
| Synopsis | Enter the **packet-types** context |
| Context | debug service vpls *service-name* pim-snooping packet packet-types |
| Tree | packet-types |
| Notes | The following elements are part of a choice: **all-packet-types** or **packet-types**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### hello *boolean*

| | |
|---|---|
| Synopsis | Debug Hello packets |
| Context | debug service vpls *service-name* pim-snooping packet packet-types hello *boolean* |
| Tree | hello |
| Default | false |
| Introduced | 22.10.R1 |
| Platforms | All |

### jp *boolean*

| | |
|---|---|
| Synopsis | Debug join and prune packets |
| Context | debug service vpls *service-name* pim-snooping packet packet-types jp *boolean* |


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| | |
|---|---|
| Tree | jp |
| Default | false |
| Introduced | 22.10.R1 |
| Platforms | All |

## port

| | |
|---|---|
| Synopsis | Enable the **port** context |
| Context | debug service vpls *service-name* pim-snooping packet port |
| Tree | port |
| Notes | The following elements are part of a choice: **all-origins** or **port**. |
| Introduced | 22.10.R1 |
| Platforms | All |

## evpn-mpls

| | |
|---|---|
| Synopsis | Enable tracing for EVPN-MPLS ports |
| Context | debug service vpls *service-name* pim-snooping packet port evpn-mpls |
| Tree | evpn-mpls |
| Notes | The following elements are part of a mandatory choice: **evpn-mpls**, **sap-id**, **sdp-bind-id**, or (**vni** and **vtep**). |
| Introduced | 22.10.R1 |
| Platforms | All |

## sap-id *sap*

| | |
|---|---|
| Synopsis | SAP ID |
| Context | debug service vpls *service-name* pim-snooping packet port sap-id *sap* |
| Tree | sap-id |
| String length | 1 to 45 |
| Notes | The following elements are part of a mandatory choice: **evpn-mpls**, **sap-id**, **sdp-bind-id**, or (**vni** and **vtep**). |
| Introduced | 22.10.R1 |
| Platforms | All |


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### **sdp-bind-id** *sdp-bind-id*

| | |
|---|---|
| Synopsis | SDP bind ID |
| Context | debug service vpls *service-name* pim-snooping packet port sdp-bind-id *sdp-bind-id* |
| Tree | sdp-bind-id |
| String length | 3 to 16 |
| Notes | The following elements are part of a mandatory choice: **evpn-mpls**, **sap-id**, **sdp-bind-id**, or (**vni** and **vtep**). |
| Introduced | 22.10.R1 |
| Platforms | All |

### **vni** *number*

| | |
|---|---|
| Synopsis | VXLAN Network Identifier of the VXLAN binding |
| Context | debug service vpls *service-name* pim-snooping packet port vni *number* |
| Tree | vni |
| Range | 1 to 16777215 |
| Notes | The following elements are part of a mandatory choice: **evpn-mpls**, **sap-id**, **sdp-bind-id**, or (**vni** and **vtep**). |
| Introduced | 22.10.R1 |
| Platforms | All |

### **vtep** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the tunnel endpoint |
| Context | debug service vpls *service-name* pim-snooping packet port vtep *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | vtep |
| Notes | The following elements are part of a mandatory choice: **evpn-mpls**, **sap-id**, **sdp-bind-id**, or (**vni** and **vtep**). |
| Introduced | 22.10.R1 |
| Platforms | All |

### **ppp**

| | |
|---|---|
| Synopsis | Enter the **ppp** context |


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| | |
|---|---|
| Context | debug service vpls *service-name* ppp |
| Tree | ppp |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **circuit-id** [id] *string*

| | |
|---|---|
| Synopsis | Add a list entry for **circuit-id** |
| Context | debug service vpls *service-name* ppp circuit-id *string* |
| Tree | circuit-id |
| Max. instances | 8 |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## [**id**] *string*

| | |
|---|---|
| Synopsis | Circuit ID of the PPPoE session to debug |
| Context | debug service vpls *service-name* ppp circuit-id *string* |
| Tree | circuit-id |
| String length | 1 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **events**

| | |
|---|---|
| Synopsis | Enable the **events** context |
| Context | debug service vpls *service-name* ppp events |
| Tree | events |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### all

| | |
|---|---|
| Synopsis | Enable PPP debugging for all events |
| Context | debug service vpls *service-name* ppp events all |
| Tree | all |
| Notes | The following elements are part of a mandatory choice: **all** or (**dhcp-client**, **l2tp**, **local-address-assignment**, and **ppp**). |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### dhcp-client

| | |
|---|---|
| Synopsis | Enable the **dhcp-client** context |
| Context | debug service vpls *service-name* ppp events dhcp-client |
| Tree | dhcp-client |
| Notes | The following elements are part of a mandatory choice: **all** or (**dhcp-client**, **l2tp**, **local-address-assignment**, and **ppp**). |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### terminate-only *boolean*

| | |
|---|---|
| Synopsis | Debug events for ungraceful terminated sessions only |
| Context | debug service vpls *service-name* ppp events dhcp-client terminate-only *boolean* |
| Tree | terminate-only |
| Default | false |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### l2tp

| | |
|---|---|
| Synopsis | Enable the **l2tp** context |
| Context | debug service vpls *service-name* ppp events l2tp |
| Tree | l2tp |
| Description | Commands in this context configure debugging events for L2TP sessions. |


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| | |
|---|---|
| Notes | The following elements are part of a mandatory choice: **all** or (**dhcp-client**, **l2tp**, **local-address-assignment**, and **ppp**). |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **terminate-only** *boolean*

| | |
|---|---|
| Synopsis | Debug events for ungraceful terminated sessions only |
| Context | debug service vpls *service-name* ppp events l2tp terminate-only *boolean* |
| Tree | terminate-only |
| Default | false |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **local-address-assignment**

| | |
|---|---|
| Synopsis | Enable the **local-address-assignment** context |
| Context | debug service vpls *service-name* ppp events local-address-assignment |
| Tree | local-address-assignment |
| Notes | The following elements are part of a mandatory choice: **all** or (**dhcp-client**, **l2tp**, **local-address-assignment**, and **ppp**). |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **terminate-only** *boolean*

| | |
|---|---|
| Synopsis | Debug events for ungraceful terminated sessions only |
| Context | debug service vpls *service-name* ppp events local-address-assignment terminate-only *boolean* |
| Tree | terminate-only |
| Default | false |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### ppp

| | |
|---|---|
| Synopsis | Enable the **ppp** context |
| Context | debug service vpls *service-name* ppp events ppp |
| Tree | ppp |
| Notes | The following elements are part of a mandatory choice: **all** or (**dhcp-client**, **l2tp**, **local-address-assignment**, and **ppp**). |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### terminate-only *boolean*

| | |
|---|---|
| Synopsis | Debug events for ungraceful terminated sessions only |
| Context | debug service vpls *service-name* ppp events ppp terminate-only *boolean* |
| Tree | terminate-only |
| Default | false |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### mac [address] *mac-address*

| | |
|---|---|
| Synopsis | Add a list entry for **mac** |
| Context | debug service vpls *service-name* ppp mac *mac-address* |
| Tree | mac |
| Max. instances | 8 |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**address**] *mac-address*

| | |
|---|---|
| Synopsis | MAC address of the PPPoE session to debug |
| Context | debug service vpls *service-name* ppp mac *mac-address* |
| Tree | mac |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## packets

| | |
|---|---|
| Synopsis | Enable the **packets** context |
| Context | debug service vpls *service-name* ppp packets |
| Tree | packets |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## all

| | |
|---|---|
| Synopsis | Enable PPP debugging for all packets |
| Context | debug service vpls *service-name* ppp packets all |
| Tree | all |
| Notes | The following elements are part of a mandatory choice: **all** or (**dhcp-client**, **discovery**, and **ppp-session**). |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## detail-level *keyword*

| | |
|---|---|
| Synopsis | Detail level of the PPP packet debug output |
| Context | debug service vpls *service-name* ppp packets detail-level *keyword* |
| Tree | detail-level |
| Options | low, medium, high |
| Default | high |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## dhcp-client *boolean*

| | |
|---|---|
| Synopsis | Enable DHCP client packet debugging |
| Context | debug service vpls *service-name* ppp packets dhcp-client *boolean* |


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| | |
|---|---|
| Tree | dhcp-client |
| Default | false |
| Notes | The following elements are part of a mandatory choice: **all** or (**dhcp-client**, **discovery**, and **ppp-session**). |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## discovery

| | |
|---|---|
| Synopsis | Enter the **discovery** context |
| Context | debug service vpls *service-name* ppp packets discovery |
| Tree | discovery |
| Notes | The following elements are part of a mandatory choice: **all** or (**dhcp-client**, **discovery**, and **ppp-session**). |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## all

| | |
|---|---|
| Synopsis | Enable PPP debugging for all discovery packets |
| Context | debug service vpls *service-name* ppp packets discovery all |
| Tree | all |
| Notes | The following elements are part of a choice: **all** or (**padi**, **pado**, **padr**, **pads**, and **padt**). |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## padi *boolean*

| | |
|---|---|
| Synopsis | Enable PPP debugging for PADI discovery packets |
| Context | debug service vpls *service-name* ppp packets discovery padi *boolean* |
| Tree | padi |
| Default | false |
| Notes | The following elements are part of a choice: **all** or (**padi**, **pado**, **padr**, **pads**, and **padt**). |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **pado** *boolean*

| | |
|---|---|
| Synopsis | Enable PPP debugging for PADO discovery packets |
| Context | debug service vpls *service-name* ppp packets discovery pado *boolean* |
| Tree | pado |
| Default | false |
| Notes | The following elements are part of a choice: **all** or (**padi**, **pado**, **padr**, **pads**, and **padt**). |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **padr** *boolean*

| | |
|---|---|
| Synopsis | Enable PPP debugging for PADR discovery packets |
| Context | debug service vpls *service-name* ppp packets discovery padr *boolean* |
| Tree | padr |
| Default | false |
| Notes | The following elements are part of a choice: **all** or (**padi**, **pado**, **padr**, **pads**, and **padt**). |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **pads** *boolean*

| | |
|---|---|
| Synopsis | Enable PPP debugging for PADS discovery packets |
| Context | debug service vpls *service-name* ppp packets discovery pads *boolean* |
| Tree | pads |
| Default | false |
| Notes | The following elements are part of a choice: **all** or (**padi**, **pado**, **padr**, **pads**, and **padt**). |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **padt** *boolean*

| | |
|---|---|
| Synopsis | Enable PPP debugging for PADT discovery packets |
| Context | debug service vpls *service-name* ppp packets discovery padt *boolean* |
| Tree | padt |


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| | |
|---|---|
| Default | false |
| Notes | The following elements are part of a choice: **all** or (**padi**, **pado**, **padr**, **pads**, and **padt**). |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **mode** *keyword*

| | |
|---|---|
| Synopsis | PPP packets present in the debug output |
| Context | debug service vpls *service-name* ppp packets mode *keyword* |
| Tree | mode |
| Options | dropped-only, ingress-and-dropped, egress-ingress-and-dropped |
| Default | dropped-only |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### ppp-session

| | |
|---|---|
| Synopsis | Enter the **ppp-session** context |
| Context | debug service vpls *service-name* ppp packets ppp-session |
| Tree | ppp-session |
| Notes | The following elements are part of a mandatory choice: **all** or (**dhcp-client**, **discovery**, and **ppp-session**). |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### all

| | |
|---|---|
| Synopsis | Enable PPP debugging for all PPP session packets |
| Context | debug service vpls *service-name* ppp packets ppp-session all |
| Tree | all |
| Notes | The following elements are part of a choice: **all** or (**chap**, **ipcp**, **ipv6cp**, **lcp**, and **pap**). |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **chap** *boolean*

| | |
|---|---|
| Synopsis | Enable PPP debugging for CHAP authentication packets |
| Context | debug service vpls *service-name* ppp packets ppp-session chap *boolean* |
| Tree | chap |
| Default | false |
| Notes | The following elements are part of a choice: **all** or (**chap**, **ipcp**, **ipv6cp**, **lcp**, and **pap**). |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ipcp** *boolean*

| | |
|---|---|
| Synopsis | Enable PPP debugging for IPCP NCP packets |
| Context | debug service vpls *service-name* ppp packets ppp-session ipcp *boolean* |
| Tree | ipcp |
| Default | false |
| Notes | The following elements are part of a choice: **all** or (**chap**, **ipcp**, **ipv6cp**, **lcp**, and **pap**). |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ipv6cp** *boolean*

| | |
|---|---|
| Synopsis | Enable PPP debugging for IPv6CP NCP packets |
| Context | debug service vpls *service-name* ppp packets ppp-session ipv6cp *boolean* |
| Tree | ipv6cp |
| Default | false |
| Notes | The following elements are part of a choice: **all** or (**chap**, **ipcp**, **ipv6cp**, **lcp**, and **pap**). |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **lcp** *boolean*

| | |
|---|---|
| Synopsis | Enable PPP debugging for LCP link establishment packets |
| Context | debug service vpls *service-name* ppp packets ppp-session lcp *boolean* |
| Tree | lcp |


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| | |
|---|---|
| Default | false |
| Notes | The following elements are part of a choice: **all** or (**chap**, **ipcp**, **ipv6cp**, **lcp**, and **pap**). |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **pap** *boolean*

| | |
|---|---|
| Synopsis | Enable PPP debugging for PAP authentication packets |
| Context | debug service vpls *service-name* ppp packets ppp-session pap *boolean* |
| Tree | pap |
| Default | false |
| Notes | The following elements are part of a choice: **all** or (**chap**, **ipcp**, **ipv6cp**, **lcp**, and **pap**). |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **remote-id** [id] *string*

| | |
|---|---|
| Synopsis | Add a list entry for **remote-id** |
| Context | debug service vpls *service-name* ppp remote-id *string* |
| Tree | remote-id |
| Max. instances | 8 |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**id**] *string*

| | |
|---|---|
| Synopsis | Remote ID of the PPPoE session to debug |
| Context | debug service vpls *service-name* ppp remote-id *string* |
| Tree | remote-id |
| String length | 1 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **sap** [sap-id] *sap*

| | |
|---|---|
| Synopsis | Add a list entry for **sap** |
| Context | debug service vpls *service-name* ppp sap *sap* |
| Tree | sap |
| Max. instances | 8 |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**sap-id**] *sap*

| | |
|---|---|
| Synopsis | SAP ID of the PPPoE session to debug |
| Context | debug service vpls *service-name* ppp sap *sap* |
| Tree | sap |
| String length | 1 to 45 |
| Notes | This element is part of a list key. |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **user-name** [name] *string*

| | |
|---|---|
| Synopsis | Add a list entry for **user-name** |
| Context | debug service vpls *service-name* ppp user-name *string* |
| Tree | user-name |
| Max. instances | 8 |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *string*

| | |
|---|---|
| Synopsis | Username of the PPPoE session to debug |
| Context | debug service vpls *service-name* ppp user-name *string* |
| Tree | user-name |


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| | |
|---|---|
| Description | This command configures the username of the PPPoE sesssion to debug. Only packets after the PAP or CHAP authentication are logged. If the purpose is to include PPPoE discovery packets in the debug log, configure a MAC filter instead. |
| String length | 1 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## proxy-arp

| | |
|---|---|
| Synopsis | Enter the **proxy-arp** context |
| Context | debug service vpls *service-name* proxy-arp |
| Tree | proxy-arp |
| Introduced | 23.10.R1 |
| Platforms | All |

## all

| | |
|---|---|
| Synopsis | Debug the proxy ARP function for all addresses |
| Context | debug service vpls *service-name* proxy-arp all |
| Tree | all |
| Notes | The following elements are part of a choice: **all**, **ip**, or **mac**. |
| Introduced | 23.10.R1 |
| Platforms | All |

## ip

| | |
|---|---|
| Synopsis | Enter the **ip** context |
| Context | debug service vpls *service-name* proxy-arp ip |
| Tree | ip |
| Notes | The following elements are part of a choice: **all**, **ip**, or **mac**. |
| Introduced | 23.10.R1 |
| Platforms | All |


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### **address** [ipv4-address] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Add a list entry for **address** |
| Context | debug service vpls *service-name* proxy-arp ip address *ipv4-unicast-address* |
| Tree | address |
| Max. instances | 256 |
| Introduced | 23.10.R1 |
| Platforms | All |

### [**ipv4-address**] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IPv4 address of the proxy ARP session to debug |
| Context | debug service vpls *service-name* proxy-arp ip address *ipv4-unicast-address* |
| Tree | address |
| Notes | This element is part of a list key. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **mac**

| | |
|---|---|
| Synopsis | Enter the **mac** context |
| Context | debug service vpls *service-name* proxy-arp mac |
| Tree | mac |
| Notes | The following elements are part of a choice: **all**, **ip**, or **mac**. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **address** [address] *mac-address*

| | |
|---|---|
| Synopsis | Add a list entry for **address** |
| Context | debug service vpls *service-name* proxy-arp mac address *mac-address* |
| Tree | address |
| Max. instances | 256 |


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| | |
|---|---|
| Introduced | 23.10.R1 |
| Platforms | All |

### [**address**] *mac-address*

| | |
|---|---|
| Synopsis | MAC address of the proxy ARP session to debug |
| Context | debug service vpls *service-name* proxy-arp mac address *mac-address* |
| Tree | address |
| Notes | This element is part of a list key. |
| Introduced | 23.10.R1 |
| Platforms | All |

### proxy-nd

| | |
|---|---|
| Synopsis | Enter the **proxy-nd** context |
| Context | debug service vpls *service-name* proxy-nd |
| Tree | proxy-nd |
| Introduced | 23.10.R1 |
| Platforms | All |

### all

| | |
|---|---|
| Synopsis | Debug the proxy ND function for all addresses |
| Context | debug service vpls *service-name* proxy-nd all |
| Tree | all |
| Notes | The following elements are part of a choice: **all**, **ip**, or **mac**. |
| Introduced | 23.10.R1 |
| Platforms | All |

### ip

| | |
|---|---|
| Synopsis | Enter the **ip** context |
| Context | debug service vpls *service-name* proxy-nd ip |
| Tree | ip |
| Notes | The following elements are part of a choice: **all**, **ip**, or **mac**. |


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| | |
|---|---|
| Introduced | 23.10.R1 |
| Platforms | All |

### **address** [ipv6-address] *ipv6-address*

| | |
|---|---|
| Synopsis | Add a list entry for **address** |
| Context | debug service vpls *service-name* proxy-nd ip address *ipv6-address* |
| Tree | address |
| Max. instances | 256 |
| Introduced | 23.10.R1 |
| Platforms | All |

### [**ipv6-address**] *ipv6-address*

| | |
|---|---|
| Synopsis | IPv6 address of the proxy ND session to debug |
| Context | debug service vpls *service-name* proxy-nd ip address *ipv6-address* |
| Tree | address |
| Notes | This element is part of a list key. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **mac**

| | |
|---|---|
| Synopsis | Enter the **mac** context |
| Context | debug service vpls *service-name* proxy-nd mac |
| Tree | mac |
| Notes | The following elements are part of a choice: **all**, **ip**, or **mac**. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **address** [address] *mac-address*

| | |
|---|---|
| Synopsis | Add a list entry for **address** |
| Context | debug service vpls *service-name* proxy-nd mac address *mac-address* |


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| | |
|---|---|
| Tree | address |
| Max. instances | 256 |
| Introduced | 23.10.R1 |
| Platforms | All |

### [**address**] *mac-address*

| | |
|---|---|
| Synopsis | MAC address of the proxy ND session to debug |
| Context | debug service vpls *service-name* proxy-nd mac address *mac-address* |
| Tree | address |
| Notes | This element is part of a list key. |
| Introduced | 23.10.R1 |
| Platforms | All |

## spb

| | |
|---|---|
| Synopsis | Enable the **spb** context |
| Context | debug service vpls *service-name* spb |
| Tree | spb |
| Introduced | 23.10.R1 |
| Platforms | All |

## events

| | |
|---|---|
| Synopsis | Enable the **events** context |
| Context | debug service vpls *service-name* spb events |
| Tree | events |
| Introduced | 23.10.R1 |
| Platforms | All |

## adjacency

| | |
|---|---|
| Synopsis | Enable the **adjacency** context |
| Context | debug service vpls *service-name* spb events adjacency |


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| | |
|---|---|
| Tree | adjacency |
| Introduced | 23.10.R1 |
| Platforms | All |

### **sap** *sap*

| | |
|---|---|
| Synopsis | SAP ID |
| Context | debug service vpls *service-name* spb events adjacency sap *sap* |
| Tree | sap |
| String length | 1 to 45 |
| Notes | The following elements are part of a choice: **sap**, **sdp-bind-id**, or **system-id**. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **sdp-bind-id** *sdp-bind-id*

| | |
|---|---|
| Synopsis | SAP bind ID |
| Context | debug service vpls *service-name* spb events adjacency sdp-bind-id *sdp-bind-id* |
| Tree | sdp-bind-id |
| String length | 3 to 16 |
| Notes | The following elements are part of a choice: **sap**, **sdp-bind-id**, or **system-id**. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **system-id** *system-id*

| | |
|---|---|
| Synopsis | System ID |
| Context | debug service vpls *service-name* spb events adjacency system-id *system-id* |
| Tree | system-id |
| String length | 14 |
| Default | 0000.0000.0000 |
| Notes | The following elements are part of a choice: **sap**, **sdp-bind-id**, or **system-id**. |
| Introduced | 23.10.R1 |
| Platforms | All |


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### **l2db** *boolean*

| | |
|---|---|
| Synopsis | Trace SPB L2DB events |
| Context | debug service vpls *service-name* spb events l2db *boolean* |
| Tree | l2db |
| Default | false |
| Introduced | 23.10.R1 |
| Platforms | All |

### **lsdb**

| | |
|---|---|
| Synopsis | Enable the **lsdb** context |
| Context | debug service vpls *service-name* spb events lsdb |
| Tree | lsdb |
| Introduced | 23.10.R1 |
| Platforms | All |

### **hostname** *(lsp-id | system-id)*

| | |
|---|---|
| Synopsis | Host name |
| Context | debug service vpls *service-name* spb events lsdb hostname *(lsp-id \| system-id)* |
| Tree | hostname |
| String length | 20 (*lsp-id*)<br>14 (*system-id*) |
| Default | 0000.0000.0000.00-00 |
| Introduced | 23.10.R1 |
| Platforms | All |

### **spf**

| | |
|---|---|
| Synopsis | Enable the **spf** context |
| Context | debug service vpls *service-name* spb events spf |
| Tree | spf |
| Introduced | 23.10.R1 |
| Platforms | All |


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### **system-id** *system-id*

| | |
|---|---|
| Synopsis | System ID |
| Context | debug service vpls *service-name* spb events spf system-id *system-id* |
| Tree | system-id |
| String length | 14 |
| Default | 0000.0000.0000 |
| Introduced | 23.10.R1 |
| Platforms | All |

### **interface**

| | |
|---|---|
| Synopsis | Enable the **interface** context |
| Context | debug service vpls *service-name* spb interface |
| Tree | interface |
| Introduced | 23.10.R1 |
| Platforms | All |

### **sap** *sap*

| | |
|---|---|
| Synopsis | SAP ID |
| Context | debug service vpls *service-name* spb interface sap *sap* |
| Tree | sap |
| String length | 1 to 45 |
| Notes | The following elements are part of a choice: **sap** or **sdp-bind-id**. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **sdp-bind-id** *sdp-bind-id*

| | |
|---|---|
| Synopsis | SDP bind ID |
| Context | debug service vpls *service-name* spb interface sdp-bind-id *sdp-bind-id* |
| Tree | sdp-bind-id |
| String length | 3 to 16 |
| Notes | The following elements are part of a choice: **sap** or **sdp-bind-id**. |


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| | |
|---|---|
| Introduced | 23.10.R1 |
| Platforms | All |

### packet

| | |
|---|---|
| Synopsis | Enable the **packet** context |
| Context | debug service vpls *service-name* spb packet |
| Tree | packet |
| Introduced | 23.10.R1 |
| Platforms | All |

### detail *boolean*

| | |
|---|---|
| Synopsis | Enable detailed tracing |
| Context | debug service vpls *service-name* spb packet detail *boolean* |
| Tree | detail |
| Default | false |
| Introduced | 23.10.R1 |
| Platforms | All |

### sap *sap*

| | |
|---|---|
| Synopsis | SAP ID |
| Context | debug service vpls *service-name* spb packet sap *sap* |
| Tree | sap |
| String length | 1 to 45 |
| Notes | The following elements are part of a choice: **sap** or **sdp-bind-id**. |
| Introduced | 23.10.R1 |
| Platforms | All |

### sdp-bind-id *sdp-bind-id*

| | |
|---|---|
| Synopsis | SDP bind ID |
| Context | debug service vpls *service-name* spb packet sdp-bind-id *sdp-bind-id* |
| Tree | sdp-bind-id |


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| | |
|---|---|
| String length | 3 to 16 |
| Notes | The following elements are part of a choice: **sap** or **sdp-bind-id**. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **type** *keyword*

| | |
|---|---|
| Synopsis | Packet type |
| Context | debug service vpls *service-name* spb packet type *keyword* |
| Tree | type |
| Options | none, ptop-hello, l1-hello, l1-psnp, l1-csnp, l1-lsp |
| Default | none |
| Introduced | 23.10.R1 |
| Platforms | All |

### **stp**

| | |
|---|---|
| Synopsis | Enter the **stp** context |
| Context | debug service vpls *service-name* stp |
| Tree | stp |
| Introduced | 23.10.R1 |
| Platforms | All |

### **events**

| | |
|---|---|
| Synopsis | Enable the **events** context |
| Context | debug service vpls *service-name* stp events |
| Tree | events |
| Introduced | 23.10.R1 |
| Platforms | All |

### **all-events**

| | |
|---|---|
| Synopsis | Trace all STP events |
| Context | debug service vpls *service-name* stp events all-events |


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| | |
|---|---|
| Tree | all-events |
| Notes | The following elements are part of a choice: **all-events** or **event-types**. |
| Introduced | 23.10.R1 |
| Platforms | All |

### event-types

| | |
|---|---|
| Synopsis | Enter the **event-types** context |
| Context | debug service vpls *service-name* stp events event-types |
| Tree | event-types |
| Notes | The following elements are part of a choice: **all-events** or **event-types**. |
| Introduced | 23.10.R1 |
| Platforms | All |

### bpdu *boolean*

| | |
|---|---|
| Synopsis | Trace received and transmitted BPDUs |
| Context | debug service vpls *service-name* stp events event-types bpdu *boolean* |
| Tree | bpdu |
| Default | false |
| Introduced | 23.10.R1 |
| Platforms | All |

### core-connectivity *boolean*

| | |
|---|---|
| Synopsis | Trace STO core connectivity events |
| Context | debug service vpls *service-name* stp events event-types core-connectivity *boolean* |
| Tree | core-connectivity |
| Default | false |
| Introduced | 23.10.R1 |
| Platforms | All |

### exception *boolean*

| | |
|---|---|
| Synopsis | Trace STP exception events |


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| | |
|---|---|
| Context | debug service vpls *service-name* stp events event-types exception *boolean* |
| Tree | exception |
| Default | false |
| Introduced | 23.10.R1 |
| Platforms | All |

### **fsm-state-changes** *boolean*

| | |
|---|---|
| Synopsis | Trace STP FSM state change events |
| Context | debug service vpls *service-name* stp events event-types fsm-state-changes *boolean* |
| Tree | fsm-state-changes |
| Default | false |
| Introduced | 23.10.R1 |
| Platforms | All |

### **fsm-timers** *boolean*

| | |
|---|---|
| Synopsis | Trace STP FSM timer events |
| Context | debug service vpls *service-name* stp events event-types fsm-timers *boolean* |
| Tree | fsm-timers |
| Default | false |
| Introduced | 23.10.R1 |
| Platforms | All |

### **port-role** *boolean*

| | |
|---|---|
| Synopsis | Trace STP port role events |
| Context | debug service vpls *service-name* stp events event-types port-role *boolean* |
| Tree | port-role |
| Default | false |
| Introduced | 23.10.R1 |
| Platforms | All |


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### **port-state** *boolean*

| | |
|---|---|
| Synopsis | Trace STP port state events |
| Context | debug service vpls *service-name* stp events event-types port-state *boolean* |
| Tree | port-state |
| Default | false |
| Introduced | 23.10.R1 |
| Platforms | All |

### **sap** [sap-id] *sap*

| | |
|---|---|
| Synopsis | Add a list entry for **sap** |
| Context | debug service vpls *service-name* stp sap *sap* |
| Tree | sap |
| Max. instances | 256 |
| Introduced | 23.10.R1 |
| Platforms | All |

### [**sap-id**] *sap*

| | |
|---|---|
| Synopsis | SAP ID |
| Context | debug service vpls *service-name* stp sap *sap* |
| Tree | sap |
| String length | 1 to 45 |
| Notes | This element is part of a list key. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **sdp-bind** [sdp-bind-id] *sdp-bind-id*

| | |
|---|---|
| Synopsis | Add a list entry for **sdp-bind** |
| Context | debug service vpls *service-name* stp sdp-bind *sdp-bind-id* |
| Tree | sdp-bind |
| Max. instances | 256 |


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| | |
|---|---|
| Introduced | 23.10.R1 |
| Platforms | All |

### [**sdp-bind-id**] *sdp-bind-id*

| | |
|---|---|
| Synopsis | SDP bind ID |
| Context | debug service vpls *service-name* stp sdp-bind *sdp-bind-id* |
| Tree | sdp-bind |
| String length | 3 to 16 |
| Notes | This element is part of a list key. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **vprn** [service-name] *service-name*

| | |
|---|---|
| Synopsis | Enter the **vprn** list instance |
| Context | debug service vprn *service-name* |
| Tree | vprn |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**service-name**] *service-name*

| | |
|---|---|
| Synopsis | Administrative service name |
| Context | debug service vprn *service-name* |
| Tree | vprn |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ppp**

| | |
|---|---|
| Synopsis | Enter the **ppp** context |
| Context | debug service vprn *service-name* ppp |


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| | |
|---|---|
| Tree | ppp |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **circuit-id** [id] *string*

| | |
|---|---|
| Synopsis | Add a list entry for **circuit-id** |
| Context | debug service vprn *service-name* ppp circuit-id *string* |
| Tree | circuit-id |
| Max. instances | 8 |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**id**] *string*

| | |
|---|---|
| Synopsis | Circuit ID of the PPPoE session to debug |
| Context | debug service vprn *service-name* ppp circuit-id *string* |
| Tree | circuit-id |
| String length | 1 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **events**

| | |
|---|---|
| Synopsis | Enable the **events** context |
| Context | debug service vprn *service-name* ppp events |
| Tree | events |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **all**

| | |
|---|---|
| Synopsis | Enable PPP debugging for all events |


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| | |
|---|---|
| Context | debug service vprn *service-name* ppp events all |
| Tree | all |
| Notes | The following elements are part of a mandatory choice: **all** or (**dhcp-client**, **l2tp**, **local-address-assignment**, and **ppp**). |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## dhcp-client

| | |
|---|---|
| Synopsis | Enable the **dhcp-client** context |
| Context | debug service vprn *service-name* ppp events dhcp-client |
| Tree | dhcp-client |
| Notes | The following elements are part of a mandatory choice: **all** or (**dhcp-client**, **l2tp**, **local-address-assignment**, and **ppp**). |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## terminate-only *boolean*

| | |
|---|---|
| Synopsis | Debug events for ungraceful terminated sessions only |
| Context | debug service vprn *service-name* ppp events dhcp-client terminate-only *boolean* |
| Tree | terminate-only |
| Default | false |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## l2tp

| | |
|---|---|
| Synopsis | Enable the **l2tp** context |
| Context | debug service vprn *service-name* ppp events l2tp |
| Tree | l2tp |
| Description | Commands in this context configure debugging events for L2TP sessions. |
| Notes | The following elements are part of a mandatory choice: **all** or (**dhcp-client**, **l2tp**, **local-address-assignment**, and **ppp**). |
| Introduced | 23.3.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **terminate-only** *boolean*

| | |
|---|---|
| Synopsis | Debug events for ungraceful terminated sessions only |
| Context | debug service vprn *service-name* ppp events l2tp terminate-only *boolean* |
| Tree | terminate-only |
| Default | false |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### local-address-assignment

| | |
|---|---|
| Synopsis | Enable the **local-address-assignment** context |
| Context | debug service vprn *service-name* ppp events local-address-assignment |
| Tree | local-address-assignment |
| Notes | The following elements are part of a mandatory choice: **all** or (**dhcp-client**, **l2tp**, **local-address-assignment**, and **ppp**). |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **terminate-only** *boolean*

| | |
|---|---|
| Synopsis | Debug events for ungraceful terminated sessions only |
| Context | debug service vprn *service-name* ppp events local-address-assignment terminate-only *boolean* |
| Tree | terminate-only |
| Default | false |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### ppp

| | |
|---|---|
| Synopsis | Enable the **ppp** context |
| Context | debug service vprn *service-name* ppp events ppp |
| Tree | ppp |


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| | |
|---|---|
| Notes | The following elements are part of a mandatory choice: **all** or (**dhcp-client**, **l2tp**, **local-address-assignment**, and **ppp**). |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **terminate-only** *boolean*

| | |
|---|---|
| Synopsis | Debug events for ungraceful terminated sessions only |
| Context | debug service vprn *service-name* ppp events ppp terminate-only *boolean* |
| Tree | terminate-only |
| Default | false |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **mac** [address] *mac-address*

| | |
|---|---|
| Synopsis | Add a list entry for **mac** |
| Context | debug service vprn *service-name* ppp mac *mac-address* |
| Tree | mac |
| Max. instances | 8 |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**address**] *mac-address*

| | |
|---|---|
| Synopsis | MAC address of the PPPoE session to debug |
| Context | debug service vprn *service-name* ppp mac *mac-address* |
| Tree | mac |
| Notes | This element is part of a list key. |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **packets**

| | |
|---|---|
| Synopsis | Enable the **packets** context |


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| | |
|---|---|
| Context | debug service vprn *service-name* ppp packets |
| Tree | packets |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## all

| | |
|---|---|
| Synopsis | Enable PPP debugging for all packets |
| Context | debug service vprn *service-name* ppp packets all |
| Tree | all |
| Notes | The following elements are part of a mandatory choice: **all** or (**dhcp-client**, **discovery**, and **ppp-session**). |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## detail-level *keyword*

| | |
|---|---|
| Synopsis | Detail level of the PPP packet debug output |
| Context | debug service vprn *service-name* ppp packets detail-level *keyword* |
| Tree | detail-level |
| Options | low, medium, high |
| Default | high |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## dhcp-client *boolean*

| | |
|---|---|
| Synopsis | Enable DHCP client packet debugging |
| Context | debug service vprn *service-name* ppp packets dhcp-client *boolean* |
| Tree | dhcp-client |
| Default | false |
| Notes | The following elements are part of a mandatory choice: **all** or (**dhcp-client**, **discovery**, and **ppp-session**). |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## discovery

| | |
|---|---|
| Synopsis | Enter the **discovery** context |
| Context | debug service vprn *service-name* ppp packets discovery |
| Tree | discovery |
| Notes | The following elements are part of a mandatory choice: **all** or (**dhcp-client**, **discovery**, and **ppp-session**). |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## all

| | |
|---|---|
| Synopsis | Enable PPP debugging for all discovery packets |
| Context | debug service vprn *service-name* ppp packets discovery all |
| Tree | all |
| Notes | The following elements are part of a choice: **all** or (**padi**, **pado**, **padr**, **pads**, and **padt**). |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## padi *boolean*

| | |
|---|---|
| Synopsis | Enable PPP debugging for PADI discovery packets |
| Context | debug service vprn *service-name* ppp packets discovery padi *boolean* |
| Tree | padi |
| Default | false |
| Notes | The following elements are part of a choice: **all** or (**padi**, **pado**, **padr**, **pads**, and **padt**). |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## pado *boolean*

| | |
|---|---|
| Synopsis | Enable PPP debugging for PADO discovery packets |
| Context | debug service vprn *service-name* ppp packets discovery pado *boolean* |
| Tree | pado |
| Default | false |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **all** or (**padi**, **pado**, **padr**, **pads**, and **padt**). |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **padr** *boolean*

| | |
|---|---|
| Synopsis | Enable PPP debugging for PADR discovery packets |
| Context | debug service vprn *service-name* ppp packets discovery padr *boolean* |
| Tree | padr |
| Default | false |
| Notes | The following elements are part of a choice: **all** or (**padi**, **pado**, **padr**, **pads**, and **padt**). |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **pads** *boolean*

| | |
|---|---|
| Synopsis | Enable PPP debugging for PADS discovery packets |
| Context | debug service vprn *service-name* ppp packets discovery pads *boolean* |
| Tree | pads |
| Default | false |
| Notes | The following elements are part of a choice: **all** or (**padi**, **pado**, **padr**, **pads**, and **padt**). |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **padt** *boolean*

| | |
|---|---|
| Synopsis | Enable PPP debugging for PADT discovery packets |
| Context | debug service vprn *service-name* ppp packets discovery padt *boolean* |
| Tree | padt |
| Default | false |
| Notes | The following elements are part of a choice: **all** or (**padi**, **pado**, **padr**, **pads**, and **padt**). |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **mode** *keyword*

| | |
|---|---|
| Synopsis | PPP packets present in the debug output |
| Context | debug service vprn *service-name* ppp packets mode *keyword* |
| Tree | mode |
| Options | dropped-only, ingress-and-dropped, egress-ingress-and-dropped |
| Default | dropped-only |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ppp-session**

| | |
|---|---|
| Synopsis | Enter the **ppp-session** context |
| Context | debug service vprn *service-name* ppp packets ppp-session |
| Tree | ppp-session |
| Notes | The following elements are part of a mandatory choice: **all** or (**dhcp-client**, **discovery**, and **ppp-session**). |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **all**

| | |
|---|---|
| Synopsis | Enable PPP debugging for all PPP session packets |
| Context | debug service vprn *service-name* ppp packets ppp-session all |
| Tree | all |
| Notes | The following elements are part of a choice: **all** or (**chap**, **ipcp**, **ipv6cp**, **lcp**, and **pap**). |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **chap** *boolean*

| | |
|---|---|
| Synopsis | Enable PPP debugging for CHAP authentication packets |
| Context | debug service vprn *service-name* ppp packets ppp-session chap *boolean* |
| Tree | chap |
| Default | false |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **all** or (**chap**, **ipcp**, **ipv6cp**, **lcp**, and **pap**). |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ipcp** *boolean*

| | |
|---|---|
| Synopsis | Enable PPP debugging for IPCP NCP packets |
| Context | debug service vprn *service-name* ppp packets ppp-session ipcp *boolean* |
| Tree | ipcp |
| Default | false |
| Notes | The following elements are part of a choice: **all** or (**chap**, **ipcp**, **ipv6cp**, **lcp**, and **pap**). |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ipv6cp** *boolean*

| | |
|---|---|
| Synopsis | Enable PPP debugging for IPv6CP NCP packets |
| Context | debug service vprn *service-name* ppp packets ppp-session ipv6cp *boolean* |
| Tree | ipv6cp |
| Default | false |
| Notes | The following elements are part of a choice: **all** or (**chap**, **ipcp**, **ipv6cp**, **lcp**, and **pap**). |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **lcp** *boolean*

| | |
|---|---|
| Synopsis | Enable PPP debugging for LCP link establishment packets |
| Context | debug service vprn *service-name* ppp packets ppp-session lcp *boolean* |
| Tree | lcp |
| Default | false |
| Notes | The following elements are part of a choice: **all** or (**chap**, **ipcp**, **ipv6cp**, **lcp**, and **pap**). |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **pap** *boolean*

| | |
|---|---|
| Synopsis | Enable PPP debugging for PAP authentication packets |
| Context | debug service vprn *service-name* ppp packets ppp-session pap *boolean* |
| Tree | pap |
| Default | false |
| Notes | The following elements are part of a choice: **all** or (**chap**, **ipcp**, **ipv6cp**, **lcp**, and **pap**). |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **remote-id** [id] *string*

| | |
|---|---|
| Synopsis | Add a list entry for **remote-id** |
| Context | debug service vprn *service-name* ppp remote-id *string* |
| Tree | remote-id |
| Max. instances | 8 |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**id**] *string*

| | |
|---|---|
| Synopsis | Remote ID of the PPPoE session to debug |
| Context | debug service vprn *service-name* ppp remote-id *string* |
| Tree | remote-id |
| String length | 1 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sap** [sap-id] *sap*

| | |
|---|---|
| Synopsis | Add a list entry for **sap** |
| Context | debug service vprn *service-name* ppp sap *sap* |
| Tree | sap |


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| | |
|---|---|
| Max. instances | 8 |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**sap-id**] *sap*

| | |
|---|---|
| Synopsis | SAP ID of the PPPoE session to debug |
| Context | debug service vprn *service-name* ppp sap *sap* |
| Tree | sap |
| String length | 1 to 45 |
| Notes | This element is part of a list key. |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **user-name** [name] *string*

| | |
|---|---|
| Synopsis | Add a list entry for **user-name** |
| Context | debug service vprn *service-name* ppp user-name *string* |
| Tree | user-name |
| Max. instances | 8 |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *string*

| | |
|---|---|
| Synopsis | Username of the PPPoE session to debug |
| Context | debug service vprn *service-name* ppp user-name *string* |
| Tree | user-name |
| Description | This command configures the username of the PPPoE sesssion to debug. Only packets after the PAP or CHAP authentication are logged. If the purpose is to include PPPoE discovery packets in the debug log, configure a MAC filter instead. |
| String length | 1 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 23.3.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **video-interface** [interface-name] *interface-name*

| | |
|---|---|
| Synopsis | Enter the **video-interface** list instance |
| Context | debug service vprn *service-name* video-interface *interface-name* |
| Tree | video-interface |
| Description | Commands in this context configure debugging for video interfaces. |
| Max. instances | 9 |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### [**interface-name**] *interface-name*

| | |
|---|---|
| Synopsis | Video interface name to debug |
| Context | debug service vprn *service-name* video-interface *interface-name* |
| Tree | video-interface |
| String length | 1 to 29 |
| Notes | This element is part of a list key. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **fcc-server**

| | |
|---|---|
| Synopsis | Enable the **fcc-server** context |
| Context | debug service vprn *service-name* video-interface *interface-name* fcc-server |
| Tree | fcc-server |
| Description | Commands in this context configure debugging for the video interface Fast Channel Change (FCC) server. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **client** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Client IP address |


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| | |
|---|---|
| Context | debug service vprn *service-name* video-interface *interface-name* fcc-server client *ipv4-unicast-address* |
| Tree | client |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## **detail-or-error** *keyword*

| | |
|---|---|
| Synopsis | Debug information for the FCC server |
| Context | debug service vprn *service-name* video-interface *interface-name* fcc-server detail-or-error *keyword* |
| Tree | detail-or-error |
| Options | detail – Provide details about the FCC packet received<br>error – Capture only error cases |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## **source-port** *number*

| | |
|---|---|
| Synopsis | Client source port |
| Context | debug service vprn *service-name* video-interface *interface-name* fcc-server source-port *number* |
| Tree | source-port |
| Range | 0 to 65535 |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## **packet-rx**

| | |
|---|---|
| Synopsis | Enable the **packet-rx** context |
| Context | debug service vprn *service-name* video-interface *interface-name* packet-rx |
| Tree | packet-rx |
| Description | Commands in this context configure the debugging of received Real-time Transport Control Protocol (RTCP) messages. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |


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### **client** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Client IP address |
| Context | debug service vprn *service-name* video-interface *interface-name* packet-rx client *ipv4-unicast-address* |
| Tree | client |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **fcc-join** *boolean*

| | |
|---|---|
| Synopsis | Enable debugging for FCC joins |
| Context | debug service vprn *service-name* video-interface *interface-name* packet-rx fcc-join *boolean* |
| Tree | fcc-join |
| Default | true |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **fcc-leave** *boolean*

| | |
|---|---|
| Synopsis | Enable debugging for FCC leaves |
| Context | debug service vprn *service-name* video-interface *interface-name* packet-rx fcc-leave *boolean* |
| Tree | fcc-leave |
| Default | true |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **ret-nack** *boolean*

| | |
|---|---|
| Synopsis | Enable debugging for retransmission NACK packets |
| Context | debug service vprn *service-name* video-interface *interface-name* packet-rx ret-nack *boolean* |
| Tree | ret-nack |
| Default | true |


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| | |
|---|---|
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **source-port** *number*

| | |
|---|---|
| Synopsis | Client source port |
| Context | debug service vprn *service-name* video-interface *interface-name* packet-rx source-port *number* |
| Tree | source-port |
| Range | 0 to 65535 |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **perfect-stream**

| | |
|---|---|
| Synopsis | Enable the **perfect-stream** context |
| Context | debug service vprn *service-name* video-interface *interface-name* perfect-stream |
| Tree | perfect-stream |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **zone-channel-name** *named-item*

| | |
|---|---|
| Synopsis | Zone channel name |
| Context | debug service vprn *service-name* video-interface *interface-name* perfect-stream zone-channel-name *named-item* |
| Tree | zone-channel-name |
| String length | 1 to 32 |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **rt-server**

| | |
|---|---|
| Synopsis | Enable the **rt-server** context |
| Context | debug service vprn *service-name* video-interface *interface-name* rt-server |
| Tree | rt-server |


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| | |
|---|---|
| Description | Commands in this context configure debugging for the Retransmission (RET) server. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **client** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Client IP address |
| Context | debug service vprn *service-name* video-interface *interface-name* rt-server client *ipv4-unicast-address* |
| Tree | client |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **detail-or-error** *keyword*

| | |
|---|---|
| Synopsis | Debug information for the RT server |
| Context | debug service vprn *service-name* video-interface *interface-name* rt-server detail-or-error *keyword* |
| Tree | detail-or-error |
| Options | detail, error |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **source-port** *number*

| | |
|---|---|
| Synopsis | Client source port |
| Context | debug service vprn *service-name* video-interface *interface-name* rt-server source-port *number* |
| Tree | source-port |
| Range | 0 to 65535 |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **sg**

| | |
|---|---|
| Synopsis | Enable the **sg** context |


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| | |
|---|---|
| Context | debug service vprn *service-name* video-interface *interface-name* sg |
| Tree | sg |
| Description | Commands in this context configure channel debugging. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **group** *ipv4-multicast-address*

| | |
|---|---|
| Synopsis | Multicast channel address |
| Context | debug service vprn *service-name* video-interface *interface-name* sg group *ipv4-multicast-address* |
| Tree | group |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **source** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Unicast source address |
| Context | debug service vprn *service-name* video-interface *interface-name* sg source *ipv4-unicast-address* |
| Tree | source |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **subscriber-mgmt**

| | |
|---|---|
| Synopsis | Enter the **subscriber-mgmt** context |
| Context | debug subscriber-mgmt |
| Tree | subscriber-mgmt |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **gtp**

| | |
|---|---|
| Synopsis | Enter the **gtp** context |
| Context | debug subscriber-mgmt gtp |


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| | |
|---|---|
| Tree | gtp |
| Description | This command enables the context to configure box-wide GTP parameters and profiles. |
| Introduced | 22.7.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **events** *boolean*

| | |
|---|---|
| Synopsis | Enable GTP event debugging |
| Context | debug subscriber-mgmt gtp events *boolean* |
| Tree | events |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **imsi** [imsi-instance] *string*

| | |
|---|---|
| Synopsis | Add a list entry for **imsi** |
| Context | debug subscriber-mgmt gtp imsi *string* |
| Tree | imsi |
| Max. instances | 8 |
| Introduced | 22.7.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**imsi-instance**] *string*

| | |
|---|---|
| Synopsis | IMSI of GTP sessions to debug |
| Context | debug subscriber-mgmt gtp imsi *string* |
| Tree | imsi |
| String length | 0 to 15 |
| Notes | This element is part of a list key. |
| Introduced | 22.7.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### packets

| | |
|---|---|
| Synopsis | Enable the **packets** context |
| Context | debug subscriber-mgmt gtp packets |
| Tree | packets |
| Introduced | 22.7.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### detail-level *keyword*

| | |
|---|---|
| Synopsis | Detail level of the GTP packet debug output |
| Context | debug subscriber-mgmt gtp packets detail-level *keyword* |
| Tree | detail-level |
| Options | high, low |
| Default | low |
| Introduced | 22.7.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### mode *keyword*

| | |
|---|---|
| Synopsis | GTP packets to include in the debug output |
| Context | debug subscriber-mgmt gtp packets mode *keyword* |
| Tree | mode |
| Options | all, dropped |
| Default | dropped |
| Introduced | 22.7.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### peer [address] *(ipv4-address-no-zone | ipv6-address-no-zone)* router *string*

| | |
|---|---|
| Synopsis | Enter the **peer** list instance |
| Context | debug subscriber-mgmt gtp peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* router *string* |
| Tree | peer |
| Max. instances | 8 |


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| | |
|---|---|
| Introduced | 22.7.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**address**] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Remote IP address of the GTP peer |
| Context | debug subscriber-mgmt gtp peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* router *string* |
| Tree | peer |
| Notes | This element is part of a list key. |
| Introduced | 22.7.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **router** *string*

| | |
|---|---|
| Synopsis | Router instance where GTP peer packets are expected |
| Context | debug subscriber-mgmt gtp peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* router *string* |
| Tree | peer |
| Notes | This element is part of a list key. |
| Introduced | 22.7.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **udp-port** *number*

| | |
|---|---|
| Synopsis | UDP source (Rx packets) / destination (Tx packets) port |
| Context | debug subscriber-mgmt gtp peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* router *string* udp-port *number* |
| Tree | udp-port |
| Description | This command configures the UDP source port of received packets or the UDP destination port of transmitted packets. |
| Range | 0 \| 1 to 65535 |
| Default | 2123 |
| Introduced | 22.7.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **local-user-db** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **local-user-db** list instance |
| Context | debug subscriber-mgmt local-user-db *named-item* |
| Tree | local-user-db |
| Max. instances | 127 |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | Local user database name |
| Context | debug subscriber-mgmt local-user-db *named-item* |
| Tree | local-user-db |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **mode** *keyword*

| | |
|---|---|
| Synopsis | Level of the local user database debug output |
| Context | debug subscriber-mgmt local-user-db *named-item* mode *keyword* |
| Tree | mode |
| Options | all – Display all<br>failed – Display only failed |
| Default | failed |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **pfcp**

| | |
|---|---|
| Synopsis | Enter the **pfcp** context |
| Context | debug subscriber-mgmt pfcp |
| Tree | pfcp |


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| | |
|---|---|
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## packets

| | |
|---|---|
| Synopsis | Enable the **packets** context |
| Context | debug subscriber-mgmt pfcp packets |
| Tree | packets |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## detail-level *keyword*

| | |
|---|---|
| Synopsis | Detail level of the PFCP packet debug output |
| Context | debug subscriber-mgmt pfcp packets detail-level *keyword* |
| Tree | detail-level |
| Options | high – High detail level for debugging<br>low – Low detail level for debugging |
| Default | low |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## mode *keyword*

| | |
|---|---|
| Synopsis | PFCP packets present in the debug output |
| Context | debug subscriber-mgmt pfcp packets mode *keyword* |
| Tree | mode |
| Options | all – Debug all packets<br>dropped – Debug only dropped packets |
| Default | dropped |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## system

| | |
|---|---|
| Synopsis | Enter the **system** context |


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| | |
|---|---|
| Context | debug system |
| Tree | system |
| Description | Commands in this context enable debugging of general system level functions and router management protocols. |
| Introduced | 21.5.R1 |
| Platforms | All |

## grpc

| | |
|---|---|
| Synopsis | Enter the **grpc** context |
| Context | debug system grpc |
| Tree | grpc |
| Introduced | 21.5.R1 |
| Platforms | All |

## client

| | |
|---|---|
| Synopsis | Enter the **client** context |
| Context | debug system grpc client |
| Tree | client |
| Introduced | 21.5.R1 |
| Platforms | All |

## all

| | |
|---|---|
| Synopsis | Set debugging for all clients |
| Context | debug system grpc client all |
| Tree | all |
| Notes | The following elements are part of a choice: **all** or **ip-address**. |
| Introduced | 21.5.R1 |
| Platforms | All |

## ip-address *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address for debugging |


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| | |
|---|---|
| Context | debug system grpc client ip-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | ip-address |
| Notes | The following elements are part of a choice: **all** or **ip-address**. |
| Introduced | 21.5.R1 |
| Platforms | All |

## **type** *keyword*

| | |
|---|---|
| Synopsis | RPCs or service types to debug |
| Context | debug system grpc type *keyword* |
| Tree | type |
| Options | gnmi-capabilities, gnmi-get, gnmi-set, gnmi-subscribe, rib-api-modify, rib-api-getversion, gnoi-cert-mgmt-rpcs, gnoi-file-rpcs, gnoi-system-rpcs |
| Max. instances | 10 |
| Introduced | 21.5.R1 |
| Platforms | All |

## grpc-tunnel

| | |
|---|---|
| Synopsis | Enter the **grpc-tunnel** context |
| Context | debug system grpc-tunnel |
| Tree | grpc-tunnel |
| Introduced | 22.10.R1 |
| Platforms | All |

## tunnel

| | |
|---|---|
| Synopsis | Enter the **tunnel** context |
| Context | debug system grpc-tunnel tunnel |
| Tree | tunnel |
| Introduced | 22.10.R1 |
| Platforms | All |


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### all

| | |
|---|---|
| Synopsis | Set debug output for all tunnels |
| Context | debug system grpc-tunnel tunnel all |
| Tree | all |
| Notes | The following elements are part of a choice: **all** or **name**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### name *named-item*

| | |
|---|---|
| Synopsis | Name of the tunnel to restrict the debug output |
| Context | debug system grpc-tunnel tunnel name *named-item* |
| Tree | name |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **all** or **name**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### http-connections

| | |
|---|---|
| Synopsis | Enable the **http-connections** context |
| Context | debug system http-connections |
| Tree | http-connections |
| Introduced | 22.10.R1 |
| Platforms | All |

### client-ip-prefix *(ipv4-prefix | ipv6-prefix | keyword)*

| | |
|---|---|
| Synopsis | HTTP client IP prefix |
| Context | debug system http-connections client-ip-prefix *(ipv4-prefix \| ipv6-prefix \| keyword)* |
| Tree | client-ip-prefix |
| Options | any |
| Default | any |
| Introduced | 22.10.R1 |


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| | |
|---|---|
| Platforms | All |

## management-interface

| | |
|---|---|
| Synopsis | Enter the **management-interface** context |
| Context | debug system management-interface |
| Tree | management-interface |
| Introduced | 21.5.R1 |
| Platforms | All |

## netconf *keyword*

| | |
|---|---|
| Synopsis | Debugging verbosity for NETCONF |
| Context | debug system management-interface netconf *keyword* |
| Tree | netconf |
| Options | error – Error messages<br>warning – Warning and error messages<br>info – All messages |
| Introduced | 21.5.R1 |
| Platforms | All |

## remote-management

| | |
|---|---|
| Synopsis | Enter the **remote-management** context |
| Context | debug system management-interface remote-management |
| Tree | remote-management |
| Description | Commands in this context configure the SR OS node to use the remote management service. Configuring remote management enables the SR OS node to report itself to a remote manager service running on a remote server, so that it is included in the dynamic list of available nodes. The manager service streamlines the management of multiple SR OS nodes running different SR OS versions using the same client application providing a similar shell to the MD-CLI. |
| Introduced | 21.7.R1 |
| Platforms | All |


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## manager

| | |
|---|---|
| Synopsis | Enter the **manager** context |
| Context | debug system management-interface remote-management manager |
| Tree | manager |
| Description | Commands in this context configure specific manager-related commands. Commands configured in this context take precedence over command values specified directly in the **configure management-interface remote-management** context.<br>If a command is not configured in this context, the command setting is inherited from the higher level context. |
| Introduced | 21.7.R1 |
| Platforms | All |

## all

| | |
|---|---|
| Synopsis | Enable debug of all managers |
| Context | debug system management-interface remote-management manager all |
| Tree | all |
| Notes | The following elements are part of a choice: **all** or **manager-name**. |
| Introduced | 21.7.R1 |
| Platforms | All |

## **manager-name** [name] *named-item-64*

| | |
|---|---|
| Synopsis | Add a list entry for **manager-name** |
| Context | debug system management-interface remote-management manager manager-name *named-item-64* |
| Tree | manager-name |
| Notes | The following elements are part of a choice: **all** or **manager-name**. |
| Introduced | 21.7.R1 |
| Platforms | All |

## [**name**] *named-item-64*

| | |
|---|---|
| Synopsis | Manager name |


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| | |
|---|---|
| Context | debug system management-interface remote-management manager manager-name *named-item-64* |
| Tree | manager-name |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 21.7.R1 |
| Platforms | All |

### **service** *boolean*

| | |
|---|---|
| Synopsis | Enable service level debug |
| Context | debug system management-interface remote-management service *boolean* |
| Tree | service |
| Default | false |
| Introduced | 21.7.R1 |
| Platforms | All |

### **snmp** *keyword*

| | |
|---|---|
| Synopsis | Debugging verbosity for SNMP |
| Context | debug system management-interface snmp *keyword* |
| Tree | snmp |
| Options | error – Error messages<br>warning – Warning and error messages<br>info – All messages |
| Introduced | 24.7.R1 |
| Platforms | All |

### **wlan-gw**

| | |
|---|---|
| Synopsis | Enter the **wlan-gw** context |
| Context | debug wlan-gw |
| Tree | wlan-gw |
| Introduced | 22.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **group** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **group** list instance |
| Context | debug wlan-gw group *number* |
| Tree | group |
| Max. instances | 1 |
| Introduced | 22.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**id**] *number*

| | |
|---|---|
| Synopsis | WLAN-GW group ID in the system |
| Context | debug wlan-gw group *number* |
| Tree | group |
| Range | 1 to 4 |
| Notes | This element is part of a list key. |
| Introduced | 22.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **learn-ap-mac**

| | |
|---|---|
| Synopsis | Enable the **learn-ap-mac** context |
| Context | debug wlan-gw group *number* learn-ap-mac |
| Tree | learn-ap-mac |
| Introduced | 22.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **tunnel-remote-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the remote tunnel endpoint |
| Context | debug wlan-gw group *number* learn-ap-mac tunnel-remote-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | tunnel-remote-address |
| Notes | This element is mandatory. |


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| | |
|---|---|
| Introduced | 22.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **statistic** [type] *keyword* name *named-item-64*

| | |
|---|---|
| Synopsis | Enter the **statistic** list instance |
| Context | debug wlan-gw group *number* statistic *keyword* name *named-item-64* |
| Tree | statistic |
| Introduced | 22.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**type**] *keyword*

| | |
|---|---|
| Synopsis | Type of statistic to trace |
| Context | debug wlan-gw group *number* statistic *keyword* name *named-item-64* |
| Tree | statistic |
| Options | packet-error – Packet related error<br>host-error – Host related error<br>bd-error – Bridge domain related error<br>forwarding – Number of forwarded packets<br>reassembly – Reassembly related statistic<br>aa – AA related statistic<br>radius – RADIUS related statistic<br>arp – ARP related statistic<br>dhcp4 – DHCP related statistic<br>dhcp6 – DHCPv6 related statistic<br>icmp4 – ICMP related statistic<br>icmp6 – ICMPv6 related statistic |
| Notes | This element is part of a list key. |
| Introduced | 22.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **name** *named-item-64*

| | |
|---|---|
| Synopsis | Name of the statistic to trace |
| Context | debug wlan-gw group *number* statistic *keyword* name *named-item-64* |
| Tree | statistic |
| String length | 1 to 64 |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 22.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **capture-packet** *boolean*

| | |
|---|---|
| Synopsis | Set a single packet capture trigger for the statistic |
| Context | debug wlan-gw group *number* statistic *keyword* name *named-item-64* capture-packet *boolean* |
| Tree | capture-packet |
| Default | false |
| Introduced | 22.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ue**

| | |
|---|---|
| Synopsis | Enable the **ue** context |
| Context | debug wlan-gw group *number* ue |
| Tree | ue |
| Introduced | 22.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **bridge-domain** *number*

| | |
|---|---|
| Synopsis | Bridge domain of the UEs to debug |
| Context | debug wlan-gw group *number* ue bridge-domain *number* |
| Tree | bridge-domain |
| Range | 1 to 4294967295 |
| Introduced | 22.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **mac-address** *mac-address*

| | |
|---|---|
| Synopsis | MAC address of the UE to debug |
| Context | debug wlan-gw group *number* ue mac-address *mac-address* |


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| | |
|---|---|
| Tree | mac-address |
| Introduced | 22.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## protocols

| | |
|---|---|
| Synopsis | Enable the **protocols** context |
| Context | debug wlan-gw group *number* ue protocols |
| Tree | protocols |
| Introduced | 22.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## arp *boolean*

| | |
|---|---|
| Synopsis | Enable debugging for the ARP protocol |
| Context | debug wlan-gw group *number* ue protocols arp *boolean* |
| Tree | arp |
| Default | false |
| Introduced | 22.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## dhcp4 *boolean*

| | |
|---|---|
| Synopsis | Enable debugging for the DHCP protocol |
| Context | debug wlan-gw group *number* ue protocols dhcp4 *boolean* |
| Tree | dhcp4 |
| Default | false |
| Introduced | 22.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## dhcp6 *boolean*

| | |
|---|---|
| Synopsis | Enable debugging for the DHCPv6 protocol |
| Context | debug wlan-gw group *number* ue protocols dhcp6 *boolean* |
| Tree | dhcp6 |


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| | |
|---|---|
| Default | false |
| Introduced | 22.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **icmp4** *boolean*

| | |
|---|---|
| Synopsis | Enable debugging for the ICMP protocol |
| Context | debug wlan-gw group *number* ue protocols icmp4 *boolean* |
| Tree | icmp4 |
| Default | false |
| Introduced | 22.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **icmp6** *boolean*

| | |
|---|---|
| Synopsis | Enable debugging for the ICMPv6 protocol |
| Context | debug wlan-gw group *number* ue protocols icmp6 *boolean* |
| Tree | icmp6 |
| Default | false |
| Introduced | 22.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **radius** *boolean*

| | |
|---|---|
| Synopsis | Enable debugging for the RADIUS protocol |
| Context | debug wlan-gw group *number* ue protocols radius *boolean* |
| Tree | radius |
| Default | false |
| Introduced | 22.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## 4.14 esa commands

```
configure
   –  esa number
      –  admin-state keyword
      –  apply-groups reference
      –  apply-groups-exclude reference
      –  description description
      –  host-port port
         –  apply-groups reference
         –  apply-groups-exclude reference
         –  crc-monitor
            –  signal-degrade
               –  multiplier number
               –  threshold number
            –  signal-failure
               –  multiplier number
               –  threshold number
            –  window-size number
      –  vm number
         –  admin-state keyword
         –  apply-groups reference
         –  apply-groups-exclude reference
         –  cores number
         –  description description
         –  host-port reference
         –  memory number
         –  vm-type keyword
```


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## 4.14.1 esa command descriptions

### **esa** [esa-id] *number*

| | |
|---|---|
| Synopsis | Enter the **esa** list instance |
| Context | **configure** esa *number* |
| Tree | esa |
| Description | Commands in this context configure the Extended Services Appliance (ESA) instance. |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

### [**esa-id**] *number*

| | |
|---|---|
| Synopsis | ESA ID |
| Context | **configure** esa *number* |
| Tree | esa |
| Range | 1 to 16 |
| Notes | This element is part of a list key. |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the ESA |
| Context | **configure** esa *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |


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| | |
|---|---|
| Context | **configure** esa *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

## **host-port** [host-port] *port*

| | |
|---|---|
| Synopsis | Enter the **host-port** list instance |
| Context | **configure** esa *number* host-port *port* |
| Tree | host-port |
| Max. instances | 4 |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

## [**host-port**] *port*

| | |
|---|---|
| Synopsis | Ethernet port associated with the ESA |
| Context | **configure** esa *number* host-port *port* |
| Tree | host-port |
| Description | This command configures an Ethernet port associated with the ESA-VM instance. The port ID must be the same as the port ID associated with the ESA context on which the ESA-VM is configured. |
| Notes | This element is part of a list key. |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

## **crc-monitor**

| | |
|---|---|
| Synopsis | Enter the **crc-monitor** context |
| Context | **configure** esa *number* host-port *port* crc-monitor |
| Tree | crc-monitor |
| Description | Commands in this context configure ESA cyclic redundancy check (CRC) monitoring. |
| Introduced | 24.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

## signal-degrade

| | |
|---|---|
| Synopsis | Enter the **signal-degrade** context |
| Context | **configure** esa *number* host-port *port* crc-monitor signal-degrade |
| Tree | signal-degrade |
| Description | Commands in this context configure the error rate at which to declare the signal degrade (SD) condition on an Ethernet interface. The value represents M*10E-N, a ratio of errored frames over total frames received over W seconds of the sliding window. The CRC errors on the interface are sampled once per second. A default of 10 seconds is used when no additional **window-size** is configured. If you omit the **multiplier** value, the multiplier returns to the default value of 1.<br><br>**Note**: Crossing the configured SD threshold raises a log event. |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

## multiplier *number*

| | |
|---|---|
| Synopsis | SD multiplier |
| Context | **configure** esa *number* host-port *port* crc-monitor signal-degrade multiplier *number* |
| Tree | multiplier |
| Max. range | 0 to 4294967295 |
| Default | 1 |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

## threshold *number*

| | |
|---|---|
| Synopsis | SD threshold |
| Context | **configure** esa *number* host-port *port* crc-monitor signal-degrade threshold *number* |
| Tree | threshold |
| Range | 1 to 9 |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |


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## signal-failure

| | |
|---|---|
| Synopsis | Enter the **signal-failure** context |
| Context | **configure** esa *number* host-port *port* crc-monitor signal-failure |
| Tree | signal-failure |
| Description | Commands in this context configure the error rate at which to declare the signal failure (SF) condition on an Ethernet interface. The value represents M*10E-N, errored frames over total frames received over W seconds of the sliding window. The CRC errors on the interface are sampled once per second. A default of 10 seconds is used when no additional **window-size** is configured. If you omit the **multiplier** value, the multiplier returns to the default value of 1.<br><br>**Note**: Crossing the configured signal failure (SF) threshold causes the router ESA port to enter an operational state of down when the router side detects the SF, or the port is shut down when the ESA detects the SF, which triggers redundancy for all configured ISA groups. |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

## multiplier *number*

| | |
|---|---|
| Synopsis | SF multiplier |
| Context | **configure** esa *number* host-port *port* crc-monitor signal-failure multiplier *number* |
| Tree | multiplier |
| Max. range | 0 to 4294967295 |
| Default | 1 |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

## threshold *number*

| | |
|---|---|
| Synopsis | SF threshold |
| Context | **configure** esa *number* host-port *port* crc-monitor signal-failure threshold *number* |
| Tree | threshold |
| Range | 1 to 9 |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |


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### **window-size** *number*

| | |
|---|---|
| Synopsis | Window size of the monitor |
| Context | **configure** esa *number* host-port *port* crc-monitor window-size *number* |
| Tree | window-size |
| Range | 10 to 60 |
| Units | seconds |
| Default | 10 |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

### **vm** [vm-id] *number*

| | |
|---|---|
| Synopsis | Enter the **vm** list instance |
| Context | **configure** esa *number* vm *number* |
| Tree | vm |
| Description | Commands in this context configure the ESA-VM instance. |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

### [**vm-id**] *number*

| | |
|---|---|
| Synopsis | VM ID |
| Context | **configure** esa *number* vm *number* |
| Tree | vm |
| Range | 1 to 4 |
| Notes | This element is part of a list key. |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the ESA-VM instance |
| Context | **configure** esa *number* vm *number* admin-state *keyword* |
| Tree | admin-state |


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| | |
|---|---|
| Description | This command configures the administrative state of the ESA-VM instance. The state affects the operational state of the instance and all entities contained within the instance; however, configuration settings or statistics are not changed, reset, or removed. |
| Options | enable, disable |
| Default | disable |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

## **cores** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Number of CPU physical cores allocated to the ESA-VM |
| Context | **configure** esa *number* vm *number* cores *number* |
| Tree | cores |
| Description | This command specifies the number of CPU physical cores allocated to the ESA-VM instance. If an invalid value is configured for the number of cores, the VM remains in a failed state. |
| Range | 0 to 128 |
| Default | 0 |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** esa *number* vm *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |


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## **host-port** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Ethernet port associated with the ESA-VM instance |
| Context | **configure** esa *number* vm *number* host-port *reference* |
| Tree | host-port |
| Description | This command configures an Ethernet port associated with the ESA-VM instance. The port ID must be the same as the port ID associated with the ESA context on which the ESA-VM is configured. |
| Reference | **configure** esa *number* host-port *port* |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

## **memory** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Amount of memory allocated to the ESA-VM |
| Context | **configure** esa *number* vm *number* memory *number* |
| Tree | memory |
| Range | 0 to 256 |
| Units | gigabytes |
| Default | 0 |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

## **vm-type** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | ESA-VM type |


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| | |
|---|---|
| Context | **configure** esa *number* vm *number* vm-type *keyword* |
| Tree | vm-type |
| Options | aa, bb, tunnel, video, dms |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |


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## 4.15 eth-cfm commands

```
configure
   –  eth-cfm
      –  apply-groups reference
      –  apply-groups-exclude reference
      –  default-domain
         –  apply-groups reference
         –  apply-groups-exclude reference
         –  bridge-identifier service-name vlan (number | keyword)
            –  apply-groups reference
            –  apply-groups-exclude reference
            –  id-permission keyword
            –  mhf-creation
               –  level (number | keyword)
               –  mhf-type keyword
            –  mip-ltr-priority (number | keyword)
      –  domain admin-name
         –  apply-groups reference
         –  apply-groups-exclude reference
         –  association admin-name
            –  apply-groups reference
            –  apply-groups-exclude reference
            –  auto-mep-discovery boolean
            –  bridge-identifier service-name
               –  apply-groups reference
               –  apply-groups-exclude reference
               –  id-permission keyword
               –  mhf-creation keyword
               –  mip-ltr-priority number
               –  vlan number
            –  ccm-hold-time
               –  down number
            –  ccm-interval keyword
            –  facility-id-permission keyword
            –  icc-based string
            –  integer number
            –  ma-index number
            –  remote-mep number
               –  apply-groups reference
               –  apply-groups-exclude reference
               –  remote-mac mac-unicast-address-no-zero
            –  string string
            –  vid number
            –  vpn-id string
         –  dns string
         –  format keyword
         –  level number
         –  mac string
         –  md-index number
         –  name string
```


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## 4.15.1 eth-cfm command descriptions

### eth-cfm

| | |
|---|---|
| Synopsis | Enter the **eth-cfm** context |
| Context | **configure** eth-cfm |
| Tree | eth-cfm |
| Description | Commands in this context configure ETH-CFM parameters. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### default-domain

| | |
|---|---|
| Synopsis | Enter the **default-domain** context |
| Context | **configure** eth-cfm default-domain |
| Tree | default-domain |
| Description | Commands in this context configure MIP creation parameters per index (**bridge-identifier** *bridge-id* **vlan** *vlan-id*) if the MIP creation statement exists as part of the service connection.<br>The MIP creation statement must be present on the connection before any configuration can occur for a MIP under this context. Whether a MIP uses the **default-domain** creation method is determined by the MIP authoritative nature of the **eth-cfm domain association**. The **eth-cfm default-domain** MIP creation is considered only if the **eth-cfm domain association** is not authoritative. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **bridge-identifier** [bridge-name] *service-name* vlan *(number | keyword)*

| | |
|---|---|
| Synopsis | Enter the **bridge-identifier** list instance |
| Context | **configure** eth-cfm default-domain bridge-identifier *service-name* vlan *(number \| keyword)* |
| Tree | bridge-identifier |
| Description | Commands in this context configure the references required to link the CFM function with the service context, allowing the entry of MIP-specific parameters for the index in the default domain table. |


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The **info** and **info detail** commands do not display any entries for the instance unless they have previously been accessed. The possible candidates for the instance can be located using the **show eth-cfm default-domain** command.

Introduced 21.5.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS

### [**bridge-name**] *service-name*

Synopsis Bridge name in the default domain table

Context **configure** eth-cfm default-domain bridge-identifier *service-name* vlan *(number | keyword)*

Tree bridge-identifier

Description This command specifies the bridge name to enter in the default domain associated with the MIP.

String length 1 to 64

Notes This element is part of a list key.

Introduced 21.5.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS

### **vlan** *(number | keyword)*

Synopsis VLAN ID for the default domain

Context **configure** eth-cfm default-domain bridge-identifier *service-name* vlan *(number | keyword)*

Tree bridge-identifier

Description This command configures a VLAN ID for the default domain.

Range 1 to 4094

Options none

Notes This element is part of a list key.

Introduced 21.5.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS

### **id-permission** *keyword*

Synopsis Strategy for the inclusion of Sender ID TLV information

Context **configure** eth-cfm default-domain bridge-identifier *service-name* vlan *(number | keyword)* id-permission *keyword*


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| | |
|---|---|
| Tree | id-permission |
| Description | This command specifies how the Sender ID TLV information is included for installed MEPs and MIPs. The Sender ID TLV is supported for ETH-CCM, ETH-LB, and ETH-LB PDUs. |
| Options | none, chassis, defer |
| Default | defer |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## mhf-creation

| | |
|---|---|
| Synopsis | Enter the **mhf-creation** context |
| Context | **configure** eth-cfm default-domain bridge-identifier *service-name* vlan *(number \| keyword)* mhf-creation |
| Tree | mhf-creation |
| Description | Commands in this context configure the MIP method of creation. MIP creation mode and other factors are part of the MIP creation authority (**association** or **default-domain**) logic. The MIP creation algorithm may result in multiple potential MIPs. Only the lowest-level valid MIP is instantiated. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **level** *(number | keyword)*

| | |
|---|---|
| Synopsis | Requested level of the MIP |
| Context | **configure** eth-cfm default-domain bridge-identifier *service-name* vlan *(number \| keyword)* mhf-creation level *(number \| keyword)* |
| Tree | level |
| Description | This command configures the requested level of the MIP. This is used by the MIP creation algorithm to determine its validity in comparison to other ETH-CFM MIPs and MEPs. If the level is configured as **defer**, the level value is inherited from the global read-only system values. |
| Range | 0 to 7 |
| Options | defer |
| Default | defer |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **mhf-type** *keyword*

| | |
|---|---|
| Synopsis | MIP creation mode |
| Context | **configure** eth-cfm default-domain bridge-identifier *service-name* vlan *(number \| keyword)* mhf-creation mhf-type *keyword* |
| Tree | mhf-type |
| Options | none, default, explicit, defer |
| Default | defer |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **mip-ltr-priority** *(number | keyword)*

| | |
|---|---|
| Synopsis | Priority of the Linktrace Response |
| Context | **configure** eth-cfm default-domain bridge-identifier *service-name* vlan *(number \| keyword)* mip-ltr-priority *(number \| keyword)* |
| Tree | mip-ltr-priority |
| Description | This command allows the operator to set the priority of the Linktrace Response Message (ETH-LTR) from a MIP for this association. |
| Range | 0 to 7 |
| Options | defer |
| Default | defer |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **domain** [md-admin-name] *admin-name*

| | |
|---|---|
| Synopsis | Enter the **domain** list instance |
| Context | **configure** eth-cfm domain *admin-name* |
| Tree | domain |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### [**md-admin-name**] *admin-name*

| | |
|---|---|
| Synopsis | Unique domain name |


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| | |
|---|---|
| Context | **configure** eth-cfm domain *admin-name* |
| Tree | domain |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **association** [ma-admin-name] *admin-name*

| | |
|---|---|
| Synopsis | Enter the **association** list instance |
| Context | **configure** eth-cfm domain *admin-name* association *admin-name* |
| Tree | association |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### [**ma-admin-name**] *admin-name*

| | |
|---|---|
| Synopsis | Domain association name |
| Context | **configure** eth-cfm domain *admin-name* association *admin-name* |
| Tree | association |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **auto-mep-discovery** *boolean*

| | |
|---|---|
| Synopsis | Allow remote MEP automatic discovery |
| Context | **configure** eth-cfm domain *admin-name* association *admin-name* auto-mep-discovery *boolean* |
| Tree | auto-mep-discovery |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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## **bridge-identifier** [bridge-name] *service-name*

| | |
|---|---|
| Synopsis | Enter the **bridge-identifier** list instance |
| Context | **configure** eth-cfm domain *admin-name* association *admin-name* bridge-identifier *service-name* |
| Tree | bridge-identifier |
| Max. instances | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## [**bridge-name**] *service-name*

| | |
|---|---|
| Synopsis | Bridge name that links to the service |
| Context | **configure** eth-cfm domain *admin-name* association *admin-name* bridge-identifier *service-name* |
| Tree | bridge-identifier |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **id-permission** *keyword*

| | |
|---|---|
| Synopsis | Strategy for the inclusion of Sender ID TLV information |
| Context | **configure** eth-cfm domain *admin-name* association *admin-name* bridge-identifier *service-name* id-permission *keyword* |
| Tree | id-permission |
| Description | This command specifies how the Sender ID TLV information is included for installed MEPs and MIPs. The Sender ID TLV is supported for ETH-CCM, ETH-LB, and ETH-LB PDUs. |
| Options | none, chassis |
| Default | none |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **mhf-creation** *keyword*

| | |
|---|---|
| Synopsis | MIP method of creation |
| Context | **configure** eth-cfm domain *admin-name* association *admin-name* bridge-identifier *service-name* mhf-creation *keyword* |
| Tree | mhf-creation |
| Options | none, default, explicit, static |
| Default | none |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **mip-ltr-priority** *number*

| | |
|---|---|
| Synopsis | Priority of the Linktrace Response Message (ETH-LTR) from a MIP |
| Context | **configure** eth-cfm domain *admin-name* association *admin-name* bridge-identifier *service-name* mip-ltr-priority *number* |
| Tree | mip-ltr-priority |
| Range | 0 to 7 |
| Default | 7 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **vlan** *number*

| | |
|---|---|
| Synopsis | VLAN ID for the default domain index |
| Context | **configure** eth-cfm domain *admin-name* association *admin-name* bridge-identifier *service-name* vlan *number* |
| Tree | vlan |
| Range | 1 to 4094 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ccm-hold-time**

| | |
|---|---|
| Synopsis | Enter the **ccm-hold-time** context |
| Context | **configure** eth-cfm domain *admin-name* association *admin-name* ccm-hold-time |


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| | |
|---|---|
| Tree | ccm-hold-time |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **down** *number*

| | |
|---|---|
| Synopsis | Additional time before a MEP declares a fault, in CCM timeout conditions |
| Context | **configure** eth-cfm domain *admin-name* association *admin-name* ccm-hold-time down *number* |
| Tree | down |
| Range | 1 to 1000 |
| Units | centiseconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ccm-interval** *keyword*

| | |
|---|---|
| Synopsis | CCM transmission interval for all MEPs in association |
| Context | **configure** eth-cfm domain *admin-name* association *admin-name* ccm-interval *keyword* |
| Tree | ccm-interval |
| Options | 300hz, 10ms, 100ms, 1s, 10s, 60s, 600s |
| Default | 10s |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **facility-id-permission** *keyword*

| | |
|---|---|
| Synopsis | Sender ID TLV information for facility base MEPs |
| Context | **configure** eth-cfm domain *admin-name* association *admin-name* facility-id-permission *keyword* |
| Tree | facility-id-permission |
| Options | none, chassis |
| Default | none |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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## **icc-based** *string*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maintenance Association name in ICC-based format |
| Context | **configure** eth-cfm domain *admin-name* association *admin-name* icc-based *string* |
| Tree | icc-based |
| String length | 8 to 13 |
| Notes | The following elements are part of a mandatory choice: **icc-based**, **integer**, **string**, **vid**, or **vpn-id**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **integer** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maintenance Association name in integer format |
| Context | **configure** eth-cfm domain *admin-name* association *admin-name* integer *number* |
| Tree | integer |
| Range | 0 to 65535 |
| Notes | The following elements are part of a mandatory choice: **icc-based**, **integer**, **string**, **vid**, or **vpn-id**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **ma-index** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maintenance Association (MA) table index |
| Context | **configure** eth-cfm domain *admin-name* association *admin-name* ma-index *number* |


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| | |
|---|---|
| Tree | ma-index |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **remote-mep** [mep-id] *number*

| | |
|---|---|
| Synopsis | Enter the **remote-mep** list instance |
| Context | **configure** eth-cfm domain *admin-name* association *admin-name* remote-mep *number* |
| Tree | remote-mep |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### [**mep-id**] *number*

| | |
|---|---|
| Synopsis | Remote MEP ID |
| Context | **configure** eth-cfm domain *admin-name* association *admin-name* remote-mep *number* |
| Tree | remote-mep |
| Range | 1 to 8191 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **remote-mac** *mac-unicast-address-no-zero*

| | |
|---|---|
| Synopsis | Remote MAC Address for transmitting CFM packets to remote MEPs |
| Context | **configure** eth-cfm domain *admin-name* association *admin-name* remote-mep *number* remote-mac *mac-unicast-address-no-zero* |
| Tree | remote-mac |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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## **string** *string*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maintenance Association name in raw ASCII string format |
| Context | **configure** eth-cfm domain *admin-name* association *admin-name* string *string* |
| Tree | string |
| String length | 1 to 45 |
| Notes | The following elements are part of a mandatory choice: **icc-based**, **integer**, **string**, **vid**, or **vpn-id**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **vid** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Primary VLAN ID for the Maintenance Association name |
| Context | **configure** eth-cfm domain *admin-name* association *admin-name* vid *number* |
| Tree | vid |
| Range | 0 to 4094 |
| Notes | The following elements are part of a mandatory choice: **icc-based**, **integer**, **string**, **vid**, or **vpn-id**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **vpn-id** *string*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | VPN ID for the Maintenance Association name |
| Context | **configure** eth-cfm domain *admin-name* association *admin-name* vpn-id *string* |


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| | |
|---|---|
| Tree | vpn-id |
| String length | 0 to 15 |
| Notes | The following elements are part of a mandatory choice: **icc-based**, **integer**, **string**, **vid**, or **vpn-id**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **dns** *string*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Domain name like text string derived from a DNS name |
| Context | **configure** eth-cfm domain *admin-name* dns *string* |
| Tree | dns |
| String length | 1 to 43 |
| Notes | The following elements are part of a mandatory choice: **dns**, **format**, **mac**, or **name**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **format** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maintenance domain name not to be provided |
| Context | **configure** eth-cfm domain *admin-name* format *keyword* |
| Tree | format |
| Options | none |
| Notes | The following elements are part of a mandatory choice: **dns**, **format**, **mac**, or **name**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **level** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maintenance Domain Level (MD Level) |
| Context | **configure** eth-cfm domain *admin-name* level *number* |
| Tree | level |
| Range | 0 to 7 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **mac** *string*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maintenance domain MAC name |
| Context | **configure** eth-cfm domain *admin-name* mac *string* |
| Tree | mac |
| String length | 13 to 23 |
| Notes | The following elements are part of a mandatory choice: **dns**, **format**, **mac**, or **name**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **md-index** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | The index of the Maintenance Domain (MD) |
| Context | **configure** eth-cfm domain *admin-name* md-index *number* |
| Tree | md-index |


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| | |
|---|---|
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **name** *string*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maintenance Domain name |
| Context | **configure** eth-cfm domain *admin-name* name *string* |
| Tree | name |
| String length | 1 to 43 |
| Notes | The following elements are part of a mandatory choice: **dns**, **format**, **mac**, or **name**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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## 4.16 eth-ring commands

```
configure
   –  eth-ring number
      –  admin-state keyword
      –  apply-groups reference
      –  apply-groups-exclude reference
      –  ccm-hold-time
         –  down number
         –  up number
      –  compatible-version number
      –  description description-or-empty
      –  guard-time number
      –  node-id mac-address
      –  path string
         –  admin-state keyword
         –  apply-groups reference
         –  apply-groups-exclude reference
         –  description description-or-empty
         –  eth-cfm
            –  mep md-admin-name reference ma-admin-name reference mep-id number
               –  admin-state keyword
               –  alarm-notification
                  –  fng-alarm-time number
                  –  fng-reset-time number
               –  apply-groups reference
               –  apply-groups-exclude reference
               –  ccm boolean
               –  ccm-ltm-priority number
               –  ccm-padding-size number
               –  control-mep boolean
               –  description description
               –  eth-test
                  –  bit-error-threshold number
                  –  test-pattern
                     –  crc-tlv boolean
                     –  pattern keyword
               –  grace
                  –  eth-ed
                     –  max-rx-defect-window number
                     –  priority number
                     –  rx-eth-ed boolean
                     –  tx-eth-ed boolean
                  –  eth-vsm-grace
                     –  rx-eth-vsm-grace boolean
                     –  tx-eth-vsm-grace boolean
               –  low-priority-defect keyword
               –  mac-address mac-unicast-address-no-zero
               –  one-way-delay-threshold number
         –  port-and-raps-tag port-and-encap
         –  rpl-end boolean
      –  revert-time number
      –  rpl-node keyword
      –  sub-ring
         –  interconnect
            –  propagate-topology-change boolean
            –  ring-id reference
            –  vpls
         –  type keyword
```


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## 4.16.1 eth-ring command descriptions

### **eth-ring** [ring-index] *number*

| | |
|---|---|
| Synopsis | Enter the **eth-ring** list instance |
| Context | **configure** eth-ring *number* |
| Tree | eth-ring |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### [**ring-index**] *number*

| | |
|---|---|
| Synopsis | Ring ID |
| Context | **configure** eth-ring *number* |
| Tree | eth-ring |
| Range | 1 to 128 |
| Notes | This element is part of a list key. |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the Ethernet ring |
| Context | **configure** eth-ring *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ccm-hold-time**

| | |
|---|---|
| Synopsis | Enter the **ccm-hold-time** context |
| Context | **configure** eth-ring *number* ccm-hold-time |
| Tree | ccm-hold-time |


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| | |
|---|---|
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **down** *number*

| | |
|---|---|
| Synopsis | Hold timer for down event dampening |
| Context | **configure** eth-ring *number* ccm-hold-time down *number* |
| Tree | down |
| Range | 1 to 5000 |
| Units | centiseconds |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **up** *number*

| | |
|---|---|
| Synopsis | Hold timer for recovery reporting |
| Context | **configure** eth-ring *number* ccm-hold-time up *number* |
| Tree | up |
| Range | 0 to 5000 |
| Units | deciseconds |
| Default | 20 |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **compatible-version** *number*

| | |
|---|---|
| Synopsis | Compatibility version for the Ethernet ring |
| Context | **configure** eth-ring *number* compatible-version *number* |
| Tree | compatible-version |
| Range | 1 to 2 |
| Default | 2 |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **description** *description-or-empty*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** eth-ring *number* description *description-or-empty* |
| Tree | description |
| String length | 0 to 80 |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **guard-time** *number*

| | |
|---|---|
| Synopsis | Ethernet ring guard time |
| Context | **configure** eth-ring *number* guard-time *number* |
| Tree | guard-time |
| Range | 1 to 20 |
| Units | deciseconds |
| Default | 5 |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **node-id** *mac-address*

| | |
|---|---|
| Synopsis | MAC address of the RPL link |
| Context | **configure** eth-ring *number* node-id *mac-address* |
| Tree | node-id |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **path** [path-index] *string*

| | |
|---|---|
| Synopsis | Enter the **path** list instance |
| Context | **configure** eth-ring *number* path *string* |
| Tree | path |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### [**path-index**] *string*

| | |
|---|---|
| Synopsis | Path ID |
| Context | **configure** eth-ring *number* path *string* |
| Tree | path |
| String length | 1 |
| Notes | This element is part of a list key. |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the Ethernet ring path |
| Context | **configure** eth-ring *number* path *string* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **description** *description-or-empty*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** eth-ring *number* path *string* description *description-or-empty* |
| Tree | description |
| String length | 0 to 80 |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **eth-cfm**

| | |
|---|---|
| Synopsis | Enter the **eth-cfm** context |
| Context | **configure** eth-ring *number* path *string* eth-cfm |
| Tree | eth-cfm |
| Introduced | 21.7.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **mep** md-admin-name *reference* ma-admin-name *reference* mep-id *number*

| | |
|---|---|
| Synopsis | Enter the **mep** list instance |
| Context | **configure** eth-ring *number* path *string* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |
| Tree | mep |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **md-admin-name** *reference*

| | |
|---|---|
| Synopsis | Maintenance Domain (MD) name |
| Context | **configure** eth-ring *number* path *string* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |
| Tree | mep |
| Reference | **configure** eth-cfm domain *admin-name* |
| Notes | This element is part of a list key. |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ma-admin-name** *reference*

| | |
|---|---|
| Synopsis | Maintenance Association (MA) name |
| Context | **configure** eth-ring *number* path *string* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |
| Tree | mep |
| Reference | **configure** eth-cfm domain *admin-name* association *admin-name* |
| Notes | This element is part of a list key. |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **mep-id** *number*

| | |
|---|---|
| Synopsis | Maintenance Endpoint (MEP) ID |


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| | |
|---|---|
| Context | **configure** eth-ring *number* path *string* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |
| Tree | mep |
| Range | 1 to 8191 |
| Notes | This element is part of a list key. |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the MEP |
| Context | **configure** eth-ring *number* path *string* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **alarm-notification**

| | |
|---|---|
| Synopsis | Enter the **alarm-notification** context |
| Context | **configure** eth-ring *number* path *string* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* alarm-notification |
| Tree | alarm-notification |
| Description | Commands in this context configure the Fault Notification Generator (FNG) time values to raise an alarm or reset the CCM defect alarm.<br><br>Use these timers for network management processes. The timers are not tied into delaying the notification to the fault management system on the network element and do not affect fault propagation mechanisms. |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **fng-alarm-time** *number*

| | |
|---|---|
| Synopsis | Time that must expire before an FNG alarm is raised |


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| | |
|---|---|
| Context | **configure** eth-ring *number* path *string* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* alarm-notification fng-alarm-time *number* |
| Tree | fng-alarm-time |
| Range | 250 \| 500 \| 1000 |
| Units | centiseconds |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **fng-reset-time** *number*

| | |
|---|---|
| Synopsis | Time that must expire before an FNG alarm is reset |
| Context | **configure** eth-ring *number* path *string* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* alarm-notification fng-reset-time *number* |
| Tree | fng-reset-time |
| Range | 250 \| 500 \| 1000 |
| Units | centiseconds |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ccm** *boolean*

| | |
|---|---|
| Synopsis | Generate CCM messages |
| Context | **configure** eth-ring *number* path *string* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ccm *boolean* |
| Tree | ccm |
| Default | false |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ccm-ltm-priority** *number*

| | |
|---|---|
| Synopsis | Priority of CCM and LTM messages transmitted by the MEP |
| Context | **configure** eth-ring *number* path *string* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ccm-ltm-priority *number* |
| Tree | ccm-ltm-priority |
| Range | 0 to 7 |


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| | |
|---|---|
| Default | 7 |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **ccm-padding-size** *number*

| | |
|---|---|
| Synopsis | Number of octets of padding to insert in CCM packets |
| Context | **configure** eth-ring *number* path *string* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ccm-padding-size *number* |
| Tree | ccm-padding-size |
| Description | This command sets the byte size of the optional Data TLV to be included in the ETH-CC PDU.<br>This command increases the size of the ETH-CC PDU by the configured value. The base size of the ETH-CC PDU, including the Interface Status TLV and Port Status TLV, is 83 bytes not including the Layer 2 encapsulation. CCM padding is not supported when the CCM interval (configured through **configure eth-cfm domain association ccm-interval)** is less than 1 second. |
| Range | 3 to 1500 |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **control-mep** *boolean*

| | |
|---|---|
| Synopsis | Enable Ethernet ring control on the MEP |
| Context | **configure** eth-ring *number* path *string* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* control-mep *boolean* |
| Tree | control-mep |
| Default | false |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** eth-ring *number* path *string* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* description *description* |
| Tree | description |
| String length | 1 to 80 |


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| | |
|---|---|
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## eth-test

| | |
|---|---|
| Synopsis | Enable the **eth-test** context |
| Context | **configure** eth-ring *number* path *string* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test |
| Tree | eth-test |
| Description | Commands in this context configure information used by the Ethernet Test (ETH-TST) packet. The commands must be configured on both the sender and the receiver nodes. The test packets are used with the **oam eth-cfm eth-test** command. |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## bit-error-threshold *number*

| | |
|---|---|
| Synopsis | Lowest priority defect allowed to generate fault alarm |
| Context | **configure** eth-ring *number* path *string* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test bit-error-threshold *number* |
| Tree | bit-error-threshold |
| Range | 0 to 11840 |
| Units | bit errors |
| Default | 1 |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## test-pattern

| | |
|---|---|
| Synopsis | Enter the **test-pattern** context |
| Context | **configure** eth-ring *number* path *string* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test test-pattern |
| Tree | test-pattern |
| Description | Commands in this context specify the test pattern for the ETH-TST frames. The pattern does not have to be the same on the sender and the receiver. |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **crc-tlv** *boolean*

| | |
|---|---|
| Synopsis | Generate a CRC checksum |
| Context | **configure** eth-ring *number* path *string* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test test-pattern crc-tlv *boolean* |
| Tree | crc-tlv |
| Default | false |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **pattern** *keyword*

| | |
|---|---|
| Synopsis | Test pattern for Ethernet Test frames |
| Context | **configure** eth-ring *number* path *string* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test test-pattern pattern *keyword* |
| Tree | pattern |
| Description | This command specifies the test pattern of the Ethernet Test (ETH-TST) frames. This does not have to be configured the same on the sender and the receiver. |
| Options | all-zeros, all-ones |
| Default | all-zeros |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **grace**

| | |
|---|---|
| Synopsis | Enter the **grace** context |
| Context | **configure** eth-ring *number* path *string* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace |
| Tree | grace |
| Description | Commands in this context configure the Nokia ETH-CFM Grace function and the ITU-T Y.1731 Ethernet Expected Default (ETH-ED) function. |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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## eth-ed

| | |
|---|---|
| Synopsis | Enter the **eth-ed** context |
| Context | **configure** eth-ring *number* path *string* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed |
| Tree | eth-ed |
| Description | Commands in this context configure the ITU-T Y.1731 ETH-ED function. |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## max-rx-defect-window *number*

| | |
|---|---|
| Synopsis | Maximum received ETH-ED expected defect window duration |
| Context | **configure** eth-ring *number* path *string* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed max-rx-defect-window *number* |
| Tree | max-rx-defect-window |
| Range | 1 to 86400 |
| Units | seconds |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## priority *number*

| | |
|---|---|
| Synopsis | Transmission priority for ETH-ED PDUs |
| Context | **configure** eth-ring *number* path *string* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed priority *number* |
| Tree | priority |
| Range | 0 to 7 |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## rx-eth-ed *boolean*

| | |
|---|---|
| Synopsis | Receive and process ETH-ED ITU-T Y.1731 PDUs on the MEP |
| Context | **configure** eth-ring *number* path *string* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed rx-eth-ed *boolean* |


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| | |
|---|---|
| Tree | rx-eth-ed |
| Description | This command enables the reception and processing of the ITU-T Y.1731 ETH-ED PDU on the MEP. |
| Default | true |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **tx-eth-ed** *boolean*

| | |
|---|---|
| Synopsis | Transmit ETH-ED PDUs from the MEP |
| Context | **configure** eth-ring *number* path *string* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed tx-eth-ed *boolean* |
| Tree | tx-eth-ed |
| Default | false |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **eth-vsm-grace**

| | |
|---|---|
| Synopsis | Enter the **eth-vsm-grace** context |
| Context | **configure** eth-ring *number* path *string* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-vsm-grace |
| Tree | eth-vsm-grace |
| Description | Commands in this context configure the Nokia ETH-CFM Grace function. |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **rx-eth-vsm-grace** *boolean*

| | |
|---|---|
| Synopsis | Receive and process Nokia ETH-CFM Grace PDU on the MEP |
| Context | **configure** eth-ring *number* path *string* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-vsm-grace rx-eth-vsm-grace *boolean* |
| Tree | rx-eth-vsm-grace |
| Description | When configured to **true**, the router enables the Nokia Grace function, which is a vendor-specific PDU that informs MEP peers that the local node may be entering a period of expected defect.<br>When configured to **false**, the router disables the Nokia Grace function. |


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| | |
|---|---|
| Default | true |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **tx-eth-vsm-grace** *boolean*

| | |
|---|---|
| Synopsis | Transmit ETH-ED PDUs from the MEP |
| Context | **configure** eth-ring *number* path *string* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-vsm-grace tx-eth-vsm-grace *boolean* |
| Tree | tx-eth-vsm-grace |
| Description | When configured to **true**, the router can transmit the Nokia ETH-CFM Grace PDU from the MEP when a system soft reset notification is received for one or more cards.<br>The Nokia Grace function is a vendor-specific PDU that informs MEP peers that the local node may be entering a period of expected defect.<br>The operator must configure the **configure system eth-cfm grace** command to instruct the system that the node is capable of transmitting expected-defect windows to peers. The system can only transmit one form of ETH-CFM grace (Nokia ETH-CFM Grace or ITU-T Y.1731 ETH-ED).<br>When configured to **false**, the router disables the transmission of the Nokia ETH-CFM Grace PDU from the MEP. |
| Default | true |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **low-priority-defect** *keyword*

| | |
|---|---|
| Synopsis | Lowest priority defect allowed to generate fault alarm |
| Context | **configure** eth-ring *number* path *string* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* low-priority-defect *keyword* |
| Tree | low-priority-defect |
| Options | all-def, mac-rem-err-xcon, rem-err-xcon, err-xcon, xcon, no-xcon |
| Default | all-def |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **mac-address** *mac-unicast-address-no-zero*

| | |
|---|---|
| Synopsis | MAC address of the MEP |


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| | |
|---|---|
| Context | **configure** eth-ring *number* path *string* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* mac-address *mac-unicast-address-no-zero* |
| Tree | mac-address |
| Description | This command specifies the MAC address of the MEP.<br>When unconfigured, the MAC address of the port (if the MEP is on a SAP) or the MAC address of a bridge (if the MEP is on a spoke) is used. |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **one-way-delay-threshold** *number*

| | |
|---|---|
| Synopsis | Threshold time limit for the one-way delay test |
| Context | **configure** eth-ring *number* path *string* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* one-way-delay-threshold *number* |
| Tree | one-way-delay-threshold |
| Range | 0 to 600 |
| Units | seconds |
| Default | 3 |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **port-and-raps-tag** *port-and-encap*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Port ID and Ring APS tag ID |
| Context | **configure** eth-ring *number* path *string* port-and-raps-tag *port-and-encap* |
| Tree | port-and-raps-tag |
| String length | 1 to 45 |
| Notes | This element is mandatory. |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **rpl-end** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable path as a Ring Protection Link (RPL) end |
| Context | **configure** eth-ring *number* path *string* rpl-end *boolean* |
| Tree | rpl-end |
| Default | false |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **revert-time** *number*

| | |
|---|---|
| Synopsis | Revert time for the Ethernet ring |
| Context | **configure** eth-ring *number* revert-time *number* |
| Tree | revert-time |
| Range | 0 \| 60 to 720 |
| Units | seconds |
| Default | 300 |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **rpl-node** *keyword*

| | |
|---|---|
| Synopsis | Ring Protection Link (RPL) type for the Ethernet ring |
| Context | **configure** eth-ring *number* rpl-node *keyword* |
| Tree | rpl-node |
| Options | owner, neighbor |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **sub-ring**

| | |
|---|---|
| Synopsis | Enter the **sub-ring** context |


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| | |
|---|---|
| Context | **configure** eth-ring *number* sub-ring |
| Tree | sub-ring |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## interconnect

| | |
|---|---|
| Synopsis | Enter the **interconnect** context |
| Context | **configure** eth-ring *number* sub-ring interconnect |
| Tree | interconnect |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## propagate-topology-change *boolean*

| | |
|---|---|
| Synopsis | Propagate topology changes |
| Context | **configure** eth-ring *number* sub-ring interconnect propagate-topology-change *boolean* |
| Tree | propagate-topology-change |
| Default | false |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## ring-id *reference*

| | |
|---|---|
| Synopsis | Ring instance of the connection ring for the sub-ring |
| Context | **configure** eth-ring *number* sub-ring interconnect ring-id *reference* |
| Tree | ring-id |
| Reference | **configure** eth-ring *number* |
| Notes | The following elements are part of a choice: **ring-id** or **vpls**. |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## vpls

| | |
|---|---|
| Synopsis | Connect sub-ring to VPLS ID that contains sub-ring SAP |


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| | |
|---|---|
| Context | **configure** eth-ring *number* sub-ring interconnect vpls |
| Tree | vpls |
| Notes | The following elements are part of a choice: **ring-id** or **vpls**. |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **type** *keyword*

| | |
|---|---|
| Synopsis | Sub-ring type |
| Context | **configure** eth-ring *number* sub-ring type *keyword* |
| Tree | type |
| Options | virtual-link, non-virtual-link |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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## 4.17 filter commands

```
configure
   –  filter
      –  apply-groups reference
      –  apply-groups-exclude reference
      –  dhcp-filter number
         –  apply-groups reference
         –  apply-groups-exclude reference
         –  default-action
            –  bypass-host-creation
            –  drop
         –  description description
         –  entry number
            –  action
               –  bypass-host-creation
               –  drop
            –  apply-groups reference
            –  apply-groups-exclude reference
            –  option
               –  absent
               –  match
                  –  exact boolean
                  –  hex string
                  –  invert boolean
                  –  string string
               –  number number
               –  present
      –  dhcp6-filter number
         –  apply-groups reference
         –  apply-groups-exclude reference
         –  default-action
            –  bypass-host-creation
               –  na boolean
               –  pd boolean
            –  drop
         –  description description
         –  entry number
            –  action
               –  bypass-host-creation
                  –  na boolean
                  –  pd boolean
               –  drop
            –  apply-groups reference
            –  apply-groups-exclude reference
            –  option
               –  absent
               –  match
                  –  exact boolean
                  –  hex string
                  –  invert boolean
                  –  string string
               –  number number
               –  present
      –  gre-tunnel-template named-item
         –  apply-groups reference
         –  apply-groups-exclude reference
         –  description description
         –  ipv4
            –  destination-address ipv4-address
            –  gre-key (keyword | number)
```


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configure filter gre-tunnel-template ipv4 skip-ttl-decrement

```
            - skip-ttl-decrement boolean
            - source-address ipv4-address
         - ipv6
            - destination-address ipv6-unicast-address
            - gre-key keyword
            - skip-hop-decrement boolean
            - source-address ipv6-unicast-address
      - ip-exception filter-name
         - apply-groups reference
         - apply-groups-exclude reference
         - description description
         - entry number
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - match
               - dst-ip
                  - address (ipv4-prefix-with-host-bits | ipv4-address)
                  - mask ipv4-address
               - dst-port
                  - eq number
                  - gt number
                  - lt number
                  - range
                     - end number
                     - start number
               - icmp
                  - code number
                  - type number
               - protocol (number | keyword)
               - src-ip
                  - address (ipv4-prefix-with-host-bits | ipv4-address)
                  - mask ipv4-address
               - src-port
                  - eq number
                  - gt number
                  - lt number
                  - range
                     - end number
                     - start number
         - filter-id number
      - ip-filter filter-name
         - apply-groups reference
         - apply-groups-exclude reference
         - chain-to-system-filter boolean
         - default-action keyword
         - description description
         - embed
            - filter reference offset number
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
            - flowspec offset number
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - group number
               - router-instance string
            - openflow reference offset number
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - grt
               - sap reference
```


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```
            - system
            - vpls reference
            - vprn reference
      - entry number
         - action
            - accept
            - accept-when
               - pattern
                  - expression hex-string
                  - mask hex-string
                  - offset-type keyword
                  - offset-value number
            - apply-groups reference
            - apply-groups-exclude reference
            - drop
            - drop-when
               - extracted-traffic
               - packet-length
                  - eq number
                  - gt number
                  - lt number
                  - range
                     - end number
                     - start number
               - pattern
                  - expression hex-string
                  - mask hex-string
                  - offset-type keyword
                  - offset-value number
               - ttl
                  - eq number
                  - gt number
                  - lt number
                  - range
                     - end number
                     - start number
            - fc keyword
            - forward
               - bonding-connection number
               - esi-l2
                  - esi-value ethernet-segment-id
                  - vpls reference
               - esi-l3
                  - esi-value ethernet-segment-id
                  - sf-ip ipv4-address
                  - vas-interface reference
                  - vprn reference
               - gre-tunnel reference
               - lsp named-item-64
               - mpls-policy
                  - endpoint ipv4-unicast-address
               - next-hop
                  - nh-ip
                     - address ipv4-address
                     - indirect boolean
                  - nh-ip-vrf
                     - address ipv4-address
                     - indirect boolean
                     - router-instance string
               - redirect-policy reference
               - router-instance string
               - sap
                  - sap-id reference
                  - vpls reference
```


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configure filter ip-filter entry action forward sdp

```
                  - sdp
                     - sdp-bind-id sdp-bind-id
                     - vpls reference
                  - srte-policy
                     - color number
                     - endpoint ipv4-unicast-or-zero-address
                  - srv6-policy
                     - color number
                     - endpoint ipv6-unicast-or-zero-address
                     - service-sid ipv6-unicast-address
                  - vprn-target
                     - adv-prefix ipv4-prefix
                     - bgp-nh ipv4-address
                     - lsp named-item-64
                     - vprn reference
               - gtp-local-breakout
               - http-redirect
                  - allow-override boolean
                  - url (keyword | http-redirect-url)
               - ignore-match
               - l2-aware-nat-bypass boolean
               - nat
                  - nat-policy reference
               - rate-limit
                  - extracted-traffic
                  - mbs (number | keyword)
                  - packet-length
                     - eq number
                     - gt number
                     - lt number
                     - range
                        - end number
                        - start number
                  - pattern
                     - expression hex-string
                     - mask hex-string
                     - offset-type keyword
                     - offset-value number
                  - pir (number | keyword)
                  - pps-pir (number | keyword)
                  - ttl
                     - eq number
                     - gt number
                     - lt number
                     - range
                        - end number
                        - start number
               - reassemble
               - remark
                  - dscp keyword
               - secondary
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - forward
                     - next-hop
                        - nh-ip-vrf
                           - address ipv4-address
                           - indirect boolean
                           - router-instance string
                     - sap
                        - sap-id reference
                        - vpls reference
                     - sdp
                        - sdp-bind-id sdp-bind-id
```


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configure filter ip-filter entry action secondary forward sdp vpls

```
                        - vpls reference
                     - vprn-target
                        - adv-prefix ipv4-prefix
                        - bgp-nh ipv4-address
                        - lsp named-item-64
                        - vprn reference
                  - remark
                     - dscp keyword
               - tcp-mss-adjust
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - egress-pbr keyword
            - filter-sample boolean
            - interface-sample boolean
            - log reference
            - match
               - destination-class number
               - dscp keyword
               - dst-ip
                  - address (ipv4-prefix-with-host-bits | ipv4-address)
                  - ip-prefix-list reference
                  - mask ipv4-address
               - dst-port
                  - eq number
                  - gt number
                  - lt number
                  - port-list reference
                  - range
                     - end number
                     - start number
               - fragment keyword
               - icmp
                  - code number
                  - type number
               - ip
                  - address (ipv4-prefix-with-host-bits | ipv4-address)
                  - ip-prefix-list reference
                  - mask ipv4-address
               - ip-option
                  - mask number
                  - type number
               - multiple-option boolean
               - option-present boolean
               - packet-length
                  - eq number
                  - gt number
                  - ip-packet-length-list reference
                  - lt number
                  - range
                     - end number
                     - start number
               - port
                  - eq number
                  - gt number
                  - lt number
                  - port-list reference
                  - range
                     - end number
                     - start number
               - protocol (number | keyword)
               - protocol-list reference
               - src-ip
                  - address (ipv4-prefix-with-host-bits | ipv4-address)
```


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configure filter ip-filter entry match src-ip ip-prefix-list

```
                  - ip-prefix-list reference
                  - mask ipv4-address
               - src-mac
                  - address mac-address
                  - mask mac-address
               - src-port
                  - eq number
                  - gt number
                  - lt number
                  - port-list reference
                  - range
                     - end number
                     - start number
               - src-route-option boolean
               - tcp-established
               - tcp-flags
                  - ack boolean
                  - cwr boolean
                  - ece boolean
                  - fin boolean
                  - ns boolean
                  - psh boolean
                  - rst boolean
                  - syn boolean
                  - urg boolean
               - ttl
                  - eq number
                  - gt number
                  - lt number
                  - range
                     - end number
                     - start number
            - pbr-down-action-override keyword
            - sample-profile reference
            - sticky-dest (number | keyword)
         - filter-id number
         - scope keyword
         - shared-policer boolean
         - subscriber-mgmt
            - host-specific-entry
               - credit-control
                  - range
                     - end number
                     - start number
               - filter-rule
                  - range
                     - end number
                     - start number
               - watermark
                  - high number
                  - low number
            - shared-entry
               - filter-rule
                  - range
                     - end number
                     - start number
               - pcc-rule
                  - range
                     - end number
                     - start number
               - watermark
                  - high number
                  - low number
         - type keyword
```


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```
      – ipv6-exception filter-name
         – apply-groups reference
         – apply-groups-exclude reference
         – description description
         – entry number
            – apply-groups reference
            – apply-groups-exclude reference
            – description description
            – match
               – dst-ip
                  – address (ipv6-prefix-with-host-bits | ipv6-address)
                  – ipv6-prefix-list reference
                  – mask ipv6-address
               – dst-port
                  – eq number
                  – gt number
                  – lt number
                  – port-list reference
                  – range
                     – end number
                     – start number
               – icmp
                  – code number
                  – type number
               – next-header (number | keyword)
               – port
                  – eq number
                  – gt number
                  – lt number
                  – port-list reference
                  – range
                     – end number
                     – start number
               – src-ip
                  – address (ipv6-prefix-with-host-bits | ipv6-address)
                  – ipv6-prefix-list reference
                  – mask ipv6-address
               – src-port
                  – eq number
                  – gt number
                  – lt number
                  – port-list reference
                  – range
                     – end number
                     – start number
         – filter-id number
      – ipv6-filter filter-name
         – apply-groups reference
         – apply-groups-exclude reference
         – chain-to-system-filter boolean
         – default-action keyword
         – description description
         – embed
            – filter reference offset number
               – admin-state keyword
               – apply-groups reference
               – apply-groups-exclude reference
            – flowspec offset number
               – admin-state keyword
               – apply-groups reference
               – apply-groups-exclude reference
               – group number
               – router-instance string
            – openflow reference offset number
```


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configure filter ipv6-filter embed openflow admin-state

```
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - grt
            - sap reference
            - system
            - vpls reference
            - vprn reference
      - entry number
         - action
            - accept
            - accept-when
               - pattern
                  - expression hex-string
                  - mask hex-string
                  - offset-type keyword
                  - offset-value number
            - apply-groups reference
            - apply-groups-exclude reference
            - drop
            - drop-when
               - extracted-traffic
               - hop-limit
                  - eq number
                  - gt number
                  - lt number
                  - range
                     - end number
                     - start number
               - pattern
                  - expression hex-string
                  - mask hex-string
                  - offset-type keyword
                  - offset-value number
               - payload-length
                  - eq number
                  - gt number
                  - lt number
                  - range
                     - end number
                     - start number
            - fc keyword
            - forward
               - bonding-connection number
               - esi-l2
                  - esi-value ethernet-segment-id
                  - vpls reference
               - esi-l3
                  - esi-value ethernet-segment-id
                  - sf-ip ipv6-address
                  - vas-interface reference
                  - vprn reference
               - gre-tunnel reference
               - lsp named-item-64
               - mpls-policy
                  - endpoint ipv6-unicast-address
               - next-hop
                  - nh-ip
                     - address ipv6-address
                     - indirect boolean
                  - nh-ip-vrf
                     - address ipv6-address
                     - indirect boolean
                     - router-instance string
```


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configure filter ipv6-filter entry action forward redirect-policy

```
                  -  redirect-policy reference
                  -  router-instance string
                  -  sap
                     -  sap-id reference
                     -  vpls reference
                  -  sdp
                     -  sdp-bind-id sdp-bind-id
                     -  vpls reference
                  -  srte-policy
                     -  color number
                     -  endpoint ipv6-unicast-or-zero-address
                  -  srv6-policy
                     -  color number
                     -  endpoint ipv6-unicast-or-zero-address
                     -  service-sid ipv6-unicast-address
                  -  vprn-target
                     -  adv-prefix ipv6-prefix
                     -  bgp-nh ipv4-address
                     -  lsp named-item-64
                     -  vprn reference
               -  http-redirect
                  -  allow-override boolean
                  -  url (keyword | http-redirect-url)
               -  ignore-match
               -  nat
                  -  nat-policy reference
                  -  nat-type keyword
               -  rate-limit
                  -  extracted-traffic
                  -  hop-limit
                     -  eq number
                     -  gt number
                     -  lt number
                     -  range
                        -  end number
                        -  start number
                  -  mbs (number | keyword)
                  -  pattern
                     -  expression hex-string
                     -  mask hex-string
                     -  offset-type keyword
                     -  offset-value number
                  -  payload-length
                     -  eq number
                     -  gt number
                     -  lt number
                     -  range
                        -  end number
                        -  start number
                  -  pir (number | keyword)
                  -  pps-pir (number | keyword)
               -  remark
                  -  dscp keyword
               -  secondary
                  -  apply-groups reference
                  -  apply-groups-exclude reference
                  -  forward
                     -  next-hop
                        -  nh-ip-vrf
                           -  address ipv6-address
                           -  indirect boolean
                           -  router-instance string
                     -  sap
                        -  sap-id reference
```


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configure filter ipv6-filter entry action secondary forward sap vpls

```
                        – vpls reference
                     – sdp
                        – sdp-bind-id sdp-bind-id
                        – vpls reference
                     – vprn-target
                        – adv-prefix ipv6-prefix
                        – bgp-nh ipv4-address
                        – lsp named-item-64
                        – vprn reference
                  – remark
                     – dscp keyword
               – tcp-mss-adjust
            – apply-groups reference
            – apply-groups-exclude reference
            – description description
            – egress-pbr keyword
            – filter-sample boolean
            – interface-sample boolean
            – log reference
            – match
               – destination-class number
               – dscp keyword
               – dst-ip
                  – address (ipv6-prefix-with-host-bits | ipv6-address)
                  – ipv6-prefix-list reference
                  – mask ipv6-address
               – dst-port
                  – eq number
                  – gt number
                  – lt number
                  – port-list reference
                  – range
                     – end number
                     – start number
               – extension-header
                  – ah boolean
                  – esp boolean
                  – hop-by-hop boolean
                  – routing-type0 boolean
               – flow-label
                  – mask number
                  – value number
               – fragment keyword
               – hop-limit
                  – eq number
                  – gt number
                  – lt number
                  – range
                     – end number
                     – start number
               – icmp
                  – code number
                  – type number
               – ip
                  – address (ipv6-prefix-with-host-bits | ipv6-address)
                  – ipv6-prefix-list reference
                  – mask ipv6-address
               – next-header (number | keyword)
               – next-header-list reference
               – packet-length
                  – eq number
                  – gt number
                  – ipv6-packet-length-list reference
                  – lt number
```


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configure filter ipv6-filter entry match packet-length range

```
                  - range
                     - end number
                     - start number
               - port
                  - eq number
                  - gt number
                  - lt number
                  - port-list reference
                  - range
                     - end number
                     - start number
               - src-ip
                  - address (ipv6-prefix-with-host-bits | ipv6-address)
                  - ipv6-prefix-list reference
                  - mask ipv6-address
               - src-mac
                  - address mac-address
                  - mask mac-address
               - src-port
                  - eq number
                  - gt number
                  - lt number
                  - port-list reference
                  - range
                     - end number
                     - start number
               - tcp-established
               - tcp-flags
                  - ack boolean
                  - cwr boolean
                  - ece boolean
                  - fin boolean
                  - ns boolean
                  - psh boolean
                  - rst boolean
                  - syn boolean
                  - urg boolean
            - pbr-down-action-override keyword
            - sample-profile reference
            - sticky-dest (number | keyword)
         - filter-id number
         - scope keyword
         - shared-policer boolean
         - subscriber-mgmt
            - host-specific-entry
               - credit-control
                  - range
                     - end number
                     - start number
               - filter-rule
                  - range
                     - end number
                     - start number
               - watermark
                  - high number
                  - low number
            - shared-entry
               - filter-rule
                  - range
                     - end number
                     - start number
               - pcc-rule
                  - range
                     - end number
```


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configure filter ipv6-filter subscriber-mgmt shared-entry pcc-rule range start

```
                    - start number
                - watermark
                    - high number
                    - low number
            - type keyword
        - log number
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - description description-or-empty
            - destination
                - memory
                    - max-entries number
                    - stop-on-full boolean
                - syslog
                    - name reference
                    - summary
                        - admin-state keyword
                        - summary-crit keyword
        - mac-filter filter-name
            - apply-groups reference
            - apply-groups-exclude reference
            - default-action keyword
            - description description
            - embed
            - entry number
                - action
                    - accept
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - drop
                    - forward
                        - esi-l2
                            - esi-value ethernet-segment-id
                            - vpls reference
                        - sap
                            - sap-id reference
                            - vpls reference
                        - sdp
                            - sdp-bind-id sdp-bind-id
                            - vpls reference
                    - http-redirect
                        - url http-redirect-url
                    - ignore-match
                    - rate-limit
                        - pir (number | keyword)
                    - secondary
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - forward
                            - sap
                                - sap-id reference
                                - vpls reference
                            - sdp
                                - sdp-bind-id sdp-bind-id
                                - vpls reference
                - apply-groups reference
                - apply-groups-exclude reference
                - description description
                - log reference
                - match
                    - dot1p
                        - mask number
                        - priority number
```


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configure filter mac-filter entry match dst-mac

```
                - dst-mac
                  - address mac-address
                  - mask mac-address
                - etype etype-value
                - frame-type keyword
                - inner-tag
                  - mask number
                  - tag number
                - isid
                  - range
                    - end number
                    - start number
                  - value number
                - llc-dsap
                  - dsap number
                  - mask number
                - llc-ssap
                  - mask number
                  - ssap number
                - outer-tag
                  - mask number
                  - tag number
                - snap-oui keyword
                - snap-pid number
                - src-mac
                  - address mac-address
                  - mask mac-address
            - pbr-down-action-override keyword
            - sticky-dest (number | keyword)
        - filter-id number
        - scope keyword
        - type keyword
    - match-list
        - apply-groups reference
        - apply-groups-exclude reference
        - ip-packet-length-list named-item
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - packet-length number
            - range start number end number
        - ip-prefix-list named-item
            - apply-groups reference
            - apply-groups-exclude reference
            - apply-path
                - bgp-peers number
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - group regular-expression-not-all-spaces
                  - neighbor regular-expression-not-all-spaces
                  - router-instance string
            - description description
            - prefix ipv4-prefix
            - prefix-exclude ipv4-prefix
        - ipv6-packet-length-list named-item
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - packet-length number
            - range start number end number
        - ipv6-prefix-list named-item
            - apply-groups reference
            - apply-groups-exclude reference
            - apply-path
```


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configure filter match-list ipv6-prefix-list apply-path bgp-peers

```
            - bgp-peers number
                - apply-groups reference
                - apply-groups-exclude reference
                - group regular-expression-not-all-spaces
                - neighbor regular-expression-not-all-spaces
                - router-instance string
          - description description
          - prefix ipv6-prefix
          - prefix-exclude ipv6-prefix
       - port-list named-item
          - apply-groups reference
          - apply-groups-exclude reference
          - description description
          - port number
          - range start number end number
       - protocol-list named-item
          - apply-groups reference
          - apply-groups-exclude reference
          - description description
          - protocol (number | keyword)
    - md-auto-id
       - filter-id-range
          - apply-groups reference
          - apply-groups-exclude reference
          - end number
          - start number
    - redirect-policy named-item
       - admin-state keyword
       - apply-groups reference
       - apply-groups-exclude reference
       - description description
       - destination (ipv4-address-no-zone | ipv6-address-no-zone)
          - admin-state keyword
          - apply-groups reference
          - apply-groups-exclude reference
          - description description
          - ping-test
             - apply-groups reference
             - apply-groups-exclude reference
             - drop-count number
             - hold-down number
             - interval number
             - source-address (ipv4-address-no-zone | ipv6-address-no-zone)
             - timeout number
          - priority number
          - unicast-rt-test
       - notify-dest-change boolean
       - router-instance string
       - sticky-dest (number | keyword)
    - redirect-policy-binding named-item
       - apply-groups reference
       - apply-groups-exclude reference
       - binding-operator keyword
       - redirect-policy reference
          - apply-groups reference
          - apply-groups-exclude reference
          - destination reference
    - system-filter
       - apply-groups reference
       - apply-groups-exclude reference
       - ip reference
       - ipv6 reference
```


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## 4.17.1 filter command descriptions

### filter

| | |
|---|---|
| Synopsis | Enter the **filter** context |
| Context | **configure** filter |
| Tree | filter |
| Introduced | 16.0.R1 |
| Platforms | All |

### **dhcp-filter** [filter-id] *number*

| | |
|---|---|
| Synopsis | Enter the **dhcp-filter** list instance |
| Context | **configure** filter dhcp-filter *number* |
| Tree | dhcp-filter |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**filter-id**] *number*

| | |
|---|---|
| Synopsis | Unique DHCP filter policy ID |
| Context | **configure** filter dhcp-filter *number* |
| Tree | dhcp-filter |
| Range | 1 to 65535 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### default-action

| | |
|---|---|
| Synopsis | Enable the **default-action** context |
| Context | **configure** filter dhcp-filter *number* default-action |
| Tree | default-action |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### bypass-host-creation

| | |
|---|---|
| Synopsis | Host creation options to bypass |
| Context | **configure** filter dhcp-filter *number* default-action bypass-host-creation |
| Tree | bypass-host-creation |
| Notes | The following elements are part of a mandatory choice: **bypass-host-creation** or **drop**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### drop

| | |
|---|---|
| Synopsis | DHCP host creation when the filter entry is matched |
| Context | **configure** filter dhcp-filter *number* default-action drop |
| Tree | drop |
| Notes | The following elements are part of a mandatory choice: **bypass-host-creation** or **drop**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** filter dhcp-filter *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **entry** [entry-id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** filter dhcp-filter *number* entry *number* |
| Tree | entry |


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| | |
|---|---|
| Max. instances | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**entry-id**] *number*

| | |
|---|---|
| Synopsis | DHCP filter entry ID |
| Context | **configure** filter dhcp-filter *number* entry *number* |
| Tree | entry |
| Range | 1 to 65535 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### action

| | |
|---|---|
| Synopsis | Enable the **action** context |
| Context | **configure** filter dhcp-filter *number* entry *number* action |
| Tree | action |
| Introduced | 16.0.R1 |
| Platforms | All |

### bypass-host-creation

| | |
|---|---|
| Synopsis | Host creation options to bypass |
| Context | **configure** filter dhcp-filter *number* entry *number* action bypass-host-creation |
| Tree | bypass-host-creation |
| Notes | The following elements are part of a mandatory choice: **bypass-host-creation** or **drop**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### drop

| | |
|---|---|
| Synopsis | DHCP host creation when the filter entry is matched |


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| | |
|---|---|
| Context | **configure** filter dhcp-filter *number* entry *number* action drop |
| Tree | drop |
| Notes | The following elements are part of a mandatory choice: **bypass-host-creation** or **drop**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## option

| | |
|---|---|
| Synopsis | Enable the **option** context |
| Context | **configure** filter dhcp-filter *number* entry *number* option |
| Tree | option |
| Introduced | 16.0.R1 |
| Platforms | All |

## absent

| | |
|---|---|
| Synopsis | Require the absence of related option |
| Context | **configure** filter dhcp-filter *number* entry *number* option absent |
| Tree | absent |
| Notes | The following elements are part of a mandatory choice: **absent**, **match**, or **present**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## match

| | |
|---|---|
| Synopsis | Enable the **match** context |
| Context | **configure** filter dhcp-filter *number* entry *number* option match |
| Tree | match |
| Notes | The following elements are part of a mandatory choice: **absent**, **match**, or **present**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **exact** *boolean*

| | |
|---|---|
| Synopsis | Use an exact match pattern (not partial) |


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| | |
|---|---|
| Context | **configure** filter dhcp-filter *number* entry *number* option match exact *boolean* |
| Tree | exact |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hex** *string*

| | |
|---|---|
| Synopsis | Matching pattern for the filtered option |
| Context | **configure** filter dhcp-filter *number* entry *number* option match hex *string* |
| Tree | hex |
| String length | 1 to 256 |
| Notes | The following elements are part of a mandatory choice: **hex** or **string**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **invert** *boolean*

| | |
|---|---|
| Synopsis | Invert (partial) matching criteria |
| Context | **configure** filter dhcp-filter *number* entry *number* option match invert *boolean* |
| Tree | invert |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **string** *string*

| | |
|---|---|
| Synopsis | Matching pattern for the filtered option |
| Context | **configure** filter dhcp-filter *number* entry *number* option match string *string* |
| Tree | string |
| String length | 1 to 127 |
| Notes | The following elements are part of a mandatory choice: **hex** or **string**. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **number** *number*

| | |
|---|---|
| Synopsis | Number for DHCP or DHCPv6 option to filter on |
| Context | **configure** filter dhcp-filter *number* entry *number* option number *number* |
| Tree | number |
| Range | 0 to 255 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **present**

| | |
|---|---|
| Synopsis | Require the presence of related option |
| Context | **configure** filter dhcp-filter *number* entry *number* option present |
| Tree | present |
| Notes | The following elements are part of a mandatory choice: **absent**, **match**, or **present**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **dhcp6-filter** [filter-id] *number*

| | |
|---|---|
| Synopsis | Enter the **dhcp6-filter** list instance |
| Context | **configure** filter dhcp6-filter *number* |
| Tree | dhcp6-filter |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**filter-id**] *number*

| | |
|---|---|
| Synopsis | Unique DHCP filter policy ID |
| Context | **configure** filter dhcp6-filter *number* |
| Tree | dhcp6-filter |
| Range | 1 to 65535 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## default-action

| | |
|---|---|
| Synopsis | Enable the **default-action** context |
| Context | **configure** filter dhcp6-filter *number* default-action |
| Tree | default-action |
| Introduced | 16.0.R1 |
| Platforms | All |

## bypass-host-creation

| | |
|---|---|
| Synopsis | Enable the **bypass-host-creation** context |
| Context | **configure** filter dhcp6-filter *number* default-action bypass-host-creation |
| Tree | bypass-host-creation |
| Notes | The following elements are part of a mandatory choice: **bypass-host-creation** or **drop**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **na** *boolean*

| | |
|---|---|
| Synopsis | Bypass the DHCPv6 NA host creation |
| Context | **configure** filter dhcp6-filter *number* default-action bypass-host-creation na *boolean* |
| Tree | na |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **pd** *boolean*

| | |
|---|---|
| Synopsis | Bypass the DHCPv6 PD host creation |
| Context | **configure** filter dhcp6-filter *number* default-action bypass-host-creation pd *boolean* |
| Tree | pd |
| Default | true |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### drop

| | |
|---|---|
| Synopsis | Drop DHCPv6 message (do not process) |
| Context | **configure** filter dhcp6-filter *number* default-action drop |
| Tree | drop |
| Notes | The following elements are part of a mandatory choice: **bypass-host-creation** or **drop**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### description *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** filter dhcp6-filter *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### entry [entry-id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** filter dhcp6-filter *number* entry *number* |
| Tree | entry |
| Max. instances | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**entry-id**] *number*

| | |
|---|---|
| Synopsis | DHCP filter entry ID |
| Context | **configure** filter dhcp6-filter *number* entry *number* |
| Tree | entry |


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| | |
|---|---|
| Range | 1 to 65535 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## action

| | |
|---|---|
| Synopsis | Enable the **action** context |
| Context | **configure** filter dhcp6-filter *number* entry *number* action |
| Tree | action |
| Introduced | 16.0.R1 |
| Platforms | All |

## bypass-host-creation

| | |
|---|---|
| Synopsis | Enable the **bypass-host-creation** context |
| Context | **configure** filter dhcp6-filter *number* entry *number* action bypass-host-creation |
| Tree | bypass-host-creation |
| Notes | The following elements are part of a mandatory choice: **bypass-host-creation** or **drop**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **na** *boolean*

| | |
|---|---|
| Synopsis | Bypass the DHCPv6 NA host creation |
| Context | **configure** filter dhcp6-filter *number* entry *number* action bypass-host-creation na *boolean* |
| Tree | na |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **pd** *boolean*

| | |
|---|---|
| Synopsis | Bypass the DHCPv6 PD host creation |


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| | |
|---|---|
| Context | **configure** filter dhcp6-filter *number* entry *number* action bypass-host-creation pd *boolean* |
| Tree | pd |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## drop

| | |
|---|---|
| Synopsis | Drop DHCPv6 message (do not process) |
| Context | **configure** filter dhcp6-filter *number* entry *number* action drop |
| Tree | drop |
| Notes | The following elements are part of a mandatory choice: **bypass-host-creation** or **drop**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## option

| | |
|---|---|
| Synopsis | Enable the **option** context |
| Context | **configure** filter dhcp6-filter *number* entry *number* option |
| Tree | option |
| Introduced | 16.0.R1 |
| Platforms | All |

## absent

| | |
|---|---|
| Synopsis | Require the absence of related option |
| Context | **configure** filter dhcp6-filter *number* entry *number* option absent |
| Tree | absent |
| Notes | The following elements are part of a mandatory choice: **absent**, **match**, or **present**. |
| Introduced | 16.0.R1 |
| Platforms | All |


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## match

| | |
|---|---|
| Synopsis | Enable the **match** context |
| Context | **configure** filter dhcp6-filter *number* entry *number* option match |
| Tree | match |
| Notes | The following elements are part of a mandatory choice: **absent**, **match**, or **present**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## exact *boolean*

| | |
|---|---|
| Synopsis | Use an exact match pattern (not partial) |
| Context | **configure** filter dhcp6-filter *number* entry *number* option match exact *boolean* |
| Tree | exact |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## hex *string*

| | |
|---|---|
| Synopsis | Matching pattern for the filtered option |
| Context | **configure** filter dhcp6-filter *number* entry *number* option match hex *string* |
| Tree | hex |
| String length | 1 to 256 |
| Notes | The following elements are part of a mandatory choice: **hex** or **string**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## invert *boolean*

| | |
|---|---|
| Synopsis | Invert (partial) matching criteria |
| Context | **configure** filter dhcp6-filter *number* entry *number* option match invert *boolean* |
| Tree | invert |
| Default | false |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **string** *string*

| | |
|---|---|
| Synopsis | Matching pattern for the filtered option |
| Context | **configure** filter dhcp6-filter *number* entry *number* option match string *string* |
| Tree | string |
| String length | 1 to 127 |
| Notes | The following elements are part of a mandatory choice: **hex** or **string**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **number** *number*

| | |
|---|---|
| Synopsis | Number for DHCP or DHCPv6 option to filter on |
| Context | **configure** filter dhcp6-filter *number* entry *number* option number *number* |
| Tree | number |
| Range | 0 to 255 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **present**

| | |
|---|---|
| Synopsis | Require the presence of related option |
| Context | **configure** filter dhcp6-filter *number* entry *number* option present |
| Tree | present |
| Notes | The following elements are part of a mandatory choice: **absent**, **match**, or **present**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **gre-tunnel-template** [gre-tunnel-template-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **gre-tunnel-template** list instance |
| Context | **configure** filter gre-tunnel-template *named-item* |


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| | |
|---|---|
| Tree | gre-tunnel-template |
| Max. instances | 8191 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**gre-tunnel-template-name**] *named-item*

| | |
|---|---|
| Synopsis | GRE tunnel template ID |
| Context | **configure** filter gre-tunnel-template *named-item* |
| Tree | gre-tunnel-template |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** filter gre-tunnel-template *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R2 |
| Platforms | All |

### **ipv4**

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |
| Context | **configure** filter gre-tunnel-template *named-item* ipv4 |
| Tree | ipv4 |
| Notes | The following elements are part of a choice: **ipv4** or **ipv6**. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **destination-address** [address] *ipv4-address*

| | |
|---|---|
| Synopsis | Add a list entry for **destination-address** |
| Context | **configure** filter gre-tunnel-template *named-item* ipv4 destination-address *ipv4-address* |
| Tree | destination-address |
| Description | This command defines a destination for the GRE IP header used to encapsulate the matching IPv4/IPv6 packet.<br>A single destination address can be specified for an IPv6 **gre-tunnel-template**.<br>Traffic matching the associated IPv4 or IPv6 filter is hashed across any available ECMP or UCMP route next hop available to the destination address. If no destination address is available, then matching traffic follows the configured **pbr-down-action-override** action, if configured. If no **pbr-down-action-override** is configured traffic is discarded. |
| Max. instances | 32 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**address**] *ipv4-address*

| | |
|---|---|
| Synopsis | Destination IPv4 address |
| Context | **configure** filter gre-tunnel-template *named-item* ipv4 destination-address *ipv4-address* |
| Tree | destination-address |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **gre-key** *(keyword | number)*

| | |
|---|---|
| Synopsis | GRE key |
| Context | **configure** filter gre-tunnel-template *named-item* ipv4 gre-key *(keyword | number)* |
| Tree | gre-key |
| Max. range | 0 to 4294967295 |
| Options | if-index |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **skip-ttl-decrement** *boolean*

| | |
|---|---|
| Synopsis | Decrement TTL |
| Context | **configure** filter gre-tunnel-template *named-item* ipv4 skip-ttl-decrement *boolean* |
| Tree | skip-ttl-decrement |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **source-address** *ipv4-address*

| | |
|---|---|
| Synopsis | Source IP address of the GRE encapsulated |
| Context | **configure** filter gre-tunnel-template *named-item* ipv4 source-address *ipv4-address* |
| Tree | source-address |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv6**

| | |
|---|---|
| Synopsis | Enter the **ipv6** context |
| Context | **configure** filter gre-tunnel-template *named-item* ipv6 |
| Tree | ipv6 |
| Notes | The following elements are part of a choice: **ipv4** or **ipv6**. |
| Introduced | 22.7.R1 |
| Platforms | All |

### **destination-address** [address] *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Add a list entry for **destination-address** |
| Context | **configure** filter gre-tunnel-template *named-item* ipv6 destination-address *ipv6-unicast-address* |
| Tree | destination-address |
| Max. instances | 1 |
| Introduced | 22.7.R1 |


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| | |
|---|---|
| Platforms | All |

### [**address**] *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | IPv6 destination address |
| Context | **configure** filter gre-tunnel-template *named-item* ipv6 destination-address *ipv6-unicast-address* |
| Tree | destination-address |
| Notes | This element is part of a list key. |
| Introduced | 22.7.R1 |
| Platforms | All |

### **gre-key** *keyword*

| | |
|---|---|
| Synopsis | Include a key value in GRE header |
| Context | **configure** filter gre-tunnel-template *named-item* ipv6 gre-key *keyword* |
| Tree | gre-key |
| Description | This command includes a key value in the GRE header of ifIndex of the ingress interface. |
| Options | if-index |
| Introduced | 22.7.R1 |
| Platforms | All |

### **skip-hop-decrement** *boolean*

| | |
|---|---|
| Synopsis | Decrement TTL of the received packet |
| Context | **configure** filter gre-tunnel-template *named-item* ipv6 skip-hop-decrement *boolean* |
| Tree | skip-hop-decrement |
| Description | When configured to **true**, the system decrements the TTL of the IP packet matching the IPv4 or IPv6 filter when it is encapsulated into the GRE tunnel header.<br>When configured to **false**, the system increases the TTL of the received packet. |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | All |


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### **source-address** *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Source IPv6 address of the GRE encapsulated |
| Context | **configure** filter gre-tunnel-template *named-item* ipv6 source-address *ipv6-unicast-address* |
| Tree | source-address |
| Introduced | 22.7.R1 |
| Platforms | All |

### **ip-exception** [filter-name] *filter-name*

| | |
|---|---|
| Synopsis | Enter the **ip-exception** list instance |
| Context | **configure** filter ip-exception *filter-name* |
| Tree | ip-exception |
| Introduced | 20.10.R1 |
| Platforms | VSR |

### [**filter-name**] *filter-name*

| | |
|---|---|
| Synopsis | Filter name |
| Context | **configure** filter ip-exception *filter-name* |
| Tree | ip-exception |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** filter ip-exception *filter-name* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 20.10.R1 |
| Platforms | VSR |


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### **entry** [entry-id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** filter ip-exception *filter-name* entry *number* |
| Tree | entry |
| Introduced | 20.10.R1 |
| Platforms | VSR |

### [**entry-id**] *number*

| | |
|---|---|
| Synopsis | ID for a match criteria and the corresponding action |
| Context | **configure** filter ip-exception *filter-name* entry *number* |
| Tree | entry |
| Range | 1 to 2097151 |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** filter ip-exception *filter-name* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 20.10.R1 |
| Platforms | VSR |

### **match**

| | |
|---|---|
| Synopsis | Enter the **match** context |
| Context | **configure** filter ip-exception *filter-name* entry *number* match |
| Tree | match |
| Introduced | 20.10.R1 |
| Platforms | VSR |


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## dst-ip

| | |
|---|---|
| Synopsis | Enter the **dst-ip** context |
| Context | **configure** filter ip-exception *filter-name* entry *number* match dst-ip |
| Tree | dst-ip |
| Introduced | 20.10.R1 |
| Platforms | VSR |

## address *(ipv4-prefix-with-host-bits | ipv4-address)*

| | |
|---|---|
| Synopsis | IP address to match |
| Context | **configure** filter ip-exception *filter-name* entry *number* match dst-ip address *(ipv4-prefix-with-host-bits \| ipv4-address)* |
| Tree | address |
| Introduced | 20.10.R1 |
| Platforms | VSR |

## mask *ipv4-address*

| | |
|---|---|
| Synopsis | Mask applied as an AND to the IP address |
| Context | **configure** filter ip-exception *filter-name* entry *number* match dst-ip mask *ipv4-address* |
| Tree | mask |
| Introduced | 20.10.R1 |
| Platforms | VSR |

## dst-port

| | |
|---|---|
| Synopsis | Enter the **dst-port** context |
| Context | **configure** filter ip-exception *filter-name* entry *number* match dst-port |
| Tree | dst-port |
| Introduced | 20.10.R1 |
| Platforms | VSR |

## eq *number*

| | |
|---|---|
| Synopsis | Exact match criterion |


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| | |
|---|---|
| Context | **configure** filter ip-exception *filter-name* entry *number* match dst-port eq *number* |
| Tree | eq |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 20.10.R1 |
| Platforms | VSR |

### **gt** *number*

| | |
|---|---|
| Synopsis | Greater than match criterion for the port number |
| Context | **configure** filter ip-exception *filter-name* entry *number* match dst-port gt *number* |
| Tree | gt |
| Range | 0 to 65534 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 20.10.R1 |
| Platforms | VSR |

### **lt** *number*

| | |
|---|---|
| Synopsis | Less than match criterion for the port |
| Context | **configure** filter ip-exception *filter-name* entry *number* match dst-port lt *number* |
| Tree | lt |
| Range | 1 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 20.10.R1 |
| Platforms | VSR |

### **range**

| | |
|---|---|
| Synopsis | Enable the **range** context |
| Context | **configure** filter ip-exception *filter-name* entry *number* match dst-port range |
| Tree | range |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 20.10.R1 |


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| | |
|---|---|
| Platforms | VSR |

### **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the port range to match |
| Context | **configure** filter ip-exception *filter-name* entry *number* match dst-port range end *number* |
| Tree | end |
| Range | 1 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 20.10.R1 |
| Platforms | VSR |

### **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of the port range to match |
| Context | **configure** filter ip-exception *filter-name* entry *number* match dst-port range start *number* |
| Tree | start |
| Range | 0 to 65534 |
| Notes | This element is mandatory. |
| Introduced | 20.10.R1 |
| Platforms | VSR |

### **icmp**

| | |
|---|---|
| Synopsis | Enter the **icmp** context |
| Context | **configure** filter ip-exception *filter-name* entry *number* match icmp |
| Tree | icmp |
| Introduced | 20.10.R1 |
| Platforms | VSR |

### **code** *number*

| | |
|---|---|
| Synopsis | ICMP code value to match |
| Context | **configure** filter ip-exception *filter-name* entry *number* match icmp code *number* |
| Tree | code |


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| | |
|---|---|
| Description | This command specifies the ICMP code value that must be present to match. The system matches on ICMP code or ICMP type, or on both values.<br>An entry containing Layer 4 non-zero match criteria does not match non initial (second, third, and so on) fragments of a fragmented packet because only the first fragment contains the Layer 4 information. Similarly, an entry containing an ICMP code value of 0 match criterion may match non initial fragments when the Layer 4 header is not present in a packet fragment and other match criteria are also met. |
| Range | 0 to 255 |
| Introduced | 20.10.R1 |
| Platforms | VSR |

### **type** *number*

| | |
|---|---|
| Synopsis | ICMP type value to match |
| Context | **configure** filter ip-exception *filter-name* entry *number* match icmp type *number* |
| Tree | type |
| Description | This command specifies the ICMP type value that must be present to match. The system matches on ICMP code or ICMP type, or on both values.<br>An entry containing Layer 4 non-zero match criteria does not match non initial (second, third, and so on) fragments of a fragmented packet because only the first fragment contains the Layer 4 information. Similarly, an entry containing an ICMP type value of 0 match criterion may match non initial fragments when the Layer 4 header is not present in a packet fragment and other match criteria are also met. |
| Range | 0 to 255 |
| Introduced | 20.10.R1 |
| Platforms | VSR |

### **protocol** *(number | keyword)*

| | |
|---|---|
| Synopsis | IP protocol as the match criterion |
| Context | **configure** filter ip-exception *filter-name* entry *number* match protocol *(number \| keyword)* |
| Tree | protocol |
| Range | 0 to 255 |
| Options | tcp-udp, icmp, igmp, ip, tcp, egp, igp, udp, rdp, ipv6, ipv6-route, ipv6-frag, idrp, rsvp, gre, ipv6-icmp, ipv6-no-nxt, ipv6-opts, iso-ip, eigrp, ospf-igp, ether-ip, encap, pnni, pim, vrrp, l2tp, stp, ptp, isis, crtp, crudp, sctp |
| Introduced | 20.10.R1 |
| Platforms | VSR |


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### src-ip

| | |
|---|---|
| Synopsis | Enter the **src-ip** context |
| Context | **configure** filter ip-exception *filter-name* entry *number* match src-ip |
| Tree | src-ip |
| Introduced | 20.10.R1 |
| Platforms | VSR |

### address *(ipv4-prefix-with-host-bits | ipv4-address)*

| | |
|---|---|
| Synopsis | IP address to match |
| Context | **configure** filter ip-exception *filter-name* entry *number* match src-ip address *(ipv4-prefix-with-host-bits \| ipv4-address)* |
| Tree | address |
| Introduced | 20.10.R1 |
| Platforms | VSR |

### mask *ipv4-address*

| | |
|---|---|
| Synopsis | Mask applied as an AND to the IP address |
| Context | **configure** filter ip-exception *filter-name* entry *number* match src-ip mask *ipv4-address* |
| Tree | mask |
| Introduced | 20.10.R1 |
| Platforms | VSR |

### src-port

| | |
|---|---|
| Synopsis | Enter the **src-port** context |
| Context | **configure** filter ip-exception *filter-name* entry *number* match src-port |
| Tree | src-port |
| Introduced | 20.10.R1 |
| Platforms | VSR |

### eq *number*

| | |
|---|---|
| Synopsis | Exact match criterion |


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| | |
|---|---|
| Context | **configure** filter ip-exception *filter-name* entry *number* match src-port eq *number* |
| Tree | eq |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 20.10.R1 |
| Platforms | VSR |

### **gt** *number*

| | |
|---|---|
| Synopsis | Greater than match criterion for the port number |
| Context | **configure** filter ip-exception *filter-name* entry *number* match src-port gt *number* |
| Tree | gt |
| Range | 0 to 65534 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 20.10.R1 |
| Platforms | VSR |

### **lt** *number*

| | |
|---|---|
| Synopsis | Less than match criterion for the port |
| Context | **configure** filter ip-exception *filter-name* entry *number* match src-port lt *number* |
| Tree | lt |
| Range | 1 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 20.10.R1 |
| Platforms | VSR |

### **range**

| | |
|---|---|
| Synopsis | Enable the **range** context |
| Context | **configure** filter ip-exception *filter-name* entry *number* match src-port range |
| Tree | range |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
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| | |
|---|---|
| Platforms | VSR |

### **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the port range to match |
| Context | **configure** filter ip-exception *filter-name* entry *number* match src-port range end *number* |
| Tree | end |
| Range | 1 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 20.10.R1 |
| Platforms | VSR |

### **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of the port range to match |
| Context | **configure** filter ip-exception *filter-name* entry *number* match src-port range start *number* |
| Tree | start |
| Range | 0 to 65534 |
| Notes | This element is mandatory. |
| Introduced | 20.10.R1 |
| Platforms | VSR |

### **filter-id** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Filter ID |
| Context | **configure** filter ip-exception *filter-name* filter-id *number* |
| Tree | filter-id |
| Range | 1 to 65535 |
| Introduced | 20.10.R1 |
| Platforms | VSR |


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### **ip-filter** [filter-name] *filter-name*

| | |
|---|---|
| Synopsis | Enter the **ip-filter** list instance |
| Context | **configure** filter ip-filter *filter-name* |
| Tree | ip-filter |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**filter-name**] *filter-name*

| | |
|---|---|
| Synopsis | Filter name |
| Context | **configure** filter ip-filter *filter-name* |
| Tree | ip-filter |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **chain-to-system-filter** *boolean*

| | |
|---|---|
| Synopsis | Chain filter policy to the active IPvX system filter policy |
| Context | **configure** filter ip-filter *filter-name* chain-to-system-filter *boolean* |
| Tree | chain-to-system-filter |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **default-action** *keyword*

| | |
|---|---|
| Synopsis | Action for packets that do not match any entry |
| Context | **configure** filter ip-filter *filter-name* default-action *keyword* |
| Tree | default-action |
| Options | drop, accept |
| Default | drop |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** filter ip-filter *filter-name* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **embed**

| | |
|---|---|
| Synopsis | Enter the **embed** context |
| Context | **configure** filter ip-filter *filter-name* embed |
| Tree | embed |
| Description | Commands in this context configure filter policy embedding.<br>A previously defined IPv4 embedded filter policy or Hybrid OpenFlow switch instance can be embedded into an exclusive, template, or system filter policy at the specified offset value. Rules derived from BGP FlowSpec can also be embedded into template filter policies only. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter** [name] *reference* offset *number*

| | |
|---|---|
| Synopsis | Enter the **filter** list instance |
| Context | **configure** filter ip-filter *filter-name* embed filter *reference* offset *number* |
| Tree | filter |
| Description | Commands in this context embed a previously defined IPv4 filter policy into the filter policy at the specified offset value. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**name**] *reference*

| | |
|---|---|
| Synopsis | IPv4 policy to be embedded in the filter |
| Context | **configure** filter ip-filter *filter-name* embed filter *reference* offset *number* |
| Tree | filter |
| Reference | **configure** filter ip-filter *filter-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **offset** *number*

| | |
|---|---|
| Synopsis | Offset of the embedded filter policy |
| Context | **configure** filter ip-filter *filter-name* embed filter *reference* offset *number* |
| Tree | filter |
| Description | This command configures the offset of the embedded filter policy. The embedded filter entry X has an entry X + offset in the embedding filter. |
| Range | 0 to 2097150 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the embedded filter |
| Context | **configure** filter ip-filter *filter-name* embed filter *reference* offset *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **flowspec** offset *number*

| | |
|---|---|
| Synopsis | Enter the **flowspec** list instance |
| Context | **configure** filter ip-filter *filter-name* embed flowspec offset *number* |
| Tree | flowspec |
| Description | Commands in this context embed a previously defined FlowSpec filter policy into the filter policy at the specified offset value. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **offset** *number*

| | |
|---|---|
| Synopsis | Offset of the inserted entries |
| Context | **configure** filter ip-filter *filter-name* embed flowspec offset *number* |
| Tree | flowspec |
| Description | This command configures the offset of the embedded filter policy. The embedded filter entry X has an entry X + offset in the embedding filter. |
| Range | 0 to 2097151 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the embedded filter |
| Context | **configure** filter ip-filter *filter-name* embed flowspec offset *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **group** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Group ID of FlowSpec routes to embed in the filter |
| Context | **configure** filter ip-filter *filter-name* embed flowspec offset *number* group *number* |
| Tree | group |
| Description | This command specifies the group ID of routes to embed into the filter. Only FlowSpec routes tagged with an interface-set extended community containing this group ID are selected for embedding. |
| Range | 0 to 16383 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **router-instance** *string*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Routing instance source of BGP FlowSpec routes |
| Context | **configure** filter ip-filter *filter-name* embed flowspec offset *number* router-instance *string* |
| Tree | router-instance |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **openflow** [of-switch] *reference* offset *number*

| | |
|---|---|
| Synopsis | Enter the **openflow** list instance |
| Context | **configure** filter ip-filter *filter-name* embed openflow *reference* offset *number* |
| Tree | openflow |
| Introduced | 16.0.R4 |
| Platforms | VSR |


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### [**of-switch**] *reference*

| | |
|---|---|
| Synopsis | Referenced Hybrid OpenFlow Switch (OFS) name |
| Context | **configure** filter ip-filter *filter-name* embed openflow *reference* offset *number* |
| Tree | openflow |
| Reference | **configure** openflow of-switch *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | VSR |

### **offset** *number*

| | |
|---|---|
| Synopsis | Offset of the embedded filter policy |
| Context | **configure** filter ip-filter *filter-name* embed openflow *reference* offset *number* |
| Tree | openflow |
| Description | This command configures the offset of the embedded filter policy. The embedded filter entry X has an entry X + offset in the embedding filter. |
| Range | 0 to 2097150 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the embedded filter |
| Context | **configure** filter ip-filter *filter-name* embed openflow *reference* offset *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R4 |
| Platforms | VSR |


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## grt

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Global routing context |
| Context | **configure** filter ip-filter *filter-name* embed openflow *reference* offset *number* grt |
| Tree | grt |
| Notes | The following elements are part of a choice: **grt**, **system**, (**sap** and **vpls**), or **vprn**. |
| Introduced | 16.0.R4 |
| Platforms | VSR |

## sap *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | SAP context |
| Context | **configure** filter ip-filter *filter-name* embed openflow *reference* offset *number* sap *reference* |
| Tree | sap |
| Reference | **configure** service vpls *service-name* sap *sap* |
| Notes | The following elements are part of a choice: **grt**, **system**, (**sap** and **vpls**), or **vprn**. |
| Introduced | 16.0.R4 |
| Platforms | VSR |

## system

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | System context |
| Context | **configure** filter ip-filter *filter-name* embed openflow *reference* offset *number* system |
| Tree | system |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **grt**, **system**, (**sap** and **vpls**), or **vprn**. |
| Introduced | 16.0.R4 |
| Platforms | VSR |

## **vpls** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | VPLS context |
| Context | **configure** filter ip-filter *filter-name* embed openflow *reference* offset *number* vpls *reference* |
| Tree | vpls |
| Reference | **configure** service vpls *service-name* |
| Notes | The following elements are part of a choice: **grt**, **system**, (**sap** and **vpls**), or **vprn**. |
| Introduced | 16.0.R4 |
| Platforms | VSR |

## **vprn** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | VPRN context |
| Context | **configure** filter ip-filter *filter-name* embed openflow *reference* offset *number* vprn *reference* |
| Tree | vprn |
| Reference | **configure** service vprn *service-name* |
| Notes | The following elements are part of a choice: **grt**, **system**, (**sap** and **vpls**), or **vprn**. |
| Introduced | 16.0.R4 |
| Platforms | VSR |

## **entry** [entry-id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |


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| | |
|---|---|
| Context | **configure** filter ip-filter *filter-name* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**entry-id**] *number*

| | |
|---|---|
| Synopsis | ID for a match criteria and the corresponding action |
| Context | **configure** filter ip-filter *filter-name* entry *number* |
| Tree | entry |
| Range | 1 to 2097151 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### action

| | |
|---|---|
| Synopsis | Enable the **action** context |
| Context | **configure** filter ip-filter *filter-name* entry *number* action |
| Tree | action |
| Introduced | 16.0.R1 |
| Platforms | All |

### accept

| | |
|---|---|
| Synopsis | Accept regular routing to forward a matching packet |
| Context | **configure** filter ip-filter *filter-name* entry *number* action accept |
| Tree | accept |
| Notes | The following elements are part of a mandatory choice: **accept**, **drop**, **forward**, **gtp-local-breakout**, **http-redirect**, **ignore-match**, **nat**, **reassemble**, or **tcp-mss-adjust**. |
| Introduced | 16.0.R1 |
| Platforms | All |


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## accept-when

| | |
|---|---|
| Synopsis | Enable the **accept-when** context |
| Context | **configure** filter ip-filter *filter-name* entry *number* action accept-when |
| Tree | accept-when |
| Introduced | 19.5.R1 |
| Platforms | All |

## pattern

| | |
|---|---|
| Synopsis | Enable the **pattern** context |
| Context | **configure** filter ip-filter *filter-name* entry *number* action accept-when pattern |
| Tree | pattern |
| Introduced | 19.5.R1 |
| Platforms | All |

## expression *hex-string*

| | |
|---|---|
| Synopsis | Pattern expression to match |
| Context | **configure** filter ip-filter *filter-name* entry *number* action accept-when pattern expression *hex-string* |
| Tree | expression |
| String length | 3 to 18 |
| Notes | This element is mandatory. |
| Introduced | 19.5.R1 |
| Platforms | All |

## mask *hex-string*

| | |
|---|---|
| Synopsis | Mask for the pattern expression |
| Context | **configure** filter ip-filter *filter-name* entry *number* action accept-when pattern mask *hex-string* |
| Tree | mask |
| String length | 3 to 18 |
| Notes | This element is mandatory. |


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| | |
|---|---|
| Introduced | 19.5.R1 |
| Platforms | All |

### **offset-type** *keyword*

| | |
|---|---|
| Synopsis | Starting point reference for offset value of pattern |
| Context | **configure** filter ip-filter *filter-name* entry *number* action accept-when pattern offset-type *keyword* |
| Tree | offset-type |
| Options | layer-3, layer-4, data, dns-qtype |
| Notes | This element is mandatory. |
| Introduced | 19.5.R1 |
| Platforms | All |

### **offset-value** *number*

| | |
|---|---|
| Synopsis | Offset value for the pattern expression |
| Context | **configure** filter ip-filter *filter-name* entry *number* action accept-when pattern offset-value *number* |
| Tree | offset-value |
| Range | 0 to 255 |
| Notes | This element is mandatory. |
| Introduced | 19.5.R1 |
| Platforms | All |

### **drop**

| | |
|---|---|
| Synopsis | Drop a packet matching this entry |
| Context | **configure** filter ip-filter *filter-name* entry *number* action drop |
| Tree | drop |
| Notes | The following elements are part of a mandatory choice: **accept**, **drop**, **forward**, **gtp-local-breakout**, **http-redirect**, **ignore-match**, **nat**, **reassemble**, or **tcp-mss-adjust**. |
| Introduced | 16.0.R1 |
| Platforms | All |


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## drop-when

| | |
|---|---|
| Synopsis | Enable the **drop-when** context |
| Context | **configure** filter ip-filter *filter-name* entry *number* action drop-when |
| Tree | drop-when |
| Introduced | 16.0.R1 |
| Platforms | All |

## extracted-traffic

| | |
|---|---|
| Synopsis | Drop traffic extracted to CPM |
| Context | **configure** filter ip-filter *filter-name* entry *number* action drop-when extracted-traffic |
| Tree | extracted-traffic |
| Introduced | 16.0.R1 |
| Platforms | All |

## packet-length

| | |
|---|---|
| Synopsis | Enable the **packet-length** context |
| Context | **configure** filter ip-filter *filter-name* entry *number* action drop-when packet-length |
| Tree | packet-length |
| Notes | The following elements are part of a choice: **packet-length** or **ttl**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## eq *number*

| | |
|---|---|
| Synopsis | Exact match criterion for the length |
| Context | **configure** filter ip-filter *filter-name* entry *number* action drop-when packet-length eq *number* |
| Tree | eq |
| Range | 0 to 65535 |
| Notes | The following elements are part of a mandatory choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **gt** *number*

| | |
|---|---|
| Synopsis | Greater than match criterion for the length |
| Context | **configure** filter ip-filter *filter-name* entry *number* action drop-when packet-length gt *number* |
| Tree | gt |
| Range | 0 to 65534 |
| Notes | The following elements are part of a mandatory choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lt** *number*

| | |
|---|---|
| Synopsis | Less than match criterion for the length |
| Context | **configure** filter ip-filter *filter-name* entry *number* action drop-when packet-length lt *number* |
| Tree | lt |
| Range | 1 to 65535 |
| Notes | The following elements are part of a mandatory choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **range**

| | |
|---|---|
| Synopsis | Enable the **range** context |
| Context | **configure** filter ip-filter *filter-name* entry *number* action drop-when packet-length range |
| Tree | range |
| Notes | The following elements are part of a mandatory choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the length range |
| Context | **configure** filter ip-filter *filter-name* entry *number* action drop-when packet-length range end *number* |


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| | |
|---|---|
| Tree | end |
| Range | 1 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of the length range |
| Context | **configure** filter ip-filter *filter-name* entry *number* action drop-when packet-length range start *number* |
| Tree | start |
| Range | 0 to 65534 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **pattern**

| | |
|---|---|
| Synopsis | Enable the **pattern** context |
| Context | **configure** filter ip-filter *filter-name* entry *number* action drop-when pattern |
| Tree | pattern |
| Introduced | 16.0.R4 |
| Platforms | All |

### **expression** *hex-string*

| | |
|---|---|
| Synopsis | Pattern expression to match |
| Context | **configure** filter ip-filter *filter-name* entry *number* action drop-when pattern expression *hex-string* |
| Tree | expression |
| String length | 3 to 18 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **mask** *hex-string*

| | |
|---|---|
| Synopsis | Mask for the pattern expression |
| Context | **configure** filter ip-filter *filter-name* entry *number* action drop-when pattern mask *hex-string* |
| Tree | mask |
| String length | 3 to 18 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **offset-type** *keyword*

| | |
|---|---|
| Synopsis | Starting point reference for offset value of pattern |
| Context | **configure** filter ip-filter *filter-name* entry *number* action drop-when pattern offset-type *keyword* |
| Tree | offset-type |
| Options | layer-3, layer-4, data, dns-qtype |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **offset-value** *number*

| | |
|---|---|
| Synopsis | Offset value for the pattern expression |
| Context | **configure** filter ip-filter *filter-name* entry *number* action drop-when pattern offset-value *number* |
| Tree | offset-value |
| Range | 0 to 255 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **ttl**

| | |
|---|---|
| Synopsis | Enable the **ttl** context |


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| | |
|---|---|
| Context | **configure** filter ip-filter *filter-name* entry *number* action drop-when ttl |
| Tree | ttl |
| Notes | The following elements are part of a choice: **packet-length** or **ttl**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **eq** *number*

| | |
|---|---|
| Synopsis | Equal to condition match value |
| Context | **configure** filter ip-filter *filter-name* entry *number* action drop-when ttl eq *number* |
| Tree | eq |
| Range | 0 to 255 |
| Notes | The following elements are part of a mandatory choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **gt** *number*

| | |
|---|---|
| Synopsis | Greater than condition match value |
| Context | **configure** filter ip-filter *filter-name* entry *number* action drop-when ttl gt *number* |
| Tree | gt |
| Range | 0 to 254 |
| Notes | The following elements are part of a mandatory choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lt** *number*

| | |
|---|---|
| Synopsis | Less than condition match value |
| Context | **configure** filter ip-filter *filter-name* entry *number* action drop-when ttl lt *number* |
| Tree | lt |
| Range | 1 to 255 |
| Notes | The following elements are part of a mandatory choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## range

| | |
|---|---|
| Synopsis | Enable the **range** context |
| Context | **configure** filter ip-filter *filter-name* entry *number* action drop-when ttl range |
| Tree | range |
| Description | This command in this context specify an inclusive range. When range is used, the start of the range (the first value entered) must be smaller than the end of the range (the second value entered). |
| Notes | The following elements are part of a mandatory choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## end *number*

| | |
|---|---|
| Synopsis | Upper bound of the range |
| Context | **configure** filter ip-filter *filter-name* entry *number* action drop-when ttl range end *number* |
| Tree | end |
| Range | 1 to 255 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## start *number*

| | |
|---|---|
| Synopsis | Lower bound of the range |
| Context | **configure** filter ip-filter *filter-name* entry *number* action drop-when ttl range start *number* |
| Tree | start |
| Range | 0 to 254 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **fc** *keyword*

| | |
|---|---|
| Synopsis | Class name to be forwarded for matching packets |
| Context | **configure** filter ip-filter *filter-name* entry *number* action fc *keyword* |
| Tree | fc |
| Options | be – Best effort<br>l2 – Low 2 (best effort)<br>af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority)<br>ef – Expedited forwarding (high priority)<br>h1 – High 1 (high priority)<br>nc – Network control (high priority) |
| Introduced | 16.0.R1 |
| Platforms | All |

### **forward**

| | |
|---|---|
| Synopsis | Enter the **forward** context |
| Context | **configure** filter ip-filter *filter-name* entry *number* action forward |
| Tree | forward |
| Notes | The following elements are part of a mandatory choice: **accept**, **drop**, **forward**, **gtp-local-breakout**, **http-redirect**, **ignore-match**, **nat**, **reassemble**, or **tcp-mss-adjust**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bonding-connection** *number*

| | |
|---|---|
| Synopsis | Connection ID over which packet is forwarded |
| Context | **configure** filter ip-filter *filter-name* entry *number* action forward bonding-connection *number* |
| Tree | bonding-connection |
| Range | 1 to 2 |
| Notes | The following elements are part of a choice: **bonding-connection**, **esi-l2**, **esi-l3**, **gre-tunnel**, **lsp**, **mpls-policy**, **next-hop**, **redirect-policy**, **router-instance**, **sap**, **sdp**, **srte-policy**, **srv6-policy**, or **vprn-target**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## esi-l2

| | |
|---|---|
| Synopsis | Enable the **esi-l2** context |
| Context | **configure** filter ip-filter *filter-name* entry *number* action forward esi-l2 |
| Tree | esi-l2 |
| Notes | The following elements are part of a choice: **bonding-connection**, **esi-l2**, **esi-l3**, **gre-tunnel**, **lsp**, **mpls-policy**, **next-hop**, **redirect-policy**, **router-instance**, **sap**, **sdp**, **srte-policy**, **srv6-policy**, or **vprn-target**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## esi-value *ethernet-segment-id*

| | |
|---|---|
| Synopsis | ESI of the first ESI-identified appliance |
| Context | **configure** filter ip-filter *filter-name* entry *number* action forward esi-l2 esi-value *ethernet-segment-id* |
| Tree | esi-value |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## vpls *reference*

| | |
|---|---|
| Synopsis | VPLS service name |
| Context | **configure** filter ip-filter *filter-name* entry *number* action forward esi-l2 vpls *reference* |
| Tree | vpls |
| Reference | **configure** service vpls *service-name* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R3 |
| Platforms | All |

## esi-l3

| | |
|---|---|
| Synopsis | Enable the **esi-l3** context |
| Context | **configure** filter ip-filter *filter-name* entry *number* action forward esi-l3 |
| Tree | esi-l3 |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **bonding-connection**, **esi-l2**, **esi-l3**, **gre-tunnel**, **lsp**, **mpls-policy**, **next-hop**, **redirect-policy**, **router-instance**, **sap**, **sdp**, **srte-policy**, **srv6-policy**, or **vprn-target**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **esi-value** *ethernet-segment-id*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | ESI of the first ESI-identified appliance |
| Context | **configure** filter ip-filter *filter-name* entry *number* action forward esi-l3 esi-value *ethernet-segment-id* |
| Tree | esi-value |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **sf-ip** *ipv4-address*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IP address of the service function to forward traffic |
| Context | **configure** filter ip-filter *filter-name* entry *number* action forward esi-l3 sf-ip *ipv4-address* |
| Tree | sf-ip |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **vas-interface** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Egress R-VPLS IP interface name |
| Context | **configure** filter ip-filter *filter-name* entry *number* action forward esi-l3 vas-interface *reference* |
| Tree | vas-interface |
| Reference | **configure** service vprn *service-name* interface *interface-name* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **vprn** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | VPRN service name |
| Context | **configure** filter ip-filter *filter-name* entry *number* action forward esi-l3 vprn *reference* |
| Tree | vprn |
| Reference | **configure** service vprn *service-name* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

## **gre-tunnel** *reference*

| | |
|---|---|
| Synopsis | GRE tunnel template ID that sets the location where an encapsulated matching packet is transported |
| Context | **configure** filter ip-filter *filter-name* entry *number* action forward gre-tunnel *reference* |
| Tree | gre-tunnel |
| Reference | **configure** filter gre-tunnel-template *named-item* |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **bonding-connection**, **esi-l2**, **esi-l3**, **gre-tunnel**, **lsp**, **mpls-policy**, **next-hop**, **redirect-policy**, **router-instance**, **sap**, **sdp**, **srte-policy**, **srv6-policy**, or **vprn-target**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **lsp** *named-item-64*

| | |
|---|---|
| Synopsis | LSP that is specified to forward a packet matching this entry |
| Context | **configure** filter ip-filter *filter-name* entry *number* action forward lsp *named-item-64* |
| Tree | lsp |
| String length | 1 to 64 |
| Notes | The following elements are part of a choice: **bonding-connection**, **esi-l2**, **esi-l3**, **gre-tunnel**, **lsp**, **mpls-policy**, **next-hop**, **redirect-policy**, **router-instance**, **sap**, **sdp**, **srte-policy**, **srv6-policy**, or **vprn-target**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **mpls-policy**

| | |
|---|---|
| Synopsis | Enable the **mpls-policy** context |
| Context | **configure** filter ip-filter *filter-name* entry *number* action forward mpls-policy |
| Tree | mpls-policy |
| Notes | The following elements are part of a choice: **bonding-connection**, **esi-l2**, **esi-l3**, **gre-tunnel**, **lsp**, **mpls-policy**, **next-hop**, **redirect-policy**, **router-instance**, **sap**, **sdp**, **srte-policy**, **srv6-policy**, or **vprn-target**. |
| Introduced | 19.10.R1 |
| Platforms | All |

## **endpoint** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | MPLS forwarding policy endpoint IPv4 address |
| Context | **configure** filter ip-filter *filter-name* entry *number* action forward mpls-policy endpoint *ipv4-unicast-address* |
| Tree | endpoint |
| Notes | This element is mandatory. |
| Introduced | 19.10.R1 |


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| | |
|---|---|
| Platforms | All |

## next-hop

| | |
|---|---|
| Synopsis | Enable the **next-hop** context |
| Context | **configure** filter ip-filter *filter-name* entry *number* action forward next-hop |
| Tree | next-hop |
| Notes | The following elements are part of a choice: **bonding-connection**, **esi-l2**, **esi-l3**, **gre-tunnel**, **lsp**, **mpls-policy**, **next-hop**, **redirect-policy**, **router-instance**, **sap**, **sdp**, **srte-policy**, **srv6-policy**, or **vprn-target**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## nh-ip

| | |
|---|---|
| Synopsis | Enable the **nh-ip** context |
| Context | **configure** filter ip-filter *filter-name* entry *number* action forward next-hop nh-ip |
| Tree | nh-ip |
| Notes | The following elements are part of a mandatory choice: **interface-name**, **nh-ip**, or **nh-ip-vrf**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## address *ipv4-address*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IPv4 address of next hop to forward matching packets |
| Context | **configure** filter ip-filter *filter-name* entry *number* action forward next-hop nh-ip address *ipv4-address* |
| Tree | address |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **indirect** *boolean*

| | |
|---|---|
| Synopsis | Allow next hop to be indirectly reachable |
| Context | **configure** filter ip-filter *filter-name* entry *number* action forward next-hop nh-ip indirect *boolean* |
| Tree | indirect |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **nh-ip-vrf**

| | |
|---|---|
| Synopsis | Enable the **nh-ip-vrf** context |
| Context | **configure** filter ip-filter *filter-name* entry *number* action forward next-hop nh-ip-vrf |
| Tree | nh-ip-vrf |
| Notes | The following elements are part of a mandatory choice: **interface-name**, **nh-ip**, or **nh-ip-vrf**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **address** *ipv4-address*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IPv4 address of next hop to forward matching packets |
| Context | **configure** filter ip-filter *filter-name* entry *number* action forward next-hop nh-ip-vrf address *ipv4-address* |
| Tree | address |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **indirect** *boolean*

| | |
|---|---|
| Synopsis | Allow next hop to be indirectly reachable |


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| | |
|---|---|
| Context | **configure** filter ip-filter *filter-name* entry *number* action forward next-hop nh-ip-vrf indirect *boolean* |
| Tree | indirect |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **router-instance** *string*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Routing context for route lookup for forwarding packets |
| Context | **configure** filter ip-filter *filter-name* entry *number* action forward next-hop nh-ip-vrf router-instance *string* |
| Tree | router-instance |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **redirect-policy** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Next hop or forward next hop router that forwards a packet that matches this entry |
| Context | **configure** filter ip-filter *filter-name* entry *number* action forward redirect-policy *reference* |
| Tree | redirect-policy |
| Reference | **configure** filter redirect-policy *named-item* |
| Notes | The following elements are part of a choice: **bonding-connection**, **esi-l2**, **esi-l3**, **gre-tunnel**, **lsp**, **mpls-policy**, **next-hop**, **redirect-policy**, **router-instance**, **sap**, **sdp**, **srte-policy**, **srv6-policy**, or **vprn-target**. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **router-instance** *string*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Router name or VPRN service name |
| Context | **configure** filter ip-filter *filter-name* entry *number* action forward router-instance *string* |
| Tree | router-instance |
| Notes | The following elements are part of a choice: **bonding-connection**, **esi-l2**, **esi-l3**, **gre-tunnel**, **lsp**, **mpls-policy**, **next-hop**, **redirect-policy**, **router-instance**, **sap**, **sdp**, **srte-policy**, **srv6-policy**, or **vprn-target**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sap**

| | |
|---|---|
| Synopsis | Enable the **sap** context |
| Context | **configure** filter ip-filter *filter-name* entry *number* action forward sap |
| Tree | sap |
| Notes | The following elements are part of a choice: **bonding-connection**, **esi-l2**, **esi-l3**, **gre-tunnel**, **lsp**, **mpls-policy**, **next-hop**, **redirect-policy**, **router-instance**, **sap**, **sdp**, **srte-policy**, **srv6-policy**, or **vprn-target**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sap-id** *reference*

| | |
|---|---|
| Synopsis | VPLS Ethernet SAP ID used to forward matching packets |
| Context | **configure** filter ip-filter *filter-name* entry *number* action forward sap sap-id *reference* |
| Tree | sap-id |
| Reference | **configure** service vpls *service-name* sap *sap* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **vpls** *reference*

| | |
|---|---|
| Synopsis | VPLS associated with the SAP |
| Context | **configure** filter ip-filter *filter-name* entry *number* action forward sap vpls *reference* |
| Tree | vpls |
| Reference | **configure** service vpls *service-name* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sdp**

| | |
|---|---|
| Synopsis | Enable the **sdp** context |
| Context | **configure** filter ip-filter *filter-name* entry *number* action forward sdp |
| Tree | sdp |
| Notes | The following elements are part of a choice: **bonding-connection**, **esi-l2**, **esi-l3**, **gre-tunnel**, **lsp**, **mpls-policy**, **next-hop**, **redirect-policy**, **router-instance**, **sap**, **sdp**, **srte-policy**, **srv6-policy**, or **vprn-target**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sdp-bind-id** *sdp-bind-id*

| | |
|---|---|
| Synopsis | VPLS SDP bind ID used to forward matching packets |
| Context | **configure** filter ip-filter *filter-name* entry *number* action forward sdp sdp-bind-id *sdp-bind-id* |
| Tree | sdp-bind-id |
| String length | 3 to 16 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **vpls** *reference*

| | |
|---|---|
| Synopsis | VPLS associated with the SDP |
| Context | **configure** filter ip-filter *filter-name* entry *number* action forward sdp vpls *reference* |


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| | |
|---|---|
| Tree | vpls |
| Reference | **configure** service vpls *service-name* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## srte-policy

| | |
|---|---|
| Synopsis | Enable the **srte-policy** context |
| Context | **configure** filter ip-filter *filter-name* entry *number* action forward srte-policy |
| Tree | srte-policy |
| Notes | The following elements are part of a choice: **bonding-connection**, **esi-l2**, **esi-l3**, **gre-tunnel**, **lsp**, **mpls-policy**, **next-hop**, **redirect-policy**, **router-instance**, **sap**, **sdp**, **srte-policy**, **srv6-policy**, or **vprn-target**. |
| Introduced | 19.10.R1 |
| Platforms | All |

## color *number*

| | |
|---|---|
| Synopsis | SR-TE policy color ID |
| Context | **configure** filter ip-filter *filter-name* entry *number* action forward srte-policy color *number* |
| Tree | color |
| Range | 0 to 4294967295 |
| Notes | This element is mandatory. |
| Introduced | 19.10.R1 |
| Platforms | All |

## endpoint *ipv4-unicast-or-zero-address*

| | |
|---|---|
| Synopsis | SR-TE policy endpoint IPv4 address |
| Context | **configure** filter ip-filter *filter-name* entry *number* action forward srte-policy endpoint *ipv4-unicast-or-zero-address* |
| Tree | endpoint |
| Notes | This element is mandatory. |
| Introduced | 19.10.R1 |


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| | |
|---|---|
| Platforms | All |

## srv6-policy

| | |
|---|---|
| Synopsis | Enable the **srv6-policy** context |
| Context | **configure** filter ip-filter *filter-name* entry *number* action forward srv6-policy |
| Tree | srv6-policy |
| Description | Command in this context configure the redirection of packets to an active SRv6 policy. |
| Notes | The following elements are part of a choice: **bonding-connection**, **esi-l2**, **esi-l3**, **gre-tunnel**, **lsp**, **mpls-policy**, **next-hop**, **redirect-policy**, **router-instance**, **sap**, **sdp**, **srte-policy**, **srv6-policy**, or **vprn-target**. |
| Introduced | 23.7.R1 |
| Platforms | 7750 SR, 7750 SR-s, 7950 XRS |

## color *number*

| | |
|---|---|
| Synopsis | SRv6 policy color |
| Context | **configure** filter ip-filter *filter-name* entry *number* action forward srv6-policy color *number* |
| Tree | color |
| Range | 0 to 4294967295 |
| Notes | This element is mandatory. |
| Introduced | 23.7.R1 |
| Platforms | 7750 SR, 7750 SR-s, 7950 XRS |

## endpoint *ipv6-unicast-or-zero-address*

| | |
|---|---|
| Synopsis | SRv6 policy endpoint IPv6 address |
| Context | **configure** filter ip-filter *filter-name* entry *number* action forward srv6-policy endpoint *ipv6-unicast-or-zero-address* |
| Tree | endpoint |
| Notes | This element is mandatory. |
| Introduced | 23.7.R1 |
| Platforms | 7750 SR, 7750 SR-s, 7950 XRS |


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### **service-sid** *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | SRv6 service segment identifier |
| Context | **configure** filter ip-filter *filter-name* entry *number* action forward srv6-policy service-sid *ipv6-unicast-address* |
| Tree | service-sid |
| Notes | This element is mandatory. |
| Introduced | 23.7.R1 |
| Platforms | 7750 SR, 7750 SR-s, 7950 XRS |

### **vprn-target**

| | |
|---|---|
| Synopsis | Enable the **vprn-target** context |
| Context | **configure** filter ip-filter *filter-name* entry *number* action forward vprn-target |
| Tree | vprn-target |
| Notes | The following elements are part of a choice: **bonding-connection**, **esi-l2**, **esi-l3**, **gre-tunnel**, **lsp**, **mpls-policy**, **next-hop**, **redirect-policy**, **router-instance**, **sap**, **sdp**, **srte-policy**, **srv6-policy**, or **vprn-target**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **adv-prefix** *ipv4-prefix*

| | |
|---|---|
| Synopsis | Advertised IP prefix for target destination |
| Context | **configure** filter ip-filter *filter-name* entry *number* action forward vprn-target adv-prefix *ipv4-prefix* |
| Tree | adv-prefix |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bgp-nh** *ipv4-address*

| | |
|---|---|
| Synopsis | Target BGP next hop IP address |
| Context | **configure** filter ip-filter *filter-name* entry *number* action forward vprn-target bgp-nh *ipv4-address* |
| Tree | bgp-nh |


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| | |
|---|---|
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lsp** *named-item-64*

| | |
|---|---|
| Synopsis | LSP that is specified to forward a packet matching this entry |
| Context | **configure** filter ip-filter *filter-name* entry *number* action forward vprn-target lsp *named-item-64* |
| Tree | lsp |
| String length | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **vprn** *reference*

| | |
|---|---|
| Synopsis | Routing context used for route lookup |
| Context | **configure** filter ip-filter *filter-name* entry *number* action forward vprn-target vprn *reference* |
| Tree | vprn |
| Reference | **configure** service vprn *service-name* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **gtp-local-breakout**

| | |
|---|---|
| Synopsis | Break out matching traffic locally from a GTP tunnel for GTP-subscriber-hosts, or forward for other entities |
| Context | **configure** filter ip-filter *filter-name* entry *number* action gtp-local-breakout |
| Tree | gtp-local-breakout |
| Notes | The following elements are part of a mandatory choice: **accept**, **drop**, **forward**, **gtp-local-breakout**, **http-redirect**, **ignore-match**, **nat**, **reassemble**, or **tcp-mss-adjust**. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## http-redirect

| | |
|---|---|
| Synopsis | Enable the **http-redirect** context |
| Context | **configure** filter ip-filter *filter-name* entry *number* action http-redirect |
| Tree | http-redirect |
| Description | Commands in this context configure the filter entry action for HTTP redirection. |
| Notes | The following elements are part of a mandatory choice: **accept**, **drop**, **forward**, **gtp-local-breakout**, **http-redirect**, **ignore-match**, **nat**, **reassemble**, or **tcp-mss-adjust**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## allow-override *boolean*

| | |
|---|---|
| Synopsis | Override the HTTP redirect URL by a RADIUS VSA |
| Context | **configure** filter ip-filter *filter-name* entry *number* action http-redirect allow-override *boolean* |
| Tree | allow-override |
| Description | This command specifies whether the RADIUS VSA can override the configured HTTP redirect URL for this filter entry.<br>When configured to **true**, the RADIUS VSA can override the HTTP redirect URL.<br>When configured to **false**, the HTTP redirect URL is not overriden.<br>This does not apply if the CPF option is specified for the URL. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## url *(keyword | http-redirect-url)*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | URL used for HTTP redirect action |
| Context | **configure** filter ip-filter *filter-name* entry *number* action http-redirect url *(keyword | http-redirect-url)* |
| Tree | url |
| Description | This command specifies the URL to use for HTTP redirection for this filter entry. |


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A URL can be specified or the CPF option can be used for BNG CUPS ESM sessions only.

The following macro substitutions may be used:

$URL — request-URI in the HTTP GET request received

$MAC — a string that represents the MAC address of the subscriber host

$IP — a string that represents the IP address of the subscriber host

$SUB — a string that represents the subscriber ID

$SAP — a string that represents a SAP ID

$SAPDESC — description string configured on the SAP

$CID — a string that represents the circuit ID or interface ID of the subscriber host (hexadecimal format)

$RID — a string that represents the remote ID of the subscriber host (hexadecimal format)

| | |
|---|---|
| String length | 1 to 255 |
| Options | from-cpf |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## ignore-match

| | |
|---|---|
| Synopsis | Ignore match criteria for the entry |
| Context | **configure** filter ip-filter *filter-name* entry *number* action ignore-match |
| Tree | ignore-match |
| Notes | The following elements are part of a mandatory choice: **accept**, **drop**, **forward**, **gtp-local-breakout**, **http-redirect**, **ignore-match**, **nat**, **reassemble**, or **tcp-mss-adjust**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## l2-aware-nat-bypass *boolean*

| | |
|---|---|
| Synopsis | Divert traffic from an L2-Aware NAT subscriber |
| Context | **configure** filter ip-filter *filter-name* entry *number* action l2-aware-nat-bypass *boolean* |
| Tree | l2-aware-nat-bypass |


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| | |
|---|---|
| Description | When configured to **true**, the filter action selectively diverts traffic from a L2-Aware NAT subscriber away from NAT. This action is only applicable to L2-Aware NAT subscribers and must be configured together with action **accept**. Traffic identified in the match condition bypasses L2-Aware NAT. An example is to bypass NAT for on-net destinations (within the customer network).<br>For selective NAT bypass to take effect, in addition to IP filter configuration, the L2-Aware NAT subscriber must be specifically enabled for selective bypass via the allow-bypass configuration option in the **configure subscriber-mgmt sub-profile nat allow-bypass** context.<br>When configured to **false**, traffic that is not classified for bypass automatically diverts to L2-Aware NAT, unless it is explicitly configured in the IP filter action to be dropped. |
| Default | false |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## nat

| | |
|---|---|
| Synopsis | Enable the **nat** context |
| Context | **configure** filter ip-filter *filter-name* entry *number* action nat |
| Tree | nat |
| Notes | The following elements are part of a mandatory choice: **accept**, **drop**, **forward**, **gtp-local-breakout**, **http-redirect**, **ignore-match**, **nat**, **reassemble**, or **tcp-mss-adjust**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## nat-policy *reference*

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

| | |
|---|---|
| Synopsis | NAT policy name when action is NAT |
| Context | **configure** filter ip-filter *filter-name* entry *number* action nat nat-policy *reference* |
| Tree | nat-policy |
| Reference | **configure** service nat nat-policy *external-named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### rate-limit

| | |
|---|---|
| Synopsis | Enable the **rate-limit** context |
| Context | **configure** filter ip-filter *filter-name* entry *number* action rate-limit |
| Tree | rate-limit |
| Introduced | 16.0.R1 |
| Platforms | All |

### extracted-traffic

| | |
|---|---|
| Synopsis | Limit the rate of traffic extracted to the CPM |
| Context | **configure** filter ip-filter *filter-name* entry *number* action rate-limit extracted-traffic |
| Tree | extracted-traffic |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS |

### mbs *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum burst size |
| Context | **configure** filter ip-filter *filter-name* entry *number* action rate-limit mbs *(number \| keyword)* |
| Tree | mbs |
| Range | 0 to 268435456 |
| Units | bytes |
| Options | auto |
| Default | auto |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### packet-length

| | |
|---|---|
| Synopsis | Enable the **packet-length** context |
| Context | **configure** filter ip-filter *filter-name* entry *number* action rate-limit packet-length |
| Tree | packet-length |
| Notes | The following elements are part of a choice: **packet-length** or **ttl**. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **eq** *number*

| | |
|---|---|
| Synopsis | Exact match criterion for the length |
| Context | **configure** filter ip-filter *filter-name* entry *number* action rate-limit packet-length eq *number* |
| Tree | eq |
| Range | 0 to 65535 |
| Notes | The following elements are part of a mandatory choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **gt** *number*

| | |
|---|---|
| Synopsis | Greater than match criterion for the length |
| Context | **configure** filter ip-filter *filter-name* entry *number* action rate-limit packet-length gt *number* |
| Tree | gt |
| Range | 0 to 65534 |
| Notes | The following elements are part of a mandatory choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lt** *number*

| | |
|---|---|
| Synopsis | Less than match criterion for the length |
| Context | **configure** filter ip-filter *filter-name* entry *number* action rate-limit packet-length lt *number* |
| Tree | lt |
| Range | 1 to 65535 |
| Notes | The following elements are part of a mandatory choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |


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## range

| | |
|---|---|
| Synopsis | Enable the **range** context |
| Context | **configure** filter ip-filter *filter-name* entry *number* action rate-limit packet-length range |
| Tree | range |
| Notes | The following elements are part of a mandatory choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## end *number*

| | |
|---|---|
| Synopsis | Upper bound of the length range |
| Context | **configure** filter ip-filter *filter-name* entry *number* action rate-limit packet-length range end *number* |
| Tree | end |
| Range | 1 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## start *number*

| | |
|---|---|
| Synopsis | Lower bound of the length range |
| Context | **configure** filter ip-filter *filter-name* entry *number* action rate-limit packet-length range start *number* |
| Tree | start |
| Range | 0 to 65534 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## pattern

| | |
|---|---|
| Synopsis | Enable the **pattern** context |
| Context | **configure** filter ip-filter *filter-name* entry *number* action rate-limit pattern |


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| | |
|---|---|
| Tree | pattern |
| Introduced | 16.0.R4 |
| Platforms | All |

### **expression** *hex-string*

| | |
|---|---|
| Synopsis | Pattern expression to match |
| Context | **configure** filter ip-filter *filter-name* entry *number* action rate-limit pattern expression *hex-string* |
| Tree | expression |
| String length | 3 to 18 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **mask** *hex-string*

| | |
|---|---|
| Synopsis | Mask for the pattern expression |
| Context | **configure** filter ip-filter *filter-name* entry *number* action rate-limit pattern mask *hex-string* |
| Tree | mask |
| String length | 3 to 18 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **offset-type** *keyword*

| | |
|---|---|
| Synopsis | Starting point reference for offset value of pattern |
| Context | **configure** filter ip-filter *filter-name* entry *number* action rate-limit pattern offset-type *keyword* |
| Tree | offset-type |
| Options | layer-3, layer-4, data, dns-qtype |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **offset-value** *number*

| | |
|---|---|
| Synopsis | Offset value for the pattern expression |
| Context | **configure** filter ip-filter *filter-name* entry *number* action rate-limit pattern offset-value *number* |
| Tree | offset-value |
| Range | 0 to 255 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | Peak information rate |
| Context | **configure** filter ip-filter *filter-name* entry *number* action rate-limit pir *(number | keyword)* |
| Tree | pir |
| Range | 0 to 2000000000 |
| Units | kilobps |
| Options | max |
| Notes | The following elements are part of a mandatory choice: **pir** or **pps-pir**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **pps-pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | Peak information rate |
| Context | **configure** filter ip-filter *filter-name* entry *number* action rate-limit pps-pir *(number | keyword)* |
| Tree | pps-pir |
| Range | 0 to 100000000 |
| Units | packets per second |
| Options | max |
| Notes | The following elements are part of a mandatory choice: **pir** or **pps-pir**. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### ttl

| | |
|---|---|
| Synopsis | Enable the **ttl** context |
| Context | **configure** filter ip-filter *filter-name* entry *number* action rate-limit ttl |
| Tree | ttl |
| Notes | The following elements are part of a choice: **packet-length** or **ttl**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### eq *number*

| | |
|---|---|
| Synopsis | Equal to condition match value |
| Context | **configure** filter ip-filter *filter-name* entry *number* action rate-limit ttl eq *number* |
| Tree | eq |
| Range | 0 to 255 |
| Notes | The following elements are part of a mandatory choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### gt *number*

| | |
|---|---|
| Synopsis | Greater than condition match value |
| Context | **configure** filter ip-filter *filter-name* entry *number* action rate-limit ttl gt *number* |
| Tree | gt |
| Range | 0 to 254 |
| Notes | The following elements are part of a mandatory choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### lt *number*

| | |
|---|---|
| Synopsis | Less than condition match value |
| Context | **configure** filter ip-filter *filter-name* entry *number* action rate-limit ttl lt *number* |
| Tree | lt |
| Range | 1 to 255 |


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| | |
|---|---|
| Notes | The following elements are part of a mandatory choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## range

| | |
|---|---|
| Synopsis | Enable the **range** context |
| Context | **configure** filter ip-filter *filter-name* entry *number* action rate-limit ttl range |
| Tree | range |
| Description | This command in this context specify an inclusive range. When range is used, the start of the range (the first value entered) must be smaller than the end of the range (the second value entered). |
| Notes | The following elements are part of a mandatory choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## end *number*

| | |
|---|---|
| Synopsis | Upper bound of the range |
| Context | **configure** filter ip-filter *filter-name* entry *number* action rate-limit ttl range end *number* |
| Tree | end |
| Range | 1 to 255 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## start *number*

| | |
|---|---|
| Synopsis | Lower bound of the range |
| Context | **configure** filter ip-filter *filter-name* entry *number* action rate-limit ttl range start *number* |
| Tree | start |
| Range | 0 to 254 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |


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## reassemble

| | |
|---|---|
| Synopsis | Forward matching packets to reassembly function |
| Context | **configure** filter ip-filter *filter-name* entry *number* action reassemble |
| Tree | reassemble |
| Notes | The following elements are part of a mandatory choice: **accept**, **drop**, **forward**, **gtp-local-breakout**, **http-redirect**, **ignore-match**, **nat**, **reassemble**, or **tcp-mss-adjust**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## remark

| | |
|---|---|
| Synopsis | Enable the **remark** context |
| Context | **configure** filter ip-filter *filter-name* entry *number* action remark |
| Tree | remark |
| Introduced | 16.0.R1 |
| Platforms | All |

## dscp *keyword*

| | |
|---|---|
| Synopsis | Destination SAP |
| Context | **configure** filter ip-filter *filter-name* entry *number* action remark dscp *keyword* |
| Tree | dscp |
| Options | be, cp1, cp2, cp3, cp4, cp5, cp6, cp7, cs1, cp9, af11, cp11, af12, cp13, af13, cp15, cs2, cp17, af21, cp19, af22, cp21, af23, cp23, cs3, cp25, af31, cp27, af32, cp29, af33, cp31, cs4, cp33, af41, cp35, af42, cp37, af43, cp39, cs5, cp41, cp42, cp43, cp44, cp45, ef, cp47, nc1, cp49, cp50, cp51, cp52, cp53, cp54, cp55, nc2, cp57, cp58, cp59, cp60, cp61, cp62, cp63 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## secondary

| | |
|---|---|
| Synopsis | Enable the **secondary** context |
| Context | **configure** filter ip-filter *filter-name* entry *number* action secondary |


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| | |
|---|---|
| Tree | secondary |
| Introduced | 16.0.R1 |
| Platforms | All |

## forward

| | |
|---|---|
| Synopsis | Enter the **forward** context |
| Context | **configure** filter ip-filter *filter-name* entry *number* action secondary forward |
| Tree | forward |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## next-hop

| | |
|---|---|
| Synopsis | Enable the **next-hop** context |
| Context | **configure** filter ip-filter *filter-name* entry *number* action secondary forward next-hop |
| Tree | next-hop |
| Notes | The following elements are part of a choice: **next-hop**, **sap**, **sdp**, or **vprn-target**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## nh-ip-vrf

| | |
|---|---|
| Synopsis | Enable the **nh-ip-vrf** context |
| Context | **configure** filter ip-filter *filter-name* entry *number* action secondary forward next-hop nh-ip-vrf |
| Tree | nh-ip-vrf |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **address** *ipv4-address*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IPv4 address of next hop to forward matching packets |
| Context | **configure** filter ip-filter *filter-name* entry *number* action secondary forward next-hop nh-ip-vrf address *ipv4-address* |
| Tree | address |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **indirect** *boolean*

| | |
|---|---|
| Synopsis | Allow next hop to be indirectly reachable |
| Context | **configure** filter ip-filter *filter-name* entry *number* action secondary forward next-hop nh-ip-vrf indirect *boolean* |
| Tree | indirect |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **router-instance** *string*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Routing context for route lookup for forwarding packets |
| Context | **configure** filter ip-filter *filter-name* entry *number* action secondary forward next-hop nh-ip-vrf router-instance *string* |
| Tree | router-instance |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |


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## sap

| | |
|---|---|
| Synopsis | Enable the **sap** context |
| Context | **configure** filter ip-filter *filter-name* entry *number* action secondary forward sap |
| Tree | sap |
| Notes | The following elements are part of a choice: **next-hop**, **sap**, **sdp**, or **vprn-target**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## sap-id *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | SAP ID used to forward packets matching the entry |
| Context | **configure** filter ip-filter *filter-name* entry *number* action secondary forward sap sap-id *reference* |
| Tree | sap-id |
| Reference | **configure** service vpls *service-name* sap *sap* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## vpls *reference*

| | |
|---|---|
| Synopsis | VPLS the sdp-bind-id belongs to |
| Context | **configure** filter ip-filter *filter-name* entry *number* action secondary forward sap vpls *reference* |
| Tree | vpls |
| Reference | **configure** service vpls *service-name* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |


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## sdp

| | |
|---|---|
| Synopsis | Enable the **sdp** context |
| Context | **configure** filter ip-filter *filter-name* entry *number* action secondary forward sdp |
| Tree | sdp |
| Notes | The following elements are part of a choice: **next-hop**, **sap**, **sdp**, or **vprn-target**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## sdp-bind-id *sdp-bind-id*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | VPLS SDP bind ID used to forward matching packets |
| Context | **configure** filter ip-filter *filter-name* entry *number* action secondary forward sdp sdp-bind-id *sdp-bind-id* |
| Tree | sdp-bind-id |
| String length | 3 to 16 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## vpls *reference*

| | |
|---|---|
| Synopsis | VPLS associated with the SDP |
| Context | **configure** filter ip-filter *filter-name* entry *number* action secondary forward sdp vpls *reference* |
| Tree | vpls |
| Reference | **configure** service vpls *service-name* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### vprn-target

| | |
|---|---|
| Synopsis | Enable the **vprn-target** context |
| Context | **configure** filter ip-filter *filter-name* entry *number* action secondary forward vprn-target |
| Tree | vprn-target |
| Notes | The following elements are part of a choice: **next-hop**, **sap**, **sdp**, or **vprn-target**. |
| Introduced | 21.7.R1 |
| Platforms | All |

### adv-prefix *ipv4-prefix*

| | |
|---|---|
| Synopsis | Advertised IP prefix for the target destination |
| Context | **configure** filter ip-filter *filter-name* entry *number* action secondary forward vprn-target adv-prefix *ipv4-prefix* |
| Tree | adv-prefix |
| Introduced | 21.7.R1 |
| Platforms | All |

### bgp-nh *ipv4-address*

| | |
|---|---|
| Synopsis | Target BGP next hop IP address |
| Context | **configure** filter ip-filter *filter-name* entry *number* action secondary forward vprn-target bgp-nh *ipv4-address* |
| Tree | bgp-nh |
| Notes | This element is mandatory. |
| Introduced | 21.7.R1 |
| Platforms | All |

### lsp *named-item-64*

| | |
|---|---|
| Synopsis | LSP that is specified to forward a packet matching this entry |
| Context | **configure** filter ip-filter *filter-name* entry *number* action secondary forward vprn-target lsp *named-item-64* |
| Tree | lsp |
| String length | 1 to 64 |
| Introduced | 21.7.R1 |


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| | |
|---|---|
| Platforms | All |

## **vprn** *reference*

| | |
|---|---|
| Synopsis | Routing context used for route lookup |
| Context | **configure** filter ip-filter *filter-name* entry *number* action secondary forward vprn-target vprn *reference* |
| Tree | vprn |
| Reference | **configure** service vprn *service-name* |
| Notes | This element is mandatory. |
| Introduced | 21.7.R1 |
| Platforms | All |

## **remark**

| | |
|---|---|
| Synopsis | Enable the **remark** context |
| Context | **configure** filter ip-filter *filter-name* entry *number* action secondary remark |
| Tree | remark |
| Introduced | 16.0.R1 |
| Platforms | All |

## **dscp** *keyword*

| | |
|---|---|
| Synopsis | Destination SAP |
| Context | **configure** filter ip-filter *filter-name* entry *number* action secondary remark dscp *keyword* |
| Tree | dscp |
| Options | be, cp1, cp2, cp3, cp4, cp5, cp6, cp7, cs1, cp9, af11, cp11, af12, cp13, af13, cp15, cs2, cp17, af21, cp19, af22, cp21, af23, cp23, cs3, cp25, af31, cp27, af32, cp29, af33, cp31, cs4, cp33, af41, cp35, af42, cp37, af43, cp39, cs5, cp41, cp42, cp43, cp44, cp45, ef, cp47, nc1, cp49, cp50, cp51, cp52, cp53, cp54, cp55, nc2, cp57, cp58, cp59, cp60, cp61, cp62, cp63 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### tcp-mss-adjust

| | |
|---|---|
| Synopsis | Adjust MSS option of TCP matching packets to configured value of tcp-mss in router interface context |
| Context | **configure** filter ip-filter *filter-name* entry *number* action tcp-mss-adjust |
| Tree | tcp-mss-adjust |
| Notes | The following elements are part of a mandatory choice: **accept**, **drop**, **forward**, **gtp-local-breakout**, **http-redirect**, **ignore-match**, **nat**, **reassemble**, or **tcp-mss-adjust**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### description *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** filter ip-filter *filter-name* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### egress-pbr *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | PBR that has an effect when this filter is applied on egress |
| Context | **configure** filter ip-filter *filter-name* entry *number* egress-pbr *keyword* |
| Tree | egress-pbr |
| Options | true, true-with-l4lb |
| Introduced | 16.0.R1 |
| Platforms | All |

### filter-sample *boolean*

| | |
|---|---|
| Synopsis | Sample matching traffic if IP interface is set to cflowd ACL mode |


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| | |
|---|---|
| Context | **configure** filter ip-filter *filter-name* entry *number* filter-sample *boolean* |
| Tree | filter-sample |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **interface-sample** *boolean*

| | |
|---|---|
| Synopsis | Sample matching traffic if IP interface is set to cflowd interface mode |
| Context | **configure** filter ip-filter *filter-name* entry *number* interface-sample *boolean* |
| Tree | interface-sample |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **log** *reference*

| | |
|---|---|
| Synopsis | Log that is used for packets matching this entry |
| Context | **configure** filter ip-filter *filter-name* entry *number* log *reference* |
| Tree | log |
| Reference | **configure** filter log *number* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **match**

| | |
|---|---|
| Synopsis | Enter the **match** context |
| Context | **configure** filter ip-filter *filter-name* entry *number* match |
| Tree | match |
| Description | Commands in this context configure match criteria for the filter entry. When the match criteria are satisfied, the action associated with the match criteria is executed. |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **destination-class** *number*

| | |
|---|---|
| Synopsis | Destination class as a match criterion |
| Context | **configure** filter ip-filter *filter-name* entry *number* match destination-class *number* |
| Tree | destination-class |
| Description | This command configures the BGP destination class value as a match criterion. Filtering egress traffic on the destination class requires the **destination-class-lookup** command (under the **ingress** context for the service interface) to be enabled (set to **true**). |
| Range | 1 to 255 |
| Introduced | 20.7.R1 |
| Platforms | All |

## **dscp** *keyword*

| | |
|---|---|
| Synopsis | DSCP used as an IP filter match criterion |
| Context | **configure** filter ip-filter *filter-name* entry *number* match dscp *keyword* |
| Tree | dscp |
| Options | be, cp1, cp2, cp3, cp4, cp5, cp6, cp7, cs1, cp9, af11, cp11, af12, cp13, af13, cp15, cs2, cp17, af21, cp19, af22, cp21, af23, cp23, cs3, cp25, af31, cp27, af32, cp29, af33, cp31, cs4, cp33, af41, cp35, af42, cp37, af43, cp39, cs5, cp41, cp42, cp43, cp44, cp45, ef, cp47, nc1, cp49, cp50, cp51, cp52, cp53, cp54, cp55, nc2, cp57, cp58, cp59, cp60, cp61, cp62, cp63 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **dst-ip**

| | |
|---|---|
| Synopsis | Enter the **dst-ip** context |
| Context | **configure** filter ip-filter *filter-name* entry *number* match dst-ip |
| Tree | dst-ip |
| Description | Commands in this context configure a destination address range that is used by filter policy match criteria. |
| Notes | The following elements are part of a choice: **ip** or (**dst-ip** and **src-ip**). |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **address** *(ipv4-prefix-with-host-bits | ipv4-address)*

| | |
|---|---|
| Synopsis | IPv4 address used as the match criterion |
| Context | **configure** filter ip-filter *filter-name* entry *number* match dst-ip address *(ipv4-prefix-with-host-bits \| ipv4-address)* |
| Tree | address |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ip-prefix-list**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ip-prefix-list** *reference*

| | |
|---|---|
| Synopsis | IPv4 address prefix list used as match criterion |
| Context | **configure** filter ip-filter *filter-name* entry *number* match dst-ip ip-prefix-list *reference* |
| Tree | ip-prefix-list |
| Reference | **configure** filter match-list ip-prefix-list *named-item* |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ip-prefix-list**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mask** *ipv4-address*

| | |
|---|---|
| Synopsis | IPv4 address mask used as the match criterion |
| Context | **configure** filter ip-filter *filter-name* entry *number* match dst-ip mask *ipv4-address* |
| Tree | mask |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ip-prefix-list**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **dst-port**

| | |
|---|---|
| Synopsis | Enter the **dst-port** context |
| Context | **configure** filter ip-filter *filter-name* entry *number* match dst-port |
| Tree | dst-port |
| Description | Commands in this context configure match criteria for the destination port. |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **port** or (**dst-port** and **src-port**). |
| Introduced | 16.0.R1 |
| Platforms | All |

### **eq** *number*

| | |
|---|---|
| Synopsis | Exact value as the match criterion |
| Context | **configure** filter ip-filter *filter-name* entry *number* match dst-port eq *number* |
| Tree | eq |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **gt** *number*

| | |
|---|---|
| Synopsis | Greater than value as the match criterion |
| Context | **configure** filter ip-filter *filter-name* entry *number* match dst-port gt *number* |
| Tree | gt |
| Range | 0 to 65534 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lt** *number*

| | |
|---|---|
| Synopsis | Less than value as the match criterion |
| Context | **configure** filter ip-filter *filter-name* entry *number* match dst-port lt *number* |
| Tree | lt |
| Range | 1 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **port-list** *reference*

| | |
|---|---|
| Synopsis | Name of the port list as the match criterion |
| Context | **configure** filter ip-filter *filter-name* entry *number* match dst-port port-list *reference* |
| Tree | port-list |
| Reference | **configure** filter match-list port-list *named-item* |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **range**

| | |
|---|---|
| Synopsis | Enable the **range** context |
| Context | **configure** filter ip-filter *filter-name* entry *number* match dst-port range |
| Tree | range |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the port range |
| Context | **configure** filter ip-filter *filter-name* entry *number* match dst-port range end *number* |
| Tree | end |
| Range | 1 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of the port range |
| Context | **configure** filter ip-filter *filter-name* entry *number* match dst-port range start *number* |
| Tree | start |
| Range | 0 to 65534 |


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| | |
|---|---|
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **fragment** *keyword*

| | |
|---|---|
| Synopsis | Match criterion for fragmented packets |
| Context | **configure** filter ip-filter *filter-name* entry *number* match fragment *keyword* |
| Tree | fragment |
| Options | false, true, first-only, non-first-only |
| Introduced | 16.0.R1 |
| Platforms | All |

## **icmp**

| | |
|---|---|
| Synopsis | Enter the **icmp** context |
| Context | **configure** filter ip-filter *filter-name* entry *number* match icmp |
| Tree | icmp |
| Description | Commands in this context configure ICMP values to use as IP filter match criteria. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **code** *number*

| | |
|---|---|
| Synopsis | ICMP code value to match |
| Context | **configure** filter ip-filter *filter-name* entry *number* match icmp code *number* |
| Tree | code |
| Description | This command specifies the ICMP code value that must be present to match. The system matches on ICMP code or ICMP type, or on both values.<br>An entry containing Layer 4 non-zero match criteria does not match non initial (second, third, and so on) fragments of a fragmented packet because only the first fragment contains the Layer 4 information. Similarly, an entry containing an ICMP code value of 0 match criterion may match non initial fragments when the Layer 4 header is not present in a packet fragment and other match criteria are also met. |
| Range | 0 to 255 |
| Introduced | 16.0.R1 |


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Platforms All

## **type** *number*

Synopsis ICMP type value to match

Context **configure** filter ip-filter *filter-name* entry *number* match icmp type *number*

Tree type

Description This command specifies the ICMP type value that must be present to match. The system matches on ICMP code or ICMP type, or on both values.

An entry containing Layer 4 non-zero match criteria does not match non initial (second, third, and so on) fragments of a fragmented packet because only the first fragment contains the Layer 4 information. Similarly, an entry containing an ICMP type value of 0 match criterion may match non initial fragments when the Layer 4 header is not present in a packet fragment and other match criteria are also met.

Range 0 to 255

Introduced 16.0.R1

Platforms All

## **ip**

Synopsis Enter the **ip** context

Context **configure** filter ip-filter *filter-name* entry *number* match ip

Tree ip

Notes The following elements are part of a choice: **ip** or (**dst-ip** and **src-ip**).

Introduced 21.10.R1

Platforms All

## **address** *(ipv4-prefix-with-host-bits | ipv4-address)*

Synopsis IPv4 address used as the match criterion

Context **configure** filter ip-filter *filter-name* entry *number* match ip address *(ipv4-prefix-with-host-bits | ipv4-address)*

Tree address

Notes The following elements are part of a choice: (**address** and **mask**) or **ip-prefix-list**.

Introduced 21.10.R1

Platforms All


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### **ip-prefix-list** *reference*

| | |
|---|---|
| Synopsis | IPv4 address prefix list used as match criterion |
| Context | **configure** filter ip-filter *filter-name* entry *number* match ip ip-prefix-list *reference* |
| Tree | ip-prefix-list |
| Reference | **configure** filter match-list ip-prefix-list *named-item* |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ip-prefix-list**. |
| Introduced | 21.10.R1 |
| Platforms | All |

### **mask** *ipv4-address*

| | |
|---|---|
| Synopsis | IPv4 address mask used as the match criterion |
| Context | **configure** filter ip-filter *filter-name* entry *number* match ip mask *ipv4-address* |
| Tree | mask |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ip-prefix-list**. |
| Introduced | 21.10.R1 |
| Platforms | All |

### **ip-option**

| | |
|---|---|
| Synopsis | Enable the **ip-option** context |
| Context | **configure** filter ip-filter *filter-name* entry *number* match ip-option |
| Tree | ip-option |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mask** *number*

| | |
|---|---|
| Synopsis | Mask that is ANDed with ip-option value in the packet header |
| Context | **configure** filter ip-filter *filter-name* entry *number* match ip-option mask *number* |
| Tree | mask |
| Range | 1 to 255 |
| Default | 255 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **type** *number*

| | |
|---|---|
| Synopsis | Specific IP option to match |
| Context | **configure** filter ip-filter *filter-name* entry *number* match ip-option type *number* |
| Tree | type |
| Range | 0 to 255 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **multiple-option** *boolean*

| | |
|---|---|
| Synopsis | Match based on presence of multiple options in header |
| Context | **configure** filter ip-filter *filter-name* entry *number* match multiple-option *boolean* |
| Tree | multiple-option |
| Introduced | 16.0.R1 |
| Platforms | All |

### **option-present** *boolean*

| | |
|---|---|
| Synopsis | Match on the presence of any IP option in the packet |
| Context | **configure** filter ip-filter *filter-name* entry *number* match option-present *boolean* |
| Tree | option-present |
| Introduced | 16.0.R1 |
| Platforms | All |

### **packet-length**

| | |
|---|---|
| Synopsis | Enable the **packet-length** context |
| Context | **configure** filter ip-filter *filter-name* entry *number* match packet-length |
| Tree | packet-length |
| Description | Commands in this context specify the match criterion for the IPv4 packet length. The IPv4 packet length represents the total packet length which includes the IPv4 header and the payload. |


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| | |
|---|---|
| Introduced | 19.5.R1 |
| Platforms | All |

### **eq** *number*

| | |
|---|---|
| Synopsis | Exact match criterion for the length |
| Context | **configure** filter ip-filter *filter-name* entry *number* match packet-length eq *number* |
| Tree | eq |
| Range | 0 to 65535 |
| Notes | The following elements are part of a mandatory choice: **eq**, **gt**, **ip-packet-length-list**, **lt**, or **range**. |
| Introduced | 19.5.R1 |
| Platforms | All |

### **gt** *number*

| | |
|---|---|
| Synopsis | Greater than match criterion for the length |
| Context | **configure** filter ip-filter *filter-name* entry *number* match packet-length gt *number* |
| Tree | gt |
| Range | 0 to 65534 |
| Notes | The following elements are part of a mandatory choice: **eq**, **gt**, **ip-packet-length-list**, **lt**, or **range**. |
| Introduced | 19.5.R1 |
| Platforms | All |

### **ip-packet-length-list** *reference*

| | |
|---|---|
| Synopsis | Packet length list to match |
| Context | **configure** filter ip-filter *filter-name* entry *number* match packet-length ip-packet-length-list *reference* |
| Tree | ip-packet-length-list |
| Reference | **configure** filter match-list ip-packet-length-list *named-item* |
| Notes | The following elements are part of a mandatory choice: **eq**, **gt**, **ip-packet-length-list**, **lt**, or **range**. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **lt** *number*

| | |
|---|---|
| Synopsis | Less than match criterion for the length |
| Context | **configure** filter ip-filter *filter-name* entry *number* match packet-length lt *number* |
| Tree | lt |
| Range | 1 to 65535 |
| Notes | The following elements are part of a mandatory choice: **eq**, **gt**, **ip-packet-length-list**, **lt**, or **range**. |
| Introduced | 19.5.R1 |
| Platforms | All |

### **range**

| | |
|---|---|
| Synopsis | Enable the **range** context |
| Context | **configure** filter ip-filter *filter-name* entry *number* match packet-length range |
| Tree | range |
| Notes | The following elements are part of a mandatory choice: **eq**, **gt**, **ip-packet-length-list**, **lt**, or **range**. |
| Introduced | 19.5.R1 |
| Platforms | All |

### **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the length range |
| Context | **configure** filter ip-filter *filter-name* entry *number* match packet-length range end *number* |
| Tree | end |
| Range | 1 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 19.5.R1 |
| Platforms | All |

### **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of the length range |
| Context | **configure** filter ip-filter *filter-name* entry *number* match packet-length range start *number* |


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| | |
|---|---|
| Tree | start |
| Range | 0 to 65534 |
| Notes | This element is mandatory. |
| Introduced | 19.5.R1 |
| Platforms | All |

## port

| | |
|---|---|
| Synopsis | Enter the **port** context |
| Context | **configure** filter ip-filter *filter-name* entry *number* match port |
| Tree | port |
| Notes | The following elements are part of a choice: **port** or (**dst-port** and **src-port**). |
| Introduced | 16.0.R1 |
| Platforms | All |

## eq *number*

| | |
|---|---|
| Synopsis | Exact value as the match criterion |
| Context | **configure** filter ip-filter *filter-name* entry *number* match port eq *number* |
| Tree | eq |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## gt *number*

| | |
|---|---|
| Synopsis | Greater than value as the match criterion |
| Context | **configure** filter ip-filter *filter-name* entry *number* match port gt *number* |
| Tree | gt |
| Range | 0 to 65534 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **lt** *number*

| | |
|---|---|
| Synopsis | Less than value as the match criterion |
| Context | **configure** filter ip-filter *filter-name* entry *number* match port lt *number* |
| Tree | lt |
| Range | 1 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **port-list** *reference*

| | |
|---|---|
| Synopsis | Name of the port list as the match criterion |
| Context | **configure** filter ip-filter *filter-name* entry *number* match port port-list *reference* |
| Tree | port-list |
| Reference | **configure** filter match-list port-list *named-item* |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **range**

| | |
|---|---|
| Synopsis | Enable the **range** context |
| Context | **configure** filter ip-filter *filter-name* entry *number* match port range |
| Tree | range |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the port range |
| Context | **configure** filter ip-filter *filter-name* entry *number* match port range end *number* |
| Tree | end |
| Range | 1 to 65535 |


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| | |
|---|---|
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of the port range |
| Context | **configure** filter ip-filter *filter-name* entry *number* match port range start *number* |
| Tree | start |
| Range | 0 to 65534 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **protocol** *(number | keyword)*

| | |
|---|---|
| Synopsis | IP protocol identifier as a match criterion |
| Context | **configure** filter ip-filter *filter-name* entry *number* match protocol *(number \| keyword)* |
| Tree | protocol |
| Range | 0 to 255 |
| Options | tcp-udp, icmp, igmp, ip, tcp, egp, igp, udp, rdp, ipv6, ipv6-route, ipv6-frag, idrp, rsvp, gre, ipv6-icmp, ipv6-no-nxt, ipv6-opts, iso-ip, eigrp, ospf-igp, ether-ip, encap, pnni, pim, vrrp, l2tp, stp, ptp, isis, crtp, crudp, sctp |
| Notes | The following elements are part of a choice: **protocol** or **protocol-list**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **protocol-list** *reference*

| | |
|---|---|
| Synopsis | Name of the protocol list as a match criterion |
| Context | **configure** filter ip-filter *filter-name* entry *number* match protocol-list *reference* |
| Tree | protocol-list |
| Reference | **configure** filter match-list protocol-list *named-item* |
| Notes | The following elements are part of a choice: **protocol** or **protocol-list**. |
| Introduced | 20.7.R1 |


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| | |
|---|---|
| Platforms | All |

## src-ip

| | |
|---|---|
| Synopsis | Enter the **src-ip** context |
| Context | **configure** filter ip-filter *filter-name* entry *number* match src-ip |
| Tree | src-ip |
| Description | Commands in this context configure a source address range that is used by filter policy match criteria. |
| Notes | The following elements are part of a choice: **ip** or (**dst-ip** and **src-ip**). |
| Introduced | 16.0.R1 |
| Platforms | All |

## address *(ipv4-prefix-with-host-bits | ipv4-address)*

| | |
|---|---|
| Synopsis | IPv4 address used as the match criterion |
| Context | **configure** filter ip-filter *filter-name* entry *number* match src-ip address *(ipv4-prefix-with-host-bits | ipv4-address)* |
| Tree | address |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ip-prefix-list**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## ip-prefix-list *reference*

| | |
|---|---|
| Synopsis | IPv4 address prefix list used as match criterion |
| Context | **configure** filter ip-filter *filter-name* entry *number* match src-ip ip-prefix-list *reference* |
| Tree | ip-prefix-list |
| Reference | **configure** filter match-list ip-prefix-list *named-item* |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ip-prefix-list**. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **mask** *ipv4-address*

| | |
|---|---|
| Synopsis | IPv4 address mask used as the match criterion |
| Context | **configure** filter ip-filter *filter-name* entry *number* match src-ip mask *ipv4-address* |
| Tree | mask |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ip-prefix-list**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **src-mac**

| | |
|---|---|
| Synopsis | Enable the **src-mac** context |
| Context | **configure** filter ip-filter *filter-name* entry *number* match src-mac |
| Tree | src-mac |
| Introduced | 19.5.R1 |
| Platforms | All |

### **address** *mac-address*

| | |
|---|---|
| Synopsis | MAC address used as the match criterion |
| Context | **configure** filter ip-filter *filter-name* entry *number* match src-mac address *mac-address* |
| Tree | address |
| Notes | This element is mandatory. |
| Introduced | 19.5.R1 |
| Platforms | All |

### **mask** *mac-address*

| | |
|---|---|
| Synopsis | MAC address mask as the match criterion |
| Context | **configure** filter ip-filter *filter-name* entry *number* match src-mac mask *mac-address* |
| Tree | mask |
| Default | ff:ff:ff:ff:ff:ff |
| Introduced | 19.5.R1 |
| Platforms | All |


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## src-port

| | |
|---|---|
| Synopsis | Enter the **src-port** context |
| Context | **configure** filter ip-filter *filter-name* entry *number* match src-port |
| Tree | src-port |
| Description | Commands in this context configure match criteria for the source port. |
| Notes | The following elements are part of a choice: **port** or (**dst-port** and **src-port**). |
| Introduced | 16.0.R1 |
| Platforms | All |

## eq *number*

| | |
|---|---|
| Synopsis | Exact value as the match criterion |
| Context | **configure** filter ip-filter *filter-name* entry *number* match src-port eq *number* |
| Tree | eq |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## gt *number*

| | |
|---|---|
| Synopsis | Greater than value as the match criterion |
| Context | **configure** filter ip-filter *filter-name* entry *number* match src-port gt *number* |
| Tree | gt |
| Range | 0 to 65534 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## lt *number*

| | |
|---|---|
| Synopsis | Less than value as the match criterion |
| Context | **configure** filter ip-filter *filter-name* entry *number* match src-port lt *number* |
| Tree | lt |


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| | |
|---|---|
| Range | 1 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **port-list** *reference*

| | |
|---|---|
| Synopsis | Name of the port list as the match criterion |
| Context | **configure** filter ip-filter *filter-name* entry *number* match src-port port-list *reference* |
| Tree | port-list |
| Reference | **configure** filter match-list port-list *named-item* |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **range**

| | |
|---|---|
| Synopsis | Enable the **range** context |
| Context | **configure** filter ip-filter *filter-name* entry *number* match src-port range |
| Tree | range |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the port range |
| Context | **configure** filter ip-filter *filter-name* entry *number* match src-port range end *number* |
| Tree | end |
| Range | 1 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of the port range |
| Context | **configure** filter ip-filter *filter-name* entry *number* match src-port range start *number* |
| Tree | start |
| Range | 0 to 65534 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **src-route-option** *boolean*

| | |
|---|---|
| Synopsis | Match based on presence of source route option |
| Context | **configure** filter ip-filter *filter-name* entry *number* match src-route-option *boolean* |
| Tree | src-route-option |
| Introduced | 16.0.R1 |
| Platforms | All |

### **tcp-established**

| | |
|---|---|
| Synopsis | Use ACK or RST status in TCP header as match criterion |
| Context | **configure** filter ip-filter *filter-name* entry *number* match tcp-established |
| Tree | tcp-established |
| Description | When configured to **true**, a match occurs when the ACK or the RST TCP flag bit is set in the TCP header of an IP packet. |
| Notes | The following elements are part of a choice: **tcp-established** or **tcp-flags**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **tcp-flags**

| | |
|---|---|
| Synopsis | Enter the **tcp-flags** context |
| Context | **configure** filter ip-filter *filter-name* entry *number* match tcp-flags |
| Tree | tcp-flags |
| Description | Commands in this context configure the use of TCP flags as the IP filter match. |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **tcp-established** or **tcp-flags**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **ack** *boolean*

| | |
|---|---|
| Synopsis | Use ACK TCP bit status in TCP header as match criterion |
| Context | **configure** filter ip-filter *filter-name* entry *number* match tcp-flags ack *boolean* |
| Tree | ack |
| Description | When configured to **true**, a match occurs when the ACK TCP flag bit, defined in RFC 793, is set in the TCP header of an IP packet.<br>When configured to **false**, a match occurs when the ACK TCP flag bit is not set in the TCP header of an IP packet.<br>When unconfigured, the system does not use the TCP flag as a match criterion. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **cwr** *boolean*

| | |
|---|---|
| Synopsis | Use CWR TCP bit status in TCP header as match criterion |
| Context | **configure** filter ip-filter *filter-name* entry *number* match tcp-flags cwr *boolean* |
| Tree | cwr |
| Description | When configured to **true**, a match occurs when the Congestion Window Reduced (CWR) TCP flag bit, defined in RFC 3168, is set in the TCP header of an IP packet.<br>When configured to **false**, a match occurs when the CWR TCP flag bit is not set in the TCP header of an IP packet.<br>When unconfigured, the system does not use the TCP flag as a match criterion. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **ece** *boolean*

| | |
|---|---|
| Synopsis | Use ECE TCP bit status in TCP header as match criterion |
| Context | **configure** filter ip-filter *filter-name* entry *number* match tcp-flags ece *boolean* |
| Tree | ece |
| Description | When configured to **true**, a match occurs when the ECN-Echo (ECE) TCP flag bit, defined in RFC 3168, is set in the TCP header of an IP packet. |


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When configured to **false**, a match occurs when the ECE TCP flag bit is not set in the TCP header of an IP packet.

When unconfigured, the system does not use the TCP flag as a match criterion.

Introduced 16.0.R1

Platforms All

## **fin** *boolean*

Synopsis Use FIN TCP bit status in TCP header as match criterion

Context **configure** filter ip-filter *filter-name* entry *number* match tcp-flags fin *boolean*

Tree fin

Description When configured to **true**, a match occurs when the FIN TCP flag bit is set in the TCP header of an IP packet.

When configured to **false**, a match occurs when the FIN TCP flag bit, defined in RFC 793, is not set in the TCP header of an IP packet.

When unconfigured, the system does not use the TCP flag as a match criterion.

Introduced 16.0.R1

Platforms All

## **ns** *boolean*

Synopsis Use NS TCP bit status in TCP header as match criterion

Context **configure** filter ip-filter *filter-name* entry *number* match tcp-flags ns *boolean*

Tree ns

Description When configured to **true**, a match occurs when the Nonce Sum (NS) TCP flag bit, defined in RFC 3540, is set in the TCP header of an IP packet.

When configured to **false**, a match occurs when the NS TCP flag bit is not set in the TCP header of an IP packet.

When unconfigured, the system does not use the TCP flag as a match criterion.

Introduced 16.0.R1

Platforms All

## **psh** *boolean*

Synopsis Use PSH TCP bit status in TCP header as match criterion

Context **configure** filter ip-filter *filter-name* entry *number* match tcp-flags psh *boolean*

Tree psh


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| | |
|---|---|
| Description | When configured to **true**, a match occurs when the Push (PSH) TCP flag bit is set in the TCP header of an IP packet.<br>When configured to **false**, a match occurs when the Push (PSH) TCP flag bit is not set in the TCP header of an IP packet.<br>When unconfigured, the system does not use the TCP flag as a match criterion. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rst** *boolean*

| | |
|---|---|
| Synopsis | Use RST TCP bit status in TCP header as match criterion |
| Context | **configure** filter ip-filter *filter-name* entry *number* match tcp-flags rst *boolean* |
| Tree | rst |
| Description | When configured to **true**, a match occurs when the RST TCP flag bit is set in the TCP header of an IP packet.<br>When configured to **false**, a match occurs when the RST TCP flag bit is not set in the TCP header of an IP packet.<br>When unconfigured, the system does not use the TCP flag as a match criterion. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **syn** *boolean*

| | |
|---|---|
| Synopsis | Use SYN TCP bit status in TCP header as match criterion |
| Context | **configure** filter ip-filter *filter-name* entry *number* match tcp-flags syn *boolean* |
| Tree | syn |
| Description | When configured to **true**, a match occurs when the Synchronize (SYN) TCP flag bit is set in the TCP header of an IP packet.<br>When configured to **false**, a match occurs when the SYN TCP flag bit is not set in the TCP header of an IP packet.<br>When unconfigured, the system does not use the TCP flag as a match criterion. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **urg** *boolean*

| | |
|---|---|
| Synopsis | Use URG TCP bit status in TCP header as match criterion |


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| | |
|---|---|
| Context | **configure** filter ip-filter *filter-name* entry *number* match tcp-flags urg *boolean* |
| Tree | urg |
| Description | When configured to **true**, a match occurs when the Urgent (URG) TCP flag bit is set in the TCP header of an IP packet.<br>When configured to **false**, a match occurs when the URG TCP flag bit is not set in the TCP header of an IP packet.<br>When unconfigured, the system does not use the TCP flag as a match criterion. |
| Introduced | 16.0.R1 |
| Platforms | All |

## ttl

| | |
|---|---|
| Synopsis | Enable the **ttl** context |
| Context | **configure** filter ip-filter *filter-name* entry *number* match ttl |
| Tree | ttl |
| Introduced | 21.10.R1 |
| Platforms | All |

## eq *number*

| | |
|---|---|
| Synopsis | Equal to condition match value |
| Context | **configure** filter ip-filter *filter-name* entry *number* match ttl eq *number* |
| Tree | eq |
| Range | 0 to 255 |
| Notes | The following elements are part of a mandatory choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 21.10.R1 |
| Platforms | All |

## gt *number*

| | |
|---|---|
| Synopsis | Greater than condition match value |
| Context | **configure** filter ip-filter *filter-name* entry *number* match ttl gt *number* |
| Tree | gt |
| Range | 0 to 254 |
| Notes | The following elements are part of a mandatory choice: **eq**, **gt**, **lt**, or **range**. |


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| | |
|---|---|
| Introduced | 21.10.R1 |
| Platforms | All |

### **lt** *number*

| | |
|---|---|
| Synopsis | Less than condition match value |
| Context | **configure** filter ip-filter *filter-name* entry *number* match ttl lt *number* |
| Tree | lt |
| Range | 1 to 255 |
| Notes | The following elements are part of a mandatory choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 21.10.R1 |
| Platforms | All |

### **range**

| | |
|---|---|
| Synopsis | Enable the **range** context |
| Context | **configure** filter ip-filter *filter-name* entry *number* match ttl range |
| Tree | range |
| Description | This command in this context specify an inclusive range. When range is used, the start of the range (the first value entered) must be smaller than the end of the range (the second value entered). |
| Notes | The following elements are part of a mandatory choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 21.10.R1 |
| Platforms | All |

### **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the range |
| Context | **configure** filter ip-filter *filter-name* entry *number* match ttl range end *number* |
| Tree | end |
| Range | 1 to 255 |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | All |


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### **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of the range |
| Context | **configure** filter ip-filter *filter-name* entry *number* match ttl range start *number* |
| Tree | start |
| Range | 0 to 254 |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | All |

### **pbr-down-action-override** *keyword*

| | |
|---|---|
| Synopsis | Action when PBR or PBF target for this entry is not available |
| Context | **configure** filter ip-filter *filter-name* entry *number* pbr-down-action-override *keyword* |
| Tree | pbr-down-action-override |
| Options | drop, forward, filter-default-action |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sample-profile** *reference*

| | |
|---|---|
| Synopsis | Cflowd sample profile ID to match packets |
| Context | **configure** filter ip-filter *filter-name* entry *number* sample-profile *reference* |
| Tree | sample-profile |
| Description | This command allows traffic matching an IPv4 or IPv6 filter to be sampled for cflowd processing using a specific sample profile ID. This option is only compatible if the associated interface is configured for interface-based sampling and is only supported for ingress sampling. An IP filter can only specify a single alternate sample profile ID for cflowd sampling, but the ID can be used in multiple entries. |
| Reference | **configure** cflowd sample-profile *number* |
| Introduced | 20.10.R1 |
| Platforms | All |

### **sticky-dest** *(number | keyword)*

| | |
|---|---|
| Synopsis | Time before action with available PBR or PBF destination and highest priority |


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| | |
|---|---|
| Context | **configure** filter ip-filter *filter-name* entry *number* sticky-dest *(number \| keyword)* |
| Tree | sticky-dest |
| Range | 0 to 65535 |
| Units | seconds |
| Options | no-hold-time-up |
| Introduced | 16.0.R1 |
| Platforms | All |

## **filter-id** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IP filter ID |
| Context | **configure** filter ip-filter *filter-name* filter-id *number* |
| Tree | filter-id |
| Range | 1 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **scope** *keyword*

| | |
|---|---|
| Synopsis | Scope of the filter definition |
| Context | **configure** filter ip-filter *filter-name* scope *keyword* |
| Tree | scope |
| Description | This command configures the filter policy scope.<br>If the scope of the policy is **template** and is applied to one or more services or network interfaces, the scope cannot be changed. |
| Options | exclusive, template, embedded, system, cpm |
| Default | template |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **shared-policer** *boolean*

| | |
|---|---|
| Synopsis | Share policer among active ports in the LAG |
| Context | **configure** filter ip-filter *filter-name* shared-policer *boolean* |
| Tree | shared-policer |
| Description | When configured to **true**, and when the filter policy is configured on a LAG endpoint, the system programs the policer rates in the filter policy per line card FP of the LAG based on the number of active ports in the LAG for each FP.<br>When configured to **false**, and when the filter policy is configured on a LAG endpoint, the system programs the same policer rate on each line card FP of the LAG. |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **subscriber-mgmt**

| | |
|---|---|
| Synopsis | Enter the **subscriber-mgmt** context |
| Context | **configure** filter ip-filter *filter-name* subscriber-mgmt |
| Tree | subscriber-mgmt |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **host-specific-entry**

| | |
|---|---|
| Synopsis | Enter the **host-specific-entry** context |
| Context | **configure** filter ip-filter *filter-name* subscriber-mgmt host-specific-entry |
| Tree | host-specific-entry |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **credit-control**

| | |
|---|---|
| Synopsis | Enter the **credit-control** context |
| Context | **configure** filter ip-filter *filter-name* subscriber-mgmt host-specific-entry credit-control |
| Tree | credit-control |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## range

| | |
|---|---|
| Synopsis | Enable the **range** context |
| Context | **configure** filter ip-filter *filter-name* subscriber-mgmt host-specific-entry credit-control range |
| Tree | range |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## end *number*

| | |
|---|---|
| Synopsis | Upper bound of range for credit control filter entries |
| Context | **configure** filter ip-filter *filter-name* subscriber-mgmt host-specific-entry credit-control range end *number* |
| Tree | end |
| Range | 1 to 2097151 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## start *number*

| | |
|---|---|
| Synopsis | Lower bound of range for credit control filter entries |
| Context | **configure** filter ip-filter *filter-name* subscriber-mgmt host-specific-entry credit-control range start *number* |
| Tree | start |
| Range | 1 to 2097151 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## filter-rule

| | |
|---|---|
| Synopsis | Enter the **filter-rule** context |


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| | |
|---|---|
| Context | **configure** filter ip-filter *filter-name* subscriber-mgmt host-specific-entry filter-rule |
| Tree | filter-rule |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## range

| | |
|---|---|
| Synopsis | Enable the **range** context |
| Context | **configure** filter ip-filter *filter-name* subscriber-mgmt host-specific-entry filter-rule range |
| Tree | range |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## end *number*

| | |
|---|---|
| Synopsis | Upper bound of range for inserting filter rule entries |
| Context | **configure** filter ip-filter *filter-name* subscriber-mgmt host-specific-entry filter-rule range end *number* |
| Tree | end |
| Range | 1 to 2097151 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## start *number*

| | |
|---|---|
| Synopsis | Lower bound of range for inserting filter rule entries |
| Context | **configure** filter ip-filter *filter-name* subscriber-mgmt host-specific-entry filter-rule range start *number* |
| Tree | start |
| Range | 1 to 2097151 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### watermark

| | |
|---|---|
| Synopsis | Enter the **watermark** context |
| Context | **configure** filter ip-filter *filter-name* subscriber-mgmt host-specific-entry watermark |
| Tree | watermark |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### high *number*

| | |
|---|---|
| Synopsis | High watermark for host-specific entries, to raise a table full alarm |
| Context | **configure** filter ip-filter *filter-name* subscriber-mgmt host-specific-entry watermark high *number* |
| Tree | high |
| Range | 0 to 100 |
| Default | 95 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### low *number*

| | |
|---|---|
| Synopsis | Low watermark for host-specific entries, to clear a table full alarm |
| Context | **configure** filter ip-filter *filter-name* subscriber-mgmt host-specific-entry watermark low *number* |
| Tree | low |
| Range | 0 to 100 |
| Default | 90 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### shared-entry

| | |
|---|---|
| Synopsis | Enter the **shared-entry** context |
| Context | **configure** filter ip-filter *filter-name* subscriber-mgmt shared-entry |
| Tree | shared-entry |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## filter-rule

| | |
|---|---|
| Synopsis | Enter the **filter-rule** context |
| Context | **configure** filter ip-filter *filter-name* subscriber-mgmt shared-entry filter-rule |
| Tree | filter-rule |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## range

| | |
|---|---|
| Synopsis | Enable the **range** context |
| Context | **configure** filter ip-filter *filter-name* subscriber-mgmt shared-entry filter-rule range |
| Tree | range |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of range for inserting shared host rules |
| Context | **configure** filter ip-filter *filter-name* subscriber-mgmt shared-entry filter-rule range end *number* |
| Tree | end |
| Range | 1 to 2097151 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of range for inserting shared host rules |
| Context | **configure** filter ip-filter *filter-name* subscriber-mgmt shared-entry filter-rule range start *number* |
| Tree | start |
| Range | 1 to 2097151 |


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| | |
|---|---|
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## pcc-rule

| | |
|---|---|
| Synopsis | Enter the **pcc-rule** context |
| Context | **configure** filter ip-filter *filter-name* subscriber-mgmt shared-entry pcc-rule |
| Tree | pcc-rule |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## range

| | |
|---|---|
| Synopsis | Enable the **range** context |
| Context | **configure** filter ip-filter *filter-name* subscriber-mgmt shared-entry pcc-rule range |
| Tree | range |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the range for PCC rule filter entries |
| Context | **configure** filter ip-filter *filter-name* subscriber-mgmt shared-entry pcc-rule range end *number* |
| Tree | end |
| Range | 1 to 2097151 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of the range for PCC rule filter entries |
| Context | **configure** filter ip-filter *filter-name* subscriber-mgmt shared-entry pcc-rule range start *number* |


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| | |
|---|---|
| Tree | start |
| Range | 1 to 2097151 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## watermark

| | |
|---|---|
| Synopsis | Enable the **watermark** context |
| Context | **configure** filter ip-filter *filter-name* subscriber-mgmt shared-entry watermark |
| Tree | watermark |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## high *number*

| | |
|---|---|
| Synopsis | Limit of RADIUS shared filters before generating high watermark notification |
| Context | **configure** filter ip-filter *filter-name* subscriber-mgmt shared-entry watermark high *number* |
| Tree | high |
| Range | 1 to 8000 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## low *number*

| | |
|---|---|
| Synopsis | Limit of RADIUS or Diameter shared filters before clearing high watermark notification |
| Context | **configure** filter ip-filter *filter-name* subscriber-mgmt shared-entry watermark low *number* |
| Tree | low |
| Range | 0 to 7999 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **type** *keyword*

| | |
|---|---|
| Synopsis | Set of match criteria for the filter policy |
| Context | **configure** filter ip-filter *filter-name* type *keyword* |
| Tree | type |
| Description | This command configures the filter policy type that defines the list of match criteria supported in a filter policy. |
| Options | normal, src-mac, packet-length, destination-class |
| Default | normal |
| Introduced | 19.5.R1 |
| Platforms | All |

### **ipv6-exception** [filter-name] *filter-name*

| | |
|---|---|
| Synopsis | Enter the **ipv6-exception** list instance |
| Context | **configure** filter ipv6-exception *filter-name* |
| Tree | ipv6-exception |
| Introduced | 20.10.R1 |
| Platforms | VSR |

### [**filter-name**] *filter-name*

| | |
|---|---|
| Synopsis | Filter name |
| Context | **configure** filter ipv6-exception *filter-name* |
| Tree | ipv6-exception |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** filter ipv6-exception *filter-name* description *description* |
| Tree | description |


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| | |
|---|---|
| String length | 1 to 80 |
| Introduced | 20.10.R1 |
| Platforms | VSR |

### **entry** [entry-id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** filter ipv6-exception *filter-name* entry *number* |
| Tree | entry |
| Introduced | 20.10.R1 |
| Platforms | VSR |

### [**entry-id**] *number*

| | |
|---|---|
| Synopsis | ID for a match criteria and the corresponding action |
| Context | **configure** filter ipv6-exception *filter-name* entry *number* |
| Tree | entry |
| Range | 1 to 2097151 |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** filter ipv6-exception *filter-name* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 20.10.R1 |
| Platforms | VSR |

### **match**

| | |
|---|---|
| Synopsis | Enter the **match** context |
| Context | **configure** filter ipv6-exception *filter-name* entry *number* match |


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| | |
|---|---|
| Tree | match |
| Introduced | 20.10.R1 |
| Platforms | VSR |

## dst-ip

| | |
|---|---|
| Synopsis | Enter the **dst-ip** context |
| Context | **configure** filter ipv6-exception *filter-name* entry *number* match dst-ip |
| Tree | dst-ip |
| Introduced | 20.10.R1 |
| Platforms | VSR |

## address *(ipv6-prefix-with-host-bits | ipv6-address)*

| | |
|---|---|
| Synopsis | IPv6 address used as the match criterion |
| Context | **configure** filter ipv6-exception *filter-name* entry *number* match dst-ip address *(ipv6-prefix-with-host-bits \| ipv6-address)* |
| Tree | address |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ipv6-prefix-list**. |
| Introduced | 20.10.R1 |
| Platforms | VSR |

## ipv6-prefix-list *reference*

| | |
|---|---|
| Synopsis | IPv6 address prefix list used as match criterion |
| Context | **configure** filter ipv6-exception *filter-name* entry *number* match dst-ip ipv6-prefix-list *reference* |
| Tree | ipv6-prefix-list |
| Reference | **configure** filter match-list ipv6-prefix-list *named-item* |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ipv6-prefix-list**. |
| Introduced | 20.10.R1 |
| Platforms | VSR |

## mask *ipv6-address*

| | |
|---|---|
| Synopsis | IPv6 address mask used as the match criterion |


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| | |
|---|---|
| Context | **configure** filter ipv6-exception *filter-name* entry *number* match dst-ip mask *ipv6-address* |
| Tree | mask |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ipv6-prefix-list**. |
| Introduced | 20.10.R1 |
| Platforms | VSR |

## dst-port

| | |
|---|---|
| Synopsis | Enter the **dst-port** context |
| Context | **configure** filter ipv6-exception *filter-name* entry *number* match dst-port |
| Tree | dst-port |
| Description | Commands in this context configure match criteria for the destination port. |
| Notes | The following elements are part of a choice: **port** or (**dst-port** and **src-port**). |
| Introduced | 20.10.R1 |
| Platforms | VSR |

## **eq** *number*

| | |
|---|---|
| Synopsis | Exact value as the match criterion |
| Context | **configure** filter ipv6-exception *filter-name* entry *number* match dst-port eq *number* |
| Tree | eq |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 20.10.R1 |
| Platforms | VSR |

## **gt** *number*

| | |
|---|---|
| Synopsis | Greater than value as the match criterion |
| Context | **configure** filter ipv6-exception *filter-name* entry *number* match dst-port gt *number* |
| Tree | gt |
| Range | 0 to 65534 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 20.10.R1 |


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| | |
|---|---|
| Platforms | VSR |

### **lt** *number*

| | |
|---|---|
| Synopsis | Less than value as the match criterion |
| Context | **configure** filter ipv6-exception *filter-name* entry *number* match dst-port lt *number* |
| Tree | lt |
| Range | 1 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 20.10.R1 |
| Platforms | VSR |

### **port-list** *reference*

| | |
|---|---|
| Synopsis | Name of the port list as the match criterion |
| Context | **configure** filter ipv6-exception *filter-name* entry *number* match dst-port port-list *reference* |
| Tree | port-list |
| Reference | **configure** filter match-list port-list *named-item* |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 20.10.R1 |
| Platforms | VSR |

### **range**

| | |
|---|---|
| Synopsis | Enable the **range** context |
| Context | **configure** filter ipv6-exception *filter-name* entry *number* match dst-port range |
| Tree | range |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 20.10.R1 |
| Platforms | VSR |

### **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the port range |


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| | |
|---|---|
| Context | **configure** filter ipv6-exception *filter-name* entry *number* match dst-port range end *number* |
| Tree | end |
| Range | 1 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 20.10.R1 |
| Platforms | VSR |

## **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of the port range |
| Context | **configure** filter ipv6-exception *filter-name* entry *number* match dst-port range start *number* |
| Tree | start |
| Range | 0 to 65534 |
| Notes | This element is mandatory. |
| Introduced | 20.10.R1 |
| Platforms | VSR |

## **icmp**

| | |
|---|---|
| Synopsis | Enter the **icmp** context |
| Context | **configure** filter ipv6-exception *filter-name* entry *number* match icmp |
| Tree | icmp |
| Introduced | 20.10.R1 |
| Platforms | VSR |

## **code** *number*

| | |
|---|---|
| Synopsis | ICMPv6 code value to match |
| Context | **configure** filter ipv6-exception *filter-name* entry *number* match icmp code *number* |
| Tree | code |
| Description | This command specifies the ICMPv6 code value that must be present to match. The system matches on ICMP code or ICMP type, or on both values.<br>An entry containing Layer 4 non-zero match criteria does not match non initial (second, third, and so on) fragments of a fragmented packet because only the first fragment contains the Layer 4 information. Similarly, an entry containing an ICMP code value of 0 |


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match criterion may match non-initial fragments when the Layer 4 header is not present in a packet fragment and other match criteria are also met.

| | |
|---|---|
| Range | 0 to 255 |
| Introduced | 20.10.R1 |
| Platforms | VSR |

### **type** *number*

| | |
|---|---|
| Synopsis | ICMPv6 type value to match |
| Context | **configure** filter ipv6-exception *filter-name* entry *number* match icmp type *number* |
| Tree | type |
| Description | This command specifies the ICMPv6 type value that must be present to match. The system matches on ICMP code or ICMP type, or on both values.<br>An entry containing Layer 4 non-zero match criteria does not match non initial (second, third, and so on) fragments of a fragmented packet because only the first fragment contains the Layer 4 information. Similarly, an entry containing an ICMP type value of 0 match criterion may match non initial fragments when the Layer 4 header is not present in a packet fragment and other match criteria are also met. |
| Range | 0 to 255 |
| Introduced | 20.10.R1 |
| Platforms | VSR |

### **next-header** *(number | keyword)*

| | |
|---|---|
| Synopsis | IP protocol to match |
| Context | **configure** filter ipv6-exception *filter-name* entry *number* match next-header *(number \| keyword)* |
| Tree | next-header |
| Range | 0 to 255 |
| Options | tcp-udp, icmp, igmp, ip, tcp, egp, igp, udp, rdp, ipv6, ipv6-route, ipv6-frag, idrp, rsvp, gre, ipv6-icmp, ipv6-no-nxt, ipv6-opts, iso-ip, eigrp, ospf-igp, ether-ip, encap, pnni, pim, vrrp, l2tp, stp, ptp, isis, crtp, crudp, sctp |
| Introduced | 20.10.R1 |
| Platforms | VSR |

### **port**

| | |
|---|---|
| Synopsis | Enter the **port** context |


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| | |
|---|---|
| Context | **configure** filter ipv6-exception *filter-name* entry *number* match port |
| Tree | port |
| Notes | The following elements are part of a choice: **port** or (**dst-port** and **src-port**). |
| Introduced | 20.10.R1 |
| Platforms | VSR |

### **eq** *number*

| | |
|---|---|
| Synopsis | Exact value as the match criterion |
| Context | **configure** filter ipv6-exception *filter-name* entry *number* match port eq *number* |
| Tree | eq |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 20.10.R1 |
| Platforms | VSR |

### **gt** *number*

| | |
|---|---|
| Synopsis | Greater than value as the match criterion |
| Context | **configure** filter ipv6-exception *filter-name* entry *number* match port gt *number* |
| Tree | gt |
| Range | 0 to 65534 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 20.10.R1 |
| Platforms | VSR |

### **lt** *number*

| | |
|---|---|
| Synopsis | Less than value as the match criterion |
| Context | **configure** filter ipv6-exception *filter-name* entry *number* match port lt *number* |
| Tree | lt |
| Range | 1 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 20.10.R1 |


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| | |
|---|---|
| Platforms | VSR |

### **port-list** *reference*

| | |
|---|---|
| Synopsis | Name of the port list as the match criterion |
| Context | **configure** filter ipv6-exception *filter-name* entry *number* match port port-list *reference* |
| Tree | port-list |
| Reference | **configure** filter match-list port-list *named-item* |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 20.10.R1 |
| Platforms | VSR |

### **range**

| | |
|---|---|
| Synopsis | Enable the **range** context |
| Context | **configure** filter ipv6-exception *filter-name* entry *number* match port range |
| Tree | range |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 20.10.R1 |
| Platforms | VSR |

### **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the port range |
| Context | **configure** filter ipv6-exception *filter-name* entry *number* match port range end *number* |
| Tree | end |
| Range | 1 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 20.10.R1 |
| Platforms | VSR |

### **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of the port range |
| Context | **configure** filter ipv6-exception *filter-name* entry *number* match port range start *number* |


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| | |
|---|---|
| Tree | start |
| Range | 0 to 65534 |
| Notes | This element is mandatory. |
| Introduced | 20.10.R1 |
| Platforms | VSR |

## src-ip

| | |
|---|---|
| Synopsis | Enter the **src-ip** context |
| Context | **configure** filter ipv6-exception *filter-name* entry *number* match src-ip |
| Tree | src-ip |
| Introduced | 20.10.R1 |
| Platforms | VSR |

## address *(ipv6-prefix-with-host-bits | ipv6-address)*

| | |
|---|---|
| Synopsis | IPv6 address used as the match criterion |
| Context | **configure** filter ipv6-exception *filter-name* entry *number* match src-ip address *(ipv6-prefix-with-host-bits \| ipv6-address)* |
| Tree | address |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ipv6-prefix-list**. |
| Introduced | 20.10.R1 |
| Platforms | VSR |

## ipv6-prefix-list *reference*

| | |
|---|---|
| Synopsis | IPv6 address prefix list used as match criterion |
| Context | **configure** filter ipv6-exception *filter-name* entry *number* match src-ip ipv6-prefix-list *reference* |
| Tree | ipv6-prefix-list |
| Reference | **configure** filter match-list ipv6-prefix-list *named-item* |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ipv6-prefix-list**. |
| Introduced | 20.10.R1 |
| Platforms | VSR |


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### **mask** *ipv6-address*

| | |
|---|---|
| Synopsis | IPv6 address mask used as the match criterion |
| Context | **configure** filter ipv6-exception *filter-name* entry *number* match src-ip mask *ipv6-address* |
| Tree | mask |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ipv6-prefix-list**. |
| Introduced | 20.10.R1 |
| Platforms | VSR |

### **src-port**

| | |
|---|---|
| Synopsis | Enter the **src-port** context |
| Context | **configure** filter ipv6-exception *filter-name* entry *number* match src-port |
| Tree | src-port |
| Description | Commands in this context configure match criteria for the source port. |
| Notes | The following elements are part of a choice: **port** or (**dst-port** and **src-port**). |
| Introduced | 20.10.R1 |
| Platforms | VSR |

### **eq** *number*

| | |
|---|---|
| Synopsis | Exact value as the match criterion |
| Context | **configure** filter ipv6-exception *filter-name* entry *number* match src-port eq *number* |
| Tree | eq |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 20.10.R1 |
| Platforms | VSR |

### **gt** *number*

| | |
|---|---|
| Synopsis | Greater than value as the match criterion |
| Context | **configure** filter ipv6-exception *filter-name* entry *number* match src-port gt *number* |
| Tree | gt |
| Range | 0 to 65534 |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 20.10.R1 |
| Platforms | VSR |

### **lt** *number*

| | |
|---|---|
| Synopsis | Less than value as the match criterion |
| Context | **configure** filter ipv6-exception *filter-name* entry *number* match src-port lt *number* |
| Tree | lt |
| Range | 1 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 20.10.R1 |
| Platforms | VSR |

### **port-list** *reference*

| | |
|---|---|
| Synopsis | Name of the port list as the match criterion |
| Context | **configure** filter ipv6-exception *filter-name* entry *number* match src-port port-list *reference* |
| Tree | port-list |
| Reference | **configure** filter match-list port-list *named-item* |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 20.10.R1 |
| Platforms | VSR |

### **range**

| | |
|---|---|
| Synopsis | Enable the **range** context |
| Context | **configure** filter ipv6-exception *filter-name* entry *number* match src-port range |
| Tree | range |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 20.10.R1 |
| Platforms | VSR |


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### **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the port range |
| Context | **configure** filter ipv6-exception *filter-name* entry *number* match src-port range end *number* |
| Tree | end |
| Range | 1 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 20.10.R1 |
| Platforms | VSR |

### **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of the port range |
| Context | **configure** filter ipv6-exception *filter-name* entry *number* match src-port range start *number* |
| Tree | start |
| Range | 0 to 65534 |
| Notes | This element is mandatory. |
| Introduced | 20.10.R1 |
| Platforms | VSR |

### **filter-id** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Filter ID |
| Context | **configure** filter ipv6-exception *filter-name* filter-id *number* |
| Tree | filter-id |
| Range | 1 to 65535 |
| Introduced | 20.10.R1 |
| Platforms | VSR |


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### **ipv6-filter** [filter-name] *filter-name*

| | |
|---|---|
| Synopsis | Enter the **ipv6-filter** list instance |
| Context | **configure** filter ipv6-filter *filter-name* |
| Tree | ipv6-filter |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**filter-name**] *filter-name*

| | |
|---|---|
| Synopsis | Filter name |
| Context | **configure** filter ipv6-filter *filter-name* |
| Tree | ipv6-filter |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **chain-to-system-filter** *boolean*

| | |
|---|---|
| Synopsis | Chain filter policy to the active IPvX system filter policy |
| Context | **configure** filter ipv6-filter *filter-name* chain-to-system-filter *boolean* |
| Tree | chain-to-system-filter |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **default-action** *keyword*

| | |
|---|---|
| Synopsis | Action for packets that do not match any entry |
| Context | **configure** filter ipv6-filter *filter-name* default-action *keyword* |
| Tree | default-action |
| Options | drop, accept |
| Default | drop |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** filter ipv6-filter *filter-name* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **embed**

| | |
|---|---|
| Synopsis | Enter the **embed** context |
| Context | **configure** filter ipv6-filter *filter-name* embed |
| Tree | embed |
| Description | Commands in this context configure filter policy embedding.<br>A previously defined IPv6 embedded filter policy or Hybrid OpenFlow switch instance can be embedded into an exclusive, template, or system filter policy at the specified offset value. Rules derived from BGP FlowSpec can also be embedded into template filter policies only. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter** [name] *reference* offset *number*

| | |
|---|---|
| Synopsis | Enter the **filter** list instance |
| Context | **configure** filter ipv6-filter *filter-name* embed filter *reference* offset *number* |
| Tree | filter |
| Description | Commands in this context embed a previously defined IPv6 filter policy into the filter policy at the specified offset value. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**name**] *reference*

| | |
|---|---|
| Synopsis | IPv6 policy to be embedded in the filter |
| Context | **configure** filter ipv6-filter *filter-name* embed filter *reference* offset *number* |
| Tree | filter |
| Reference | **configure** filter ipv6-filter *filter-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **offset** *number*

| | |
|---|---|
| Synopsis | Offset of the embedded filter policy |
| Context | **configure** filter ipv6-filter *filter-name* embed filter *reference* offset *number* |
| Tree | filter |
| Description | This command configures the offset of the embedded filter policy. The embedded filter entry X has an entry X + offset in the embedding filter. |
| Range | 0 to 2097150 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the embedded filter |
| Context | **configure** filter ipv6-filter *filter-name* embed filter *reference* offset *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **flowspec** offset *number*

| | |
|---|---|
| Synopsis | Enter the **flowspec** list instance |
| Context | **configure** filter ipv6-filter *filter-name* embed flowspec offset *number* |
| Tree | flowspec |
| Introduced | 16.0.R1 |
| Platforms | All |

### **offset** *number*

| | |
|---|---|
| Synopsis | Offset of the inserted entries |
| Context | **configure** filter ipv6-filter *filter-name* embed flowspec offset *number* |
| Tree | flowspec |
| Description | This command configures the offset of the embedded filter policy. The embedded filter entry X has an entry X + offset in the embedding filter. |
| Range | 0 to 2097151 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the embedded filter |
| Context | **configure** filter ipv6-filter *filter-name* embed flowspec offset *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **group** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Group ID of FlowSpec routes to embed in the filter |
| Context | **configure** filter ipv6-filter *filter-name* embed flowspec offset *number* group *number* |
| Tree | group |
| Description | This command specifies the group ID of routes to embed into the filter. Only FlowSpec routes tagged with an interface-set extended community containing this group ID are selected for embedding. |
| Range | 0 to 16383 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **router-instance** *string*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Routing instance source of BGP FlowSpec routes |
| Context | **configure** filter ipv6-filter *filter-name* embed flowspec offset *number* router-instance *string* |
| Tree | router-instance |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **openflow** [of-switch] *reference* offset *number*

| | |
|---|---|
| Synopsis | Enter the **openflow** list instance |
| Context | **configure** filter ipv6-filter *filter-name* embed openflow *reference* offset *number* |
| Tree | openflow |
| Introduced | 16.0.R4 |
| Platforms | VSR |


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### [**of-switch**] *reference*

| | |
|---|---|
| Synopsis | Referenced Hybrid OpenFlow Switch (OFS) name |
| Context | **configure** filter ipv6-filter *filter-name* embed openflow *reference* offset *number* |
| Tree | openflow |
| Reference | **configure** openflow of-switch *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | VSR |

### **offset** *number*

| | |
|---|---|
| Synopsis | Offset of the embedded filter policy |
| Context | **configure** filter ipv6-filter *filter-name* embed openflow *reference* offset *number* |
| Tree | openflow |
| Description | This command configures the offset of the embedded filter policy. The embedded filter entry X has an entry X + offset in the embedding filter. |
| Range | 0 to 2097150 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the embedded filter |
| Context | **configure** filter ipv6-filter *filter-name* embed openflow *reference* offset *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R4 |
| Platforms | VSR |


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## grt

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Global routing context |
| Context | **configure** filter ipv6-filter *filter-name* embed openflow *reference* offset *number* grt |
| Tree | grt |
| Notes | The following elements are part of a choice: **grt**, **system**, (**sap** and **vpls**), or **vprn**. |
| Introduced | 16.0.R4 |
| Platforms | VSR |

## sap *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | SAP context |
| Context | **configure** filter ipv6-filter *filter-name* embed openflow *reference* offset *number* sap *reference* |
| Tree | sap |
| Reference | **configure** service vpls *service-name* sap *sap* |
| Notes | The following elements are part of a choice: **grt**, **system**, (**sap** and **vpls**), or **vprn**. |
| Introduced | 16.0.R4 |
| Platforms | VSR |

## system

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | System context |
| Context | **configure** filter ipv6-filter *filter-name* embed openflow *reference* offset *number* system |
| Tree | system |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **grt**, **system**, (**sap** and **vpls**), or **vprn**. |
| Introduced | 16.0.R4 |
| Platforms | VSR |

## **vpls** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | VPLS context |
| Context | **configure** filter ipv6-filter *filter-name* embed openflow *reference* offset *number* vpls *reference* |
| Tree | vpls |
| Reference | **configure** service vpls *service-name* |
| Notes | The following elements are part of a choice: **grt**, **system**, (**sap** and **vpls**), or **vprn**. |
| Introduced | 16.0.R4 |
| Platforms | VSR |

## **vprn** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | VPRN context |
| Context | **configure** filter ipv6-filter *filter-name* embed openflow *reference* offset *number* vprn *reference* |
| Tree | vprn |
| Reference | **configure** service vprn *service-name* |
| Notes | The following elements are part of a choice: **grt**, **system**, (**sap** and **vpls**), or **vprn**. |
| Introduced | 16.0.R4 |
| Platforms | VSR |

## **entry** [entry-id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |


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| | |
|---|---|
| Context | **configure** filter ipv6-filter *filter-name* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**entry-id**] *number*

| | |
|---|---|
| Synopsis | ID for a match criteria and the corresponding action |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* |
| Tree | entry |
| Range | 1 to 2097151 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## action

| | |
|---|---|
| Synopsis | Enable the **action** context |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action |
| Tree | action |
| Introduced | 16.0.R1 |
| Platforms | All |

## accept

| | |
|---|---|
| Synopsis | Accept regular routing to forward a matching packet |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action accept |
| Tree | accept |
| Notes | The following elements are part of a mandatory choice: **accept**, **drop**, **forward**, **http-redirect**, **ignore-match**, **nat**, or **tcp-mss-adjust**. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### accept-when

| | |
|---|---|
| Synopsis | Enable the **accept-when** context |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action accept-when |
| Tree | accept-when |
| Introduced | 19.5.R1 |
| Platforms | All |

### pattern

| | |
|---|---|
| Synopsis | Enable the **pattern** context |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action accept-when pattern |
| Tree | pattern |
| Introduced | 19.5.R1 |
| Platforms | All |

### expression *hex-string*

| | |
|---|---|
| Synopsis | Pattern expression to match |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action accept-when pattern expression *hex-string* |
| Tree | expression |
| String length | 3 to 18 |
| Notes | This element is mandatory. |
| Introduced | 19.5.R1 |
| Platforms | All |

### mask *hex-string*

| | |
|---|---|
| Synopsis | Mask for the pattern expression |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action accept-when pattern mask *hex-string* |
| Tree | mask |
| String length | 3 to 18 |
| Notes | This element is mandatory. |


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| | |
|---|---|
| Introduced | 19.5.R1 |
| Platforms | All |

### **offset-type** *keyword*

| | |
|---|---|
| Synopsis | Starting point reference for offset value of pattern |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action accept-when pattern offset-type *keyword* |
| Tree | offset-type |
| Options | layer-3, layer-4, data, dns-qtype |
| Notes | This element is mandatory. |
| Introduced | 19.5.R1 |
| Platforms | All |

### **offset-value** *number*

| | |
|---|---|
| Synopsis | Offset value for the pattern expression |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action accept-when pattern offset-value *number* |
| Tree | offset-value |
| Range | 0 to 255 |
| Notes | This element is mandatory. |
| Introduced | 19.5.R1 |
| Platforms | All |

### **drop**

| | |
|---|---|
| Synopsis | Drop a packet matching this entry |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action drop |
| Tree | drop |
| Notes | The following elements are part of a mandatory choice: **accept**, **drop**, **forward**, **http-redirect**, **ignore-match**, **nat**, or **tcp-mss-adjust**. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### drop-when

| | |
|---|---|
| Synopsis | Enable the **drop-when** context |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action drop-when |
| Tree | drop-when |
| Introduced | 16.0.R1 |
| Platforms | All |

### extracted-traffic

| | |
|---|---|
| Synopsis | Drop traffic extracted to CPM |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action drop-when extracted-traffic |
| Tree | extracted-traffic |
| Introduced | 16.0.R1 |
| Platforms | All |

### hop-limit

| | |
|---|---|
| Synopsis | Enable the **hop-limit** context |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action drop-when hop-limit |
| Tree | hop-limit |
| Notes | The following elements are part of a choice: **hop-limit** or **payload-length**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### eq *number*

| | |
|---|---|
| Synopsis | Equal to condition match value |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action drop-when hop-limit eq *number* |
| Tree | eq |
| Range | 0 to 255 |
| Notes | The following elements are part of a mandatory choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **gt** *number*

| | |
|---|---|
| Synopsis | Greater than condition match value |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action drop-when hop-limit gt *number* |
| Tree | gt |
| Range | 0 to 254 |
| Notes | The following elements are part of a mandatory choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lt** *number*

| | |
|---|---|
| Synopsis | Less than condition match value |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action drop-when hop-limit lt *number* |
| Tree | lt |
| Range | 1 to 255 |
| Notes | The following elements are part of a mandatory choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **range**

| | |
|---|---|
| Synopsis | Enable the **range** context |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action drop-when hop-limit range |
| Tree | range |
| Description | This command in this context specify an inclusive range. When range is used, the start of the range (the first value entered) must be smaller than the end of the range (the second value entered). |
| Notes | The following elements are part of a mandatory choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the range |


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| | |
|---|---|
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action drop-when hop-limit range end *number* |
| Tree | end |
| Range | 1 to 255 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of the range |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action drop-when hop-limit range start *number* |
| Tree | start |
| Range | 0 to 254 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **pattern**

| | |
|---|---|
| Synopsis | Enable the **pattern** context |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action drop-when pattern |
| Tree | pattern |
| Introduced | 16.0.R4 |
| Platforms | All |

## **expression** *hex-string*

| | |
|---|---|
| Synopsis | Pattern expression to match |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action drop-when pattern expression *hex-string* |
| Tree | expression |
| String length | 3 to 18 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |


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| | |
|---|---|
| Platforms | All |

### **mask** *hex-string*

| | |
|---|---|
| Synopsis | Mask for the pattern expression |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action drop-when pattern mask *hex-string* |
| Tree | mask |
| String length | 3 to 18 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **offset-type** *keyword*

| | |
|---|---|
| Synopsis | Starting point reference for offset value of pattern |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action drop-when pattern offset-type *keyword* |
| Tree | offset-type |
| Options | layer-3, layer-4, data, dns-qtype |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **offset-value** *number*

| | |
|---|---|
| Synopsis | Offset value for the pattern expression |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action drop-when pattern offset-value *number* |
| Tree | offset-value |
| Range | 0 to 255 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |


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## payload-length

| | |
|---|---|
| Synopsis | Enable the **payload-length** context |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action drop-when payload-length |
| Tree | payload-length |
| Notes | The following elements are part of a choice: **hop-limit** or **payload-length**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **eq** *number*

| | |
|---|---|
| Synopsis | Exact match criterion for the length |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action drop-when payload-length eq *number* |
| Tree | eq |
| Range | 0 to 65535 |
| Notes | The following elements are part of a mandatory choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **gt** *number*

| | |
|---|---|
| Synopsis | Greater than match criterion for the length |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action drop-when payload-length gt *number* |
| Tree | gt |
| Range | 0 to 65534 |
| Notes | The following elements are part of a mandatory choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **lt** *number*

| | |
|---|---|
| Synopsis | Less than match criterion for the length |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action drop-when payload-length lt *number* |


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| | |
|---|---|
| Tree | lt |
| Range | 1 to 65535 |
| Notes | The following elements are part of a mandatory choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## range

| | |
|---|---|
| Synopsis | Enable the **range** context |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action drop-when payload-length range |
| Tree | range |
| Notes | The following elements are part of a mandatory choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## end *number*

| | |
|---|---|
| Synopsis | Upper bound of the length range |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action drop-when payload-length range end *number* |
| Tree | end |
| Range | 1 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## start *number*

| | |
|---|---|
| Synopsis | Lower bound of the length range |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action drop-when payload-length range start *number* |
| Tree | start |
| Range | 0 to 65534 |
| Notes | This element is mandatory. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## **fc** *keyword*

| | |
|---|---|
| Synopsis | Class name to be forwarded for matching packets |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action fc *keyword* |
| Tree | fc |
| Options | be – Best effort<br>l2 – Low 2 (best effort)<br>af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority)<br>ef – Expedited forwarding (high priority)<br>h1 – High 1 (high priority)<br>nc – Network control (high priority) |
| Introduced | 16.0.R1 |
| Platforms | All |

## **forward**

| | |
|---|---|
| Synopsis | Enter the **forward** context |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action forward |
| Tree | forward |
| Notes | The following elements are part of a mandatory choice: **accept**, **drop**, **forward**, **http-redirect**, **ignore-match**, **nat**, or **tcp-mss-adjust**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **bonding-connection** *number*

| | |
|---|---|
| Synopsis | Connection ID over which packet is forwarded |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action forward bonding-connection *number* |
| Tree | bonding-connection |
| Range | 1 to 2 |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **bonding-connection**, **esi-l2**, **esi-l3**, **gre-tunnel**, **lsp**, **mpls-policy**, **next-hop**, **redirect-policy**, **router-instance**, **sap**, **sdp**, **srte-policy**, **srv6-policy**, or **vprn-target**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## esi-l2

| | |
|---|---|
| Synopsis | Enable the **esi-l2** context |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action forward esi-l2 |
| Tree | esi-l2 |
| Notes | The following elements are part of a choice: **bonding-connection**, **esi-l2**, **esi-l3**, **gre-tunnel**, **lsp**, **mpls-policy**, **next-hop**, **redirect-policy**, **router-instance**, **sap**, **sdp**, **srte-policy**, **srv6-policy**, or **vprn-target**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## esi-value *ethernet-segment-id*

| | |
|---|---|
| Synopsis | ESI of the first ESI-identified appliance |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action forward esi-l2 esi-value *ethernet-segment-id* |
| Tree | esi-value |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## vpls *reference*

| | |
|---|---|
| Synopsis | VPLS service name |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action forward esi-l2 vpls *reference* |
| Tree | vpls |
| Reference | **configure** service vpls *service-name* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R3 |
| Platforms | All |


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## esi-l3

| | |
|---|---|
| Synopsis | Enable the **esi-l3** context |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action forward esi-l3 |
| Tree | esi-l3 |
| Notes | The following elements are part of a choice: **bonding-connection**, **esi-l2**, **esi-l3**, **gre-tunnel**, **lsp**, **mpls-policy**, **next-hop**, **redirect-policy**, **router-instance**, **sap**, **sdp**, **srte-policy**, **srv6-policy**, or **vprn-target**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## esi-value *ethernet-segment-id*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | ESI of the first ESI-identified appliance |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action forward esi-l3 esi-value *ethernet-segment-id* |
| Tree | esi-value |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## sf-ip *ipv6-address*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IP address of the service function to forward traffic |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action forward esi-l3 sf-ip *ipv6-address* |
| Tree | sf-ip |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## **vas-interface** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Egress R-VPLS IP interface name |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action forward esi-l3 vas-interface *reference* |
| Tree | vas-interface |
| Reference | **configure** service vprn *service-name* interface *interface-name* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **vprn** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | VPRN service name |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action forward esi-l3 vprn *reference* |
| Tree | vprn |
| Reference | **configure** service vprn *service-name* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

## **gre-tunnel** *reference*

| | |
|---|---|
| Synopsis | GRE tunnel template ID that sets the location where an encapsulated matching packet is transported |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action forward gre-tunnel *reference* |
| Tree | gre-tunnel |


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| | |
|---|---|
| Reference | **configure** filter gre-tunnel-template *named-item* |
| Notes | The following elements are part of a choice: **bonding-connection**, **esi-l2**, **esi-l3**, **gre-tunnel**, **lsp**, **mpls-policy**, **next-hop**, **redirect-policy**, **router-instance**, **sap**, **sdp**, **srte-policy**, **srv6-policy**, or **vprn-target**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **lsp** *named-item-64*

| | |
|---|---|
| Synopsis | LSP that is specified to forward a packet matching this entry |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action forward lsp *named-item-64* |
| Tree | lsp |
| String length | 1 to 64 |
| Notes | The following elements are part of a choice: **bonding-connection**, **esi-l2**, **esi-l3**, **gre-tunnel**, **lsp**, **mpls-policy**, **next-hop**, **redirect-policy**, **router-instance**, **sap**, **sdp**, **srte-policy**, **srv6-policy**, or **vprn-target**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **mpls-policy**

| | |
|---|---|
| Synopsis | Enable the **mpls-policy** context |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action forward mpls-policy |
| Tree | mpls-policy |
| Notes | The following elements are part of a choice: **bonding-connection**, **esi-l2**, **esi-l3**, **gre-tunnel**, **lsp**, **mpls-policy**, **next-hop**, **redirect-policy**, **router-instance**, **sap**, **sdp**, **srte-policy**, **srv6-policy**, or **vprn-target**. |
| Introduced | 19.10.R1 |
| Platforms | All |

## **endpoint** *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | MPLS forwarding policy endpoint IPv6 address |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action forward mpls-policy endpoint *ipv6-unicast-address* |
| Tree | endpoint |
| Notes | This element is mandatory. |


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| | |
|---|---|
| Introduced | 19.10.R1 |
| Platforms | All |

## next-hop

| | |
|---|---|
| Synopsis | Enable the **next-hop** context |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action forward next-hop |
| Tree | next-hop |
| Notes | The following elements are part of a choice: **bonding-connection**, **esi-l2**, **esi-l3**, **gre-tunnel**, **lsp**, **mpls-policy**, **next-hop**, **redirect-policy**, **router-instance**, **sap**, **sdp**, **srte-policy**, **srv6-policy**, or **vprn-target**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## nh-ip

| | |
|---|---|
| Synopsis | Enable the **nh-ip** context |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action forward next-hop nh-ip |
| Tree | nh-ip |
| Notes | The following elements are part of a mandatory choice: **nh-ip** or **nh-ip-vrf**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## address *ipv6-address*

| | |
|---|---|
| Synopsis | IPv6 address of next hop to forward matching packets |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action forward next-hop nh-ip address *ipv6-address* |
| Tree | address |
| Description | This command specifies the IPv6 address of a direct or indirect next hop to which matching packets are forwarded. |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **indirect** *boolean*

| | |
|---|---|
| Synopsis | Allow next hop to be indirectly reachable |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action forward next-hop nh-ip indirect *boolean* |
| Tree | indirect |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **nh-ip-vrf**

| | |
|---|---|
| Synopsis | Enable the **nh-ip-vrf** context |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action forward next-hop nh-ip-vrf |
| Tree | nh-ip-vrf |
| Notes | The following elements are part of a mandatory choice: **nh-ip** or **nh-ip-vrf**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **address** *ipv6-address*

| | |
|---|---|
| Synopsis | IPv6 address of next hop to forward matching packets |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action forward next-hop nh-ip-vrf address *ipv6-address* |
| Tree | address |
| Description | This command specifies the IPv6 address of a direct or indirect next hop to which matching packets are forwarded. |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **indirect** *boolean*

| | |
|---|---|
| Synopsis | Allow next hop to be indirectly reachable |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action forward next-hop nh-ip-vrf indirect *boolean* |


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| | |
|---|---|
| Tree | indirect |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **router-instance** *string*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Routing context for route lookup for forwarding packets |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action forward next-hop nh-ip-vrf router-instance *string* |
| Tree | router-instance |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **redirect-policy** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Next hop or forward next hop router that forwards a packet that matches this entry |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action forward redirect-policy *reference* |
| Tree | redirect-policy |
| Reference | **configure** filter redirect-policy *named-item* |
| Notes | The following elements are part of a choice: **bonding-connection**, **esi-l2**, **esi-l3**, **gre-tunnel**, **lsp**, **mpls-policy**, **next-hop**, **redirect-policy**, **router-instance**, **sap**, **sdp**, **srte-policy**, **srv6-policy**, or **vprn-target**. |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **router-instance** *string*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Router name or VPRN service name |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action forward router-instance *string* |
| Tree | router-instance |
| Notes | The following elements are part of a choice: **bonding-connection**, **esi-l2**, **esi-l3**, **gre-tunnel**, **lsp**, **mpls-policy**, **next-hop**, **redirect-policy**, **router-instance**, **sap**, **sdp**, **srte-policy**, **srv6-policy**, or **vprn-target**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **sap**

| | |
|---|---|
| Synopsis | Enable the **sap** context |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action forward sap |
| Tree | sap |
| Notes | The following elements are part of a choice: **bonding-connection**, **esi-l2**, **esi-l3**, **gre-tunnel**, **lsp**, **mpls-policy**, **next-hop**, **redirect-policy**, **router-instance**, **sap**, **sdp**, **srte-policy**, **srv6-policy**, or **vprn-target**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **sap-id** *reference*

| | |
|---|---|
| Synopsis | VPLS Ethernet SAP ID used to forward matching packets |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action forward sap sap-id *reference* |
| Tree | sap-id |
| Reference | **configure** service vpls *service-name* sap *sap* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **vpls** *reference*

| | |
|---|---|
| Synopsis | VPLS associated with the SAP |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action forward sap vpls *reference* |
| Tree | vpls |
| Reference | **configure** service vpls *service-name* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sdp**

| | |
|---|---|
| Synopsis | Enable the **sdp** context |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action forward sdp |
| Tree | sdp |
| Notes | The following elements are part of a choice: **bonding-connection**, **esi-l2**, **esi-l3**, **gre-tunnel**, **lsp**, **mpls-policy**, **next-hop**, **redirect-policy**, **router-instance**, **sap**, **sdp**, **srte-policy**, **srv6-policy**, or **vprn-target**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sdp-bind-id** *sdp-bind-id*

| | |
|---|---|
| Synopsis | VPLS SDP bind ID used to forward matching packets |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action forward sdp sdp-bind-id *sdp-bind-id* |
| Tree | sdp-bind-id |
| String length | 3 to 16 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **vpls** *reference*

| | |
|---|---|
| Synopsis | VPLS associated with the SDP |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action forward sdp vpls *reference* |


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| | |
|---|---|
| Tree | vpls |
| Reference | **configure** service vpls *service-name* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## srte-policy

| | |
|---|---|
| Synopsis | Enable the **srte-policy** context |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action forward srte-policy |
| Tree | srte-policy |
| Notes | The following elements are part of a choice: **bonding-connection**, **esi-l2**, **esi-l3**, **gre-tunnel**, **lsp**, **mpls-policy**, **next-hop**, **redirect-policy**, **router-instance**, **sap**, **sdp**, **srte-policy**, **srv6-policy**, or **vprn-target**. |
| Introduced | 19.10.R1 |
| Platforms | All |

## color *number*

| | |
|---|---|
| Synopsis | SR-TE policy color ID |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action forward srte-policy color *number* |
| Tree | color |
| Range | 0 to 4294967295 |
| Notes | This element is mandatory. |
| Introduced | 19.10.R1 |
| Platforms | All |

## endpoint *ipv6-unicast-or-zero-address*

| | |
|---|---|
| Synopsis | SR-TE policy endpoint IPv6 address |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action forward srte-policy endpoint *ipv6-unicast-or-zero-address* |
| Tree | endpoint |
| Notes | This element is mandatory. |
| Introduced | 19.10.R1 |


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| | |
|---|---|
| Platforms | All |

## srv6-policy

| | |
|---|---|
| Synopsis | Enable the **srv6-policy** context |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action forward srv6-policy |
| Tree | srv6-policy |
| Notes | The following elements are part of a choice: **bonding-connection**, **esi-l2**, **esi-l3**, **gre-tunnel**, **lsp**, **mpls-policy**, **next-hop**, **redirect-policy**, **router-instance**, **sap**, **sdp**, **srte-policy**, **srv6-policy**, or **vprn-target**. |
| Introduced | 23.7.R1 |
| Platforms | 7750 SR, 7750 SR-s, 7950 XRS |

## color *number*

| | |
|---|---|
| Synopsis | SRv6 policy color |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action forward srv6-policy color *number* |
| Tree | color |
| Range | 0 to 4294967295 |
| Notes | This element is mandatory. |
| Introduced | 23.7.R1 |
| Platforms | 7750 SR, 7750 SR-s, 7950 XRS |

## endpoint *ipv6-unicast-or-zero-address*

| | |
|---|---|
| Synopsis | SRv6 policy endpoint IPv6 address |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action forward srv6-policy endpoint *ipv6-unicast-or-zero-address* |
| Tree | endpoint |
| Notes | This element is mandatory. |
| Introduced | 23.7.R1 |
| Platforms | 7750 SR, 7750 SR-s, 7950 XRS |


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### **service-sid** *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | SRv6 service segment identifier |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action forward srv6-policy service-sid *ipv6-unicast-address* |
| Tree | service-sid |
| Notes | This element is mandatory. |
| Introduced | 23.7.R1 |
| Platforms | 7750 SR, 7750 SR-s, 7950 XRS |

### **vprn-target**

| | |
|---|---|
| Synopsis | Enable the **vprn-target** context |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action forward vprn-target |
| Tree | vprn-target |
| Notes | The following elements are part of a choice: **bonding-connection**, **esi-l2**, **esi-l3**, **gre-tunnel**, **lsp**, **mpls-policy**, **next-hop**, **redirect-policy**, **router-instance**, **sap**, **sdp**, **srte-policy**, **srv6-policy**, or **vprn-target**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **adv-prefix** *ipv6-prefix*

| | |
|---|---|
| Synopsis | Advertised IP prefix for target destination |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action forward vprn-target adv-prefix *ipv6-prefix* |
| Tree | adv-prefix |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bgp-nh** *ipv4-address*

| | |
|---|---|
| Synopsis | Target BGP next hop IP address |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action forward vprn-target bgp-nh *ipv4-address* |
| Tree | bgp-nh |


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| | |
|---|---|
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lsp** *named-item-64*

| | |
|---|---|
| Synopsis | LSP that is specified to forward a packet matching this entry |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action forward vprn-target lsp *named-item-64* |
| Tree | lsp |
| String length | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **vprn** *reference*

| | |
|---|---|
| Synopsis | Routing context used for route lookup |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action forward vprn-target vprn *reference* |
| Tree | vprn |
| Reference | **configure** service vprn *service-name* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **http-redirect**

| | |
|---|---|
| Synopsis | Enable the **http-redirect** context |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action http-redirect |
| Tree | http-redirect |
| Description | Commands in this context configure the filter entry action for HTTP redirection. |
| Notes | The following elements are part of a mandatory choice: **accept**, **drop**, **forward**, **http-redirect**, **ignore-match**, **nat**, or **tcp-mss-adjust**. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **allow-override** *boolean*

| | |
|---|---|
| Synopsis | Override the HTTP redirect URL by a RADIUS VSA |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action http-redirect allow-override *boolean* |
| Tree | allow-override |
| Description | This command specifies whether the RADIUS VSA can override the configured HTTP redirect URL for this filter entry.<br>When configured to **true**, the RADIUS VSA can override the HTTP redirect URL.<br>When configured to **false**, the HTTP redirect URL is not overriden.<br>This does not apply if the CPF option is specified for the URL. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **url** *(keyword | http-redirect-url)*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | URL used for HTTP redirect action |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action http-redirect url *(keyword | http-redirect-url)* |
| Tree | url |
| Description | This command specifies the URL to use for HTTP redirection for this filter entry.<br>A URL can be specified or the CPF option can be used for BNG CUPS ESM sessions only.<br>The following macro substitutions may be used:<br>$URL — request-URI in the HTTP GET request received<br>$MAC — a string that represents the MAC address of the subscriber<br>host<br>$IP — a string that represents the IP address of the subscriber host<br>$SUB — a string that represents the subscriber ID<br>$SAP — a string that represents a SAP ID<br>$SAPDESC — description string configured on the SAP<br>$CID — a string that represents the circuit ID or interface ID of the |


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| | |
|---|---|
| | subscriber host (hexadecimal format)<br>$RID — a string that represents the remote ID of the subscriber host (hexadecimal format) |
| String length | 1 to 255 |
| Options | from-cpf |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## ignore-match

| | |
|---|---|
| Synopsis | Ignore match criteria for the entry |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action ignore-match |
| Tree | ignore-match |
| Notes | The following elements are part of a mandatory choice: **accept**, **drop**, **forward**, **http-redirect**, **ignore-match**, **nat**, or **tcp-mss-adjust**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## nat

| | |
|---|---|
| Synopsis | Enable the **nat** context |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action nat |
| Tree | nat |
| Notes | The following elements are part of a mandatory choice: **accept**, **drop**, **forward**, **http-redirect**, **ignore-match**, **nat**, or **tcp-mss-adjust**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## nat-policy *reference*

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

| | |
|---|---|
| Synopsis | NAT policy name when action is NAT |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action nat nat-policy *reference* |


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| | |
|---|---|
| Tree | nat-policy |
| Reference | **configure** service nat nat-policy *external-named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **nat-type** *keyword*

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

| | |
|---|---|
| Synopsis | NAT type to assign when action is NAT |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action nat nat-type *keyword* |
| Tree | nat-type |
| Options | dslite, nat64 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## rate-limit

| | |
|---|---|
| Synopsis | Enable the **rate-limit** context |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action rate-limit |
| Tree | rate-limit |
| Introduced | 16.0.R1 |
| Platforms | All |

## extracted-traffic

| | |
|---|---|
| Synopsis | Limit the rate of traffic extracted to the CPM |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action rate-limit extracted-traffic |
| Tree | extracted-traffic |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### hop-limit

| | |
|---|---|
| Synopsis | Enable the **hop-limit** context |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action rate-limit hop-limit |
| Tree | hop-limit |
| Notes | The following elements are part of a choice: **hop-limit** or **payload-length**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### eq *number*

| | |
|---|---|
| Synopsis | Equal to condition match value |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action rate-limit hop-limit eq *number* |
| Tree | eq |
| Range | 0 to 255 |
| Notes | The following elements are part of a mandatory choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### gt *number*

| | |
|---|---|
| Synopsis | Greater than condition match value |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action rate-limit hop-limit gt *number* |
| Tree | gt |
| Range | 0 to 254 |
| Notes | The following elements are part of a mandatory choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### lt *number*

| | |
|---|---|
| Synopsis | Less than condition match value |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action rate-limit hop-limit lt *number* |
| Tree | lt |
| Range | 1 to 255 |


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| | |
|---|---|
| Notes | The following elements are part of a mandatory choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## range

| | |
|---|---|
| Synopsis | Enable the **range** context |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action rate-limit hop-limit range |
| Tree | range |
| Description | This command in this context specify an inclusive range. When range is used, the start of the range (the first value entered) must be smaller than the end of the range (the second value entered). |
| Notes | The following elements are part of a mandatory choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## end *number*

| | |
|---|---|
| Synopsis | Upper bound of the range |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action rate-limit hop-limit range end *number* |
| Tree | end |
| Range | 1 to 255 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## start *number*

| | |
|---|---|
| Synopsis | Lower bound of the range |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action rate-limit hop-limit range start *number* |
| Tree | start |
| Range | 0 to 254 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **mbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum burst size |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action rate-limit mbs *(number | keyword)* |
| Tree | mbs |
| Range | 0 to 268435456 |
| Units | bytes |
| Options | auto |
| Default | auto |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **pattern**

| | |
|---|---|
| Synopsis | Enable the **pattern** context |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action rate-limit pattern |
| Tree | pattern |
| Introduced | 16.0.R4 |
| Platforms | All |

### **expression** *hex-string*

| | |
|---|---|
| Synopsis | Pattern expression to match |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action rate-limit pattern expression *hex-string* |
| Tree | expression |
| String length | 3 to 18 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **mask** *hex-string*

| | |
|---|---|
| Synopsis | Mask for the pattern expression |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action rate-limit pattern mask *hex-string* |
| Tree | mask |
| String length | 3 to 18 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **offset-type** *keyword*

| | |
|---|---|
| Synopsis | Starting point reference for offset value of pattern |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action rate-limit pattern offset-type *keyword* |
| Tree | offset-type |
| Options | layer-3, layer-4, data, dns-qtype |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **offset-value** *number*

| | |
|---|---|
| Synopsis | Offset value for the pattern expression |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action rate-limit pattern offset-value *number* |
| Tree | offset-value |
| Range | 0 to 255 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **payload-length**

| | |
|---|---|
| Synopsis | Enable the **payload-length** context |


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| | |
|---|---|
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action rate-limit payload-length |
| Tree | payload-length |
| Notes | The following elements are part of a choice: **hop-limit** or **payload-length**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **eq** *number*

| | |
|---|---|
| Synopsis | Exact match criterion for the length |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action rate-limit payload-length eq *number* |
| Tree | eq |
| Range | 0 to 65535 |
| Notes | The following elements are part of a mandatory choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **gt** *number*

| | |
|---|---|
| Synopsis | Greater than match criterion for the length |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action rate-limit payload-length gt *number* |
| Tree | gt |
| Range | 0 to 65534 |
| Notes | The following elements are part of a mandatory choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **lt** *number*

| | |
|---|---|
| Synopsis | Less than match criterion for the length |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action rate-limit payload-length lt *number* |
| Tree | lt |
| Range | 1 to 65535 |


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| | |
|---|---|
| Notes | The following elements are part of a mandatory choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## range

| | |
|---|---|
| Synopsis | Enable the **range** context |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action rate-limit payload-length range |
| Tree | range |
| Notes | The following elements are part of a mandatory choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## end *number*

| | |
|---|---|
| Synopsis | Upper bound of the length range |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action rate-limit payload-length range end *number* |
| Tree | end |
| Range | 1 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## start *number*

| | |
|---|---|
| Synopsis | Lower bound of the length range |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action rate-limit payload-length range start *number* |
| Tree | start |
| Range | 0 to 65534 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | Peak information rate |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action rate-limit pir *(number \| keyword)* |
| Tree | pir |
| Range | 0 to 2000000000 |
| Units | kilobps |
| Options | max |
| Notes | The following elements are part of a mandatory choice: **pir** or **pps-pir**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **pps-pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | Peak information rate |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action rate-limit pps-pir *(number \| keyword)* |
| Tree | pps-pir |
| Range | 0 to 100000000 |
| Units | packets per second |
| Options | max |
| Notes | The following elements are part of a mandatory choice: **pir** or **pps-pir**. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **remark**

| | |
|---|---|
| Synopsis | Enable the **remark** context |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action remark |
| Tree | remark |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **dscp** *keyword*

| | |
|---|---|
| Synopsis | Destination SAP |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action remark dscp *keyword* |
| Tree | dscp |
| Options | be, cp1, cp2, cp3, cp4, cp5, cp6, cp7, cs1, cp9, af11, cp11, af12, cp13, af13, cp15, cs2, cp17, af21, cp19, af22, cp21, af23, cp23, cs3, cp25, af31, cp27, af32, cp29, af33, cp31, cs4, cp33, af41, cp35, af42, cp37, af43, cp39, cs5, cp41, cp42, cp43, cp44, cp45, ef, cp47, nc1, cp49, cp50, cp51, cp52, cp53, cp54, cp55, nc2, cp57, cp58, cp59, cp60, cp61, cp62, cp63 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **secondary**

| | |
|---|---|
| Synopsis | Enable the **secondary** context |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action secondary |
| Tree | secondary |
| Introduced | 16.0.R1 |
| Platforms | All |

### **forward**

| | |
|---|---|
| Synopsis | Enter the **forward** context |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action secondary forward |
| Tree | forward |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **next-hop**

| | |
|---|---|
| Synopsis | Enable the **next-hop** context |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action secondary forward next-hop |
| Tree | next-hop |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **next-hop**, **sap**, **sdp**, or **vprn-target**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## nh-ip-vrf

| | |
|---|---|
| Synopsis | Enable the **nh-ip-vrf** context |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action secondary forward next-hop nh-ip-vrf |
| Tree | nh-ip-vrf |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## address *ipv6-address*

| | |
|---|---|
| Synopsis | IPv6 address of next hop to forward matching packets |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action secondary forward next-hop nh-ip-vrf address *ipv6-address* |
| Tree | address |
| Description | This command specifies the IPv6 address of a direct or indirect next hop to which matching packets are forwarded. |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## indirect *boolean*

| | |
|---|---|
| Synopsis | Allow next hop to be indirectly reachable |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action secondary forward next-hop nh-ip-vrf indirect *boolean* |
| Tree | indirect |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **router-instance** *string*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Routing context for route lookup for forwarding packets |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action secondary forward next-hop nh-ip-vrf router-instance *string* |
| Tree | router-instance |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **sap**

| | |
|---|---|
| Synopsis | Enable the **sap** context |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action secondary forward sap |
| Tree | sap |
| Notes | The following elements are part of a choice: **next-hop**, **sap**, **sdp**, or **vprn-target**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **sap-id** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | SAP ID used to forward packets matching the entry |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action secondary forward sap sap-id *reference* |
| Tree | sap-id |
| Reference | **configure** service vpls *service-name* sap *sap* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **vpls** *reference*

| | |
|---|---|
| Synopsis | VPLS the sdp-bind-id belongs to |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action secondary forward sap vpls *reference* |
| Tree | vpls |
| Reference | **configure** service vpls *service-name* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sdp**

| | |
|---|---|
| Synopsis | Enable the **sdp** context |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action secondary forward sdp |
| Tree | sdp |
| Notes | The following elements are part of a choice: **next-hop**, **sap**, **sdp**, or **vprn-target**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sdp-bind-id** *sdp-bind-id*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | VPLS SDP bind ID used to forward matching packets |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action secondary forward sdp sdp-bind-id *sdp-bind-id* |
| Tree | sdp-bind-id |
| String length | 3 to 16 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **vpls** *reference*

| | |
|---|---|
| Synopsis | VPLS associated with the SDP |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action secondary forward sdp vpls *reference* |
| Tree | vpls |
| Reference | **configure** service vpls *service-name* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **vprn-target**

| | |
|---|---|
| Synopsis | Enable the **vprn-target** context |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action secondary forward vprn-target |
| Tree | vprn-target |
| Notes | The following elements are part of a choice: **next-hop**, **sap**, **sdp**, or **vprn-target**. |
| Introduced | 21.7.R1 |
| Platforms | All |

### **adv-prefix** *ipv6-prefix*

| | |
|---|---|
| Synopsis | Advertised IP prefix for the target destination |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action secondary forward vprn-target adv-prefix *ipv6-prefix* |
| Tree | adv-prefix |
| Introduced | 21.7.R1 |
| Platforms | All |

### **bgp-nh** *ipv4-address*

| | |
|---|---|
| Synopsis | Target BGP next hop IP address |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action secondary forward vprn-target bgp-nh *ipv4-address* |
| Tree | bgp-nh |
| Notes | This element is mandatory. |


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| | |
|---|---|
| Introduced | 21.7.R1 |
| Platforms | All |

## **lsp** *named-item-64*

| | |
|---|---|
| Synopsis | LSP that is specified to forward a packet matching this entry |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action secondary forward vprn-target lsp *named-item-64* |
| Tree | lsp |
| String length | 1 to 64 |
| Introduced | 21.7.R1 |
| Platforms | All |

## **vprn** *reference*

| | |
|---|---|
| Synopsis | Routing context used for route lookup |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action secondary forward vprn-target vprn *reference* |
| Tree | vprn |
| Reference | **configure** service vprn *service-name* |
| Notes | This element is mandatory. |
| Introduced | 21.7.R1 |
| Platforms | All |

## **remark**

| | |
|---|---|
| Synopsis | Enable the **remark** context |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action secondary remark |
| Tree | remark |
| Introduced | 16.0.R1 |
| Platforms | All |

## **dscp** *keyword*

| | |
|---|---|
| Synopsis | Destination SAP |


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| | |
|---|---|
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action secondary remark dscp *keyword* |
| Tree | dscp |
| Options | be, cp1, cp2, cp3, cp4, cp5, cp6, cp7, cs1, cp9, af11, cp11, af12, cp13, af13, cp15, cs2, cp17, af21, cp19, af22, cp21, af23, cp23, cs3, cp25, af31, cp27, af32, cp29, af33, cp31, cs4, cp33, af41, cp35, af42, cp37, af43, cp39, cs5, cp41, cp42, cp43, cp44, cp45, ef, cp47, nc1, cp49, cp50, cp51, cp52, cp53, cp54, cp55, nc2, cp57, cp58, cp59, cp60, cp61, cp62, cp63 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## tcp-mss-adjust

| | |
|---|---|
| Synopsis | Adjust MSS option of TCP matching packets to configured value of tcp-mss in router interface context |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* action tcp-mss-adjust |
| Tree | tcp-mss-adjust |
| Notes | The following elements are part of a mandatory choice: **accept**, **drop**, **forward**, **http-redirect**, **ignore-match**, **nat**, or **tcp-mss-adjust**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## description *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

## egress-pbr *keyword*

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| | |
|---|---|
| Synopsis | PBR that has an effect when this filter is applied on egress |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* egress-pbr *keyword* |
| Tree | egress-pbr |
| Options | true, true-with-l4lb |
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter-sample** *boolean*

| | |
|---|---|
| Synopsis | Sample matching traffic if IP interface is set to cflowd ACL mode |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* filter-sample *boolean* |
| Tree | filter-sample |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **interface-sample** *boolean*

| | |
|---|---|
| Synopsis | Sample matching traffic if IP interface is set to cflowd interface mode |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* interface-sample *boolean* |
| Tree | interface-sample |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **log** *reference*

| | |
|---|---|
| Synopsis | Log that is used for packets matching this entry |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* log *reference* |
| Tree | log |
| Reference | **configure** filter log *number* |
| Introduced | 16.0.R1 |
| Platforms | All |


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## match

| | |
|---|---|
| Synopsis | Enter the **match** context |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match |
| Tree | match |
| Description | Commands in this context provide match criteria for the filter entry. When the match criteria are satisfied, the action associated with the match criteria is executed. |
| Introduced | 16.0.R1 |
| Platforms | All |

## destination-class *number*

| | |
|---|---|
| Synopsis | Destination class as a match criterion |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match destination-class *number* |
| Tree | destination-class |
| Description | This command configures the BGP destination class value as a match criterion. Filtering egress traffic on the destination class requires the **destination-class-lookup** command (under the **ingress** context for the service interface) to be enabled (set to **true**). |
| Range | 1 to 255 |
| Introduced | 20.7.R1 |
| Platforms | All |

## dscp *keyword*

| | |
|---|---|
| Synopsis | DSCP used as an IP filter match criterion |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match dscp *keyword* |
| Tree | dscp |
| Options | be, cp1, cp2, cp3, cp4, cp5, cp6, cp7, cs1, cp9, af11, cp11, af12, cp13, af13, cp15, cs2, cp17, af21, cp19, af22, cp21, af23, cp23, cs3, cp25, af31, cp27, af32, cp29, af33, cp31, cs4, cp33, af41, cp35, af42, cp37, af43, cp39, cs5, cp41, cp42, cp43, cp44, cp45, ef, cp47, nc1, cp49, cp50, cp51, cp52, cp53, cp54, cp55, nc2, cp57, cp58, cp59, cp60, cp61, cp62, cp63 |
| Introduced | 16.0.R1 |
| Platforms | All |


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## dst-ip

| | |
|---|---|
| Synopsis | Enter the **dst-ip** context |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match dst-ip |
| Tree | dst-ip |
| Description | Commands in this context configure a destination address range that is used by filter policy match criteria. |
| Notes | The following elements are part of a choice: **ip** or (**dst-ip** and **src-ip**). |
| Introduced | 16.0.R1 |
| Platforms | All |

## address *(ipv6-prefix-with-host-bits | ipv6-address)*

| | |
|---|---|
| Synopsis | IPv6 address used as the match criterion |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match dst-ip address *(ipv6-prefix-with-host-bits | ipv6-address)* |
| Tree | address |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ipv6-prefix-list**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## ipv6-prefix-list *reference*

| | |
|---|---|
| Synopsis | IPv6 address prefix list used as match criterion |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match dst-ip ipv6-prefix-list *reference* |
| Tree | ipv6-prefix-list |
| Reference | **configure** filter match-list ipv6-prefix-list *named-item* |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ipv6-prefix-list**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## mask *ipv6-address*

| | |
|---|---|
| Synopsis | IPv6 address mask used as the match criterion |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match dst-ip mask *ipv6-address* |


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| | |
|---|---|
| Tree | mask |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ipv6-prefix-list**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## dst-port

| | |
|---|---|
| Synopsis | Enter the **dst-port** context |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match dst-port |
| Tree | dst-port |
| Description | Commands in this context configure match criteria for the destination port. |
| Notes | The following elements are part of a choice: **port** or (**dst-port** and **src-port**). |
| Introduced | 16.0.R1 |
| Platforms | All |

## **eq** *number*

| | |
|---|---|
| Synopsis | Exact value as the match criterion |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match dst-port eq *number* |
| Tree | eq |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **gt** *number*

| | |
|---|---|
| Synopsis | Greater than value as the match criterion |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match dst-port gt *number* |
| Tree | gt |
| Range | 0 to 65534 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **lt** *number*

| | |
|---|---|
| Synopsis | Less than value as the match criterion |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match dst-port lt *number* |
| Tree | lt |
| Range | 1 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **port-list** *reference*

| | |
|---|---|
| Synopsis | Name of the port list as the match criterion |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match dst-port port-list *reference* |
| Tree | port-list |
| Reference | **configure** filter match-list port-list *named-item* |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **range**

| | |
|---|---|
| Synopsis | Enable the **range** context |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match dst-port range |
| Tree | range |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the port range |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match dst-port range end *number* |
| Tree | end |
| Range | 1 to 65535 |


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| | |
|---|---|
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of the port range |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match dst-port range start *number* |
| Tree | start |
| Range | 0 to 65534 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **extension-header**

| | |
|---|---|
| Synopsis | Enter the **extension-header** context |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match extension-header |
| Tree | extension-header |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ah** *boolean*

| | |
|---|---|
| Synopsis | Match a packet as per the existence of an AH Extension Header |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match extension-header ah *boolean* |
| Tree | ah |
| Introduced | 16.0.R1 |
| Platforms | All |

### **esp** *boolean*

| | |
|---|---|
| Synopsis | Match a packet as per the existence of an Encapsulation security payload extension header |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match extension-header esp *boolean* |


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| | |
|---|---|
| Tree | esp |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hop-by-hop** *boolean*

| | |
|---|---|
| Synopsis | Match on Hop-by-Hop Options Extension Header existence |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match extension-header hop-by-hop *boolean* |
| Tree | hop-by-hop |
| Introduced | 16.0.R2 |
| Platforms | All |

### **routing-type0** *boolean*

| | |
|---|---|
| Synopsis | Match a packet as per the existence of a routing Extension Header |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match extension-header routing-type0 *boolean* |
| Tree | routing-type0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **flow-label**

| | |
|---|---|
| Synopsis | Enable the **flow-label** context |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match flow-label |
| Tree | flow-label |
| Description | Commands in this context configure the flow label and optional mask match condition. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mask** *number*

| | |
|---|---|
| Synopsis | Flow label mask for the IPv6 filter entry |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match flow-label mask *number* |
| Tree | mask |


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| | |
|---|---|
| Description | This command specifies the IPv6 address mask for the flow label filter entry. This value can be expressed in decimal, hexadecimal, or binary format. |
| Range | 1 to 1048575 |
| Default | 1048575 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **value** *number*

| | |
|---|---|
| Synopsis | Flow label as a match criterion |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match flow-label value *number* |
| Tree | value |
| Description | This command specifies the flow label to use as a match criterion. This value can be expressed in decimal, hexadecimal, or binary format. |
| Range | 0 to 1048575 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **fragment** *keyword*

| | |
|---|---|
| Synopsis | Match criterion for fragmented packages |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match fragment *keyword* |
| Tree | fragment |
| Options | false, true, first-only, non-first-only |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hop-limit**

| | |
|---|---|
| Synopsis | Enable the **hop-limit** context |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match hop-limit |
| Tree | hop-limit |
| Introduced | 21.10.R1 |
| Platforms | All |


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### **eq** *number*

| | |
|---|---|
| Synopsis | Equal to condition match value |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match hop-limit eq *number* |
| Tree | eq |
| Range | 0 to 255 |
| Notes | The following elements are part of a mandatory choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 21.10.R1 |
| Platforms | All |

### **gt** *number*

| | |
|---|---|
| Synopsis | Greater than condition match value |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match hop-limit gt *number* |
| Tree | gt |
| Range | 0 to 254 |
| Notes | The following elements are part of a mandatory choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 21.10.R1 |
| Platforms | All |

### **lt** *number*

| | |
|---|---|
| Synopsis | Less than condition match value |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match hop-limit lt *number* |
| Tree | lt |
| Range | 1 to 255 |
| Notes | The following elements are part of a mandatory choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 21.10.R1 |
| Platforms | All |

### **range**

| | |
|---|---|
| Synopsis | Enable the **range** context |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match hop-limit range |
| Tree | range |


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| | |
|---|---|
| Description | This command in this context specify an inclusive range. When range is used, the start of the range (the first value entered) must be smaller than the end of the range (the second value entered). |
| Notes | The following elements are part of a mandatory choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 21.10.R1 |
| Platforms | All |

## **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the range |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match hop-limit range end *number* |
| Tree | end |
| Range | 1 to 255 |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | All |

## **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of the range |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match hop-limit range start *number* |
| Tree | start |
| Range | 0 to 254 |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | All |

## **icmp**

| | |
|---|---|
| Synopsis | Enter the **icmp** context |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match icmp |
| Tree | icmp |
| Description | Commands in this context configure ICMP values to use as IPv6 filter match criteria. |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **code** *number*

| | |
|---|---|
| Synopsis | ICMPv6 code value to match |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match icmp code *number* |
| Tree | code |
| Description | This command specifies the ICMPv6 code value that must be present to match. The system matches on ICMP code or ICMP type, or on both values.<br>An entry containing Layer 4 non-zero match criteria does not match non initial (second, third, and so on) fragments of a fragmented packet because only the first fragment contains the Layer 4 information. Similarly, an entry containing an ICMP code value of 0 match criterion may match non-initial fragments when the Layer 4 header is not present in a packet fragment and other match criteria are also met. |
| Range | 0 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **type** *number*

| | |
|---|---|
| Synopsis | ICMPv6 type value to match |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match icmp type *number* |
| Tree | type |
| Description | This command specifies the ICMPv6 type value that must be present to match. The system matches on ICMP code or ICMP type, or on both values.<br>An entry containing Layer 4 non-zero match criteria does not match non initial (second, third, and so on) fragments of a fragmented packet because only the first fragment contains the Layer 4 information. Similarly, an entry containing an ICMP type value of 0 match criterion may match non initial fragments when the Layer 4 header is not present in a packet fragment and other match criteria are also met. |
| Range | 0 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **ip**

| | |
|---|---|
| Synopsis | Enter the **ip** context |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match ip |
| Tree | ip |
| Notes | The following elements are part of a choice: **ip** or (**dst-ip** and **src-ip**). |


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| | |
|---|---|
| Introduced | 21.10.R1 |
| Platforms | All |

### **address** *(ipv6-prefix-with-host-bits | ipv6-address)*

| | |
|---|---|
| Synopsis | IPv6 address used as the match criterion |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match ip address *(ipv6-prefix-with-host-bits \| ipv6-address)* |
| Tree | address |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ipv6-prefix-list**. |
| Introduced | 21.10.R1 |
| Platforms | All |

### **ipv6-prefix-list** *reference*

| | |
|---|---|
| Synopsis | IPv6 address prefix list used as match criterion |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match ip ipv6-prefix-list *reference* |
| Tree | ipv6-prefix-list |
| Reference | **configure** filter match-list ipv6-prefix-list *named-item* |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ipv6-prefix-list**. |
| Introduced | 21.10.R1 |
| Platforms | All |

### **mask** *ipv6-address*

| | |
|---|---|
| Synopsis | IPv6 address mask used as the match criterion |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match ip mask *ipv6-address* |
| Tree | mask |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ipv6-prefix-list**. |
| Introduced | 21.10.R1 |
| Platforms | All |

### **next-header** *(number | keyword)*

| | |
|---|---|
| Synopsis | IP protocol to match |


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| | |
|---|---|
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match next-header *(number \| keyword)* |
| Tree | next-header |
| Range | 0 to 255 |
| Options | tcp-udp, icmp, igmp, ip, tcp, egp, igp, udp, rdp, ipv6, ipv6-route, ipv6-frag, idrp, rsvp, gre, ipv6-icmp, ipv6-no-nxt, ipv6-opts, iso-ip, eigrp, ospf-igp, ether-ip, encap, pnni, pim, vrrp, l2tp, stp, ptp, isis, crtp, crudp, sctp |
| Notes | The following elements are part of a choice: **next-header** or **next-header-list**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **next-header-list** *reference*

| | |
|---|---|
| Synopsis | Name of the protocol list as a match criterion |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match next-header-list *reference* |
| Tree | next-header-list |
| Reference | **configure** filter match-list protocol-list *named-item* |
| Notes | The following elements are part of a choice: **next-header** or **next-header-list**. |
| Introduced | 20.7.R1 |
| Platforms | All |

## **packet-length**

| | |
|---|---|
| Synopsis | Enable the **packet-length** context |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match packet-length |
| Tree | packet-length |
| Description | Commands in this context specify the match criterion for the IPv6 packet length. The IPv6 packet length represents the total packet length which includes the IPv6 header and the payload. |
| Introduced | 19.5.R1 |
| Platforms | All |

## **eq** *number*

| | |
|---|---|
| Synopsis | Exact match criterion for the length |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match packet-length eq *number* |


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| | |
|---|---|
| Tree | eq |
| Range | 40 to 65575 |
| Notes | The following elements are part of a mandatory choice: **eq**, **gt**, **ipv6-packet-length-list**, **lt**, or **range**. |
| Introduced | 19.5.R1 |
| Platforms | All |

## **gt** *number*

| | |
|---|---|
| Synopsis | Greater than match criterion for the length |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match packet-length gt *number* |
| Tree | gt |
| Range | 40 to 65574 |
| Notes | The following elements are part of a mandatory choice: **eq**, **gt**, **ipv6-packet-length-list**, **lt**, or **range**. |
| Introduced | 19.5.R1 |
| Platforms | All |

## **ipv6-packet-length-list** *reference*

| | |
|---|---|
| Synopsis | IPv6 packet length list to match |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match packet-length ipv6-packet-length-list *reference* |
| Tree | ipv6-packet-length-list |
| Reference | **configure** filter match-list ipv6-packet-length-list *named-item* |
| Notes | The following elements are part of a mandatory choice: **eq**, **gt**, **ipv6-packet-length-list**, **lt**, or **range**. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **lt** *number*

| | |
|---|---|
| Synopsis | Less than match criterion for the length |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match packet-length lt *number* |
| Tree | lt |
| Range | 41 to 65575 |


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| | |
|---|---|
| Notes | The following elements are part of a mandatory choice: **eq**, **gt**, **ipv6-packet-length-list**, **lt**, or **range**. |
| Introduced | 19.5.R1 |
| Platforms | All |

## range

| | |
|---|---|
| Synopsis | Enable the **range** context |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match packet-length range |
| Tree | range |
| Notes | The following elements are part of a mandatory choice: **eq**, **gt**, **ipv6-packet-length-list**, **lt**, or **range**. |
| Introduced | 19.5.R1 |
| Platforms | All |

## end *number*

| | |
|---|---|
| Synopsis | Upper bound of packet length range as match criterion |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match packet-length range end *number* |
| Tree | end |
| Range | 41 to 65575 |
| Notes | This element is mandatory. |
| Introduced | 19.5.R1 |
| Platforms | All |

## start *number*

| | |
|---|---|
| Synopsis | Lower bound of packet length range as match criterion |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match packet-length range start *number* |
| Tree | start |
| Range | 40 to 65574 |
| Notes | This element is mandatory. |
| Introduced | 19.5.R1 |
| Platforms | All |


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## port

| | |
|---|---|
| Synopsis | Enter the **port** context |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match port |
| Tree | port |
| Notes | The following elements are part of a choice: **port** or (**dst-port** and **src-port**). |
| Introduced | 16.0.R1 |
| Platforms | All |

## eq *number*

| | |
|---|---|
| Synopsis | Exact value as the match criterion |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match port eq *number* |
| Tree | eq |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## gt *number*

| | |
|---|---|
| Synopsis | Greater than value as the match criterion |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match port gt *number* |
| Tree | gt |
| Range | 0 to 65534 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## lt *number*

| | |
|---|---|
| Synopsis | Less than value as the match criterion |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match port lt *number* |
| Tree | lt |
| Range | 1 to 65535 |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **port-list** *reference*

| | |
|---|---|
| Synopsis | Name of the port list as the match criterion |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match port port-list *reference* |
| Tree | port-list |
| Reference | **configure** filter match-list port-list *named-item* |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **range**

| | |
|---|---|
| Synopsis | Enable the **range** context |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match port range |
| Tree | range |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the port range |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match port range end *number* |
| Tree | end |
| Range | 1 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of the port range |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match port range start *number* |
| Tree | start |
| Range | 0 to 65534 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **src-ip**

| | |
|---|---|
| Synopsis | Enter the **src-ip** context |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match src-ip |
| Tree | src-ip |
| Description | Commands in this context configure a source address range that is used by filter policy match criteria. |
| Notes | The following elements are part of a choice: **ip** or (**dst-ip** and **src-ip**). |
| Introduced | 16.0.R1 |
| Platforms | All |

### **address** *(ipv6-prefix-with-host-bits | ipv6-address)*

| | |
|---|---|
| Synopsis | IPv6 address used as the match criterion |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match src-ip address *(ipv6-prefix-with-host-bits | ipv6-address)* |
| Tree | address |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ipv6-prefix-list**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv6-prefix-list** *reference*

| | |
|---|---|
| Synopsis | IPv6 address prefix list used as match criterion |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match src-ip ipv6-prefix-list *reference* |


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| | |
|---|---|
| Tree | ipv6-prefix-list |
| Reference | **configure** filter match-list ipv6-prefix-list *named-item* |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ipv6-prefix-list**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mask** *ipv6-address*

| | |
|---|---|
| Synopsis | IPv6 address mask used as the match criterion |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match src-ip mask *ipv6-address* |
| Tree | mask |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ipv6-prefix-list**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **src-mac**

| | |
|---|---|
| Synopsis | Enable the **src-mac** context |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match src-mac |
| Tree | src-mac |
| Introduced | 19.5.R1 |
| Platforms | All |

### **address** *mac-address*

| | |
|---|---|
| Synopsis | MAC address used as the match criterion |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match src-mac address *mac-address* |
| Tree | address |
| Notes | This element is mandatory. |
| Introduced | 19.5.R1 |
| Platforms | All |

### **mask** *mac-address*

| | |
|---|---|
| Synopsis | MAC address mask as the match criterion |


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| | |
|---|---|
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match src-mac mask *mac-address* |
| Tree | mask |
| Default | ff:ff:ff:ff:ff:ff |
| Introduced | 19.5.R1 |
| Platforms | All |

## src-port

| | |
|---|---|
| Synopsis | Enter the **src-port** context |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match src-port |
| Tree | src-port |
| Description | Commands in this context configure match criteria for the source port. |
| Notes | The following elements are part of a choice: **port** or (**dst-port** and **src-port**). |
| Introduced | 16.0.R1 |
| Platforms | All |

## eq *number*

| | |
|---|---|
| Synopsis | Exact value as the match criterion |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match src-port eq *number* |
| Tree | eq |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## gt *number*

| | |
|---|---|
| Synopsis | Greater than value as the match criterion |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match src-port gt *number* |
| Tree | gt |
| Range | 0 to 65534 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **lt** *number*

| | |
|---|---|
| Synopsis | Less than value as the match criterion |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match src-port lt *number* |
| Tree | lt |
| Range | 1 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **port-list** *reference*

| | |
|---|---|
| Synopsis | Name of the port list as the match criterion |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match src-port port-list *reference* |
| Tree | port-list |
| Reference | **configure** filter match-list port-list *named-item* |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **range**

| | |
|---|---|
| Synopsis | Enable the **range** context |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match src-port range |
| Tree | range |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the port range |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match src-port range end *number* |


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| | |
|---|---|
| Tree | end |
| Range | 1 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of the port range |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match src-port range start *number* |
| Tree | start |
| Range | 0 to 65534 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### tcp-established

| | |
|---|---|
| Synopsis | Use ACK or RST status in TCP header as match criterion |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match tcp-established |
| Tree | tcp-established |
| Description | When configured to **true**, a match occurs when the ACK or the RST TCP flag bit is set in the TCP header of an IP packet. |
| Notes | The following elements are part of a choice: **tcp-established** or **tcp-flags**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### tcp-flags

| | |
|---|---|
| Synopsis | Enter the **tcp-flags** context |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match tcp-flags |
| Tree | tcp-flags |
| Description | Commands in this context configure the use of TCP flags as the IP filter match. |
| Notes | The following elements are part of a choice: **tcp-established** or **tcp-flags**. |
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| | |
|---|---|
| Platforms | All |

## **ack** *boolean*

| | |
|---|---|
| Synopsis | Use ACK TCP bit status in TCP header as match criterion |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match tcp-flags ack *boolean* |
| Tree | ack |
| Description | When configured to **true**, a match occurs when the ACK TCP flag bit, defined in RFC 793, is set in the TCP header of an IP packet.<br>When configured to **false**, a match occurs when the ACK TCP flag bit is not set in the TCP header of an IP packet.<br>When unconfigured, the system does not use the TCP flag as a match criterion. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **cwr** *boolean*

| | |
|---|---|
| Synopsis | Use CWR TCP bit status in TCP header as match criterion |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match tcp-flags cwr *boolean* |
| Tree | cwr |
| Description | When configured to **true**, a match occurs when the Congestion Window Reduced (CWR) TCP flag bit, defined in RFC 3168, is set in the TCP header of an IP packet.<br>When configured to **false**, a match occurs when the CWR TCP flag bit is not set in the TCP header of an IP packet.<br>When unconfigured, the system does not use the TCP flag as a match criterion. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **ece** *boolean*

| | |
|---|---|
| Synopsis | Use ECE TCP bit status in TCP header as match criterion |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* match tcp-flags ece *boolean* |
| Tree | ece |
| Description | When configured to **true**, a match occurs when the ECN-Echo (ECE) TCP flag bit, defined in RFC 3168, is set in the TCP header of an IP packet.<br>When configured to **false**, a match occurs when the ECE TCP flag bit is not set in the TCP header of an IP packet. |


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When unconfigured, the system does not use the TCP flag as a match criterion.

Introduced 16.0.R1

Platforms All

## **fin** *boolean*

Synopsis Use FIN TCP bit status in TCP header as match criterion

Context **configure** filter ipv6-filter *filter-name* entry *number* match tcp-flags fin *boolean*

Tree fin

Description When configured to **true**, a match occurs when the FIN TCP flag bit is set in the TCP header of an IP packet.

When configured to **false**, a match occurs when the FIN TCP flag bit, defined in RFC 793, is not set in the TCP header of an IP packet.

When unconfigured, the system does not use the TCP flag as a match criterion.

Introduced 16.0.R1

Platforms All

## **ns** *boolean*

Synopsis Use NS TCP bit status in TCP header as match criterion

Context **configure** filter ipv6-filter *filter-name* entry *number* match tcp-flags ns *boolean*

Tree ns

Description When configured to **true**, a match occurs when the Nonce Sum (NS) TCP flag bit, defined in RFC 3540, is set in the TCP header of an IP packet.

When configured to **false**, a match occurs when the NS TCP flag bit is not set in the TCP header of an IP packet.

When unconfigured, the system does not use the TCP flag as a match criterion.

Introduced 16.0.R1

Platforms All

## **psh** *boolean*

Synopsis Use PSH TCP bit status in TCP header as match criterion

Context **configure** filter ipv6-filter *filter-name* entry *number* match tcp-flags psh *boolean*

Tree psh

Description When configured to **true**, a match occurs when the Push (PSH) TCP flag bit is set in the TCP header of an IP packet.


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When configured to **false**, a match occurs when the Push (PSH) TCP flag bit is not set in the TCP header of an IP packet.

When unconfigured, the system does not use the TCP flag as a match criterion.

Introduced 16.0.R1

Platforms All

## **rst** *boolean*

Synopsis Use RST TCP bit status in TCP header as match criterion

Context **configure** filter ipv6-filter *filter-name* entry *number* match tcp-flags rst *boolean*

Tree rst

Description When configured to **true**, a match occurs when the RST TCP flag bit is set in the TCP header of an IP packet.

When configured to **false**, a match occurs when the RST TCP flag bit is not set in the TCP header of an IP packet.

When unconfigured, the system does not use the TCP flag as a match criterion.

Introduced 16.0.R1

Platforms All

## **syn** *boolean*

Synopsis Use SYN TCP bit status in TCP header as match criterion

Context **configure** filter ipv6-filter *filter-name* entry *number* match tcp-flags syn *boolean*

Tree syn

Description When configured to **true**, a match occurs when the Synchronize (SYN) TCP flag bit is set in the TCP header of an IP packet.

When configured to **false**, a match occurs when the SYN TCP flag bit is not set in the TCP header of an IP packet.

When unconfigured, the system does not use the TCP flag as a match criterion.

Introduced 16.0.R1

Platforms All

## **urg** *boolean*

Synopsis Use URG TCP bit status in TCP header as match criterion

Context **configure** filter ipv6-filter *filter-name* entry *number* match tcp-flags urg *boolean*

Tree urg


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| | |
|---|---|
| Description | When configured to **true**, a match occurs when the Urgent (URG) TCP flag bit is set in the TCP header of an IP packet.<br>When configured to **false**, a match occurs when the URG TCP flag bit is not set in the TCP header of an IP packet.<br>When unconfigured, the system does not use the TCP flag as a match criterion. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **pbr-down-action-override** *keyword*

| | |
|---|---|
| Synopsis | Action when PBR or PBF target for this entry is not available |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* pbr-down-action-override *keyword* |
| Tree | pbr-down-action-override |
| Options | drop, forward, filter-default-action |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sample-profile** *reference*

| | |
|---|---|
| Synopsis | Cflowd sample profile ID to match packets |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* sample-profile *reference* |
| Tree | sample-profile |
| Description | This command allows traffic matching an IPv4 or IPv6 filter to be sampled for cflowd processing using a specific sample profile ID. This option is only compatible if the associated interface is configured for interface-based sampling and is only supported for ingress sampling. An IP filter can only specify a single alternate sample profile ID for cflowd sampling, but the ID can be used in multiple entries. |
| Reference | **configure** cflowd sample-profile *number* |
| Introduced | 20.10.R1 |
| Platforms | All |

### **sticky-dest** *(number | keyword)*

| | |
|---|---|
| Synopsis | Time before action with available PBR or PBF destination and highest priority |
| Context | **configure** filter ipv6-filter *filter-name* entry *number* sticky-dest *(number | keyword)* |
| Tree | sticky-dest |
| Range | 0 to 65535 |


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| | |
|---|---|
| Units | seconds |
| Options | no-hold-time-up |
| Introduced | 16.0.R1 |
| Platforms | All |

## **filter-id** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IPv6 filter identifier |
| Context | **configure** filter ipv6-filter *filter-name* filter-id *number* |
| Tree | filter-id |
| Range | 1 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **scope** *keyword*

| | |
|---|---|
| Synopsis | Scope of the filter definition |
| Context | **configure** filter ipv6-filter *filter-name* scope *keyword* |
| Tree | scope |
| Description | This command configures the filter policy scope.<br>If the scope of the policy is **template** and is applied to one or more services or network interfaces, the scope cannot be changed. |
| Options | exclusive, template, embedded, system, cpm |
| Default | template |
| Introduced | 16.0.R1 |
| Platforms | All |

## **shared-policer** *boolean*

| | |
|---|---|
| Synopsis | Share policer among active ports in the LAG |
| Context | **configure** filter ipv6-filter *filter-name* shared-policer *boolean* |
| Tree | shared-policer |


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| | |
|---|---|
| Description | When configured to **true**, and when the filter policy is configured on a LAG endpoint, the system programs the policer rates in the filter policy per line card FP of the LAG based on the number of active ports in the LAG for each FP.<br>When configured to **false**, and when the filter policy is configured on a LAG endpoint, the system programs the same policer rate on each line card FP of the LAG. |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS |

## subscriber-mgmt

| | |
|---|---|
| Synopsis | Enter the **subscriber-mgmt** context |
| Context | **configure** filter ipv6-filter *filter-name* subscriber-mgmt |
| Tree | subscriber-mgmt |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## host-specific-entry

| | |
|---|---|
| Synopsis | Enter the **host-specific-entry** context |
| Context | **configure** filter ipv6-filter *filter-name* subscriber-mgmt host-specific-entry |
| Tree | host-specific-entry |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## credit-control

| | |
|---|---|
| Synopsis | Enter the **credit-control** context |
| Context | **configure** filter ipv6-filter *filter-name* subscriber-mgmt host-specific-entry credit-control |
| Tree | credit-control |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## range

| | |
|---|---|
| Synopsis | Enable the **range** context |


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| | |
|---|---|
| Context | **configure** filter ipv6-filter *filter-name* subscriber-mgmt host-specific-entry credit-control range |
| Tree | range |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of range for credit control filter entries |
| Context | **configure** filter ipv6-filter *filter-name* subscriber-mgmt host-specific-entry credit-control range end *number* |
| Tree | end |
| Range | 1 to 2097151 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of range for credit control filter entries |
| Context | **configure** filter ipv6-filter *filter-name* subscriber-mgmt host-specific-entry credit-control range start *number* |
| Tree | start |
| Range | 1 to 2097151 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **filter-rule**

| | |
|---|---|
| Synopsis | Enter the **filter-rule** context |
| Context | **configure** filter ipv6-filter *filter-name* subscriber-mgmt host-specific-entry filter-rule |
| Tree | filter-rule |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## range

| | |
|---|---|
| Synopsis | Enable the **range** context |
| Context | **configure** filter ipv6-filter *filter-name* subscriber-mgmt host-specific-entry filter-rule range |
| Tree | range |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## end *number*

| | |
|---|---|
| Synopsis | Upper bound of range for inserting filter rule entries |
| Context | **configure** filter ipv6-filter *filter-name* subscriber-mgmt host-specific-entry filter-rule range end *number* |
| Tree | end |
| Range | 1 to 2097151 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## start *number*

| | |
|---|---|
| Synopsis | Lower bound of range for inserting filter rule entries |
| Context | **configure** filter ipv6-filter *filter-name* subscriber-mgmt host-specific-entry filter-rule range start *number* |
| Tree | start |
| Range | 1 to 2097151 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## watermark

| | |
|---|---|
| Synopsis | Enter the **watermark** context |
| Context | **configure** filter ipv6-filter *filter-name* subscriber-mgmt host-specific-entry watermark |
| Tree | watermark |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **high** *number*

| | |
|---|---|
| Synopsis | High watermark for host-specific entries, to raise a table full alarm |
| Context | **configure** filter ipv6-filter *filter-name* subscriber-mgmt host-specific-entry watermark high *number* |
| Tree | high |
| Range | 0 to 100 |
| Default | 95 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **low** *number*

| | |
|---|---|
| Synopsis | Low watermark for host-specific entries, to clear a table full alarm |
| Context | **configure** filter ipv6-filter *filter-name* subscriber-mgmt host-specific-entry watermark low *number* |
| Tree | low |
| Range | 0 to 100 |
| Default | 90 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **shared-entry**

| | |
|---|---|
| Synopsis | Enter the **shared-entry** context |
| Context | **configure** filter ipv6-filter *filter-name* subscriber-mgmt shared-entry |
| Tree | shared-entry |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **filter-rule**

| | |
|---|---|
| Synopsis | Enter the **filter-rule** context |


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| | |
|---|---|
| Context | **configure** filter ipv6-filter *filter-name* subscriber-mgmt shared-entry filter-rule |
| Tree | filter-rule |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## range

| | |
|---|---|
| Synopsis | Enable the **range** context |
| Context | **configure** filter ipv6-filter *filter-name* subscriber-mgmt shared-entry filter-rule range |
| Tree | range |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## end *number*

| | |
|---|---|
| Synopsis | Upper bound of range for inserting shared host rules |
| Context | **configure** filter ipv6-filter *filter-name* subscriber-mgmt shared-entry filter-rule range end *number* |
| Tree | end |
| Range | 1 to 2097151 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## start *number*

| | |
|---|---|
| Synopsis | Lower bound of range for inserting shared host rules |
| Context | **configure** filter ipv6-filter *filter-name* subscriber-mgmt shared-entry filter-rule range start *number* |
| Tree | start |
| Range | 1 to 2097151 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## pcc-rule

| | |
|---|---|
| Synopsis | Enter the **pcc-rule** context |
| Context | **configure** filter ipv6-filter *filter-name* subscriber-mgmt shared-entry pcc-rule |
| Tree | pcc-rule |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## range

| | |
|---|---|
| Synopsis | Enable the **range** context |
| Context | **configure** filter ipv6-filter *filter-name* subscriber-mgmt shared-entry pcc-rule range |
| Tree | range |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the range for PCC rule filter entries |
| Context | **configure** filter ipv6-filter *filter-name* subscriber-mgmt shared-entry pcc-rule range end *number* |
| Tree | end |
| Range | 1 to 2097151 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of the range for PCC rule filter entries |
| Context | **configure** filter ipv6-filter *filter-name* subscriber-mgmt shared-entry pcc-rule range start *number* |
| Tree | start |
| Range | 1 to 2097151 |
| Notes | This element is mandatory. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### watermark

| | |
|---|---|
| Synopsis | Enable the **watermark** context |
| Context | **configure** filter ipv6-filter *filter-name* subscriber-mgmt shared-entry watermark |
| Tree | watermark |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### high *number*

| | |
|---|---|
| Synopsis | Limit of RADIUS shared filters before generating high watermark notification |
| Context | **configure** filter ipv6-filter *filter-name* subscriber-mgmt shared-entry watermark high *number* |
| Tree | high |
| Range | 1 to 8000 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### low *number*

| | |
|---|---|
| Synopsis | Limit of RADIUS or Diameter shared filters before clearing high watermark notification |
| Context | **configure** filter ipv6-filter *filter-name* subscriber-mgmt shared-entry watermark low *number* |
| Tree | low |
| Range | 0 to 7999 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### type *keyword*

| | |
|---|---|
| Synopsis | Set of match criteria for the filter policy |


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| | |
|---|---|
| Context | **configure** filter ipv6-filter *filter-name* type *keyword* |
| Tree | type |
| Description | This command configures the filter policy type that defines the list of match criteria supported in a filter policy. |
| Options | normal, src-mac, packet-length, destination-class |
| Default | normal |
| Introduced | 19.5.R1 |
| Platforms | All |

### **log** [log-id] *number*

| | |
|---|---|
| Synopsis | Enter the **log** list instance |
| Context | **configure** filter log *number* |
| Tree | log |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**log-id**] *number*

| | |
|---|---|
| Synopsis | Filter log identifier |
| Context | **configure** filter log *number* |
| Tree | log |
| Range | 101 to 199 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of filter logging |
| Context | **configure** filter log *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **description** *description-or-empty*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** filter log *number* description *description-or-empty* |
| Tree | description |
| String length | 0 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **destination**

| | |
|---|---|
| Synopsis | Enter the **destination** context |
| Context | **configure** filter log *number* destination |
| Tree | destination |
| Introduced | 16.0.R1 |
| Platforms | All |

### **memory**

| | |
|---|---|
| Synopsis | Enter the **memory** context |
| Context | **configure** filter log *number* destination memory |
| Tree | memory |
| Notes | The following elements are part of a choice: **memory** or **syslog**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **max-entries** *number*

| | |
|---|---|
| Synopsis | Maximum number of memory entries that the log can store |
| Context | **configure** filter log *number* destination memory max-entries *number* |
| Tree | max-entries |
| Range | 1 to 50000 |
| Default | 1000 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **stop-on-full** *boolean*

| | |
|---|---|
| Synopsis | Stop logging when maximum number of memory entries is reached or wrap-around is used |
| Context | **configure** filter log *number* destination memory stop-on-full *boolean* |
| Tree | stop-on-full |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **syslog**

| | |
|---|---|
| Synopsis | Enter the **syslog** context |
| Context | **configure** filter log *number* destination syslog |
| Tree | syslog |
| Notes | The following elements are part of a choice: **memory** or **syslog**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **name** *reference*

| | |
|---|---|
| Synopsis | Syslog server definition ID |
| Context | **configure** filter log *number* destination syslog name *reference* |
| Tree | name |
| Reference | **configure** log syslog *log-syslog-name* |
| Introduced | 21.2.R1 |
| Platforms | All |

### **summary**

| | |
|---|---|
| Synopsis | Enter the **summary** context |
| Context | **configure** filter log *number* destination syslog summary |


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| | |
|---|---|
| Tree | summary |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of filter log summarization |
| Context | **configure** filter log *number* destination syslog summary admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **summary-crit** *keyword*

| | |
|---|---|
| Synopsis | Summary for filter log entries |
| Context | **configure** filter log *number* destination syslog summary summary-crit *keyword* |
| Tree | summary-crit |
| Options | src-addr, dst-addr |
| Default | src-addr |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mac-filter** [filter-name] *filter-name*

| | |
|---|---|
| Synopsis | Enter the **mac-filter** list instance |
| Context | **configure** filter mac-filter *filter-name* |
| Tree | mac-filter |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**filter-name**] *filter-name*

| | |
|---|---|
| Synopsis | Filter name |


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| | |
|---|---|
| Context | **configure** filter mac-filter *filter-name* |
| Tree | mac-filter |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **default-action** *keyword*

| | |
|---|---|
| Synopsis | Action for packets that do not match any entry |
| Context | **configure** filter mac-filter *filter-name* default-action *keyword* |
| Tree | default-action |
| Options | drop, accept |
| Default | drop |
| Introduced | 16.0.R1 |
| Platforms | All |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** filter mac-filter *filter-name* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **embed**

| | |
|---|---|
| Synopsis | Enter the **embed** context |
| Context | **configure** filter mac-filter *filter-name* embed |
| Tree | embed |
| Description | Commands in this context embed a previously defined MAC embedded filter policy or Hybrid OpenFlow switch instance into an exclusive, template, or system filter policy at the specified offset value. Rules derived from the BGP FlowSpec can also be embedded into template filter policies only. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **entry** [entry-id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** filter mac-filter *filter-name* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**entry-id**] *number*

| | |
|---|---|
| Synopsis | ID for a match criteria and the corresponding action |
| Context | **configure** filter mac-filter *filter-name* entry *number* |
| Tree | entry |
| Range | 1 to 2097151 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **action**

| | |
|---|---|
| Synopsis | Enable the **action** context |
| Context | **configure** filter mac-filter *filter-name* entry *number* action |
| Tree | action |
| Introduced | 16.0.R1 |
| Platforms | All |

### **accept**

| | |
|---|---|
| Synopsis | Accept regular routing to forward a matching packet |
| Context | **configure** filter mac-filter *filter-name* entry *number* action accept |
| Tree | accept |
| Notes | The following elements are part of a mandatory choice: **accept**, **drop**, **forward**, **http-redirect**, or **ignore-match**. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## drop

| | |
|---|---|
| Synopsis | Drop a packet matching this entry |
| Context | **configure** filter mac-filter *filter-name* entry *number* action drop |
| Tree | drop |
| Notes | The following elements are part of a mandatory choice: **accept**, **drop**, **forward**, **http-redirect**, or **ignore-match**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## forward

| | |
|---|---|
| Synopsis | Enter the **forward** context |
| Context | **configure** filter mac-filter *filter-name* entry *number* action forward |
| Tree | forward |
| Notes | The following elements are part of a mandatory choice: **accept**, **drop**, **forward**, **http-redirect**, or **ignore-match**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## esi-l2

| | |
|---|---|
| Synopsis | Enable the **esi-l2** context |
| Context | **configure** filter mac-filter *filter-name* entry *number* action forward esi-l2 |
| Tree | esi-l2 |
| Notes | The following elements are part of a choice: **esi-l2**, **sap**, or **sdp**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## esi-value *ethernet-segment-id*

| | |
|---|---|
| Synopsis | ESI of the first ESI-identified appliance |


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| | |
|---|---|
| Context | **configure** filter mac-filter *filter-name* entry *number* action forward esi-l2 esi-value *ethernet-segment-id* |
| Tree | esi-value |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **vpls** *reference*

| | |
|---|---|
| Synopsis | VPLS service name |
| Context | **configure** filter mac-filter *filter-name* entry *number* action forward esi-l2 vpls *reference* |
| Tree | vpls |
| Reference | **configure** service vpls *service-name* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R3 |
| Platforms | All |

## **sap**

| | |
|---|---|
| Synopsis | Enable the **sap** context |
| Context | **configure** filter mac-filter *filter-name* entry *number* action forward sap |
| Tree | sap |
| Notes | The following elements are part of a choice: **esi-l2**, **sap**, or **sdp**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **sap-id** *reference*

| | |
|---|---|
| Synopsis | VPLS Ethernet SAP ID used to forward matching packets |
| Context | **configure** filter mac-filter *filter-name* entry *number* action forward sap sap-id *reference* |
| Tree | sap-id |
| Reference | **configure** service vpls *service-name* sap *sap* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **vpls** *reference*

| | |
|---|---|
| Synopsis | VPLS associated with the SAP |
| Context | **configure** filter mac-filter *filter-name* entry *number* action forward sap vpls *reference* |
| Tree | vpls |
| Reference | **configure** service vpls *service-name* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sdp**

| | |
|---|---|
| Synopsis | Enable the **sdp** context |
| Context | **configure** filter mac-filter *filter-name* entry *number* action forward sdp |
| Tree | sdp |
| Notes | The following elements are part of a choice: **esi-l2**, **sap**, or **sdp**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sdp-bind-id** *sdp-bind-id*

| | |
|---|---|
| Synopsis | VPLS SDP bind ID used to forward matching packets |
| Context | **configure** filter mac-filter *filter-name* entry *number* action forward sdp sdp-bind-id *sdp-bind-id* |
| Tree | sdp-bind-id |
| String length | 3 to 16 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **vpls** *reference*

| | |
|---|---|
| Synopsis | VPLS associated with the SDP |


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| | |
|---|---|
| Context | **configure** filter mac-filter *filter-name* entry *number* action forward sdp vpls *reference* |
| Tree | vpls |
| Reference | **configure** service vpls *service-name* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## http-redirect

| | |
|---|---|
| Synopsis | Enable the **http-redirect** context |
| Context | **configure** filter mac-filter *filter-name* entry *number* action http-redirect |
| Tree | http-redirect |
| Notes | The following elements are part of a mandatory choice: **accept**, **drop**, **forward**, **http-redirect**, or **ignore-match**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **url** *http-redirect-url*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | URL that is used for redirecting |
| Context | **configure** filter mac-filter *filter-name* entry *number* action http-redirect url *http-redirect-url* |
| Tree | url |
| String length | 1 to 255 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## ignore-match

| | |
|---|---|
| Synopsis | Ignore match criteria for the entry |
| Context | **configure** filter mac-filter *filter-name* entry *number* action ignore-match |


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| | |
|---|---|
| Tree | ignore-match |
| Notes | The following elements are part of a mandatory choice: **accept**, **drop**, **forward**, **http-redirect**, or **ignore-match**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## rate-limit

| | |
|---|---|
| Synopsis | Enable the **rate-limit** context |
| Context | **configure** filter mac-filter *filter-name* entry *number* action rate-limit |
| Tree | rate-limit |
| Introduced | 16.0.R1 |
| Platforms | All |

## pir *(number | keyword)*

| | |
|---|---|
| Synopsis | Peak information rate |
| Context | **configure** filter mac-filter *filter-name* entry *number* action rate-limit pir *(number | keyword)* |
| Tree | pir |
| Range | 0 to 2000000000 |
| Units | kilobps |
| Options | max |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## secondary

| | |
|---|---|
| Synopsis | Enable the **secondary** context |
| Context | **configure** filter mac-filter *filter-name* entry *number* action secondary |
| Tree | secondary |
| Introduced | 16.0.R1 |
| Platforms | All |


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## forward

| | |
|---|---|
| Synopsis | Enter the **forward** context |
| Context | **configure** filter mac-filter *filter-name* entry *number* action secondary forward |
| Tree | forward |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## sap

| | |
|---|---|
| Synopsis | Enable the **sap** context |
| Context | **configure** filter mac-filter *filter-name* entry *number* action secondary forward sap |
| Tree | sap |
| Notes | The following elements are part of a choice: **sap** or **sdp**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## sap-id *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | SAP ID used to forward packets matching the entry |
| Context | **configure** filter mac-filter *filter-name* entry *number* action secondary forward sap sap-id *reference* |
| Tree | sap-id |
| Reference | **configure** service vpls *service-name* sap *sap* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## vpls *reference*

| | |
|---|---|
| Synopsis | VPLS the sdp-bind-id belongs to |


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| | |
|---|---|
| Context | **configure** filter mac-filter *filter-name* entry *number* action secondary forward sap vpls *reference* |
| Tree | vpls |
| Reference | **configure** service vpls *service-name* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## sdp

| | |
|---|---|
| Synopsis | Enable the **sdp** context |
| Context | **configure** filter mac-filter *filter-name* entry *number* action secondary forward sdp |
| Tree | sdp |
| Notes | The following elements are part of a choice: **sap** or **sdp**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## sdp-bind-id *sdp-bind-id*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | VPLS SDP bind ID used to forward matching packets |
| Context | **configure** filter mac-filter *filter-name* entry *number* action secondary forward sdp sdp-bind-id *sdp-bind-id* |
| Tree | sdp-bind-id |
| String length | 3 to 16 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## vpls *reference*

| | |
|---|---|
| Synopsis | VPLS associated with the SDP |


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| | |
|---|---|
| Context | **configure** filter mac-filter *filter-name* entry *number* action secondary forward sdp vpls *reference* |
| Tree | vpls |
| Reference | **configure** service vpls *service-name* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** filter mac-filter *filter-name* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **log** *reference*

| | |
|---|---|
| Synopsis | Log that is used for packets matching this entry |
| Context | **configure** filter mac-filter *filter-name* entry *number* log *reference* |
| Tree | log |
| Reference | **configure** filter log *number* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **match**

| | |
|---|---|
| Synopsis | Enter the **match** context |
| Context | **configure** filter mac-filter *filter-name* entry *number* match |
| Tree | match |
| Introduced | 16.0.R1 |
| Platforms | All |


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### dot1p

| | |
|---|---|
| Synopsis | Enable the **dot1p** context |
| Context | **configure** filter mac-filter *filter-name* entry *number* match dot1p |
| Tree | dot1p |
| Introduced | 16.0.R1 |
| Platforms | All |

### mask *number*

| | |
|---|---|
| Synopsis | 802.1p mask value used as a MAC filter match criterion |
| Context | **configure** filter mac-filter *filter-name* entry *number* match dot1p mask *number* |
| Tree | mask |
| Range | 1 to 7 |
| Default | 7 |
| Introduced | 16.0.R1 |
| Platforms | All |

### priority *number*

| | |
|---|---|
| Synopsis | IEEE 802.1p value used as a MAC filter match criterion |
| Context | **configure** filter mac-filter *filter-name* entry *number* match dot1p priority *number* |
| Tree | priority |
| Range | 0 to 7 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### dst-mac

| | |
|---|---|
| Synopsis | Enable the **dst-mac** context |
| Context | **configure** filter mac-filter *filter-name* entry *number* match dst-mac |
| Tree | dst-mac |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **address** *mac-address*

| | |
|---|---|
| Synopsis | MAC address used as the match criterion |
| Context | **configure** filter mac-filter *filter-name* entry *number* match dst-mac address *mac-address* |
| Tree | address |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mask** *mac-address*

| | |
|---|---|
| Synopsis | MAC address mask as the match criterion |
| Context | **configure** filter mac-filter *filter-name* entry *number* match dst-mac mask *mac-address* |
| Tree | mask |
| Default | ff:ff:ff:ff:ff:ff |
| Introduced | 16.0.R1 |
| Platforms | All |

### **etype** *etype-value*

| | |
|---|---|
| Synopsis | Ethernet type |
| Context | **configure** filter mac-filter *filter-name* entry *number* match etype *etype-value* |
| Tree | etype |
| String length | 5 to 6 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **frame-type** *keyword*

| | |
|---|---|
| Synopsis | MAC frame as match criteria |
| Context | **configure** filter mac-filter *filter-name* entry *number* match frame-type *keyword* |
| Tree | frame-type |
| Options | 802dot3, 802dot2-llc, 802dot2-snap, ethernet-ii |
| Introduced | 16.0.R1 |
| Platforms | All |


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## inner-tag

| | |
|---|---|
| Synopsis | Enable the **inner-tag** context |
| Context | **configure** filter mac-filter *filter-name* entry *number* match inner-tag |
| Tree | inner-tag |
| Introduced | 16.0.R1 |
| Platforms | All |

## mask *number*

| | |
|---|---|
| Synopsis | Mask to VID of the inner VLAN tag before comparing it with the inner-tag or outer-tag value |
| Context | **configure** filter mac-filter *filter-name* entry *number* match inner-tag mask *number* |
| Tree | mask |
| Range | 1 to 4095 |
| Default | 4095 |
| Introduced | 16.0.R1 |
| Platforms | All |

## tag *number*

| | |
|---|---|
| Synopsis | Matching value against VID of the second or first VLAN tag in the packet carried transparently |
| Context | **configure** filter mac-filter *filter-name* entry *number* match inner-tag tag *number* |
| Tree | tag |
| Range | 0 to 4095 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## isid

| | |
|---|---|
| Synopsis | Enter the **isid** context |
| Context | **configure** filter mac-filter *filter-name* entry *number* match isid |
| Tree | isid |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## range

| | |
|---|---|
| Synopsis | Enable the **range** context |
| Context | **configure** filter mac-filter *filter-name* entry *number* match isid range |
| Tree | range |
| Notes | The following elements are part of a choice: **range** or **value**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## end *number*

| | |
|---|---|
| Synopsis | Upper bound of the ISID range |
| Context | **configure** filter mac-filter *filter-name* entry *number* match isid range end *number* |
| Tree | end |
| Range | 0 to 16777215 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## start *number*

| | |
|---|---|
| Synopsis | Lower bound of the ISID range |
| Context | **configure** filter mac-filter *filter-name* entry *number* match isid range start *number* |
| Tree | start |
| Range | 0 to 16777215 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## value *number*

| | |
|---|---|
| Synopsis | Lowest value of 24-bit service instance identifier for the service matching this entry |
| Context | **configure** filter mac-filter *filter-name* entry *number* match isid value *number* |


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| | |
|---|---|
| Tree | value |
| Range | 0 to 16777215 |
| Notes | The following elements are part of a choice: **range** or **value**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## llc-dsap

| | |
|---|---|
| Synopsis | Enable the **llc-dsap** context |
| Context | **configure** filter mac-filter *filter-name* entry *number* match llc-dsap |
| Tree | llc-dsap |
| Introduced | 16.0.R1 |
| Platforms | All |

## dsap *number*

| | |
|---|---|
| Synopsis | DSAP value |
| Context | **configure** filter mac-filter *filter-name* entry *number* match llc-dsap dsap *number* |
| Tree | dsap |
| Range | 0 to 255 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## mask *number*

| | |
|---|---|
| Synopsis | Destination SAP mask |
| Context | **configure** filter mac-filter *filter-name* entry *number* match llc-dsap mask *number* |
| Tree | mask |
| Range | 1 to 255 |
| Default | 255 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### llc-ssap

| | |
|---|---|
| Synopsis | Enable the **llc-ssap** context |
| Context | **configure** filter mac-filter *filter-name* entry *number* match llc-ssap |
| Tree | llc-ssap |
| Introduced | 16.0.R1 |
| Platforms | All |

### mask *number*

| | |
|---|---|
| Synopsis | Source SAP mask |
| Context | **configure** filter mac-filter *filter-name* entry *number* match llc-ssap mask *number* |
| Tree | mask |
| Range | 1 to 255 |
| Default | 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

### ssap *number*

| | |
|---|---|
| Synopsis | Source or destination SAP value |
| Context | **configure** filter mac-filter *filter-name* entry *number* match llc-ssap ssap *number* |
| Tree | ssap |
| Range | 0 to 255 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### outer-tag

| | |
|---|---|
| Synopsis | Enable the **outer-tag** context |
| Context | **configure** filter mac-filter *filter-name* entry *number* match outer-tag |
| Tree | outer-tag |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **mask** *number*

| | |
|---|---|
| Synopsis | Mask to VID of the inner VLAN tag before comparing it with the inner-tag or outer-tag value |
| Context | **configure** filter mac-filter *filter-name* entry *number* match outer-tag mask *number* |
| Tree | mask |
| Range | 1 to 4095 |
| Default | 4095 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **tag** *number*

| | |
|---|---|
| Synopsis | Matching value against VID of the second or first VLAN tag in the packet carried transparently |
| Context | **configure** filter mac-filter *filter-name* entry *number* match outer-tag tag *number* |
| Tree | tag |
| Range | 0 to 4095 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **snap-oui** *keyword*

| | |
|---|---|
| Synopsis | Parameter snap-oui as a MAC filter match criteria |
| Context | **configure** filter mac-filter *filter-name* entry *number* match snap-oui *keyword* |
| Tree | snap-oui |
| Options | zero, non-zero |
| Introduced | 16.0.R1 |
| Platforms | All |

### **snap-pid** *number*

| | |
|---|---|
| Synopsis | Parameter snap-pid as a MAC filter match criteria |
| Context | **configure** filter mac-filter *filter-name* entry *number* match snap-pid *number* |
| Tree | snap-pid |


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| | |
|---|---|
| Range | 0 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

### src-mac

| | |
|---|---|
| Synopsis | Enable the **src-mac** context |
| Context | **configure** filter mac-filter *filter-name* entry *number* match src-mac |
| Tree | src-mac |
| Introduced | 16.0.R1 |
| Platforms | All |

### address *mac-address*

| | |
|---|---|
| Synopsis | MAC address used as the match criterion |
| Context | **configure** filter mac-filter *filter-name* entry *number* match src-mac address *mac-address* |
| Tree | address |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### mask *mac-address*

| | |
|---|---|
| Synopsis | MAC address mask as the match criterion |
| Context | **configure** filter mac-filter *filter-name* entry *number* match src-mac mask *mac-address* |
| Tree | mask |
| Default | ff:ff:ff:ff:ff:ff |
| Introduced | 16.0.R1 |
| Platforms | All |

### pbr-down-action-override *keyword*

| | |
|---|---|
| Synopsis | Action when PBR or PBF target for this entry is not available |
| Context | **configure** filter mac-filter *filter-name* entry *number* pbr-down-action-override *keyword* |
| Tree | pbr-down-action-override |


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| | |
|---|---|
| Options | drop, forward, filter-default-action |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sticky-dest** *(number | keyword)*

| | |
|---|---|
| Synopsis | Time before action with available PBR or PBF destination and highest priority |
| Context | **configure** filter mac-filter *filter-name* entry *number* sticky-dest *(number \| keyword)* |
| Tree | sticky-dest |
| Range | 0 to 65535 |
| Units | seconds |
| Options | no-hold-time-up |
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter-id** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | MAC filter ID |
| Context | **configure** filter mac-filter *filter-name* filter-id *number* |
| Tree | filter-id |
| Range | 1 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **scope** *keyword*

| | |
|---|---|
| Synopsis | Filter policy scope |
| Context | **configure** filter mac-filter *filter-name* scope *keyword* |
| Tree | scope |
| Options | exclusive, template, embedded, system, cpm |
| Default | template |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **type** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | MAC filter policy |
| Context | **configure** filter mac-filter *filter-name* type *keyword* |
| Tree | type |
| Options | normal, isid, vid |
| Default | normal |
| Introduced | 16.0.R1 |
| Platforms | All |

### **match-list**

| | |
|---|---|
| Synopsis | Enter the **match-list** context |
| Context | **configure** filter match-list |
| Tree | match-list |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ip-packet-length-list** [packet-length-list-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **ip-packet-length-list** list instance |
| Context | **configure** filter match-list ip-packet-length-list *named-item* |
| Tree | ip-packet-length-list |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### [**packet-length-list-name**] *named-item*

| | |
|---|---|
| Synopsis | Name of the packet length list |
| Context | **configure** filter match-list ip-packet-length-list *named-item* |


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| | |
|---|---|
| Tree | ip-packet-length-list |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** filter match-list ip-packet-length-list *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **packet-length** [value] *number*

| | |
|---|---|
| Synopsis | Add a list entry for **packet-length** |
| Context | **configure** filter match-list ip-packet-length-list *named-item* packet-length *number* |
| Tree | packet-length |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### [**value**] *number*

| | |
|---|---|
| Synopsis | Packet length |
| Context | **configure** filter match-list ip-packet-length-list *named-item* packet-length *number* |
| Tree | packet-length |
| Range | 0 to 65535 |
| Notes | This element is part of a list key. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **range** start *number* end *number*

| | |
|---|---|
| Synopsis | Add a list entry for **range** |
| Context | **configure** filter match-list ip-packet-length-list *named-item* range start *number* end *number* |
| Tree | range |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of the packet length range |
| Context | **configure** filter match-list ip-packet-length-list *named-item* range start *number* end *number* |
| Tree | range |
| Range | 0 to 65534 |
| Notes | This element is part of a list key. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the packet length range |
| Context | **configure** filter match-list ip-packet-length-list *named-item* range start *number* end *number* |
| Tree | range |
| Range | 1 to 65535 |
| Notes | This element is part of a list key. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ip-prefix-list** [prefix-list-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **ip-prefix-list** list instance |
| Context | **configure** filter match-list ip-prefix-list *named-item* |
| Tree | ip-prefix-list |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### [**prefix-list-name**] *named-item*

| | |
|---|---|
| Synopsis | IP prefix list name |
| Context | **configure** filter match-list ip-prefix-list *named-item* |
| Tree | ip-prefix-list |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **apply-path**

| | |
|---|---|
| Synopsis | Enter the **apply-path** context |
| Context | **configure** filter match-list ip-prefix-list *named-item* apply-path |
| Tree | apply-path |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bgp-peers** [criterion-index] *number*

| | |
|---|---|
| Synopsis | Enter the **bgp-peers** list instance |
| Context | **configure** filter match-list ip-prefix-list *named-item* apply-path bgp-peers *number* |
| Tree | bgp-peers |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**criterion-index**] *number*

| | |
|---|---|
| Synopsis | BGP peers auto-generation configuration index |
| Context | **configure** filter match-list ip-prefix-list *named-item* apply-path bgp-peers *number* |
| Tree | bgp-peers |
| Range | 1 to 255 |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **group** *regular-expression-not-all-spaces*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Regular expression to match against the base router BGP instance group configuration |
| Context | **configure** filter match-list ip-prefix-list *named-item* apply-path bgp-peers *number* group *regular-expression-not-all-spaces* |
| Tree | group |
| String length | 1 to 255 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **neighbor** *regular-expression-not-all-spaces*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Regular expression to match against the base router BGP instance neighbor configuration |
| Context | **configure** filter match-list ip-prefix-list *named-item* apply-path bgp-peers *number* neighbor *regular-expression-not-all-spaces* |
| Tree | neighbor |
| String length | 1 to 255 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **router-instance** *string*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Target routing instance |
| Context | **configure** filter match-list ip-prefix-list *named-item* apply-path bgp-peers *number* router-instance *string* |
| Tree | router-instance |
| Default | Base |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** filter match-list ip-prefix-list *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **prefix** [ip-prefix] *ipv4-prefix*

| | |
|---|---|
| Synopsis | Add a list entry for **prefix** |
| Context | **configure** filter match-list ip-prefix-list *named-item* prefix *ipv4-prefix* |
| Tree | prefix |
| Description | Commands in this context add IPv4 prefixes to the prefix match list. Prefixes can overlap IPv4 address space.<br>An IPv4 prefix addition is blocked if resource exhaustion is detected anywhere in the system due to filter policies that use the prefix list. |
| Max. instances | 8192 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**ip-prefix**] *ipv4-prefix*

| | |
|---|---|
| Synopsis | IPv4 prefix to be added to the prefix list |
| Context | **configure** filter match-list ip-prefix-list *named-item* prefix *ipv4-prefix* |
| Tree | prefix |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R3 |
| Platforms | All |

### **prefix-exclude** [ip-prefix] *ipv4-prefix*

| | |
|---|---|
| Synopsis | Add a list entry for **prefix-exclude** |
| Context | **configure** filter match-list ip-prefix-list *named-item* prefix-exclude *ipv4-prefix* |
| Tree | prefix-exclude |
| Description | Commands in this context exclude IPv4 prefixes from the prefix match list.<br>This command is mutually exclusive with the **apply-path** command. |
| Max. instances | 512 |
| Introduced | 16.0.R4 |
| Platforms | All |

### [**ip-prefix**] *ipv4-prefix*

| | |
|---|---|
| Synopsis | IPv4 prefix to be added to the prefix list |
| Context | **configure** filter match-list ip-prefix-list *named-item* prefix-exclude *ipv4-prefix* |
| Tree | prefix-exclude |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **ipv6-packet-length-list** [packet-length-list-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **ipv6-packet-length-list** list instance |
| Context | **configure** filter match-list ipv6-packet-length-list *named-item* |
| Tree | ipv6-packet-length-list |


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| | |
|---|---|
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### [**packet-length-list-name**] *named-item*

| | |
|---|---|
| Synopsis | Name of the packet length list |
| Context | **configure** filter match-list ipv6-packet-length-list *named-item* |
| Tree | ipv6-packet-length-list |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** filter match-list ipv6-packet-length-list *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **packet-length** [value] *number*

| | |
|---|---|
| Synopsis | Add a list entry for **packet-length** |
| Context | **configure** filter match-list ipv6-packet-length-list *named-item* packet-length *number* |
| Tree | packet-length |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### [**value**] *number*

| | |
|---|---|
| Synopsis | Packet length |
| Context | **configure** filter match-list ipv6-packet-length-list *named-item* packet-length *number* |
| Tree | packet-length |


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| | |
|---|---|
| Range | 40 to 65575 |
| Notes | This element is part of a list key. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **range** start *number* end *number*

| | |
|---|---|
| Synopsis | Add a list entry for **range** |
| Context | **configure** filter match-list ipv6-packet-length-list *named-item* range start *number* end *number* |
| Tree | range |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of the packet length range |
| Context | **configure** filter match-list ipv6-packet-length-list *named-item* range start *number* end *number* |
| Tree | range |
| Range | 40 to 65574 |
| Notes | This element is part of a list key. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the packet length range |
| Context | **configure** filter match-list ipv6-packet-length-list *named-item* range start *number* end *number* |
| Tree | range |
| Range | 41 to 65575 |
| Notes | This element is part of a list key. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **ipv6-prefix-list** [prefix-list-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **ipv6-prefix-list** list instance |
| Context | **configure** filter match-list ipv6-prefix-list *named-item* |
| Tree | ipv6-prefix-list |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**prefix-list-name**] *named-item*

| | |
|---|---|
| Synopsis | IP prefix list name |
| Context | **configure** filter match-list ipv6-prefix-list *named-item* |
| Tree | ipv6-prefix-list |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **apply-path**

| | |
|---|---|
| Synopsis | Enter the **apply-path** context |
| Context | **configure** filter match-list ipv6-prefix-list *named-item* apply-path |
| Tree | apply-path |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bgp-peers** [criterion-index] *number*

| | |
|---|---|
| Synopsis | Enter the **bgp-peers** list instance |
| Context | **configure** filter match-list ipv6-prefix-list *named-item* apply-path bgp-peers *number* |
| Tree | bgp-peers |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**criterion-index**] *number*

| | |
|---|---|
| Synopsis | BGP peers auto-generation configuration index |
| Context | **configure** filter match-list ipv6-prefix-list *named-item* apply-path bgp-peers *number* |
| Tree | bgp-peers |
| Range | 1 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **group** *regular-expression-not-all-spaces*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Regular expression to match against the base router BGP instance group configuration |
| Context | **configure** filter match-list ipv6-prefix-list *named-item* apply-path bgp-peers *number* group *regular-expression-not-all-spaces* |
| Tree | group |
| String length | 1 to 255 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **neighbor** *regular-expression-not-all-spaces*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Regular expression to match against the base router BGP instance neighbor configuration |
| Context | **configure** filter match-list ipv6-prefix-list *named-item* apply-path bgp-peers *number* neighbor *regular-expression-not-all-spaces* |
| Tree | neighbor |
| String length | 1 to 255 |


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| | |
|---|---|
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **router-instance** *string*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Target routing instance |
| Context | **configure** filter match-list ipv6-prefix-list *named-item* apply-path bgp-peers *number* router-instance *string* |
| Tree | router-instance |
| Default | Base |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** filter match-list ipv6-prefix-list *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **prefix** [ipv6-prefix] *ipv6-prefix*

| | |
|---|---|
| Synopsis | Add a list entry for **prefix** |
| Context | **configure** filter match-list ipv6-prefix-list *named-item* prefix *ipv6-prefix* |
| Tree | prefix |
| Max. instances | 8192 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**ipv6-prefix**] *ipv6-prefix*

| | |
|---|---|
| Synopsis | IPv6 prefix to be added to the prefix list |
| Context | **configure** filter match-list ipv6-prefix-list *named-item* prefix *ipv6-prefix* |
| Tree | prefix |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R3 |
| Platforms | All |

### **prefix-exclude** [ipv6-prefix] *ipv6-prefix*

| | |
|---|---|
| Synopsis | Add a list entry for **prefix-exclude** |
| Context | **configure** filter match-list ipv6-prefix-list *named-item* prefix-exclude *ipv6-prefix* |
| Tree | prefix-exclude |
| Description | Commands in this context exclude IPv6 prefixes from the prefix match list.<br>This command is mutually exclusive with the **apply-path** command. |
| Max. instances | 512 |
| Introduced | 16.0.R4 |
| Platforms | All |

### [**ipv6-prefix**] *ipv6-prefix*

| | |
|---|---|
| Synopsis | IPv6 prefix to be added to the prefix list |
| Context | **configure** filter match-list ipv6-prefix-list *named-item* prefix-exclude *ipv6-prefix* |
| Tree | prefix-exclude |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **port-list** [port-list-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **port-list** list instance |
| Context | **configure** filter match-list port-list *named-item* |
| Tree | port-list |


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| | |
|---|---|
| Max. instances | 5120 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**port-list-name**] *named-item*

| | |
|---|---|
| Synopsis | Port list name |
| Context | **configure** filter match-list port-list *named-item* |
| Tree | port-list |
| Description | This command specifies the port list name. If special characters are used (#, $, spaces, and so on), the string must be enclosed within double quotes. |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** filter match-list port-list *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **port** [value] *number*

| | |
|---|---|
| Synopsis | Add a list entry for **port** |
| Context | **configure** filter match-list port-list *named-item* port *number* |
| Tree | port |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**value**] *number*

| | |
|---|---|
| Synopsis | Port value |
| Context | **configure** filter match-list port-list *named-item* port *number* |
| Tree | port |
| Range | 0 to 65535 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **range** start *number* end *number*

| | |
|---|---|
| Synopsis | Add a list entry for **range** |
| Context | **configure** filter match-list port-list *named-item* range start *number* end *number* |
| Tree | range |
| Introduced | 16.0.R1 |
| Platforms | All |

### **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of the port list range |
| Context | **configure** filter match-list port-list *named-item* range start *number* end *number* |
| Tree | range |
| Range | 0 to 65534 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the port list range |
| Context | **configure** filter match-list port-list *named-item* range start *number* end *number* |
| Tree | range |
| Range | 1 to 65535 |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **protocol-list** [protocol-list-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **protocol-list** list instance |
| Context | **configure** filter match-list protocol-list *named-item* |
| Tree | protocol-list |
| Max. instances | 512 |
| Introduced | 20.7.R1 |
| Platforms | All |

### [**protocol-list-name**] *named-item*

| | |
|---|---|
| Synopsis | Protocol list name |
| Context | **configure** filter match-list protocol-list *named-item* |
| Tree | protocol-list |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 20.7.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** filter match-list protocol-list *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 20.7.R1 |
| Platforms | All |

### **protocol** [protocol-id] *(number | keyword)*

| | |
|---|---|
| Synopsis | Add a list entry for **protocol** |


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| | |
|---|---|
| Context | **configure** filter match-list protocol-list *named-item* protocol *(number* \| *keyword)* |
| Tree | protocol |
| Max. instances | 32 |
| Introduced | 20.7.R1 |
| Platforms | All |

### [**protocol-id**] *(number* | *keyword)*

| | |
|---|---|
| Synopsis | IP protocol identifier |
| Context | **configure** filter match-list protocol-list *named-item* protocol *(number* \| *keyword)* |
| Tree | protocol |
| Range | 0 to 255 |
| Options | icmp, igmp, ip, tcp, egp, igp, udp, rdp, ipv6, ipv6-route, ipv6-frag, idrp, rsvp, gre, ipv6-icmp, ipv6-no-nxt, ipv6-opts, iso-ip, eigrp, ospf-igp, ether-ip, encap, pnni, pim, vrrp, l2tp, stp, ptp, isis, crtp, crudp, sctp |
| Notes | This element is part of a list key. |
| Introduced | 20.7.R1 |
| Platforms | All |

## md-auto-id

| | |
|---|---|
| Synopsis | Enter the **md-auto-id** context |
| Context | **configure** filter md-auto-id |
| Tree | md-auto-id |
| Introduced | 16.0.R1 |
| Platforms | All |

## filter-id-range

| | |
|---|---|
| Synopsis | Enable the **filter-id-range** context |
| Context | **configure** filter md-auto-id filter-id-range |
| Tree | filter-id-range |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **end** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Upper bound of the ID range |
| Context | **configure** filter md-auto-id filter-id-range end *number* |
| Tree | end |
| Range | 1 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **start** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Lower bound of the ID range |
| Context | **configure** filter md-auto-id filter-id-range start *number* |
| Tree | start |
| Range | 1 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **redirect-policy** [redirect-policy-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **redirect-policy** list instance |
| Context | **configure** filter redirect-policy *named-item* |
| Tree | redirect-policy |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**redirect-policy-name**] *named-item*

| | |
|---|---|
| Synopsis | Redirect policy name |
| Context | **configure** filter redirect-policy *named-item* |
| Tree | redirect-policy |
| Description | This command specifies the redirect policy name. If the string contains special characters (#, $, spaces, and so on), the entire string must be enclosed within double quotes. |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the redirect policy |
| Context | **configure** filter redirect-policy *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** filter redirect-policy *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **destination** [destination-address] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Enter the **destination** list instance |


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| | |
|---|---|
| Context | **configure** filter redirect-policy *named-item* destination *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | destination |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**destination-address**] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address and type of destination |
| Context | **configure** filter redirect-policy *named-item* destination *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | destination |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the destination |
| Context | **configure** filter redirect-policy *named-item* destination *(ipv4-address-no-zone \| ipv6-address-no-zone)* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** filter redirect-policy *named-item* destination *(ipv4-address-no-zone \| ipv6-address-no-zone)* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |


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## ping-test

| | |
|---|---|
| Synopsis | Enable the **ping-test** context |
| Context | **configure** filter redirect-policy *named-item* destination *(ipv4-address-no-zone \| ipv6-address-no-zone)* ping-test |
| Tree | ping-test |
| Introduced | 16.0.R1 |
| Platforms | All |

## drop-count *number*

| | |
|---|---|
| Synopsis | Number of consecutive requests that fail before destination is declared unreachable |
| Context | **configure** filter redirect-policy *named-item* destination *(ipv4-address-no-zone \| ipv6-address-no-zone)* ping-test drop-count *number* |
| Tree | drop-count |
| Range | 1 to 60 |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | All |

## hold-down *number*

| | |
|---|---|
| Synopsis | Time for the system to be held down if this test has marked it unreachable |
| Context | **configure** filter redirect-policy *named-item* destination *(ipv4-address-no-zone \| ipv6-address-no-zone)* ping-test hold-down *number* |
| Tree | hold-down |
| Range | 0 to 86400 |
| Units | seconds |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

## interval *number*

| | |
|---|---|
| Synopsis | Time between consecutive requests which are sent to the far end host |


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| | |
|---|---|
| Context | **configure** filter redirect-policy *named-item* destination *(ipv4-address-no-zone \| ipv6-address-no-zone)* ping-test interval *number* |
| Tree | interval |
| Range | 1 to 60 |
| Units | seconds |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **source-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source address to use in the IP packet of the ping test |
| Context | **configure** filter redirect-policy *named-item* destination *(ipv4-address-no-zone \| ipv6-address-no-zone)* ping-test source-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | source-address |
| Introduced | 16.0.R4 |
| Platforms | All |

### **timeout** *number*

| | |
|---|---|
| Synopsis | Time required to receive a response from the far end host |
| Context | **configure** filter redirect-policy *named-item* destination *(ipv4-address-no-zone \| ipv6-address-no-zone)* ping-test timeout *number* |
| Tree | timeout |
| Range | 1 to 60 |
| Units | seconds |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **priority** *number*

| | |
|---|---|
| Synopsis | Priority for this destination |
| Context | **configure** filter redirect-policy *named-item* destination *(ipv4-address-no-zone \| ipv6-address-no-zone)* priority *number* |
| Tree | priority |


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| | |
|---|---|
| Range | 1 to 255 |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

## unicast-rt-test

| | |
|---|---|
| Synopsis | Enable the **unicast-rt-test** context |
| Context | **configure** filter redirect-policy *named-item* destination *(ipv4-address-no-zone \| ipv6-address-no-zone)* unicast-rt-test |
| Tree | unicast-rt-test |
| Introduced | 16.0.R1 |
| Platforms | All |

## notify-dest-change *boolean*

| | |
|---|---|
| Synopsis | Send notifications when the active destination changes |
| Context | **configure** filter redirect-policy *named-item* notify-dest-change *boolean* |
| Tree | notify-dest-change |
| Description | When configured to **true**, notifications (such as Log and SNMP) are sent when the active destination of a redirect policy changes. No notification is sent when there are no more active destinations (as this scenario is covered by another notification).<br>When configured to **false**, the notification generation is disabled. |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

## router-instance *string*

| | |
|---|---|
| Synopsis | Routing context to use for route lookup |
| Context | **configure** filter redirect-policy *named-item* router-instance *string* |
| Tree | router-instance |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **sticky-dest** *(number | keyword)*

| | |
|---|---|
| Synopsis | Time required by system before applying the current best destination as active destination |
| Context | **configure** filter redirect-policy *named-item* sticky-dest *(number | keyword)* |
| Tree | sticky-dest |
| Range | 0 to 65535 |
| Units | seconds |
| Options | no-hold-time-up |
| Introduced | 16.0.R1 |
| Platforms | All |

### **redirect-policy-binding** [binding-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **redirect-policy-binding** list instance |
| Context | **configure** filter redirect-policy-binding *named-item* |
| Tree | redirect-policy-binding |
| Max. instances | 16 |
| Introduced | 16.0.R4 |
| Platforms | All |

### [**binding-name**] *named-item*

| | |
|---|---|
| Synopsis | Binding name |
| Context | **configure** filter redirect-policy-binding *named-item* |
| Tree | redirect-policy-binding |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **binding-operator** *keyword*

| | |
|---|---|
| Synopsis | Logical operator used to obtain the master test result |
| Context | **configure** filter redirect-policy-binding *named-item* binding-operator *keyword* |


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| | |
|---|---|
| Tree | binding-operator |
| Description | This command configures the logical operator to use with the destinations' test results to obtain the master test result (the redirect policy binding test result). |
| Options | and, or |
| Default | and |
| Introduced | 16.0.R4 |
| Platforms | All |

### **redirect-policy** [redirect-policy-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **redirect-policy** list instance |
| Context | **configure** filter redirect-policy-binding *named-item* redirect-policy *reference* |
| Tree | redirect-policy |
| Introduced | 16.0.R4 |
| Platforms | All |

### [**redirect-policy-name**] *reference*

| | |
|---|---|
| Synopsis | Redirect policy name |
| Context | **configure** filter redirect-policy-binding *named-item* redirect-policy *reference* |
| Tree | redirect-policy |
| Reference | **configure** filter redirect-policy *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **destination** [destination-address] *reference*

| | |
|---|---|
| Synopsis | Add a list entry for **destination** |
| Context | **configure** filter redirect-policy-binding *named-item* redirect-policy *reference* destination *reference* |
| Tree | destination |
| Min. instances | 1 |
| Introduced | 16.0.R4 |


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| | |
|---|---|
| Platforms | All |

### [**destination-address**] *reference*

| | |
|---|---|
| Synopsis | IP address of redirect policy destination to binding |
| Context | **configure** filter redirect-policy-binding *named-item* redirect-policy *reference* destination *reference* |
| Tree | destination |
| Reference | **configure** filter redirect-policy *named-item* destination *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **system-filter**

| | |
|---|---|
| Synopsis | Enter the **system-filter** context |
| Context | **configure** filter system-filter |
| Tree | system-filter |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ip** [ip-filter] *reference*

| | |
|---|---|
| Synopsis | Add a list entry for **ip** |
| Context | **configure** filter system-filter ip *reference* |
| Tree | ip |
| Max. instances | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ip-filter**] *reference*

| | |
|---|---|
| Synopsis | Active IPv4 system filter policy |
| Context | **configure** filter system-filter ip *reference* |


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| | |
|---|---|
| Tree | ip |
| Reference | **configure** filter ip-filter *filter-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R3 |
| Platforms | All |

### **ipv6** [ipv6-filter] *reference*

| | |
|---|---|
| Synopsis | Add a list entry for **ipv6** |
| Context | **configure** filter system-filter ipv6 *reference* |
| Tree | ipv6 |
| Max. instances | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ipv6-filter**] *reference*

| | |
|---|---|
| Synopsis | Active IPv6 system filter policy |
| Context | **configure** filter system-filter ipv6 *reference* |
| Tree | ipv6 |
| Reference | **configure** filter ipv6-filter *filter-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R3 |
| Platforms | All |


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## 4.18 fwd-path-ext commands

```
configure
   –  fwd-path-ext
      –  apply-groups reference
      –  apply-groups-exclude reference
      –  fpe number
         –  application
            –  map-t boolean
            –  mvpn-umh-rate-monitoring boolean
            –  pw-port-extension
               –  interface-a
                  –  qos
                     –  network-policy reference
               –  interface-b
                  –  qos
                     –  network-policy reference
            –  srv6
               –  interface-a
                  –  qos
                     –  network-policy reference
               –  interface-b
                  –  mtu number
                  –  qos
                     –  network-policy reference
               –  type keyword
            –  sub-mgmt-extension boolean
            –  vxlan
               –  router-instance string
         –  apply-groups reference
         –  apply-groups-exclude reference
         –  description description
         –  multi-path
            –  path number
               –  apply-groups reference
               –  apply-groups-exclude reference
               –  pxc reference
               –  xc-lag-a reference
               –  xc-lag-b reference
         –  path
            –  pxc reference
            –  xc-lag-a reference
            –  xc-lag-b reference
      –  sdp-id-range
         –  apply-groups reference
         –  apply-groups-exclude reference
         –  end number
         –  start number
```


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## 4.18.1 fwd-path-ext command descriptions

### fwd-path-ext

| | |
|---|---|
| Synopsis | Enter the **fwd-path-ext** context |
| Context | **configure** fwd-path-ext |
| Tree | fwd-path-ext |
| Description | Commands in this context configure a Forwarding Path Extension (FPE). Some applications that rely on PXC functionality utilize FPE to simplify the configuration of these applications. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **fpe** [fpe-id] *number*

| | |
|---|---|
| Synopsis | Enter the **fpe** list instance |
| Context | **configure** fwd-path-ext fpe *number* |
| Tree | fpe |
| Description | Commands in this context configure the Forwarding Path Extension (FPE), which associates an application with a PXC (a paired set of PXC sub-ports or a paired set of PXC-based LAGs). |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**fpe-id**] *number*

| | |
|---|---|
| Synopsis | FPE ID |
| Context | **configure** fwd-path-ext fpe *number* |
| Tree | fpe |
| Range | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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## application

| | |
|---|---|
| Synopsis | Enter the **application** context |
| Context | **configure** fwd-path-ext fpe *number* application |
| Tree | application |
| Description | Commands in this context configure the attributes of the FPE application. |
| Introduced | 16.0.R1 |
| Platforms | All |

## map-t *boolean*

| | |
|---|---|
| Synopsis | Associates the MAP-T application with the FPE |
| Context | **configure** fwd-path-ext fpe *number* application map-t *boolean* |
| Tree | map-t |
| Description | When configured to **true**, the system associates the MAP-T application with the Forwarding Path Extension (FPE). |
| Default | false |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s |

## mvpn-umh-rate-monitoring *boolean*

| | |
|---|---|
| Synopsis | MVPN UMH Rate Monitoring |
| Context | **configure** fwd-path-ext fpe *number* application mvpn-umh-rate-monitoring *boolean* |
| Tree | mvpn-umh-rate-monitoring |
| Default | false |
| Introduced | 24.7.R1 |
| Platforms | All |

## pw-port-extension

| | |
|---|---|
| Synopsis | Enable the **pw-port-extension** context |
| Context | **configure** fwd-path-ext fpe *number* application pw-port-extension |
| Tree | pw-port-extension |


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| | |
|---|---|
| Description | Commands in this context configure the type of the cross-connect required to terminate an external tunnel to an anchored PW port. The system automatically builds the internal infrastructure required to perform the tunnel termination on a PW port.<br>PW ports support the following types of tunnels:<br>• GRE/MPLS PW with SDP of type MPLS or GRE<br>• L2oGRE bridged Ethernet over GRE, where GRE protocol number is 0x6558 |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## interface-a

| | |
|---|---|
| Synopsis | Enter the **interface-a** context |
| Context | **configure** fwd-path-ext fpe *number* application pw-port-extension interface-a |
| Tree | interface-a |
| Description | Commands in this context configure the command options for network interface-a of the PW port extension FPE. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## qos

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** fwd-path-ext fpe *number* application pw-port-extension interface-a qos |
| Tree | qos |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## network-policy *reference*

| | |
|---|---|
| Synopsis | Network QoS policy applied to the FPE interface |
| Context | **configure** fwd-path-ext fpe *number* application pw-port-extension interface-a qos network-policy *reference* |
| Tree | network-policy |
| Reference | **configure** qos network *network-policy-name* |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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## interface-b

| | |
|---|---|
| Synopsis | Enter the **interface-b** context |
| Context | **configure** fwd-path-ext fpe *number* application pw-port-extension interface-b |
| Tree | interface-b |
| Description | Commands in this context configure command options for network interface-b of the PW port extension FPE. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## qos

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** fwd-path-ext fpe *number* application pw-port-extension interface-b qos |
| Tree | qos |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## network-policy *reference*

| | |
|---|---|
| Synopsis | Network QoS policy applied to the FPE interface |
| Context | **configure** fwd-path-ext fpe *number* application pw-port-extension interface-b qos network-policy *reference* |
| Tree | network-policy |
| Reference | **configure** qos network *network-policy-name* |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## srv6

| | |
|---|---|
| Synopsis | Enable the **srv6** context |
| Context | **configure** fwd-path-ext fpe *number* application srv6 |
| Tree | srv6 |
| Description | Commands in this context configure the SRv6 FPE application used for origination or termination of SRv6 tunnels. |
| Introduced | 21.5.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## interface-a

| | |
|---|---|
| Synopsis | Enter the **interface-a** context |
| Context | **configure** fwd-path-ext fpe *number* application srv6 interface-a |
| Tree | interface-a |
| Description | Commands in this context configure the parameters of network interface-a of the SRv6 FPE. |
| Introduced | 21.5.R2 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## qos

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** fwd-path-ext fpe *number* application srv6 interface-a qos |
| Tree | qos |
| Introduced | 21.5.R2 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## network-policy *reference*

| | |
|---|---|
| Synopsis | Network QoS policy applied to the FPE interface |
| Context | **configure** fwd-path-ext fpe *number* application srv6 interface-a qos network-policy *reference* |
| Tree | network-policy |
| Reference | **configure** qos network *network-policy-name* |
| Introduced | 21.5.R2 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## interface-b

| | |
|---|---|
| Synopsis | Enter the **interface-b** context |
| Context | **configure** fwd-path-ext fpe *number* application srv6 interface-b |
| Tree | interface-b |


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| | |
|---|---|
| Description | Commands in this context configure the parameters of network interface-b of the SRv6 FPE. |
| Introduced | 21.5.R2 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **mtu** *number*

| | |
|---|---|
| Synopsis | MTU size of SRv6 origination FPE interface-b |
| Context | **configure** fwd-path-ext fpe *number* application srv6 interface-b mtu *number* |
| Tree | mtu |
| Description | This command configures the Maximum Transfer Unit (MTU) of interface-b of the SRv6 origination FPE.<br>The MTU is used to check if an IPv4 service packet should be fragmented and if an IPv6 service packet should be dropped when tunneled over SRv6.<br>The minimum value is the IPv6 minimum MTU value. The maximum value is set to the maximum Ethernet port MTU (9800) minus 14 bytes for Null Ethernet encapsulation. |
| Range | 0 \| 1280 to 9786 |
| Introduced | 21.5.R2 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **qos**

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** fwd-path-ext fpe *number* application srv6 interface-b qos |
| Tree | qos |
| Introduced | 21.5.R2 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **network-policy** *reference*

| | |
|---|---|
| Synopsis | Network QoS policy applied to the FPE interface |
| Context | **configure** fwd-path-ext fpe *number* application srv6 interface-b qos network-policy *reference* |
| Tree | network-policy |
| Reference | **configure** qos network *network-policy-name* |
| Introduced | 21.5.R2 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **type** *keyword*

| | |
|---|---|
| Synopsis | SRv6 FPE application type |
| Context | **configure** fwd-path-ext fpe *number* application srv6 type *keyword* |
| Tree | type |
| Description | This command specifies if the SRv6 FPE application is used for origination or termination of SRv6 tunnels.<br>A dedicated SRv6 FPE is required for origination and termination of SRv6 tunnels on services and they cannot share the same FPE.<br>A single FPE can be configured for SRv6 origination. One or more FPEs can be configured for SRv6 termination, where a termination SRv6 FPE is assigned one or more configured locators.<br>Transit SRv6 routers do not require SRv6 FPEs. |
| Options | origination, termination |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **sub-mgmt-extension** *boolean*

| | |
|---|---|
| Synopsis | Enable FPE for subscrber management extensions |
| Context | **configure** fwd-path-ext fpe *number* application sub-mgmt-extension *boolean* |
| Tree | sub-mgmt-extension |
| Description | When configured to **true**, the FPE is used for subscriber management extensions. The FPE can be used for multiple subscriber management applications, but it cannot be used for other applications.<br>When configured to **false**, the FPE is not used for subscriber management extensions. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **vxlan**

| | |
|---|---|
| Synopsis | Enable the **vxlan** context |
| Context | **configure** fwd-path-ext fpe *number* application vxlan |
| Tree | vxlan |


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| | |
|---|---|
| Introduced | 22.2.R1 |
| Platforms | All |

### **router-instance** *string*

| | |
|---|---|
| Synopsis | Router instance for VXLAN termination |
| Context | **configure** fwd-path-ext fpe *number* application vxlan router-instance *string* |
| Tree | router-instance |
| Default | Base |
| Introduced | 22.2.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** fwd-path-ext fpe *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **multi-path**

| | |
|---|---|
| Synopsis | Enable the **multi-path** context |
| Context | **configure** fwd-path-ext fpe *number* multi-path |
| Tree | multi-path |
| Description | Commands in this context configure a multipath FPE that can contain multiple PXC ports or LAGs of PXC ports. |
| Notes | The following elements are part of a choice: **multi-path** or **path**. |
| Introduced | 21.10.R1 |
| Platforms | All |

### **path** [path-id] *number*

| | |
|---|---|
| Synopsis | Enter the **path** list instance |


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| | |
|---|---|
| Context | **configure** fwd-path-ext fpe *number* multi-path path *number* |
| Tree | path |
| Description | Commands in this context configure a multipath FPE forwarding path. A single path in a multipath FPE can contain a single PXC port or a LAG of PXC ports. |
| Introduced | 21.10.R1 |
| Platforms | All |

## [**path-id**] *number*

| | |
|---|---|
| Synopsis | Multipath FPE forwarding path ID |
| Context | **configure** fwd-path-ext fpe *number* multi-path path *number* |
| Tree | path |
| Range | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | All |

## **pxc** *reference*

| | |
|---|---|
| Synopsis | Dedicated PXC ID used by the FPE path |
| Context | **configure** fwd-path-ext fpe *number* multi-path path *number* pxc *reference* |
| Tree | pxc |
| Reference | **configure** port-xc pxc *number* |
| Notes | The following elements are part of a choice: **pxc** or (**xc-lag-a** and **xc-lag-b**). |
| Introduced | 21.10.R1 |
| Platforms | All |

## **xc-lag-a** *reference*

| | |
|---|---|
| Synopsis | PXC LAG identifier dedicated to the FPE path |
| Context | **configure** fwd-path-ext fpe *number* multi-path path *number* xc-lag-a *reference* |
| Tree | xc-lag-a |
| Description | This command specifies the LAG identifier associated with one side of the PXC. The operator can associate **xc-lag-a** with the LAG containing either subports.a or subports.b. The system does not enforce a match between **xc-lag-a** and the LAG ID containing subports.a. |


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| | |
|---|---|
| Reference | **configure** lag *lag-interface* |
| Notes | The following elements are part of a choice: **pxc** or (**xc-lag-a** and **xc-lag-b**). |
| Introduced | 21.10.R1 |
| Platforms | All |

## **xc-lag-b** *reference*

| | |
|---|---|
| Synopsis | PXC LAG identifier dedicated to the FPE path |
| Context | **configure** fwd-path-ext fpe *number* multi-path path *number* xc-lag-b *reference* |
| Tree | xc-lag-b |
| Description | This command specifies the LAG identifier associated with one side of the PXC. The operator can associate **xc-lag-b** with the LAG containing either subports.a or subports.b. The system does not enforce a match between **xc-lag-b** and the LAG ID containing subports.b. |
| Reference | **configure** lag *lag-interface* |
| Notes | The following elements are part of a choice: **pxc** or (**xc-lag-a** and **xc-lag-b**). |
| Introduced | 21.10.R1 |
| Platforms | All |

## **path**

| | |
|---|---|
| Synopsis | Enter the **path** context |
| Context | **configure** fwd-path-ext fpe *number* path |
| Tree | path |
| Notes | The following elements are part of a choice: **multi-path** or **path**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **pxc** *reference*

| | |
|---|---|
| Synopsis | Dedicated PXC ID used by the FPE path |
| Context | **configure** fwd-path-ext fpe *number* path pxc *reference* |
| Tree | pxc |
| Reference | **configure** port-xc pxc *number* |
| Notes | The following elements are part of a choice: **pxc** or (**xc-lag-a** and **xc-lag-b**). |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## **xc-lag-a** *reference*

| | |
|---|---|
| Synopsis | PXC LAG identifier dedicated to the FPE path |
| Context | **configure** fwd-path-ext fpe *number* path xc-lag-a *reference* |
| Tree | xc-lag-a |
| Description | This command specifies the LAG identifier associated with one side of the PXC. The operator can associate **xc-lag-a** with the LAG containing either subports.a or subports.b. The system does not enforce a match between **xc-lag-a** and the LAG ID containing subports.a. |
| Reference | **configure** lag *lag-interface* |
| Notes | The following elements are part of a choice: **pxc** or (**xc-lag-a** and **xc-lag-b**). |
| Introduced | 16.0.R4 |
| Platforms | All |

## **xc-lag-b** *reference*

| | |
|---|---|
| Synopsis | PXC LAG identifier dedicated to the FPE path |
| Context | **configure** fwd-path-ext fpe *number* path xc-lag-b *reference* |
| Tree | xc-lag-b |
| Description | This command specifies the LAG identifier associated with one side of the PXC. The operator can associate **xc-lag-b** with the LAG containing either subports.a or subports.b. The system does not enforce a match between **xc-lag-b** and the LAG ID containing subports.b. |
| Reference | **configure** lag *lag-interface* |
| Notes | The following elements are part of a choice: **pxc** or (**xc-lag-a** and **xc-lag-b**). |
| Introduced | 16.0.R4 |
| Platforms | All |

## **sdp-id-range**

| | |
|---|---|
| Synopsis | Enable the **sdp-id-range** context |
| Context | **configure** fwd-path-ext sdp-id-range |
| Tree | sdp-id-range |


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| | |
|---|---|
| Description | Commands in this context configure the SDP ID range used by the FPE based PW port and VXLAN termination applications.<br>Each configured FPE-based PW port is associated with two internal SDPs (one in each direction) whose IDs are allocated from the configured SDP ID range. When the FPE is associated with VXLAN termination, an internal SDP is allocated from the configured SDP ID range and is used for R-VPLS services that terminate VXLAN IPv6. A spoke SDP per VXLAN IPv6 R-VPLS service is created on that SDP for egress processing of the packets. The SDP ID range cannot be modified if any of its IDs are currently in use. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the SDP ID range |
| Context | **configure** fwd-path-ext sdp-id-range end *number* |
| Tree | end |
| Range | 1 to 32767 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of the SDP ID range |
| Context | **configure** fwd-path-ext sdp-id-range start *number* |
| Tree | start |
| Range | 1 to 32767 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |


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## 4.19 group-encryption commands

```
configure
   –  group-encryption
      –  apply-groups reference
      –  apply-groups-exclude reference
      –  encryption-keygroup number
         –  active-outbound-security-association reference
         –  apply-groups reference
         –  apply-groups-exclude reference
         –  authentication-algorithm keyword
         –  description description
         –  encryption-algorithm keyword
         –  keygroup-name named-item-64-or-empty
         –  security-association number
            –  apply-groups reference
            –  apply-groups-exclude reference
            –  authentication-key encrypted-leaf-hex
            –  encryption-key encrypted-leaf-hex
      –  group-encryption-label number
```


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## 4.19.1 group-encryption command descriptions

### group-encryption

| | |
|---|---|
| Synopsis | Enter the **group-encryption** context |
| Context | **configure** group-encryption |
| Tree | group-encryption |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### encryption-keygroup [id] *number*

| | |
|---|---|
| Synopsis | Enter the **encryption-keygroup** list instance |
| Context | **configure** group-encryption encryption-keygroup *number* |
| Tree | encryption-keygroup |
| Max. instances | 127 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [id] *number*

| | |
|---|---|
| Synopsis | Encryption key group ID |
| Context | **configure** group-encryption encryption-keygroup *number* |
| Tree | encryption-keygroup |
| Range | 1 to 127 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### active-outbound-security-association *reference*

| | |
|---|---|
| Synopsis | SPI to use for egressing packets for the key group |
| Context | **configure** group-encryption encryption-keygroup *number* active-outbound-security-association *reference* |


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| | |
|---|---|
| Tree | active-outbound-security-association |
| Reference | **configure** group-encryption encryption-keygroup *number* security-association *number* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **authentication-algorithm** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Hashing algorithm used for the authentication function |
| Context | **configure** group-encryption encryption-keygroup *number* authentication-algorithm *keyword* |
| Tree | authentication-algorithm |
| Options | sha256, sha512 |
| Default | sha256 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** group-encryption encryption-keygroup *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **encryption-algorithm** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Encryption algorithm for encryption on ESP |
| Context | **configure** group-encryption encryption-keygroup *number* encryption-algorithm *keyword* |


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| | |
|---|---|
| Tree | encryption-algorithm |
| Options | aes128, aes256 |
| Default | aes128 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **keygroup-name** *named-item-64-or-empty*

| | |
|---|---|
| Synopsis | Key group name |
| Context | **configure** group-encryption encryption-keygroup *number* keygroup-name *named-item-64-or-empty* |
| Tree | keygroup-name |
| String length | 0 to 64 |
| Default | |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **security-association** [security-parameter-index] *number*

| | |
|---|---|
| Synopsis | Enter the **security-association** list instance |
| Context | **configure** group-encryption encryption-keygroup *number* security-association *number* |
| Tree | security-association |
| Max. instances | 4 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**security-parameter-index**] *number*

| | |
|---|---|
| Synopsis | Security Parameter Index (SPI) |
| Context | **configure** group-encryption encryption-keygroup *number* security-association *number* |
| Tree | security-association |
| Range | 1 to 1023 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **authentication-key** *encrypted-leaf-hex*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Key used for the authentication algorithm |
| Context | **configure** group-encryption encryption-keygroup *number* security-association *number* authentication-key *encrypted-leaf-hex* |
| Tree | authentication-key |
| String length | 1 to 115 |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **encryption-key** *encrypted-leaf-hex*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Key used for the encryption algorithm |
| Context | **configure** group-encryption encryption-keygroup *number* security-association *number* encryption-key *encrypted-leaf-hex* |
| Tree | encryption-key |
| String length | 1 to 71 |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **group-encryption-label** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.


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| | |
|---|---|
| Synopsis | Network-wide unique MPLS label for group encryption |
| Context | **configure** group-encryption group-encryption-label *number* |
| Tree | group-encryption-label |
| Range | 32 to 2047 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## 4.20 ipsec commands

```
configure
   –  ipsec
      –  apply-groups reference
      –  apply-groups-exclude reference
      –  cert-profile named-item
         –  admin-state keyword
         –  apply-groups reference
         –  apply-groups-exclude reference
         –  entry number
            –  apply-groups reference
            –  apply-groups-exclude reference
            –  cert pki-file-name
            –  compare-chain-include reference
            –  key pki-file-name
            –  rsa-signature keyword
            –  send-chain
               –  ca-profile reference
      –  client-db named-item
         –  admin-state keyword
         –  apply-groups reference
         –  apply-groups-exclude reference
         –  client number
            –  admin-state keyword
            –  apply-groups reference
            –  apply-groups-exclude reference
            –  client-name named-item
            –  credential
               –  pre-shared-key encrypted-leaf-hex-without-prefix
            –  identification
               –  idi
                  –  any boolean
                  –  fqdn display-string-or-empty
                  –  fqdn-suffix display-string-or-empty
                  –  ipv4-prefix ipv4-prefix
                  –  ipv4-prefix-any boolean
                  –  ipv6-prefix ipv6-prefix
                  –  ipv6-prefix-any boolean
                  –  rfc822 display-string-or-empty
                  –  rfc822-suffix display-string-or-empty
               –  peer-ip-prefix
                  –  ip-prefix (ipv4-prefix | ipv6-prefix)
                  –  ipv4-only boolean
                  –  ipv6-only boolean
            –  private-interface named-item
            –  private-service-name service-name
            –  ts-list named-item
            –  tunnel-template number
         –  description description
         –  match-list
            –  idi boolean
            –  peer-ip-prefix boolean
      –  ike-policy number
         –  apply-groups reference
         –  apply-groups-exclude reference
         –  description description
         –  dpd
            –  interval number
            –  max-retries number
            –  reply-only boolean
```


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configure ipsec ike-policy ike-transform

```
        - ike-transform reference
        - ike-version-1
          - auth-method keyword
          - ike-mode keyword
          - own-auth-method keyword
          - ph1-responder-delete-notify boolean
        - ike-version-2
          - auth-method keyword
          - auto-eap-method keyword
          - ikev2-fragment
            - mtu number
            - reassembly-timeout number
          - own-auth-method keyword
          - own-auto-eap-method keyword
          - ppk-required boolean
          - send-idr-after-eap-success boolean
        - ipsec-lifetime number
        - limit-init-exchange
          - admin-state keyword
          - reduced-max-exchange-timeout (number | keyword)
        - lockout
          - block (number | keyword)
          - duration number
          - failed-attempts number
          - max-port-per-ip number
        - match-peer-id-to-cert boolean
        - nat-traversal
          - force boolean
          - force-keep-alive boolean
          - keep-alive-interval number
        - pfs
          - dh-group keyword
        - relay-unsolicited-cfg-attribute
          - internal-ip4-address boolean
          - internal-ip4-dns boolean
          - internal-ip4-netmask boolean
          - internal-ip6-address boolean
          - internal-ip6-dns boolean
    - ike-transform number
        - apply-groups reference
        - apply-groups-exclude reference
        - dh-group keyword
        - ike-auth-algorithm keyword
        - ike-encryption-algorithm keyword
        - ike-prf-algorithm keyword
        - isakmp-lifetime number
    - ipsec-transform number
        - apply-groups reference
        - apply-groups-exclude reference
        - esp-auth-algorithm keyword
        - esp-encryption-algorithm keyword
        - extended-sequence-number boolean
        - ipsec-lifetime number
        - pfs-dh-group keyword
    - ipsec-transport-mode-profile named-item
        - apply-groups reference
        - apply-groups-exclude reference
        - description description
        - key-exchange
          - dynamic
            - auto-establish boolean
            - cert
              - cert-profile reference
              - status-verify
```


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configure ipsec ipsec-transport-mode-profile key-exchange dynamic cert status-verify default-result

```
                    - default-result keyword
                    - primary keyword
                    - secondary keyword
                 - trust-anchor-profile reference
              - id
                 - fqdn fully-qualified-domain-name
                 - ipv4 ipv4-unicast-address
                 - ipv6 (ipv4-address-no-zone | ipv6-address-no-zone)
              - ike-policy reference
              - ipsec-transform reference
              - ppk
                 - id reference
                 - list reference
              - pre-shared-key encrypted-leaf
           - max-history-key-records
              - esp number
              - ike number
           - replay-window number
        - ppk-list named-item
           - apply-groups reference
           - apply-groups-exclude reference
           - ppk named-item-64
              - apply-groups reference
              - apply-groups-exclude reference
              - value
                 - ascii encrypted-leaf
                 - hex encrypted-leaf-hex
        - radius
           - accounting-policy named-item
              - apply-groups reference
              - apply-groups-exclude reference
              - include-radius-attribute
                 - acct-stats boolean
                 - called-station-id boolean
                 - calling-station-id boolean
                 - framed-ip-addr boolean
                 - framed-ipv6-prefix boolean
                 - nas-identifier boolean
                 - nas-ip-addr boolean
                 - nas-port-id boolean
              - radius-server-policy reference
              - update-interval
                 - jitter number
                 - value number
           - authentication-policy named-item
              - apply-groups reference
              - apply-groups-exclude reference
              - include-radius-attribute
                 - called-station-id boolean
                 - calling-station-id boolean
                 - client-cert-subject-key-id boolean
                 - nas-identifier boolean
                 - nas-ip-addr boolean
                 - nas-port-id boolean
              - password encrypted-leaf
              - radius-server-policy reference
        - show-ipsec-keys boolean
        - static-sa named-item
           - apply-groups reference
           - apply-groups-exclude reference
           - authentication
              - algorithm keyword
              - key encrypted-leaf
           - description named-item
```


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```
        - direction keyword
        - protocol keyword
        - spi number
     - trust-anchor-profile named-item
        - apply-groups reference
        - apply-groups-exclude reference
        - trust-anchor reference
     - ts-list named-item
        - apply-groups reference
        - apply-groups-exclude reference
        - local
           - entry number
              - address
                 - prefix (ipv4-prefix | ipv6-prefix)
                 - range
                    - begin (ipv4-address-no-zone | ipv6-address-no-zone)
                    - end (ipv4-address-no-zone | ipv6-address-no-zone)
              - apply-groups reference
              - apply-groups-exclude reference
              - protocol
                 - any
                 - id
                    - icmp
                       - opaque
                       - port-range
                          - begin-icmp-code number
                          - begin-icmp-type number
                          - end-icmp-code number
                          - end-icmp-type number
                    - icmp6
                       - opaque
                       - port-range
                          - begin-icmp-code number
                          - begin-icmp-type number
                          - end-icmp-code number
                          - end-icmp-type number
                    - mipv6
                       - opaque
                       - port-range
                          - begin number
                          - end number
                    - protocol-id-with-any-port (keyword | number)
                    - sctp
                       - opaque
                       - port-range
                          - begin number
                          - end number
                    - tcp
                       - opaque
                       - port-range
                          - begin number
                          - end number
                    - udp
                       - opaque
                       - port-range
                          - begin number
                          - end number
        - remote
           - entry number
              - address
                 - prefix (ipv4-prefix | ipv6-prefix)
                 - range
                    - begin (ipv4-address-no-zone | ipv6-address-no-zone)
                    - end (ipv4-address-no-zone | ipv6-address-no-zone)
```


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configure ipsec ts-list remote entry apply-groups

```
            - apply-groups reference
            - apply-groups-exclude reference
            - protocol
               - any
               - id
                  - icmp
                     - opaque
                     - port-range
                        - begin-icmp-code number
                        - begin-icmp-type number
                        - end-icmp-code number
                        - end-icmp-type number
                  - icmp6
                     - opaque
                     - port-range
                        - begin-icmp-code number
                        - begin-icmp-type number
                        - end-icmp-code number
                        - end-icmp-type number
                  - mipv6
                     - opaque
                     - port-range
                        - begin number
                        - end number
                  - protocol-id-with-any-port (keyword | number)
                  - sctp
                     - opaque
                     - port-range
                        - begin number
                        - end number
                  - tcp
                     - opaque
                     - port-range
                        - begin number
                        - end number
                  - udp
                     - opaque
                     - port-range
                        - begin number
                        - end number
   - tunnel-template number
      - apply-groups reference
      - apply-groups-exclude reference
      - clear-df-bit boolean
      - copy-traffic-class-upon-decapsulation boolean
      - description description
      - encapsulated-ip-mtu number
      - icmp-generation
         - frag-required
            - admin-state keyword
            - interval number
            - message-count number
      - icmp6-generation
         - pkt-too-big
            - admin-state keyword
            - interval number
            - message-count number
      - ignore-default-route boolean
      - ip-mtu number
      - ipsec-transform reference
      - pmtu-discovery-aging number
      - ppk-list reference
      - private-tcp-mss-adjust number
      - propagate-pmtu-v4 boolean
```


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configure ipsec tunnel-template propagate-pmtu-v6

```
        - propagate-pmtu-v6 boolean
        - public-tcp-mss-adjust (number | keyword)
        - replay-window number
        - reverse-route
          - metric number
          - preference number
        - sp-reverse-route keyword
```


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## 4.20.1 ipsec command descriptions

### ipsec

| | |
|---|---|
| Synopsis | Enter the **ipsec** context |
| Context | **configure** ipsec |
| Tree | ipsec |
| Description | Commands in this context configure Internet Protocol Security (IPsec) commands. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **cert-profile** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **cert-profile** list instance |
| Context | **configure** ipsec cert-profile *named-item* |
| Tree | cert-profile |
| Description | Commands in this context configure the certificate profile. |
| Max. instances | 10200 |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | Certificate profile name |
| Context | **configure** ipsec cert-profile *named-item* |
| Tree | cert-profile |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the certificate profile |


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| | |
|---|---|
| Context | **configure** ipsec cert-profile *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** ipsec cert-profile *named-item* entry *number* |
| Tree | entry |
| Description | Commands in this context configure the certificate profile entry. |
| Max. instances | 8 |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**id**] *number*

| | |
|---|---|
| Synopsis | Certificate profile entry ID |
| Context | **configure** ipsec cert-profile *named-item* entry *number* |
| Tree | entry |
| Range | 1 to 8 |
| Notes | This element is part of a list key. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **cert** *pki-file-name*

| | |
|---|---|
| Synopsis | File name of the imported certificate for the entry |
| Context | **configure** ipsec cert-profile *named-item* entry *number* cert *pki-file-name* |
| Tree | cert |
| String length | 1 to 95 |
| Introduced | 19.7.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **compare-chain-include** *reference*

| | |
|---|---|
| Synopsis | CA profile to include in the compare-chain |
| Context | **configure** ipsec cert-profile *named-item* entry *number* compare-chain-include *reference* |
| Tree | compare-chain-include |
| Description | This command specifies the Certificate Authority (CA) that needs to be included in the compare-chain for the entry. This configuration is required in instances where the configured root CA is cross-signed by another CA. |
| Reference | **configure** system security pki ca-profile *named-item* |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **key** *pki-file-name*

| | |
|---|---|
| Synopsis | File name of the imported key used for authentication |
| Context | **configure** ipsec cert-profile *named-item* entry *number* key *pki-file-name* |
| Tree | key |
| String length | 1 to 95 |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **rsa-signature** *keyword*

| | |
|---|---|
| Synopsis | Signature scheme for the RSA key |
| Context | **configure** ipsec cert-profile *named-item* entry *number* rsa-signature *keyword* |
| Tree | rsa-signature |
| Options | pkcs1, pss |
| Default | pkcs1 |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **send-chain**

| | |
|---|---|
| Synopsis | Enter the **send-chain** context |


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| | |
|---|---|
| Context | **configure** ipsec cert-profile *named-item* entry *number* send-chain |
| Tree | send-chain |
| Description | Commands in this context allow the system to send additional CA certificates to the peer. These additional CA certificates must be in the certificate chain of the certificate specified by the **cert** command in the same entry. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ca-profile** *reference*

| | |
|---|---|
| Synopsis | CA certificate to send to the peer |
| Context | **configure** ipsec cert-profile *named-item* entry *number* send-chain ca-profile *reference* |
| Tree | ca-profile |
| Reference | **configure** system security pki ca-profile *named-item* |
| Max. instances | 7 |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **client-db** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **client-db** list instance |
| Context | **configure** ipsec client-db *named-item* |
| Tree | client-db |
| Max. instances | 1000 |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | IPsec client database name |
| Context | **configure** ipsec client-db *named-item* |
| Tree | client-db |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the client database |
| Context | **configure** ipsec client-db *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **client** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **client** list instance |
| Context | **configure** ipsec client-db *named-item* client *number* |
| Tree | client |
| Description | Commands in this context configure the IPsec client entry in the client database. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**id**] *number*

| | |
|---|---|
| Synopsis | Client ID |
| Context | **configure** ipsec client-db *named-item* client *number* |
| Tree | client |
| Range | 1 to 8000 |
| Notes | This element is part of a list key. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the database client |


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| | |
|---|---|
| Context | **configure** ipsec client-db *named-item* client *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **client-name** *named-item*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Client name |
| Context | **configure** ipsec client-db *named-item* client *number* client-name *named-item* |
| Tree | client-name |
| String length | 1 to 32 |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **credential**

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **credential** context |
| Context | **configure** ipsec client-db *named-item* client *number* credential |
| Tree | credential |
| Description | Commands in this context authenticate peers. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **pre-shared-key** *encrypted-leaf-hex-without-prefix*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Pre-shared key used to authenticate peers |
| Context | **configure** ipsec client-db *named-item* client *number* credential pre-shared-key *encrypted-leaf-hex-without-prefix* |
| Tree | pre-shared-key |
| String length | 1 to 115 |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## identification

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **identification** context |
| Context | **configure** ipsec client-db *named-item* client *number* identification |
| Tree | identification |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## idi

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable the **idi** context |
| Context | **configure** ipsec client-db *named-item* client *number* identification idi |
| Tree | idi |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **any** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Accept any IDi value as a match |
| Context | **configure** ipsec client-db *named-item* client *number* identification idi any *boolean* |
| Tree | any |
| Notes | The following elements are part of a mandatory choice: **any**, **fqdn**, **fqdn-suffix**, **ipv4-prefix**, **ipv4-prefix-any**, **ipv6-prefix**, **ipv6-prefix-any**, **rfc822**, or **rfc822-suffix**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **fqdn** *display-string-or-empty*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | FQDN used as the match criteria for the IDi |
| Context | **configure** ipsec client-db *named-item* client *number* identification idi fqdn *display-string-or-empty* |
| Tree | fqdn |
| String length | 0 to 255 |
| Notes | The following elements are part of a mandatory choice: **any**, **fqdn**, **fqdn-suffix**, **ipv4-prefix**, **ipv4-prefix-any**, **ipv6-prefix**, **ipv6-prefix-any**, **rfc822**, or **rfc822-suffix**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **fqdn-suffix** *display-string-or-empty*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | FQDN suffix used as the match criteria for the IDi |


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| | |
|---|---|
| Context | **configure** ipsec client-db *named-item* client *number* identification idi fqdn-suffix *display-string-or-empty* |
| Tree | fqdn-suffix |
| String length | 0 to 255 |
| Notes | The following elements are part of a mandatory choice: **any**, **fqdn**, **fqdn-suffix**, **ipv4-prefix**, **ipv4-prefix-any**, **ipv6-prefix**, **ipv6-prefix-any**, **rfc822**, or **rfc822-suffix**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **ipv4-prefix** *ipv4-prefix*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IPv4 prefix used as the match criteria for the IDi |
| Context | **configure** ipsec client-db *named-item* client *number* identification idi ipv4-prefix *ipv4-prefix* |
| Tree | ipv4-prefix |
| Notes | The following elements are part of a mandatory choice: **any**, **fqdn**, **fqdn-suffix**, **ipv4-prefix**, **ipv4-prefix-any**, **ipv6-prefix**, **ipv6-prefix-any**, **rfc822**, or **rfc822-suffix**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **ipv4-prefix-any** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Accept any valid IPv4 prefix as a match for the IDi |
| Context | **configure** ipsec client-db *named-item* client *number* identification idi ipv4-prefix-any *boolean* |
| Tree | ipv4-prefix-any |
| Notes | The following elements are part of a mandatory choice: **any**, **fqdn**, **fqdn-suffix**, **ipv4-prefix**, **ipv4-prefix-any**, **ipv6-prefix**, **ipv6-prefix-any**, **rfc822**, or **rfc822-suffix**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **ipv6-prefix** *ipv6-prefix*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IPv6 prefix used as the match criteria for the IDi |
| Context | **configure** ipsec client-db *named-item* client *number* identification idi ipv6-prefix *ipv6-prefix* |
| Tree | ipv6-prefix |
| Notes | The following elements are part of a mandatory choice: **any**, **fqdn**, **fqdn-suffix**, **ipv4-prefix**, **ipv4-prefix-any**, **ipv6-prefix**, **ipv6-prefix-any**, **rfc822**, or **rfc822-suffix**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ipv6-prefix-any** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Accept any valid IPv6 prefix as a match for the IDi |
| Context | **configure** ipsec client-db *named-item* client *number* identification idi ipv6-prefix-any *boolean* |
| Tree | ipv6-prefix-any |
| Notes | The following elements are part of a mandatory choice: **any**, **fqdn**, **fqdn-suffix**, **ipv4-prefix**, **ipv4-prefix-any**, **ipv6-prefix**, **ipv6-prefix-any**, **rfc822**, or **rfc822-suffix**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **rfc822** *display-string-or-empty*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Email address (RFC 822) used as match criteria for IDi |
| Context | **configure** ipsec client-db *named-item* client *number* identification idi rfc822 *display-string-or-empty* |


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| | |
|---|---|
| Tree | rfc822 |
| String length | 0 to 255 |
| Notes | The following elements are part of a mandatory choice: **any**, **fqdn**, **fqdn-suffix**, **ipv4-prefix**, **ipv4-prefix-any**, **ipv6-prefix**, **ipv6-prefix-any**, **rfc822**, or **rfc822-suffix**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **rfc822-suffix** *display-string-or-empty*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Email address domain (RFC 822) as IDi match criteria |
| Context | **configure** ipsec client-db *named-item* client *number* identification idi rfc822-suffix *display-string-or-empty* |
| Tree | rfc822-suffix |
| String length | 0 to 255 |
| Notes | The following elements are part of a mandatory choice: **any**, **fqdn**, **fqdn-suffix**, **ipv4-prefix**, **ipv4-prefix-any**, **ipv6-prefix**, **ipv6-prefix-any**, **rfc822**, or **rfc822-suffix**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **peer-ip-prefix**

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable the **peer-ip-prefix** context |
| Context | **configure** ipsec client-db *named-item* client *number* identification peer-ip-prefix |
| Tree | peer-ip-prefix |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **ip-prefix** *(ipv4-prefix | ipv6-prefix)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IP prefix used as the match criteria |
| Context | **configure** ipsec client-db *named-item* client *number* identification peer-ip-prefix ip-prefix *(ipv4-prefix \| ipv6-prefix)* |
| Tree | ip-prefix |
| Notes | The following elements are part of a mandatory choice: **ip-prefix**, **ipv4-only**, or **ipv6-only**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **ipv4-only** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Accept any valid IPv4 address as a match |
| Context | **configure** ipsec client-db *named-item* client *number* identification peer-ip-prefix ipv4-only *boolean* |
| Tree | ipv4-only |
| Notes | The following elements are part of a mandatory choice: **ip-prefix**, **ipv4-only**, or **ipv6-only**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **ipv6-only** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Accept any valid IPv6 address as a match |
| Context | **configure** ipsec client-db *named-item* client *number* identification peer-ip-prefix ipv6-only *boolean* |


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| | |
|---|---|
| Tree | ipv6-only |
| Notes | The following elements are part of a mandatory choice: **ip-prefix**, **ipv4-only**, or **ipv6-only**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **private-interface** *named-item*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Private interface name used for tunnel setup |
| Context | **configure** ipsec client-db *named-item* client *number* private-interface *named-item* |
| Tree | private-interface |
| String length | 1 to 32 |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **private-service-name** *service-name*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Name of the private service used for tunnel setup |
| Context | **configure** ipsec client-db *named-item* client *number* private-service-name *service-name* |
| Tree | private-service-name |
| String length | 1 to 64 |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **ts-list** *named-item*

**WARNING:**
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| | |
|---|---|
| Synopsis | Traffic selector list used by the tunnel |
| Context | **configure** ipsec client-db *named-item* client *number* ts-list *named-item* |
| Tree | ts-list |
| String length | 1 to 32 |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **tunnel-template** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Tunnel template ID |
| Context | **configure** ipsec client-db *named-item* client *number* tunnel-template *number* |
| Tree | tunnel-template |
| Range | 1 to 2048 |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** ipsec client-db *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **match-list**

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **match-list** context |
| Context | **configure** ipsec client-db *named-item* match-list |


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| | |
|---|---|
| Tree | match-list |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **idi** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Use IDi type in the IPsec client matching process |
| Context | **configure** ipsec client-db *named-item* match-list idi *boolean* |
| Tree | idi |
| Default | false |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **peer-ip-prefix** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Use the peer tunnel IP address in the matching process |
| Context | **configure** ipsec client-db *named-item* match-list peer-ip-prefix *boolean* |
| Tree | peer-ip-prefix |
| Default | false |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ike-policy** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **ike-policy** list instance |
| Context | **configure** ipsec ike-policy *number* |
| Tree | ike-policy |
| Description | Commands in this context configure an Internet Key Exchange (IKE) policy. |


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| | |
|---|---|
| Max. instances | 2048 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**id**] *number*

| | |
|---|---|
| Synopsis | IKE policy ID |
| Context | **configure** ipsec ike-policy *number* |
| Tree | ike-policy |
| Range | 1 to 2048 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** ipsec ike-policy *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **dpd**

| | |
|---|---|
| Synopsis | Enable the **dpd** context |
| Context | **configure** ipsec ike-policy *number* dpd |
| Tree | dpd |
| Description | Commands in this context configure the dead peer detection mechanism. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **interval** *number*

| | |
|---|---|
| Synopsis | DPD interval |
| Context | **configure** ipsec ike-policy *number* dpd interval *number* |
| Tree | interval |
| Description | This command specifies the DPD interval.<br>Because more time is necessary to determine if there is incoming traffic, the actual time needed to bring down the tunnel is larger than the DPD interval multiplied by the value configured for maximum retry attempts. |
| Range | 10 to 300 |
| Units | seconds |
| Default | 30 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **max-retries** *number*

| | |
|---|---|
| Synopsis | Maximum number of retries before the tunnel is removed |
| Context | **configure** ipsec ike-policy *number* dpd max-retries *number* |
| Tree | max-retries |
| Range | 2 to 5 |
| Default | 3 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **reply-only** *boolean*

| | |
|---|---|
| Synopsis | Initiate DPD request for incoming ESP or IKE packets |
| Context | **configure** ipsec ike-policy *number* dpd reply-only *boolean* |
| Tree | reply-only |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **ike-transform** *reference*

| | |
|---|---|
| Synopsis | IKE transform instance associated with the IKE policy |
| Context | **configure** ipsec ike-policy *number* ike-transform *reference* |
| Tree | ike-transform |
| Description | This command specifies the IKE transform instance associated with the IKE policy. If multiple IDs are specified, the system selects an IKE transform based on the proposal of the peer. If the system is a tunnel initiator, it uses the configured IKE transform to generate the SA payload. |
| Reference | **configure** ipsec ike-transform *number* |
| Max. instances | 4 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **ike-version-1**

| | |
|---|---|
| Synopsis | Enter the **ike-version-1** context |
| Context | **configure** ipsec ike-policy *number* ike-version-1 |
| Tree | ike-version-1 |
| Description | Commands in this context configure the IKE version 1 mode of operation that the IKE policy uses. |
| Notes | The following elements are part of a choice: **ike-version-1** or **ike-version-2**. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **auth-method** *keyword*

| | |
|---|---|
| Synopsis | Authentication method used with the IKE policy |
| Context | **configure** ipsec ike-policy *number* ike-version-1 auth-method *keyword* |
| Tree | auth-method |
| Options | psk, plain-psk-xauth |
| Default | psk |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **ike-mode** *keyword*

| | |
|---|---|
| Synopsis | Mode of operation |
| Context | **configure** ipsec ike-policy *number* ike-version-1 ike-mode *keyword* |
| Tree | ike-mode |
| Options | main, aggressive |
| Default | main |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **own-auth-method** *keyword*

| | |
|---|---|
| Synopsis | Authentication method used with policy on its own side |
| Context | **configure** ipsec ike-policy *number* ike-version-1 own-auth-method *keyword* |
| Tree | own-auth-method |
| Options | symmetric |
| Default | symmetric |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ph1-responder-delete-notify** *boolean*

| | |
|---|---|
| Synopsis | Send delete notification for IKEv1 phase 1 removal |
| Context | **configure** ipsec ike-policy *number* ike-version-1 ph1-responder-delete-notify *boolean* |
| Tree | ph1-responder-delete-notify |
| Description | When configured to **true**, a delete notification is sent to the peer when deleting an IKEv1 phase 1 SA for which it was the responder.<br>When configured to **false**, no notification is sent. |
| Default | true |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ike-version-2**

| | |
|---|---|
| Synopsis | Enable the **ike-version-2** context |


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| | |
|---|---|
| Context | **configure** ipsec ike-policy *number* ike-version-2 |
| Tree | ike-version-2 |
| Description | Commands in this context configure the IKE version 2 mode of operation that the IKE policy uses. |
| Notes | The following elements are part of a choice: **ike-version-1** or **ike-version-2**. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **auth-method** *keyword*

| | |
|---|---|
| Synopsis | Authentication method used with the IKE policy |
| Context | **configure** ipsec ike-policy *number* ike-version-2 auth-method *keyword* |
| Tree | auth-method |
| Options | psk, cert, psk-radius, cert-radius, eap, auto-eap-radius, auto-eap |
| Default | psk |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **auto-eap-method** *keyword*

| | |
|---|---|
| Synopsis | Authentication method used for the remote peer |
| Context | **configure** ipsec ike-policy *number* ike-version-2 auto-eap-method *keyword* |
| Tree | auto-eap-method |
| Description | This command specifies the behavior for the IKEv2 remote-access tunnel when the authentication method uses EAP or potentially another method to authenticate the remote peer. |
| Options | psk, cert, psk-or-cert |
| Default | cert |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **ikev2-fragment**

| | |
|---|---|
| Synopsis | Enable the **ikev2-fragment** context |
| Context | **configure** ipsec ike-policy *number* ike-version-2 ikev2-fragment |
| Tree | ikev2-fragment |


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| | |
|---|---|
| Description | Commands in this context configure IKEv2 protocol level fragmentation (RFC 7383). |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **mtu** *number*

| | |
|---|---|
| Synopsis | Maximum size of the IKEv2 packet |
| Context | **configure** ipsec ike-policy *number* ike-version-2 ikev2-fragment mtu *number* |
| Tree | mtu |
| Range | 512 to 9000 |
| Units | octets |
| Default | 1500 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **reassembly-timeout** *number*

| | |
|---|---|
| Synopsis | Timeout for reassembly of IKEv2 message fragments |
| Context | **configure** ipsec ike-policy *number* ike-version-2 ikev2-fragment reassembly-timeout *number* |
| Tree | reassembly-timeout |
| Range | 1 to 5 |
| Units | seconds |
| Default | 2 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **own-auth-method** *keyword*

| | |
|---|---|
| Synopsis | Authentication method used with IKE policy on own side |
| Context | **configure** ipsec ike-policy *number* ike-version-2 own-auth-method *keyword* |
| Tree | own-auth-method |
| Options | symmetric, psk, cert, eap-only |
| Default | symmetric |
| Introduced | 16.0.R4 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **own-auto-eap-method** *keyword*

| | |
|---|---|
| Synopsis | Authentication method used on its own side |
| Context | **configure** ipsec ike-policy *number* ike-version-2 own-auto-eap-method *keyword* |
| Tree | own-auto-eap-method |
| Description | This command specifies the behavior for the IKEv2 remote-access tunnel when the authentication method uses EAP or potentially another method to authenticate the peer. |
| Options | psk, cert |
| Default | cert |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **ppk-required** *boolean*

| | |
|---|---|
| Synopsis | Force the use of PPK |
| Context | **configure** ipsec ike-policy *number* ike-version-2 ppk-required *boolean* |
| Tree | ppk-required |
| Description | When configured to **true**, the router is forced to use PPKs for the IKEv2 key derivation process. When configured to **false**, PPK use is optional, and the router can fall back to derive keys without PPK. |
| Default | false |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **send-idr-after-eap-success** *boolean*

| | |
|---|---|
| Synopsis | Send IDr payload in last IKE authentication response |
| Context | **configure** ipsec ike-policy *number* ike-version-2 send-idr-after-eap-success *boolean* |
| Tree | send-idr-after-eap-success |
| Description | When configured to **true**, the Identification Responder (IDr) payload is added in the last IKE authentication response after an Extensible Authentication Protocol (EAP) Success packet is received.<br>When configured to **false**, the IDr payload is not included in the last IKE. |
| Default | true |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ipsec-lifetime** *number*

| | |
|---|---|
| Synopsis | Lifetime of the Phase 2 IKE key |
| Context | **configure** ipsec ike-policy *number* ipsec-lifetime *number* |
| Tree | ipsec-lifetime |
| Range | 1200 to 31536000 |
| Units | seconds |
| Default | 3600 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **limit-init-exchange**

| | |
|---|---|
| Synopsis | Enter the **limit-init-exchange** context |
| Context | **configure** ipsec ike-policy *number* limit-init-exchange |
| Tree | limit-init-exchange |
| Description | Commands in this context limit the number of ongoing IKEv2 initial exchanges per tunnel. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of limiting initial IKE exchanges |
| Context | **configure** ipsec ike-policy *number* limit-init-exchange admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **reduced-max-exchange-timeout** *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum timeout for in-progress initial IKE exchange |
| Context | **configure** ipsec ike-policy *number* limit-init-exchange reduced-max-exchange-timeout *(number \| keyword)* |
| Tree | reduced-max-exchange-timeout |
| Description | This command configures the maximum timeout for the in-progress initial IKE exchange. If a new IKEv2 IKE_SA_INIT request is received when there is an ongoing IKEv2 initial exchange from the same peer, the timeout value of the existing exchange is set to this specified value. If the **none** option is configured for this command, the timeout value remains unchanged. |
| Range | 2 to 60 |
| Units | seconds |
| Options | none |
| Default | 2 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **lockout**

| | |
|---|---|
| Synopsis | Enable the **lockout** context |
| Context | **configure** ipsec ike-policy *number* lockout |
| Tree | lockout |
| Description | Commands in this context specify the lockout mechanism for the IPsec tunnel. These commands apply only when the system acts as a tunnel responder. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **block** *(number | keyword)*

| | |
|---|---|
| Synopsis | Time a client is blocked for failed authentications |
| Context | **configure** ipsec ike-policy *number* lockout block *(number \| keyword)* |
| Tree | block |
| Description | This command configures the time the client is blocked if the number of failed authentications exceeds the configured value within the specified duration. |
| Range | 1 to 1440 |
| Units | minutes |


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| | |
|---|---|
| Options | infinite |
| Default | 10 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **duration** *number*

| | |
|---|---|
| Synopsis | Time interval for failed attempts threshold |
| Context | **configure** ipsec ike-policy *number* lockout duration *number* |
| Tree | duration |
| Description | This command specifies the time interval in which the configured failed authentication count must be exceeded to trigger a lockout. |
| Range | 1 to 60 |
| Units | minutes |
| Default | 5 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **failed-attempts** *number*

| | |
|---|---|
| Synopsis | Maximum failed authentications allowed in the duration |
| Context | **configure** ipsec ike-policy *number* lockout failed-attempts *number* |
| Tree | failed-attempts |
| Range | 1 to 64 |
| Default | 3 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **max-port-per-ip** *number*

| | |
|---|---|
| Synopsis | Maximum number of ports allowed under same IP address |
| Context | **configure** ipsec ike-policy *number* lockout max-port-per-ip *number* |
| Tree | max-port-per-ip |
| Description | This command configures the maximum number of ports allowed under the same IP address. When the threshold is exceeded and the client is locked out, all ports behind the IP address are blocked. |


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| | |
|---|---|
| Range | 1 to 32000 |
| Default | 16 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **match-peer-id-to-cert** *boolean*

| | |
|---|---|
| Synopsis | Check IKE peer ID during certificate authentication |
| Context | **configure** ipsec ike-policy *number* match-peer-id-to-cert *boolean* |
| Tree | match-peer-id-to-cert |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **nat-traversal**

| | |
|---|---|
| Synopsis | Enable the **nat-traversal** context |
| Context | **configure** ipsec ike-policy *number* nat-traversal |
| Tree | nat-traversal |
| Description | Commands in this context configure the Network Address Translation Traversal (NAT-T) functionality. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **force** *boolean*

| | |
|---|---|
| Synopsis | Enable NAT-T in forced mode |
| Context | **configure** ipsec ike-policy *number* nat-traversal force *boolean* |
| Tree | force |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **force-keep-alive** *boolean*

| | |
|---|---|
| Synopsis | Continue sending keepalive packets (no expiry) |
| Context | **configure** ipsec ike-policy *number* nat-traversal force-keep-alive *boolean* |
| Tree | force-keep-alive |
| Default | true |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **keep-alive-interval** *number*

| | |
|---|---|
| Synopsis | Keepalive interval for NAT-T |
| Context | **configure** ipsec ike-policy *number* nat-traversal keep-alive-interval *number* |
| Tree | keep-alive-interval |
| Range | 120 to 600 |
| Units | seconds |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **pfs**

| | |
|---|---|
| Synopsis | Enable the **pfs** context |
| Context | **configure** ipsec ike-policy *number* pfs |
| Tree | pfs |
| Description | Commands in this context configure perfect forward secrecy on the IPsec tunnel using the policy. PFS provides for a new Diffie-Hellman (DH) key exchange each time the Security Association (SA) key is renegotiated. When the SA key expires, another key is generated (if the SA remains up). |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **dh-group** *keyword*

| | |
|---|---|
| Synopsis | Diffie-Helman group used to calculate session keys |
| Context | **configure** ipsec ike-policy *number* pfs dh-group *keyword* |
| Tree | dh-group |


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| | |
|---|---|
| Description | This command specifies which DH group to use for calculating session keys. More bits provide a higher level of security, but require more processing. |
| Options | group-1, group-2, group-5, group-14, group-15, group-19, group-20, group-21 |
| Default | group-2 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## relay-unsolicited-cfg-attribute

| | |
|---|---|
| Synopsis | Enter the **relay-unsolicited-cfg-attribute** context |
| Context | **configure** ipsec ike-policy *number* relay-unsolicited-cfg-attribute |
| Tree | relay-unsolicited-cfg-attribute |
| Description | Commands in this context configure attributes returned from the source (such as a RADIUS server) that are returned to the IKEv2 remote-access tunnel client regardless if the client has requested the attribute in the CFG_REQUEST payload. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## internal-ip4-address *boolean*

| | |
|---|---|
| Synopsis | Return the IPv4 address from the source to the client |
| Context | **configure** ipsec ike-policy *number* relay-unsolicited-cfg-attribute internal-ip4-address *boolean* |
| Tree | internal-ip4-address |
| Description | When configured to **true**, the system returns the IPv4 address from the source (such as a RADIUS server) to the IKEv2 remote-access tunnel client regardless if the client has requested the address in the CFG_REQUEST payload. |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## internal-ip4-dns *boolean*

| | |
|---|---|
| Synopsis | Return IPv4 DNS server address from source to client |
| Context | **configure** ipsec ike-policy *number* relay-unsolicited-cfg-attribute internal-ip4-dns *boolean* |
| Tree | internal-ip4-dns |


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| | |
|---|---|
| Description | When configured to **true**, the system returns the IPv4 DNS server address from the source (such as a RADIUS server) to the IKEv2 remote-access tunnel client regardless if the client has requested the address in the CFG_REQUEST payload. |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **internal-ip4-netmask** *boolean*

| | |
|---|---|
| Synopsis | Return the IPv4 netmask from the source to the client |
| Context | **configure** ipsec ike-policy *number* relay-unsolicited-cfg-attribute internal-ip4-netmask *boolean* |
| Tree | internal-ip4-netmask |
| Description | When configured to **true**, the system returns the IPv4 netmask from the source (such as a RADIUS server) to the IKEv2 remote-access tunnel client regardless if the client has requested the netmask in the CFG_REQUEST payload. |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **internal-ip6-address** *boolean*

| | |
|---|---|
| Synopsis | Return the IPv6 address from the source to the client |
| Context | **configure** ipsec ike-policy *number* relay-unsolicited-cfg-attribute internal-ip6-address *boolean* |
| Tree | internal-ip6-address |
| Description | When configured to **true**, the system returns the IPv6 address from the source (such as a RADIUS server) to the IKEv2 remote-access tunnel client regardless if the client has requested the address in the CFG_REQUEST payload. |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **internal-ip6-dns** *boolean*

| | |
|---|---|
| Synopsis | Return IPv6 DNS server address from source to client |
| Context | **configure** ipsec ike-policy *number* relay-unsolicited-cfg-attribute internal-ip6-dns *boolean* |


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| | |
|---|---|
| Tree | internal-ip6-dns |
| Description | When configured to **true**, the system returns the IPv6 DNS server address from the source (such as a RADIUS server) to the IKEv2 remote-access tunnel client regardless if the client has requested the address in the CFG_REQUEST payload. |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ike-transform** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **ike-transform** list instance |
| Context | **configure** ipsec ike-transform *number* |
| Tree | ike-transform |
| Max. instances | 4096 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**id**] *number*

| | |
|---|---|
| Synopsis | IKE transform instance ID |
| Context | **configure** ipsec ike-transform *number* |
| Tree | ike-transform |
| Range | 1 to 4096 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **dh-group** *keyword*

| | |
|---|---|
| Synopsis | Diffie-Helman group used to calculate session keys |
| Context | **configure** ipsec ike-transform *number* dh-group *keyword* |
| Tree | dh-group |
| Options | group-1, group-2, group-5, group-14, group-15, group-19, group-20, group-21 |
| Default | group-2 |
| Introduced | 16.0.R4 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **ike-auth-algorithm** *keyword*

| | |
|---|---|
| Synopsis | IKE authentication algorithm for IKE transform instance |
| Context | **configure** ipsec ike-transform *number* ike-auth-algorithm *keyword* |
| Tree | ike-auth-algorithm |
| Options | md-5, sha-1, sha-256, sha-384, sha-512, aes-xcbc, auth-encryption |
| Default | sha-1 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **ike-encryption-algorithm** *keyword*

| | |
|---|---|
| Synopsis | IKE encryption algorith for the IKE transform instance |
| Context | **configure** ipsec ike-transform *number* ike-encryption-algorithm *keyword* |
| Tree | ike-encryption-algorithm |
| Options | des, des-3, aes-128, aes-192, aes-256, aes128-gcm8, aes128-gcm16, aes256-gcm8, aes256-gcm16 |
| Default | aes-128 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **ike-prf-algorithm** *keyword*

| | |
|---|---|
| Synopsis | PRF algorithm for the IKE transform instance |
| Context | **configure** ipsec ike-transform *number* ike-prf-algorithm *keyword* |
| Tree | ike-prf-algorithm |
| Description | This command specifies the pseudo-random function algorithm used for IKE security association.<br>If an encrypted algorithm such as AES-GCM is used for the IKE encryption algorithm, **same-as-auth** cannot be used for the IKE PRF algorithm. |
| Options | md-5, sha-1, sha-256, sha-384, sha-512, aes-xcbc, same-as-auth |
| Default | same-as-auth |
| Introduced | 16.0.R6 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **isakmp-lifetime** *number*

| | |
|---|---|
| Synopsis | Phase 1 lifetime for the IKE transform instance |
| Context | **configure** ipsec ike-transform *number* isakmp-lifetime *number* |
| Tree | isakmp-lifetime |
| Range | 1200 to 31536000 |
| Units | seconds |
| Default | 86400 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ipsec-transform** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **ipsec-transform** list instance |
| Context | **configure** ipsec ipsec-transform *number* |
| Tree | ipsec-transform |
| Description | Commands in this context create an IPsec transform policy. IPsec transform policies can be shared. A change to the IPsec transform is allowed at any time. The change does not impact tunnels that have been established until they are renegotiated. If the change is required immediately, the tunnel must be cleared (reset) for force renegotiation. |
| Max. instances | 2048 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**id**] *number*

| | |
|---|---|
| Synopsis | IPsec transform policy ID |
| Context | **configure** ipsec ipsec-transform *number* |
| Tree | ipsec-transform |
| Range | 1 to 2048 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **esp-auth-algorithm** *keyword*

| | |
|---|---|
| Synopsis | Encapsulating Security Payload (ESP) authentication |
| Context | **configure** ipsec ipsec-transform *number* esp-auth-algorithm *keyword* |
| Tree | esp-auth-algorithm |
| Description | This command specifies the hashing algorithm used for the authentication function. Both ends of a manually configured tunnel must share the same configuration for the IPsec tunnel to enter the operational state. |
| Options | null, md-5, sha-1, sha-256, sha-384, sha-512, aes-xcbc, auth-encryption |
| Default | sha-1 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **esp-encryption-algorithm** *keyword*

| | |
|---|---|
| Synopsis | Encryption algorithm for the IPsec transform session |
| Context | **configure** ipsec ipsec-transform *number* esp-encryption-algorithm *keyword* |
| Tree | esp-encryption-algorithm |
| Description | This command specifies the encryption algorithm used for the IPsec session. Encryption applies only to ESP configurations. If encryption is not defined, ESP is not used.<br>Both ends of a manually configured tunnel must share the same encryption algorithm for the IPsec tunnel to enter the operational state.<br>When AES-GCM or AES-GMAC is configured:<br>• the authentication encryption must be set to **auth-encryption**<br>• the system does not include the authentication algorithm in the ESP proposal of the SA payload<br>• IPsec transform cannot be used for manual keying |
| Options | null, des, des-3, aes-128, aes-192, aes-256, aes128-gcm8, aes128-gcm12, aes128-gcm16, aes192-gcm8, aes192-gcm12, aes192-gcm16, aes256-gcm8, aes256-gcm12, aes256-gcm16, null-aes128-gmac, null-aes192-gmac, null-aes256-gmac |
| Default | aes-128 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **extended-sequence-number** *boolean*

| | |
|---|---|
| Synopsis | Enable extended sequence numbering support |
| Context | **configure** ipsec ipsec-transform *number* extended-sequence-number *boolean* |
| Tree | extended-sequence-number |
| Description | When configured to **true**, this command enables 64-bit extended sequence numbering support. This numbering is used for high throughput CHILD_SA to avoid frequent re-keying caused by sequence numbering wrap around.<br>When configured to **false**, only 32-bit sequence numbering is supported. |
| Default | false |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ipsec-lifetime** *number*

| | |
|---|---|
| Synopsis | Phase 2 lifetime for the IPsec transform session |
| Context | **configure** ipsec ipsec-transform *number* ipsec-lifetime *number* |
| Tree | ipsec-lifetime |
| Description | This command configures the lifetime of the Phase 2 IKE key.<br>When unconfigured, the value is inherited from the IPsec lifetime configured in the corresponding IKE policy configured for the same IPsec gateway or IPsec tunnel. |
| Range | 1200 to 31536000 |
| Units | seconds |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **pfs-dh-group** *keyword*

| | |
|---|---|
| Synopsis | Diffie-Hellman group used for PFS compilation |
| Context | **configure** ipsec ipsec-transform *number* pfs-dh-group *keyword* |
| Tree | pfs-dh-group |
| Description | This command specifies the DH group used for Perfect Forward Secrecy (PFS) compilation during CHILD_SA rekeying.<br>When unconfigured, the value is inherited from the DH group value from the IPsec gateway or IPsec tunnel. |
| Options | none, group-1, group-2, group-5, group-14, group-15, group-19, group-20, group-21 |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ipsec-transport-mode-profile** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **ipsec-transport-mode-profile** list instance |
| Context | **configure** ipsec ipsec-transport-mode-profile *named-item* |
| Tree | ipsec-transport-mode-profile |
| Description | Commands in this context configure IPsec-specific attributes that allow an IP tunnel (for example, GRE) to be protected by using IPsec transport mode. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | IPsec transport mode profile name string |
| Context | **configure** ipsec ipsec-transport-mode-profile *named-item* |
| Tree | ipsec-transport-mode-profile |
| Description | This command specifies the name of the IPsec transport mode profile. |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** ipsec ipsec-transport-mode-profile *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## key-exchange

| | |
|---|---|
| Synopsis | Enter the **key-exchange** context |
| Context | **configure** ipsec ipsec-transport-mode-profile *named-item* key-exchange |
| Tree | key-exchange |
| Description | Commands in this context configure the key exchange used each time the Security Association (SA) key is renegotiated. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## dynamic

| | |
|---|---|
| Synopsis | Enter the **dynamic** context |
| Context | **configure** ipsec ipsec-transport-mode-profile *named-item* key-exchange dynamic |
| Tree | dynamic |
| Description | Commands in this context configure dynamic keying for the transport mode profile. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## auto-establish *boolean*

| | |
|---|---|
| Synopsis | Attempt to establish a phase 1 exchange automatically |
| Context | **configure** ipsec ipsec-transport-mode-profile *named-item* key-exchange dynamic auto-establish *boolean* |
| Tree | auto-establish |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## cert

| | |
|---|---|
| Synopsis | Enter the **cert** context |
| Context | **configure** ipsec ipsec-transport-mode-profile *named-item* key-exchange dynamic cert |
| Tree | cert |
| Description | Commands in this context configure the attributes of the dynamic keying certificate. |


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| | |
|---|---|
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **cert-profile** *reference*

| | |
|---|---|
| Synopsis | Certificate profile name |
| Context | **configure** ipsec ipsec-transport-mode-profile *named-item* key-exchange dynamic cert cert-profile *reference* |
| Tree | cert-profile |
| Reference | **configure** ipsec cert-profile *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **status-verify**

| | |
|---|---|
| Synopsis | Enter the **status-verify** context |
| Context | **configure** ipsec ipsec-transport-mode-profile *named-item* key-exchange dynamic cert status-verify |
| Tree | status-verify |
| Description | Commands in this context configure attributes of Certificate Status Verification (CSV). |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **default-result** *keyword*

| | |
|---|---|
| Synopsis | Default result for Certificate Status Verification |
| Context | **configure** ipsec ipsec-transport-mode-profile *named-item* key-exchange dynamic cert status-verify default-result *keyword* |
| Tree | default-result |
| Description | This command specifies the default certificate revocation status result to use when all configured CSV methods fail to return a result. |
| Options | revoked, good |
| Default | revoked |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **primary** *keyword*

| | |
|---|---|
| Synopsis | Primary method of CSV to verify the revocation status |
| Context | **configure** ipsec ipsec-transport-mode-profile *named-item* key-exchange dynamic cert status-verify primary *keyword* |
| Tree | primary |
| Description | This command configures the primary method of Certificate Status Verification (CSV) that is used to verify the revocation status of the certificate of the peer. |
| Options | crl, ocsp |
| Default | crl |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **secondary** *keyword*

| | |
|---|---|
| Synopsis | Secondary method used to verify certificate revocation |
| Context | **configure** ipsec ipsec-transport-mode-profile *named-item* key-exchange dynamic cert status-verify secondary *keyword* |
| Tree | secondary |
| Description | This command specifies the secondary method of Certificate Status Verification (CSV) that is used to verify the revocation status of the peer certificate. |
| Options | none, crl, ocsp |
| Default | none |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **trust-anchor-profile** *reference*

| | |
|---|---|
| Synopsis | Trust anchor profile name |
| Context | **configure** ipsec ipsec-transport-mode-profile *named-item* key-exchange dynamic cert trust-anchor-profile *reference* |
| Tree | trust-anchor-profile |
| Reference | **configure** ipsec trust-anchor-profile *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## id

| | |
|---|---|
| Synopsis | Enter the **id** context |
| Context | **configure** ipsec ipsec-transport-mode-profile *named-item* key-exchange dynamic id |
| Tree | id |
| Description | Commands in this context specify the local ID used for IDi or IDr for IKEv2 negotiation.<br>The default behavior depends on the local authentication method as follows:<br>• Psk: local tunnel IP address<br>• Cert-auth: subject of the local certificate |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## fqdn *fully-qualified-domain-name*

| | |
|---|---|
| Synopsis | FQDN used as the local ID IKE type |
| Context | **configure** ipsec ipsec-transport-mode-profile *named-item* key-exchange dynamic id fqdn *fully-qualified-domain-name* |
| Tree | fqdn |
| String length | 1 to 255 |
| Notes | The following elements are part of a choice: **fqdn**, **ipv4**, or **ipv6**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## ipv4 *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IPv4 as the local ID type |
| Context | **configure** ipsec ipsec-transport-mode-profile *named-item* key-exchange dynamic id ipv4 *ipv4-unicast-address* |
| Tree | ipv4 |
| Notes | The following elements are part of a choice: **fqdn**, **ipv4**, or **ipv6**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **ipv6** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IPv6 used as the local IKE ID type |
| Context | **configure** ipsec ipsec-transport-mode-profile *named-item* key-exchange dynamic id ipv6 *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | ipv6 |
| Notes | The following elements are part of a choice: **fqdn**, **ipv4**, or **ipv6**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ike-policy** *reference*

| | |
|---|---|
| Synopsis | IKE policy ID |
| Context | **configure** ipsec ipsec-transport-mode-profile *named-item* key-exchange dynamic ike-policy *reference* |
| Tree | ike-policy |
| Description | This command specifies the ID of the IKE policy used for IKE negotiation.<br>The **ipsec-transport-mode-profile** configuration only supports IKEv2. |
| Reference | **configure** ipsec ike-policy *number* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ipsec-transform** *reference*

| | |
|---|---|
| Synopsis | IPsec transform IDs used by the dynamic key |
| Context | **configure** ipsec ipsec-transport-mode-profile *named-item* key-exchange dynamic ipsec-transform *reference* |
| Tree | ipsec-transform |
| Description | This command specifies IPsec transform IDs used for CHILD_SA negotiation. |
| Reference | **configure** ipsec ipsec-transform *number* |
| Max. instances | 4 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## ppk

| | |
|---|---|
| Synopsis | Enter the **ppk** context |
| Context | **configure** ipsec ipsec-transport-mode-profile *named-item* key-exchange dynamic ppk |
| Tree | ppk |
| Description | Commands in this context configure the PPKs to use for dynamic keying of the IPsec tunnel. |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## id *reference*

| | |
|---|---|
| Synopsis | PPK ID |
| Context | **configure** ipsec ipsec-transport-mode-profile *named-item* key-exchange dynamic ppk id *reference* |
| Tree | id |
| Reference | **configure** ipsec ppk-list *named-item* ppk *named-item-64* |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## list *reference*

| | |
|---|---|
| Synopsis | PPK list instance name |
| Context | **configure** ipsec ipsec-transport-mode-profile *named-item* key-exchange dynamic ppk list *reference* |
| Tree | list |
| Reference | **configure** ipsec ppk-list *named-item* |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## pre-shared-key *encrypted-leaf*

| | |
|---|---|
| Synopsis | Pre-shared key for IKE authentication |
| Context | **configure** ipsec ipsec-transport-mode-profile *named-item* key-exchange dynamic pre-shared-key *encrypted-leaf* |
| Tree | pre-shared-key |


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| | |
|---|---|
| String length | 1 to 115 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## max-history-key-records

| | |
|---|---|
| Synopsis | Enter the **max-history-key-records** context |
| Context | **configure** ipsec ipsec-transport-mode-profile *named-item* max-history-key-records |
| Tree | max-history-key-records |
| Description | Commands in this context configure the settings for recording historical IPsec keys. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## esp *number*

| | |
|---|---|
| Synopsis | Maximum number of recent records |
| Context | **configure** ipsec ipsec-transport-mode-profile *named-item* max-history-key-records esp *number* |
| Tree | esp |
| Range | 1 to 48 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## ike *number*

| | |
|---|---|
| Synopsis | Maximum number of historical IKE key records |
| Context | **configure** ipsec ipsec-transport-mode-profile *named-item* max-history-key-records ike *number* |
| Tree | ike |
| Range | 1 to 3 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## replay-window *number*

| | |
|---|---|
| Synopsis | Anti-replay window size |


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| | |
|---|---|
| Context | **configure** ipsec ipsec-transport-mode-profile *named-item* replay-window *number* |
| Tree | replay-window |
| Description | This command specifies the size of an IPsec anti-replay window. If unconfigured, IPsec anti-replay is disabled. |
| Range | 32 \| 64 \| 128 \| 256 \| 512 |
| Units | packets |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ppk-list** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **ppk-list** list instance |
| Context | **configure** ipsec ppk-list *named-item* |
| Tree | ppk-list |
| Description | Commands in this context configure the list of Post-quantum Preshared Keys (PPKs) to use for IKEv2 key derivation, as described in RFC 8784. |
| Max. instances | 128 |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | PPK list instance name |
| Context | **configure** ipsec ppk-list *named-item* |
| Tree | ppk-list |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ppk** [ppk-id] *named-item-64*

| | |
|---|---|
| Synopsis | Enter the **ppk** list instance |
| Context | **configure** ipsec ppk-list *named-item* ppk *named-item-64* |
| Tree | ppk |


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| | |
|---|---|
| Description | Commands in this context configure the attributes for a PPK within the list. |
| Max. instances | 128 |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**ppk-id**] *named-item-64*

| | |
|---|---|
| Synopsis | PPK ID |
| Context | **configure** ipsec ppk-list *named-item* ppk *named-item-64* |
| Tree | ppk |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **value**

| | |
|---|---|
| Synopsis | Enable the **value** context |
| Context | **configure** ipsec ppk-list *named-item* ppk *named-item-64* value |
| Tree | value |
| Description | Commands in this context configure the values for the specified PPK. |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ascii** *encrypted-leaf*

| | |
|---|---|
| Synopsis | PPK value as an ASCII string |
| Context | **configure** ipsec ppk-list *named-item* ppk *named-item-64* value ascii *encrypted-leaf* |
| Tree | ascii |
| String length | 1 to 115 |
| Notes | The following elements are part of a mandatory choice: **ascii** or **hex**. |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **hex** *encrypted-leaf-hex*

| | |
|---|---|
| Synopsis | PPK value as a hexadecimal string with prefix 0x |
| Context | **configure** ipsec ppk-list *named-item* ppk *named-item-64* value hex *encrypted-leaf-hex* |
| Tree | hex |
| String length | 1 to 115 |
| Notes | The following elements are part of a mandatory choice: **ascii** or **hex**. |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **radius**

| | |
|---|---|
| Synopsis | Enter the **radius** context |
| Context | **configure** ipsec radius |
| Tree | radius |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **accounting-policy** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **accounting-policy** list instance |
| Context | **configure** ipsec radius accounting-policy *named-item* |
| Tree | accounting-policy |
| Description | Commands in this context configure RADIUS accounting policies to collect accounting statistics. |
| Max. instances | 100 |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | RADIUS accounting policy name |
| Context | **configure** ipsec radius accounting-policy *named-item* |
| Tree | accounting-policy |


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| | |
|---|---|
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## include-radius-attribute

| | |
|---|---|
| Synopsis | Enter the **include-radius-attribute** context |
| Context | **configure** ipsec radius accounting-policy *named-item* include-radius-attribute |
| Tree | include-radius-attribute |
| Description | Commands in this context specify the RADIUS attributes that are to be included in the RADIUS Authentication-Request messages. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## acct-stats *boolean*

| | |
|---|---|
| Synopsis | Include accounting attributes in RADIUS packets |
| Context | **configure** ipsec radius accounting-policy *named-item* include-radius-attribute acct-stats *boolean* |
| Tree | acct-stats |
| Default | false |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## called-station-id *boolean*

| | |
|---|---|
| Synopsis | Include the Called-Station-Id attribute |
| Context | **configure** ipsec radius accounting-policy *named-item* include-radius-attribute called-station-id *boolean* |
| Tree | called-station-id |
| Default | false |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **calling-station-id** *boolean*

| | |
|---|---|
| Synopsis | Include the Calling-Station-Id attribute |
| Context | **configure** ipsec radius accounting-policy *named-item* include-radius-attribute calling-station-id *boolean* |
| Tree | calling-station-id |
| Default | false |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **framed-ip-addr** *boolean*

| | |
|---|---|
| Synopsis | Include the Framed-IP-Address attribute |
| Context | **configure** ipsec radius accounting-policy *named-item* include-radius-attribute framed-ip-addr *boolean* |
| Tree | framed-ip-addr |
| Default | false |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **framed-ipv6-prefix** *boolean*

| | |
|---|---|
| Synopsis | Include the Framed-IPv6-Prefix attribute |
| Context | **configure** ipsec radius accounting-policy *named-item* include-radius-attribute framed-ipv6-prefix *boolean* |
| Tree | framed-ipv6-prefix |
| Default | false |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **nas-identifier** *boolean*

| | |
|---|---|
| Synopsis | Include the NAS-Identifier attribute |
| Context | **configure** ipsec radius accounting-policy *named-item* include-radius-attribute nas-identifier *boolean* |
| Tree | nas-identifier |


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| | |
|---|---|
| Default | false |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **nas-ip-addr** *boolean*

| | |
|---|---|
| Synopsis | Include the NAS-IP-Address attribute |
| Context | **configure** ipsec radius accounting-policy *named-item* include-radius-attribute nas-ip-addr *boolean* |
| Tree | nas-ip-addr |
| Default | false |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **nas-port-id** *boolean*

| | |
|---|---|
| Synopsis | Include the NAS-Port-Id attribute |
| Context | **configure** ipsec radius accounting-policy *named-item* include-radius-attribute nas-port-id *boolean* |
| Tree | nas-port-id |
| Default | false |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **radius-server-policy** *reference*

| | |
|---|---|
| Synopsis | Referenced RADIUS server policy |
| Context | **configure** ipsec radius accounting-policy *named-item* radius-server-policy *reference* |
| Tree | radius-server-policy |
| Reference | **configure** aaa radius server-policy *named-item* |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **update-interval**

| | |
|---|---|
| Synopsis | Enter the **update-interval** context |


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| | |
|---|---|
| Context | **configure** ipsec radius accounting-policy *named-item* update-interval |
| Tree | update-interval |
| Description | Commands in this context determine how RADIUS interim-update packets are sent for IKEv2 remote-access tunnels. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **jitter** *number*

| | |
|---|---|
| Synopsis | Jitter interval for sending each interim-update packet |
| Context | **configure** ipsec radius accounting-policy *named-item* update-interval jitter *number* |
| Tree | jitter |
| Description | This command specifies the jitter interval for the RADIUS interim-update packets.<br>When unconfigured, the system uses 10% of the update interval value. |
| Range | 0 to 3600 |
| Units | seconds |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **value** *number*

| | |
|---|---|
| Synopsis | Update interval of the RADIUS accounting data |
| Context | **configure** ipsec radius accounting-policy *named-item* update-interval value *number* |
| Tree | value |
| Description | This command configures the update interval of the RADIUS accounting data. If a value of 0 is configured, no intermediate updates are sent. |
| Range | 0 \| 5 to 259200 |
| Units | minutes |
| Default | 10 |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **authentication-policy** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **authentication-policy** list instance |


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| | |
|---|---|
| Context | **configure** ipsec radius authentication-policy *named-item* |
| Tree | authentication-policy |
| Description | Commands in this context configure the RADIUS authentication policy associated with the IPsec gateway. |
| Max. instances | 100 |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## [**name**] *named-item*

| | |
|---|---|
| Synopsis | RADIUS authentication policy name |
| Context | **configure** ipsec radius authentication-policy *named-item* |
| Tree | authentication-policy |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## include-radius-attribute

| | |
|---|---|
| Synopsis | Enter the **include-radius-attribute** context |
| Context | **configure** ipsec radius authentication-policy *named-item* include-radius-attribute |
| Tree | include-radius-attribute |
| Description | Commands in this context specify the RADIUS attributes to be included in the RADIUS Authentication-Request messages. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## called-station-id *boolean*

| | |
|---|---|
| Synopsis | Include the Called-Station-Id attribute |
| Context | **configure** ipsec radius authentication-policy *named-item* include-radius-attribute called-station-id *boolean* |
| Tree | called-station-id |
| Default | false |


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| | |
|---|---|
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **calling-station-id** *boolean*

| | |
|---|---|
| Synopsis | Include the Calling-Station-Id attribute |
| Context | **configure** ipsec radius authentication-policy *named-item* include-radius-attribute calling-station-id *boolean* |
| Tree | calling-station-id |
| Default | false |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **client-cert-subject-key-id** *boolean*

| | |
|---|---|
| Synopsis | Include the Subject Key Identifier |
| Context | **configure** ipsec radius authentication-policy *named-item* include-radius-attribute client-cert-subject-key-id *boolean* |
| Tree | client-cert-subject-key-id |
| Description | When configured to **true**, the Subject Key Identifier of the certificate of the peer is included in the RADIUS Access-Request packet as VSA: Alc-Subject-Key-Identifier.<br>See the *7450 ESS, 7750 SR, 7950 XRS, and VSR RADIUS Attributes Reference Guide* for more information. |
| Default | false |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **nas-identifier** *boolean*

| | |
|---|---|
| Synopsis | Include the NAS-Identifier attribute |
| Context | **configure** ipsec radius authentication-policy *named-item* include-radius-attribute nas-identifier *boolean* |
| Tree | nas-identifier |
| Default | false |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **nas-ip-addr** *boolean*

| | |
|---|---|
| Synopsis | Include the NAS-IP-Address attribute |
| Context | **configure** ipsec radius authentication-policy *named-item* include-radius-attribute nas-ip-addr *boolean* |
| Tree | nas-ip-addr |
| Default | false |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **nas-port-id** *boolean*

| | |
|---|---|
| Synopsis | Include the NAS-Port-Id attribute |
| Context | **configure** ipsec radius authentication-policy *named-item* include-radius-attribute nas-port-id *boolean* |
| Tree | nas-port-id |
| Default | false |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **password** *encrypted-leaf*

| | |
|---|---|
| Synopsis | Password used in RADIUS access requests |
| Context | **configure** ipsec radius authentication-policy *named-item* password *encrypted-leaf* |
| Tree | password |
| String length | 1 to 115 |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **radius-server-policy** *reference*

| | |
|---|---|
| Synopsis | Referenced RADIUS server policy |
| Context | **configure** ipsec radius authentication-policy *named-item* radius-server-policy *reference* |
| Tree | radius-server-policy |
| Reference | **configure** aaa radius server-policy *named-item* |
| Introduced | 19.7.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **show-ipsec-keys** *boolean*

| | |
|---|---|
| Synopsis | Show IPsec IKE and ESP keys in the output |
| Context | **configure** ipsec show-ipsec-keys *boolean* |
| Tree | show-ipsec-keys |
| Description | When configured to **true**, this command allows IPsec keys to be (optionally) included in the display output of certain **debug** and **admin** commands.<br>When configured to **false**, the key display is disabled. |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **static-sa** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **static-sa** list instance |
| Context | **configure** ipsec static-sa *named-item* |
| Tree | static-sa |
| Max. instances | 1000 |
| Introduced | 16.0.R6 |
| Platforms | All |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | Static SA name |
| Context | **configure** ipsec static-sa *named-item* |
| Tree | static-sa |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R6 |
| Platforms | All |


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## authentication

| | |
|---|---|
| Synopsis | Enable the **authentication** context |
| Context | **configure** ipsec static-sa *named-item* authentication |
| Tree | authentication |
| Introduced | 16.0.R6 |
| Platforms | All |

## algorithm *keyword*

| | |
|---|---|
| Synopsis | Authentication algorithm used for an IPsec manual SA |
| Context | **configure** ipsec static-sa *named-item* authentication algorithm *keyword* |
| Tree | algorithm |
| Options | md5, sha1 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R6 |
| Platforms | All |

## key *encrypted-leaf*

| | |
|---|---|
| Synopsis | Key used for the authentication algorithm |
| Context | **configure** ipsec static-sa *named-item* authentication key *encrypted-leaf* |
| Tree | key |
| String length | 1 to 54 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R6 |
| Platforms | All |

## description *named-item*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** ipsec static-sa *named-item* description *named-item* |
| Tree | description |
| String length | 1 to 32 |
| Introduced | 16.0.R6 |


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| | |
|---|---|
| Platforms | All |

## **direction** *keyword*

| | |
|---|---|
| Synopsis | Direction to which the static SA entry can be applied |
| Context | **configure** ipsec static-sa *named-item* direction *keyword* |
| Tree | direction |
| Options | inbound, outbound, bidirectional |
| Default | bidirectional |
| Introduced | 16.0.R6 |
| Platforms | All |

## **protocol** *keyword*

| | |
|---|---|
| Synopsis | IPsec protocol used with the static SA |
| Context | **configure** ipsec static-sa *named-item* protocol *keyword* |
| Tree | protocol |
| Options | ah, esp |
| Default | esp |
| Introduced | 16.0.R6 |
| Platforms | All |

## **spi** *number*

| | |
|---|---|
| Synopsis | Security Parameter Index (SPI) for the static SA |
| Context | **configure** ipsec static-sa *named-item* spi *number* |
| Tree | spi |
| Description | This command specifies the SPI for the static SA.<br>When the **direction** command is set to **inbound**, the SPI is used to look up the instruction to verify and decrypt the incoming IPsec packets. When the **direction** command is set to **outbound**, the SPI is used in the encoding of the outgoing packets. The remote node can use the SPI to look up the instruction to verify and decrypt the packet.<br>When unconfigured, the static SA cannot be used. |
| Range | 256 to 16383 |
| Introduced | 16.0.R6 |


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| | |
|---|---|
| Platforms | All |

### **trust-anchor-profile** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **trust-anchor-profile** list instance |
| Context | **configure** ipsec trust-anchor-profile *named-item* |
| Tree | trust-anchor-profile |
| Max. instances | 10128 |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | Trust anchor profile name for IPsec tunnel or gateway |
| Context | **configure** ipsec trust-anchor-profile *named-item* |
| Tree | trust-anchor-profile |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **trust-anchor** [ca-profile] *reference*

| | |
|---|---|
| Synopsis | Add a list entry for **trust-anchor** |
| Context | **configure** ipsec trust-anchor-profile *named-item* trust-anchor *reference* |
| Tree | trust-anchor |
| Description | Commands in this context configure a CA profile as a trust anchor CA. |
| Max. instances | 8 |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**ca-profile**] *reference*

| | |
|---|---|
| Synopsis | Name of the CA profile as a trust anchor profile |


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| | |
|---|---|
| Context | **configure** ipsec trust-anchor-profile *named-item* trust-anchor *reference* |
| Tree | trust-anchor |
| Reference | **configure** system security pki ca-profile *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **ts-list** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **ts-list** list instance |
| Context | **configure** ipsec ts-list *named-item* |
| Tree | ts-list |
| Description | Commands in this context configure Traffic Selector (TS) settings. |
| Max. instances | 32768 |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## [**name**] *named-item*

| | |
|---|---|
| Synopsis | Traffic Selector (TS) list name |
| Context | **configure** ipsec ts-list *named-item* |
| Tree | ts-list |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **local**

| | |
|---|---|
| Synopsis | Enter the **local** context |
| Context | **configure** ipsec ts-list *named-item* local |
| Tree | local |
| Description | Commands in this context configure a local TS list, a traffic selector, such as TSr, when the system acts as an IKEv2 responder. |


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| | |
|---|---|
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** ipsec ts-list *named-item* local entry *number* |
| Tree | entry |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**id**] *number*

| | |
|---|---|
| Synopsis | TS list entry ID |
| Context | **configure** ipsec ts-list *named-item* local entry *number* |
| Tree | entry |
| Range | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **address**

| | |
|---|---|
| Synopsis | Enable the **address** context |
| Context | **configure** ipsec ts-list *named-item* local entry *number* address |
| Tree | address |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **prefix** *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | IP prefix for address range in IKEv2 traffic selector |
| Context | **configure** ipsec ts-list *named-item* local entry *number* address prefix *(ipv4-prefix \| ipv6-prefix)* |
| Tree | prefix |


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| | |
|---|---|
| Notes | The following elements are part of a mandatory choice: **prefix** or **range**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## range

| | |
|---|---|
| Synopsis | Enable the **range** context |
| Context | **configure** ipsec ts-list *named-item* local entry *number* address range |
| Tree | range |
| Notes | The following elements are part of a mandatory choice: **prefix** or **range**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## begin *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Lower bound of the IP address range for the entry |
| Context | **configure** ipsec ts-list *named-item* local entry *number* address range begin *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | begin |
| Notes | This element is mandatory. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## end *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Upper bound of the IP address range |
| Context | **configure** ipsec ts-list *named-item* local entry *number* address range end *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | end |
| Notes | This element is mandatory. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## protocol

| | |
|---|---|
| Synopsis | Enable the **protocol** context |
| Context | **configure** ipsec ts-list *named-item* local entry *number* protocol |
| Tree | protocol |
| Description | Commands in this context specify the protocol settings for the IKEv2 traffic selector. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## any

| | |
|---|---|
| Synopsis | Match any protocol ID |
| Context | **configure** ipsec ts-list *named-item* local entry *number* protocol any |
| Tree | any |
| Notes | The following elements are part of a mandatory choice: **any** or **id**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## id

| | |
|---|---|
| Synopsis | Enable the **id** context |
| Context | **configure** ipsec ts-list *named-item* local entry *number* protocol id |
| Tree | id |
| Notes | The following elements are part of a mandatory choice: **any** or **id**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## icmp

| | |
|---|---|
| Synopsis | Enter the **icmp** context |
| Context | **configure** ipsec ts-list *named-item* local entry *number* protocol id icmp |
| Tree | icmp |
| Notes | The following elements are part of a mandatory choice: **icmp**, **icmp6**, **mipv6**, **protocol-id-with-any-port**, **sctp**, **tcp**, or **udp**. |
| Introduced | 19.7.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## opaque

| | |
|---|---|
| Synopsis | Support OPAQUE ports |
| Context | **configure** ipsec ts-list *named-item* local entry *number* protocol id icmp opaque |
| Tree | opaque |
| Description | This command allows the protocol ID to be accepted even when the port information is not available. |
| Notes | The following elements are part of a choice: **opaque** or **port-range**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## port-range

| | |
|---|---|
| Synopsis | Enable the **port-range** context |
| Context | **configure** ipsec ts-list *named-item* local entry *number* protocol id icmp port-range |
| Tree | port-range |
| Description | Commands in this context configure port range information for the protocol. |
| Notes | The following elements are part of a choice: **opaque** or **port-range**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## begin-icmp-code *number*

| | |
|---|---|
| Synopsis | Lower bound of the ICMP code range |
| Context | **configure** ipsec ts-list *named-item* local entry *number* protocol id icmp port-range begin-icmp-code *number* |
| Tree | begin-icmp-code |
| Range | 0 to 255 |
| Notes | This element is mandatory. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **begin-icmp-type** *number*

| | |
|---|---|
| Synopsis | Lower bound of the ICMP type range |
| Context | **configure** ipsec ts-list *named-item* local entry *number* protocol id icmp port-range begin-icmp-type *number* |
| Tree | begin-icmp-type |
| Range | 0 to 255 |
| Notes | This element is mandatory. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **end-icmp-code** *number*

| | |
|---|---|
| Synopsis | Upper bound of the ICMP code range |
| Context | **configure** ipsec ts-list *named-item* local entry *number* protocol id icmp port-range end-icmp-code *number* |
| Tree | end-icmp-code |
| Range | 0 to 255 |
| Notes | This element is mandatory. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **end-icmp-type** *number*

| | |
|---|---|
| Synopsis | Upper bound of the ICMP type range |
| Context | **configure** ipsec ts-list *named-item* local entry *number* protocol id icmp port-range end-icmp-type *number* |
| Tree | end-icmp-type |
| Range | 0 to 255 |
| Notes | This element is mandatory. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **icmp6**

| | |
|---|---|
| Synopsis | Enter the **icmp6** context |


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| | |
|---|---|
| Context | **configure** ipsec ts-list *named-item* local entry *number* protocol id icmp6 |
| Tree | icmp6 |
| Notes | The following elements are part of a mandatory choice: **icmp**, **icmp6**, **mipv6**, **protocol-id-with-any-port**, **sctp**, **tcp**, or **udp**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## opaque

| | |
|---|---|
| Synopsis | Support OPAQUE ports |
| Context | **configure** ipsec ts-list *named-item* local entry *number* protocol id icmp6 opaque |
| Tree | opaque |
| Description | This command allows the protocol ID to be accepted even when the port information is not available. |
| Notes | The following elements are part of a choice: **opaque** or **port-range**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## port-range

| | |
|---|---|
| Synopsis | Enable the **port-range** context |
| Context | **configure** ipsec ts-list *named-item* local entry *number* protocol id icmp6 port-range |
| Tree | port-range |
| Description | Commands in this context configure port range information for the protocol. |
| Notes | The following elements are part of a choice: **opaque** or **port-range**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## begin-icmp-code *number*

| | |
|---|---|
| Synopsis | Lower bound of the ICMP code range |
| Context | **configure** ipsec ts-list *named-item* local entry *number* protocol id icmp6 port-range begin-icmp-code *number* |
| Tree | begin-icmp-code |
| Range | 0 to 255 |


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| | |
|---|---|
| Notes | This element is mandatory. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **begin-icmp-type** *number*

| | |
|---|---|
| Synopsis | Lower bound of the ICMP type range |
| Context | **configure** ipsec ts-list *named-item* local entry *number* protocol id icmp6 port-range begin-icmp-type *number* |
| Tree | begin-icmp-type |
| Range | 0 to 255 |
| Notes | This element is mandatory. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **end-icmp-code** *number*

| | |
|---|---|
| Synopsis | Upper bound of the ICMP code range |
| Context | **configure** ipsec ts-list *named-item* local entry *number* protocol id icmp6 port-range end-icmp-code *number* |
| Tree | end-icmp-code |
| Range | 0 to 255 |
| Notes | This element is mandatory. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **end-icmp-type** *number*

| | |
|---|---|
| Synopsis | Upper bound of the ICMP type range |
| Context | **configure** ipsec ts-list *named-item* local entry *number* protocol id icmp6 port-range end-icmp-type *number* |
| Tree | end-icmp-type |
| Range | 0 to 255 |
| Notes | This element is mandatory. |
| Introduced | 19.7.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## mipv6

| | |
|---|---|
| Synopsis | Enter the **mipv6** context |
| Context | **configure** ipsec ts-list *named-item* local entry *number* protocol id mipv6 |
| Tree | mipv6 |
| Notes | The following elements are part of a mandatory choice: **icmp**, **icmp6**, **mipv6**, **protocol-id-with-any-port**, **sctp**, **tcp**, or **udp**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## opaque

| | |
|---|---|
| Synopsis | Support OPAQUE ports |
| Context | **configure** ipsec ts-list *named-item* local entry *number* protocol id mipv6 opaque |
| Tree | opaque |
| Description | This command allows the protocol ID to be accepted even when the port information is not available. |
| Notes | The following elements are part of a choice: **opaque** or **port-range**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## port-range

| | |
|---|---|
| Synopsis | Enable the **port-range** context |
| Context | **configure** ipsec ts-list *named-item* local entry *number* protocol id mipv6 port-range |
| Tree | port-range |
| Notes | The following elements are part of a choice: **opaque** or **port-range**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## begin *number*

| | |
|---|---|
| Synopsis | Lower bound of the port range |


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| | |
|---|---|
| Context | **configure** ipsec ts-list *named-item* local entry *number* protocol id mipv6 port-range begin *number* |
| Tree | begin |
| Range | 0 to 255 |
| Notes | This element is mandatory. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the port range |
| Context | **configure** ipsec ts-list *named-item* local entry *number* protocol id mipv6 port-range end *number* |
| Tree | end |
| Range | 0 to 255 |
| Notes | This element is mandatory. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **protocol-id-with-any-port** *(keyword | number)*

| | |
|---|---|
| Synopsis | Protocol ID that accepts any port value |
| Context | **configure** ipsec ts-list *named-item* local entry *number* protocol id protocol-id-with-any-port *(keyword | number)* |
| Tree | protocol-id-with-any-port |
| Range | 1 to 255 |
| Options | icmp, tcp, udp, icmp6, sctp, mipv6 |
| Notes | The following elements are part of a mandatory choice: **icmp**, **icmp6**, **mipv6**, **protocol-id-with-any-port**, **sctp**, **tcp**, or **udp**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **sctp**

| | |
|---|---|
| Synopsis | Enter the **sctp** context |
| Context | **configure** ipsec ts-list *named-item* local entry *number* protocol id sctp |


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| | |
|---|---|
| Tree | sctp |
| Notes | The following elements are part of a mandatory choice: **icmp**, **icmp6**, **mipv6**, **protocol-id-with-any-port**, **sctp**, **tcp**, or **udp**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## opaque

| | |
|---|---|
| Synopsis | Support OPAQUE ports |
| Context | **configure** ipsec ts-list *named-item* local entry *number* protocol id sctp opaque |
| Tree | opaque |
| Description | This command allows the protocol ID to be accepted even when the port information is not available. |
| Notes | The following elements are part of a choice: **opaque** or **port-range**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## port-range

| | |
|---|---|
| Synopsis | Enable the **port-range** context |
| Context | **configure** ipsec ts-list *named-item* local entry *number* protocol id sctp port-range |
| Tree | port-range |
| Notes | The following elements are part of a choice: **opaque** or **port-range**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## begin *number*

| | |
|---|---|
| Synopsis | Lower bound of the port range |
| Context | **configure** ipsec ts-list *named-item* local entry *number* protocol id sctp port-range begin *number* |
| Tree | begin |
| Range | 0 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 19.7.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the port range |
| Context | **configure** ipsec ts-list *named-item* local entry *number* protocol id sctp port-range end *number* |
| Tree | end |
| Range | 0 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## tcp

| | |
|---|---|
| Synopsis | Enter the **tcp** context |
| Context | **configure** ipsec ts-list *named-item* local entry *number* protocol id tcp |
| Tree | tcp |
| Notes | The following elements are part of a mandatory choice: **icmp**, **icmp6**, **mipv6**, **protocol-id-with-any-port**, **sctp**, **tcp**, or **udp**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## opaque

| | |
|---|---|
| Synopsis | Support OPAQUE ports |
| Context | **configure** ipsec ts-list *named-item* local entry *number* protocol id tcp opaque |
| Tree | opaque |
| Description | This command allows the protocol ID to be accepted even when the port information is not available. |
| Notes | The following elements are part of a choice: **opaque** or **port-range**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## port-range

| | |
|---|---|
| Synopsis | Enable the **port-range** context |
| Context | **configure** ipsec ts-list *named-item* local entry *number* protocol id tcp port-range |
| Tree | port-range |
| Notes | The following elements are part of a choice: **opaque** or **port-range**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## begin *number*

| | |
|---|---|
| Synopsis | Lower bound of the port range |
| Context | **configure** ipsec ts-list *named-item* local entry *number* protocol id tcp port-range begin *number* |
| Tree | begin |
| Range | 0 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## end *number*

| | |
|---|---|
| Synopsis | Upper bound of the port range |
| Context | **configure** ipsec ts-list *named-item* local entry *number* protocol id tcp port-range end *number* |
| Tree | end |
| Range | 0 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## udp

| | |
|---|---|
| Synopsis | Enter the **udp** context |
| Context | **configure** ipsec ts-list *named-item* local entry *number* protocol id udp |


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| | |
|---|---|
| Tree | udp |
| Notes | The following elements are part of a mandatory choice: **icmp**, **icmp6**, **mipv6**, **protocol-id-with-any-port**, **sctp**, **tcp**, or **udp**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## opaque

| | |
|---|---|
| Synopsis | Support OPAQUE ports |
| Context | **configure** ipsec ts-list *named-item* local entry *number* protocol id udp opaque |
| Tree | opaque |
| Description | This command allows the protocol ID to be accepted even when the port information is not available. |
| Notes | The following elements are part of a choice: **opaque** or **port-range**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## port-range

| | |
|---|---|
| Synopsis | Enable the **port-range** context |
| Context | **configure** ipsec ts-list *named-item* local entry *number* protocol id udp port-range |
| Tree | port-range |
| Notes | The following elements are part of a choice: **opaque** or **port-range**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## begin *number*

| | |
|---|---|
| Synopsis | Lower bound of the port range |
| Context | **configure** ipsec ts-list *named-item* local entry *number* protocol id udp port-range begin *number* |
| Tree | begin |
| Range | 0 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 19.7.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the port range |
| Context | **configure** ipsec ts-list *named-item* local entry *number* protocol id udp port-range end *number* |
| Tree | end |
| Range | 0 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **remote**

| | |
|---|---|
| Synopsis | Enter the **remote** context |
| Context | **configure** ipsec ts-list *named-item* remote |
| Tree | remote |
| Description | Commands in this context configure a remote TS list, a traffic selector, such as TSr, when the system acts as an IKEv2 responder. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** ipsec ts-list *named-item* remote entry *number* |
| Tree | entry |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**id**] *number*

| | |
|---|---|
| Synopsis | TS list entry ID |
| Context | **configure** ipsec ts-list *named-item* remote entry *number* |
| Tree | entry |


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| | |
|---|---|
| Range | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## address

| | |
|---|---|
| Synopsis | Enable the **address** context |
| Context | **configure** ipsec ts-list *named-item* remote entry *number* address |
| Tree | address |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## prefix *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | IP prefix for address range in IKEv2 traffic selector |
| Context | **configure** ipsec ts-list *named-item* remote entry *number* address prefix *(ipv4-prefix \| ipv6-prefix)* |
| Tree | prefix |
| Notes | The following elements are part of a mandatory choice: **prefix** or **range**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## range

| | |
|---|---|
| Synopsis | Enable the **range** context |
| Context | **configure** ipsec ts-list *named-item* remote entry *number* address range |
| Tree | range |
| Notes | The following elements are part of a mandatory choice: **prefix** or **range**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## begin *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Lower bound of the IP address range for the entry |


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| | |
|---|---|
| Context | **configure** ipsec ts-list *named-item* remote entry *number* address range begin *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | begin |
| Notes | This element is mandatory. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **end** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Upper bound of the IP address range |
| Context | **configure** ipsec ts-list *named-item* remote entry *number* address range end *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | end |
| Notes | This element is mandatory. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## protocol

| | |
|---|---|
| Synopsis | Enable the **protocol** context |
| Context | **configure** ipsec ts-list *named-item* remote entry *number* protocol |
| Tree | protocol |
| Description | Commands in this context specify the protocol settings for the IKEv2 traffic selector. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## any

| | |
|---|---|
| Synopsis | Match any protocol ID |
| Context | **configure** ipsec ts-list *named-item* remote entry *number* protocol any |
| Tree | any |
| Notes | The following elements are part of a mandatory choice: **any** or **id**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## id

| | |
|---|---|
| Synopsis | Enable the **id** context |
| Context | **configure** ipsec ts-list *named-item* remote entry *number* protocol id |
| Tree | id |
| Notes | The following elements are part of a mandatory choice: **any** or **id**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## icmp

| | |
|---|---|
| Synopsis | Enter the **icmp** context |
| Context | **configure** ipsec ts-list *named-item* remote entry *number* protocol id icmp |
| Tree | icmp |
| Notes | The following elements are part of a mandatory choice: **icmp**, **icmp6**, **mipv6**, **protocol-id-with-any-port**, **sctp**, **tcp**, or **udp**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## opaque

| | |
|---|---|
| Synopsis | Support OPAQUE ports |
| Context | **configure** ipsec ts-list *named-item* remote entry *number* protocol id icmp opaque |
| Tree | opaque |
| Description | This command allows the protocol ID to be accepted even when the port information is not available. |
| Notes | The following elements are part of a choice: **opaque** or **port-range**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## port-range

| | |
|---|---|
| Synopsis | Enable the **port-range** context |
| Context | **configure** ipsec ts-list *named-item* remote entry *number* protocol id icmp port-range |
| Tree | port-range |


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| | |
|---|---|
| Description | Commands in this context configure port range information for the protocol. |
| Notes | The following elements are part of a choice: **opaque** or **port-range**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **begin-icmp-code** *number*

| | |
|---|---|
| Synopsis | Lower bound of the ICMP code range |
| Context | **configure** ipsec ts-list *named-item* remote entry *number* protocol id icmp port-range begin-icmp-code *number* |
| Tree | begin-icmp-code |
| Range | 0 to 255 |
| Notes | This element is mandatory. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **begin-icmp-type** *number*

| | |
|---|---|
| Synopsis | Lower bound of the ICMP type range |
| Context | **configure** ipsec ts-list *named-item* remote entry *number* protocol id icmp port-range begin-icmp-type *number* |
| Tree | begin-icmp-type |
| Range | 0 to 255 |
| Notes | This element is mandatory. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **end-icmp-code** *number*

| | |
|---|---|
| Synopsis | Upper bound of the ICMP code range |
| Context | **configure** ipsec ts-list *named-item* remote entry *number* protocol id icmp port-range end-icmp-code *number* |
| Tree | end-icmp-code |
| Range | 0 to 255 |
| Notes | This element is mandatory. |


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| | |
|---|---|
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **end-icmp-type** *number*

| | |
|---|---|
| Synopsis | Upper bound of the ICMP type range |
| Context | **configure** ipsec ts-list *named-item* remote entry *number* protocol id icmp port-range end-icmp-type *number* |
| Tree | end-icmp-type |
| Range | 0 to 255 |
| Notes | This element is mandatory. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## icmp6

| | |
|---|---|
| Synopsis | Enter the **icmp6** context |
| Context | **configure** ipsec ts-list *named-item* remote entry *number* protocol id icmp6 |
| Tree | icmp6 |
| Notes | The following elements are part of a mandatory choice: **icmp**, **icmp6**, **mipv6**, **protocol-id-with-any-port**, **sctp**, **tcp**, or **udp**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## opaque

| | |
|---|---|
| Synopsis | Support OPAQUE ports |
| Context | **configure** ipsec ts-list *named-item* remote entry *number* protocol id icmp6 opaque |
| Tree | opaque |
| Description | This command allows the protocol ID to be accepted even when the port information is not available. |
| Notes | The following elements are part of a choice: **opaque** or **port-range**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## port-range

| | |
|---|---|
| Synopsis | Enable the **port-range** context |
| Context | **configure** ipsec ts-list *named-item* remote entry *number* protocol id icmp6 port-range |
| Tree | port-range |
| Description | Commands in this context configure port range information for the protocol. |
| Notes | The following elements are part of a choice: **opaque** or **port-range**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## begin-icmp-code *number*

| | |
|---|---|
| Synopsis | Lower bound of the ICMP code range |
| Context | **configure** ipsec ts-list *named-item* remote entry *number* protocol id icmp6 port-range begin-icmp-code *number* |
| Tree | begin-icmp-code |
| Range | 0 to 255 |
| Notes | This element is mandatory. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## begin-icmp-type *number*

| | |
|---|---|
| Synopsis | Lower bound of the ICMP type range |
| Context | **configure** ipsec ts-list *named-item* remote entry *number* protocol id icmp6 port-range begin-icmp-type *number* |
| Tree | begin-icmp-type |
| Range | 0 to 255 |
| Notes | This element is mandatory. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## end-icmp-code *number*

| | |
|---|---|
| Synopsis | Upper bound of the ICMP code range |


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| | |
|---|---|
| Context | **configure** ipsec ts-list *named-item* remote entry *number* protocol id icmp6 port-range end-icmp-code *number* |
| Tree | end-icmp-code |
| Range | 0 to 255 |
| Notes | This element is mandatory. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **end-icmp-type** *number*

| | |
|---|---|
| Synopsis | Upper bound of the ICMP type range |
| Context | **configure** ipsec ts-list *named-item* remote entry *number* protocol id icmp6 port-range end-icmp-type *number* |
| Tree | end-icmp-type |
| Range | 0 to 255 |
| Notes | This element is mandatory. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **mipv6**

| | |
|---|---|
| Synopsis | Enter the **mipv6** context |
| Context | **configure** ipsec ts-list *named-item* remote entry *number* protocol id mipv6 |
| Tree | mipv6 |
| Notes | The following elements are part of a mandatory choice: **icmp**, **icmp6**, **mipv6**, **protocol-id-with-any-port**, **sctp**, **tcp**, or **udp**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **opaque**

| | |
|---|---|
| Synopsis | Support OPAQUE ports |
| Context | **configure** ipsec ts-list *named-item* remote entry *number* protocol id mipv6 opaque |
| Tree | opaque |
| Description | This command allows the protocol ID to be accepted even when the port information is not available. |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **opaque** or **port-range**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## port-range

| | |
|---|---|
| Synopsis | Enable the **port-range** context |
| Context | **configure** ipsec ts-list *named-item* remote entry *number* protocol id mipv6 port-range |
| Tree | port-range |
| Notes | The following elements are part of a choice: **opaque** or **port-range**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## begin *number*

| | |
|---|---|
| Synopsis | Lower bound of the port range |
| Context | **configure** ipsec ts-list *named-item* remote entry *number* protocol id mipv6 port-range begin *number* |
| Tree | begin |
| Range | 0 to 255 |
| Notes | This element is mandatory. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## end *number*

| | |
|---|---|
| Synopsis | Upper bound of the port range |
| Context | **configure** ipsec ts-list *named-item* remote entry *number* protocol id mipv6 port-range end *number* |
| Tree | end |
| Range | 0 to 255 |
| Notes | This element is mandatory. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **protocol-id-with-any-port** *(keyword | number)*

| | |
|---|---|
| Synopsis | Protocol ID that accepts any port value |
| Context | **configure** ipsec ts-list *named-item* remote entry *number* protocol id protocol-id-with-any-port *(keyword | number)* |
| Tree | protocol-id-with-any-port |
| Range | 1 to 255 |
| Options | icmp, tcp, udp, icmp6, sctp, mipv6 |
| Notes | The following elements are part of a mandatory choice: **icmp**, **icmp6**, **mipv6**, **protocol-id-with-any-port**, **sctp**, **tcp**, or **udp**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **sctp**

| | |
|---|---|
| Synopsis | Enter the **sctp** context |
| Context | **configure** ipsec ts-list *named-item* remote entry *number* protocol id sctp |
| Tree | sctp |
| Notes | The following elements are part of a mandatory choice: **icmp**, **icmp6**, **mipv6**, **protocol-id-with-any-port**, **sctp**, **tcp**, or **udp**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **opaque**

| | |
|---|---|
| Synopsis | Support OPAQUE ports |
| Context | **configure** ipsec ts-list *named-item* remote entry *number* protocol id sctp opaque |
| Tree | opaque |
| Description | This command allows the protocol ID to be accepted even when the port information is not available. |
| Notes | The following elements are part of a choice: **opaque** or **port-range**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## port-range

| | |
|---|---|
| Synopsis | Enable the **port-range** context |
| Context | **configure** ipsec ts-list *named-item* remote entry *number* protocol id sctp port-range |
| Tree | port-range |
| Notes | The following elements are part of a choice: **opaque** or **port-range**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## begin *number*

| | |
|---|---|
| Synopsis | Lower bound of the port range |
| Context | **configure** ipsec ts-list *named-item* remote entry *number* protocol id sctp port-range begin *number* |
| Tree | begin |
| Range | 0 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## end *number*

| | |
|---|---|
| Synopsis | Upper bound of the port range |
| Context | **configure** ipsec ts-list *named-item* remote entry *number* protocol id sctp port-range end *number* |
| Tree | end |
| Range | 0 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## tcp

| | |
|---|---|
| Synopsis | Enter the **tcp** context |
| Context | **configure** ipsec ts-list *named-item* remote entry *number* protocol id tcp |


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| | |
|---|---|
| Tree | tcp |
| Notes | The following elements are part of a mandatory choice: **icmp**, **icmp6**, **mipv6**, **protocol-id-with-any-port**, **sctp**, **tcp**, or **udp**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## opaque

| | |
|---|---|
| Synopsis | Support OPAQUE ports |
| Context | **configure** ipsec ts-list *named-item* remote entry *number* protocol id tcp opaque |
| Tree | opaque |
| Description | This command allows the protocol ID to be accepted even when the port information is not available. |
| Notes | The following elements are part of a choice: **opaque** or **port-range**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## port-range

| | |
|---|---|
| Synopsis | Enable the **port-range** context |
| Context | **configure** ipsec ts-list *named-item* remote entry *number* protocol id tcp port-range |
| Tree | port-range |
| Notes | The following elements are part of a choice: **opaque** or **port-range**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## begin *number*

| | |
|---|---|
| Synopsis | Lower bound of the port range |
| Context | **configure** ipsec ts-list *named-item* remote entry *number* protocol id tcp port-range begin *number* |
| Tree | begin |
| Range | 0 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 19.7.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the port range |
| Context | **configure** ipsec ts-list *named-item* remote entry *number* protocol id tcp port-range end *number* |
| Tree | end |
| Range | 0 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## udp

| | |
|---|---|
| Synopsis | Enter the **udp** context |
| Context | **configure** ipsec ts-list *named-item* remote entry *number* protocol id udp |
| Tree | udp |
| Notes | The following elements are part of a mandatory choice: **icmp**, **icmp6**, **mipv6**, **protocol-id-with-any-port**, **sctp**, **tcp**, or **udp**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## opaque

| | |
|---|---|
| Synopsis | Support OPAQUE ports |
| Context | **configure** ipsec ts-list *named-item* remote entry *number* protocol id udp opaque |
| Tree | opaque |
| Description | This command allows the protocol ID to be accepted even when the port information is not available. |
| Notes | The following elements are part of a choice: **opaque** or **port-range**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## port-range

| | |
|---|---|
| Synopsis | Enable the **port-range** context |
| Context | **configure** ipsec ts-list *named-item* remote entry *number* protocol id udp port-range |
| Tree | port-range |
| Notes | The following elements are part of a choice: **opaque** or **port-range**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## begin *number*

| | |
|---|---|
| Synopsis | Lower bound of the port range |
| Context | **configure** ipsec ts-list *named-item* remote entry *number* protocol id udp port-range begin *number* |
| Tree | begin |
| Range | 0 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## end *number*

| | |
|---|---|
| Synopsis | Upper bound of the port range |
| Context | **configure** ipsec ts-list *named-item* remote entry *number* protocol id udp port-range end *number* |
| Tree | end |
| Range | 0 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## tunnel-template [id] *number*

| | |
|---|---|
| Synopsis | Enter the **tunnel-template** list instance |
| Context | **configure** ipsec tunnel-template *number* |


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| | |
|---|---|
| Tree | tunnel-template |
| Max. instances | 2048 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**id**] *number*

| | |
|---|---|
| Synopsis | Tunnel template ID |
| Context | **configure** ipsec tunnel-template *number* |
| Tree | tunnel-template |
| Range | 1 to 2048 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **clear-df-bit** *boolean*

| | |
|---|---|
| Synopsis | Clear the Do-not-Fragment (DF) bit |
| Context | **configure** ipsec tunnel-template *number* clear-df-bit *boolean* |
| Tree | clear-df-bit |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **copy-traffic-class-upon-decapsulation** *boolean*

| | |
|---|---|
| Synopsis | Enable traffic class copy upon decapsulation |
| Context | **configure** ipsec tunnel-template *number* copy-traffic-class-upon-decapsulation *boolean* |
| Tree | copy-traffic-class-upon-decapsulation |
| Description | When configured to **true**, the system copies the traffic class from the outer tunnel IP packet header to the payload IP packet header in the decapsulating direction (public to private).<br>When configured to **false**, the system does not copy the traffic class from the outer IP packet to the payload IP packet header upon decapsulation. |
| Default | false |


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| | |
|---|---|
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** ipsec tunnel-template *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **encapsulated-ip-mtu** *number*

| | |
|---|---|
| Synopsis | Maximum size of the encapsulated tunnel packet |
| Context | **configure** ipsec tunnel-template *number* encapsulated-ip-mtu *number* |
| Tree | encapsulated-ip-mtu |
| Description | This command specifies the maximum size of the encapsulated tunnel packet to the IPsec tunnel, the IP tunnel, or the dynamic tunnels terminated on the IPsec Gateway. If the encapsulated IPv4 or IPv6 tunnel packet exceeds this value, the system fragments the packet. |
| Range | 512 to 9000 |
| Units | octets |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **icmp-generation**

| | |
|---|---|
| Synopsis | Enter the **icmp-generation** context |
| Context | **configure** ipsec tunnel-template *number* icmp-generation |
| Tree | icmp-generation |
| Description | Commands in this context configure settings for ICMPv4 message generation. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## frag-required

| | |
|---|---|
| Synopsis | Enter the **frag-required** context |
| Context | **configure** ipsec tunnel-template *number* icmp-generation frag-required |
| Tree | frag-required |
| Description | Commands in this context configure the attributes for sending generated ICMP Destination Unreachable "fragmentation needed and DF set" messages (type 3, code 4) back to the source, if the received size of the IPv4 packet on the private side exceeds the private MTU size. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of sending ICMP messages |
| Context | **configure** ipsec tunnel-template *number* icmp-generation frag-required admin-state *keyword* |
| Tree | admin-state |
| Description | This command configures the administrative state of sending ICMP Destination Unreachable "fragmentation needed, DF set" messages (type 3, code 4) messages to the source if the received size of the IPv4 packet on the private side exceeds the private MTU size. |
| Options | enable, disable |
| Default | enable |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## interval *number*

| | |
|---|---|
| Synopsis | Interval for sending ICMP messages |
| Context | **configure** ipsec tunnel-template *number* icmp-generation frag-required interval *number* |
| Tree | interval |
| Description | This command configures the interval for sending ICMP Destination Unreachable "fragmentation needed, DF set" messages (type 3, code 4). |
| Range | 1 to 60 |
| Units | seconds |
| Default | 10 |


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| | |
|---|---|
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **message-count** *number*

| | |
|---|---|
| Synopsis | Maximum number of ICMP messages that can be sent |
| Context | **configure** ipsec tunnel-template *number* icmp-generation frag-required message-count *number* |
| Tree | message-count |
| Description | This command configures the maximum number of ICMP Destination Unreachable "fragmentation needed, DF set" messages (type 3, code 4) that can be sent during the configured interval. |
| Range | 10 to 1000 |
| Default | 100 |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### icmp6-generation

| | |
|---|---|
| Synopsis | Enter the **icmp6-generation** context |
| Context | **configure** ipsec tunnel-template *number* icmp6-generation |
| Tree | icmp6-generation |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### pkt-too-big

| | |
|---|---|
| Synopsis | Enter the **pkt-too-big** context |
| Context | **configure** ipsec tunnel-template *number* icmp6-generation pkt-too-big |
| Tree | pkt-too-big |
| Description | Commands in this context configure values for the ICMPv6 Packet Too Big (PTB) messages. The system sends PTB messages if an IPv6 packet is received on the private side that is larger than 1280 bytes and also exceeds the private MTU of the tunnel. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of Packet Too Big message sends |
| Context | **configure** ipsec tunnel-template *number* icmp6-generation pkt-too-big admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **interval** *number*

| | |
|---|---|
| Synopsis | Maximum interval during which PTB messages can be sent |
| Context | **configure** ipsec tunnel-template *number* icmp6-generation pkt-too-big interval *number* |
| Tree | interval |
| Range | 1 to 60 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **message-count** *number*

| | |
|---|---|
| Synopsis | Max ICMPv6 messages that can be sent during interval |
| Context | **configure** ipsec tunnel-template *number* icmp6-generation pkt-too-big message-count *number* |
| Tree | message-count |
| Range | 10 to 1000 |
| Default | 100 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ignore-default-route** *boolean*

| | |
|---|---|
| Synopsis | Ignore any full range traffic selector in TSi |


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| | |
|---|---|
| Context | **configure** ipsec tunnel-template *number* ignore-default-route *boolean* |
| Tree | ignore-default-route |
| Description | When configured to **true**, any full range traffic selector is ignored when creating a reverse route.<br>When configured to **false**, no CHILD_SA is created if any full range traffic selector is included in TSi. |
| Default | false |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **ip-mtu** *number*

| | |
|---|---|
| Synopsis | Maximum size of the IP MTU for the payload packets |
| Context | **configure** ipsec tunnel-template *number* ip-mtu *number* |
| Tree | ip-mtu |
| Range | 512 to 9000 |
| Units | octets |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **ipsec-transform** *reference*

| | |
|---|---|
| Synopsis | IPsec transform ID for the tunnel template |
| Context | **configure** ipsec tunnel-template *number* ipsec-transform *reference* |
| Tree | ipsec-transform |
| Reference | **configure** ipsec ipsec-transform *number* |
| Max. instances | 4 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **pmtu-discovery-aging** *number*

| | |
|---|---|
| Synopsis | Aging out time of the learned path MTU |
| Context | **configure** ipsec tunnel-template *number* pmtu-discovery-aging *number* |
| Tree | pmtu-discovery-aging |


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| | |
|---|---|
| Description | This command configures the temporary public and private MTU expiration time. The temporary MTU is used for MTU propagation. |
| Range | 900 to 3600 |
| Units | seconds |
| Default | 900 |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ppk-list** *reference*

| | |
|---|---|
| Synopsis | PPK list to use in the tunnel template |
| Context | **configure** ipsec tunnel-template *number* ppk-list *reference* |
| Tree | ppk-list |
| Description | This command specifies the PPK list to use in the tunnel template, which represents a list of PPKs available for the IPsec gateway. The actual PPK to use depends on the tunnel initiator. |
| Reference | **configure** ipsec ppk-list *named-item* |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **private-tcp-mss-adjust** *number*

| | |
|---|---|
| Synopsis | New TCP MSS value on the private side |
| Context | **configure** ipsec tunnel-template *number* private-tcp-mss-adjust *number* |
| Tree | private-tcp-mss-adjust |
| Description | This command specifies the new (adjusted) TCP MSS value of TCP SYN packets on the private side.<br>When unconfigured, the MSS value is derived from the received TCP SYN packet on the private side. |
| Range | 512 to 9000 |
| Units | octets |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **propagate-pmtu-v4** *boolean*

| | |
|---|---|
| Synopsis | Enable propagation of the path MTU to IPv4 hosts |
| Context | **configure** ipsec tunnel-template *number* propagate-pmtu-v4 *boolean* |
| Tree | propagate-pmtu-v4 |
| Description | When configured to **true**, the system propagates the path MTU learned from the public side to the private side (IPv4 hosts). |
| Default | true |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **propagate-pmtu-v6** *boolean*

| | |
|---|---|
| Synopsis | Enable propagation of the path MTU to IPv6 hosts |
| Context | **configure** ipsec tunnel-template *number* propagate-pmtu-v6 *boolean* |
| Tree | propagate-pmtu-v6 |
| Description | When configured to **true**, the system propagates the path MTU learned from the public side to the private side (IPv6 hosts). |
| Default | true |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **public-tcp-mss-adjust** *(number | keyword)*

| | |
|---|---|
| Synopsis | New TCP MSS value on the public side |
| Context | **configure** ipsec tunnel-template *number* public-tcp-mss-adjust *(number | keyword)* |
| Tree | public-tcp-mss-adjust |
| Description | This command specifies the new (adjusted) TCP MSS value for the TCP traffic in an IPsec tunnel which is sent from the public network to the private network. The system can use this value to adjust or insert the MSS option in the TCP SYN packet.<br>When unconfigured, the MSS value is derived from the public MTU and IPsec overhead. |
| Range | 512 to 9000 |
| Units | octets |
| Options | auto |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **replay-window** *number*

| | |
|---|---|
| Synopsis | Anti-replay window size for the tunnel template |
| Context | **configure** ipsec tunnel-template *number* replay-window *number* |
| Tree | replay-window |
| Range | 32 \| 64 \| 128 \| 256 \| 512 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **reverse-route**

| | |
|---|---|
| Synopsis | Enter the **reverse-route** context |
| Context | **configure** ipsec tunnel-template *number* reverse-route |
| Tree | reverse-route |
| Description | Commands in this context configure the dynamic LAN-to-LAN (DL2L) tunnel reverse-route options for the tunnel template. |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **metric** *number*

| | |
|---|---|
| Synopsis | Metric used for DL2L tunnel reverse routes |
| Context | **configure** ipsec tunnel-template *number* reverse-route metric *number* |
| Tree | metric |
| Description | This command configures the metric for reverse routes. The system uses the metric when selecting a route to install in the route table. |
| Range | 0 to 65535 |
| Default | 0 |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **preference** *number*

| | |
|---|---|
| Synopsis | Preference used for DL2L tunnel reverse routes |
| Context | **configure** ipsec tunnel-template *number* reverse-route preference *number* |


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| | |
|---|---|
| Tree | preference |
| Description | This command specifies the route preference assigned to the DL2L tunnel reverse route. The system uses the preference when selecting a route to install in the route table. |
| Range | 0 to 255 |
| Default | 0 |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **sp-reverse-route** *keyword*

| | |
|---|---|
| Synopsis | Reverse route creation method in private service |
| Context | **configure** ipsec tunnel-template *number* sp-reverse-route *keyword* |
| Tree | sp-reverse-route |
| Description | This command allows the system to automatically create a reverse route based on dynamic LAN-to-LAN tunnel's TSi in private service. |
| Options | none, use-security-policy |
| Default | none |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## 4.21 isa commands

```
configure
   –  isa
      –  application-assurance-group number
         –  aa-sub-distribute-traffic-by-ip boolean
         –  aa-sub-scale keyword
         –  admin-state keyword
         –  apply-groups reference
         –  apply-groups-exclude reference
         –  backup
            –  esa number vm number
            –  isa slot-mda
         –  description description
         –  divert-fc keyword
         –  failure-mode keyword
         –  flow-attribute named-item
         –  http-enrich-max-packet-size number
         –  isa-capacity-cost-high-threshold number
         –  isa-capacity-cost-low-threshold number
         –  minimum-isa-generation number
         –  overload-cut-through boolean
         –  overload-sub-quarantine
            –  admin-state keyword
         –  primary
            –  esa number vm number
            –  isa slot-mda
         –  qos
            –  egress
               –  from-subscriber
                  –  buffer-pool
                     –  name named-item
                     –  resv-cbs number
                     –  slope-policy reference
                  –  port-scheduler-policy reference
                  –  queue-policy reference
                  –  wa-shared-high-wmark (number | keyword)
                  –  wa-shared-low-wmark number
               –  to-subscriber
                  –  buffer-pool
                     –  name named-item
                     –  resv-cbs number
                     –  slope-policy reference
                  –  port-scheduler-policy reference
                  –  queue-policy reference
                  –  wa-shared-high-wmark (number | keyword)
                  –  wa-shared-low-wmark number
         –  shared-resources
            –  gtp-tunnel-database number
            –  tcp-advanced-functions number
            –  url-filter-web-service-cache number
         –  statistics
            –  stats-type keyword
               –  accounting-policy reference
               –  apply-groups reference
               –  apply-groups-exclude reference
               –  collect-stats boolean
         –  transit-prefix-limits
            –  ipv4-entries number
            –  ipv4-remote-entries number
            –  ipv6-entries number
```


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configure isa application-assurance-group transit-prefix-limits ipv6-remote-entries

```
            - ipv6-remote-entries number
         - vm-traffic-distribute-by-ip boolean
         - vm-traffic-distribute-by-teid boolean
      - apply-groups reference
      - apply-groups-exclude reference
      - lns-group number
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - description description
         - esa reference vm reference
            - apply-groups reference
            - apply-groups-exclude reference
            - drain boolean
         - mda slot-mda
            - apply-groups reference
            - apply-groups-exclude reference
            - drain boolean
         - port-policy reference
      - map-t-group number
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - description description
         - esa reference vm reference
         - fragments-per-packet number
      - nat-group number
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - description description
         - esa reference vm reference
         - log
            - suppress-lsn-events boolean
            - suppress-lsn-sub-blocks-free boolean
         - mda slot-mda
         - radius-accounting-policy reference
         - redundancy
            - active-mda-limit number
            - inter-chassis
               - flow-timeout-on-switchover number
               - ip-mtu number
               - keepalive
                  - dropcount number
                  - interval number
               - local-ip-range-start ipv4-unicast-address
               - monitor-oper-group reference
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - health-drop number
               - monitor-port port-named
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - health-drop number
               - preferred boolean
               - remote-ip-range-start ipv4-unicast-address
               - replication-threshold number
               - router-instance string
               - sync boolean
            - intra-chassis
               - active-active
                  - failed-mda-limit number
               - active-standby
               - l2aware-bypass
```


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```
        - scaling-profile keyword
        - session-limits
          - reserved number
          - upnp-mappings number
          - watermarks
            - high number
            - low number
    - tunnel-group number
        - admin-state keyword
        - apply-groups reference
        - apply-groups-exclude reference
        - backup slot-mda
        - description description
        - ipsec-responder-only boolean
        - isa-scale-mode keyword
        - multi-active
          - active-isa-number number
          - esa reference vm reference
            - apply-groups reference
            - apply-groups-exclude reference
            - weight number
          - isa slot-mda
          - member-pool reference
        - primary slot-mda
        - reassembly
          - max-wait-time number
        - spi-range-index number
        - stats-collection
          - isa-dp-cpu-usage boolean
        - strict-esp-sequence-number-ordering boolean
    - tunnel-member-pool named-item
        - apply-groups reference
        - apply-groups-exclude reference
        - description description
        - esa reference vm reference
          - apply-groups reference
          - apply-groups-exclude reference
          - weight number
        - high-availability keyword
        - isa slot-mda
    - video-group number
        - admin-state keyword
        - analyzer boolean
        - apply-groups reference
        - apply-groups-exclude reference
        - description description
        - fcc-server boolean
        - local-rt-server boolean
        - mda slot-mda
        - resv-ret number
        - stream-selection boolean
        - vapp reference vapp-id reference
        - watermark
          - bandwidth
            - fcc number
            - ret number
            - total number
          - session
            - fcc number
            - ret number
            - total number
    - wlan-gw-group number
        - active-iom-limit number
        - active-mda-limit number
```


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configure isa wlan-gw-group admin-state

```
        - admin-state keyword
        - apply-groups reference
        - apply-groups-exclude reference
        - description description
        - distributed-sub-mgmt
          - isa-aa-group reference
          - isa-aa-oversubscription-factor number
        - esa reference vm reference
        - iom reference
        - mda slot-mda
        - nat
          - log
            - suppress-lsn-events boolean
            - suppress-lsn-sub-blocks-free boolean
          - lsn boolean
          - radius-accounting-policy reference
          - session-limits
            - reserved number
            - upnp-mappings number
            - watermarks
              - high number
              - low number
        - port-policy reference
        - redundancy keyword
        - scaling-profile keyword
        - tunnel-port-policy reference
        - watermarks
          - mark keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - high number
            - low number
```


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## 4.21.1 isa command descriptions

### isa

| | |
|---|---|
| Synopsis | Enter the **isa** context |
| Context | **configure** isa |
| Tree | isa |
| Description | Commands in this context configure the Integrated Services Adapter (ISA). |
| Introduced | 16.0.R1 |
| Platforms | All |

### application-assurance-group [aa-group-id] *number*

| | |
|---|---|
| Synopsis | Enter the **application-assurance-group** list instance |
| Context | **configure** isa application-assurance-group *number* |
| Tree | application-assurance-group |
| Description | Commands in this context configure the application assurance (AA) group. |
| Max. instances | 7 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [aa-group-id] *number*

| | |
|---|---|
| Synopsis | AA group identifier |
| Context | **configure** isa application-assurance-group *number* |
| Tree | application-assurance-group |
| Range | 1 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### aa-sub-distribute-traffic-by-ip *boolean*

| | |
|---|---|
| Synopsis | Allow application assurance to divert traffic |


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| | |
|---|---|
| Context | **configure** isa application-assurance-group *number* aa-sub-distribute-traffic-by-ip *boolean* |
| Tree | aa-sub-distribute-traffic-by-ip |
| Description | When configured to **true**, the system diverts traffic on the parent SAP or spoke-SDP to multiple ISAs or ESAs based on the source IP address. This is useful when the bandwidth of a single SAP is larger than the capacity of a single ISA or ESA. This is only supported for the auto-created transit IP subscribers.<br>The traffic is diverted when the hashing is enabled at the AA group level and in the parent SAP application profile. |
| Default | false |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

## **aa-sub-scale** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | AA group sub-scale |
| Context | **configure** isa application-assurance-group *number* aa-sub-scale *keyword* |
| Tree | aa-sub-scale |
| Options | residential, vpn, mobile-gateway, lightweight-internet, residential-8k, residential-16k, residential-32k, residential-64k, vpn-1k, vpn-2k, vpn-4k, vpn-8k, mobile-gateway-1m, mobile-gateway-2m, lightweight-internet-512k, firewall-32 |
| Default | residential |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of this AA group |
| Context | **configure** isa application-assurance-group *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### backup

| | |
|---|---|
| Synopsis | Enter the **backup** context |
| Context | **configure** isa application-assurance-group *number* backup |
| Tree | backup |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **esa** [esa-id] *number* vm *number*

| | |
|---|---|
| Synopsis | Add a list entry for **esa** |
| Context | **configure** isa application-assurance-group *number* backup esa *number* vm *number* |
| Tree | esa |
| Max. instances | 4 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**esa-id**] *number*

| | |
|---|---|
| Synopsis | ESA ID |
| Context | **configure** isa application-assurance-group *number* backup esa *number* vm *number* |
| Tree | esa |
| Range | 1 to 16 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **vm** *number*

| | |
|---|---|
| Synopsis | VM ID within the ESA |
| Context | **configure** isa application-assurance-group *number* backup esa *number* vm *number* |
| Tree | esa |
| Range | 1 to 4 |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **isa** [mda-id] *slot-mda*

| | |
|---|---|
| Synopsis | Add a list entry for **isa** |
| Context | **configure** isa application-assurance-group *number* backup isa *slot-mda* |
| Tree | isa |
| Max. instances | 1 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**mda-id**] *slot-mda*

| | |
|---|---|
| Synopsis | MDA/ISA ID |
| Context | **configure** isa application-assurance-group *number* backup isa *slot-mda* |
| Tree | isa |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** isa application-assurance-group *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **divert-fc** *keyword*

| | |
|---|---|
| Synopsis | Diverted traffic forwarding class |
| Context | **configure** isa application-assurance-group *number* divert-fc *keyword* |


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| | |
|---|---|
| Tree | divert-fc |
| Options | be – Best effort<br>l2 – Low 2 (best effort)<br>af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority)<br>ef – Expedited forwarding (high priority)<br>h1 – High 1 (high priority)<br>nc – Network control (high priority) |
| Max. instances | 8 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **failure-mode** *keyword*

| | |
|---|---|
| Synopsis | Mode of operation when no ISA-AA cards are available |
| Context | **configure** isa application-assurance-group *number* failure-mode *keyword* |
| Tree | failure-mode |
| Options | fail-to-open |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **flow-attribute** [flow-attribute-name] *named-item*

| | |
|---|---|
| Synopsis | Add a list entry for **flow-attribute** |
| Context | **configure** isa application-assurance-group *number* flow-attribute *named-item* |
| Tree | flow-attribute |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**flow-attribute-name**] *named-item*

| | |
|---|---|
| Synopsis | Flow attribute name |
| Context | **configure** isa application-assurance-group *number* flow-attribute *named-item* |
| Tree | flow-attribute |
| String length | 1 to 32 |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **http-enrich-max-packet-size** *number*

| | |
|---|---|
| Synopsis | Maximum HTTP enriched packet size |
| Context | **configure** isa application-assurance-group *number* http-enrich-max-packet-size *number* |
| Tree | http-enrich-max-packet-size |
| Range | 576 to 9212 |
| Units | octets |
| Default | 1500 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **isa-capacity-cost-high-threshold** *number*

| | |
|---|---|
| Synopsis | Capacity cost high threshold for the ISA-AA group |
| Context | **configure** isa application-assurance-group *number* isa-capacity-cost-high-threshold *number* |
| Tree | isa-capacity-cost-high-threshold |
| Range | 0 to 4294967294 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **isa-capacity-cost-low-threshold** *number*

| | |
|---|---|
| Synopsis | Capacity cost low threshold for the ISA-AA group |
| Context | **configure** isa application-assurance-group *number* isa-capacity-cost-low-threshold *number* |
| Tree | isa-capacity-cost-low-threshold |
| Range | 1 to 4294967295 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **minimum-isa-generation** *number*

| | |
|---|---|
| Synopsis | Minimum ISA generation for this AA group |
| Context | **configure** isa application-assurance-group *number* minimum-isa-generation *number* |
| Tree | minimum-isa-generation |
| Range | 1 to 2 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **overload-cut-through** *boolean*

| | |
|---|---|
| Synopsis | Enable cut-through of traffic if ISA is in overload |
| Context | **configure** isa application-assurance-group *number* overload-cut-through *boolean* |
| Tree | overload-cut-through |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **overload-sub-quarantine**

| | |
|---|---|
| Synopsis | Enter the **overload-sub-quarantine** context |
| Context | **configure** isa application-assurance-group *number* overload-sub-quarantine |
| Tree | overload-sub-quarantine |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of overload subscriber quarantine |
| Context | **configure** isa application-assurance-group *number* overload-sub-quarantine admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### primary

| | |
|---|---|
| Synopsis | Enter the **primary** context |
| Context | **configure** isa application-assurance-group *number* primary |
| Tree | primary |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **esa** [esa-id] *number* vm *number*

| | |
|---|---|
| Synopsis | Add a list entry for **esa** |
| Context | **configure** isa application-assurance-group *number* primary esa *number* vm *number* |
| Tree | esa |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**esa-id**] *number*

| | |
|---|---|
| Synopsis | ESA ID |
| Context | **configure** isa application-assurance-group *number* primary esa *number* vm *number* |
| Tree | esa |
| Range | 1 to 16 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **vm** *number*

| | |
|---|---|
| Synopsis | VM ID within the ESA |
| Context | **configure** isa application-assurance-group *number* primary esa *number* vm *number* |
| Tree | esa |
| Range | 1 to 4 |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **isa** [mda-id] *slot-mda*

| | |
|---|---|
| Synopsis | Add a list entry for **isa** |
| Context | **configure** isa application-assurance-group *number* primary isa *slot-mda* |
| Tree | isa |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**mda-id**] *slot-mda*

| | |
|---|---|
| Synopsis | MDA/ISA ID |
| Context | **configure** isa application-assurance-group *number* primary isa *slot-mda* |
| Tree | isa |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **qos**

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** isa application-assurance-group *number* qos |
| Tree | qos |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **egress**

| | |
|---|---|
| Synopsis | Enter the **egress** context |
| Context | **configure** isa application-assurance-group *number* qos egress |
| Tree | egress |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## from-subscriber

| | |
|---|---|
| Synopsis | Enter the **from-subscriber** context |
| Context | **configure** isa application-assurance-group *number* qos egress from-subscriber |
| Tree | from-subscriber |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## buffer-pool

| | |
|---|---|
| Synopsis | Enter the **buffer-pool** context |
| Context | **configure** isa application-assurance-group *number* qos egress from-subscriber buffer-pool |
| Tree | buffer-pool |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## name *named-item*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Name of the buffer pool used for this ISA group |
| Context | **configure** isa application-assurance-group *number* qos egress from-subscriber buffer-pool name *named-item* |
| Tree | name |
| String length | 1 to 32 |
| Default | default |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## resv-cbs *number*

| | |
|---|---|
| Synopsis | Reserved CBS for this ISA group |
| Context | **configure** isa application-assurance-group *number* qos egress from-subscriber buffer-pool resv-cbs *number* |


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| | |
|---|---|
| Tree | resv-cbs |
| Range | 0 to 100 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **slope-policy** *reference*

| | |
|---|---|
| Synopsis | Slope policy name |
| Context | **configure** isa application-assurance-group *number* qos egress from-subscriber buffer-pool slope-policy *reference* |
| Tree | slope-policy |
| Reference | **configure** qos slope-policy *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **port-scheduler-policy** *reference*

| | |
|---|---|
| Synopsis | Port scheduler policy name |
| Context | **configure** isa application-assurance-group *number* qos egress from-subscriber port-scheduler-policy *reference* |
| Tree | port-scheduler-policy |
| Reference | **configure** qos port-scheduler-policy *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **queue-policy** *reference*

| | |
|---|---|
| Synopsis | Queue policy name |
| Context | **configure** isa application-assurance-group *number* qos egress from-subscriber queue-policy *reference* |
| Tree | queue-policy |
| Reference | **configure** qos network-queue *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **wa-shared-high-wmark** *(number | keyword)*

| | |
|---|---|
| Synopsis | High watermark for weighted average utilization |
| Context | **configure** isa application-assurance-group *number* qos egress from-subscriber wa-shared-high-wmark *(number \| keyword)* |
| Tree | wa-shared-high-wmark |
| Range | 1 to 100 |
| Units | percent |
| Options | max |
| Default | max |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **wa-shared-low-wmark** *number*

| | |
|---|---|
| Synopsis | Low watermark for the weighted average utilization |
| Context | **configure** isa application-assurance-group *number* qos egress from-subscriber wa-shared-low-wmark *number* |
| Tree | wa-shared-low-wmark |
| Range | 0 to 99 |
| Units | percent |
| Default | 0 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **to-subscriber**

| | |
|---|---|
| Synopsis | Enter the **to-subscriber** context |
| Context | **configure** isa application-assurance-group *number* qos egress to-subscriber |
| Tree | to-subscriber |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **buffer-pool**

| | |
|---|---|
| Synopsis | Enter the **buffer-pool** context |


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| | |
|---|---|
| Context | **configure** isa application-assurance-group *number* qos egress to-subscriber buffer-pool |
| Tree | buffer-pool |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **name** *named-item*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Name of the buffer pool used for this ISA group |
| Context | **configure** isa application-assurance-group *number* qos egress to-subscriber buffer-pool name *named-item* |
| Tree | name |
| String length | 1 to 32 |
| Default | default |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **resv-cbs** *number*

| | |
|---|---|
| Synopsis | Reserved CBS for this ISA group |
| Context | **configure** isa application-assurance-group *number* qos egress to-subscriber buffer-pool resv-cbs *number* |
| Tree | resv-cbs |
| Range | 0 to 100 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **slope-policy** *reference*

| | |
|---|---|
| Synopsis | Slope policy name |
| Context | **configure** isa application-assurance-group *number* qos egress to-subscriber buffer-pool slope-policy *reference* |
| Tree | slope-policy |
| Reference | **configure** qos slope-policy *named-item* |


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| | |
|---|---|
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **port-scheduler-policy** *reference*

| | |
|---|---|
| Synopsis | Port scheduler policy name |
| Context | **configure** isa application-assurance-group *number* qos egress to-subscriber port-scheduler-policy *reference* |
| Tree | port-scheduler-policy |
| Reference | **configure** qos port-scheduler-policy *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **queue-policy** *reference*

| | |
|---|---|
| Synopsis | Queue policy name |
| Context | **configure** isa application-assurance-group *number* qos egress to-subscriber queue-policy *reference* |
| Tree | queue-policy |
| Reference | **configure** qos network-queue *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **wa-shared-high-wmark** *(number | keyword)*

| | |
|---|---|
| Synopsis | High watermark for weighted average utilization |
| Context | **configure** isa application-assurance-group *number* qos egress to-subscriber wa-shared-high-wmark *(number | keyword)* |
| Tree | wa-shared-high-wmark |
| Range | 1 to 100 |
| Units | percent |
| Options | max |
| Default | max |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### wa-shared-low-wmark *number*

| | |
|---|---|
| Synopsis | Low watermark for the weighted average utilization |
| Context | **configure** isa application-assurance-group *number* qos egress to-subscriber wa-shared-low-wmark *number* |
| Tree | wa-shared-low-wmark |
| Range | 0 to 99 |
| Units | percent |
| Default | 0 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### shared-resources

| | |
|---|---|
| Synopsis | Enter the **shared-resources** context |
| Context | **configure** isa application-assurance-group *number* shared-resources |
| Tree | shared-resources |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### gtp-tunnel-database *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Percentage of allocated memory resources |
| Context | **configure** isa application-assurance-group *number* shared-resources gtp-tunnel-database *number* |
| Tree | gtp-tunnel-database |
| Range | 1 to 100 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## tcp-advanced-functions *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Allocation of resources for TCP advanced functions |
| Context | **configure** isa application-assurance-group *number* shared-resources tcp-advanced-functions *number* |
| Tree | tcp-advanced-functions |
| Range | 1 to 100 |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## url-filter-web-service-cache *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Amount of shared memory as a percentage |
| Context | **configure** isa application-assurance-group *number* shared-resources url-filter-web-service-cache *number* |
| Tree | url-filter-web-service-cache |
| Range | 1 to 100 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## statistics

| | |
|---|---|
| Synopsis | Enter the **statistics** context |
| Context | **configure** isa application-assurance-group *number* statistics |
| Tree | statistics |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **stats-type** [isa-aa-group-stats-type] *keyword*

| | |
|---|---|
| Synopsis | Enter the **stats-type** list instance |
| Context | **configure** isa application-assurance-group *number* statistics stats-type *keyword* |
| Tree | stats-type |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**isa-aa-group-stats-type**] *keyword*

| | |
|---|---|
| Synopsis | Group performance statistics type |
| Context | **configure** isa application-assurance-group *number* statistics stats-type *keyword* |
| Tree | stats-type |
| Options | aa-performance |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **accounting-policy** *reference*

| | |
|---|---|
| Synopsis | Accounting policy ID used by AA |
| Context | **configure** isa application-assurance-group *number* statistics stats-type *keyword* accounting-policy *reference* |
| Tree | accounting-policy |
| Reference | **configure** log accounting-policy *number* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **collect-stats** *boolean*

| | |
|---|---|
| Synopsis | Enable the collection of statistics |
| Context | **configure** isa application-assurance-group *number* statistics stats-type *keyword* collect-stats *boolean* |
| Tree | collect-stats |
| Default | false |


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| | |
|---|---|
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## transit-prefix-limits

| | |
|---|---|
| Synopsis | Enter the **transit-prefix-limits** context |
| Context | **configure** isa application-assurance-group *number* transit-prefix-limits |
| Tree | transit-prefix-limits |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## ipv4-entries *number*

| | |
|---|---|
| Synopsis | Limit of transit prefix IPv4 entries per AA group |
| Context | **configure** isa application-assurance-group *number* transit-prefix-limits ipv4-entries *number* |
| Tree | ipv4-entries |
| Range | 1 to 16383 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## ipv4-remote-entries *number*

| | |
|---|---|
| Synopsis | Limit of transit prefix IPv4 remote entries per group |
| Context | **configure** isa application-assurance-group *number* transit-prefix-limits ipv4-remote-entries *number* |
| Tree | ipv4-remote-entries |
| Range | 1 to 2047 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## ipv6-entries *number*

| | |
|---|---|
| Synopsis | Limit of transit prefix IPv6 entries per AA group |
| Context | **configure** isa application-assurance-group *number* transit-prefix-limits ipv6-entries *number* |


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| | |
|---|---|
| Tree | ipv6-entries |
| Range | 1 to 8191 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ipv6-remote-entries** *number*

| | |
|---|---|
| Synopsis | Limit of transit prefix IPv6 remote entries per group |
| Context | **configure** isa application-assurance-group *number* transit-prefix-limits ipv6-remote-entries *number* |
| Tree | ipv6-remote-entries |
| Range | 1 to 1023 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **vm-traffic-distribute-by-ip** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Allow packet distribution by IP address for virtual AA |
| Context | **configure** isa application-assurance-group *number* vm-traffic-distribute-by-ip *boolean* |
| Tree | vm-traffic-distribute-by-ip |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **vm-traffic-distribute-by-teid** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable load balancing of the traffic using TEID |
| Context | **configure** isa application-assurance-group *number* vm-traffic-distribute-by-teid *boolean* |
| Tree | vm-traffic-distribute-by-teid |


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| | |
|---|---|
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **lns-group** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **lns-group** list instance |
| Context | **configure** isa lns-group *number* |
| Tree | lns-group |
| Description | Commands in this context configure the ISA L2TP Network Server (LNS) group. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**id**] *number*

| | |
|---|---|
| Synopsis | LNS group ID |
| Context | **configure** isa lns-group *number* |
| Tree | lns-group |
| Range | 1 to 4 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the ISA LNS group |
| Context | **configure** isa lns-group *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** isa lns-group *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **esa** [esa-id] *reference* vm *reference*

| | |
|---|---|
| Synopsis | Enter the **esa** list instance |
| Context | **configure** isa lns-group *number* esa *reference* vm *reference* |
| Tree | esa |
| Max. instances | 6 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

### [**esa-id**] *reference*

| | |
|---|---|
| Synopsis | ESA ID |
| Context | **configure** isa lns-group *number* esa *reference* vm *reference* |
| Tree | esa |
| Reference | **configure** esa *number* |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

### **vm** *reference*

| | |
|---|---|
| Synopsis | VM ID |
| Context | **configure** isa lns-group *number* esa *reference* vm *reference* |
| Tree | esa |
| Reference | **configure** esa *number* vm *number* |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

### **drain** *boolean*

| | |
|---|---|
| Synopsis | Redirect subscribers to other ESA VMs |
| Context | **configure** isa lns-group *number* esa *reference* vm *reference* drain *boolean* |
| Tree | drain |
| Description | When configured to **true**, the ESA VM redirects new subscribers to use other ESA VMs.<br>The drain function gracefully redirects subscribers to other ESA VMs and does not allow new subscribers to use the ESA VM. As the existing subscribers terminate their sessions, the ESA VM no longer services any subscribers and can be decommissioned gracefully.<br>When configured to **false**, the ESA VM is set to the normal working operational state and accepts new LNS subscribers. |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

### **mda** [mda-id] *slot-mda*

| | |
|---|---|
| Synopsis | Enter the **mda** list instance |
| Context | **configure** isa lns-group *number* mda *slot-mda* |
| Tree | mda |
| Description | Commands in this context configure an ISA LNS group MDA. |
| Max. instances | 6 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**mda-id**] *slot-mda*

| | |
|---|---|
| Synopsis | MDA ID for the ISA LNS group |
| Context | **configure** isa lns-group *number* mda *slot-mda* |
| Tree | mda |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **drain** *boolean*

| | |
|---|---|
| Synopsis | Prevent new L2TP sessions from associating with ISA |
| Context | **configure** isa lns-group *number* mda *slot-mda* drain *boolean* |
| Tree | drain |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **port-policy** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Port policy for the ISA LNS group |
| Context | **configure** isa lns-group *number* port-policy *reference* |
| Tree | port-policy |
| Reference | **configure** port-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **map-t-group** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **map-t-group** list instance |
| Context | **configure** isa map-t-group *number* |
| Tree | map-t-group |
| Description | Commands in this context configure a MAP-T group. This group is a set of ESA-VMs responsible for handling downstream fragmentation and ICMPv4 and ICMPv6 processing. |
| Max. instances | 1 |


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| | |
|---|---|
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s |

### [**id**] *number*

| | |
|---|---|
| Synopsis | NAT group ID |
| Context | **configure** isa map-t-group *number* |
| Tree | map-t-group |
| Range | 1 to 4 |
| Notes | This element is part of a list key. |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the ISA NAT MAP-T group |
| Context | **configure** isa map-t-group *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** isa map-t-group *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s |

### **esa** [esa-id] *reference* vm *reference*

| | |
|---|---|
| Synopsis | Add a list entry for **esa** |


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| | |
|---|---|
| Context | **configure** isa map-t-group *number* esa *reference* vm *reference* |
| Tree | esa |
| Description | This command associates an ESA-VM with the MAP-T group. |
| Max. instances | 2 |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s |

### [**esa-id**] *reference*

| | |
|---|---|
| Synopsis | ESA used by the ISA NAT MAP-T group |
| Context | **configure** isa map-t-group *number* esa *reference* vm *reference* |
| Tree | esa |
| Reference | **configure** esa *number* |
| Notes | This element is part of a list key. |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s |

### **vm** *reference*

| | |
|---|---|
| Synopsis | ESA-VM used by the ISA NAT MAP-T group |
| Context | **configure** isa map-t-group *number* esa *reference* vm *reference* |
| Tree | esa |
| Reference | **configure** esa *number* vm *number* |
| Notes | This element is part of a list key. |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s |

### **fragments-per-packet** *number*

| | |
|---|---|
| Synopsis | Maximum number of fragments per packet for downstream |
| Context | **configure** isa map-t-group *number* fragments-per-packet *number* |
| Tree | fragments-per-packet |
| Description | This command configures the maximum number of fragments per packet in the downstream direction for non-resolved packets. If the number of fragments for non- |


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| | |
|---|---|
| | resolved packets (packets for which the first fragment has not been received) exceeds this number, all the fragments from the packet are discarded, and the buffer is released. |
| Range | 1 to 20 |
| Default | 5 |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s |

### **nat-group** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **nat-group** list instance |
| Context | **configure** isa nat-group *number* |
| Tree | nat-group |
| Max. instances | 4 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**id**] *number*

| | |
|---|---|
| Synopsis | NAT group ID |
| Context | **configure** isa nat-group *number* |
| Tree | nat-group |
| Range | 1 to 4 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the NAT group |
| Context | **configure** isa nat-group *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** isa nat-group *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **esa** [esa-id] *reference* vm *reference*

| | |
|---|---|
| Synopsis | Add a list entry for **esa** |
| Context | **configure** isa nat-group *number* esa *reference* vm *reference* |
| Tree | esa |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

### [**esa-id**] *reference*

| | |
|---|---|
| Synopsis | Provisioned ESA ID |
| Context | **configure** isa nat-group *number* esa *reference* vm *reference* |
| Tree | esa |
| Reference | **configure** esa *number* |
| Notes | This element is part of a list key. |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

### **vm** *reference*

| | |
|---|---|
| Synopsis | VM ID for the provisioned BB ISA |
| Context | **configure** isa nat-group *number* esa *reference* vm *reference* |
| Tree | esa |
| Reference | **configure** esa *number* vm *number* |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

### log

| | |
|---|---|
| Synopsis | Enter the **log** context |
| Context | **configure** isa nat-group *number* log |
| Tree | log |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### suppress-lsn-events *boolean*

| | |
|---|---|
| Synopsis | Suppress LSN events when RADIUS accounting is enabled |
| Context | **configure** isa nat-group *number* log suppress-lsn-events *boolean* |
| Tree | suppress-lsn-events |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### suppress-lsn-sub-blocks-free *boolean*

| | |
|---|---|
| Synopsis | Suppress LSN Free block and NAT pool block notification |
| Context | **configure** isa nat-group *number* log suppress-lsn-sub-blocks-free *boolean* |
| Tree | suppress-lsn-sub-blocks-free |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### mda [mda-id] *slot-mda*

| | |
|---|---|
| Synopsis | Add a list entry for **mda** |
| Context | **configure** isa nat-group *number* mda *slot-mda* |
| Tree | mda |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**mda-id**] *slot-mda*

| | |
|---|---|
| Synopsis | MDA ID for ISA NAT group |
| Context | **configure** isa nat-group *number* mda *slot-mda* |
| Tree | mda |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **radius-accounting-policy** *reference*

| | |
|---|---|
| Synopsis | RADIUS accounting policy for ISA group |
| Context | **configure** isa nat-group *number* radius-accounting-policy *reference* |
| Tree | radius-accounting-policy |
| Reference | **configure** aaa radius isa-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **redundancy**

| | |
|---|---|
| Synopsis | Enter the **redundancy** context |
| Context | **configure** isa nat-group *number* redundancy |
| Tree | redundancy |
| Description | Commands in this context configure intra-chassis redundancy mode for the NAT group. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **active-mda-limit** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.


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**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

| | |
|---|---|
| Synopsis | Number of active ESA-VM or ISA members in the NAT group |
| Context | **configure** isa nat-group *number* redundancy active-mda-limit *number* |
| Tree | active-mda-limit |
| Description | This command configures the number of active ESA-VM or ISA members in a NAT group.<br><br>The system automatically selects which ESA-VMs or ISAs are active. In active/standby (A/S) redundancy mode, the correlation between ESA-VM or ISA members is direct, meaning each ESA-VM or ISA equates to one member. In active/active (A/A) redundancy mode, an individual ESA-VM or ISA may be associated with multiple members.<br><br>For A/S redundancy, any surplus ESA-VMs or ISAs beyond the configured active threshold automatically transition to standby. These standby units remain idle until an active unit fails, at which point a standby unit takes over, handling traffic from only one failed active unit. This setup allows for the configuration of multiple standby units to provide resilience against several concurrent failures.<br><br>In A/A redundancy, the combination of this command and the **failed-mda-limit** command guides the distribution of resources among ESA-VMs or ISAs, essentially defining how the members are structured.<br><br>In both A/S and A/A modes, the system strives to maintain the configured number of active members as outlined by the active MDA limit, drawing from the pool of available spare resources to compensate for any failures. If the actual number of active members drops below this limit because of a lack of available spares, the NAT group status changes to degraded. In this state, traffic intended for the missing ESA-VM or ISA members (up to the active MDA limit) is blackholed. In Layer 2-aware NAT this condition can be circumvented where traffic can bypass NAT altogether and be directly routed within the internal network that may have an alternate path to a backup NAT system.<br><br>For additional details, see "L2-Aware bypass" in the *7450 ESS, 7750 SR, and VSR Multiservice Integrated Service Adapter and Extended Services Appliance Guide.* |
| Range | 1 to 28 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## inter-chassis

| | |
|---|---|
| Synopsis | Enable the **inter-chassis** context |
| Context | **configure** isa nat-group *number* redundancy inter-chassis |
| Tree | inter-chassis |
| Notes | The following elements are part of a choice: **inter-chassis** or **intra-chassis**. |


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| | |
|---|---|
| Introduced | 20.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **flow-timeout-on-switchover** *number*

| | |
|---|---|
| Synopsis | Flow timeout immediately following a switchover |
| Context | **configure** isa nat-group *number* redundancy inter-chassis flow-timeout-on-switchover *number* |
| Tree | flow-timeout-on-switchover |
| Description | This command configures the initial flow timeout on the newly active node for the NAT group after a switchover. The timeout is in effect only if there is no traffic present over the flow; otherwise, the first packet over the flow resets the flow timeout to the originally configured value (under the NAT policy configuration).<br>This command configuration restricts the flow timeout to a portion of the originally configured value. |
| Range | 1 to 50 |
| Units | percent |
| Default | 50 |
| Introduced | 20.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ip-mtu** *number*

| | |
|---|---|
| Synopsis | IP MTU for ISA-to-ISA communication |
| Context | **configure** isa nat-group *number* redundancy inter-chassis ip-mtu *number* |
| Tree | ip-mtu |
| Description | This command configures the IP MTU size used to transport flow synchronization records between the ISAs. Multiple flow synchronization events can be packed into a single frame up to the IP MTU size. |
| Range | 512 to 9000 |
| Default | 1500 |
| Introduced | 20.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **keepalive**

| | |
|---|---|
| Synopsis | Enter the **keepalive** context |


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| | |
|---|---|
| Context | **configure** isa nat-group *number* redundancy inter-chassis keepalive |
| Tree | keepalive |
| Description | Commands in this context configure keepalive messages between the CPMs residing on different chassis and are used to detect the presence of the peering node. If the redundant peer connectivity is lost beyond the limit defined by the keepalive messages, each node in the redundant pair transitions to standalone mode. Keepalive messages use UDP transport. |
| Introduced | 20.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **dropcount** *number*

| | |
|---|---|
| Synopsis | Threshold for lost consecutive keepalive messages |
| Context | **configure** isa nat-group *number* redundancy inter-chassis keepalive dropcount *number* |
| Tree | dropcount |
| Description | This command configures the threshold for the number of consecutive keepalive messages that are lost between the redundant nodes before the connection is declared down. When the peer is considered unreachable, each node transitions to standalone mode. |
| Range | 2 to 20 |
| Default | 2 |
| Introduced | 20.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **interval** *number*

| | |
|---|---|
| Synopsis | Interval between two consecutive keepalive messages |
| Context | **configure** isa nat-group *number* redundancy inter-chassis keepalive interval *number* |
| Tree | interval |
| Description | This command configures the interval at which the keepalive messages are periodically sent between the redundant nodes (CPMs) to verify the presence of the peer. If peer connectivity is lost, each node transitions to standalone mode. |
| Range | 2 to 250 |
| Units | deciseconds |
| Default | 30 |
| Introduced | 20.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **local-ip-range-start** *ipv4-unicast-address*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

| | |
|---|---|
| Synopsis | Starting IP address for ISAs in the NAT group |
| Context | **configure** isa nat-group *number* redundancy inter-chassis local-ip-range-start *ipv4-unicast-address* |
| Tree | local-ip-range-start |
| Description | This command configures the initial IP address for the ISAs in the NAT group. Consecutive IP addresses are automatically assigned for the remaining ISAs. The IP addresses are used to communicate between the ISAs on redundant nodes for the purpose of flow synchronization. Traffic from the member ISA with the initial IP address is sent to the initial IP address from the remote IP range. |
| Introduced | 20.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **monitor-oper-group** [oper-group] *reference*

| | |
|---|---|
| Synopsis | Enter the **monitor-oper-group** list instance |
| Context | **configure** isa nat-group *number* redundancy inter-chassis monitor-oper-group *reference* |
| Tree | monitor-oper-group |
| Description | Commands in this context specify monitoring settings for objects in an operational group, such as SAPs, BFD sessions, or VRRP sessions, in order to adjust the overall health of the node in a redundant inter-chassis NAT system. A state change of the objects in the operational group influences the health of a NAT node in a redundant configuration. |
| Max. instances | 4 |
| Introduced | 20.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## [**oper-group**] *reference*

| | |
|---|---|
| Synopsis | Operational group name |


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| | |
|---|---|
| Context | **configure** isa nat-group *number* redundancy inter-chassis monitor-oper-group *reference* |
| Tree | monitor-oper-group |
| Reference | **configure** service oper-group *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 20.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **health-drop** *number*

| | |
|---|---|
| Synopsis | Overall health drop of the NAT group on a state change |
| Context | **configure** isa nat-group *number* redundancy inter-chassis monitor-oper-group *reference* health-drop *number* |
| Tree | health-drop |
| Range | 1 to 255 |
| Default | 1 |
| Introduced | 20.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **monitor-port** [port-id] *port-named*

| | |
|---|---|
| Synopsis | Enter the **monitor-port** list instance |
| Context | **configure** isa nat-group *number* redundancy inter-chassis monitor-port *port-named* |
| Tree | monitor-port |
| Description | Commands in this context specify monitoring settings for a port carrying NAT traffic, in order to adjust the overall health of the node in a redundant inter-chassis NAT system. A state change of a monitored port influences the health of a NAT node in a redundant configuration. |
| Max. instances | 16 |
| Introduced | 20.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## [**port-id**] *port-named*

| | |
|---|---|
| Synopsis | Port ID |
| Context | **configure** isa nat-group *number* redundancy inter-chassis monitor-port *port-named* |


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| | |
|---|---|
| Tree | monitor-port |
| Notes | This element is part of a list key. |
| Introduced | 20.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **health-drop** *number*

| | |
|---|---|
| Synopsis | Overall health drop of the NAT group on a state change |
| Context | **configure** isa nat-group *number* redundancy inter-chassis monitor-port *port-named* health-drop *number* |
| Tree | health-drop |
| Range | 1 to 255 |
| Default | 1 |
| Introduced | 20.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **preferred** *boolean*

| | |
|---|---|
| Synopsis | Set the preferred activity status for the node |
| Context | **configure** isa nat-group *number* redundancy inter-chassis preferred *boolean* |
| Tree | preferred |
| Description | When configured to **true**, the system designates the node in a redundant NAT system with the preferred activity status. The preferred status comes into consideration only when both redundant nodes have equal health values. If the peer traffic-serving node has an equal health value but does not have the preferred designation, a switch of activity occurs to route traffic to the preferred node. The switchover could cause a brief interruption in traffic flow.<br>When configured to **false**, the preferred designation is not set for the node. |
| Default | false |
| Introduced | 20.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **remote-ip-range-start** *ipv4-unicast-address*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.


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**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

| | |
|---|---|
| Synopsis | Starting IP address for ISAs on the remote node |
| Context | **configure** isa nat-group *number* redundancy inter-chassis remote-ip-range-start *ipv4-unicast-address* |
| Tree | remote-ip-range-start |
| Description | This command configures the initial IP address for the ISAs in the NAT group on the remote node. Consecutive IP addresses are automatically assigned for the remaining ISAs. The IP addresses are used to communicate between the ISAs on redundant nodes for the purpose of flow synchronization. Traffic from the member ISA with the initial local IP address is sent to the initial IP address from the remote IP range. |
| Introduced | 20.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **replication-threshold** *number*

| | |
|---|---|
| Synopsis | Minimum time to wait before a NAT flow is synchronized |
| Context | **configure** isa nat-group *number* redundancy inter-chassis replication-threshold *number* |
| Tree | replication-threshold |
| Description | This command configures the minimum time to wait before a NAT flow is replicated (synchronized) to the standby node. |
| Range | 0 to 300 |
| Units | seconds |
| Default | 20 |
| Introduced | 20.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **router-instance** *string*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

| | |
|---|---|
| Synopsis | Router instance for the ISA-to-ISA communication |


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| | |
|---|---|
| Context | **configure** isa nat-group *number* redundancy inter-chassis router-instance *string* |
| Tree | router-instance |
| Description | This command specifies the routing instance through which ISAs on redundant nodes communicate with each other and synchronize their flow state. |
| Introduced | 20.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **sync** *boolean*

| | |
|---|---|
| Synopsis | Synchronize NAT flows between nodes |
| Context | **configure** isa nat-group *number* redundancy inter-chassis sync *boolean* |
| Tree | sync |
| Default | true |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **intra-chassis**

| | |
|---|---|
| Synopsis | Enter the **intra-chassis** context |
| Context | **configure** isa nat-group *number* redundancy intra-chassis |
| Tree | intra-chassis |
| Notes | The following elements are part of a choice: **inter-chassis** or **intra-chassis**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **active-active**

| | |
|---|---|
| Synopsis | Enter the **active-active** context |
| Context | **configure** isa nat-group *number* redundancy intra-chassis active-active |
| Tree | active-active |
| Notes | The following elements are part of a choice: **active-active**, **active-standby**, or **l2aware-bypass**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## failed-mda-limit *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum failed MDAs allowed in ICR for the NAT group |
| Context | **configure** isa nat-group *number* redundancy intra-chassis active-active failed-mda-limit *number* |
| Tree | failed-mda-limit |
| Description | This command configures the maximum number of supported simultaneous failures in active-active intra-chassis NAT redundancy model. Traffic from the failed ESA-VMs or ISAs is distributed over the remaining ESA-VM or ISA in the system. Memory resources are reserved in every ESA-VM or ISA to accommodate new mappings from the failed ESA-VM or ISA. However, bandwidth is not reserved and each ESA-VM or ISA operates at maximum speed in all conditions (with failure or without the failure).<br>NAT translations are not preserved across switchovers and consequently they must be reinitiated by the clients.<br>For this command to take effect, the intra-chassis redundancy must be set to **active-active** mode by using the **configure isa nat-group redundancy intra-chassis active-active** command. |
| Range | 1 to 2 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## active-standby

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

| | |
|---|---|
| Synopsis | Active-standby intra-chassis NAT redundancy model |
| Context | **configure** isa nat-group *number* redundancy intra-chassis active-standby |
| Tree | active-standby |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **active-active**, **active-standby**, or **l2aware-bypass**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## l2aware-bypass

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

| | |
|---|---|
| Synopsis | L2-aware-bypass NAT redundancy model |
| Context | **configure** isa nat-group *number* redundancy intra-chassis l2aware-bypass |
| Tree | l2aware-bypass |
| Notes | The following elements are part of a choice: **active-active**, **active-standby**, or **l2aware-bypass**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## scaling-profile *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

| | |
|---|---|
| Synopsis | Scaling profile for the NAT group |
| Context | **configure** isa nat-group *number* scaling-profile *keyword* |
| Tree | scaling-profile |
| Description | This command determines profiles for NAT scaling. Lower profile numbers allocate less resources, thus supporting lower scaling.<br>Contact your Nokia representative for more information about NAT scaling figures in each profile. |
| Options | profile1, profile2, profile3 |


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| | |
|---|---|
| Default | profile1 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## session-limits

| | |
|---|---|
| Synopsis | Enter the **session-limits** context |
| Context | **configure** isa nat-group *number* session-limits |
| Tree | session-limits |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## reserved *number*

| | |
|---|---|
| Synopsis | Number of sessions reserved for prioritized sessions |
| Context | **configure** isa nat-group *number* session-limits reserved *number* |
| Tree | reserved |
| Range | 1 to 6291456 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## upnp-mappings *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum number of UPnP mappings per member |
| Context | **configure** isa nat-group *number* session-limits upnp-mappings *number* |
| Tree | upnp-mappings |
| Description | This command specifies the maximum number of Universal Plug and Play (UPnP) mappings per member. |
| Range | 1 to 524288 |
| Default | 524288 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## watermarks

| | |
|---|---|
| Synopsis | Enable the **watermarks** context |
| Context | **configure** isa nat-group *number* session-limits watermarks |
| Tree | watermarks |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## high *number*

| | |
|---|---|
| Synopsis | Session limit high watermark for each MDA in the group |
| Context | **configure** isa nat-group *number* session-limits watermarks high *number* |
| Tree | high |
| Range | 0 to 100 |
| Units | percent |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## low *number*

| | |
|---|---|
| Synopsis | Session limit low watermark for each MDA in the group |
| Context | **configure** isa nat-group *number* session-limits watermarks low *number* |
| Tree | low |
| Range | 0 to 100 |
| Units | percent |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **tunnel-group** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **tunnel-group** list instance |
| Context | **configure** isa tunnel-group *number* |
| Tree | tunnel-group |
| Description | Commands in this context create or edit a tunnel group. A tunnel group is a set of one or more MS-ISAs that support the origination and termination of IPsec and IP/GRE tunnels. On a VSR, the **isa-scale-mode** command must be specified, which defines the maximum number of tunnels on each ISA. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**id**] *number*

| | |
|---|---|
| Synopsis | Tunnel group ID |
| Context | **configure** isa tunnel-group *number* |
| Tree | tunnel-group |
| Range | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the ISA tunnel group |
| Context | **configure** isa tunnel-group *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **backup** *slot-mda*

| | |
|---|---|
| Synopsis | IPsec module configured in the slot to the IPsec group |
| Context | **configure** isa tunnel-group *number* backup *slot-mda* |


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| | |
|---|---|
| Tree | backup |
| Notes | The following elements are part of a choice: **multi-active** or (**backup** and **primary**). |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** isa tunnel-group *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ipsec-responder-only** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Act as an IKE responder except upon MC-IPsec switchover |
| Context | **configure** isa tunnel-group *number* ipsec-responder-only *boolean* |
| Tree | ipsec-responder-only |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **isa-scale-mode** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Tunnel limit on each ISA for the tunnel group |
| Context | **configure** isa tunnel-group *number* isa-scale-mode *keyword* |
| Tree | isa-scale-mode |
| Options | tunnel-limit-2k, tunnel-limit-32k, tunnel-limit-64k, tunnel-limit-8, tunnel-limit-32 |


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| | |
|---|---|
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### multi-active

| | |
|---|---|
| Synopsis | Enable the **multi-active** context |
| Context | **configure** isa tunnel-group *number* multi-active |
| Tree | multi-active |
| Notes | The following elements are part of a choice: **multi-active** or (**backup** and **primary**). |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### active-isa-number *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Number of active MS-ISAs in the tunnel group |
| Context | **configure** isa tunnel-group *number* multi-active active-isa-number *number* |
| Tree | active-isa-number |
| Range | 1 to 16 |
| Default | 1 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### esa [esa-id] *reference* vm *reference*

| | |
|---|---|
| Synopsis | Enter the **esa** list instance |
| Context | **configure** isa tunnel-group *number* multi-active esa *reference* vm *reference* |
| Tree | esa |
| Notes | The following elements are part of a choice: **esa**, **isa**, or **member-pool**. |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |


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### [**esa-id**] *reference*

| | |
|---|---|
| Synopsis | ESA ID |
| Context | **configure** isa tunnel-group *number* multi-active esa *reference* vm *reference* |
| Tree | esa |
| Reference | **configure** esa *number* |
| Notes | This element is part of a list key. |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

### **vm** *reference*

| | |
|---|---|
| Synopsis | ESM-VM ID |
| Context | **configure** isa tunnel-group *number* multi-active esa *reference* vm *reference* |
| Tree | esa |
| Reference | **configure** esa *number* vm *number* |
| Notes | This element is part of a list key. |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

### **weight** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | ESA-VM weight for load-balancing |
| Context | **configure** isa tunnel-group *number* multi-active esa *reference* vm *reference* weight *number* |
| Tree | weight |
| Description | This command configures the ESA-VM weight for load-balancing IP tunnels. The system assigns more tunnels to ESA-VMs configured with larger weights.<br>See the *7450 ESS, 7750 SR, and VSR Multiservice ISA and ESA Guide* for more information. |
| Range | 1 to 1000 |
| Introduced | 24.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

### **isa** [isa-id] *slot-mda*

| | |
|---|---|
| Synopsis | Add a list entry for **isa** |
| Context | **configure** isa tunnel-group *number* multi-active isa *slot-mda* |
| Tree | isa |
| Notes | The following elements are part of a choice: **esa**, **isa**, or **member-pool**. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**isa-id**] *slot-mda*

| | |
|---|---|
| Synopsis | ISA ID associated with the tunnel member pool |
| Context | **configure** isa tunnel-group *number* multi-active isa *slot-mda* |
| Tree | isa |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **member-pool** *reference*

| | |
|---|---|
| Synopsis | Tunnel-member pool name |
| Context | **configure** isa tunnel-group *number* multi-active member-pool *reference* |
| Tree | member-pool |
| Reference | **configure** isa tunnel-member-pool *named-item* |
| Notes | The following elements are part of a choice: **esa**, **isa**, or **member-pool**. |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **primary** *slot-mda*

| | |
|---|---|
| Synopsis | Primary ISA IPsec module assigned for the tunnel group |
| Context | **configure** isa tunnel-group *number* primary *slot-mda* |
| Tree | primary |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **multi-active** or (**backup** and **primary**). |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## reassembly

| | |
|---|---|
| Synopsis | Enter the **reassembly** context |
| Context | **configure** isa tunnel-group *number* reassembly |
| Tree | reassembly |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## max-wait-time *number*

| | |
|---|---|
| Synopsis | Maximum time to receive fragments for packet reassembly |
| Context | **configure** isa tunnel-group *number* reassembly max-wait-time *number* |
| Tree | max-wait-time |
| Range | 1 to 5000 |
| Units | milliseconds |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## spi-range-index *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | SPI range index to use for the tunnel group |
| Context | **configure** isa tunnel-group *number* spi-range-index *number* |
| Tree | spi-range-index |
| Description | This command configures the SPI range index value for the tunnel group. Each index value corresponds to a subrange of SPI values from the entire SPI space to allocate to the tunnel group.<br>This command must be configured with a unique value across all multichassis peering systems in following cases:<br>• A multichassis-enabled tunnel group contains ESA-VMs with weight. |


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- The **active-isa-number** configurations of a tunnel group are different on different peering systems.

See the *7450 ESS, 7750 SR, and VSR Multiservice ISA and ESA Guide* for more information.

| | |
|---|---|
| Range | 1 to 4 |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

## stats-collection

| | |
|---|---|
| Synopsis | Enter the **stats-collection** context |
| Context | **configure** isa tunnel-group *number* stats-collection |
| Tree | stats-collection |
| Description | Commands in this context configure the ISA statistics collection. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## isa-dp-cpu-usage *boolean*

| | |
|---|---|
| Synopsis | Collect statistics used to derive ISA DP CPU usage |
| Context | **configure** isa tunnel-group *number* stats-collection isa-dp-cpu-usage *boolean* |
| Tree | isa-dp-cpu-usage |
| Description | When configured to **true**, this command collects statistics used to derive ISA CPU DP usage and impacts the ISA performance.<br>When configured to **false**, statistics are not collected. |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## strict-esp-sequence-number-ordering *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable strict ESP sequence number ordering |
| Context | **configure** isa tunnel-group *number* strict-esp-sequence-number-ordering *boolean* |


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| | |
|---|---|
| Tree | strict-esp-sequence-number-ordering |
| Description | When configured to **true**, the router enables strict ESP sequence number ordering.<br>When ESP sequence number ordering is enabled, the outbound ESP sequence number of a CHILD_SA must be in the same order as when clear packets are received by the same CHILD_SA. |
| Default | false |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

### **tunnel-member-pool** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **tunnel-member-pool** list instance |
| Context | **configure** isa tunnel-member-pool *named-item* |
| Tree | tunnel-member-pool |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | ISA tunnel-member pool name |
| Context | **configure** isa tunnel-member-pool *named-item* |
| Tree | tunnel-member-pool |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** isa tunnel-member-pool *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **esa** [esa-id] *reference* vm *reference*

| | |
|---|---|
| Synopsis | Enter the **esa** list instance |
| Context | **configure** isa tunnel-member-pool *named-item* esa *reference* vm *reference* |
| Tree | esa |
| Description | Commands in this context add specified ESA-VMs to the pool. |
| Max. instances | 16 |
| Notes | The following elements are part of a choice: **esa** or **isa**. |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

### [**esa-id**] *reference*

| | |
|---|---|
| Synopsis | ESA ID |
| Context | **configure** isa tunnel-member-pool *named-item* esa *reference* vm *reference* |
| Tree | esa |
| Reference | **configure** esa *number* |
| Notes | This element is part of a list key. |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

### **vm** *reference*

| | |
|---|---|
| Synopsis | ESM-VM ID |
| Context | **configure** isa tunnel-member-pool *named-item* esa *reference* vm *reference* |
| Tree | esa |
| Reference | **configure** esa *number* vm *number* |
| Notes | This element is part of a list key. |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |


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### **weight** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | ESA-VM weight for load-balancing |
| Context | **configure** isa tunnel-member-pool *named-item* esa *reference* vm *reference* weight *number* |
| Tree | weight |
| Description | This command configures the ESA-VM weight for load-balancing IP tunnels. The system assigns more tunnels to ESA-VMs configured with larger weights.<br>See the *7450 ESS, 7750 SR, and VSR Multiservice ISA and ESA Guide* for more information. |
| Range | 1 to 1000 |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

### **high-availability** *keyword*

| | |
|---|---|
| Synopsis | High availability scale mode |
| Context | **configure** isa tunnel-member-pool *named-item* high-availability *keyword* |
| Tree | high-availability |
| Description | This command configures the high availability (HA) mode for a pool. The specified scale mode is the maximum number of all tunnel groups associated with the pool. |
| Options | none, tunnel-limit-system, tunnel-limit-32k, tunnel-limit-64k, tunnel-limit-128k, tunnel-limit-256k |
| Default | none |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **isa** [isa-id] *slot-mda*

| | |
|---|---|
| Synopsis | Add a list entry for **isa** |
| Context | **configure** isa tunnel-member-pool *named-item* isa *slot-mda* |
| Tree | isa |


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| | |
|---|---|
| Max. instances | 16 |
| Notes | The following elements are part of a choice: **esa** or **isa**. |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**isa-id**] *slot-mda*

| | |
|---|---|
| Synopsis | ISA ID associated with the tunnel member pool |
| Context | **configure** isa tunnel-member-pool *named-item* isa *slot-mda* |
| Tree | isa |
| Notes | This element is part of a list key. |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **video-group** [video-group-id] *number*

| | |
|---|---|
| Synopsis | Enter the **video-group** list instance |
| Context | **configure** isa video-group *number* |
| Tree | video-group |
| Max. instances | 4 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### [**video-group-id**] *number*

| | |
|---|---|
| Synopsis | Video group identifier |
| Context | **configure** isa video-group *number* |
| Tree | video-group |
| Range | 1 to 4 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the video group |
| Context | **configure** isa video-group *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **analyzer** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable the analyzer for all streams on the video group |
| Context | **configure** isa video-group *number* analyzer *boolean* |
| Tree | analyzer |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** isa video-group *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |


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### **fcc-server** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Allow FCC server capability for the group |
| Context | **configure** isa video-group *number* fcc-server *boolean* |
| Tree | fcc-server |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **local-rt-server** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable the local RET server for the group |
| Context | **configure** isa video-group *number* local-rt-server *boolean* |
| Tree | local-rt-server |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **mda** [mda-id] *slot-mda*

| | |
|---|---|
| Synopsis | Add a list entry for **mda** |
| Context | **configure** isa video-group *number* mda *slot-mda* |


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| | |
|---|---|
| Tree | mda |
| Max. instances | 6 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### [**mda-id**] *slot-mda*

| | |
|---|---|
| Synopsis | MDA identifier |
| Context | **configure** isa video-group *number* mda *slot-mda* |
| Tree | mda |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **resv-ret** *number*

| | |
|---|---|
| Synopsis | Egress bandwidth reserved for retransmission |
| Context | **configure** isa video-group *number* resv-ret *number* |
| Tree | resv-ret |
| Range | 0 to 10500 |
| Units | megabps |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **stream-selection** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Allow stream selection for the group |
| Context | **configure** isa video-group *number* stream-selection *boolean* |


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| | |
|---|---|
| Tree | stream-selection |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **vapp** [esa-id] *reference* vapp-id *reference*

| | |
|---|---|
| Synopsis | Add a list entry for **vapp** |
| Context | **configure** isa video-group *number* vapp *reference* vapp-id *reference* |
| Tree | vapp |
| Description | This command adds a list entry for the ESA and VM ID to the list of video group member ESA virtual applications. |
| Max. instances | 32 |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR, 7750 SR-s |

### [**esa-id**] *reference*

| | |
|---|---|
| Synopsis | ESA ID |
| Context | **configure** isa video-group *number* vapp *reference* vapp-id *reference* |
| Tree | vapp |
| Reference | **configure** esa *number* |
| Notes | This element is part of a list key. |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR, 7750 SR-s |

### **vapp-id** *reference*

| | |
|---|---|
| Synopsis | Virtual application ID |
| Context | **configure** isa video-group *number* vapp *reference* vapp-id *reference* |
| Tree | vapp |
| Reference | **configure** esa *number* vm *number* |
| Notes | This element is part of a list key. |
| Introduced | 21.5.R1 |


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| | |
|---|---|
| Platforms | 7750 SR, 7750 SR-s |

## watermark

| | |
|---|---|
| Synopsis | Enter the **watermark** context |
| Context | **configure** isa video-group *number* watermark |
| Tree | watermark |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## bandwidth

| | |
|---|---|
| Synopsis | Enter the **bandwidth** context |
| Context | **configure** isa video-group *number* watermark bandwidth |
| Tree | bandwidth |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## fcc *number*

| | |
|---|---|
| Synopsis | FCC watermark parameters based on the bandwidth |
| Context | **configure** isa video-group *number* watermark bandwidth fcc *number* |
| Tree | fcc |
| Range | 1 to 99 |
| Units | percent |
| Default | 90 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## ret *number*

| | |
|---|---|
| Synopsis | RET watermark parameters based on the bandwidth |
| Context | **configure** isa video-group *number* watermark bandwidth ret *number* |
| Tree | ret |
| Range | 1 to 99 |


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| | |
|---|---|
| Units | percent |
| Default | 90 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **total** *number*

| | |
|---|---|
| Synopsis | Total watermark parameters based on the bandwidth |
| Context | **configure** isa video-group *number* watermark bandwidth total *number* |
| Tree | total |
| Range | 1 to 99 |
| Units | percent |
| Default | 90 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **session**

| | |
|---|---|
| Synopsis | Enter the **session** context |
| Context | **configure** isa video-group *number* watermark session |
| Tree | session |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **fcc** *number*

| | |
|---|---|
| Synopsis | FCC watermark parameters based on the session |
| Context | **configure** isa video-group *number* watermark session fcc *number* |
| Tree | fcc |
| Range | 1 to 99 |
| Units | percent |
| Default | 90 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |


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### **ret** *number*

| | |
|---|---|
| Synopsis | RET watermark parameters based on the session |
| Context | **configure** isa video-group *number* watermark session ret *number* |
| Tree | ret |
| Range | 1 to 99 |
| Units | percent |
| Default | 90 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **total** *number*

| | |
|---|---|
| Synopsis | Total watermark parameters based on the session |
| Context | **configure** isa video-group *number* watermark session total *number* |
| Tree | total |
| Range | 1 to 99 |
| Units | percent |
| Default | 90 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **wlan-gw-group** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **wlan-gw-group** list instance |
| Context | **configure** isa wlan-gw-group *number* |
| Tree | wlan-gw-group |
| Description | Commands in this context configure a WLAN-gateway group that contains a set of ISAs used in WLAN-gateway functionality. A WLAN-gateway group can also be used where a NAT group is expected. The WLAN-gateway group ID shares the same number space with the NAT group. |
| Max. instances | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### [**id**] *number*

| | |
|---|---|
| Synopsis | WLAN-GW ISA group ID |
| Context | **configure** isa wlan-gw-group *number* |
| Tree | wlan-gw-group |
| Range | 1 to 4 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **active-iom-limit** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

| | |
|---|---|
| Synopsis | Number of WLAN-GW IOMs used as active IOMs |
| Context | **configure** isa wlan-gw-group *number* active-iom-limit *number* |
| Tree | active-iom-limit |
| Range | 1 to 7 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **active-mda-limit** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum number of ISA MDAs in active use by the group |
| Context | **configure** isa wlan-gw-group *number* active-mda-limit *number* |


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| | |
|---|---|
| Tree | active-mda-limit |
| Range | 1 to 14 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the WLAN Gateway group |
| Context | **configure** isa wlan-gw-group *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** isa wlan-gw-group *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **distributed-sub-mgmt**

| | |
|---|---|
| Synopsis | Enter the **distributed-sub-mgmt** context |
| Context | **configure** isa wlan-gw-group *number* distributed-sub-mgmt |
| Tree | distributed-sub-mgmt |
| Introduced | 21.10.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **isa-aa-group** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | ISA AA group for WLAN-GW DSM subscribers |
| Context | **configure** isa wlan-gw-group *number* distributed-sub-mgmt isa-aa-group *reference* |
| Tree | isa-aa-group |
| Reference | **configure** isa application-assurance-group *number* |
| Introduced | 21.10.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **isa-aa-oversubscription-factor** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Number of WLAN GW ISAs that a single ISA can serve |
| Context | **configure** isa wlan-gw-group *number* distributed-sub-mgmt isa-aa-oversubscription-factor *number* |
| Tree | isa-aa-oversubscription-factor |
| Range | 1 to 10 |
| Default | 1 |
| Introduced | 21.10.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s |

## **esa** [esa-id] *reference* vm *reference*

| | |
|---|---|
| Synopsis | Add a list entry for **esa** |
| Context | **configure** isa wlan-gw-group *number* esa *reference* vm *reference* |
| Tree | esa |
| Introduced | 20.10.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s |


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### [**esa-id**] *reference*

| | |
|---|---|
| Synopsis | ESA ID |
| Context | **configure** isa wlan-gw-group *number* esa *reference* vm *reference* |
| Tree | esa |
| Reference | **configure** esa *number* |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s |

### **vm** *reference*

| | |
|---|---|
| Synopsis | VM ID |
| Context | **configure** isa wlan-gw-group *number* esa *reference* vm *reference* |
| Tree | esa |
| Reference | **configure** esa *number* vm *number* |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s |

### **iom** [slot-number] *reference*

| | |
|---|---|
| Synopsis | Add a list entry for **iom** |
| Context | **configure** isa wlan-gw-group *number* iom *reference* |
| Tree | iom |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**slot-number**] *reference*

| | |
|---|---|
| Synopsis | IOM slot to use in the WLAN-GW group |
| Context | **configure** isa wlan-gw-group *number* iom *reference* |
| Tree | iom |
| Reference | **configure** card *number* |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **mda** [mda-id] *slot-mda*

| | |
|---|---|
| Synopsis | Add a list entry for **mda** |
| Context | **configure** isa wlan-gw-group *number* mda *slot-mda* |
| Tree | mda |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s |

### [**mda-id**] *slot-mda*

| | |
|---|---|
| Synopsis | MDA slot value |
| Context | **configure** isa wlan-gw-group *number* mda *slot-mda* |
| Tree | mda |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s |

### **nat**

| | |
|---|---|
| Synopsis | Enter the **nat** context |
| Context | **configure** isa wlan-gw-group *number* nat |
| Tree | nat |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **log**

| | |
|---|---|
| Synopsis | Enter the **log** context |
| Context | **configure** isa wlan-gw-group *number* nat log |
| Tree | log |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **suppress-lsn-events** *boolean*

| | |
|---|---|
| Synopsis | Suppress LSN events when RADIUS accounting is enabled |
| Context | **configure** isa wlan-gw-group *number* nat log suppress-lsn-events *boolean* |
| Tree | suppress-lsn-events |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **suppress-lsn-sub-blocks-free** *boolean*

| | |
|---|---|
| Synopsis | Suppress LSN Free block and NAT pool block notification |
| Context | **configure** isa wlan-gw-group *number* nat log suppress-lsn-sub-blocks-free *boolean* |
| Tree | suppress-lsn-sub-blocks-free |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **lsn** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Use Large Scale NAT |
| Context | **configure** isa wlan-gw-group *number* nat lsn *boolean* |
| Tree | lsn |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **radius-accounting-policy** *reference*

| | |
|---|---|
| Synopsis | RADIUS accounting policy for ISA group |


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| | |
|---|---|
| Context | **configure** isa wlan-gw-group *number* nat radius-accounting-policy *reference* |
| Tree | radius-accounting-policy |
| Reference | **configure** aaa radius isa-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## session-limits

| | |
|---|---|
| Synopsis | Enter the **session-limits** context |
| Context | **configure** isa wlan-gw-group *number* nat session-limits |
| Tree | session-limits |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## reserved *number*

| | |
|---|---|
| Synopsis | Number of sessions reserved for prioritized sessions |
| Context | **configure** isa wlan-gw-group *number* nat session-limits reserved *number* |
| Tree | reserved |
| Range | 1 to 6291456 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## upnp-mappings *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum number of UPnP mappings per member |
| Context | **configure** isa wlan-gw-group *number* nat session-limits upnp-mappings *number* |
| Tree | upnp-mappings |


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| | |
|---|---|
| Description | This command specifies the maximum number of Universal Plug and Play (UPnP) mappings per member. |
| Range | 1 to 524288 |
| Default | 524288 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## watermarks

| | |
|---|---|
| Synopsis | Enable the **watermarks** context |
| Context | **configure** isa wlan-gw-group *number* nat session-limits watermarks |
| Tree | watermarks |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## high *number*

| | |
|---|---|
| Synopsis | Session limit high watermark for each MDA in the group |
| Context | **configure** isa wlan-gw-group *number* nat session-limits watermarks high *number* |
| Tree | high |
| Range | 0 to 100 |
| Units | percent |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## low *number*

| | |
|---|---|
| Synopsis | Session limit low watermark for each MDA in the group |
| Context | **configure** isa wlan-gw-group *number* nat session-limits watermarks low *number* |
| Tree | low |
| Range | 0 to 100 |
| Units | percent |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **port-policy** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Port policy used to configure ports for the ISA group |
| Context | **configure** isa wlan-gw-group *number* port-policy *reference* |
| Tree | port-policy |
| Reference | **configure** port-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **redundancy** *keyword*

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Hardware unit subject to redundancy |
| Context | **configure** isa wlan-gw-group *number* redundancy *keyword* |
| Tree | redundancy |
| Options | iom, mda |
| Default | iom |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **scaling-profile** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.


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**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

| | |
|---|---|
| Synopsis | ISA scaling profile identifier |
| Context | **configure** isa wlan-gw-group *number* scaling-profile *keyword* |
| Tree | scaling-profile |
| Options | profile1, profile2, profile3 |
| Default | profile1 |
| Introduced | 20.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s |

## **tunnel-port-policy** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Tunnel port policy for per-tunnel QoS processing |
| Context | **configure** isa wlan-gw-group *number* tunnel-port-policy *reference* |
| Tree | tunnel-port-policy |
| Reference | **configure** port-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **watermarks**

| | |
|---|---|
| Synopsis | Enter the **watermarks** context |
| Context | **configure** isa wlan-gw-group *number* watermarks |
| Tree | watermarks |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **mark** [entity] *keyword*

| | |
|---|---|
| Synopsis | Enter the **mark** list instance |
| Context | **configure** isa wlan-gw-group *number* watermarks mark *keyword* |


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| | |
|---|---|
| Tree | mark |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**entity**] *keyword*

| | |
|---|---|
| Synopsis | Entity to be monitored |
| Context | **configure** isa wlan-gw-group *number* watermarks mark *keyword* |
| Tree | mark |
| Options | user-equipment, bridge-domain, radius-proxy-client |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **high** *number*

| | |
|---|---|
| Synopsis | High watermark for the WLAN-GW group |
| Context | **configure** isa wlan-gw-group *number* watermarks mark *keyword* high *number* |
| Tree | high |
| Range | 1 to 100 |
| Units | percent |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **low** *number*

| | |
|---|---|
| Synopsis | Low watermark for the WLAN-GW group |
| Context | **configure** isa wlan-gw-group *number* watermarks mark *keyword* low *number* |
| Tree | low |
| Range | 0 to 99 |
| Units | percent |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |


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Platforms 7750 SR, 7750 SR-e, 7750 SR-s, VSR


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## 4.22 lag commands

```
configure
   –  lag lag-interface
      –  access
         –  adapt-qos
            –  include-egr-hash-cfg boolean
            –  mode keyword
         –  bandwidth number
         –  booking-factor number
         –  per-fp-egr-queuing boolean
         –  per-fp-ing-queuing boolean
         –  per-fp-sap-instance boolean
      –  adaptive-load-balancing
         –  bandwidth-threshold number
         –  interval number
         –  tolerance number
      –  admin-state keyword
      –  apply-groups reference
      –  apply-groups-exclude reference
      –  bfd-liveness
         –  ipv4
            –  admin-state keyword
            –  apply-groups reference
            –  apply-groups-exclude reference
            –  bfd-on-distributing-only boolean
            –  local-ip-address ipv4-unicast-address
            –  max-admin-down-time (number | keyword)
            –  max-setup-time (number | keyword)
            –  multiplier number
            –  receive-interval number
            –  remote-ip-address ipv4-unicast-address
            –  transmit-interval number
         –  ipv6
            –  admin-state keyword
            –  apply-groups reference
            –  apply-groups-exclude reference
            –  bfd-on-distributing-only boolean
            –  local-ip-address ipv6-unicast-or-linklocal-address
            –  max-admin-down-time (number | keyword)
            –  max-setup-time (number | keyword)
            –  multiplier number
            –  receive-interval number
            –  remote-ip-address ipv6-unicast-or-linklocal-address
            –  transmit-interval number
         –  soft-reset-extension boolean
      –  description very-long-description
      –  dynamic-cost boolean
      –  encap-type keyword
      –  eth-cfm
         –  mep md-admin-name reference ma-admin-name reference mep-id number
            –  admin-state keyword
            –  ais
               –  client-meg-level number
               –  interface-support boolean
               –  interval number
               –  low-priority-defect keyword
               –  priority number
            –  alarm-notification
               –  fng-alarm-time number
               –  fng-reset-time number
```


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configure lag eth-cfm mep apply-groups

```
            - apply-groups reference
            - apply-groups-exclude reference
            - ccm boolean
            - ccm-ltm-priority number
            - ccm-padding-size number
            - ccm-tlv-ignore keyword
            - collect-lmm-stats boolean
            - csf
              - multiplier decimal-number
            - description description
            - eth-test
              - bit-error-threshold number
              - test-pattern
                - crc-tlv boolean
                - pattern keyword
            - facility-fault boolean
            - grace
              - eth-ed
                - max-rx-defect-window number
                - priority number
                - rx-eth-ed boolean
                - tx-eth-ed boolean
              - eth-vsm-grace
                - rx-eth-vsm-grace boolean
                - tx-eth-vsm-grace boolean
            - low-priority-defect keyword
            - mac-address mac-unicast-address-no-zero
            - one-way-delay-threshold number
            - vlan (number | keyword)
      - hash-weight-threshold
        - action keyword
        - cost number
        - value number
      - hold-time-down number
      - lacp
        - administrative-key number
        - fallback
          - mode keyword
          - timeout number
        - mode keyword
        - system-id mac-address
        - system-priority number
      - lacp-mux-control keyword
      - lacp-xmit-interval keyword
      - lacp-xmit-stdby boolean
      - link-map-profile number
        - apply-groups reference
        - apply-groups-exclude reference
        - description description
        - failure-mode keyword
        - link reference
          - apply-groups reference
          - apply-groups-exclude reference
          - port-type keyword
      - lldp-member-template
        - dest-mac keyword
          - apply-groups reference
          - apply-groups-exclude reference
          - notification boolean
          - port-id-subtype keyword
          - receive boolean
          - transmit boolean
          - tunnel-nearest-bridge boolean
          - tx-mgmt-address keyword
```


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configure lag lldp-member-template dest-mac tx-mgmt-address admin-state

```
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
         - tx-tlvs
            - port-desc boolean
            - sys-cap boolean
            - sys-desc boolean
            - sys-name boolean
   - mac-address mac-address
   - max-ports number
   - mode keyword
   - monitor-oper-group reference
   - per-link-hash
      - weighted
         - auto-rebalance boolean
         - sap-hash-mode keyword
         - subscriber-hash-mode keyword
   - port reference
      - apply-groups reference
      - apply-groups-exclude reference
      - hash-weight (number | keyword)
      - priority number
      - sub-group (number | keyword)
   - port-threshold
      - action keyword
      - cost number
      - value number
   - port-type keyword
   - ptp-timestamping
      - admin-state keyword
      - apply-groups reference
      - apply-groups-exclude reference
      - ipv4-address ipv4-address
      - ipv6-address ipv6-address
   - selection-criteria
      - mode keyword
      - slave-to-partner boolean
      - subgroup-hold-time (number | keyword)
   - standby-signaling keyword
```


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## 4.22.1 lag command descriptions

### **lag** [lag-name] *lag-interface*

| | |
|---|---|
| Synopsis | Enter the **lag** list instance |
| Context | **configure** lag *lag-interface* |
| Tree | lag |
| Description | Commands in this context configure the Link Aggregation Group (LAG) attributes. |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**lag-name**] *lag-interface*

| | |
|---|---|
| Synopsis | LAG name |
| Context | **configure** lag *lag-interface* |
| Tree | lag |
| Description | This command configures a LAG name or ID. The LAG name or ID must start with "lag-" followed by the lag name or ID, for example, lag-*newyork-to-boston* or lag-*700*. |
| String length | 1 to 27 |
| Notes | This element is part of a list key. |
| Introduced | 21.2.R1 |
| Platforms | All |

### **access**

| | |
|---|---|
| Synopsis | Enter the **access** context |
| Context | **configure** lag *lag-interface* access |
| Tree | access |
| Introduced | 16.0.R1 |
| Platforms | All |

### **adapt-qos**

| | |
|---|---|
| Synopsis | Enter the **adapt-qos** context |
| Context | **configure** lag *lag-interface* access adapt-qos |


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| | |
|---|---|
| Tree | adapt-qos |
| Introduced | 16.0.R1 |
| Platforms | All |

### **include-egr-hash-cfg** *boolean*

| | |
|---|---|
| Synopsis | Factor egress hashing into buffer and rate distribution |
| Context | **configure** lag *lag-interface* access adapt-qos include-egr-hash-cfg *boolean* |
| Tree | include-egr-hash-cfg |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mode** *keyword*

| | |
|---|---|
| Synopsis | QoS adaptation mode |
| Context | **configure** lag *lag-interface* access adapt-qos mode *keyword* |
| Tree | mode |
| Options | link, distribute, port-fair |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bandwidth** *number*

| | |
|---|---|
| Synopsis | Administrative bandwidth applied to this LAG |
| Context | **configure** lag *lag-interface* access bandwidth *number* |
| Tree | bandwidth |
| Range | 1 to 6400000000 |
| Units | bps |
| Introduced | 16.0.R1 |
| Platforms | All |

### **booking-factor** *number*

| | |
|---|---|
| Synopsis | Booking factor against the administrative bandwidth |


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| | |
|---|---|
| Context | **configure** lag *lag-interface* access booking-factor *number* |
| Tree | booking-factor |
| Range | 1 to 1000 |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **per-fp-egr-queuing** *boolean*

| | |
|---|---|
| Synopsis | Per FP egress queuing |
| Context | **configure** lag *lag-interface* access per-fp-egr-queuing *boolean* |
| Tree | per-fp-egr-queuing |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **per-fp-ing-queuing** *boolean*

| | |
|---|---|
| Synopsis | Enable ingress queuing per forwarding port |
| Context | **configure** lag *lag-interface* access per-fp-ing-queuing *boolean* |
| Tree | per-fp-ing-queuing |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **per-fp-sap-instance** *boolean*

| | |
|---|---|
| Synopsis | SAP instance allocation on a LAG |
| Context | **configure** lag *lag-interface* access per-fp-sap-instance *boolean* |
| Tree | per-fp-sap-instance |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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## adaptive-load-balancing

| | |
|---|---|
| Synopsis | Enable the **adaptive-load-balancing** context |
| Context | **configure** lag *lag-interface* adaptive-load-balancing |
| Tree | adaptive-load-balancing |
| Description | Commands in this context configure adaptive load balancing (ALB) between LAG links. |
| Introduced | 20.10.R1 |
| Platforms | All |

## bandwidth-threshold *number*

| | |
|---|---|
| Synopsis | Minimum bandwidth for ALB |
| Context | **configure** lag *lag-interface* adaptive-load-balancing bandwidth-threshold *number* |
| Tree | bandwidth-threshold |
| Description | This command defines the minimum bandwidth percentage of the most-loaded LAG port egress. If the bandwidth threshold exceeds the configured minimum, the system performs ALB optimization. |
| Range | 0 to 100 |
| Units | percent |
| Introduced | 22.10.R1 |
| Platforms | All |

## interval *number*

| | |
|---|---|
| Synopsis | Statistics polling interval for LAG ports |
| Context | **configure** lag *lag-interface* adaptive-load-balancing interval *number* |
| Tree | interval |
| Range | 15 \| 30 \| 60 \| 120 |
| Units | seconds |
| Default | 30 |
| Introduced | 21.5.R1 |
| Platforms | All |


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### **tolerance** *number*

| | |
|---|---|
| Synopsis | Threshold that triggers link utilization optimization |
| Context | **configure** lag *lag-interface* adaptive-load-balancing tolerance *number* |
| Tree | tolerance |
| Description | This command configures the threshold value that is based on the difference between the most-loaded and least-loaded links in a LAG. When the threshold value is exceeded, the adaptive load balancing operation attempts to optimize traffic distribution between LAG links. |
| Range | 1 to 100 |
| Units | percent |
| Default | 20 |
| Introduced | 20.10.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the LAG |
| Context | **configure** lag *lag-interface* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bfd-liveness**

| | |
|---|---|
| Synopsis | Enter the **bfd-liveness** context |
| Context | **configure** lag *lag-interface* bfd-liveness |
| Tree | bfd-liveness |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv4**

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |


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| | |
|---|---|
| Context | **configure** lag *lag-interface* bfd-liveness ipv4 |
| Tree | ipv4 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of micro-BFD session for IP family |
| Context | **configure** lag *lag-interface* bfd-liveness ipv4 admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bfd-on-distributing-only** *boolean*

| | |
|---|---|
| Synopsis | Restrict micro-BFD sessions to LACP state distributing |
| Context | **configure** lag *lag-interface* bfd-liveness ipv4 bfd-on-distributing-only *boolean* |
| Tree | bfd-on-distributing-only |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **local-ip-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | BFD source address |
| Context | **configure** lag *lag-interface* bfd-liveness ipv4 local-ip-address *ipv4-unicast-address* |
| Tree | local-ip-address |
| Introduced | 16.0.R1 |
| Platforms | All |

### **max-admin-down-time** *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum time to forward traffic after micro-BFD is down |


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| | |
|---|---|
| Context | **configure** lag *lag-interface* bfd-liveness ipv4 max-admin-down-time *(number \| keyword)* |
| Tree | max-admin-down-time |
| Range | 0 to 3600 |
| Units | seconds |
| Options | infinite |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **max-setup-time** *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum time to forward traffic during micro-BFD setup |
| Context | **configure** lag *lag-interface* bfd-liveness ipv4 max-setup-time *(number \| keyword)* |
| Tree | max-setup-time |
| Range | 0 to 60000 |
| Units | milliseconds |
| Options | infinite |
| Default | infinite |
| Introduced | 16.0.R1 |
| Platforms | All |

### **multiplier** *number*

| | |
|---|---|
| Synopsis | Interval multiplier to detect BFD packets not received |
| Context | **configure** lag *lag-interface* bfd-liveness ipv4 multiplier *number* |
| Tree | multiplier |
| Range | 3 to 20 |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **receive-interval** *number*

| | |
|---|---|
| Synopsis | Receive timer for micro-BFD session over the LAG links |
| Context | **configure** lag *lag-interface* bfd-liveness ipv4 receive-interval *number* |


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| | |
|---|---|
| Tree | receive-interval |
| Range | 10 to 100000 |
| Units | milliseconds |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **remote-ip-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | BFD destination address |
| Context | **configure** lag *lag-interface* bfd-liveness ipv4 remote-ip-address *ipv4-unicast-address* |
| Tree | remote-ip-address |
| Introduced | 16.0.R1 |
| Platforms | All |

### **transmit-interval** *number*

| | |
|---|---|
| Synopsis | Transmit timer for micro-BFD session over the LAG links |
| Context | **configure** lag *lag-interface* bfd-liveness ipv4 transmit-interval *number* |
| Tree | transmit-interval |
| Range | 10 to 100000 |
| Units | milliseconds |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv6**

| | |
|---|---|
| Synopsis | Enter the **ipv6** context |
| Context | **configure** lag *lag-interface* bfd-liveness ipv6 |
| Tree | ipv6 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of micro-BFD session for IP family |
| Context | **configure** lag *lag-interface* bfd-liveness ipv6 admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bfd-on-distributing-only** *boolean*

| | |
|---|---|
| Synopsis | Restrict micro-BFD sessions to LACP state distributing |
| Context | **configure** lag *lag-interface* bfd-liveness ipv6 bfd-on-distributing-only *boolean* |
| Tree | bfd-on-distributing-only |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **local-ip-address** *ipv6-unicast-or-linklocal-address*

| | |
|---|---|
| Synopsis | BFD source address |
| Context | **configure** lag *lag-interface* bfd-liveness ipv6 local-ip-address *ipv6-unicast-or-linklocal-address* |
| Tree | local-ip-address |
| Introduced | 16.0.R1 |
| Platforms | All |

### **max-admin-down-time** *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum time to forward traffic after micro-BFD is down |
| Context | **configure** lag *lag-interface* bfd-liveness ipv6 max-admin-down-time *(number | keyword)* |
| Tree | max-admin-down-time |
| Range | 0 to 3600 |
| Units | seconds |


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| | |
|---|---|
| Options | infinite |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **max-setup-time** *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum time to forward traffic during micro-BFD setup |
| Context | **configure** lag *lag-interface* bfd-liveness ipv6 max-setup-time *(number | keyword)* |
| Tree | max-setup-time |
| Range | 0 to 60000 |
| Units | milliseconds |
| Options | infinite |
| Default | infinite |
| Introduced | 16.0.R1 |
| Platforms | All |

### **multiplier** *number*

| | |
|---|---|
| Synopsis | Interval multiplier to detect BFD packets not received |
| Context | **configure** lag *lag-interface* bfd-liveness ipv6 multiplier *number* |
| Tree | multiplier |
| Range | 3 to 20 |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **receive-interval** *number*

| | |
|---|---|
| Synopsis | Receive timer for micro-BFD session over the LAG links |
| Context | **configure** lag *lag-interface* bfd-liveness ipv6 receive-interval *number* |
| Tree | receive-interval |
| Range | 10 to 100000 |
| Units | milliseconds |
| Default | 100 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **remote-ip-address** *ipv6-unicast-or-linklocal-address*

| | |
|---|---|
| Synopsis | BFD destination address |
| Context | **configure** lag *lag-interface* bfd-liveness ipv6 remote-ip-address *ipv6-unicast-or-linklocal-address* |
| Tree | remote-ip-address |
| Introduced | 16.0.R1 |
| Platforms | All |

### **transmit-interval** *number*

| | |
|---|---|
| Synopsis | Transmit timer for micro-BFD session over the LAG links |
| Context | **configure** lag *lag-interface* bfd-liveness ipv6 transmit-interval *number* |
| Tree | transmit-interval |
| Range | 10 to 100000 |
| Units | milliseconds |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **soft-reset-extension** *boolean*

| | |
|---|---|
| Synopsis | Extend BFD timers during soft reset |
| Context | **configure** lag *lag-interface* bfd-liveness soft-reset-extension *boolean* |
| Tree | soft-reset-extension |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *very-long-description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** lag *lag-interface* description *very-long-description* |


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| | |
|---|---|
| Tree | description |
| String length | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **dynamic-cost** *boolean*

| | |
|---|---|
| Synopsis | Allow LAG costing using operational aggregate bandwidth |
| Context | **configure** lag *lag-interface* dynamic-cost *boolean* |
| Tree | dynamic-cost |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **encap-type** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Encapsulation type |
| Context | **configure** lag *lag-interface* encap-type *keyword* |
| Tree | encap-type |
| Options | null, dot1q, qinq |
| Introduced | 16.0.R1 |
| Platforms | All |

## **eth-cfm**

| | |
|---|---|
| Synopsis | Enter the **eth-cfm** context |
| Context | **configure** lag *lag-interface* eth-cfm |
| Tree | eth-cfm |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **mep** md-admin-name *reference* ma-admin-name *reference* mep-id *number*

| | |
|---|---|
| Synopsis | Enter the **mep** list instance |
| Context | **configure** lag *lag-interface* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |
| Tree | mep |
| Description | Commands in this context provision the maintenance endpoint (MEP).<br>Port-based MEPs and LAG-based MEPs are mutually exclusive. If a LAG member port includes a MEP, the configuration of a MEP on the LAG fails. If a LAG includes the configuration of a MEP, the configuration of MEPs on the LAG member ports fails. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **md-admin-name** *reference*

| | |
|---|---|
| Synopsis | Maintenance Domain (MD) name |
| Context | **configure** lag *lag-interface* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |
| Tree | mep |
| Reference | **configure** eth-cfm domain *admin-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **ma-admin-name** *reference*

| | |
|---|---|
| Synopsis | Maintenance Association (MA) name |
| Context | **configure** lag *lag-interface* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |
| Tree | mep |
| Reference | **configure** eth-cfm domain *admin-name* association *admin-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **mep-id** *number*

| | |
|---|---|
| Synopsis | Maintenance Endpoint (MEP) ID |
| Context | **configure** lag *lag-interface* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |
| Tree | mep |
| Range | 1 to 8191 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the MEP |
| Context | **configure** lag *lag-interface* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ais**

| | |
|---|---|
| Synopsis | Enable the **ais** context |
| Context | **configure** lag *lag-interface* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ais |
| Tree | ais |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **client-meg-level** *number*

| | |
|---|---|
| Synopsis | Client MEG level for AIS message generation |
| Context | **configure** lag *lag-interface* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ais client-meg-level *number* |


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| | |
|---|---|
| Tree | client-meg-level |
| Range | 1 to 7 |
| Max. instances | 7 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **interface-support** *boolean*

| | |
|---|---|
| Synopsis | Enable generation of AIS PDUs based on endpoint state |
| Context | **configure** lag *lag-interface* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ais interface-support *boolean* |
| Tree | interface-support |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **interval** *number*

| | |
|---|---|
| Synopsis | Transmission interval for AIS messages |
| Context | **configure** lag *lag-interface* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ais interval *number* |
| Tree | interval |
| Range | 1 \| 60 |
| Units | seconds |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **low-priority-defect** *keyword*

| | |
|---|---|
| Synopsis | Lowest priority defect allowed to generate fault alarm |
| Context | **configure** lag *lag-interface* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ais low-priority-defect *keyword* |
| Tree | low-priority-defect |
| Options | all-def, mac-rem-err-xcon |


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| | |
|---|---|
| Default | all-def |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **priority** *number*

| | |
|---|---|
| Synopsis | Priority of the AIS messages generated by the node |
| Context | **configure** lag *lag-interface* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ais priority *number* |
| Tree | priority |
| Range | 0 to 7 |
| Default | 7 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **alarm-notification**

| | |
|---|---|
| Synopsis | Enter the **alarm-notification** context |
| Context | **configure** lag *lag-interface* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* alarm-notification |
| Tree | alarm-notification |
| Description | Commands in this context configure the Fault Notification Generator (FNG) time values to raise an alarm or reset the CCM defect alarm.<br>Use these timers for network management processes. The timers are not tied into delaying the notification to the fault management system on the network element and do not affect fault propagation mechanisms. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **fng-alarm-time** *number*

| | |
|---|---|
| Synopsis | Time that must expire before an FNG alarm is raised |
| Context | **configure** lag *lag-interface* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* alarm-notification fng-alarm-time *number* |
| Tree | fng-alarm-time |
| Range | 250 \| 500 \| 1000 |
| Units | centiseconds |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **fng-reset-time** *number*

| | |
|---|---|
| Synopsis | Time that must expire before an FNG alarm is reset |
| Context | **configure** lag *lag-interface* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* alarm-notification fng-reset-time *number* |
| Tree | fng-reset-time |
| Range | 250 \| 500 \| 1000 |
| Units | centiseconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ccm** *boolean*

| | |
|---|---|
| Synopsis | Generate CCM messages |
| Context | **configure** lag *lag-interface* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ccm *boolean* |
| Tree | ccm |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ccm-ltm-priority** *number*

| | |
|---|---|
| Synopsis | Priority of CCM and LTM messages transmitted by the MEP |
| Context | **configure** lag *lag-interface* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ccm-ltm-priority *number* |
| Tree | ccm-ltm-priority |
| Range | 0 to 7 |
| Default | 7 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **ccm-padding-size** *number*

| | |
|---|---|
| Synopsis | Number of octets of padding to insert in CCM packets |
| Context | **configure** lag *lag-interface* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ccm-padding-size *number* |
| Tree | ccm-padding-size |
| Description | This command sets the byte size of the optional Data TLV to be included in the ETH-CC PDU.<br><br>This command increases the size of the ETH-CC PDU by the configured value. The base size of the ETH-CC PDU, including the Interface Status TLV and Port Status TLV, is 83 bytes not including the Layer 2 encapsulation. CCM padding is not supported when the CCM interval (configured through **configure eth-cfm domain association ccm-interval)** is less than 1 second. |
| Range | 3 to 1500 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ccm-tlv-ignore** *keyword*

| | |
|---|---|
| Synopsis | TLV to ignore on reception |
| Context | **configure** lag *lag-interface* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ccm-tlv-ignore *keyword* |
| Tree | ccm-tlv-ignore |
| Description | This command configures the receiving MEP to ignore the specified TLVs in the CCM PDU. The ignored TLVs are reported as absent and have no impact on the MEP state machine.<br><br>When unconfigured, the MEP processes all the recognized TLVs. |
| Options | interface-status, port-status |
| Max. instances | 2 |
| Introduced | 16.0.R6 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **collect-lmm-stats** *boolean*

| | |
|---|---|
| Synopsis | Collect statistics for loss measurement message tests |
| Context | **configure** lag *lag-interface* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* collect-lmm-stats *boolean* |


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| | |
|---|---|
| Tree | collect-lmm-stats |
| Description | When configured to **true**, the router instantiates the statistical counter to transmit and receive packets for the LAG facility MEP bindings.<br>The **show eth-cfm collect-lmm-stats** command displays entities that have been enabled to collect transit and receive counters.<br>When configured to **false**, the router does not instantiate the counter and the LMM PDU associated with the MEP does not populate the counters in the packet. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## csf

| | |
|---|---|
| Synopsis | Enable the **csf** context |
| Context | **configure** lag *lag-interface* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* csf |
| Tree | csf |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## multiplier *decimal-number*

| | |
|---|---|
| Synopsis | Multiplication factor used to clear the CSF condition |
| Context | **configure** lag *lag-interface* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* csf multiplier *decimal-number* |
| Tree | multiplier |
| Range | 0.0 \| 2.0 to 30.0 |
| Default | 3.5 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## description *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** lag *lag-interface* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* description *description* |
| Tree | description |


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| | |
|---|---|
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## eth-test

| | |
|---|---|
| Synopsis | Enable the **eth-test** context |
| Context | **configure** lag *lag-interface* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test |
| Tree | eth-test |
| Description | Commands in this context configure information used by the Ethernet Test (ETH-TST) packet. The commands must be configured on both the sender and the receiver nodes. The test packets are used with the **oam eth-cfm eth-test** command. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## bit-error-threshold *number*

| | |
|---|---|
| Synopsis | Lowest priority defect allowed to generate fault alarm |
| Context | **configure** lag *lag-interface* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test bit-error-threshold *number* |
| Tree | bit-error-threshold |
| Range | 0 to 11840 |
| Units | bit errors |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## test-pattern

| | |
|---|---|
| Synopsis | Enter the **test-pattern** context |
| Context | **configure** lag *lag-interface* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test test-pattern |
| Tree | test-pattern |
| Description | Commands in this context specify the test pattern for the ETH-TST frames. The pattern does not have to be the same on the sender and the receiver. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **crc-tlv** *boolean*

| | |
|---|---|
| Synopsis | Generate a CRC checksum |
| Context | **configure** lag *lag-interface* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test test-pattern crc-tlv *boolean* |
| Tree | crc-tlv |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **pattern** *keyword*

| | |
|---|---|
| Synopsis | Test pattern for Ethernet Test frames |
| Context | **configure** lag *lag-interface* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test test-pattern pattern *keyword* |
| Tree | pattern |
| Description | This command specifies the test pattern of the Ethernet Test (ETH-TST) frames. This does not have to be configured the same on the sender and the receiver. |
| Options | all-zeros, all-ones |
| Default | all-zeros |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **facility-fault** *boolean*

| | |
|---|---|
| Synopsis | Allow the facility MEP to generate a network action |
| Context | **configure** lag *lag-interface* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* facility-fault *boolean* |
| Tree | facility-fault |
| Description | When configured to **true**, the system facility MEP responds to a fault with a network-actionable function instead of just reporting the defect condition.<br>When configured to **false**, the system monitors transmissions and reports fault conditions. |
| Default | false |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## grace

| | |
|---|---|
| Synopsis | Enter the **grace** context |
| Context | **configure** lag *lag-interface* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace |
| Tree | grace |
| Description | Commands in this context configure the Nokia ETH-CFM Grace function and the ITU-T Y.1731 Ethernet Expected Default (ETH-ED) function. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## eth-ed

| | |
|---|---|
| Synopsis | Enter the **eth-ed** context |
| Context | **configure** lag *lag-interface* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed |
| Tree | eth-ed |
| Description | Commands in this context configure the ITU-T Y.1731 ETH-ED function. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## max-rx-defect-window *number*

| | |
|---|---|
| Synopsis | Maximum received ETH-ED expected defect window duration |
| Context | **configure** lag *lag-interface* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed max-rx-defect-window *number* |
| Tree | max-rx-defect-window |
| Range | 1 to 86400 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **priority** *number*

| | |
|---|---|
| Synopsis | Transmission priority for ETH-ED PDUs |
| Context | **configure** lag *lag-interface* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed priority *number* |
| Tree | priority |
| Range | 0 to 7 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **rx-eth-ed** *boolean*

| | |
|---|---|
| Synopsis | Receive and process ETH-ED ITU-T Y.1731 PDUs on the MEP |
| Context | **configure** lag *lag-interface* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed rx-eth-ed *boolean* |
| Tree | rx-eth-ed |
| Description | This command enables the reception and processing of the ITU-T Y.1731 ETH-ED PDU on the MEP. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **tx-eth-ed** *boolean*

| | |
|---|---|
| Synopsis | Transmit ETH-ED PDUs from the MEP |
| Context | **configure** lag *lag-interface* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed tx-eth-ed *boolean* |
| Tree | tx-eth-ed |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **eth-vsm-grace**

| | |
|---|---|
| Synopsis | Enter the **eth-vsm-grace** context |
| Context | **configure** lag *lag-interface* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-vsm-grace |


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| | |
|---|---|
| Tree | eth-vsm-grace |
| Description | Commands in this context configure the Nokia ETH-CFM Grace function. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **rx-eth-vsm-grace** *boolean*

| | |
|---|---|
| Synopsis | Receive and process Nokia ETH-CFM Grace PDU on the MEP |
| Context | **configure** lag *lag-interface* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-vsm-grace rx-eth-vsm-grace *boolean* |
| Tree | rx-eth-vsm-grace |
| Description | When configured to **true**, the router enables the Nokia Grace function, which is a vendor-specific PDU that informs MEP peers that the local node may be entering a period of expected defect.<br>When configured to **false**, the router disables the Nokia Grace function. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **tx-eth-vsm-grace** *boolean*

| | |
|---|---|
| Synopsis | Transmit ETH-ED PDUs from the MEP |
| Context | **configure** lag *lag-interface* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-vsm-grace tx-eth-vsm-grace *boolean* |
| Tree | tx-eth-vsm-grace |
| Description | When configured to **true**, the router can transmit the Nokia ETH-CFM Grace PDU from the MEP when a system soft reset notification is received for one or more cards.<br>The Nokia Grace function is a vendor-specific PDU that informs MEP peers that the local node may be entering a period of expected defect.<br>The operator must configure the **configure system eth-cfm grace** command to instruct the system that the node is capable of transmitting expected-defect windows to peers. The system can only transmit one form of ETH-CFM grace (Nokia ETH-CFM Grace or ITU-T Y.1731 ETH-ED).<br>When configured to **false**, the router disables the transmission of the Nokia ETH-CFM Grace PDU from the MEP. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **low-priority-defect** *keyword*

| | |
|---|---|
| Synopsis | Lowest priority defect allowed to generate fault alarm |
| Context | **configure** lag *lag-interface* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* low-priority-defect *keyword* |
| Tree | low-priority-defect |
| Options | all-def, mac-rem-err-xcon, rem-err-xcon, err-xcon, xcon, no-xcon |
| Default | mac-rem-err-xcon |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **mac-address** *mac-unicast-address-no-zero*

| | |
|---|---|
| Synopsis | MAC address of the MEP |
| Context | **configure** lag *lag-interface* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* mac-address *mac-unicast-address-no-zero* |
| Tree | mac-address |
| Description | This command specifies the MAC address of the MEP.<br>When unconfigured, the MAC address of the port (if the MEP is on a SAP) or the MAC address of a bridge (if the MEP is on a spoke) is used. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **one-way-delay-threshold** *number*

| | |
|---|---|
| Synopsis | Threshold time limit for the one-way delay test |
| Context | **configure** lag *lag-interface* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* one-way-delay-threshold *number* |
| Tree | one-way-delay-threshold |
| Range | 0 to 600 |
| Units | seconds |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **vlan** *(number | keyword)*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Outer VLAN ID of the tunnel |
| Context | **configure** lag *lag-interface* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* vlan *(number \| keyword)* |
| Tree | vlan |
| Range | 1 to 4094 |
| Options | none |
| Default | none |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **hash-weight-threshold**

| | |
|---|---|
| Synopsis | Enter the **hash-weight-threshold** context |
| Context | **configure** lag *lag-interface* hash-weight-threshold |
| Tree | hash-weight-threshold |
| Introduced | 19.10.R1 |
| Platforms | All |

### **action** *keyword*

| | |
|---|---|
| Synopsis | Action when the sum of the hash weight is not exceeded |
| Context | **configure** lag *lag-interface* hash-weight-threshold action *keyword* |
| Tree | action |
| Options | down, dynamic-cost, static-cost |
| Default | down |
| Introduced | 19.10.R1 |
| Platforms | All |


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### **cost** *number*

| | |
|---|---|
| Synopsis | Static cost of the LAG |
| Context | **configure** lag *lag-interface* hash-weight-threshold cost *number* |
| Tree | cost |
| Range | 1 to 16777215 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **value** *number*

| | |
|---|---|
| Synopsis | Sum of the hash weight values of all active LAG ports |
| Context | **configure** lag *lag-interface* hash-weight-threshold value *number* |
| Tree | value |
| Range | 1 to 6400000 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **hold-time-down** *number*

| | |
|---|---|
| Synopsis | Delay time for reporting the LAG is down |
| Context | **configure** lag *lag-interface* hold-time-down *number* |
| Tree | hold-time-down |
| Range | 1 to 2000 |
| Units | deciseconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lacp**

| | |
|---|---|
| Synopsis | Enable the **lacp** context |
| Context | **configure** lag *lag-interface* lacp |
| Tree | lacp |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **administrative-key** *number*

| | |
|---|---|
| Synopsis | Key to identify the channel group on each LACP port |
| Context | **configure** lag *lag-interface* lacp administrative-key *number* |
| Tree | administrative-key |
| Description | This command configures the administrative key that identifies the channel group on each port configured to use LACP.<br>In an MC-LAG configuration, both redundant nodes must be configured with the same key values. In any other case, the key is only locally significant. |
| Range | 1 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **fallback**

| | |
|---|---|
| Synopsis | Enable the **fallback** context |
| Context | **configure** lag *lag-interface* lacp fallback |
| Tree | fallback |
| Description | Commands in this context enable LACP fallback. LACP fallback allows one or more designated links of an LACP-controlled LAG to go into forwarding mode if LACP is not yet operational after a configured timeout period. Links capable of forwarding traffic assume the Ethernet and IP characteristics configured for the LAG. |
| Introduced | 24.10.R1 |
| Platforms | All |

## **mode** *keyword*

| | |
|---|---|
| Synopsis | LACP fallback mode |
| Context | **configure** lag *lag-interface* lacp fallback mode *keyword* |
| Tree | mode |
| Description | This command configures the LACP fallback mode.<br>The **static** mode enables a single member link to forward traffic during fallback. The **individual** mode is not supported. |
| Options | static |
| Notes | This element is mandatory. |


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| | |
|---|---|
| Introduced | 24.10.R1 |
| Platforms | All |

### **timeout** *number*

| | |
|---|---|
| Synopsis | LACP fallback timeout interval |
| Context | **configure** lag *lag-interface* lacp fallback timeout *number* |
| Tree | timeout |
| Description | This command configures the duration after which a link becomes active if no LACP PDUs are received within this timeout period.<br>**Note:** The user must first configure this command to a timeout interval of 90 before the **configure lag lacp-xmit-interval** command can change from **fast** to **slow**. |
| Range | 4 to 3600 |
| Units | seconds |
| Default | 4 |
| Introduced | 24.10.R1 |
| Platforms | All |

### **mode** *keyword*

| | |
|---|---|
| Synopsis | Mode in which LACP operates |
| Context | **configure** lag *lag-interface* lacp mode *keyword* |
| Tree | mode |
| Options | passive, active |
| Default | passive |
| Introduced | 16.0.R1 |
| Platforms | All |

### **system-id** *mac-address*

| | |
|---|---|
| Synopsis | System ID |
| Context | **configure** lag *lag-interface* lacp system-id *mac-address* |
| Tree | system-id |
| Default | 00:00:00:00:00:00 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## **system-priority** *number*

| | |
|---|---|
| Synopsis | System priority value |
| Context | **configure** lag *lag-interface* lacp system-priority *number* |
| Tree | system-priority |
| Range | 0 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **lacp-mux-control** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | MUX machine control for LACP LAG in active/passive mode |
| Context | **configure** lag *lag-interface* lacp-mux-control *keyword* |
| Tree | lacp-mux-control |
| Options | coupled, independent |
| Default | coupled |
| Introduced | 16.0.R1 |
| Platforms | All |

## **lacp-xmit-interval** *keyword*

| | |
|---|---|
| Synopsis | Time for periodic transmission |
| Context | **configure** lag *lag-interface* lacp-xmit-interval *keyword* |
| Tree | lacp-xmit-interval |
| Options | slow, fast |
| Default | fast |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **lacp-xmit-stdby** *boolean*

| | |
|---|---|
| Synopsis | Allow LACP message transmission on standby links |
| Context | **configure** lag *lag-interface* lacp-xmit-stdby *boolean* |
| Tree | lacp-xmit-stdby |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **link-map-profile** [link-map-profile-id] *number*

| | |
|---|---|
| Synopsis | Enter the **link-map-profile** list instance |
| Context | **configure** lag *lag-interface* link-map-profile *number* |
| Tree | link-map-profile |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**link-map-profile-id**] *number*

| | |
|---|---|
| Synopsis | Link map profile to control LAG ports |
| Context | **configure** lag *lag-interface* link-map-profile *number* |
| Tree | link-map-profile |
| Range | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** lag *lag-interface* link-map-profile *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **failure-mode** *keyword*

| | |
|---|---|
| Synopsis | Failure mode of LAG link profile |
| Context | **configure** lag *lag-interface* link-map-profile *number* failure-mode *keyword* |
| Tree | failure-mode |
| Options | per-link-hash, discard |
| Default | per-link-hash |
| Introduced | 16.0.R1 |
| Platforms | All |

### **link** [port-id] *reference*

| | |
|---|---|
| Synopsis | Enter the **link** list instance |
| Context | **configure** lag *lag-interface* link-map-profile *number* link *reference* |
| Tree | link |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**port-id**] *reference*

| | |
|---|---|
| Synopsis | Port associated with the link map profile |
| Context | **configure** lag *lag-interface* link-map-profile *number* link *reference* |
| Tree | link |
| Reference | **configure** lag *lag-interface* port *reference* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **port-type** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Type of the associated port for this entry |
| Context | **configure** lag *lag-interface* link-map-profile *number* link *reference* port-type *keyword* |


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| | |
|---|---|
| Tree | port-type |
| Options | primary, secondary |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### lldp-member-template

| | |
|---|---|
| Synopsis | Enter the **lldp-member-template** context |
| Context | **configure** lag *lag-interface* lldp-member-template |
| Tree | lldp-member-template |
| Introduced | 24.7.R1 |
| Platforms | All |

### **dest-mac** [mac-type] *keyword*

| | |
|---|---|
| Synopsis | Enter the **dest-mac** list instance |
| Context | **configure** lag *lag-interface* lldp-member-template dest-mac *keyword* |
| Tree | dest-mac |
| Introduced | 24.7.R1 |
| Platforms | All |

### [**mac-type**] *keyword*

| | |
|---|---|
| Synopsis | Destination MAC address type |
| Context | **configure** lag *lag-interface* lldp-member-template dest-mac *keyword* |
| Tree | dest-mac |
| Options | nearest-bridge – Use the nearest bridge<br>nearest-non-tpmr – Use nearest non-Two-Port MAC Relay (TPMR)<br>nearest-customer – Use the nearest customer |
| Notes | This element is part of a list key. |
| Introduced | 24.7.R1 |
| Platforms | All |


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### **notification** *boolean*

| | |
|---|---|
| Synopsis | Enable LLDP notifications |
| Context | **configure** lag *lag-interface* lldp-member-template dest-mac *keyword* notification *boolean* |
| Tree | notification |
| Default | false |
| Introduced | 24.7.R1 |
| Platforms | All |

### **port-id-subtype** *keyword*

| | |
|---|---|
| Synopsis | Encoding of the Port ID TLV transmitted to the peer |
| Context | **configure** lag *lag-interface* lldp-member-template dest-mac *keyword* port-id-subtype *keyword* |
| Tree | port-id-subtype |
| Description | This command configures how to encode the Port ID TLV transmitted to the peer. The default setting **tx-local** (ifindex value) is required by some versions of the NSP NSM-P to properly build the Layer 2 topology map using LLDP. Changing this value to transmit the ifName (**tx-if-name**) or ifAlias (**tx-if-alias**) in place of the ifIndex (**tx-local**) may affect the ability of the NSP NFM-P to build the Layer 2 topology map using LLDP. |
| Options | tx-if-alias – Transmit the ifAlias String (subtype 1)<br>tx-if-name – Transmit the ifName string (subtype 5)<br>tx-local – Transmit the interface ifIndex value (subtype 7) |
| Default | tx-local |
| Introduced | 24.7.R1 |
| Platforms | All |

### **receive** *boolean*

| | |
|---|---|
| Synopsis | Enable LLDP received frame handling |
| Context | **configure** lag *lag-interface* lldp-member-template dest-mac *keyword* receive *boolean* |
| Tree | receive |
| Default | false |
| Introduced | 24.7.R1 |
| Platforms | All |


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### **transmit** *boolean*

| | |
|---|---|
| Synopsis | Enable LLDP transmitted frame handling |
| Context | **configure** lag *lag-interface* lldp-member-template dest-mac *keyword* transmit *boolean* |
| Tree | transmit |
| Default | false |
| Introduced | 24.7.R1 |
| Platforms | All |

### **tunnel-nearest-bridge** *boolean*

| | |
|---|---|
| Synopsis | Enable nearest bridge tunneling |
| Context | **configure** lag *lag-interface* lldp-member-template dest-mac *keyword* tunnel-nearest-bridge *boolean* |
| Tree | tunnel-nearest-bridge |
| Description | When configured to **true**, this command enables nearest bridge tunneling.<br>This command allows LLDP packets received on the port with the destination address of the nearest bridge to be tunneled without being intercepted on the local port. The **dest-mac mac-type nearest-bridge** must be disabled for tunneling to occur. This is applicable to NULL SAP Epipe and VPLS services only.<br>When configured to **false**, nearest bridge tunneling is disabled. |
| Default | false |
| Introduced | 24.7.R1 |
| Platforms | All |

### **tx-mgmt-address** [mgmt-address-system-type] *keyword*

| | |
|---|---|
| Synopsis | Enter the **tx-mgmt-address** list instance |
| Context | **configure** lag *lag-interface* lldp-member-template dest-mac *keyword* tx-mgmt-address *keyword* |
| Tree | tx-mgmt-address |
| Introduced | 24.7.R1 |
| Platforms | All |

### [**mgmt-address-system-type**] *keyword*

| | |
|---|---|
| Synopsis | Management address to transmit |


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| | |
|---|---|
| Context | **configure** lag *lag-interface* lldp-member-template dest-mac *keyword* tx-mgmt-address *keyword* |
| Tree | tx-mgmt-address |
| Description | This command configures the management address to transmit. The user can choose to send the following addresses, or any combination of these:<br>• system IPv4 address<br>• system IPv6 address<br>• out-of-band IPv4 address<br>• out-of-band IPv6 address<br>The system address is sent only once. The address must be configured for the specific version of the protocol to send the management address. |
| Options | oob – Transmit out-of-band IPv4 address for active CPM<br>system – Transmit the system IP address<br>system-ipv6 – Transmit the system IPv6 address<br>oob-ipv6 – Transmit the out-of-band IPv6 address for active CPM |
| Notes | This element is part of a list key. |
| Introduced | 24.7.R1 |
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of management address transmission |
| Context | **configure** lag *lag-interface* lldp-member-template dest-mac *keyword* tx-mgmt-address *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 24.7.R1 |
| Platforms | All |

## tx-tlvs

| | |
|---|---|
| Synopsis | Enter the **tx-tlvs** context |
| Context | **configure** lag *lag-interface* lldp-member-template dest-mac *keyword* tx-tlvs |
| Tree | tx-tlvs |
| Description | Commands in this context configure which LLDP TLVs to transmit. The TX TLVs, defined as a bitmap, include the basic set of LLDP TLVs whose transmission is allowed on the local LLDP agent by network management. Each bit in the bitmap corresponds |


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to a TLV type associated with a specific optional TLV. Organizationally-specific TLVs are excluded from this bitmap.

There is no bit reserved for the management address TLV type because transmission of management address TLVs are controlled by another object.

| | |
|---|---|
| Introduced | 24.7.R1 |
| Platforms | All |

### **port-desc** *boolean*

| | |
|---|---|
| Synopsis | Transmit port description TLVs |
| Context | **configure** lag *lag-interface* lldp-member-template dest-mac *keyword* tx-tlvs port-desc *boolean* |
| Tree | port-desc |
| Default | false |
| Introduced | 24.7.R1 |
| Platforms | All |

### **sys-cap** *boolean*

| | |
|---|---|
| Synopsis | Transmit system capabilities TLVs |
| Context | **configure** lag *lag-interface* lldp-member-template dest-mac *keyword* tx-tlvs sys-cap *boolean* |
| Tree | sys-cap |
| Default | false |
| Introduced | 24.7.R1 |
| Platforms | All |

### **sys-desc** *boolean*

| | |
|---|---|
| Synopsis | Transmit system description TLVs |
| Context | **configure** lag *lag-interface* lldp-member-template dest-mac *keyword* tx-tlvs sys-desc *boolean* |
| Tree | sys-desc |
| Default | false |
| Introduced | 24.7.R1 |
| Platforms | All |


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### **sys-name** *boolean*

| | |
|---|---|
| Synopsis | Transmit system name TLVs |
| Context | **configure** lag *lag-interface* lldp-member-template dest-mac *keyword* tx-tlvs sys-name *boolean* |
| Tree | sys-name |
| Default | false |
| Introduced | 24.7.R1 |
| Platforms | All |

### **mac-address** *mac-address*

| | |
|---|---|
| Synopsis | MAC address of the LAG |
| Context | **configure** lag *lag-interface* mac-address *mac-address* |
| Tree | mac-address |
| Default | 00:00:00:00:00:00 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **max-ports** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum number of ports allowed in the LAG |
| Context | **configure** lag *lag-interface* max-ports *number* |
| Tree | max-ports |
| Description | This command configures the maximum number of ports allowed in the LAG.<br>This command must be configured to 64 when the LAG name is a numeric identifier in the range of 1 to 64. If the LAG name is a numeric identifier in the range of 65 to 800, this command must be configured to 32. |
| Range | 32 \| 64 |
| Introduced | 21.2.R1 |
| Platforms | All |


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## **mode** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Operation mode of the LAG |
| Context | **configure** lag *lag-interface* mode *keyword* |
| Tree | mode |
| Options | access, network, hybrid |
| Default | network |
| Introduced | 16.0.R1 |
| Platforms | All |

## **monitor-oper-group** *reference*

| | |
|---|---|
| Synopsis | Operational group to monitor |
| Context | **configure** lag *lag-interface* monitor-oper-group *reference* |
| Tree | monitor-oper-group |
| Reference | **configure** service oper-group *named-item* |
| Introduced | 19.5.R1 |
| Platforms | All |

## **per-link-hash**

| | |
|---|---|
| Synopsis | Enable the **per-link-hash** context |
| Context | **configure** lag *lag-interface* per-link-hash |
| Tree | per-link-hash |
| Introduced | 16.0.R1 |
| Platforms | All |


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## weighted

| | |
|---|---|
| Synopsis | Enable the **weighted** context |
| Context | **configure** lag *lag-interface* per-link-hash weighted |
| Tree | weighted |
| Introduced | 16.0.R1 |
| Platforms | All |

## auto-rebalance *boolean*

| | |
|---|---|
| Synopsis | Auto-rebalance SAPs, users, or interfaces for new links |
| Context | **configure** lag *lag-interface* per-link-hash weighted auto-rebalance *boolean* |
| Tree | auto-rebalance |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## sap-hash-mode *keyword*

| | |
|---|---|
| Synopsis | SAP traffic load balance over LAG member links |
| Context | **configure** lag *lag-interface* per-link-hash weighted sap-hash-mode *keyword* |
| Tree | sap-hash-mode |
| Options | sap, vport |
| Default | sap |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## subscriber-hash-mode *keyword*

| | |
|---|---|
| Synopsis | Subscriber traffic load balance over LAG member links |
| Context | **configure** lag *lag-interface* per-link-hash weighted subscriber-hash-mode *keyword* |
| Tree | subscriber-hash-mode |
| Description | This command configures weighted subscriber traffic to be load balanced over LAG member links. Traffic hashing can be performed based on SAPs or Vports. |


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SAP-based hashing supports weights configured at the subscriber level in the subscriber profile. The SAP hashing mode supports only SAP to subscriber (1:1) deployment models.

Vport-based load balancing supports SAP to subscriber (1:1) and SAP to service (N:1) deployment models.

| | |
|---|---|
| Options | sap, vport |
| Default | sap |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **port** [port-id] *reference*

| | |
|---|---|
| Synopsis | Enter the **port** list instance |
| Context | **configure** lag *lag-interface* port *reference* |
| Tree | port |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**port-id**] *reference*

| | |
|---|---|
| Synopsis | Identifier to uniquely identify the port in the LAG |
| Context | **configure** lag *lag-interface* port *reference* |
| Tree | port |
| Reference | **configure** port *port* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hash-weight** *(number | keyword)*

| | |
|---|---|
| Synopsis | Flow hashing distribution between LAG ports |
| Context | **configure** lag *lag-interface* port *reference* hash-weight *(number \| keyword)* |
| Tree | hash-weight |
| Range | 1 to 100000 |
| Options | port-speed |
| Introduced | 19.5.R1 |


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| | |
|---|---|
| Platforms | All |

## **priority** *number*

| | |
|---|---|
| Synopsis | Priority of the port in the LAG |
| Context | **configure** lag *lag-interface* port *reference* priority *number* |
| Tree | priority |
| Range | 1 to 65535 |
| Default | 32768 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **sub-group** *(number | keyword)*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Subgroup of the port in the LAG |
| Context | **configure** lag *lag-interface* port *reference* sub-group *(number \| keyword)* |
| Tree | sub-group |
| Range | 1 to 8 |
| Options | auto-iom, auto-mda |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **port-threshold**

| | |
|---|---|
| Synopsis | Enter the **port-threshold** context |
| Context | **configure** lag *lag-interface* port-threshold |
| Tree | port-threshold |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **action** *keyword*

| | |
|---|---|
| Synopsis | Action when the active links are at or below threshold |
| Context | **configure** lag *lag-interface* port-threshold action *keyword* |
| Tree | action |
| Options | down, dynamic-cost, static-cost |
| Default | down |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cost** *number*

| | |
|---|---|
| Synopsis | Static cost of the LAG |
| Context | **configure** lag *lag-interface* port-threshold cost *number* |
| Tree | cost |
| Range | 1 to 16777215 |
| Introduced | 16.0.R3 |
| Platforms | All |

### **value** *number*

| | |
|---|---|
| Synopsis | Active link threshold at which action is taken |
| Context | **configure** lag *lag-interface* port-threshold value *number* |
| Tree | value |
| Range | 0 to 63 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **port-type** *keyword*

| | |
|---|---|
| Synopsis | Port type of the LAG |
| Context | **configure** lag *lag-interface* port-type *keyword* |
| Tree | port-type |
| Options | standard, hs |
| Default | standard |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## ptp-timestamping

| | |
|---|---|
| Synopsis | Enable the **ptp-timestamping** context |
| Context | **configure** lag *lag-interface* ptp-timestamping |
| Tree | ptp-timestamping |
| Description | Commands in this context configure LAG filtering for the 1588 timestamping of PTP messages to match multiple PTP flows. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of PTP timestamping |
| Context | **configure** lag *lag-interface* ptp-timestamping admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## ipv4-address *ipv4-address*

| | |
|---|---|
| Synopsis | IPv4 destination address for PTP messages into port |
| Context | **configure** lag *lag-interface* ptp-timestamping ipv4-address *ipv4-address* |
| Tree | ipv4-address |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## ipv6-address *ipv6-address*

| | |
|---|---|
| Synopsis | IPv6 destination address for PTP messages into port |
| Context | **configure** lag *lag-interface* ptp-timestamping ipv6-address *ipv6-address* |


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| | |
|---|---|
| Tree | ipv6-address |
| Description | (No long description needed.) |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### selection-criteria

| | |
|---|---|
| Synopsis | Enter the **selection-criteria** context |
| Context | **configure** lag *lag-interface* selection-criteria |
| Tree | selection-criteria |
| Introduced | 16.0.R1 |
| Platforms | All |

### mode *keyword*

| | |
|---|---|
| Synopsis | Criteria to select the active subgroup |
| Context | **configure** lag *lag-interface* selection-criteria mode *keyword* |
| Tree | mode |
| Options | highest-count, highest-weight, best-port |
| Default | highest-count |
| Introduced | 16.0.R1 |
| Platforms | All |

### slave-to-partner *boolean*

| | |
|---|---|
| Synopsis | Use slave-to-partner for selection criteria |
| Context | **configure** lag *lag-interface* selection-criteria slave-to-partner *boolean* |
| Tree | slave-to-partner |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### subgroup-hold-time *(number | keyword)*

| | |
|---|---|
| Synopsis | Delay time when switching to a new active subgroup |


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| | |
|---|---|
| Context | **configure** lag *lag-interface* selection-criteria subgroup-hold-time *(number* \| *keyword)* |
| Tree | subgroup-hold-time |
| Range | 0 to 2000 |
| Units | deciseconds |
| Options | infinite |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **standby-signaling** *keyword*

| | |
|---|---|
| Synopsis | Way of signaling a member port to the remote side |
| Context | **configure** lag *lag-interface* standby-signaling *keyword* |
| Tree | standby-signaling |
| Options | lacp, power-off |
| Default | lacp |
| Introduced | 16.0.R1 |
| Platforms | All |


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## 4.23 li commands

```
li
   –  li-filter
      –  associations
         –  li-ip-filter reference
            –  ip-filter filter-name
         –  li-ipv6-filter reference
            –  ipv6-filter filter-name
         –  li-mac-filter reference
            –  mac-filter filter-name
      –  li-ip-filter named-item
         –  description description
         –  entry number
            –  description description
            –  match
               –  dst-ip
                  –  address (ipv4-prefix-with-host-bits | ipv4-address)
                  –  mask ipv4-address
               –  dst-port
                  –  eq number
                  –  gt number
                  –  lt number
                  –  range
                     –  end number
                     –  start number
               –  fragment keyword
               –  protocol (number | keyword)
               –  src-ip
                  –  address (ipv4-prefix-with-host-bits | ipv4-address)
                  –  mask ipv4-address
               –  src-port
                  –  eq number
                  –  gt number
                  –  lt number
                  –  range
                     –  end number
                     –  start number
      –  li-ipv6-filter named-item
         –  description description
         –  entry number
            –  description description
            –  match
               –  dst-ip
                  –  address (ipv6-prefix-with-host-bits | ipv6-address)
                  –  mask ipv6-address
               –  dst-port
                  –  eq number
                  –  gt number
                  –  lt number
                  –  range
                     –  end number
                     –  start number
               –  next-header (number | keyword)
               –  src-ip
                  –  address (ipv6-prefix-with-host-bits | ipv6-address)
                  –  mask ipv6-address
               –  src-port
                  –  eq number
                  –  gt number
                  –  lt number
```


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```
                  -  range
                     -  end number
                     -  start number
      -  li-mac-filter named-item
         -  description description
         -  entry number
            -  description description
            -  match
               -  dst-mac
                  -  address mac-address
                  -  mask mac-address
               -  frame-type keyword
               -  outer-tag number
               -  sap sap
               -  src-mac
                  -  address mac-address
                  -  mask mac-address
      -  lock-filter keyword
      -  reserved-block named-item
         -  description description
         -  entry-range
            -  end number
            -  start number
         -  ip-filter filter-name
         -  ipv6-filter filter-name
         -  mac-filter filter-name
   -  li-source service-name
      -  admin-state keyword
      -  li-ip-filter reference
         -  entry reference
            -  intercept-id number
            -  session-id number
      -  li-ipv6-filter reference
         -  entry reference
            -  intercept-id number
            -  session-id number
      -  li-mac-filter reference
         -  entry reference
            -  intercept-id number
            -  session-id number
      -  nat
         -  dslite service-name b4 ipv6-prefix
            -  intercept-id number
            -  session-id number
         -  ethernet-header
            -  destination-address mac-address
            -  source-address mac-address
            -  type number
         -  l2-aware subscriber-id
            -  intercept-id number
            -  session-id number
         -  nat44 service-name ip ipv4-address
            -  intercept-id number
            -  session-id number
         -  nat64 service-name ip ipv6-prefix
            -  intercept-id number
            -  session-id number
      -  port mirror-source-port-lag-key
         -  egress boolean
         -  ingress boolean
      -  sap sap
         -  egress boolean
         -  ingress boolean
         -  intercept-id number
```


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```
        - session-id number
      - subscriber subscriber-id
        - egress boolean
        - fc keyword
        - host-type keyword
        - ingress boolean
        - intercept-id number
        - ip-address ipv4-address
        - ip-family keyword
        - mac-address mac-address
        - sap-id sap
        - session-id number
        - sla-profile external-named-item
      - wlan-gw-dsm-ue mac-address
        - intercept-id number
        - session-id number
  - log
    - log-id li-log-name
      - admin-state keyword
      - description description
      - destination
        - memory
          - max-entries number
        - netconf
          - max-entries number
        - snmp
          - max-entries number
          - send-using-vprn service-name
      - filter log-filter-name
      - netconf-stream named-item
      - source
        - li boolean
      - time-format keyword
  - mirror-dest-reservation
    - end number
    - start number
  - mirror-dest-template named-item
    - layer-3-encap
      - direction-bit boolean
      - encap-type keyword
      - ip-source ipv4-unicast-address
      - router-instance router-instance
      - udp
        - destination number
        - source number
    - type keyword
  - nat
    - use-outside-ip-address boolean
  - radius
    - mirror-dest-template reference
  - sci
    - pfcp-li-shared-key encrypted-leaf
  - x-interfaces
    - admin-state keyword
    - correlation-id
      - ipoe keyword
      - pppoe keyword
    - ine-identifier named-item
    - lic named-item
      - authentication
        - password li-static-encrypted-leaf-hex
        - private-ki li-static-encrypted-leaf
        - sequence-group li-static-encrypted-leaf
      - description description
```


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```
        – identifier named-item
        – ipv4
          – ip-address (ipv4-address-no-zone | ipv6-address-no-zone)
        – port number
        – router-instance named-item-64-or-empty
    – user-db named-item
    – x1
        – ipv4
          – local-address (ipv4-address-no-zone | ipv6-address-no-zone)
        – lic-peer reference
        – local-tcp-port number
        – timeouts
          – message-timeout number
    – x2
        – ipv4
          – local-address (ipv4-address-no-zone | ipv6-address-no-zone)
        – lic-peer reference
        – timeouts
          – keep-alive number
          – request number
    – x3
        – alarms
          – cpu-alarm
            – high-threshold number
            – low-threshold number
          – memory-alarm
            – high-threshold number
            – low-threshold number
          – throughput-alarm
            – high-threshold number
            – low-threshold number
        – ipv4
          – local-address-range
            – end ipv4-unicast-address
            – start ipv4-unicast-address
        – li-group number
        – lic-peers reference
        – session-limit number
        – timeouts
          – keep-alive number
          – request number
          – target-retry-wait number
```


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## 4.23.1 li command descriptions

### li

| | |
|---|---|
| Synopsis | Configure lawful intercept |
| Context | li |
| Tree | li |
| Introduced | 19.10.R1 |
| Platforms | All |

### li-filter

| | |
|---|---|
| Synopsis | Enter the **li-filter** context |
| Context | li li-filter |
| Tree | li-filter |
| Introduced | 19.10.R1 |
| Platforms | All |

### associations

| | |
|---|---|
| Synopsis | Enter the **associations** context |
| Context | li li-filter associations |
| Tree | associations |
| Introduced | 19.10.R1 |
| Platforms | All |

### **li-ip-filter** [li-filter-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **li-ip-filter** list instance |
| Context | li li-filter associations li-ip-filter *reference* |
| Tree | li-ip-filter |
| Introduced | 19.10.R1 |
| Platforms | All |


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### [**li-filter-name**] *reference*

| | |
|---|---|
| Synopsis | Name of an existing LI IP filter |
| Context | li li-filter associations li-ip-filter *reference* |
| Tree | li-ip-filter |
| Reference | li li-filter li-ip-filter *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **ip-filter** [filter-name] *filter-name*

| | |
|---|---|
| Synopsis | Add a list entry for **ip-filter** |
| Context | li li-filter associations li-ip-filter *reference* ip-filter *filter-name* |
| Tree | ip-filter |
| Max. instances | 1 |
| Min. instances | 1 |
| Introduced | 19.10.R1 |
| Platforms | All |

### [**filter-name**] *filter-name*

| | |
|---|---|
| Synopsis | IP filter to be associated with specified LI IP filter |
| Context | li li-filter associations li-ip-filter *reference* ip-filter *filter-name* |
| Tree | ip-filter |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **li-ipv6-filter** [li-filter-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **li-ipv6-filter** list instance |


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| | |
|---|---|
| Context | li li-filter associations li-ipv6-filter *reference* |
| Tree | li-ipv6-filter |
| Introduced | 19.10.R1 |
| Platforms | All |

### [**li-filter-name**] *reference*

| | |
|---|---|
| Synopsis | LI IPv6 filter name |
| Context | li li-filter associations li-ipv6-filter *reference* |
| Tree | li-ipv6-filter |
| Reference | li li-filter li-ipv6-filter *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **ipv6-filter** [filter-name] *filter-name*

| | |
|---|---|
| Synopsis | Add a list entry for **ipv6-filter** |
| Context | li li-filter associations li-ipv6-filter *reference* ipv6-filter *filter-name* |
| Tree | ipv6-filter |
| Max. instances | 1 |
| Min. instances | 1 |
| Introduced | 19.10.R1 |
| Platforms | All |

### [**filter-name**] *filter-name*

| | |
|---|---|
| Synopsis | IP filter to be associated with specified LI IP filter |
| Context | li li-filter associations li-ipv6-filter *reference* ipv6-filter *filter-name* |
| Tree | ipv6-filter |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |


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| | |
|---|---|
| Platforms | All |

### **li-mac-filter** [li-filter-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **li-mac-filter** list instance |
| Context | li li-filter associations li-mac-filter *reference* |
| Tree | li-mac-filter |
| Introduced | 19.10.R1 |
| Platforms | All |

### [**li-filter-name**] *reference*

| | |
|---|---|
| Synopsis | LI MAC filter name |
| Context | li li-filter associations li-mac-filter *reference* |
| Tree | li-mac-filter |
| Reference | li li-filter li-mac-filter *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **mac-filter** [filter-name] *filter-name*

| | |
|---|---|
| Synopsis | Add a list entry for **mac-filter** |
| Context | li li-filter associations li-mac-filter *reference* mac-filter *filter-name* |
| Tree | mac-filter |
| Max. instances | 1 |
| Min. instances | 1 |
| Introduced | 19.10.R1 |
| Platforms | All |

### [**filter-name**] *filter-name*

| | |
|---|---|
| Synopsis | IP filter to be associated with specified LI IP filter |
| Context | li li-filter associations li-mac-filter *reference* mac-filter *filter-name* |


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| | |
|---|---|
| Tree | mac-filter |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **li-ip-filter** [li-filter-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **li-ip-filter** list instance |
| Context | li li-filter li-ip-filter *named-item* |
| Tree | li-ip-filter |
| Description | Commands in this context create LI IPv4 filter lists, which can be used to create confidential IPv4 filter based LI source entries.<br>The LI IPv4 filter entries are merged into normal IPv4 filters configured with the **li li-filter associations** and **li li-filter reserved-block** commands. The LI IPv4 filter entries are visible only to users with LI permissions. |
| Introduced | 19.10.R1 |
| Platforms | All |

### [**li-filter-name**] *named-item*

| | |
|---|---|
| Synopsis | LI filter name |
| Context | li li-filter li-ip-filter *named-item* |
| Tree | li-ip-filter |
| Description | This command specifies the LI filter name. Filter names cannot start with an underscore character (for example, “_my-filter”) and cannot use the name “default”. |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | li li-filter li-ip-filter *named-item* description *description* |
| Tree | description |


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| | |
|---|---|
| String length | 1 to 80 |
| Introduced | 19.10.R1 |
| Platforms | All |

## **entry** [li-entry-id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | li li-filter li-ip-filter *named-item* entry *number* |
| Tree | entry |
| Description | Commands in this context configure an entry for the LI filter.<br>Multiple entries can be created using unique entry ID numbers within the filter. An entry in an LI filter always has an implicit action of “forward”. LI filter entries can be used as LI source entries.<br>The entry numbers for LI filters serve only as keys for managing the entries (deleting entries, and so on). The order of the LI filter entries is not guaranteed to match the entry numbers and the software may reorder entries. Operators must therefore use LI entries in such a way that their relative order is not important.<br>Entries removed from the filter are immediately removed from all services or network ports where the associated filter is applied. |
| Introduced | 19.10.R1 |
| Platforms | All |

## [**li-entry-id**] *number*

| | |
|---|---|
| Synopsis | LI filter entry ID |
| Context | li li-filter li-ip-filter *named-item* entry *number* |
| Tree | entry |
| Range | 1 to 65535 |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | All |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | li li-filter li-ip-filter *named-item* entry *number* description *description* |
| Tree | description |


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| | |
|---|---|
| String length | 1 to 80 |
| Introduced | 19.10.R1 |
| Platforms | All |

## match

| | |
|---|---|
| Synopsis | Enter the **match** context |
| Context | li li-filter li-ip-filter *named-item* entry *number* match |
| Tree | match |
| Description | Commands in this context configure match criteria for the filter entry. If more than one match criteria (within one match statement) are configured, all criteria must be satisfied (and function) for a match to occur.<br>A match context may consist of multiple match criteria, but multiple match statements cannot be configured per entry. |
| Introduced | 19.10.R1 |
| Platforms | All |

## dst-ip

| | |
|---|---|
| Synopsis | Enter the **dst-ip** context |
| Context | li li-filter li-ip-filter *named-item* entry *number* match dst-ip |
| Tree | dst-ip |
| Introduced | 19.10.R1 |
| Platforms | All |

## address *(ipv4-prefix-with-host-bits | ipv4-address)*

| | |
|---|---|
| Synopsis | IP address to match |
| Context | li li-filter li-ip-filter *named-item* entry *number* match dst-ip address *(ipv4-prefix-with-host-bits \| ipv4-address)* |
| Tree | address |
| Introduced | 19.10.R1 |
| Platforms | All |


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### **mask** *ipv4-address*

| | |
|---|---|
| Synopsis | Mask that is applied as an AND to the IP address |
| Context | li li-filter li-ip-filter *named-item* entry *number* match dst-ip mask *ipv4-address* |
| Tree | mask |
| Introduced | 19.10.R1 |
| Platforms | All |

### **dst-port**

| | |
|---|---|
| Synopsis | Enter the **dst-port** context |
| Context | li li-filter li-ip-filter *named-item* entry *number* match dst-port |
| Tree | dst-port |
| Introduced | 19.10.R1 |
| Platforms | All |

### **eq** *number*

| | |
|---|---|
| Synopsis | Condition on equality to specified value |
| Context | li li-filter li-ip-filter *named-item* entry *number* match dst-port eq *number* |
| Tree | eq |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **gt** *number*

| | |
|---|---|
| Synopsis | Condition on being greater than the specified value |
| Context | li li-filter li-ip-filter *named-item* entry *number* match dst-port gt *number* |
| Tree | gt |
| Range | 0 to 65534 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 19.10.R1 |
| Platforms | All |


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### **lt** *number*

| | |
|---|---|
| Synopsis | Condition on being less than the specified value |
| Context | li li-filter li-ip-filter *named-item* entry *number* match dst-port lt *number* |
| Tree | lt |
| Range | 1 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **range**

| | |
|---|---|
| Synopsis | Enable the **range** context |
| Context | li li-filter li-ip-filter *named-item* entry *number* match dst-port range |
| Tree | range |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **end** *number*

| | |
|---|---|
| Synopsis | Upper bound port to match |
| Context | li li-filter li-ip-filter *named-item* entry *number* match dst-port range end *number* |
| Tree | end |
| Range | 1 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **start** *number*

| | |
|---|---|
| Synopsis | Lower bound port to match |
| Context | li li-filter li-ip-filter *named-item* entry *number* match dst-port range start *number* |
| Tree | start |
| Range | 0 to 65534 |


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| | |
|---|---|
| Notes | This element is mandatory. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **fragment** *keyword*

| | |
|---|---|
| Synopsis | Fragmentation state as the match criterion |
| Context | li li-filter li-ip-filter *named-item* entry *number* match fragment *keyword* |
| Tree | fragment |
| Options | false, true |
| Introduced | 20.2.R1 |
| Platforms | All |

### **protocol** *(number | keyword)*

| | |
|---|---|
| Synopsis | IP protocol to match |
| Context | li li-filter li-ip-filter *named-item* entry *number* match protocol *(number | keyword)* |
| Tree | protocol |
| Range | 0 to 255 |
| Options | tcp-udp, icmp, igmp, ip, tcp, egp, igp, udp, rdp, ipv6, ipv6-route, ipv6-frag, idrp, rsvp, gre, ipv6-icmp, ipv6-no-nxt, ipv6-opts, iso-ip, eigrp, ospf-igp, ether-ip, encap, pnni, pim, vrrp, l2tp, stp, ptp, isis, crtp, crudp, sctp |
| Introduced | 19.10.R1 |
| Platforms | All |

### **src-ip**

| | |
|---|---|
| Synopsis | Enter the **src-ip** context |
| Context | li li-filter li-ip-filter *named-item* entry *number* match src-ip |
| Tree | src-ip |
| Introduced | 19.10.R1 |
| Platforms | All |

### **address** *(ipv4-prefix-with-host-bits | ipv4-address)*

| | |
|---|---|
| Synopsis | IP address to match |


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| | |
|---|---|
| Context | li li-filter li-ip-filter *named-item* entry *number* match src-ip address *(ipv4-prefix-with-host-bits \| ipv4-address)* |
| Tree | address |
| Introduced | 19.10.R1 |
| Platforms | All |

### **mask** *ipv4-address*

| | |
|---|---|
| Synopsis | Mask that is applied as an AND to the IP address |
| Context | li li-filter li-ip-filter *named-item* entry *number* match src-ip mask *ipv4-address* |
| Tree | mask |
| Introduced | 19.10.R1 |
| Platforms | All |

### **src-port**

| | |
|---|---|
| Synopsis | Enter the **src-port** context |
| Context | li li-filter li-ip-filter *named-item* entry *number* match src-port |
| Tree | src-port |
| Introduced | 19.10.R1 |
| Platforms | All |

### **eq** *number*

| | |
|---|---|
| Synopsis | Condition on equality to specified value |
| Context | li li-filter li-ip-filter *named-item* entry *number* match src-port eq *number* |
| Tree | eq |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **gt** *number*

| | |
|---|---|
| Synopsis | Condition on being greater than the specified value |


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| | |
|---|---|
| Context | li li-filter li-ip-filter *named-item* entry *number* match src-port gt *number* |
| Tree | gt |
| Range | 0 to 65534 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **lt** *number*

| | |
|---|---|
| Synopsis | Condition on being less than the specified value |
| Context | li li-filter li-ip-filter *named-item* entry *number* match src-port lt *number* |
| Tree | lt |
| Range | 1 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **range**

| | |
|---|---|
| Synopsis | Enable the **range** context |
| Context | li li-filter li-ip-filter *named-item* entry *number* match src-port range |
| Tree | range |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **end** *number*

| | |
|---|---|
| Synopsis | Upper bound port to match |
| Context | li li-filter li-ip-filter *named-item* entry *number* match src-port range end *number* |
| Tree | end |
| Range | 1 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 19.10.R1 |


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| | |
|---|---|
| Platforms | All |

### **start** *number*

| | |
|---|---|
| Synopsis | Lower bound port to match |
| Context | li li-filter li-ip-filter *named-item* entry *number* match src-port range start *number* |
| Tree | start |
| Range | 0 to 65534 |
| Notes | This element is mandatory. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **li-ipv6-filter** [li-filter-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **li-ipv6-filter** list instance |
| Context | li li-filter li-ipv6-filter *named-item* |
| Tree | li-ipv6-filter |
| Description | Commands in this context create LI IPv6 filter lists, which can be used to create confidential IPv6 filter based LI source entries.<br>The LI IPv6 filter entries are merged into normal IPv6 filters configured with the **li li-filter associations** and **li li-filter reserved-block** commands. However, the LI IPv6 filter entries are visible only to users with LI permissions. |
| Introduced | 19.10.R1 |
| Platforms | All |

### [**li-filter-name**] *named-item*

| | |
|---|---|
| Synopsis | LI filter name |
| Context | li li-filter li-ipv6-filter *named-item* |
| Tree | li-ipv6-filter |
| Description | This command specifies the LI filter name. Filter names cannot start with an underscore character (for example, “_my-filter”) and cannot use the name “default”. |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | All |


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### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | li li-filter li-ipv6-filter *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **entry** [li-entry-id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | li li-filter li-ipv6-filter *named-item* entry *number* |
| Tree | entry |
| Description | Commands in this context configure an entry for the LI filter.<br>Multiple entries can be created using unique entry ID numbers within the filter. An entry in an LI filter always has an implicit action of “forward”. LI filter entries can be used as LI source entries.<br>The entry numbers for LI filters serve only as keys for managing the entries (deleting entries, and so on). The order of the LI filter entries is not guaranteed to match the entry numbers and the software may reorder entries. Operators must therefore use LI entries in such a way that their relative order is not important.<br>Entries removed from the filter are immediately removed from all services or network ports where the associated filter is applied. |
| Introduced | 19.10.R1 |
| Platforms | All |

### [**li-entry-id**] *number*

| | |
|---|---|
| Synopsis | LI filter entry ID |
| Context | li li-filter li-ipv6-filter *named-item* entry *number* |
| Tree | entry |
| Range | 1 to 65535 |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | All |


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### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | li li-filter li-ipv6-filter *named-item* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **match**

| | |
|---|---|
| Synopsis | Enter the **match** context |
| Context | li li-filter li-ipv6-filter *named-item* entry *number* match |
| Tree | match |
| Description | Commands in this context configure match criteria for the filter entry. If more than one match criteria (within one match statement) are configured, all criteria must be satisfied (and function) for a match to occur.<br>A match context may consist of multiple match criteria, but multiple match statements cannot be configured per entry. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **dst-ip**

| | |
|---|---|
| Synopsis | Enter the **dst-ip** context |
| Context | li li-filter li-ipv6-filter *named-item* entry *number* match dst-ip |
| Tree | dst-ip |
| Introduced | 19.10.R1 |
| Platforms | All |

### **address** *(ipv6-prefix-with-host-bits | ipv6-address)*

| | |
|---|---|
| Synopsis | IP address to match |
| Context | li li-filter li-ipv6-filter *named-item* entry *number* match dst-ip address *(ipv6-prefix-with-host-bits \| ipv6-address)* |
| Tree | address |


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| | |
|---|---|
| Introduced | 19.10.R1 |
| Platforms | All |

### **mask** *ipv6-address*

| | |
|---|---|
| Synopsis | Mask that is applied as an AND to the IPv6 address |
| Context | li li-filter li-ipv6-filter *named-item* entry *number* match dst-ip mask *ipv6-address* |
| Tree | mask |
| Introduced | 19.10.R1 |
| Platforms | All |

### **dst-port**

| | |
|---|---|
| Synopsis | Enter the **dst-port** context |
| Context | li li-filter li-ipv6-filter *named-item* entry *number* match dst-port |
| Tree | dst-port |
| Introduced | 19.10.R1 |
| Platforms | All |

### **eq** *number*

| | |
|---|---|
| Synopsis | Condition on equality to specified value |
| Context | li li-filter li-ipv6-filter *named-item* entry *number* match dst-port eq *number* |
| Tree | eq |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **gt** *number*

| | |
|---|---|
| Synopsis | Condition on being greater than the specified value |
| Context | li li-filter li-ipv6-filter *named-item* entry *number* match dst-port gt *number* |
| Tree | gt |
| Range | 0 to 65534 |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **lt** *number*

| | |
|---|---|
| Synopsis | Condition on being less than the specified value |
| Context | li li-filter li-ipv6-filter *named-item* entry *number* match dst-port lt *number* |
| Tree | lt |
| Range | 1 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **range**

| | |
|---|---|
| Synopsis | Enable the **range** context |
| Context | li li-filter li-ipv6-filter *named-item* entry *number* match dst-port range |
| Tree | range |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **end** *number*

| | |
|---|---|
| Synopsis | Upper bound port to match |
| Context | li li-filter li-ipv6-filter *named-item* entry *number* match dst-port range end *number* |
| Tree | end |
| Range | 1 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 19.10.R1 |
| Platforms | All |


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### **start** *number*

| | |
|---|---|
| Synopsis | Lower bound port to match |
| Context | li li-filter li-ipv6-filter *named-item* entry *number* match dst-port range start *number* |
| Tree | start |
| Range | 0 to 65534 |
| Notes | This element is mandatory. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **next-header** *(number | keyword)*

| | |
|---|---|
| Synopsis | IP protocol to match |
| Context | li li-filter li-ipv6-filter *named-item* entry *number* match next-header *(number | keyword)* |
| Tree | next-header |
| Range | 0 to 255 |
| Options | tcp-udp, icmp, igmp, ip, tcp, egp, igp, udp, rdp, ipv6, ipv6-route, ipv6-frag, idrp, rsvp, gre, ipv6-icmp, ipv6-no-nxt, ipv6-opts, iso-ip, eigrp, ospf-igp, ether-ip, encap, pnni, pim, vrrp, l2tp, stp, ptp, isis, crtp, crudp, sctp |
| Introduced | 19.10.R1 |
| Platforms | All |

### **src-ip**

| | |
|---|---|
| Synopsis | Enter the **src-ip** context |
| Context | li li-filter li-ipv6-filter *named-item* entry *number* match src-ip |
| Tree | src-ip |
| Introduced | 19.10.R1 |
| Platforms | All |

### **address** *(ipv6-prefix-with-host-bits | ipv6-address)*

| | |
|---|---|
| Synopsis | IP address to match |
| Context | li li-filter li-ipv6-filter *named-item* entry *number* match src-ip address *(ipv6-prefix-with-host-bits | ipv6-address)* |
| Tree | address |


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| | |
|---|---|
| Introduced | 19.10.R1 |
| Platforms | All |

### **mask** *ipv6-address*

| | |
|---|---|
| Synopsis | Mask that is applied as an AND to the IPv6 address |
| Context | li li-filter li-ipv6-filter *named-item* entry *number* match src-ip mask *ipv6-address* |
| Tree | mask |
| Introduced | 19.10.R1 |
| Platforms | All |

### **src-port**

| | |
|---|---|
| Synopsis | Enter the **src-port** context |
| Context | li li-filter li-ipv6-filter *named-item* entry *number* match src-port |
| Tree | src-port |
| Introduced | 19.10.R1 |
| Platforms | All |

### **eq** *number*

| | |
|---|---|
| Synopsis | Condition on equality to specified value |
| Context | li li-filter li-ipv6-filter *named-item* entry *number* match src-port eq *number* |
| Tree | eq |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **gt** *number*

| | |
|---|---|
| Synopsis | Condition on being greater than the specified value |
| Context | li li-filter li-ipv6-filter *named-item* entry *number* match src-port gt *number* |
| Tree | gt |
| Range | 0 to 65534 |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **lt** *number*

| | |
|---|---|
| Synopsis | Condition on being less than the specified value |
| Context | li li-filter li-ipv6-filter *named-item* entry *number* match src-port lt *number* |
| Tree | lt |
| Range | 1 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **range**

| | |
|---|---|
| Synopsis | Enable the **range** context |
| Context | li li-filter li-ipv6-filter *named-item* entry *number* match src-port range |
| Tree | range |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **end** *number*

| | |
|---|---|
| Synopsis | Upper bound port to match |
| Context | li li-filter li-ipv6-filter *named-item* entry *number* match src-port range end *number* |
| Tree | end |
| Range | 1 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 19.10.R1 |
| Platforms | All |


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### **start** *number*

| | |
|---|---|
| Synopsis | Lower bound port to match |
| Context | li li-filter li-ipv6-filter *named-item* entry *number* match src-port range start *number* |
| Tree | start |
| Range | 0 to 65534 |
| Notes | This element is mandatory. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **li-mac-filter** [li-filter-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **li-mac-filter** list instance |
| Context | li li-filter li-mac-filter *named-item* |
| Tree | li-mac-filter |
| Description | Commands in this context configure LI MAC filter lists, which can be used to create confidential MAC filter based LI source entries.<br>The LI MAC filter entries are merged into normal MAC filters as configured using the **li-filter associations** and **li-filter reserved-block** commands. The LI MAC filter entries are visible only to users with LI permissions. |
| Introduced | 19.10.R1 |
| Platforms | All |

### [**li-filter-name**] *named-item*

| | |
|---|---|
| Synopsis | LI filter name |
| Context | li li-filter li-mac-filter *named-item* |
| Tree | li-mac-filter |
| Description | This command specifies the LI filter name. Filter names cannot start with an underscore character (for example, “_my-filter”) and cannot use the name “default”. |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | All |


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### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | li li-filter li-mac-filter *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **entry** [li-entry-id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | li li-filter li-mac-filter *named-item* entry *number* |
| Tree | entry |
| Description | Commands in this context configure an entry for the LI filter.<br>Multiple entries can be created using unique entry ID numbers within the filter. An entry in an LI filter always has an implicit action of “forward”. LI filter entries can be used as LI source entries.<br>The entry numbers for LI filters serve only as keys for managing the entries (deleting entries, and so on). The order of the LI filter entries is not guaranteed to match the entry numbers and the software may reorder entries. Operators must therefore use LI entries in such a way that their relative order is not important.<br>Entries removed from the filter are immediately removed from all services or network ports where the associated filter is applied. |
| Introduced | 19.10.R1 |
| Platforms | All |

### [**li-entry-id**] *number*

| | |
|---|---|
| Synopsis | LI filter entry ID |
| Context | li li-filter li-mac-filter *named-item* entry *number* |
| Tree | entry |
| Range | 1 to 65535 |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | All |


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### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | li li-filter li-mac-filter *named-item* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **match**

| | |
|---|---|
| Synopsis | Enter the **match** context |
| Context | li li-filter li-mac-filter *named-item* entry *number* match |
| Tree | match |
| Description | Commands in this context configure match criteria for the filter entry. If more than one match criteria (within one match statement) is configured, all criteria must be satisfied (and function) for a match to occur.<br>A match context may consist of multiple match criteria, but multiple match statements cannot be configured per entry. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **dst-mac**

| | |
|---|---|
| Synopsis | Enable the **dst-mac** context |
| Context | li li-filter li-mac-filter *named-item* entry *number* match dst-mac |
| Tree | dst-mac |
| Introduced | 19.10.R1 |
| Platforms | All |

### **address** *mac-address*

| | |
|---|---|
| Synopsis | MAC address for filter match |
| Context | li li-filter li-mac-filter *named-item* entry *number* match dst-mac address *mac-address* |
| Tree | address |
| Notes | This element is mandatory. |


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| | |
|---|---|
| Introduced | 19.10.R1 |
| Platforms | All |

### **mask** *mac-address*

| | |
|---|---|
| Synopsis | MAC address mask for filter match |
| Context | li li-filter li-mac-filter *named-item* entry *number* match dst-mac mask *mac-address* |
| Tree | mask |
| Default | ff:ff:ff:ff:ff:ff |
| Introduced | 19.10.R1 |
| Platforms | All |

### **frame-type** *keyword*

| | |
|---|---|
| Synopsis | Frame type for MAC filter match |
| Context | li li-filter li-mac-filter *named-item* entry *number* match frame-type *keyword* |
| Tree | frame-type |
| Description | This command specifies the frame type for MAC filter entry matching. A filter can be edited even if an LI source references an entry in the filter. |
| Options | 802dot3, 802dot2-llc, 802dot2-snap, ethernet-ii |
| Default | 802dot3 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **outer-tag** *number*

| | |
|---|---|
| Synopsis | Outer tag for the QinQ SAP for filter match |
| Context | li li-filter li-mac-filter *named-item* entry *number* match outer-tag *number* |
| Tree | outer-tag |
| Description | This command configures the outer-tag to match on and must be used in conjunction with match criteria SAP in order for the entry match to activate.<br><br>The match criteria SAP must be an exact match with the QinQ configured on the Epipe or VPLS service (for example 1/1/1:1.*, where the outer tag (C-tag) must be "*"). This feature mandates the provisioning of an associated **outer-tag** (example, 1), to be able to match on the QinQ packet. This example would perform LI on 1/1/1:1.1 on a 1/1/1:1.* SAP. |
| Range | 1 to 4094 |


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| | |
|---|---|
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **sap** *sap*

| | |
|---|---|
| Synopsis | QinQ SAP for filter match |
| Context | li li-filter li-mac-filter *named-item* entry *number* match sap *sap* |
| Tree | sap |
| Description | This command specifies the QinQ SAP to match from the Epipe or VPLS service, where the S-tag must be a value and the outer tag (C-tag) must be of type *. This filter match is used in conjunction with match criteria **outer-tag**, where the **outer-tag** must also be provisioned for the entry match on the QinQ packet to activate.<br>The match criteria SAP must be an exact match with the QinQ configured on the Epipe or VPLS service (for example 1/1/1:1.*, where the outer tag (C-tag) must be "*"). An associated **outer-tag** (example, 1) must be provisioned to match on the QinQ packet. This example would perform LI on 1/1/1:1.1 on a 1/1/1:1.* SAP. |
| String length | 1 to 45 |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **src-mac**

| | |
|---|---|
| Synopsis | Enable the **src-mac** context |
| Context | li li-filter li-mac-filter *named-item* entry *number* match src-mac |
| Tree | src-mac |
| Introduced | 19.10.R1 |
| Platforms | All |

### **address** *mac-address*

| | |
|---|---|
| Synopsis | MAC address for filter match |
| Context | li li-filter li-mac-filter *named-item* entry *number* match src-mac address *mac-address* |
| Tree | address |
| Notes | This element is mandatory. |
| Introduced | 19.10.R1 |
| Platforms | All |


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### **mask** *mac-address*

| | |
|---|---|
| Synopsis | MAC address mask for filter match |
| Context | li li-filter li-mac-filter *named-item* entry *number* match src-mac mask *mac-address* |
| Tree | mask |
| Default | ff:ff:ff:ff:ff:ff |
| Introduced | 19.10.R1 |
| Platforms | All |

### **lock-filter** *keyword*

| | |
|---|---|
| Synopsis | Lock state of LI filters |
| Context | li li-filter lock-filter *keyword* |
| Tree | lock-filter |
| Options | lock, unlock |
| Default | lock |
| Introduced | 19.10.R1 |
| Platforms | All |

### **reserved-block** [block-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **reserved-block** list instance |
| Context | li li-filter reserved-block *named-item* |
| Tree | reserved-block |
| Max. instances | 8 |
| Introduced | 19.10.R1 |
| Platforms | All |

### [**block-name**] *named-item*

| | |
|---|---|
| Synopsis | Object uniquely identifying an LI reserved block |
| Context | li li-filter reserved-block *named-item* |
| Tree | reserved-block |
| String length | 1 to 32 |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | li li-filter reserved-block *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **entry-range**

| | |
|---|---|
| Synopsis | Enable the **entry-range** context |
| Context | li li-filter reserved-block *named-item* entry-range |
| Tree | entry-range |
| Introduced | 19.10.R1 |
| Platforms | All |

### **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the range |
| Context | li li-filter reserved-block *named-item* entry-range end *number* |
| Tree | end |
| Range | 1 to 2097151 |
| Notes | This element is mandatory. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of the range |
| Context | li li-filter reserved-block *named-item* entry-range start *number* |


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| | |
|---|---|
| Tree | start |
| Range | 1 to 2097151 |
| Notes | This element is mandatory. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **ip-filter** [filter-name] *filter-name*

| | |
|---|---|
| Synopsis | Add a list entry for **ip-filter** |
| Context | li li-filter reserved-block *named-item* ip-filter *filter-name* |
| Tree | ip-filter |
| Introduced | 19.10.R1 |
| Platforms | All |

### [**filter-name**] *filter-name*

| | |
|---|---|
| Synopsis | IP filter ID for LI filter reserved block |
| Context | li li-filter reserved-block *named-item* ip-filter *filter-name* |
| Tree | ip-filter |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **ipv6-filter** [filter-name] *filter-name*

| | |
|---|---|
| Synopsis | Add a list entry for **ipv6-filter** |
| Context | li li-filter reserved-block *named-item* ipv6-filter *filter-name* |
| Tree | ipv6-filter |
| Introduced | 19.10.R1 |
| Platforms | All |

### [**filter-name**] *filter-name*

| | |
|---|---|
| Synopsis | IP filter ID for LI filter reserved block |


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| | |
|---|---|
| Context | li li-filter reserved-block *named-item* ipv6-filter *filter-name* |
| Tree | ipv6-filter |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **mac-filter** [filter-name] *filter-name*

| | |
|---|---|
| Synopsis | Add a list entry for **mac-filter** |
| Context | li li-filter reserved-block *named-item* mac-filter *filter-name* |
| Tree | mac-filter |
| Introduced | 19.10.R1 |
| Platforms | All |

### [**filter-name**] *filter-name*

| | |
|---|---|
| Synopsis | IP filter ID for LI filter reserved block |
| Context | li li-filter reserved-block *named-item* mac-filter *filter-name* |
| Tree | mac-filter |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **li-source** [service-name] *service-name*

| | |
|---|---|
| Synopsis | Enter the **li-source** list instance |
| Context | li li-source *service-name* |
| Tree | li-source |
| Introduced | 19.10.R1 |
| Platforms | All |


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### [**service-name**] *service-name*

| | |
|---|---|
| Synopsis | Administrative service name |
| Context | li li-source *service-name* |
| Tree | li-source |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of mirror service |
| Context | li li-source *service-name* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 19.10.R1 |
| Platforms | All |

### **li-ip-filter** [li-filter-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **li-ip-filter** list instance |
| Context | li li-source *service-name* li-ip-filter *reference* |
| Tree | li-ip-filter |
| Introduced | 19.10.R1 |
| Platforms | All |

### [**li-filter-name**] *reference*

| | |
|---|---|
| Synopsis | A unique ID for an li-ip-filter |
| Context | li li-source *service-name* li-ip-filter *reference* |
| Tree | li-ip-filter |
| Reference | li li-filter li-ip-filter *named-item* |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 19.10.R1 |
| Platforms | All |

### **entry** [li-entry-id] *reference*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | li li-source *service-name* li-ip-filter *reference* entry *reference* |
| Tree | entry |
| Min. instances | 1 |
| Introduced | 19.10.R1 |
| Platforms | All |

### [**li-entry-id**] *reference*

| | |
|---|---|
| Synopsis | A unique ID for an li-ip-filter entry |
| Context | li li-source *service-name* li-ip-filter *reference* entry *reference* |
| Tree | entry |
| Reference | li li-filter li-ip-filter *named-item* entry *number* |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **intercept-id** *number*

| | |
|---|---|
| Synopsis | Intercept ID of the traffic flow |
| Context | li li-source *service-name* li-ip-filter *reference* entry *reference* intercept-id *number* |
| Tree | intercept-id |
| Description | This command configures the intercept ID that is inserted into the packet header for all mirrrored packets of the associated LI source entry. This intercept ID can be used (for example by a downstream LI gateway) to identify the particular LI session to which the packet belongs.<br><br>For LI source entries, when the **configure mirror mirror-dest encap layer-3-encap header-type** command is configured with **ip-udp-shim** routable encap, an intercept-id field (as part of the routable encap) is always present in the mirrored packets. If there is no intercept ID configured for an LI source entry, the default value is inserted. |


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When the mirror service is configured with **ip-gre** routable encap under the **header-type** command, no intercept ID is inserted and none should be specified against the LI source entries.

Range 1 to 1073741823

Introduced 19.10.R1

Platforms All

### **session-id** *number*

Synopsis Session ID of the traffic flow

Context li li-source *service-name* li-ip-filter *reference* entry *reference* session-id *number*

Tree session-id

Description This command configures the session ID that is inserted into the packet header for all mirrored packets of the associated LI source entry. This session ID can be used (for example by a downstream LI gateway) to identify the particular LI session to which the packet belongs.

The session ID is only valid and used for mirror services that are configured with **ip-udp-shim** routable encap under the **configure mirror mirror-dest encap layer-3-encap header-type** command. For all types of LI source entries, when the mirror service is configured with **ip-udp-shim** routable encap, a session ID field (as part of the routable encap) is always present in the mirrored packets. If no session ID is configured for an LI source entry, the default value is inserted.

When a mirror service is configured with **ip-gre** routable encap under the header-type command, no session ID is inserted and none is specified against the LI source entries.

Range 1 to 4294967295

Introduced 19.10.R1

Platforms All

### **li-ipv6-filter** [li-filter-name] *reference*

Synopsis Enter the **li-ipv6-filter** list instance

Context li li-source *service-name* li-ipv6-filter *reference*

Tree li-ipv6-filter

Introduced 19.10.R1

Platforms All

### [**li-filter-name**] *reference*

Synopsis A unique ID for an li-ipv6-filter


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| | |
|---|---|
| Context | li li-source *service-name* li-ipv6-filter *reference* |
| Tree | li-ipv6-filter |
| Reference | li li-filter li-ipv6-filter *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **entry** [li-entry-id] *reference*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | li li-source *service-name* li-ipv6-filter *reference* entry *reference* |
| Tree | entry |
| Min. instances | 1 |
| Introduced | 19.10.R1 |
| Platforms | All |

### [**li-entry-id**] *reference*

| | |
|---|---|
| Synopsis | A unique ID for an li-ipv6-filter entry |
| Context | li li-source *service-name* li-ipv6-filter *reference* entry *reference* |
| Tree | entry |
| Reference | li li-filter li-ipv6-filter *named-item* entry *number* |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **intercept-id** *number*

| | |
|---|---|
| Synopsis | Intercept ID of the traffic flow |
| Context | li li-source *service-name* li-ipv6-filter *reference* entry *reference* intercept-id *number* |
| Tree | intercept-id |
| Description | This command configures the intercept ID that is inserted into the packet header for all mirrrored packets of the associated LI source entry. This intercept ID can be used (for example by a downstream LI gateway) to identify the particular LI session to which the packet belongs. |


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For LI source entries, when the **configure mirror mirror-dest encap layer-3-encap header-type** command is configured with **ip-udp-shim** routable encap, an intercept-id field (as part of the routable encap) is always present in the mirrored packets. If there is no intercept ID configured for an LI source entry, the default value is inserted.

When the mirror service is configured with **ip-gre** routable encap under the **header-type** command, no intercept ID is inserted and none should be specified against the LI source entries.

Range 1 to 1073741823

Introduced 19.10.R1

Platforms All

## **session-id** *number*

Synopsis Session ID of the traffic flow

Context li li-source *service-name* li-ipv6-filter *reference* entry *reference* session-id *number*

Tree session-id

Description This command configures the session ID that is inserted into the packet header for all mirrored packets of the associated LI source entry. This session ID can be used (for example by a downstream LI gateway) to identify the particular LI session to which the packet belongs.

The session ID is only valid and used for mirror services that are configured with **ip-udp-shim** routable encap under the **configure mirror mirror-dest encap layer-3-encap header-type** command. For all types of LI source entries, when the mirror service is configured with **ip-udp-shim** routable encap, a session ID field (as part of the routable encap) is always present in the mirrored packets. If no session ID is configured for an LI source entry, the default value is inserted.

When a mirror service is configured with **ip-gre** routable encap under the header-type command, no session ID is inserted and none is specified against the LI source entries.

Range 1 to 4294967295

Introduced 19.10.R1

Platforms All

## **li-mac-filter** [li-filter-name] *reference*

Synopsis Enter the **li-mac-filter** list instance

Context li li-source *service-name* li-mac-filter *reference*

Tree li-mac-filter

Introduced 19.10.R1

Platforms All


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### [**li-filter-name**] *reference*

| | |
|---|---|
| Synopsis | A unique ID for an li-mac-filter |
| Context | li li-source *service-name* li-mac-filter *reference* |
| Tree | li-mac-filter |
| Reference | li li-filter li-mac-filter *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **entry** [li-entry-id] *reference*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | li li-source *service-name* li-mac-filter *reference* entry *reference* |
| Tree | entry |
| Min. instances | 1 |
| Introduced | 19.10.R1 |
| Platforms | All |

### [**li-entry-id**] *reference*

| | |
|---|---|
| Synopsis | A unique ID for an li-mac-filter entry |
| Context | li li-source *service-name* li-mac-filter *reference* entry *reference* |
| Tree | entry |
| Reference | li li-filter li-mac-filter *named-item* entry *number* |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **intercept-id** *number*

| | |
|---|---|
| Synopsis | Intercept ID of the traffic flow |
| Context | li li-source *service-name* li-mac-filter *reference* entry *reference* intercept-id *number* |
| Tree | intercept-id |


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Description This command configures the intercept ID that is inserted into the packet header for all mirrrored packets of the associated LI source entry. This intercept ID can be used (for example by a downstream LI gateway) to identify the particular LI session to which the packet belongs.

For LI source entries, when the **configure mirror mirror-dest encap layer-3-encap header-type** command is configured with **ip-udp-shim** routable encap, an intercept-id field (as part of the routable encap) is always present in the mirrored packets. If there is no intercept ID configured for an LI source entry, the default value is inserted.

When the mirror service is configured with **ip-gre** routable encap under the **header-type** command, no intercept ID is inserted and none should be specified against the LI source entries.

Range 1 to 1073741823

Introduced 19.10.R1

Platforms All

## **session-id** *number*

Synopsis Session ID of the traffic flow

Context li li-source *service-name* li-mac-filter *reference* entry *reference* session-id *number*

Tree session-id

Description This command configures the session ID that is inserted into the packet header for all mirrored packets of the associated LI source entry. This session ID can be used (for example by a downstream LI gateway) to identify the particular LI session to which the packet belongs.

The session ID is only valid and used for mirror services that are configured with **ip-udp-shim** routable encap under the **configure mirror mirror-dest encap layer-3-encap header-type** command. For all types of LI source entries, when the mirror service is configured with **ip-udp-shim** routable encap, a session ID field (as part of the routable encap) is always present in the mirrored packets. If no session ID is configured for an LI source entry, the default value is inserted.

When a mirror service is configured with **ip-gre** routable encap under the header-type command, no session ID is inserted and none is specified against the LI source entries.

Range 1 to 4294967295

Introduced 19.10.R1

Platforms All

## nat

Synopsis Enter the **nat** context

Context li li-source *service-name* nat


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| | |
|---|---|
| Tree | nat |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **dslite** [router-instance] *service-name* b4 *ipv6-prefix*

| | |
|---|---|
| Synopsis | Enter the **dslite** list instance |
| Context | li li-source *service-name* nat dslite *service-name* b4 *ipv6-prefix* |
| Tree | dslite |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**router-instance**] *service-name*

| | |
|---|---|
| Synopsis | Name of the service |
| Context | li li-source *service-name* nat dslite *service-name* b4 *ipv6-prefix* |
| Tree | dslite |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **b4** *ipv6-prefix*

| | |
|---|---|
| Synopsis | B4 prefix of the subscriber |
| Context | li li-source *service-name* nat dslite *service-name* b4 *ipv6-prefix* |
| Tree | dslite |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **intercept-id** *number*

| | |
|---|---|
| Synopsis | The intercept id of the traffic flow |
| Context | li li-source *service-name* nat dslite *service-name* b4 *ipv6-prefix* intercept-id *number* |


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| | |
|---|---|
| Tree | intercept-id |
| Range | 1 to 4294967295 |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **session-id** *number*

| | |
|---|---|
| Synopsis | The session id of the traffic flow |
| Context | li li-source *service-name* nat dslite *service-name* b4 *ipv6-prefix* session-id *number* |
| Tree | session-id |
| Range | 1 to 4294967295 |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ethernet-header**

| | |
|---|---|
| Synopsis | Enter the **ethernet-header** context |
| Context | li li-source *service-name* nat ethernet-header |
| Tree | ethernet-header |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **destination-address** *mac-address*

| | |
|---|---|
| Synopsis | Destination MAC address field of Ethernet encapsulation |
| Context | li li-source *service-name* nat ethernet-header destination-address *mac-address* |
| Tree | destination-address |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **source-address** *mac-address*

| | |
|---|---|
| Synopsis | Source MAC address field of the Ethernet encapsulation |
| Context | li li-source *service-name* nat ethernet-header source-address *mac-address* |
| Tree | source-address |


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| | |
|---|---|
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **type** *number*

| | |
|---|---|
| Synopsis | Ethertype of the ethernet encapsulation |
| Context | li li-source *service-name* nat ethernet-header type *number* |
| Tree | type |
| Range | 1536 to 65535 |
| Default | 1792 |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **l2-aware** [subscriber-id] *subscriber-id*

| | |
|---|---|
| Synopsis | Enter the **l2-aware** list instance |
| Context | li li-source *service-name* nat l2-aware *subscriber-id* |
| Tree | l2-aware |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**subscriber-id**] *subscriber-id*

| | |
|---|---|
| Synopsis | The string identifying the subscribe |
| Context | li li-source *service-name* nat l2-aware *subscriber-id* |
| Tree | l2-aware |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **intercept-id** *number*

| | |
|---|---|
| Synopsis | The intercept id of the traffic flow |
| Context | li li-source *service-name* nat l2-aware *subscriber-id* intercept-id *number* |


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| | |
|---|---|
| Tree | intercept-id |
| Range | 1 to 4294967295 |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **session-id** *number*

| | |
|---|---|
| Synopsis | The session id of the traffic flow |
| Context | li li-source *service-name* nat l2-aware *subscriber-id* session-id *number* |
| Tree | session-id |
| Range | 1 to 4294967295 |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **nat44** [router-instance] *service-name* ip *ipv4-address*

| | |
|---|---|
| Synopsis | Enter the **nat44** list instance |
| Context | li li-source *service-name* nat nat44 *service-name* ip *ipv4-address* |
| Tree | nat44 |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**router-instance**] *service-name*

| | |
|---|---|
| Synopsis | Name of the service |
| Context | li li-source *service-name* nat nat44 *service-name* ip *ipv4-address* |
| Tree | nat44 |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ip** *ipv4-address*

| | |
|---|---|
| Synopsis | IP address of the subscriber |


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| | |
|---|---|
| Context | li li-source *service-name* nat nat44 *service-name* ip *ipv4-address* |
| Tree | nat44 |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **intercept-id** *number*

| | |
|---|---|
| Synopsis | The intercept id of the traffic flow |
| Context | li li-source *service-name* nat nat44 *service-name* ip *ipv4-address* intercept-id *number* |
| Tree | intercept-id |
| Range | 1 to 4294967295 |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **session-id** *number*

| | |
|---|---|
| Synopsis | The session id of the traffic flow |
| Context | li li-source *service-name* nat nat44 *service-name* ip *ipv4-address* session-id *number* |
| Tree | session-id |
| Range | 1 to 4294967295 |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **nat64** [router-instance] *service-name* ip *ipv6-prefix*

| | |
|---|---|
| Synopsis | Enter the **nat64** list instance |
| Context | li li-source *service-name* nat nat64 *service-name* ip *ipv6-prefix* |
| Tree | nat64 |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**router-instance**] *service-name*

| | |
|---|---|
| Synopsis | Name of the service |


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| | |
|---|---|
| Context | li li-source *service-name* nat nat64 *service-name* ip *ipv6-prefix* |
| Tree | nat64 |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ip** *ipv6-prefix*

| | |
|---|---|
| Synopsis | IP prefix of the subscriber |
| Context | li li-source *service-name* nat nat64 *service-name* ip *ipv6-prefix* |
| Tree | nat64 |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **intercept-id** *number*

| | |
|---|---|
| Synopsis | The intercept id of the traffic flow |
| Context | li li-source *service-name* nat nat64 *service-name* ip *ipv6-prefix* intercept-id *number* |
| Tree | intercept-id |
| Range | 1 to 4294967295 |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **session-id** *number*

| | |
|---|---|
| Synopsis | The session id of the traffic flow |
| Context | li li-source *service-name* nat nat64 *service-name* ip *ipv6-prefix* session-id *number* |
| Tree | session-id |
| Range | 1 to 4294967295 |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **port** [port-id] *mirror-source-port-lag-key*

| | |
|---|---|
| Synopsis | Enter the **port** list instance |
| Context | li li-source *service-name* port *mirror-source-port-lag-key* |
| Tree | port |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### [**port-id**] *mirror-source-port-lag-key*

| | |
|---|---|
| Synopsis | Port ID |
| Context | li li-source *service-name* port *mirror-source-port-lag-key* |
| Tree | port |
| Notes | This element is part of a list key. |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **egress** *boolean*

| | |
|---|---|
| Synopsis | Perform lawful intercept on egress traffic |
| Context | li li-source *service-name* port *mirror-source-port-lag-key* egress *boolean* |
| Tree | egress |
| Description | When configured to **true**, the router allows lawful intercept on egress traffic. This command configures packets that egress the SAP to be mirrored. Egress packets are mirrored to the mirror destination after egress packet modification. |
| Default | false |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ingress** *boolean*

| | |
|---|---|
| Synopsis | Perform lawful intercept on ingress traffic |
| Context | li li-source *service-name* port *mirror-source-port-lag-key* ingress *boolean* |
| Tree | ingress |


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| | |
|---|---|
| Description | When configured to **true**, the router allows lawful intercept on ingress traffic. This command configures packets that ingress the SAP to be mirrored. Ingress packets are mirrored to the mirror destination before ingress packet modification. |
| Default | false |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **sap** [sap-id] *sap*

| | |
|---|---|
| Synopsis | Enter the **sap** list instance |
| Context | li li-source *service-name* sap *sap* |
| Tree | sap |
| Description | Commands in this context create a service access point (SAP) within an LI configuration. The specified SAP must define a FastE, GigE, or XGigE, or XGigE access port with a dot1q, null, or q-in-q encapsulation type. |
| Introduced | 19.10.R1 |
| Platforms | All |

### [**sap-id**] *sap*

| | |
|---|---|
| Synopsis | SAP ID |
| Context | li li-source *service-name* sap *sap* |
| Tree | sap |
| Description | This command specifies the physical port identifier portion of the SAP definition. |
| String length | 1 to 45 |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **egress** *boolean*

| | |
|---|---|
| Synopsis | Perform lawful intercept on egress traffic |
| Context | li li-source *service-name* sap *sap* egress *boolean* |
| Tree | egress |


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| | |
|---|---|
| Description | When configured to **true**, the router allows lawful intercept on egress traffic. This command configures packets that egress the SAP to be mirrored. Egress packets are mirrored to the mirror destination after egress packet modification. |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

## **ingress** *boolean*

| | |
|---|---|
| Synopsis | Perform lawful intercept on ingress traffic |
| Context | li li-source *service-name* sap *sap* ingress *boolean* |
| Tree | ingress |
| Description | When configured to **true**, the router allows lawful intercept on ingress traffic. This command configures packets that ingress the SAP to be mirrored. Ingress packets are mirrored to the mirror destination before ingress packet modification. |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

## **intercept-id** *number*

| | |
|---|---|
| Synopsis | Intercept ID of the traffic flow |
| Context | li li-source *service-name* sap *sap* intercept-id *number* |
| Tree | intercept-id |
| Description | This command configures the intercept ID that is inserted into the packet header for all mirrrored packets of the associated LI source entry. This intercept ID can be used (for example by a downstream LI gateway) to identify the particular LI session to which the packet belongs.<br><br>For LI source entries, when the **configure mirror mirror-dest encap layer-3-encap header-type** command is configured with **ip-udp-shim** routable encap, an intercept-id field (as part of the routable encap) is always present in the mirrored packets. If there is no intercept ID configured for an LI source entry, the default value is inserted.<br><br>When the mirror service is configured with **ip-gre** routable encap under the **header-type** command, no intercept ID is inserted and none should be specified against the LI source entries. |
| Range | 1 to 1073741823 |
| Introduced | 19.10.R1 |
| Platforms | All |


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### **session-id** *number*

| | |
|---|---|
| Synopsis | Session ID of the traffic flow |
| Context | li li-source *service-name* sap *sap* session-id *number* |
| Tree | session-id |
| Description | This command configures the session ID that is inserted into the packet header for all mirrored packets of the associated LI source entry. This session ID can be used (for example by a downstream LI gateway) to identify the particular LI session to which the packet belongs.<br><br>The session ID is only valid and used for mirror services that are configured with **ip-udp-shim** routable encap under the **configure mirror mirror-dest encap layer-3-encap header-type** command. For all types of LI source entries, when the mirror service is configured with **ip-udp-shim** routable encap, a session ID field (as part of the routable encap) is always present in the mirrored packets. If no session ID is configured for an LI source entry, the default value is inserted.<br><br>When a mirror service is configured with **ip-gre** routable encap under the header-type command, no session ID is inserted and none is specified against the LI source entries. |
| Range | 1 to 4294967295 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **subscriber** [subscriber-id] *subscriber-id*

| | |
|---|---|
| Synopsis | Enter the **subscriber** list instance |
| Context | li li-source *service-name* subscriber *subscriber-id* |
| Tree | subscriber |
| Description | Commands in this context add hosts of a subscriber to a mirroring service. |
| Introduced | 19.10.R1 |
| Platforms | All |

### [**subscriber-id**] *subscriber-id*

| | |
|---|---|
| Synopsis | Subscriber ID |
| Context | li li-source *service-name* subscriber *subscriber-id* |
| Tree | subscriber |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 19.10.R1 |
| Platforms | All |

### **egress** *boolean*

| | |
|---|---|
| Synopsis | Perform lawful intercept on egress traffic |
| Context | li li-source *service-name* subscriber *subscriber-id* egress *boolean* |
| Tree | egress |
| Description | When configured to **true**, the router allows lawful intercept on egress traffic. This command configures packets that egress the SAP to be mirrored. Egress packets are mirrored to the mirror destination after egress packet modification. |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **fc** *keyword*

| | |
|---|---|
| Synopsis | Forwarding classes to be mirrored |
| Context | li li-source *service-name* subscriber *subscriber-id* fc *keyword* |
| Tree | fc |
| Description | This command specifies the name of the forwarding class with which to associate LI traffic. The forwarding class name must already be defined within the system.<br>If the FC name is not already defined, an error is returned and this command has no effect. If the FC name is defined, the forwarding class associated with the FC name overrides the default forwarding class. |
| Options | be, l2, af, l1, h2, ef, h1, nc |
| Max. instances | 8 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **host-type** *keyword*

| | |
|---|---|
| Synopsis | Subscriber host type to be monitored |
| Context | li li-source *service-name* subscriber *subscriber-id* host-type *keyword* |
| Tree | host-type |
| Description | This command specifies the host type for LI. |


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| | |
|---|---|
| Options | ipoe, ppp |
| Introduced | 19.10.R1 |
| Platforms | All |

### **ingress** *boolean*

| | |
|---|---|
| Synopsis | Perform lawful intercept on ingress traffic |
| Context | li li-source *service-name* subscriber *subscriber-id* ingress *boolean* |
| Tree | ingress |
| Description | When configured to **true**, the router allows lawful intercept on ingress traffic. This command configures packets that ingress the SAP to be mirrored. Ingress packets are mirrored to the mirror destination before ingress packet modification. |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **intercept-id** *number*

| | |
|---|---|
| Synopsis | Intercept ID of the traffic flow |
| Context | li li-source *service-name* subscriber *subscriber-id* intercept-id *number* |
| Tree | intercept-id |
| Description | This command configures the intercept ID that is inserted into the packet header for all mirrrored packets of the associated LI source entry. This intercept ID can be used (for example by a downstream LI gateway) to identify the particular LI session to which the packet belongs.<br><br>For LI source entries, when the **configure mirror mirror-dest encap layer-3-encap header-type** command is configured with **ip-udp-shim** routable encap, an intercept-id field (as part of the routable encap) is always present in the mirrored packets. If there is no intercept ID configured for an LI source entry, the default value is inserted.<br><br>When the mirror service is configured with **ip-gre** routable encap under the **header-type** command, no intercept ID is inserted and none should be specified against the LI source entries. |
| Range | 1 to 1073741823 |
| Introduced | 19.10.R1 |
| Platforms | All |


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### **ip-address** *ipv4-address*

| | |
|---|---|
| Synopsis | IP address of the subscriber |
| Context | li li-source *service-name* subscriber *subscriber-id* ip-address *ipv4-address* |
| Tree | ip-address |
| Description | This command specifies the service IP address (system IP address) of the remote device sending LI traffic. If 0.0.0.0 is specified, any remote router is allowed to send to this service. |
| Notes | The following elements are part of a choice: (**ip-address**, **mac-address**, and **sap-id**) or **sla-profile**. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **ip-family** *keyword*

| | |
|---|---|
| Synopsis | IP family for LI |
| Context | li li-source *service-name* subscriber *subscriber-id* ip-family *keyword* |
| Tree | ip-family |
| Description | This command specifies the IP family for LI. |
| Options | ipv4, ipv6 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **mac-address** *mac-address*

| | |
|---|---|
| Synopsis | The source MAC address |
| Context | li li-source *service-name* subscriber *subscriber-id* mac-address *mac-address* |
| Tree | mac-address |
| Description | This command specifies a MAC address when defining a static host.<br>Multiple static hosts may be configured with the same MAC address because each definition is distinguished by a unique IP address. |
| Notes | The following elements are part of a choice: (**ip-address**, **mac-address**, and **sap-id**) or **sla-profile**. |
| Introduced | 19.10.R1 |
| Platforms | All |


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### **sap-id** *sap*

| | |
|---|---|
| Synopsis | SAP ID |
| Context | li li-source *service-name* subscriber *subscriber-id* sap-id *sap* |
| Tree | sap-id |
| String length | 1 to 45 |
| Notes | The following elements are part of a choice: (**ip-address**, **mac-address**, and **sap-id**) or **sla-profile**. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **session-id** *number*

| | |
|---|---|
| Synopsis | Session ID of the traffic flow |
| Context | li li-source *service-name* subscriber *subscriber-id* session-id *number* |
| Tree | session-id |
| Description | This command configures the session ID that is inserted into the packet header for all mirrored packets of the associated LI source entry. This session ID can be used (for example by a downstream LI gateway) to identify the particular LI session to which the packet belongs.<br><br>The session ID is only valid and used for mirror services that are configured with **ip-udp-shim** routable encap under the **configure mirror mirror-dest encap layer-3-encap header-type** command. For all types of LI source entries, when the mirror service is configured with **ip-udp-shim** routable encap, a session ID field (as part of the routable encap) is always present in the mirrored packets. If no session ID is configured for an LI source entry, the default value is inserted.<br><br>When a mirror service is configured with **ip-gre** routable encap under the header-type command, no session ID is inserted and none is specified against the LI source entries. |
| Range | 1 to 4294967295 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **sla-profile** *external-named-item*

| | |
|---|---|
| Synopsis | SLA profile |
| Context | li li-source *service-name* subscriber *subscriber-id* sla-profile *external-named-item* |
| Tree | sla-profile |
| Description | This command specifies an SLA profile name. |


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Each host of a subscriber can use a different SLA profile. This option allows interception of only the hosts using the specified SLA profile. In some deployments, SLA profiles are assigned per type of traffic. There can be, for example, a specific SLA profile for voice traffic (which could be used for all SIP hosts).

| | |
|---|---|
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: (**ip-address**, **mac-address**, and **sap-id**) or **sla-profile**. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **wlan-gw-dsm-ue** [mac] *mac-address*

| | |
|---|---|
| Synopsis | Enter the **wlan-gw-dsm-ue** list instance |
| Context | li li-source *service-name* wlan-gw-dsm-ue *mac-address* |
| Tree | wlan-gw-dsm-ue |
| Introduced | 19.10.R1 |
| Platforms | All |

### [**mac**] *mac-address*

| | |
|---|---|
| Synopsis | MAC address of the DSM UE |
| Context | li li-source *service-name* wlan-gw-dsm-ue *mac-address* |
| Tree | wlan-gw-dsm-ue |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **intercept-id** *number*

| | |
|---|---|
| Synopsis | Intercept identifier |
| Context | li li-source *service-name* wlan-gw-dsm-ue *mac-address* intercept-id *number* |
| Tree | intercept-id |
| Range | 1 to 4294967295 |
| Introduced | 19.10.R1 |
| Platforms | All |


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### **session-id** *number*

| | |
|---|---|
| Synopsis | Session identifier |
| Context | li li-source *service-name* wlan-gw-dsm-ue *mac-address* session-id *number* |
| Tree | session-id |
| Range | 1 to 4294967295 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **log**

| | |
|---|---|
| Synopsis | Enter the **log** context |
| Context | li log |
| Tree | log |
| Introduced | 19.10.R1 |
| Platforms | All |

### **log-id** [name] *li-log-name*

| | |
|---|---|
| Synopsis | Enter the **log-id** list instance |
| Context | li log log-id *li-log-name* |
| Tree | log-id |
| Max. instances | 30 |
| Introduced | 19.10.R1 |
| Platforms | All |

### [**name**] *li-log-name*

| | |
|---|---|
| Synopsis | Log ID |
| Context | li log log-id *li-log-name* |
| Tree | log-id |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 21.2.R1 |


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| | |
|---|---|
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | The administrative state of the log |
| Context | li log log-id *li-log-name* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 19.10.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | li log log-id *li-log-name* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **destination**

| | |
|---|---|
| Synopsis | Enter the **destination** context |
| Context | li log log-id *li-log-name* destination |
| Tree | destination |
| Description | Commands in this context specify where log event data is to be sent. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **memory**

| | |
|---|---|
| Synopsis | Enable the **memory** context |
| Context | li log log-id *li-log-name* destination memory |
| Tree | memory |


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| | |
|---|---|
| Description | Commands in this context configure log events directed to a memory file. A memory file is a circular buffer. When the file is full, each new entry replaces the oldest entry in the log. |
| Notes | The following elements are part of a choice: **memory**, **netconf**, or **snmp**. |
| Introduced | 19.10.R1 |
| Platforms | All |

## **max-entries** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Number of events stored in this memory log |
| Context | li log log-id *li-log-name* destination memory max-entries *number* |
| Tree | max-entries |
| Range | 50 to 1024 |
| Default | 100 |
| Introduced | 19.10.R1 |
| Platforms | All |

## **netconf**

| | |
|---|---|
| Synopsis | Enable the **netconf** context |
| Context | li log log-id *li-log-name* destination netconf |
| Tree | netconf |
| Description | Commands in this context configure log events directed to a NETCONF session as notifications. A NETCONF client can subscribe to a NETCONF log using the configured **netconf-stream** for the log in a subscription request. One or more NETCONF sessions can subscribe to a NETCONF log or stream. |
| Notes | The following elements are part of a choice: **memory**, **netconf**, or **snmp**. |
| Introduced | 20.2.R1 |
| Platforms | All |


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### **max-entries** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum number of events stored in the NETCONF log |
| Context | li log log-id *li-log-name* destination netconf max-entries *number* |
| Tree | max-entries |
| Description | This command configures the maximum number of events stored in the NETCONF log.<br>If this setting needs to be modified, the log ID must be removed and re-created. |
| Range | 50 to 1024 |
| Default | 100 |
| Introduced | 20.2.R1 |
| Platforms | All |

### **snmp**

| | |
|---|---|
| Synopsis | Enable the **snmp** context |
| Context | li log log-id *li-log-name* destination snmp |
| Tree | snmp |
| Description | Commands in this context configure log events directed to the **snmp-trap-group** associated with the log ID. A local circular memory log is maintained for SNMP logs. |
| Notes | The following elements are part of a choice: **memory**, **netconf**, or **snmp**. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **max-entries** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Number of events stored in this snmp log |
| Context | li log log-id *li-log-name* destination snmp max-entries *number* |
| Tree | max-entries |
| Range | 50 to 1024 |


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| | |
|---|---|
| Default | 100 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **send-using-vprn** *service-name*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | VPRN to use to send SNMP notifications |
| Context | li log log-id *li-log-name* destination snmp send-using-vprn *service-name* |
| Tree | send-using-vprn |
| Description | This command configures lawful intercept (LI) SNMP notifications to transmit in a VPRN. This configuration is useful when doing management of LI via a VPRN.<br>The specified VPRN service must exist. After an LI log is configured using this command, the VPRN service cannot be deleted without removing the LI log ID.<br>When this command is configured, an LI log ID uses the snmp-trap-group configured for the VPRN.<br>When unconfigured, the outgoing routing instance of LI SNMP notifications is determined by the **configure log route-preference** command, and the LI log ID uses the snmp-trap-group configured in the main system log configuration. |
| String length | 1 to 64 |
| Introduced | 23.10.R1 |
| Platforms | All |

### **filter** *log-filter-name*

| | |
|---|---|
| Synopsis | Event filter ID to associate with log ID configuration |
| Context | li log log-id *li-log-name* filter *log-filter-name* |
| Tree | filter |
| String length | 1 to 64 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **netconf-stream** *named-item*

| | |
|---|---|
| Synopsis | Destination NETCONF stream name |


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| | |
|---|---|
| Context | li log log-id *li-log-name* netconf-stream *named-item* |
| Tree | netconf-stream |
| String length | 1 to 32 |
| Introduced | 20.2.R1 |
| Platforms | All |

### source

| | |
|---|---|
| Synopsis | Enter the **source** context |
| Context | li log log-id *li-log-name* source |
| Tree | source |
| Introduced | 19.10.R1 |
| Platforms | All |

### li *boolean*

| | |
|---|---|
| Synopsis | Event stream for events configured for LI activities |
| Context | li log log-id *li-log-name* source li *boolean* |
| Tree | li |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### time-format *keyword*

| | |
|---|---|
| Synopsis | Time zone to display date and time |
| Context | li log log-id *li-log-name* time-format *keyword* |
| Tree | time-format |
| Options | utc, local |
| Default | utc |
| Introduced | 19.10.R1 |
| Platforms | All |


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## mirror-dest-reservation

| | |
|---|---|
| Synopsis | Enter the **mirror-dest-reservation** context |
| Context | li mirror-dest-reservation |
| Tree | mirror-dest-reservation |
| Description | Commands in this context configure the attributes to reserve mirror destination resources. |
| Introduced | 19.10.R1 |
| Platforms | All |

## end *number*

| | |
|---|---|
| Synopsis | Upper bound of the mirror destination ID |
| Context | li mirror-dest-reservation end *number* |
| Tree | end |
| Range | 1 to 2147483647 |
| Introduced | 19.10.R1 |
| Platforms | All |

## start *number*

| | |
|---|---|
| Synopsis | Lower bound of the mirror destination ID |
| Context | li mirror-dest-reservation start *number* |
| Tree | start |
| Range | 1 to 2147483647 |
| Introduced | 19.10.R1 |
| Platforms | All |

## mirror-dest-template [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **mirror-dest-template** list instance |
| Context | li mirror-dest-template *named-item* |
| Tree | mirror-dest-template |
| Max. instances | 8 |
| Introduced | 19.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | Mirror destination template name |
| Context | li mirror-dest-template *named-item* |
| Tree | mirror-dest-template |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **layer-3-encap**

| | |
|---|---|
| Synopsis | Enter the **layer-3-encap** context |
| Context | li mirror-dest-template *named-item* layer-3-encap |
| Tree | layer-3-encap |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **direction-bit** *boolean*

| | |
|---|---|
| Synopsis | Use highest bit in interception ID for flow direction |
| Context | li mirror-dest-template *named-item* layer-3-encap direction-bit *boolean* |
| Tree | direction-bit |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **encap-type** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Header type of the layer 3 encapsulation |


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| | |
|---|---|
| Context | li mirror-dest-template *named-item* layer-3-encap encap-type *keyword* |
| Tree | encap-type |
| Options | ip-udp-shim, ip-gre |
| Default | ip-udp-shim |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ip-source** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Source IPv4 address for Layer 3 encapsulation |
| Context | li mirror-dest-template *named-item* layer-3-encap ip-source *ipv4-unicast-address* |
| Tree | ip-source |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **router-instance** *router-instance*

| | |
|---|---|
| Synopsis | Virtual router instance to inject mirrored packets |
| Context | li mirror-dest-template *named-item* layer-3-encap router-instance *router-instance* |
| Tree | router-instance |
| String length | 1 to 64 |
| Default | Base |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **udp**

| | |
|---|---|
| Synopsis | Enter the **udp** context |
| Context | li mirror-dest-template *named-item* layer-3-encap udp |
| Tree | udp |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **destination** *number*

| | |
|---|---|
| Synopsis | Destination UDP port |
| Context | li mirror-dest-template *named-item* layer-3-encap udp destination *number* |
| Tree | destination |
| Range | 1 to 65535 |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **source** *number*

| | |
|---|---|
| Synopsis | Source UDP port |
| Context | li mirror-dest-template *named-item* layer-3-encap udp source *number* |
| Tree | source |
| Range | 1 to 65535 |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **type** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Encapsulation type supported by the mirror service |
| Context | li mirror-dest-template *named-item* type *keyword* |
| Tree | type |
| Options | ether, ip-only |
| Default | ether |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **nat**

| | |
|---|---|
| Synopsis | Enter the **nat** context |
| Context | li nat |


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| | |
|---|---|
| Tree | nat |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### use-outside-ip-address *boolean*

| | |
|---|---|
| Synopsis | Report outside IP address for L2-Aware NAT subscribers |
| Context | li nat use-outside-ip-address *boolean* |
| Tree | use-outside-ip-address |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### radius

| | |
|---|---|
| Synopsis | Enter the **radius** context |
| Context | li radius |
| Tree | radius |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### mirror-dest-template *reference*

| | |
|---|---|
| Synopsis | RADIUS triggered mirror destination template |
| Context | li radius mirror-dest-template *reference* |
| Tree | mirror-dest-template |
| Reference | li mirror-dest-template *named-item* |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### sci

| | |
|---|---|
| Synopsis | Enter the **sci** context |
| Context | li sci |
| Tree | sci |


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| | |
|---|---|
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **pfcp-li-shared-key** *encrypted-leaf*

| | |
|---|---|
| Synopsis | Key used to encrypt and decrypt exchanged LI PFCP IEs |
| Context | li sci pfcp-li-shared-key *encrypted-leaf* |
| Tree | pfcp-li-shared-key |
| Description | This command configures the shared secret key that the SR OS uses in its role as a user plane (UP) to the MAG-c. The UP uses the shared secret key to encrypt and decrypt the LI PFCP IEs it exchanges with the MAG-c. The SR OS UP and the MAG-c must use matching secret keys. The system only accepts a secret key configured as a printable string. |
| String length | 1 to 199 |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **x-interfaces**

| | |
|---|---|
| Synopsis | Enter the **x-interfaces** context |
| Context | li x-interfaces |
| Tree | x-interfaces |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR-1, 7750 SR-7/12/12e |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the x-interfaces |
| Context | li x-interfaces admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR-1, 7750 SR-7/12/12e |


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### correlation-id

| | |
|---|---|
| Synopsis | Enter the **correlation-id** context |
| Context | li x-interfaces correlation-id |
| Tree | correlation-id |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR-1, 7750 SR-7/12/12e |

### ipoe *keyword*

| | |
|---|---|
| Synopsis | RADIUS accounting ID type for subscriber correlation |
| Context | li x-interfaces correlation-id ipoe *keyword* |
| Tree | ipoe |
| Options | radius-host-acct-id, radius-queue-acct-id, radius-session-acct-id |
| Default | radius-host-acct-id |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR-1, 7750 SR-7/12/12e |

### pppoe *keyword*

| | |
|---|---|
| Synopsis | RADIUS accounting ID type for subscriber correlation |
| Context | li x-interfaces correlation-id pppoe *keyword* |
| Tree | pppoe |
| Options | radius-host-acct-id, radius-queue-acct-id, radius-session-acct-id |
| Default | radius-host-acct-id |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR-1, 7750 SR-7/12/12e |

### ine-identifier *named-item*

| | |
|---|---|
| Synopsis | Intercepting Network Element (INE) ID |
| Context | li x-interfaces ine-identifier *named-item* |
| Tree | ine-identifier |
| String length | 1 to 32 |
| Introduced | 21.5.R1 |


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| | |
|---|---|
| Platforms | 7750 SR-1, 7750 SR-7/12/12e |

### **lic** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **lic** list instance |
| Context | li x-interfaces lic *named-item* |
| Tree | lic |
| Max. instances | 18 |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR-1, 7750 SR-7/12/12e |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | LIC name |
| Context | li x-interfaces lic *named-item* |
| Tree | lic |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR-1, 7750 SR-7/12/12e |

### **authentication**

| | |
|---|---|
| Synopsis | Enter the **authentication** context |
| Context | li x-interfaces lic *named-item* authentication |
| Tree | authentication |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR-1, 7750 SR-7/12/12e |

### **password** *li-static-encrypted-leaf-hex*

| | |
|---|---|
| Synopsis | Password for the X1 and X2 interfaces |
| Context | li x-interfaces lic *named-item* authentication password *li-static-encrypted-leaf-hex* |
| Tree | password |


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| | |
|---|---|
| String length | 1 to 50 |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR-1, 7750 SR-7/12/12e |

### **private-ki** *li-static-encrypted-leaf*

| | |
|---|---|
| Synopsis | Private Ki string for the X1 and X2 interfaces |
| Context | li x-interfaces lic *named-item* authentication private-ki *li-static-encrypted-leaf* |
| Tree | private-ki |
| String length | 1 to 50 |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR-1, 7750 SR-7/12/12e |

### **sequence-group** *li-static-encrypted-leaf*

| | |
|---|---|
| Synopsis | Sequence group for the X1 and X2 interfaces |
| Context | li x-interfaces lic *named-item* authentication sequence-group *li-static-encrypted-leaf* |
| Tree | sequence-group |
| String length | 1 to 42 |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR-1, 7750 SR-7/12/12e |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | li x-interfaces lic *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR-1, 7750 SR-7/12/12e |

### **identifier** *named-item*

| | |
|---|---|
| Synopsis | LIC ID |
| Context | li x-interfaces lic *named-item* identifier *named-item* |


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| | |
|---|---|
| Tree | identifier |
| String length | 1 to 32 |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR-1, 7750 SR-7/12/12e |

### ipv4

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |
| Context | li x-interfaces lic *named-item* ipv4 |
| Tree | ipv4 |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR-1, 7750 SR-7/12/12e |

### ip-address *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the LIC |
| Context | li x-interfaces lic *named-item* ipv4 ip-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | ip-address |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR-1, 7750 SR-7/12/12e |

### port *number*

| | |
|---|---|
| Synopsis | TCP port associated with the LIC |
| Context | li x-interfaces lic *named-item* port *number* |
| Tree | port |
| Range | 0 to 65535 |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR-1, 7750 SR-7/12/12e |

### router-instance *named-item-64-or-empty*

| | |
|---|---|
| Synopsis | Virtual router instance used by the X-interfaces |
| Context | li x-interfaces lic *named-item* router-instance *named-item-64-or-empty* |
| Tree | router-instance |


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| | |
|---|---|
| String length | 0 to 64 |
| Default | |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR-1, 7750 SR-7/12/12e |

### **user-db** *named-item*

| | |
|---|---|
| Synopsis | Location of the data-trigger host for the LIC |
| Context | li x-interfaces user-db *named-item* |
| Tree | user-db |
| String length | 1 to 32 |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR-1, 7750 SR-7/12/12e |

### **x1**

| | |
|---|---|
| Synopsis | Enter the **x1** context |
| Context | li x-interfaces x1 |
| Tree | x1 |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR-1, 7750 SR-7/12/12e |

### **ipv4**

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |
| Context | li x-interfaces x1 ipv4 |
| Tree | ipv4 |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR-1, 7750 SR-7/12/12e |

### **local-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | X1 interface IP address |
| Context | li x-interfaces x1 ipv4 local-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | local-address |


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| | |
|---|---|
| Introduced | 21.5.R1 |
| Platforms | 7750 SR-1, 7750 SR-7/12/12e |

### **lic-peer** *reference*

| | |
|---|---|
| Synopsis | Peer LIC for the X1 interface |
| Context | li x-interfaces x1 lic-peer *reference* |
| Tree | lic-peer |
| Reference | li x-interfaces lic *named-item* |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR-1, 7750 SR-7/12/12e |

### **local-tcp-port** *number*

| | |
|---|---|
| Synopsis | Local TCP port used for the X1 interface |
| Context | li x-interfaces x1 local-tcp-port *number* |
| Tree | local-tcp-port |
| Range | 1 to 65535 |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR-1, 7750 SR-7/12/12e |

### **timeouts**

| | |
|---|---|
| Synopsis | Enter the **timeouts** context |
| Context | li x-interfaces x1 timeouts |
| Tree | timeouts |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR-1, 7750 SR-7/12/12e |

### **message-timeout** *number*

| | |
|---|---|
| Synopsis | Maximum time for the LIC to reply to an X1 message |
| Context | li x-interfaces x1 timeouts message-timeout *number* |
| Tree | message-timeout |
| Range | 180 to 300 |


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| | |
|---|---|
| Units | seconds |
| Default | 180 |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR-1, 7750 SR-7/12/12e |

### x2

| | |
|---|---|
| Synopsis | Enter the **x2** context |
| Context | li x-interfaces x2 |
| Tree | x2 |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR-1, 7750 SR-7/12/12e |

### ipv4

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |
| Context | li x-interfaces x2 ipv4 |
| Tree | ipv4 |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR-1, 7750 SR-7/12/12e |

### local-address *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | X2 interface IP address |
| Context | li x-interfaces x2 ipv4 local-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | local-address |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR-1, 7750 SR-7/12/12e |

### lic-peer *reference*

| | |
|---|---|
| Synopsis | Peer LIC for the X2 interface |
| Context | li x-interfaces x2 lic-peer *reference* |
| Tree | lic-peer |
| Reference | li x-interfaces lic *named-item* |


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| | |
|---|---|
| Introduced | 21.5.R1 |
| Platforms | 7750 SR-1, 7750 SR-7/12/12e |

### timeouts

| | |
|---|---|
| Synopsis | Enter the **timeouts** context |
| Context | li x-interfaces x2 timeouts |
| Tree | timeouts |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR-1, 7750 SR-7/12/12e |

### keep-alive *number*

| | |
|---|---|
| Synopsis | Keep-alive timeout |
| Context | li x-interfaces x2 timeouts keep-alive *number* |
| Tree | keep-alive |
| Range | 300 to 600 |
| Units | seconds |
| Default | 300 |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR-1, 7750 SR-7/12/12e |

### request *number*

| | |
|---|---|
| Synopsis | Tx2-normal timeout |
| Context | li x-interfaces x2 timeouts request *number* |
| Tree | request |
| Range | 5 to 30 |
| Units | seconds |
| Default | 5 |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR-1, 7750 SR-7/12/12e |


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### x3

| | |
|---|---|
| Synopsis | Enter the **x3** context |
| Context | li x-interfaces x3 |
| Tree | x3 |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR-1, 7750 SR-7/12/12e |

### alarms

| | |
|---|---|
| Synopsis | Enter the **alarms** context |
| Context | li x-interfaces x3 alarms |
| Tree | alarms |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR-1, 7750 SR-7/12/12e |

### cpu-alarm

| | |
|---|---|
| Synopsis | Enter the **cpu-alarm** context |
| Context | li x-interfaces x3 alarms cpu-alarm |
| Tree | cpu-alarm |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR-1, 7750 SR-7/12/12e |

### high-threshold *number*

| | |
|---|---|
| Synopsis | High threshold value of the CPU usage alarm |
| Context | li x-interfaces x3 alarms cpu-alarm high-threshold *number* |
| Tree | high-threshold |
| Range | 1 to 100 |
| Units | percent |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR-1, 7750 SR-7/12/12e |


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### **low-threshold** *number*

| | |
|---|---|
| Synopsis | Low threshold value of the CPU usage alarm |
| Context | li x-interfaces x3 alarms cpu-alarm low-threshold *number* |
| Tree | low-threshold |
| Range | 0 to 99 |
| Units | percent |
| Default | 0 |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR-1, 7750 SR-7/12/12e |

### **memory-alarm**

| | |
|---|---|
| Synopsis | Enter the **memory-alarm** context |
| Context | li x-interfaces x3 alarms memory-alarm |
| Tree | memory-alarm |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR-1, 7750 SR-7/12/12e |

### **high-threshold** *number*

| | |
|---|---|
| Synopsis | High threshold of the packet buffer memory usage alarm |
| Context | li x-interfaces x3 alarms memory-alarm high-threshold *number* |
| Tree | high-threshold |
| Range | 1 to 100 |
| Units | percent |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR-1, 7750 SR-7/12/12e |

### **low-threshold** *number*

| | |
|---|---|
| Synopsis | Low threshold of the packet buffer memory usage alarm |
| Context | li x-interfaces x3 alarms memory-alarm low-threshold *number* |
| Tree | low-threshold |
| Range | 0 to 99 |


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| | |
|---|---|
| Units | percent |
| Default | 0 |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR-1, 7750 SR-7/12/12e |

### throughput-alarm

| | |
|---|---|
| Synopsis | Enter the **throughput-alarm** context |
| Context | li x-interfaces x3 alarms throughput-alarm |
| Tree | throughput-alarm |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR-1, 7750 SR-7/12/12e |

### high-threshold *number*

| | |
|---|---|
| Synopsis | High threshold value of the throughput alarm |
| Context | li x-interfaces x3 alarms throughput-alarm high-threshold *number* |
| Tree | high-threshold |
| Range | 1 to 4294967295 |
| Units | megabps |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR-1, 7750 SR-7/12/12e |

### low-threshold *number*

| | |
|---|---|
| Synopsis | Low threshold value of the throughput alarm |
| Context | li x-interfaces x3 alarms throughput-alarm low-threshold *number* |
| Tree | low-threshold |
| Range | 1 to 4294967295 |
| Units | megabps |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR-1, 7750 SR-7/12/12e |


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### ipv4

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |
| Context | li x-interfaces x3 ipv4 |
| Tree | ipv4 |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR-1, 7750 SR-7/12/12e |

### local-address-range

| | |
|---|---|
| Synopsis | Enter the **local-address-range** context |
| Context | li x-interfaces x3 ipv4 local-address-range |
| Tree | local-address-range |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR-1, 7750 SR-7/12/12e |

### end *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Upper bound of the range |
| Context | li x-interfaces x3 ipv4 local-address-range end *ipv4-unicast-address* |
| Tree | end |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR-1, 7750 SR-7/12/12e |

### start *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Lower bound of the range |
| Context | li x-interfaces x3 ipv4 local-address-range start *ipv4-unicast-address* |
| Tree | start |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR-1, 7750 SR-7/12/12e |

### li-group *number*

| | |
|---|---|
| Synopsis | ISA group of the X3 interface |


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| | |
|---|---|
| Context | li x-interfaces x3 li-group *number* |
| Tree | li-group |
| Range | 1 to 4 |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR-1, 7750 SR-7/12/12e |

### **lic-peers** [name] *reference*

| | |
|---|---|
| Synopsis | Add a list entry for **lic-peers** |
| Context | li x-interfaces x3 lic-peers *reference* |
| Tree | lic-peers |
| Max. instances | 16 |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR-1, 7750 SR-7/12/12e |

### [**name**] *reference*

| | |
|---|---|
| Synopsis | Peer LIC for the X3 interface |
| Context | li x-interfaces x3 lic-peers *reference* |
| Tree | lic-peers |
| Reference | li x-interfaces lic *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR-1, 7750 SR-7/12/12e |

### **session-limit** *number*

| | |
|---|---|
| Synopsis | Maximum number of X3 sessions initiated to the LIC |
| Context | li x-interfaces x3 session-limit *number* |
| Tree | session-limit |
| Range | 1 to 32 |
| Default | 32 |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR-1, 7750 SR-7/12/12e |


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### timeouts

| | |
|---|---|
| Synopsis | Enter the **timeouts** context |
| Context | li x-interfaces x3 timeouts |
| Tree | timeouts |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR-1, 7750 SR-7/12/12e |

### keep-alive *number*

| | |
|---|---|
| Synopsis | Keep-alive timeout |
| Context | li x-interfaces x3 timeouts keep-alive *number* |
| Tree | keep-alive |
| Range | 300 to 600 |
| Units | seconds |
| Default | 300 |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR-1, 7750 SR-7/12/12e |

### request *number*

| | |
|---|---|
| Synopsis | Tx3-normal timeout |
| Context | li x-interfaces x3 timeouts request *number* |
| Tree | request |
| Range | 5 to 30 |
| Units | seconds |
| Default | 5 |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR-1, 7750 SR-7/12/12e |

### target-retry-wait *number*

| | |
|---|---|
| Synopsis | Retry interval for target tunnel setup |
| Context | li x-interfaces x3 timeouts target-retry-wait *number* |
| Tree | target-retry-wait |


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| | |
|---|---|
| Range | 300 to 1200 |
| Units | seconds |
| Default | 300 |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR-1, 7750 SR-7/12/12e |


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## 4.24 log commands

```
configure
   - log
      - accounting-policy number
         - admin-state keyword
         - align boolean
         - apply-groups reference
         - apply-groups-exclude reference
         - collection-interval number
         - custom-record
            - aa-specific
               - aa-sub-attributes
                  - app-profile boolean
                  - app-service-options boolean
               - aa-sub-counters
                  - long-duration-flow-count boolean
                  - medium-duration-flow-count boolean
                  - short-duration-flow-count boolean
                  - total-flow-duration boolean
                  - total-flows-completed-count boolean
               - from-aa-sub-counters
                  - flows-active-count boolean
                  - flows-admitted-count boolean
                  - flows-denied-count boolean
                  - forwarding-class boolean
                  - max-throughput-octet-count boolean
                  - max-throughput-packet-count boolean
                  - max-throughput-timestamp boolean
                  - octets-admitted-count boolean
                  - octets-denied-count boolean
                  - packets-admitted-count boolean
                  - packets-denied-count boolean
               - to-aa-sub-counters
                  - flows-active-count boolean
                  - flows-admitted-count boolean
                  - flows-denied-count boolean
                  - forwarding-class boolean
                  - max-throughput-octet-count boolean
                  - max-throughput-packet-count boolean
                  - max-throughput-timestamp boolean
                  - octets-admitted-count boolean
                  - octets-denied-count boolean
                  - packets-admitted-count boolean
                  - packets-denied-count boolean
            - apply-groups reference
            - apply-groups-exclude reference
            - policer number
               - apply-groups reference
               - apply-groups-exclude reference
               - e-counters
                  - exceed-profile-octets-discarded-count boolean
                  - exceed-profile-octets-forwarded-count boolean
                  - exceed-profile-octets-offered-count boolean
                  - exceed-profile-packets-discarded-count boolean
                  - exceed-profile-packets-forwarded-count boolean
                  - exceed-profile-packets-offered-count boolean
                  - in-plus-profile-octets-discarded-count boolean
                  - in-plus-profile-octets-forwarded-count boolean
                  - in-plus-profile-octets-offered-count boolean
                  - in-plus-profile-packets-discarded-count boolean
```


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configure log accounting-policy custom-record policer e-counters in-plus-profile-packets-forwarded-count

```
                - in-plus-profile-packets-forwarded-count boolean
                - in-plus-profile-packets-offered-count boolean
                - in-profile-octets-discarded-count boolean
                - in-profile-octets-forwarded-count boolean
                - in-profile-octets-offered-count boolean
                - in-profile-packets-discarded-count boolean
                - in-profile-packets-forwarded-count boolean
                - in-profile-packets-offered-count boolean
                - out-profile-octets-discarded-count boolean
                - out-profile-octets-forwarded-count boolean
                - out-profile-octets-offered-count boolean
                - out-profile-packets-discarded-count boolean
                - out-profile-packets-forwarded-count boolean
                - out-profile-packets-offered-count boolean
                - uncoloured-octets-offered-count boolean
                - uncoloured-packets-offered-count boolean
            - i-counters
                - in-profile-octets-discarded-count boolean
                - in-profile-octets-forwarded-count boolean
                - in-profile-octets-offered-count boolean
                - in-profile-packets-discarded-count boolean
                - in-profile-packets-forwarded-count boolean
                - in-profile-packets-offered-count boolean
                - out-profile-octets-discarded-count boolean
                - out-profile-octets-forwarded-count boolean
                - out-profile-octets-offered-count boolean
                - out-profile-packets-discarded-count boolean
                - out-profile-packets-forwarded-count boolean
                - out-profile-packets-offered-count boolean
                - uncoloured-octets-offered-count boolean
                - uncoloured-packets-offered-count boolean
        - queue number
            - apply-groups reference
            - apply-groups-exclude reference
            - e-counters
                - in-profile-octets-discarded-count boolean
                - in-profile-octets-forwarded-count boolean
                - in-profile-packets-discarded-count boolean
                - in-profile-packets-forwarded-count boolean
                - out-profile-octets-discarded-count boolean
                - out-profile-octets-forwarded-count boolean
                - out-profile-packets-discarded-count boolean
                - out-profile-packets-forwarded-count boolean
            - i-counters
                - all-octets-offered-count boolean
                - all-packets-offered-count boolean
                - high-octets-discarded-count boolean
                - high-octets-offered-count boolean
                - high-packets-discarded-count boolean
                - high-packets-offered-count boolean
                - in-profile-octets-forwarded-count boolean
                - in-profile-packets-forwarded-count boolean
                - low-octets-discarded-count boolean
                - low-octets-offered-count boolean
                - low-packets-discarded-count boolean
                - low-packets-offered-count boolean
                - out-profile-octets-forwarded-count boolean
                - out-profile-packets-forwarded-count boolean
                - uncoloured-octets-offered-count boolean
                - uncoloured-packets-offered-count boolean
        - ref-aa-specific-counter
            - any boolean
        - ref-policer
            - all
```


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```
            - e-counters
              - exceed-profile-octets-discarded-count boolean
              - exceed-profile-octets-forwarded-count boolean
              - exceed-profile-octets-offered-count boolean
              - exceed-profile-packets-discarded-count boolean
              - exceed-profile-packets-forwarded-count boolean
              - exceed-profile-packets-offered-count boolean
              - in-plus-profile-octets-discarded-count boolean
              - in-plus-profile-octets-forwarded-count boolean
              - in-plus-profile-octets-offered-count boolean
              - in-plus-profile-packets-discarded-count boolean
              - in-plus-profile-packets-forwarded-count boolean
              - in-plus-profile-packets-offered-count boolean
              - in-profile-octets-discarded-count boolean
              - in-profile-octets-forwarded-count boolean
              - in-profile-octets-offered-count boolean
              - in-profile-packets-discarded-count boolean
              - in-profile-packets-forwarded-count boolean
              - in-profile-packets-offered-count boolean
              - out-profile-octets-discarded-count boolean
              - out-profile-octets-forwarded-count boolean
              - out-profile-octets-offered-count boolean
              - out-profile-packets-discarded-count boolean
              - out-profile-packets-forwarded-count boolean
              - out-profile-packets-offered-count boolean
              - uncoloured-octets-offered-count boolean
              - uncoloured-packets-offered-count boolean
            - i-counters
              - in-profile-octets-discarded-count boolean
              - in-profile-octets-forwarded-count boolean
              - in-profile-octets-offered-count boolean
              - in-profile-packets-discarded-count boolean
              - in-profile-packets-forwarded-count boolean
              - in-profile-packets-offered-count boolean
              - out-profile-octets-discarded-count boolean
              - out-profile-octets-forwarded-count boolean
              - out-profile-octets-offered-count boolean
              - out-profile-packets-discarded-count boolean
              - out-profile-packets-forwarded-count boolean
              - out-profile-packets-offered-count boolean
              - uncoloured-octets-offered-count boolean
              - uncoloured-packets-offered-count boolean
            - id reference
          - ref-queue
            - all
            - e-counters
              - in-profile-octets-discarded-count boolean
              - in-profile-octets-forwarded-count boolean
              - in-profile-packets-discarded-count boolean
              - in-profile-packets-forwarded-count boolean
              - out-profile-octets-discarded-count boolean
              - out-profile-octets-forwarded-count boolean
              - out-profile-packets-discarded-count boolean
              - out-profile-packets-forwarded-count boolean
            - i-counters
              - all-octets-offered-count boolean
              - all-packets-offered-count boolean
              - high-octets-discarded-count boolean
              - high-octets-offered-count boolean
              - high-packets-discarded-count boolean
              - high-packets-offered-count boolean
              - in-profile-octets-forwarded-count boolean
              - in-profile-packets-forwarded-count boolean
              - low-octets-discarded-count boolean
```


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configure log accounting-policy custom-record ref-queue i-counters low-octets-offered-count

```
                  - low-octets-offered-count boolean
                  - low-packets-discarded-count boolean
                  - low-packets-offered-count boolean
                  - out-profile-octets-forwarded-count boolean
                  - out-profile-packets-forwarded-count boolean
                  - uncoloured-octets-offered-count boolean
                  - uncoloured-packets-offered-count boolean
               - id reference
            - significant-change number
         - default boolean
         - description description
         - destination
            - file reference
            - null
         - include-system-info boolean
         - record keyword
      - app-route-notifications
         - cold-start-wait number
         - route-recovery-wait number
      - apply-groups reference
      - apply-groups-exclude reference
      - encryption-key encrypted-leaf
      - event-damping boolean
      - event-handling
         - handler named-item
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - entry number
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - description description
               - min-delay number
               - script-policy
                  - name reference
                  - owner reference
      - event-trigger
         - adp event keyword
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - entry number
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - debounce
                  - time number
                  - value number
               - description description
               - filter reference
               - handler reference
         - anysec event keyword
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - entry number
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - debounce
```


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configure log event-trigger anysec entry debounce time

```
                  -  time number
                  -  value number
               -  description description
               -  filter reference
               -  handler reference
         -  application-assurance event keyword
            -  admin-state keyword
            -  apply-groups reference
            -  apply-groups-exclude reference
            -  description description
            -  entry number
               -  admin-state keyword
               -  apply-groups reference
               -  apply-groups-exclude reference
               -  debounce
                  -  time number
                  -  value number
               -  description description
               -  filter reference
               -  handler reference
         -  aps event keyword
            -  admin-state keyword
            -  apply-groups reference
            -  apply-groups-exclude reference
            -  description description
            -  entry number
               -  admin-state keyword
               -  apply-groups reference
               -  apply-groups-exclude reference
               -  debounce
                  -  time number
                  -  value number
               -  description description
               -  filter reference
               -  handler reference
         -  auto-prov event keyword
            -  admin-state keyword
            -  apply-groups reference
            -  apply-groups-exclude reference
            -  description description
            -  entry number
               -  admin-state keyword
               -  apply-groups reference
               -  apply-groups-exclude reference
               -  debounce
                  -  time number
                  -  value number
               -  description description
               -  filter reference
               -  handler reference
         -  bfd event keyword
            -  admin-state keyword
            -  apply-groups reference
            -  apply-groups-exclude reference
            -  description description
            -  entry number
               -  admin-state keyword
               -  apply-groups reference
               -  apply-groups-exclude reference
               -  debounce
                  -  time number
                  -  value number
               -  description description
               -  filter reference
```


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```
            - handler reference
        - bgp event keyword
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - entry number
                - admin-state keyword
                - apply-groups reference
                - apply-groups-exclude reference
                - debounce
                    - time number
                    - value number
                - description description
                - filter reference
                - handler reference
        - bier event keyword
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - entry number
                - admin-state keyword
                - apply-groups reference
                - apply-groups-exclude reference
                - debounce
                    - time number
                    - value number
                - description description
                - filter reference
                - handler reference
        - calltrace event keyword
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - entry number
                - admin-state keyword
                - apply-groups reference
                - apply-groups-exclude reference
                - debounce
                    - time number
                    - value number
                - description description
                - filter reference
                - handler reference
        - cflowd event keyword
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - entry number
                - admin-state keyword
                - apply-groups reference
                - apply-groups-exclude reference
                - debounce
                    - time number
                    - value number
                - description description
                - filter reference
                - handler reference
        - chassis event keyword
            - admin-state keyword
            - apply-groups reference
```


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```
            - apply-groups-exclude reference
            - description description
            - entry number
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - debounce
                  - time number
                  - value number
               - description description
               - filter reference
               - handler reference
         - debug event keyword
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - entry number
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - debounce
                  - time number
                  - value number
               - description description
               - filter reference
               - handler reference
         - dhcp event keyword
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - entry number
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - debounce
                  - time number
                  - value number
               - description description
               - filter reference
               - handler reference
         - dhcps event keyword
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - entry number
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - debounce
                  - time number
                  - value number
               - description description
               - filter reference
               - handler reference
         - diameter event keyword
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - entry number
               - admin-state keyword
```


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configure log event-trigger diameter entry apply-groups

```
            - apply-groups reference
            - apply-groups-exclude reference
            - debounce
               - time number
               - value number
            - description description
            - filter reference
            - handler reference
      - dot1x event keyword
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - description description
         - entry number
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - debounce
               - time number
               - value number
            - description description
            - filter reference
            - handler reference
      - dynsvc event keyword
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - description description
         - entry number
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - debounce
               - time number
               - value number
            - description description
            - filter reference
            - handler reference
      - efm-oam event keyword
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - description description
         - entry number
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - debounce
               - time number
               - value number
            - description description
            - filter reference
            - handler reference
      - elmi event keyword
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - description description
         - entry number
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - debounce
               - time number
```


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```
                - value number
            - description description
            - filter reference
            - handler reference
        - ering event keyword
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - entry number
                - admin-state keyword
                - apply-groups reference
                - apply-groups-exclude reference
                - debounce
                    - time number
                    - value number
                - description description
                - filter reference
                - handler reference
        - eth-cfm event keyword
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - entry number
                - admin-state keyword
                - apply-groups reference
                - apply-groups-exclude reference
                - debounce
                    - time number
                    - value number
                - description description
                - filter reference
                - handler reference
        - etun event keyword
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - entry number
                - admin-state keyword
                - apply-groups reference
                - apply-groups-exclude reference
                - debounce
                    - time number
                    - value number
                - description description
                - filter reference
                - handler reference
        - filter event keyword
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - entry number
                - admin-state keyword
                - apply-groups reference
                - apply-groups-exclude reference
                - debounce
                    - time number
                    - value number
                - description description
                - filter reference
                - handler reference
```


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```
        - gsmp event keyword
          - admin-state keyword
          - apply-groups reference
          - apply-groups-exclude reference
          - description description
          - entry number
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - debounce
              - time number
              - value number
            - description description
            - filter reference
            - handler reference
        - igmp event keyword
          - admin-state keyword
          - apply-groups reference
          - apply-groups-exclude reference
          - description description
          - entry number
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - debounce
              - time number
              - value number
            - description description
            - filter reference
            - handler reference
        - igmp-snooping event keyword
          - admin-state keyword
          - apply-groups reference
          - apply-groups-exclude reference
          - description description
          - entry number
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - debounce
              - time number
              - value number
            - description description
            - filter reference
            - handler reference
        - ip event keyword
          - admin-state keyword
          - apply-groups reference
          - apply-groups-exclude reference
          - description description
          - entry number
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - debounce
              - time number
              - value number
            - description description
            - filter reference
            - handler reference
        - ipsec event keyword
          - admin-state keyword
          - apply-groups reference
          - apply-groups-exclude reference
```


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```
            - description description
            - entry number
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - debounce
                  - time number
                  - value number
               - description description
               - filter reference
               - handler reference
         - isis event keyword
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - entry number
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - debounce
                  - time number
                  - value number
               - description description
               - filter reference
               - handler reference
         - l2tp event keyword
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - entry number
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - debounce
                  - time number
                  - value number
               - description description
               - filter reference
               - handler reference
         - lag event keyword
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - entry number
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - debounce
                  - time number
                  - value number
               - description description
               - filter reference
               - handler reference
         - ldap event keyword
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - entry number
               - admin-state keyword
               - apply-groups reference
```


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```
            - apply-groups-exclude reference
            - debounce
               - time number
               - value number
            - description description
            - filter reference
            - handler reference
      - ldap event keyword
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - description description
         - entry number
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - debounce
               - time number
               - value number
            - description description
            - filter reference
            - handler reference
      - li event keyword
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - description description
         - entry number
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - debounce
               - time number
               - value number
            - description description
            - filter reference
            - handler reference
      - lldp event keyword
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - description description
         - entry number
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - debounce
               - time number
               - value number
            - description description
            - filter reference
            - handler reference
      - logger event keyword
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - description description
         - entry number
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - debounce
               - time number
               - value number
```


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```
            - description description
            - filter reference
            - handler reference
      - macsec event keyword
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - description description
         - entry number
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - debounce
               - time number
               - value number
            - description description
            - filter reference
            - handler reference
      - mc-redundancy event keyword
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - description description
         - entry number
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - debounce
               - time number
               - value number
            - description description
            - filter reference
            - handler reference
      - mcpath event keyword
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - description description
         - entry number
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - debounce
               - time number
               - value number
            - description description
            - filter reference
            - handler reference
      - mgmt-core event keyword
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - description description
         - entry number
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - debounce
               - time number
               - value number
            - description description
            - filter reference
            - handler reference
      - mirror event keyword
```


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```
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - entry number
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - debounce
                  - time number
                  - value number
               - description description
               - filter reference
               - handler reference
         - mld event keyword
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - entry number
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - debounce
                  - time number
                  - value number
               - description description
               - filter reference
               - handler reference
         - mld-snooping event keyword
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - entry number
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - debounce
                  - time number
                  - value number
               - description description
               - filter reference
               - handler reference
         - mpls event keyword
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - entry number
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - debounce
                  - time number
                  - value number
               - description description
               - filter reference
               - handler reference
         - mpls-tp event keyword
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
```


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configure log event-trigger mpls-tp entry

```
            – entry number
               – admin-state keyword
               – apply-groups reference
               – apply-groups-exclude reference
               – debounce
                  – time number
                  – value number
               – description description
               – filter reference
               – handler reference
         – msdp event keyword
            – admin-state keyword
            – apply-groups reference
            – apply-groups-exclude reference
            – description description
            – entry number
               – admin-state keyword
               – apply-groups reference
               – apply-groups-exclude reference
               – debounce
                  – time number
                  – value number
               – description description
               – filter reference
               – handler reference
         – nat event keyword
            – admin-state keyword
            – apply-groups reference
            – apply-groups-exclude reference
            – description description
            – entry number
               – admin-state keyword
               – apply-groups reference
               – apply-groups-exclude reference
               – debounce
                  – time number
                  – value number
               – description description
               – filter reference
               – handler reference
         – ntp event keyword
            – admin-state keyword
            – apply-groups reference
            – apply-groups-exclude reference
            – description description
            – entry number
               – admin-state keyword
               – apply-groups reference
               – apply-groups-exclude reference
               – debounce
                  – time number
                  – value number
               – description description
               – filter reference
               – handler reference
         – oam event keyword
            – admin-state keyword
            – apply-groups reference
            – apply-groups-exclude reference
            – description description
            – entry number
               – admin-state keyword
               – apply-groups reference
               – apply-groups-exclude reference
```


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configure log event-trigger oam entry debounce

```
            - debounce
              - time number
              - value number
            - description description
            - filter reference
            - handler reference
      - openflow event keyword
        - admin-state keyword
        - apply-groups reference
        - apply-groups-exclude reference
        - description description
        - entry number
          - admin-state keyword
          - apply-groups reference
          - apply-groups-exclude reference
          - debounce
            - time number
            - value number
          - description description
          - filter reference
          - handler reference
      - ospf event keyword
        - admin-state keyword
        - apply-groups reference
        - apply-groups-exclude reference
        - description description
        - entry number
          - admin-state keyword
          - apply-groups reference
          - apply-groups-exclude reference
          - debounce
            - time number
            - value number
          - description description
          - filter reference
          - handler reference
      - pcap event keyword
        - admin-state keyword
        - apply-groups reference
        - apply-groups-exclude reference
        - description description
        - entry number
          - admin-state keyword
          - apply-groups reference
          - apply-groups-exclude reference
          - debounce
            - time number
            - value number
          - description description
          - filter reference
          - handler reference
      - pcep event keyword
        - admin-state keyword
        - apply-groups reference
        - apply-groups-exclude reference
        - description description
        - entry number
          - admin-state keyword
          - apply-groups reference
          - apply-groups-exclude reference
          - debounce
            - time number
            - value number
          - description description
```


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```
            - filter reference
            - handler reference
      - pfcp event keyword
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - description description
         - entry number
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - debounce
               - time number
               - value number
            - description description
            - filter reference
            - handler reference
      - pim event keyword
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - description description
         - entry number
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - debounce
               - time number
               - value number
            - description description
            - filter reference
            - handler reference
      - pim-snooping event keyword
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - description description
         - entry number
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - debounce
               - time number
               - value number
            - description description
            - filter reference
            - handler reference
      - port event keyword
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - description description
         - entry number
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - debounce
               - time number
               - value number
            - description description
            - filter reference
            - handler reference
      - pppoe event keyword
         - admin-state keyword
```


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configure log event-trigger pppoe apply-groups

```
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - entry number
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - debounce
                  - time number
                  - value number
               - description description
               - filter reference
               - handler reference
         - pppoe-clnt event keyword
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - entry number
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - debounce
                  - time number
                  - value number
               - description description
               - filter reference
               - handler reference
         - ptp event keyword
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - entry number
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - debounce
                  - time number
                  - value number
               - description description
               - filter reference
               - handler reference
         - python event keyword
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - entry number
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - debounce
                  - time number
                  - value number
               - description description
               - filter reference
               - handler reference
         - radius event keyword
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - entry number
```


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```
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - debounce
               - time number
               - value number
            - description description
            - filter reference
            - handler reference
      - rip event keyword
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - description description
         - entry number
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - debounce
               - time number
               - value number
            - description description
            - filter reference
            - handler reference
      - ripng event keyword
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - description description
         - entry number
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - debounce
               - time number
               - value number
            - description description
            - filter reference
            - handler reference
      - route-policy event keyword
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - description description
         - entry number
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - debounce
               - time number
               - value number
            - description description
            - filter reference
            - handler reference
      - rpki event keyword
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - description description
         - entry number
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - debounce
```


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configure log event-trigger rpki entry debounce time

```
                  -  time number
                  -  value number
               -  description description
               -  filter reference
               -  handler reference
         -  rsvp event keyword
            -  admin-state keyword
            -  apply-groups reference
            -  apply-groups-exclude reference
            -  description description
            -  entry number
               -  admin-state keyword
               -  apply-groups reference
               -  apply-groups-exclude reference
               -  debounce
                  -  time number
                  -  value number
               -  description description
               -  filter reference
               -  handler reference
         -  satellite event keyword
            -  admin-state keyword
            -  apply-groups reference
            -  apply-groups-exclude reference
            -  description description
            -  entry number
               -  admin-state keyword
               -  apply-groups reference
               -  apply-groups-exclude reference
               -  debounce
                  -  time number
                  -  value number
               -  description description
               -  filter reference
               -  handler reference
         -  security event keyword
            -  admin-state keyword
            -  apply-groups reference
            -  apply-groups-exclude reference
            -  description description
            -  entry number
               -  admin-state keyword
               -  apply-groups reference
               -  apply-groups-exclude reference
               -  debounce
                  -  time number
                  -  value number
               -  description description
               -  filter reference
               -  handler reference
         -  sflow event keyword
            -  admin-state keyword
            -  apply-groups reference
            -  apply-groups-exclude reference
            -  description description
            -  entry number
               -  admin-state keyword
               -  apply-groups reference
               -  apply-groups-exclude reference
               -  debounce
                  -  time number
                  -  value number
               -  description description
               -  filter reference
```


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```
            - handler reference
        - snmp event keyword
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - entry number
                - admin-state keyword
                - apply-groups reference
                - apply-groups-exclude reference
                - debounce
                    - time number
                    - value number
                - description description
                - filter reference
                - handler reference
        - sr-mpls event keyword
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - entry number
                - admin-state keyword
                - apply-groups reference
                - apply-groups-exclude reference
                - debounce
                    - time number
                    - value number
                - description description
                - filter reference
                - handler reference
        - sr-policy event keyword
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - entry number
                - admin-state keyword
                - apply-groups reference
                - apply-groups-exclude reference
                - debounce
                    - time number
                    - value number
                - description description
                - filter reference
                - handler reference
        - srv6 event keyword
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - entry number
                - admin-state keyword
                - apply-groups reference
                - apply-groups-exclude reference
                - debounce
                    - time number
                    - value number
                - description description
                - filter reference
                - handler reference
        - stp event keyword
            - admin-state keyword
            - apply-groups reference
```


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```
            - apply-groups-exclude reference
            - description description
            - entry number
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - debounce
                  - time number
                  - value number
               - description description
               - filter reference
               - handler reference
         - svcmgr event keyword
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - entry number
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - debounce
                  - time number
                  - value number
               - description description
               - filter reference
               - handler reference
         - system event keyword
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - entry number
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - debounce
                  - time number
                  - value number
               - description description
               - filter reference
               - handler reference
         - tls event keyword
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - entry number
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - debounce
                  - time number
                  - value number
               - description description
               - filter reference
               - handler reference
         - tree-sid event keyword
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - entry number
               - admin-state keyword
```


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configure log event-trigger tree-sid entry apply-groups

```
            - apply-groups reference
            - apply-groups-exclude reference
            - debounce
               - time number
               - value number
            - description description
            - filter reference
            - handler reference
      - user event keyword
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - description description
         - entry number
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - debounce
               - time number
               - value number
            - description description
            - filter reference
            - handler reference
      - video event keyword
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - description description
         - entry number
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - debounce
               - time number
               - value number
            - description description
            - filter reference
            - handler reference
      - vrrp event keyword
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - description description
         - entry number
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - debounce
               - time number
               - value number
            - description description
            - filter reference
            - handler reference
      - vrtr event keyword
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - description description
         - entry number
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - debounce
               - time number
```


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configure log event-trigger vrtr entry debounce value

```
                - value number
            - description description
            - filter reference
            - handler reference
        - wlan-gw event keyword
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - entry number
                - admin-state keyword
                - apply-groups reference
                - apply-groups-exclude reference
                - debounce
                    - time number
                    - value number
                - description description
                - filter reference
                - handler reference
        - wpp event keyword
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - entry number
                - admin-state keyword
                - apply-groups reference
                - apply-groups-exclude reference
                - debounce
                    - time number
                    - value number
                - description description
                - filter reference
                - handler reference
    - file file-policy-name
        - apply-groups reference
        - apply-groups-exclude reference
        - compact-flash-location
            - backup keyword
            - primary keyword
        - description description
        - retention number
        - rollover number
    - file-storage-control
        - accounting-files-total-size number
        - log-files-total-size number
    - filter log-filter-name
        - apply-groups reference
        - apply-groups-exclude reference
        - default-action keyword
        - description description
        - named-entry log-filter-entry-name
            - action keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - match
                - application
                    - eq keyword
                    - neq keyword
                - event
                    - eq number
                    - gt number
                    - gte number
```


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configure log filter named-entry match event lt

```
                  - lt number
                  - lte number
                  - neq number
               - message
                  - eq string
                  - neq string
                  - regexp boolean
               - severity
                  - eq keyword
                  - gt keyword
                  - gte keyword
                  - lt keyword
                  - lte keyword
                  - neq keyword
               - subject
                  - eq named-item
                  - neq named-item
                  - regexp boolean
               - vrtr-name
                  - eq named-item
                  - neq named-item
                  - regexp boolean
      - log-events
         - adp event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
         - anysec event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
         - application-assurance event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
         - aps event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
         - auto-prov event keyword
```


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```
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - bfd event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - bgp event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - bier event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - calltrace event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - cflowd event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - chassis event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
```


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```
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - debug event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - dhcp event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - dhcps event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - diameter event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - dot1x event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - dynsvc event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
```


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```
            - throttle boolean
        - efm-oam event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - elmi event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - ering event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - eth-cfm event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - etun event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - filter event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - gsmp event keyword
            - apply-groups reference
            - apply-groups-exclude reference
```


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```
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - igmp event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - igmp-snooping event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - ip event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - ipsec event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - isis event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - l2tp event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
```


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```
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - lag event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - ldap event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - ldp event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - li event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - lldp event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - logger event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - macsec event keyword
```


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```
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - mc-redundancy event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - mcpath event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - mgmt-core event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - mirror event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - mld event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - mld-snooping event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
```


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```
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - mpls event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - mpls-tp event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - msdp event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - nat event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - ntp event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - oam event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
```


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```
            - throttle boolean
        - openflow event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - ospf event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - pcap event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - pcep event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - pfcp event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - pim event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - pim-snooping event keyword
            - apply-groups reference
            - apply-groups-exclude reference
```


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configure log log-events pim-snooping generate

```
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - port event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - pppoe event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - pppoe-clnt event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - ptp event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - python event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - radius event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
```


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```
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - rip event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - ripng event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - route-policy event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - rpki event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - rsvp event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - satellite event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - security event keyword
```


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```
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - sflow event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - snmp event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - sr-mpls event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - sr-policy event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - srv6 event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - stp event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
```


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```
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - svcmgr event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - system event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - tls event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - tree-sid event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - user event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - video event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
```


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```
            - throttle boolean
        - vrrp event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - vrtr event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - wlan-gw event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
        - wpp event keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - generate boolean
            - repeat boolean
            - severity keyword
            - specific-throttle boolean
            - specific-throttle-interval number
            - specific-throttle-limit number
            - throttle boolean
    - log-id log-name
        - admin-state keyword
        - apply-groups reference
        - apply-groups-exclude reference
        - description description
        - destination
            - cli
                - max-entries number
            - console
            - file reference
            - memory
                - max-entries number
            - netconf
                - max-entries number
            - snmp
                - max-entries number
            - syslog reference
        - filter reference
        - netconf-stream named-item
        - python-policy reference
        - source
            - change boolean
            - debug boolean
```


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configure log log-id source main

```
            – main boolean
            – security boolean
         – time-format keyword
      – route-preference
         – primary keyword
         – secondary keyword
      – services-all-events
         – service reference
      – snmp-trap-group snmp-trap-group-name
         – apply-groups reference
         – apply-groups-exclude reference
         – description description
         – trap-target string
            – address (ipv4-address-no-zone | ipv6-address-no-zone)
            – apply-groups reference
            – apply-groups-exclude reference
            – description description
            – notify-community string
            – port number
            – replay boolean
            – security-level keyword
            – version keyword
      – syslog log-syslog-name
         – address (ipv4-address-no-zone | ipv6-address-no-zone)
         – apply-groups reference
         – apply-groups-exclude reference
         – description description
         – facility keyword
         – hostname
            – use-system-name
            – value named-item-255
         – log-prefix (keyword | string)
         – port number
         – severity keyword
         – timestamp-format keyword
         – tls-client-profile reference
      – throttle-rate
         – interval number
         – limit number
```


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## 4.24.1 log command descriptions

### log

| | |
|---|---|
| Synopsis | Enter the **log** context |
| Context | **configure** log |
| Tree | log |
| Introduced | 16.0.R1 |
| Platforms | All |

### **accounting-policy** [policy-id] *number*

| | |
|---|---|
| Synopsis | Enter the **accounting-policy** list instance |
| Context | **configure** log accounting-policy *number* |
| Tree | accounting-policy |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**policy-id**] *number*

| | |
|---|---|
| Synopsis | Accounting policy unique ID |
| Context | **configure** log accounting-policy *number* |
| Tree | accounting-policy |
| Range | 1 to 99 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the accounting policy |
| Context | **configure** log accounting-policy *number* admin-state *keyword* |
| Tree | admin-state |
| Description | This command controls the administrative state of the accounting policy. |


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When an accounting policy is disabled, no accounting data is written to the destination log ID. Counters in the billing data reflect totals, and not increments. When the policy is re-enabled, the counters include the data collected during the period the policy was administratively disabled.

| | |
|---|---|
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

## **align** *boolean*

| | |
|---|---|
| Synopsis | Align statistics collection interval to absolute time |
| Context | **configure** log accounting-policy *number* align *boolean* |
| Tree | align |
| Description | When the **align** command is configured to **true**, statistics collection is aligned to the nearest interval within an hour. Statistics are generated when the absolute time can be divided by the collection-interval value, after which the collection interval continues. For example, if the interval is set to 15 minutes and the current time is 15:03, the statistics are collected at 15:15, 15:30, 15:45, 16:00, 16:15, and so on. This supports synchronized statistics intervals and collection across multiple nodes in the network.<br><br>When the **align** command is configured to **false**, statistics collection occurs immediately after the configuration has been committed. For example, if the interval is set to 15 minutes and the current time is 15:03, the statistics are collected at 15:03, 15:18, 15:33, 15:48, 16:03, and so on. |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

## **collection-interval** *number*

| | |
|---|---|
| Synopsis | Accounting collection interval |
| Context | **configure** log accounting-policy *number* collection-interval *number* |
| Tree | collection-interval |
| Range | 1 to 120 |
| Units | minutes |
| Introduced | 16.0.R1 |
| Platforms | All |


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## custom-record

| | |
|---|---|
| Synopsis | Enter the **custom-record** context |
| Context | **configure** log accounting-policy *number* custom-record |
| Tree | custom-record |
| Introduced | 16.0.R1 |
| Platforms | All |

## aa-specific

| | |
|---|---|
| Synopsis | Enter the **aa-specific** context |
| Context | **configure** log accounting-policy *number* custom-record aa-specific |
| Tree | aa-specific |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## aa-sub-attributes

| | |
|---|---|
| Synopsis | Enter the **aa-sub-attributes** context |
| Context | **configure** log accounting-policy *number* custom-record aa-specific aa-sub-attributes |
| Tree | aa-sub-attributes |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## app-profile *boolean*

| | |
|---|---|
| Synopsis | Include application profile to be exported |
| Context | **configure** log accounting-policy *number* custom-record aa-specific aa-sub-attributes app-profile *boolean* |
| Tree | app-profile |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **app-service-options** *boolean*

| | |
|---|---|
| Synopsis | Include application service options |
| Context | **configure** log accounting-policy *number* custom-record aa-specific aa-sub-attributes app-service-options *boolean* |
| Tree | app-service-options |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **aa-sub-counters**

| | |
|---|---|
| Synopsis | Enter the **aa-sub-counters** context |
| Context | **configure** log accounting-policy *number* custom-record aa-specific aa-sub-counters |
| Tree | aa-sub-counters |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **long-duration-flow-count** *boolean*

| | |
|---|---|
| Synopsis | Include the long duration flow count |
| Context | **configure** log accounting-policy *number* custom-record aa-specific aa-sub-counters long-duration-flow-count *boolean* |
| Tree | long-duration-flow-count |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **medium-duration-flow-count** *boolean*

| | |
|---|---|
| Synopsis | Include the medium duration flow |
| Context | **configure** log accounting-policy *number* custom-record aa-specific aa-sub-counters medium-duration-flow-count *boolean* |
| Tree | medium-duration-flow-count |
| Default | false |
| Introduced | 21.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **short-duration-flow-count** *boolean*

| | |
|---|---|
| Synopsis | Include the short duration flow count |
| Context | **configure** log accounting-policy *number* custom-record aa-specific aa-sub-counters short-duration-flow-count *boolean* |
| Tree | short-duration-flow-count |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **total-flow-duration** *boolean*

| | |
|---|---|
| Synopsis | Include the total flow duration count |
| Context | **configure** log accounting-policy *number* custom-record aa-specific aa-sub-counters total-flow-duration *boolean* |
| Tree | total-flow-duration |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **total-flows-completed-count** *boolean*

| | |
|---|---|
| Synopsis | Include the total of completed flows count |
| Context | **configure** log accounting-policy *number* custom-record aa-specific aa-sub-counters total-flows-completed-count *boolean* |
| Tree | total-flows-completed-count |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **from-aa-sub-counters**

| | |
|---|---|
| Synopsis | Enter the **from-aa-sub-counters** context |
| Context | **configure** log accounting-policy *number* custom-record aa-specific from-aa-sub-counters |


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| | |
|---|---|
| Tree | from-aa-sub-counters |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **flows-active-count** *boolean*

| | |
|---|---|
| Synopsis | Include the active flows |
| Context | **configure** log accounting-policy *number* custom-record aa-specific from-aa-sub-counters flows-active-count *boolean* |
| Tree | flows-active-count |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **flows-admitted-count** *boolean*

| | |
|---|---|
| Synopsis | Include the admitted flows |
| Context | **configure** log accounting-policy *number* custom-record aa-specific from-aa-sub-counters flows-admitted-count *boolean* |
| Tree | flows-admitted-count |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **flows-denied-count** *boolean*

| | |
|---|---|
| Synopsis | Include the denied flows |
| Context | **configure** log accounting-policy *number* custom-record aa-specific from-aa-sub-counters flows-denied-count *boolean* |
| Tree | flows-denied-count |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **forwarding-class** *boolean*

| | |
|---|---|
| Synopsis | Include forwarding class |
| Context | **configure** log accounting-policy *number* custom-record aa-specific from-aa-sub-counters forwarding-class *boolean* |
| Tree | forwarding-class |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **max-throughput-octet-count** *boolean*

| | |
|---|---|
| Synopsis | Include maximum throughput as measured in octet count |
| Context | **configure** log accounting-policy *number* custom-record aa-specific from-aa-sub-counters max-throughput-octet-count *boolean* |
| Tree | max-throughput-octet-count |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **max-throughput-packet-count** *boolean*

| | |
|---|---|
| Synopsis | Include maximum throughput as measured in packet count |
| Context | **configure** log accounting-policy *number* custom-record aa-specific from-aa-sub-counters max-throughput-packet-count *boolean* |
| Tree | max-throughput-packet-count |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **max-throughput-timestamp** *boolean*

| | |
|---|---|
| Synopsis | Include timestamp of the maximum throughput |
| Context | **configure** log accounting-policy *number* custom-record aa-specific from-aa-sub-counters max-throughput-timestamp *boolean* |
| Tree | max-throughput-timestamp |


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| | |
|---|---|
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **octets-admitted-count** *boolean*

| | |
|---|---|
| Synopsis | Include the admitted octets count |
| Context | **configure** log accounting-policy *number* custom-record aa-specific from-aa-sub-counters octets-admitted-count *boolean* |
| Tree | octets-admitted-count |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **octets-denied-count** *boolean*

| | |
|---|---|
| Synopsis | Include the denied octets count |
| Context | **configure** log accounting-policy *number* custom-record aa-specific from-aa-sub-counters octets-denied-count *boolean* |
| Tree | octets-denied-count |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **packets-admitted-count** *boolean*

| | |
|---|---|
| Synopsis | Include the admitted packets count |
| Context | **configure** log accounting-policy *number* custom-record aa-specific from-aa-sub-counters packets-admitted-count *boolean* |
| Tree | packets-admitted-count |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **packets-denied-count** *boolean*

| | |
|---|---|
| Synopsis | Include the denied packets count |
| Context | **configure** log accounting-policy *number* custom-record aa-specific from-aa-sub-counters packets-denied-count *boolean* |
| Tree | packets-denied-count |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **to-aa-sub-counters**

| | |
|---|---|
| Synopsis | Enter the **to-aa-sub-counters** context |
| Context | **configure** log accounting-policy *number* custom-record aa-specific to-aa-sub-counters |
| Tree | to-aa-sub-counters |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **flows-active-count** *boolean*

| | |
|---|---|
| Synopsis | Include the active flows |
| Context | **configure** log accounting-policy *number* custom-record aa-specific to-aa-sub-counters flows-active-count *boolean* |
| Tree | flows-active-count |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **flows-admitted-count** *boolean*

| | |
|---|---|
| Synopsis | Include the admitted flows |
| Context | **configure** log accounting-policy *number* custom-record aa-specific to-aa-sub-counters flows-admitted-count *boolean* |
| Tree | flows-admitted-count |
| Default | false |
| Introduced | 21.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **flows-denied-count** *boolean*

| | |
|---|---|
| Synopsis | Include the denied flows |
| Context | **configure** log accounting-policy *number* custom-record aa-specific to-aa-sub-counters flows-denied-count *boolean* |
| Tree | flows-denied-count |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **forwarding-class** *boolean*

| | |
|---|---|
| Synopsis | Include forwarding class |
| Context | **configure** log accounting-policy *number* custom-record aa-specific to-aa-sub-counters forwarding-class *boolean* |
| Tree | forwarding-class |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **max-throughput-octet-count** *boolean*

| | |
|---|---|
| Synopsis | Include maximum throughput as measured in octet count |
| Context | **configure** log accounting-policy *number* custom-record aa-specific to-aa-sub-counters max-throughput-octet-count *boolean* |
| Tree | max-throughput-octet-count |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **max-throughput-packet-count** *boolean*

| | |
|---|---|
| Synopsis | Include maximum throughput as measured in packet count |
| Context | **configure** log accounting-policy *number* custom-record aa-specific to-aa-sub-counters max-throughput-packet-count *boolean* |


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| | |
|---|---|
| Tree | max-throughput-packet-count |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **max-throughput-timestamp** *boolean*

| | |
|---|---|
| Synopsis | Include timestamp of the maximum throughput |
| Context | **configure** log accounting-policy *number* custom-record aa-specific to-aa-sub-counters max-throughput-timestamp *boolean* |
| Tree | max-throughput-timestamp |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **octets-admitted-count** *boolean*

| | |
|---|---|
| Synopsis | Include the admitted octets count |
| Context | **configure** log accounting-policy *number* custom-record aa-specific to-aa-sub-counters octets-admitted-count *boolean* |
| Tree | octets-admitted-count |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **octets-denied-count** *boolean*

| | |
|---|---|
| Synopsis | Include the denied octets count |
| Context | **configure** log accounting-policy *number* custom-record aa-specific to-aa-sub-counters octets-denied-count *boolean* |
| Tree | octets-denied-count |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **packets-admitted-count** *boolean*

| | |
|---|---|
| Synopsis | Include the admitted packets count |
| Context | **configure** log accounting-policy *number* custom-record aa-specific to-aa-sub-counters packets-admitted-count *boolean* |
| Tree | packets-admitted-count |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **packets-denied-count** *boolean*

| | |
|---|---|
| Synopsis | Include the denied packets count |
| Context | **configure** log accounting-policy *number* custom-record aa-specific to-aa-sub-counters packets-denied-count *boolean* |
| Tree | packets-denied-count |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **policer** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **policer** list instance |
| Context | **configure** log accounting-policy *number* custom-record policer *number* |
| Tree | policer |
| Introduced | 19.10.R1 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | Policer ID |
| Context | **configure** log accounting-policy *number* custom-record policer *number* |
| Tree | policer |
| Range | 1 to 63 |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |


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| | |
|---|---|
| Platforms | All |

## e-counters

| | |
|---|---|
| Synopsis | Enter the **e-counters** context |
| Context | **configure** log accounting-policy *number* custom-record policer *number* e-counters |
| Tree | e-counters |
| Introduced | 19.10.R1 |
| Platforms | All |

## exceed-profile-octets-discarded-count *boolean*

| | |
|---|---|
| Synopsis | Include the exceed profile octets discarded count |
| Context | **configure** log accounting-policy *number* custom-record policer *number* e-counters exceed-profile-octets-discarded-count *boolean* |
| Tree | exceed-profile-octets-discarded-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

## exceed-profile-octets-forwarded-count *boolean*

| | |
|---|---|
| Synopsis | Include the exceed profile octets forwarded count |
| Context | **configure** log accounting-policy *number* custom-record policer *number* e-counters exceed-profile-octets-forwarded-count *boolean* |
| Tree | exceed-profile-octets-forwarded-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

## exceed-profile-octets-offered-count *boolean*

| | |
|---|---|
| Synopsis | Include the exceed profile octets offered count |
| Context | **configure** log accounting-policy *number* custom-record policer *number* e-counters exceed-profile-octets-offered-count *boolean* |
| Tree | exceed-profile-octets-offered-count |


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| | |
|---|---|
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **exceed-profile-packets-discarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the exceed profile packets discarded count |
| Context | **configure** log accounting-policy *number* custom-record policer *number* e-counters exceed-profile-packets-discarded-count *boolean* |
| Tree | exceed-profile-packets-discarded-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **exceed-profile-packets-forwarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the exceed profile packets forwarded count |
| Context | **configure** log accounting-policy *number* custom-record policer *number* e-counters exceed-profile-packets-forwarded-count *boolean* |
| Tree | exceed-profile-packets-forwarded-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **exceed-profile-packets-offered-count** *boolean*

| | |
|---|---|
| Synopsis | Include the exceed profile packets offered count |
| Context | **configure** log accounting-policy *number* custom-record policer *number* e-counters exceed-profile-packets-offered-count *boolean* |
| Tree | exceed-profile-packets-offered-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |


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### **in-plus-profile-octets-discarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the in-plus profile octets discarded count |
| Context | **configure** log accounting-policy *number* custom-record policer *number* e-counters in-plus-profile-octets-discarded-count *boolean* |
| Tree | in-plus-profile-octets-discarded-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **in-plus-profile-octets-forwarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the in-plus profile octets forwarded count |
| Context | **configure** log accounting-policy *number* custom-record policer *number* e-counters in-plus-profile-octets-forwarded-count *boolean* |
| Tree | in-plus-profile-octets-forwarded-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **in-plus-profile-octets-offered-count** *boolean*

| | |
|---|---|
| Synopsis | Include the in-plus profile octets offered count |
| Context | **configure** log accounting-policy *number* custom-record policer *number* e-counters in-plus-profile-octets-offered-count *boolean* |
| Tree | in-plus-profile-octets-offered-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **in-plus-profile-packets-discarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the in-plus profile packets discarded count |
| Context | **configure** log accounting-policy *number* custom-record policer *number* e-counters in-plus-profile-packets-discarded-count *boolean* |
| Tree | in-plus-profile-packets-discarded-count |


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| | |
|---|---|
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **in-plus-profile-packets-forwarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the in-plus profile packets forwarded count |
| Context | **configure** log accounting-policy *number* custom-record policer *number* e-counters in-plus-profile-packets-forwarded-count *boolean* |
| Tree | in-plus-profile-packets-forwarded-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **in-plus-profile-packets-offered-count** *boolean*

| | |
|---|---|
| Synopsis | Include the in-plus profile packets offered count |
| Context | **configure** log accounting-policy *number* custom-record policer *number* e-counters in-plus-profile-packets-offered-count *boolean* |
| Tree | in-plus-profile-packets-offered-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **in-profile-octets-discarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the in profile octets discarded count |
| Context | **configure** log accounting-policy *number* custom-record policer *number* e-counters in-profile-octets-discarded-count *boolean* |
| Tree | in-profile-octets-discarded-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |


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### **in-profile-octets-forwarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the in profile octets forwarded count |
| Context | **configure** log accounting-policy *number* custom-record policer *number* e-counters in-profile-octets-forwarded-count *boolean* |
| Tree | in-profile-octets-forwarded-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **in-profile-octets-offered-count** *boolean*

| | |
|---|---|
| Synopsis | Include the in profile octets offered count |
| Context | **configure** log accounting-policy *number* custom-record policer *number* e-counters in-profile-octets-offered-count *boolean* |
| Tree | in-profile-octets-offered-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **in-profile-packets-discarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the in profile packets discarded count |
| Context | **configure** log accounting-policy *number* custom-record policer *number* e-counters in-profile-packets-discarded-count *boolean* |
| Tree | in-profile-packets-discarded-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **in-profile-packets-forwarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the in profile packets forwarded count |
| Context | **configure** log accounting-policy *number* custom-record policer *number* e-counters in-profile-packets-forwarded-count *boolean* |
| Tree | in-profile-packets-forwarded-count |


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| | |
|---|---|
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **in-profile-packets-offered-count** *boolean*

| | |
|---|---|
| Synopsis | Include the in profile packets offered count |
| Context | **configure** log accounting-policy *number* custom-record policer *number* e-counters in-profile-packets-offered-count *boolean* |
| Tree | in-profile-packets-offered-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **out-profile-octets-discarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the out profile octets discarded count |
| Context | **configure** log accounting-policy *number* custom-record policer *number* e-counters out-profile-octets-discarded-count *boolean* |
| Tree | out-profile-octets-discarded-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **out-profile-octets-forwarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the out profile octets forwarded count |
| Context | **configure** log accounting-policy *number* custom-record policer *number* e-counters out-profile-octets-forwarded-count *boolean* |
| Tree | out-profile-octets-forwarded-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |


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### **out-profile-octets-offered-count** *boolean*

| | |
|---|---|
| Synopsis | Include the out profile octets offered count |
| Context | **configure** log accounting-policy *number* custom-record policer *number* e-counters out-profile-octets-offered-count *boolean* |
| Tree | out-profile-octets-offered-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **out-profile-packets-discarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the out profile packets discarded count |
| Context | **configure** log accounting-policy *number* custom-record policer *number* e-counters out-profile-packets-discarded-count *boolean* |
| Tree | out-profile-packets-discarded-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **out-profile-packets-forwarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the out profile packets forwarded count |
| Context | **configure** log accounting-policy *number* custom-record policer *number* e-counters out-profile-packets-forwarded-count *boolean* |
| Tree | out-profile-packets-forwarded-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **out-profile-packets-offered-count** *boolean*

| | |
|---|---|
| Synopsis | Include the out profile packets offered count |
| Context | **configure** log accounting-policy *number* custom-record policer *number* e-counters out-profile-packets-offered-count *boolean* |
| Tree | out-profile-packets-offered-count |


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| | |
|---|---|
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **uncoloured-octets-offered-count** *boolean*

| | |
|---|---|
| Synopsis | Include the uncolored octets offered count |
| Context | **configure** log accounting-policy *number* custom-record policer *number* e-counters uncoloured-octets-offered-count *boolean* |
| Tree | uncoloured-octets-offered-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **uncoloured-packets-offered-count** *boolean*

| | |
|---|---|
| Synopsis | Include the uncolored packets offered count |
| Context | **configure** log accounting-policy *number* custom-record policer *number* e-counters uncoloured-packets-offered-count *boolean* |
| Tree | uncoloured-packets-offered-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **i-counters**

| | |
|---|---|
| Synopsis | Enter the **i-counters** context |
| Context | **configure** log accounting-policy *number* custom-record policer *number* i-counters |
| Tree | i-counters |
| Introduced | 19.10.R1 |
| Platforms | All |

### **in-profile-octets-discarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the in profile octets discarded count |


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| | |
|---|---|
| Context | **configure** log accounting-policy *number* custom-record policer *number* i-counters in-profile-octets-discarded-count *boolean* |
| Tree | in-profile-octets-discarded-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **in-profile-octets-forwarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the in profile octets forwarded count |
| Context | **configure** log accounting-policy *number* custom-record policer *number* i-counters in-profile-octets-forwarded-count *boolean* |
| Tree | in-profile-octets-forwarded-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **in-profile-octets-offered-count** *boolean*

| | |
|---|---|
| Synopsis | Include the in profile octets offered count |
| Context | **configure** log accounting-policy *number* custom-record policer *number* i-counters in-profile-octets-offered-count *boolean* |
| Tree | in-profile-octets-offered-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **in-profile-packets-discarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the in profile packets discarded count |
| Context | **configure** log accounting-policy *number* custom-record policer *number* i-counters in-profile-packets-discarded-count *boolean* |
| Tree | in-profile-packets-discarded-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |


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### **in-profile-packets-forwarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the in profile packets forwarded count |
| Context | **configure** log accounting-policy *number* custom-record policer *number* i-counters in-profile-packets-forwarded-count *boolean* |
| Tree | in-profile-packets-forwarded-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **in-profile-packets-offered-count** *boolean*

| | |
|---|---|
| Synopsis | Include the in profile packets offered count |
| Context | **configure** log accounting-policy *number* custom-record policer *number* i-counters in-profile-packets-offered-count *boolean* |
| Tree | in-profile-packets-offered-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **out-profile-octets-discarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the out profile octets discarded count |
| Context | **configure** log accounting-policy *number* custom-record policer *number* i-counters out-profile-octets-discarded-count *boolean* |
| Tree | out-profile-octets-discarded-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **out-profile-octets-forwarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the out profile octets forwarded count |
| Context | **configure** log accounting-policy *number* custom-record policer *number* i-counters out-profile-octets-forwarded-count *boolean* |
| Tree | out-profile-octets-forwarded-count |


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| | |
|---|---|
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **out-profile-octets-offered-count** *boolean*

| | |
|---|---|
| Synopsis | Include the out profile octets offered count |
| Context | **configure** log accounting-policy *number* custom-record policer *number* i-counters out-profile-octets-offered-count *boolean* |
| Tree | out-profile-octets-offered-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **out-profile-packets-discarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the out profile packets discarded count |
| Context | **configure** log accounting-policy *number* custom-record policer *number* i-counters out-profile-packets-discarded-count *boolean* |
| Tree | out-profile-packets-discarded-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **out-profile-packets-forwarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the out profile packets forwarded count |
| Context | **configure** log accounting-policy *number* custom-record policer *number* i-counters out-profile-packets-forwarded-count *boolean* |
| Tree | out-profile-packets-forwarded-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |


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### **out-profile-packets-offered-count** *boolean*

| | |
|---|---|
| Synopsis | Include the out profile packets offered count |
| Context | **configure** log accounting-policy *number* custom-record policer *number* i-counters out-profile-packets-offered-count *boolean* |
| Tree | out-profile-packets-offered-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **uncoloured-octets-offered-count** *boolean*

| | |
|---|---|
| Synopsis | Include the uncolored octets offered count |
| Context | **configure** log accounting-policy *number* custom-record policer *number* i-counters uncoloured-octets-offered-count *boolean* |
| Tree | uncoloured-octets-offered-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **uncoloured-packets-offered-count** *boolean*

| | |
|---|---|
| Synopsis | Include the uncolored packets offered count |
| Context | **configure** log accounting-policy *number* custom-record policer *number* i-counters uncoloured-packets-offered-count *boolean* |
| Tree | uncoloured-packets-offered-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **queue** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **queue** list instance |
| Context | **configure** log accounting-policy *number* custom-record queue *number* |
| Tree | queue |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | Queue ID for which counters are collected in the record |
| Context | **configure** log accounting-policy *number* custom-record queue *number* |
| Tree | queue |
| Range | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### e-counters

| | |
|---|---|
| Synopsis | Enter the **e-counters** context |
| Context | **configure** log accounting-policy *number* custom-record queue *number* e-counters |
| Tree | e-counters |
| Introduced | 16.0.R1 |
| Platforms | All |

### in-profile-octets-discarded-count *boolean*

| | |
|---|---|
| Synopsis | Include the in-profile octets discarded count |
| Context | **configure** log accounting-policy *number* custom-record queue *number* e-counters in-profile-octets-discarded-count *boolean* |
| Tree | in-profile-octets-discarded-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### in-profile-octets-forwarded-count *boolean*

| | |
|---|---|
| Synopsis | Include the in-profile octets forwarded count |
| Context | **configure** log accounting-policy *number* custom-record queue *number* e-counters in-profile-octets-forwarded-count *boolean* |
| Tree | in-profile-octets-forwarded-count |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **in-profile-packets-discarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the in-profile packets discarded count |
| Context | **configure** log accounting-policy *number* custom-record queue *number* e-counters in-profile-packets-discarded-count *boolean* |
| Tree | in-profile-packets-discarded-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **in-profile-packets-forwarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the in-profile packets forwarded count |
| Context | **configure** log accounting-policy *number* custom-record queue *number* e-counters in-profile-packets-forwarded-count *boolean* |
| Tree | in-profile-packets-forwarded-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **out-profile-octets-discarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the out-profile octets discarded count |
| Context | **configure** log accounting-policy *number* custom-record queue *number* e-counters out-profile-octets-discarded-count *boolean* |
| Tree | out-profile-octets-discarded-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **out-profile-octets-forwarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the out-of-profile octets forwarded count |
| Context | **configure** log accounting-policy *number* custom-record queue *number* e-counters out-profile-octets-forwarded-count *boolean* |
| Tree | out-profile-octets-forwarded-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **out-profile-packets-discarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the out-profile packets discarded count |
| Context | **configure** log accounting-policy *number* custom-record queue *number* e-counters out-profile-packets-discarded-count *boolean* |
| Tree | out-profile-packets-discarded-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **out-profile-packets-forwarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the out-of-profile packets forwarded count |
| Context | **configure** log accounting-policy *number* custom-record queue *number* e-counters out-profile-packets-forwarded-count *boolean* |
| Tree | out-profile-packets-forwarded-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **i-counters**

| | |
|---|---|
| Synopsis | Enter the **i-counters** context |
| Context | **configure** log accounting-policy *number* custom-record queue *number* i-counters |
| Tree | i-counters |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **all-octets-offered-count** *boolean*

| | |
|---|---|
| Synopsis | Include the all octets offered count |
| Context | **configure** log accounting-policy *number* custom-record queue *number* i-counters all-octets-offered-count *boolean* |
| Tree | all-octets-offered-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **all-packets-offered-count** *boolean*

| | |
|---|---|
| Synopsis | Include all packets offered count |
| Context | **configure** log accounting-policy *number* custom-record queue *number* i-counters all-packets-offered-count *boolean* |
| Tree | all-packets-offered-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **high-octets-discarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the high octets discarded count |
| Context | **configure** log accounting-policy *number* custom-record queue *number* i-counters high-octets-discarded-count *boolean* |
| Tree | high-octets-discarded-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **high-octets-offered-count** *boolean*

| | |
|---|---|
| Synopsis | Include the high octets offered count |
| Context | **configure** log accounting-policy *number* custom-record queue *number* i-counters high-octets-offered-count *boolean* |


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| | |
|---|---|
| Tree | high-octets-offered-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **high-packets-discarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the high packets discarded count |
| Context | **configure** log accounting-policy *number* custom-record queue *number* i-counters high-packets-discarded-count *boolean* |
| Tree | high-packets-discarded-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **high-packets-offered-count** *boolean*

| | |
|---|---|
| Synopsis | Include the high packets offered count |
| Context | **configure** log accounting-policy *number* custom-record queue *number* i-counters high-packets-offered-count *boolean* |
| Tree | high-packets-offered-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **in-profile-octets-forwarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the in-profile octets forwarded count |
| Context | **configure** log accounting-policy *number* custom-record queue *number* i-counters in-profile-octets-forwarded-count *boolean* |
| Tree | in-profile-octets-forwarded-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **in-profile-packets-forwarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the in-profile packets forwarded count |
| Context | **configure** log accounting-policy *number* custom-record queue *number* i-counters in-profile-packets-forwarded-count *boolean* |
| Tree | in-profile-packets-forwarded-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **low-octets-discarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the low octets discarded count |
| Context | **configure** log accounting-policy *number* custom-record queue *number* i-counters low-octets-discarded-count *boolean* |
| Tree | low-octets-discarded-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **low-octets-offered-count** *boolean*

| | |
|---|---|
| Synopsis | Include the low octets offered count |
| Context | **configure** log accounting-policy *number* custom-record queue *number* i-counters low-octets-offered-count *boolean* |
| Tree | low-octets-offered-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **low-packets-discarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the low packets discarded count |
| Context | **configure** log accounting-policy *number* custom-record queue *number* i-counters low-packets-discarded-count *boolean* |
| Tree | low-packets-discarded-count |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **low-packets-offered-count** *boolean*

| | |
|---|---|
| Synopsis | Include the low packets offered count |
| Context | **configure** log accounting-policy *number* custom-record queue *number* i-counters low-packets-offered-count *boolean* |
| Tree | low-packets-offered-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **out-profile-octets-forwarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the out-of-profile octets forwarded count |
| Context | **configure** log accounting-policy *number* custom-record queue *number* i-counters out-profile-octets-forwarded-count *boolean* |
| Tree | out-profile-octets-forwarded-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **out-profile-packets-forwarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the out-of-profile packets forwarded count |
| Context | **configure** log accounting-policy *number* custom-record queue *number* i-counters out-profile-packets-forwarded-count *boolean* |
| Tree | out-profile-packets-forwarded-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **uncoloured-octets-offered-count** *boolean*

| | |
|---|---|
| Synopsis | Include the uncolored octets offered count |
| Context | **configure** log accounting-policy *number* custom-record queue *number* i-counters uncoloured-octets-offered-count *boolean* |
| Tree | uncoloured-octets-offered-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **uncoloured-packets-offered-count** *boolean*

| | |
|---|---|
| Synopsis | Include the uncolored packets offered count |
| Context | **configure** log accounting-policy *number* custom-record queue *number* i-counters uncoloured-packets-offered-count *boolean* |
| Tree | uncoloured-packets-offered-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ref-aa-specific-counter**

| | |
|---|---|
| Synopsis | Enter the **ref-aa-specific-counter** context |
| Context | **configure** log accounting-policy *number* custom-record ref-aa-specific-counter |
| Tree | ref-aa-specific-counter |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **any** *boolean*

| | |
|---|---|
| Synopsis | Report a change to any counter |
| Context | **configure** log accounting-policy *number* custom-record ref-aa-specific-counter any *boolean* |
| Tree | any |
| Default | false |
| Introduced | 21.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## ref-policer

| | |
|---|---|
| Synopsis | Enter the **ref-policer** context |
| Context | **configure** log accounting-policy *number* custom-record ref-policer |
| Tree | ref-policer |
| Introduced | 19.10.R1 |
| Platforms | All |

## all

| | |
|---|---|
| Synopsis | Apply significant change to counters for all policers |
| Context | **configure** log accounting-policy *number* custom-record ref-policer all |
| Tree | all |
| Notes | The following elements are part of a choice: **all** or **id**. |
| Introduced | 19.10.R1 |
| Platforms | All |

## e-counters

| | |
|---|---|
| Synopsis | Enter the **e-counters** context |
| Context | **configure** log accounting-policy *number* custom-record ref-policer e-counters |
| Tree | e-counters |
| Introduced | 19.10.R1 |
| Platforms | All |

## exceed-profile-octets-discarded-count *boolean*

| | |
|---|---|
| Synopsis | Include the exceed profile octets discarded count |
| Context | **configure** log accounting-policy *number* custom-record ref-policer e-counters exceed-profile-octets-discarded-count *boolean* |
| Tree | exceed-profile-octets-discarded-count |
| Default | false |
| Introduced | 19.10.R1 |


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| | |
|---|---|
| Platforms | All |

### **exceed-profile-octets-forwarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the exceed profile octets forwarded count |
| Context | **configure** log accounting-policy *number* custom-record ref-policer e-counters exceed-profile-octets-forwarded-count *boolean* |
| Tree | exceed-profile-octets-forwarded-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **exceed-profile-octets-offered-count** *boolean*

| | |
|---|---|
| Synopsis | Include the exceed profile octets offered count |
| Context | **configure** log accounting-policy *number* custom-record ref-policer e-counters exceed-profile-octets-offered-count *boolean* |
| Tree | exceed-profile-octets-offered-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **exceed-profile-packets-discarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the exceed profile packets discarded count |
| Context | **configure** log accounting-policy *number* custom-record ref-policer e-counters exceed-profile-packets-discarded-count *boolean* |
| Tree | exceed-profile-packets-discarded-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **exceed-profile-packets-forwarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the exceed profile packets forwarded count |
| Context | **configure** log accounting-policy *number* custom-record ref-policer e-counters exceed-profile-packets-forwarded-count *boolean* |


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| | |
|---|---|
| Tree | exceed-profile-packets-forwarded-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **exceed-profile-packets-offered-count** *boolean*

| | |
|---|---|
| Synopsis | Include the exceed profile packets offered count |
| Context | **configure** log accounting-policy *number* custom-record ref-policer e-counters exceed-profile-packets-offered-count *boolean* |
| Tree | exceed-profile-packets-offered-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **in-plus-profile-octets-discarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the in-plus profile octets discarded count |
| Context | **configure** log accounting-policy *number* custom-record ref-policer e-counters in-plus-profile-octets-discarded-count *boolean* |
| Tree | in-plus-profile-octets-discarded-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **in-plus-profile-octets-forwarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the in-plus profile octets forwarded count |
| Context | **configure** log accounting-policy *number* custom-record ref-policer e-counters in-plus-profile-octets-forwarded-count *boolean* |
| Tree | in-plus-profile-octets-forwarded-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |


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### **in-plus-profile-octets-offered-count** *boolean*

| | |
|---|---|
| Synopsis | Include the in-plus profile octets offered count |
| Context | **configure** log accounting-policy *number* custom-record ref-policer e-counters in-plus-profile-octets-offered-count *boolean* |
| Tree | in-plus-profile-octets-offered-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **in-plus-profile-packets-discarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the in-plus profile packets discarded count |
| Context | **configure** log accounting-policy *number* custom-record ref-policer e-counters in-plus-profile-packets-discarded-count *boolean* |
| Tree | in-plus-profile-packets-discarded-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **in-plus-profile-packets-forwarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the in-plus profile packets forwarded count |
| Context | **configure** log accounting-policy *number* custom-record ref-policer e-counters in-plus-profile-packets-forwarded-count *boolean* |
| Tree | in-plus-profile-packets-forwarded-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **in-plus-profile-packets-offered-count** *boolean*

| | |
|---|---|
| Synopsis | Include the in-plus profile packets offered count |
| Context | **configure** log accounting-policy *number* custom-record ref-policer e-counters in-plus-profile-packets-offered-count *boolean* |
| Tree | in-plus-profile-packets-offered-count |


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| | |
|---|---|
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **in-profile-octets-discarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the in profile octets discarded count |
| Context | **configure** log accounting-policy *number* custom-record ref-policer e-counters in-profile-octets-discarded-count *boolean* |
| Tree | in-profile-octets-discarded-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **in-profile-octets-forwarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the in profile octets forwarded count |
| Context | **configure** log accounting-policy *number* custom-record ref-policer e-counters in-profile-octets-forwarded-count *boolean* |
| Tree | in-profile-octets-forwarded-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **in-profile-octets-offered-count** *boolean*

| | |
|---|---|
| Synopsis | Include the in profile octets offered count |
| Context | **configure** log accounting-policy *number* custom-record ref-policer e-counters in-profile-octets-offered-count *boolean* |
| Tree | in-profile-octets-offered-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |


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### **in-profile-packets-discarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the in profile packets discarded count |
| Context | **configure** log accounting-policy *number* custom-record ref-policer e-counters in-profile-packets-discarded-count *boolean* |
| Tree | in-profile-packets-discarded-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **in-profile-packets-forwarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the in profile packets forwarded count |
| Context | **configure** log accounting-policy *number* custom-record ref-policer e-counters in-profile-packets-forwarded-count *boolean* |
| Tree | in-profile-packets-forwarded-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **in-profile-packets-offered-count** *boolean*

| | |
|---|---|
| Synopsis | Include the in profile packets offered count |
| Context | **configure** log accounting-policy *number* custom-record ref-policer e-counters in-profile-packets-offered-count *boolean* |
| Tree | in-profile-packets-offered-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **out-profile-octets-discarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the out profile octets discarded count |
| Context | **configure** log accounting-policy *number* custom-record ref-policer e-counters out-profile-octets-discarded-count *boolean* |
| Tree | out-profile-octets-discarded-count |


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| | |
|---|---|
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **out-profile-octets-forwarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the out profile octets forwarded count |
| Context | **configure** log accounting-policy *number* custom-record ref-policer e-counters out-profile-octets-forwarded-count *boolean* |
| Tree | out-profile-octets-forwarded-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **out-profile-octets-offered-count** *boolean*

| | |
|---|---|
| Synopsis | Include the out profile octets offered count |
| Context | **configure** log accounting-policy *number* custom-record ref-policer e-counters out-profile-octets-offered-count *boolean* |
| Tree | out-profile-octets-offered-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **out-profile-packets-discarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the out profile packets discarded count |
| Context | **configure** log accounting-policy *number* custom-record ref-policer e-counters out-profile-packets-discarded-count *boolean* |
| Tree | out-profile-packets-discarded-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |


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### **out-profile-packets-forwarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the out profile packets forwarded count |
| Context | **configure** log accounting-policy *number* custom-record ref-policer e-counters out-profile-packets-forwarded-count *boolean* |
| Tree | out-profile-packets-forwarded-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **out-profile-packets-offered-count** *boolean*

| | |
|---|---|
| Synopsis | Include the out profile packets offered count |
| Context | **configure** log accounting-policy *number* custom-record ref-policer e-counters out-profile-packets-offered-count *boolean* |
| Tree | out-profile-packets-offered-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **uncoloured-octets-offered-count** *boolean*

| | |
|---|---|
| Synopsis | Include the uncolored octets offered count |
| Context | **configure** log accounting-policy *number* custom-record ref-policer e-counters uncoloured-octets-offered-count *boolean* |
| Tree | uncoloured-octets-offered-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **uncoloured-packets-offered-count** *boolean*

| | |
|---|---|
| Synopsis | Include the uncolored packets offered count |
| Context | **configure** log accounting-policy *number* custom-record ref-policer e-counters uncoloured-packets-offered-count *boolean* |
| Tree | uncoloured-packets-offered-count |


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| | |
|---|---|
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

## i-counters

| | |
|---|---|
| Synopsis | Enter the **i-counters** context |
| Context | **configure** log accounting-policy *number* custom-record ref-policer i-counters |
| Tree | i-counters |
| Introduced | 19.10.R1 |
| Platforms | All |

## in-profile-octets-discarded-count *boolean*

| | |
|---|---|
| Synopsis | Include the in profile octets discarded count |
| Context | **configure** log accounting-policy *number* custom-record ref-policer i-counters in-profile-octets-discarded-count *boolean* |
| Tree | in-profile-octets-discarded-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

## in-profile-octets-forwarded-count *boolean*

| | |
|---|---|
| Synopsis | Include the in profile octets forwarded count |
| Context | **configure** log accounting-policy *number* custom-record ref-policer i-counters in-profile-octets-forwarded-count *boolean* |
| Tree | in-profile-octets-forwarded-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

## in-profile-octets-offered-count *boolean*

| | |
|---|---|
| Synopsis | Include the in profile octets offered count |


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| | |
|---|---|
| Context | **configure** log accounting-policy *number* custom-record ref-policer i-counters in-profile-octets-offered-count *boolean* |
| Tree | in-profile-octets-offered-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **in-profile-packets-discarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the in profile packets discarded count |
| Context | **configure** log accounting-policy *number* custom-record ref-policer i-counters in-profile-packets-discarded-count *boolean* |
| Tree | in-profile-packets-discarded-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **in-profile-packets-forwarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the in profile packets forwarded count |
| Context | **configure** log accounting-policy *number* custom-record ref-policer i-counters in-profile-packets-forwarded-count *boolean* |
| Tree | in-profile-packets-forwarded-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **in-profile-packets-offered-count** *boolean*

| | |
|---|---|
| Synopsis | Include the in profile packets offered count |
| Context | **configure** log accounting-policy *number* custom-record ref-policer i-counters in-profile-packets-offered-count *boolean* |
| Tree | in-profile-packets-offered-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |


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### **out-profile-octets-discarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the out profile octets discarded count |
| Context | **configure** log accounting-policy *number* custom-record ref-policer i-counters out-profile-octets-discarded-count *boolean* |
| Tree | out-profile-octets-discarded-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **out-profile-octets-forwarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the out profile octets forwarded count |
| Context | **configure** log accounting-policy *number* custom-record ref-policer i-counters out-profile-octets-forwarded-count *boolean* |
| Tree | out-profile-octets-forwarded-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **out-profile-octets-offered-count** *boolean*

| | |
|---|---|
| Synopsis | Include the out profile octets offered count |
| Context | **configure** log accounting-policy *number* custom-record ref-policer i-counters out-profile-octets-offered-count *boolean* |
| Tree | out-profile-octets-offered-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **out-profile-packets-discarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the out profile packets discarded count |
| Context | **configure** log accounting-policy *number* custom-record ref-policer i-counters out-profile-packets-discarded-count *boolean* |
| Tree | out-profile-packets-discarded-count |


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| | |
|---|---|
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **out-profile-packets-forwarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the out profile packets forwarded count |
| Context | **configure** log accounting-policy *number* custom-record ref-policer i-counters out-profile-packets-forwarded-count *boolean* |
| Tree | out-profile-packets-forwarded-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **out-profile-packets-offered-count** *boolean*

| | |
|---|---|
| Synopsis | Include the out profile packets offered count |
| Context | **configure** log accounting-policy *number* custom-record ref-policer i-counters out-profile-packets-offered-count *boolean* |
| Tree | out-profile-packets-offered-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **uncoloured-octets-offered-count** *boolean*

| | |
|---|---|
| Synopsis | Include the uncolored octets offered count |
| Context | **configure** log accounting-policy *number* custom-record ref-policer i-counters uncoloured-octets-offered-count *boolean* |
| Tree | uncoloured-octets-offered-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |


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### **uncoloured-packets-offered-count** *boolean*

| | |
|---|---|
| Synopsis | Include the uncolored packets offered count |
| Context | **configure** log accounting-policy *number* custom-record ref-policer i-counters uncoloured-packets-offered-count *boolean* |
| Tree | uncoloured-packets-offered-count |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **id** *reference*

| | |
|---|---|
| Synopsis | Policer ID |
| Context | **configure** log accounting-policy *number* custom-record ref-policer id *reference* |
| Tree | id |
| Reference | **configure** log accounting-policy *number* custom-record policer *number* |
| Notes | The following elements are part of a choice: **all** or **id**. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **ref-queue**

| | |
|---|---|
| Synopsis | Enter the **ref-queue** context |
| Context | **configure** log accounting-policy *number* custom-record ref-queue |
| Tree | ref-queue |
| Description | Commands in this context configure reference queue counters for significant change only reporting. The custom record is only generated when the change in the sum of all queue and policer reference counters equals or exceeds the configured (non-zero) significant change value. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **all**

| | |
|---|---|
| Synopsis | Apply significant change to counters for all queues |
| Context | **configure** log accounting-policy *number* custom-record ref-queue all |


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| | |
|---|---|
| Tree | all |
| Notes | The following elements are part of a choice: **all** or **id**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## e-counters

| | |
|---|---|
| Synopsis | Enter the **e-counters** context |
| Context | **configure** log accounting-policy *number* custom-record ref-queue e-counters |
| Tree | e-counters |
| Introduced | 16.0.R1 |
| Platforms | All |

## in-profile-octets-discarded-count *boolean*

| | |
|---|---|
| Synopsis | Include the in-profile octets discarded count |
| Context | **configure** log accounting-policy *number* custom-record ref-queue e-counters in-profile-octets-discarded-count *boolean* |
| Tree | in-profile-octets-discarded-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## in-profile-octets-forwarded-count *boolean*

| | |
|---|---|
| Synopsis | Include the in-profile octets forwarded count |
| Context | **configure** log accounting-policy *number* custom-record ref-queue e-counters in-profile-octets-forwarded-count *boolean* |
| Tree | in-profile-octets-forwarded-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## in-profile-packets-discarded-count *boolean*

| | |
|---|---|
| Synopsis | Include the in-profile packets discarded count |


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| | |
|---|---|
| Context | **configure** log accounting-policy *number* custom-record ref-queue e-counters in-profile-packets-discarded-count *boolean* |
| Tree | in-profile-packets-discarded-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **in-profile-packets-forwarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the in-profile packets forwarded count |
| Context | **configure** log accounting-policy *number* custom-record ref-queue e-counters in-profile-packets-forwarded-count *boolean* |
| Tree | in-profile-packets-forwarded-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **out-profile-octets-discarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the out-profile octets discarded count |
| Context | **configure** log accounting-policy *number* custom-record ref-queue e-counters out-profile-octets-discarded-count *boolean* |
| Tree | out-profile-octets-discarded-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **out-profile-octets-forwarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the out-of-profile octets forwarded count |
| Context | **configure** log accounting-policy *number* custom-record ref-queue e-counters out-profile-octets-forwarded-count *boolean* |
| Tree | out-profile-octets-forwarded-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **out-profile-packets-discarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the out-profile packets discarded count |
| Context | **configure** log accounting-policy *number* custom-record ref-queue e-counters out-profile-packets-discarded-count *boolean* |
| Tree | out-profile-packets-discarded-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **out-profile-packets-forwarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the out-of-profile packets forwarded count |
| Context | **configure** log accounting-policy *number* custom-record ref-queue e-counters out-profile-packets-forwarded-count *boolean* |
| Tree | out-profile-packets-forwarded-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **i-counters**

| | |
|---|---|
| Synopsis | Enter the **i-counters** context |
| Context | **configure** log accounting-policy *number* custom-record ref-queue i-counters |
| Tree | i-counters |
| Introduced | 16.0.R1 |
| Platforms | All |

### **all-octets-offered-count** *boolean*

| | |
|---|---|
| Synopsis | Include the all octets offered count |
| Context | **configure** log accounting-policy *number* custom-record ref-queue i-counters all-octets-offered-count *boolean* |
| Tree | all-octets-offered-count |
| Default | false |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **all-packets-offered-count** *boolean*

| | |
|---|---|
| Synopsis | Include all packets offered count |
| Context | **configure** log accounting-policy *number* custom-record ref-queue i-counters all-packets-offered-count *boolean* |
| Tree | all-packets-offered-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **high-octets-discarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the high octets discarded count |
| Context | **configure** log accounting-policy *number* custom-record ref-queue i-counters high-octets-discarded-count *boolean* |
| Tree | high-octets-discarded-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **high-octets-offered-count** *boolean*

| | |
|---|---|
| Synopsis | Include the high octets offered count |
| Context | **configure** log accounting-policy *number* custom-record ref-queue i-counters high-octets-offered-count *boolean* |
| Tree | high-octets-offered-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **high-packets-discarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the high packets discarded count |
| Context | **configure** log accounting-policy *number* custom-record ref-queue i-counters high-packets-discarded-count *boolean* |


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| | |
|---|---|
| Tree | high-packets-discarded-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **high-packets-offered-count** *boolean*

| | |
|---|---|
| Synopsis | Include the high packets offered count |
| Context | **configure** log accounting-policy *number* custom-record ref-queue i-counters high-packets-offered-count *boolean* |
| Tree | high-packets-offered-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **in-profile-octets-forwarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the in-profile octets forwarded count |
| Context | **configure** log accounting-policy *number* custom-record ref-queue i-counters in-profile-octets-forwarded-count *boolean* |
| Tree | in-profile-octets-forwarded-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **in-profile-packets-forwarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the in-profile packets forwarded count |
| Context | **configure** log accounting-policy *number* custom-record ref-queue i-counters in-profile-packets-forwarded-count *boolean* |
| Tree | in-profile-packets-forwarded-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **low-octets-discarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the low octets discarded count |
| Context | **configure** log accounting-policy *number* custom-record ref-queue i-counters low-octets-discarded-count *boolean* |
| Tree | low-octets-discarded-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **low-octets-offered-count** *boolean*

| | |
|---|---|
| Synopsis | Include the low octets offered count |
| Context | **configure** log accounting-policy *number* custom-record ref-queue i-counters low-octets-offered-count *boolean* |
| Tree | low-octets-offered-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **low-packets-discarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the low packets discarded count |
| Context | **configure** log accounting-policy *number* custom-record ref-queue i-counters low-packets-discarded-count *boolean* |
| Tree | low-packets-discarded-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **low-packets-offered-count** *boolean*

| | |
|---|---|
| Synopsis | Include the low packets offered count |
| Context | **configure** log accounting-policy *number* custom-record ref-queue i-counters low-packets-offered-count *boolean* |
| Tree | low-packets-offered-count |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **out-profile-octets-forwarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the out-of-profile octets forwarded count |
| Context | **configure** log accounting-policy *number* custom-record ref-queue i-counters out-profile-octets-forwarded-count *boolean* |
| Tree | out-profile-octets-forwarded-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **out-profile-packets-forwarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the out-of-profile packets forwarded count |
| Context | **configure** log accounting-policy *number* custom-record ref-queue i-counters out-profile-packets-forwarded-count *boolean* |
| Tree | out-profile-packets-forwarded-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **uncoloured-octets-offered-count** *boolean*

| | |
|---|---|
| Synopsis | Include the uncolored octets offered count |
| Context | **configure** log accounting-policy *number* custom-record ref-queue i-counters uncoloured-octets-offered-count *boolean* |
| Tree | uncoloured-octets-offered-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **uncoloured-packets-offered-count** *boolean*

| | |
|---|---|
| Synopsis | Include the uncolored packets offered count |
| Context | **configure** log accounting-policy *number* custom-record ref-queue i-counters uncoloured-packets-offered-count *boolean* |
| Tree | uncoloured-packets-offered-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **id** *reference*

| | |
|---|---|
| Synopsis | Queue ID |
| Context | **configure** log accounting-policy *number* custom-record ref-queue id *reference* |
| Tree | id |
| Reference | **configure** log accounting-policy *number* custom-record queue *number* |
| Notes | The following elements are part of a choice: **all** or **id**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **significant-change** *number*

| | |
|---|---|
| Synopsis | Significant change required to generate the record |
| Context | **configure** log accounting-policy *number* custom-record significant-change *number* |
| Tree | significant-change |
| Range | 0 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **default** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Default accounting policy for all objects that do not have an accounting policy |


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| | |
|---|---|
| Context | **configure** log accounting-policy *number* default *boolean* |
| Tree | default |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log accounting-policy *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **destination**

| | |
|---|---|
| Synopsis | Enter the **destination** context |
| Context | **configure** log accounting-policy *number* destination |
| Tree | destination |
| Introduced | 16.0.R1 |
| Platforms | All |

## **file** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Unique file identifier when creating a log or accounting file |
| Context | **configure** log accounting-policy *number* destination file *reference* |
| Tree | file |
| Reference | **configure** log file *file-policy-name* |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **file** or **null**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## null

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Indicate no destination for accounting policy records |
| Context | **configure** log accounting-policy *number* destination null |
| Tree | null |
| Notes | The following elements are part of a choice: **file** or **null**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## include-system-info *boolean*

| | |
|---|---|
| Synopsis | Include system information in accounting policy records |
| Context | **configure** log accounting-policy *number* include-system-info *boolean* |
| Tree | include-system-info |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## record *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.


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**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Accounting policy record type |
| Context | **configure** log accounting-policy *number* record *keyword* |
| Tree | record |
| Description | This command adds the accounting record type to the accounting policy that is forwarded to the configured accounting file. A record name can only be used in one accounting policy. To obtain a list of all record types that can be configured, use the **show log accounting-records** command.<br><br>To configure an accounting policy for access ports, select a service record (for example, service-ingress-octets). To change the record name to another service record, configure the new record name with this command.<br><br>When configuring an accounting policy for network ports, select a network record. To change the record name to another network record, configure the new record name with this command.<br><br>**Note:** AA, video, and subscriber records are not applicable to the 7950 XRS. |
| Options | service-ingress-octets, service-egress-octets, service-ingress-packets, service-egress-packets, network-ingress-octets, network-egress-octets, network-ingress-packets, network-egress-packets, compact-service-ingress-octets, combined-service-ingress, combined-network-ing-egr-octets, combined-service-ing-egr-octets, complete-service-ingress-egress, combined-sdp-ingress-egress, complete-sdp-ingress-egress, complete-subscriber-ingress-egress, aa-protocol, aa-application, aa-app-group, aa-subscriber-protocol, aa-subscriber-application, custom-record-subscriber, custom-record-service, custom-record-aa-sub, queue-group-octets, queue-group-packets, combined-queue-group, combined-mpls-lsp-ingress, combined-mpls-lsp-egress, combined-ldp-lsp-egress, saa, video, aa-performance, complete-ethernet-port, extended-service-ingress-egress, complete-network-ing-egr, aa-partition, complete-pm, aa-admit-deny, network-interface-ingress-octets, network-interface-egress-octets, network-interface-ingress-packets, network-interface-egress-packets, combined-network-interface-ingress, combined-network-interface-egress, complete-network-interface-ing-egr, access-egress-octets, access-egress-packets, combined-access-egress, combined-network-egress, complete-service-activation-test, combined-mpls-srte-egress, combined-sr-policy-egress |
| Introduced | 16.0.R1 |
| Platforms | All |

## app-route-notifications

| | |
|---|---|
| Synopsis | Enter the **app-route-notifications** context |
| Context | **configure** log app-route-notifications |


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| | |
|---|---|
| Tree | app-route-notifications |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cold-start-wait** *number*

| | |
|---|---|
| Synopsis | Time delay before notifying specific CPM applications for available route |
| Context | **configure** log app-route-notifications cold-start-wait *number* |
| Tree | cold-start-wait |
| Range | 1 to 300 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **route-recovery-wait** *number*

| | |
|---|---|
| Synopsis | Time delay before notifying specific CPM applications after route recovery or change |
| Context | **configure** log app-route-notifications route-recovery-wait *number* |
| Tree | route-recovery-wait |
| Range | 1 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **encryption-key** *encrypted-leaf*

| | |
|---|---|
| Synopsis | Secret key for the encryption of log files |
| Context | **configure** log encryption-key *encrypted-leaf* |
| Tree | encryption-key |
| Description | This command specifies the encryption key used by AES-256-CTR for log file encryption. The encryption key is used for all local log files on the system. |
| String length | 1 to 71 |
| Introduced | 22.7.R1 |
| Platforms | All |


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### **event-damping** *boolean*

| | |
|---|---|
| Synopsis | Allow event damping algorithm to suppress QoS or filter change events |
| Context | **configure** log event-damping *boolean* |
| Tree | event-damping |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event-handling**

| | |
|---|---|
| Synopsis | Enter the **event-handling** context |
| Context | **configure** log event-handling |
| Tree | event-handling |
| Introduced | 16.0.R1 |
| Platforms | All |

### **handler** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **handler** list instance |
| Context | **configure** log event-handling handler *named-item* |
| Tree | handler |
| Max. instances | 1500 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | EHS handler name |
| Context | **configure** log event-handling handler *named-item* |
| Tree | handler |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS handler |
| Context | **configure** log event-handling handler *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-handling handler *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-handling handler *named-item* entry *number* |
| Tree | entry |
| Max. instances | 1500 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | EHS handler entry ID |
| Context | **configure** log event-handling handler *named-item* entry *number* |
| Tree | entry |


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| | |
|---|---|
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS handler entry |
| Context | **configure** log event-handling handler *named-item* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-handling handler *named-item* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **min-delay** *number*

| | |
|---|---|
| Synopsis | Minimum delay between subsequent executions of the script policy |
| Context | **configure** log event-handling handler *named-item* entry *number* min-delay *number* |
| Tree | min-delay |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |


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## script-policy

| | |
|---|---|
| Synopsis | Enable the **script-policy** context |
| Context | **configure** log event-handling handler *named-item* entry *number* script-policy |
| Tree | script-policy |
| Introduced | 16.0.R1 |
| Platforms | All |

## name *reference*

| | |
|---|---|
| Synopsis | Script policy name |
| Context | **configure** log event-handling handler *named-item* entry *number* script-policy name *reference* |
| Tree | name |
| Reference | **configure** system script-control script-policy *named-item* owner *named-item* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## owner *reference*

| | |
|---|---|
| Synopsis | Script policy owner |
| Context | **configure** log event-handling handler *named-item* entry *number* script-policy owner *reference* |
| Tree | owner |
| Default | TiMOS CLI |
| Reference | **configure** system script-control script-policy *named-item* owner *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

## event-trigger

| | |
|---|---|
| Synopsis | Enter the **event-trigger** context |
| Context | **configure** log event-trigger |
| Tree | event-trigger |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## **adp** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **adp** list instance |
| Context | **configure** log event-trigger adp event *keyword* |
| Tree | adp |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS-7, 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-7, 7750 SR-1e, 7750 SR-2e, 7750 SR-s |

## **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger adp event *keyword* |
| Tree | adp |
| Options | tmnxDiscoveryEndNotify, tmnxDiscoveryCellularReq |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS-7, 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-7, 7750 SR-1e, 7750 SR-2e, 7750 SR-s |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger adp event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS-7, 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-7, 7750 SR-1e, 7750 SR-2e, 7750 SR-s |


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### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger adp event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS-7, 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-7, 7750 SR-1e, 7750 SR-2e, 7750 SR-s |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger adp event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS-7, 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-7, 7750 SR-1e, 7750 SR-2e, 7750 SR-s |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger adp event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS-7, 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-7, 7750 SR-1e, 7750 SR-2e, 7750 SR-s |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger adp event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |


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| | |
|---|---|
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS-7, 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-7, 7750 SR-1e, 7750 SR-2e, 7750 SR-s |

## debounce

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger adp event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS-7, 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-7, 7750 SR-1e, 7750 SR-2e, 7750 SR-s |

## time *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger adp event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS-7, 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-7, 7750 SR-1e, 7750 SR-2e, 7750 SR-s |

## value *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger adp event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS-7, 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-7, 7750 SR-1e, 7750 SR-2e, 7750 SR-s |


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### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger adp event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS-7, 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-7, 7750 SR-1e, 7750 SR-2e, 7750 SR-s |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger adp event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS-7, 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-7, 7750 SR-1e, 7750 SR-2e, 7750 SR-s |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger adp event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS-7, 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-7, 7750 SR-1e, 7750 SR-2e, 7750 SR-s |

### **anysec** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **anysec** list instance |
| Context | **configure** log event-trigger anysec event *keyword* |
| Tree | anysec |
| Introduced | 23.3.R1 |


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| | |
|---|---|
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se |

### **event** *keyword*

| | |
|---|---|
| Synopsis | ANYSec module event |
| Context | **configure** log event-trigger anysec event *keyword* |
| Tree | anysec |
| Options | tmnxAnySecMkaPskRollover, tmnxAnySecMkaOperStateChanged, tmnxAnySecMkaSessionInitiation, tmnxAnySecMkaSessionTermination, tmnxAnySecSessionEnabled, tmnxAnySecSessionDisabled, tmnxAnySecPeerInconsisRxSciDtctd, tmnxAnySecPeerInconsisRxSciClrd, tmnxAnySecMkaSessionEstablished, tmnxAnySecMkaSessionEnded |
| Notes | This element is part of a list key. |
| Introduced | 23.3.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger anysec event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 23.3.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger anysec event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 23.3.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se |


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### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger anysec event *keyword* entry *number* |
| Tree | entry |
| Introduced | 23.3.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger anysec event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 23.3.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger anysec event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 23.3.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se |

### **debounce**

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger anysec event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 23.3.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se |


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### **time** *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger anysec event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 23.3.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se |

### **value** *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger anysec event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 23.3.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger anysec event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 23.3.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger anysec event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |


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| | |
|---|---|
| Introduced | 23.3.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger anysec event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 23.3.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se |

### **application-assurance** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **application-assurance** list instance |
| Context | **configure** log event-trigger application-assurance event *keyword* |
| Tree | application-assurance |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger application-assurance event *keyword* |
| Tree | application-assurance |
| Options | tmnxBsxIsaAaGrpFailureV2, tmnxBsxIsaAaGrpFailureClearV2, tmnxBsxIsaAaGrpNonRedundantV2, tmnxBsxIsaAaGrpSwitchover, tmnxBsxIsaAaGrpFlowFull, tmnxBsxIsaAaGrpFlowFullClear, tmnxBsxIsaAaSubLoadBalance, tmnxBsxIsaAaGrpCapCostThres, tmnxBsxIsaAaGrpCapCostThresClear, tmnxBsxAaSubscribersUnassigned, tmnxBsxAaSubscriberAcctDataLoss, tmnxBsxAaSubPolResExceeded, tmnxBsxAaSubPolResExceededClear, tmnxBsxIsaAaGrpFlowSetup, tmnxBsxIsaAaGrpFlowSetupClear, tmnxBsxIsaAaGrpPacketRate, tmnxBsxIsaAaGrpPacketRateClear, tmnxBsxIsaAaGrpBitRate, tmnxBsxIsaAaGrpBitRateClear, tmnxBsxTransIpPolAaSubCreated, tmnxBsxTransIpPolAaSubDeleted, tmnxBsxTransIpPolRadCoAAudit, tmnxBsxTransIpPolRadCoAError, tmnxBsxTransIpPolRadDiscError, tmnxBsxTransIpPolDhcpAddWarning, tmnxBsxTransIpPolDhcpDelWarning, tmnxBsxIsaAaGrpFmSbWaSBufOvld, tmnxBsxIsaAaGrpFmSbWaSBufOvldClr, tmnxBsxIsaAaGrpToSbWaSBufOvld, tmnxBsxIsaAaGrpToSbWaSBufOvldClr, |


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tmnxBsxIsaAaGrpOvrldCutthru, tmnxBsxIsaAaGrpOvrldCutthruClr, tmnxBsxTransitIpPersistenceWarn, tmnxBsxAarpInstOperStateChanged, tmnxBsxAarpInstStateChanged, tmnxBsxRadApFailure, tmnxBsxRadApServOperStateChange, tmnxBsxMobileSubModifyFailure, tmnxBsxRadApIntrmUpdateSkipped, tmnxBsxHttpUrlParamLimitExceeded, tmnxBsxUrlFilterOperStateChange, tmnxBsxSubModifyFailure, tmnxBsxDnsIpCacheFull, tmnxBsxDnsIpCacheFullClear, tmnxBsxUrlListUpdate, tmnxBsxUrlListFailure, tmnxBsxIsaAaTimFileProcFailure, tmnxBsxStatTcaThreshCrossed, tmnxBsxStatTcaThreshCrossedClear, tmnxBsxStatPolcrTcaThreshCrossed, tmnxBsxStatPolcrTcaThreshCrClear, tmnxBsxStatFtrTcaThreshCrossed, tmnxBsxStatFtrTcaThreshCrClear, tmnxBsxStatFtrEnTcaThreshCrossed, tmnxBsxStatFtrEnTcaThreshCrClear, tmnxBsxTransIpPolDiamGxError, tmnxBsxDatapathCpuUsage, tmnxBsxDatapathCpuUsageClear, tmnxBsxTcpValTcaCrossed, tmnxBsxTcpValTcaCrossedClear, tmnxBsxCertProfileOperStateChngd, tmnxBsxSubQuarantined, tmnxBsxSubQuarantinedClear, tmnxBsxUrlFltrWebServOprStateChg

| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger application-assurance event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger application-assurance event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger application-assurance event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger application-assurance event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger application-assurance event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **debounce**

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger application-assurance event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **time** *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger application-assurance event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **value** *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger application-assurance event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger application-assurance event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |


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| | |
|---|---|
| Context | **configure** log event-trigger application-assurance event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger application-assurance event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **aps** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **aps** list instance |
| Context | **configure** log event-trigger aps event *keyword* |
| Tree | aps |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger aps event *keyword* |
| Tree | aps |
| Options | apsEventSwitchover, apsEventModeMismatch, apsEventChannelMismatch, apsEventPSBF, apsEventFEPLF, tApsModeMismatchClear, tApsChannelMismatchClear, tApsPSBFClear, tApsFEPLFClear, tApsLocalSwitchCommandSet, tApsLocalSwitchCommandClear, tApsRemoteSwitchCommandSet, tApsRemoteSwitchCommandClear, tApsMcApsCtlLinkStateChange, tApsChanTxLaisStateChange, tApsPrimaryChannelChange |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger aps event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger aps event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger aps event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger aps event *keyword* entry *number* |


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| | |
|---|---|
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger aps event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **debounce**

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger aps event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **time** *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger aps event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |


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### **value** *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger aps event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger aps event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger aps event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger aps event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |


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### **auto-prov** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **auto-prov** list instance |
| Context | **configure** log event-trigger auto-prov event *keyword* |
| Tree | auto-prov |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger auto-prov event *keyword* |
| Tree | auto-prov |
| Options | autoNodeProv |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger auto-prov event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger auto-prov event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger auto-prov event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger auto-prov event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger auto-prov event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **debounce**

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger auto-prov event *keyword* entry *number* debounce |
| Tree | debounce |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **time** *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger auto-prov event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **value** *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger auto-prov event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger auto-prov event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger auto-prov event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger auto-prov event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bfd** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **bfd** list instance |
| Context | **configure** log event-trigger bfd event *keyword* |
| Tree | bfd |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger bfd event *keyword* |
| Tree | bfd |
| Options | tmnxBfdOnLspSessDown, tmnxBfdOnLspSessUp, tmnxBfdOnLspSessDeleted, tmnxBfdOnLspSessProtChange, tmnxBfdOnLspSessNoCpmNpResources, tmnxBfdOnLspSessNoTailResources, tmnxBfdOnLspExtSessDown, tmnxBfdOnLspExtSessUp, tmnxBfdOnLspExtSessDeleted, tmnxBfdOnLspExtSessProtChange, tmnxBfdOnLspExtSessNoCpmNpResrcs |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger bfd event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger bfd event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger bfd event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger bfd event *keyword* entry *number* |


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| | |
|---|---|
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger bfd event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **debounce**

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger bfd event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | All |

### **time** *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger bfd event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **value** *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger bfd event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger bfd event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger bfd event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger bfd event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **bgp** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **bgp** list instance |
| Context | **configure** log event-trigger bgp event *keyword* |
| Tree | bgp |
| Introduced | 16.0.R1 |
| Platforms | All |

## **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger bgp event *keyword* |
| Tree | bgp |
| Options | sendNotification, receiveNotification, bgpInterfaceDown, bgpConnNoKA, bgpConnNoOpenRcvd, bgpRejectConnBadLocAddr, bgpRemoteEndClosedConn, bgpPeerNotFound, bgpConnMgrTerminated, bgpTerminated, bgpNoMemoryPeer, bgpVariableRangeViolation, bgpCfgViol, tBgpPeerGRStatusChange, tBgpNgEstablished, tBgpNgBackwardTransition, tBgpPeerNgHoldTimeInconsistent, tBgpFlowspecUnsupportdComAction, tBgp4RouteInvalid, tBgp4PathAttrInvalid, tBgp4WithdrawnRtFromUpdateError, tBgp4UpdateInvalid, tBgpGeneral, tBgpFibResourceFailPeer, tBgpReceivedInvalidNlri, tBgpMaxNgPfxLmt, tBgpMaxNgPfxLmtThresholdReached, tBgpInstanceDynamicPeerLmtReachd, tBgpPGDynamicPeerLmtReached, bgpEstablishedNotification, bgpBackwardTransNotification, tBgp4PathAttrDiscarded, tmnxBmpSessionStatusChange, tBgpInstConvStateTransition, tBgpPeerNgGRStatusChange, tBgpPGDynNbrIfMaxSessLmtReachd |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger bgp event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger bgp event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger bgp event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger bgp event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger bgp event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |


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| | |
|---|---|
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### debounce

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger bgp event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | All |

### time *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger bgp event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### value *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger bgp event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | All |

### description *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger bgp event *keyword* entry *number* description *description* |


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| | |
|---|---|
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger bgp event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger bgp event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bier** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **bier** list instance |
| Context | **configure** log event-trigger bier event *keyword* |
| Tree | bier |
| Introduced | 19.5.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger bier event *keyword* |


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| | |
|---|---|
| Tree | bier |
| Options | vRtrBierBfrIdCollision, vRtrBierMtMismatch, vRtrBierSubDomainMismatch, vRtrBierUnsupportedNhop |
| Notes | This element is part of a list key. |
| Introduced | 19.5.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger bier event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 19.5.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger bier event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 19.5.R1 |
| Platforms | All |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger bier event *keyword* entry *number* |
| Tree | entry |
| Introduced | 19.5.R1 |
| Platforms | All |


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### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger bier event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 19.5.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger bier event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 19.5.R1 |
| Platforms | All |

### **debounce**

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger bier event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 19.5.R1 |
| Platforms | All |

### **time** *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger bier event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |


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| | |
|---|---|
| Introduced | 19.5.R1 |
| Platforms | All |

### **value** *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger bier event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 19.5.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger bier event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 19.5.R1 |
| Platforms | All |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger bier event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 19.5.R1 |
| Platforms | All |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger bier event *keyword* entry *number* handler *reference* |
| Tree | handler |


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| | |
|---|---|
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 19.5.R1 |
| Platforms | All |

### **calltrace** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **calltrace** list instance |
| Context | **configure** log event-trigger calltrace event *keyword* |
| Tree | calltrace |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger calltrace event *keyword* |
| Tree | calltrace |
| Options | tmnxCallTraceMaxFilesNumReached, tmnxCallTraceLocSizeLimitReached, calltraceDebugEvent |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger calltrace event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger calltrace event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger calltrace event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger calltrace event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger calltrace event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## debounce

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger calltrace event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## time *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger calltrace event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## value *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger calltrace event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## description *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger calltrace event *keyword* entry *number* description *description* |


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| | |
|---|---|
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger calltrace event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger calltrace event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **cflowd** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **cflowd** list instance |
| Context | **configure** log event-trigger cflowd event *keyword* |
| Tree | cflowd |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger cflowd event *keyword* |


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| | |
|---|---|
| Tree | cflowd |
| Options | tmnxCflowdCreateFailure, tmnxCflowdStateChange, tmnxCflowdFlowCreateFailure, tmnxCflowdPacketTxFailure |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger cflowd event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger cflowd event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger cflowd event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger cflowd event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger cflowd event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **debounce**

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger cflowd event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | All |

### **time** *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger cflowd event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **value** *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger cflowd event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger cflowd event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger cflowd event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger cflowd event *keyword* entry *number* handler *reference* |
| Tree | handler |


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| | |
|---|---|
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **chassis** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **chassis** list instance |
| Context | **configure** log event-trigger chassis event *keyword* |
| Tree | chassis |
| Introduced | 16.0.R1 |
| Platforms | All |

## **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger chassis event *keyword* |
| Tree | chassis |
| Options | tmnxEqCardFailure, tmnxEqCardInserted, tmnxEqCardRemoved, tmnxEqWrongCard, tmnxEnvTempTooHigh, tmnxEqPowerSupplyInserted, tmnxEqPowerSupplyRemoved, tmnxRedPrimaryCPMFail, tmnxChassisNotificationClear, tmnxEqSyncIfTimingHoldover, tmnxEqSyncIfTimingHoldoverClear, tmnxEqSyncIfTimingRef1Alarm, tmnxEqSyncIfTimingRef1AlarmClear, tmnxEqSyncIfTimingRef2Alarm, tmnxEqSyncIfTimingRef2AlarmClear, tmnxEqFlashDataLoss, tmnxEqFlashDiskFull, tmnxPeSoftwareVersionMismatch, tmnxPeSoftwareLoadFailed, tmnxPeBootloaderVersionMismatch, tmnxPeBootromVersionMismatch, tmnxPeFPGAVersionMismatch, tmnxEqSyncIfTimingBITSAlarm, tmnxEqSyncIfTimingBITSAlarmClear, tmnxEqCardFirmwareUpgraded, tmnxChassisUpgradeInProgress, tmnxChassisUpgradeComplete, tmnxChassisHiBwMcastAlarm, tmnxEqOperStateChange, tmnxEqMdaCfgNotCompatible, tmnxCpmCardSyncFileNotPresent, tmnxEqMdaXplError, tmnxEqCardPChipError, tmnxEqCardSoftResetAlarm, tmnxEqMdaSyncENotCompatible, tmnxIPsecIsaGrpActiveIsaChgd, tmnxEqCardPChipMemoryEvent, tmnxIPsecIsaGrpUnableToSwitch, tmnxIPsecIsaGrpTnlLowWMark, tmnxIPsecIsaGrpTnlHighWMark, tmnxIPsecIsaGrpTnlMax, tmnxEqSyncIfTimingRef1Quality, tmnxEqSyncIfTimingRef2Quality, tmnxEqSyncIfTimingBITSQuality, tmnxEqSyncIfTimingBITS2Quality, tmnxEqSyncIfTimingRefSwitch, tmnxEqSyncIfTimingBITS2Alarm, tmnxEqSyncIfTimingBITS2AlarmClr, tmnxEqSyncIfTimingBITSOutRefChg, tmnxEqCardPChipCamEvent, tmnxEqSyncIfTimingSystemQuality, tmnxEqHwEnhancedCapability, tmnxEqSyncIfTimingPTPQuality, tmnxEqSyncIfTimingPTPAlarm, tmnxEqSyncIfTimingPTPAlarmClr, tmnxPeFirmwareVersionWarning, tmnxMDAIsaTunnelGroupChange, tmnxEqPowerCapacityExceeded, |


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tmnxEqPowerCapacityExceededClear, tmnxEqPowerLostCapacity, tmnxEqPowerLostCapacityClear, tmnxEqPowerOverloadState, tmnxEqPowerOverloadStateClear, tmnxEqCardQChipBufMemoryEvent, tmnxEqCardQChipStatsMemoryEvent, tmnxEqCardQChipIntMemoryEvent, tmnxEqCardChipIfDownEvent, tmnxEqCardChipIfCellEvent, tmnxEqLowSwitchFabricCap, tmnxEqLowSwitchFabricCapClear, tmnxEqPowerSafetyAlertThreshold, tmnxEqPowerSafetyAlertClear, tmnxEqPowerSafetyLevelThreshold, tmnxEqPowerSafetyLevelClear, tmnxEqCardTChipParityEvent, tmnxEqProvPowerCapacityAlm, tmnxEqProvPowerCapacityAlmClr, tmnxPlcyAcctStatsPoolExcResource, tmnxPlcyAcctStatsPoolLowResource, tmnxPlcyAcctStatsEventOvrflwClr, tmnxPlcyAcctStatsEventOvrflw, tmnxIomResHighLimitReached, tmnxIomResExhausted, tmnxIomResStateClr, tmnxIomEventOverflow, tmnxIomEventOverflowClr, tmnxEqDataPathFailureProtImpact, tmnxExtStandbyCpmReboot, tmnxExtStandbyCpmRebootFail, tmnxEqMdaIngrXplError, tmnxSyncIfTimBITS2048khzUnsup, tmnxSyncIfTimBITS2048khzUnsupClr, tmnxEqMgmtEthRedStandbyRaise, tmnxEqMgmtEthRedStandbyClear, tmnxEqPhysChassPowerSupOvrTmp, tmnxEqPhysChassPowerSupOvrTmpClr, tmnxEqPhysChassPowerSupAcFail, tmnxEqPhysChassPowerSupAcFailClr, tmnxEqPhysChassPowerSupDcFail, tmnxEqPhysChassPowerSupDcFailClr, tmnxEqPhysChassPowerSupInFail, tmnxEqPhysChassPowerSupInFailClr, tmnxEqPhysChassPowerSupOutFail, tmnxEqPhysChassPowerSupOutFailCl, tmnxEqPhysChassisFanFailure, tmnxEqPhysChassisFanFailureClear, tIPsecIsaMemLowWatermark, tIPsecIsaMemHighWatermark, tIPsecIsaMemMax, tmnxCpmMemSizeMismatch, tmnxCpmMemSizeMismatchClear, tmnxPhysChassPwrSupWrgFanDir, tmnxPhysChassPwrSupWrgFanDirClr, tmnxPhysChassPwrSupPemACRect, tmnxPhysChassPwrSupPemACRectClr, tmnxPhysChassPwrSupInputFeed, tmnxPhysChassPwrSupInputFeedClr, tmnxEqBpEpromFail, tmnxEqBpEpromFailClear, tmnxEqBpEpromWarning, tmnxEqBpEpromWarningClear, tmnxPhysChassisPCMInputFeed, tmnxPhysChassisPCMInputFeedClr, tmnxIPMacQosIngOverload, tmnxIPMacQosIngOverloadClear, tmnxIPQosEgrOverload, tmnxIPQosEgrOverloadClear, tmnxIPv6QosIngOverload, tmnxIPv6QosIngOverloadClear, tmnxIPv6QosEgrOverload, tmnxIPv6QosEgrOverloadClear, tmnxIPMacFilterIngOverload, tmnxIPMacFilterIngOverloadClear, tmnxIPMacFilterEgrOverload, tmnxIPMacFilterEgrOverloadClear, tmnxIPv6FilterIngOverload, tmnxIPv6FilterIngOverloadClear, tmnxIPv6FilterEgrOverload, tmnxIPv6FilterEgrOverloadClear, tmnxIPMacCpmFilterOverload, tmnxIPMacCpmFilterOverloadClear, tmnxIPv6CpmFilterOverload, tmnxIPv6CpmFilterOverloadClear, tmnxBluetoothModuleConnectionChg, tmnxGnssAcquiringFix, tmnxGnssAcquiredFix, tmnxPhysChassisPMOutFail, tmnxPhysChassisPMOutFailClr, tmnxPhysChassisPMInputFeed, tmnxPhysChassisPMInputFeedClr, tmnxPhysChassisFilterDoorOpen, tmnxPhysChassisFilterDoorClosed, tmnxPhysChassisPMOverTemp, tmnxPhysChassisPMOverTempClr, tmnxEqFpgaSoftError, tmnxEqSyncIfTimingSyncEQuality, tmnxEqSyncIfTimingSyncE2Quality, tmnxEqSyncIfTimingSyncEAlarm, tmnxEqSyncIfTimingSyncEAlarmClr, tmnxEqSyncIfTimingSyncE2Alarm, tmnxEqSyncIfTimingSyncE2AlarmClr, tmnxEqHwEventDetected, tmnxTunnelGrpEsaVmActivity, tmnxEsaDiscovered, tmnxEsaConnected, tmnxEsaDisconnected, tmnxEsaFailure, tmnxEsaCleared,


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tmnxEsaVmCreated, tmnxEsaVmBooted, tmnxEsaVmRemoved, tmnxEsaVmCleared, tmnxEsaVmFailure, tIPsecEsaVmMemLowWatermark, tIPsecEsaVmMemHighWatermark, tmnxPeKernelVersionMismatch, tmnxFPResourcePolicyModified, tmnxFPResourcePolicyModifiedClr, tmnxEqSyncIfTimingGnssQuality, tmnxEqSyncIfTimingGnss2Quality, tmnxEqSyncIfTimingGnssAlarm, tmnxEqSyncIfTimingGnss2Alarm, tmnxEqSyncIfTimingGnssAlarmClr, tmnxEqSyncIfTimingGnss2AlarmClr, tmnxEsaFirmwareUpgradeStarted, tmnxPlcyAcctPlcrPoolExcResource, tmnxPlcyAcctPlcrPoolLowResource, tChassisAirflowDirMismatch, tChassisAirflowDirMismatchClr, tChassisPowerSupplyMismatch, tChassisPowerSupplyMismatchClr, tChassisPowerSupplyUnsup, tmnxHwAggShpSchedEventOvrflwClr, tmnxHwAggShpSchedEventOvrflw, tmnxFPResOversubscribed, tmnxFPResOversubscribedCleared, tmnxIPMacFilterIngNearFull, tmnxIPMacFilterIngNearFullClear, tmnxIPMacFilterEgrNearFull, tmnxIPMacFilterEgrNearFullClear, tmnxIPv6FilterIngNearFull, tmnxIPv6FilterIngNearFullClear, tmnxIPv6FilterEgrNearFull, tmnxIPv6FilterEgrNearFullClear, tmnxEsaStolenTimeDetected, tmnxEsaHwStatusDegraded, tmnxEsaHwStatusDegradedClr, tmnxEsaHwStatusCritical, tmnxEsaHwStatusCriticalClr, tmnxEsaHwPwrSup1Degraded, tmnxEsaHwPwrSup1DegradedClr, tmnxEsaHwPwrSup1Failed, tmnxEsaHwPwrSup1FailedClr, tmnxEsaHwPwrSup2Degraded, tmnxEsaHwPwrSup2DegradedClr, tmnxEsaHwPwrSup2Failed, tmnxEsaHwPwrSup2FailedClr, tmnxEsaHwFanBankNonRedun, tmnxEsaHwFanBankNonRedunClr, tmnxEsaHwFanBankFailRedun, tmnxEsaHwFanBankFailRedunClr, tmnxEsaHwFanStatusDegraded, tmnxEsaHwFanStatusDegradedClr, tmnxEsaHwFanStatusFailed, tmnxEsaHwFanStatusFailedClr, tmnxEsaHwPwrSupMismatch, tmnxEsaHwPwrSupMismatchClr, tmnxEsaHwPwrSupBankNonRedun, tmnxEsaHwPwrSupBankNonRedunClr, tmnxEsaHwPwrSupBankFailRedun, tmnxEsaHwPwrSupBankFailRedunClr, tmnxEsaHwTemperatureDegraded, tmnxEsaHwTemperatureDegradedClr, tmnxEsaHwTemperatureFailed, tmnxEsaHwTemperatureFailedClr, tmnxPowerSupplyFanFailed, tmnxPowerSupplyFanFailedClear, tmnxIxrResourceHighUsage, tmnxIxrResourceExhausted, tmnxIxrResourceRecovered, tmnxIxrResourceHighUsageByOwner, tmnxIxrResourceExhaustedByOwner, tmnxIxrResourceRecoveredByOwner, tmnxSasAlarminput1StateChanged, tmnxSasAlarminput2StateChanged, tmnxSasAlarminput3StateChanged, tmnxSasAlarminput4StateChanged, tmnxAlarmInputVoltageFailure, tmnxIomRsrcUsageHighLimitReached, tmnxIomRsrcUsageExhausted, tmnxIomRsrcUsageRecovered, tmnxIomRsrcEventOverflow, tmnxIomRsrcEventOverflowClr, tmnxIomRsrcOwnerOversubscribed, tmnxIomRsrcOwnerOversubscrbdClr, tmnxInterChassisCommsDown, tmnxInterChassisCommsUp, tmnxCpmIcPortDown, tmnxCpmIcPortUp, tmnxCpmIcPortSFFInserted, tmnxCpmIcPortSFFRemoved, tmnxCpmANoLocalIcPort, tmnxCpmBNoLocalIcPort, tmnxCpmALocalIcPortAvail, tmnxCpmBLocalIcPortAvail, CpmIcPortSFFStatusFailure, CpmIcPortSFFStatusDDMCorrupt, CpmIcPortSFFStatusReadError, CpmIcPortSFFStatusUnsupported, tmnxCpmIcPortDDMFailure, tmnxCpmIcPortDDMClear, tmnxSfmIcPortDown, tmnxSfmIcPortUp, tmnxSfmIcPortSFFInserted, tmnxSfmIcPortSFFRemoved, SfmIcPortSFFStatusFailure, SfmIcPortSFFStatusDDMCorrupt, SfmIcPortSFFStatusReadError, SfmIcPortSFFStatusUnsupported,


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| | |
|---|---|
| | tmnxSfmIcPortDDMFailure, tmnxSfmIcPortDDMClear, tmnxSfmIcPortDegraded, tmnxSfmIcPortDegradedClear, tmnxCardResMacFdbHighUsgSet, tmnxCardResMacFdbHighUsgClr, tmnxPowerShelfInputPwrModeSwitch, tmnxPowerShelfCommsDown, tmnxPowerShelfCommsUp, tmnxPowerShelfOutputStatusSwitch, tmnxPowerShelfOutputStatusDown, tmnxPowerShelfOutputStatusUp, tmnxEqCardMissing, tmnxEqCardMissingClear, tmnxEqEsaHostPortCrcAlarm, tmnxEqEsaHostPortCrcAlarmClear, tmnxEsaFirmwareUpgradeInProgress, tmnxEsaFirmwareUpgradeDone, tmnxEsaFirmwareUpgradeFailed |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger chassis event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger chassis event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger chassis event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger chassis event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger chassis event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **debounce**

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger chassis event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | All |

### **time** *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger chassis event *keyword* entry *number* debounce time *number* |
| Tree | time |


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| | |
|---|---|
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **value** *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger chassis event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger chassis event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger chassis event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger chassis event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **debug** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **debug** list instance |
| Context | **configure** log event-trigger debug event *keyword* |
| Tree | debug |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger debug event *keyword* |
| Tree | debug |
| Options | traceEvent |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger debug event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger debug event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger debug event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger debug event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger debug event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |


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| | |
|---|---|
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### debounce

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger debug event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | All |

### time *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger debug event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### value *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger debug event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | All |

### description *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger debug event *keyword* entry *number* description *description* |


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| | |
|---|---|
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger debug event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger debug event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **dhcp** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **dhcp** list instance |
| Context | **configure** log event-trigger dhcp event *keyword* |
| Tree | dhcp |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger dhcp event *keyword* |


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| | |
|---|---|
| Tree | dhcp |
| Options | svcDHCPLseStateRestoreProblem, sapDHCPLeaseEntriesExceeded, sapDHCPLseStateOverride, sapDHCPSuspiciousPcktRcvd, sapDHCPLseStatePopulateErr, sdpBindDHCPLeaseEntriesExceeded, sdpBindDHCPLseStateOverride, sdpBindDHCPSuspiciousPcktRcvd, sdpBindDHCPLseStatePopulateErr, tmnxVRtrDHCPSuspiciousPcktRcvd, sapStaticHostDynMacConflict, sapDHCPProxyServerError, tmnxVRtrDHCPIfLseStatesExceeded, sdpBindDHCPProxyServerError, tmnxVRtrDHCP6RelayLseStExceeded, tmnxVRtrDHCP6ServerLseStExceeded, tmnxVRtrDHCP6LseStateOverride, tmnxVRtrDHCP6RelayReplyStripUni, tmnxVRtrDHCP6IllegalClientAddr, tmnxVRtrDHCP6AssignedIllegSubnet, tmnxVRtrDHCP6ClientMacUnresolved, sapDHCPLseStateMobilityError, sdpBindDHCPLseStateMobilityErr, svcDHCPMiscellaneousProblem, sapStatHost6DynMacConflict |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger dhcp event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger dhcp event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger dhcp event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger dhcp event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger dhcp event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **debounce**

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger dhcp event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **time** *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger dhcp event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **value** *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger dhcp event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger dhcp event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger dhcp event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger dhcp event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **dhcps** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **dhcps** list instance |
| Context | **configure** log event-trigger dhcps event *keyword* |
| Tree | dhcps |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger dhcps event *keyword* |
| Tree | dhcps |
| Options | tmnxDhcpSvrSubnetMinFreeExc, tmnxDhcpSvrHostConflict, tmnxDhcpSvrPoolUnknown, tmnxDhcpSvrLeaseNotOwner, tmnxDhcpSvrDeclineStaticAddr, tmnxDhcpSvrMsgTooLong, tmnxDhcpsFoStateChange, tmnxDhcpsFoLeaseUpdateFailed, tmnxDhcpSvrUserDbUnknown, tmnxDhcpSvrMaxLeasesReached, tmnxDhcpSvrNoSubnetFixAddr, tmnxDhcpSvrLeaseDefaultTimers, tmnxDhcpSvrPoolMinFreeExc, tmnxDhcpSvrSubnetDepleted, tmnxDhcpSvrPoolDepleted, tmnxDhcpSvrIntLseConflict, tmnxDhcpSvrLeaseModify, tmnxDhcpSvrLeaseCreate, tmnxDhcpSvrLeaseDelete, tmnxLudbDhcpGroupIfTooLong, tmnxLudbPppoeGroupIfTooLong, tmnxDhcpSvrNoContFreeBlocks, tmnxDhcpsPoolFoStateChange, tmnxDhcpsPoolFoLeaseUpdateFailed, tmnxDhcpSvrPlThTooLowV6, tmnxDhcpSvrPlThDepletedV6, tmnxDhcpSvrPfxThTooLowV6, tmnxDhcpSvrPfxThDepletedV6, tmnxDhcpsLeaseOfferedExpired, tmnxDhcpsAddrAllocationFailure, tmnxDhcpsPacketDropped |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger dhcps event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger dhcps event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger dhcps event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger dhcps event *keyword* entry *number* |
| Tree | entry |


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| | |
|---|---|
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger dhcps event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **debounce**

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger dhcps event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | All |

### **time** *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger dhcps event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **value** *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger dhcps event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger dhcps event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger dhcps event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger dhcps event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **diameter** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **diameter** list instance |
| Context | **configure** log event-trigger diameter event *keyword* |
| Tree | diameter |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger diameter event *keyword* |
| Tree | diameter |
| Options | tmnxDiamPolicyPeerStateChange, tmnxDiamAppSessionFailure, tmnxDiamSessionEvent, tmnxDiamPpPrxMcLocStateChanged, tmnxDiamMessageDropped, tmnxDiamNdPeerStatActiveChanged |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger diameter event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger diameter event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger diameter event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger diameter event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger diameter event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **debounce**

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger diameter event *keyword* entry *number* debounce |


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| | |
|---|---|
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | All |

### **time** *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger diameter event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **value** *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger diameter event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger diameter event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger diameter event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger diameter event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **dot1x** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **dot1x** list instance |
| Context | **configure** log event-trigger dot1x event *keyword* |
| Tree | dot1x |
| Introduced | 23.7.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Events for dynsvc module |
| Context | **configure** log event-trigger dot1x event *keyword* |
| Tree | dot1x |
| Options | alxDot1xHostAuthEvent |
| Notes | This element is part of a list key. |
| Introduced | 23.7.R1 |
| Platforms | All |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger dot1x event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 23.7.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger dot1x event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 23.7.R1 |
| Platforms | All |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger dot1x event *keyword* entry *number* |
| Tree | entry |
| Introduced | 23.7.R1 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger dot1x event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 23.7.R1 |


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| | |
|---|---|
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger dot1x event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 23.7.R1 |
| Platforms | All |

### **debounce**

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger dot1x event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 23.7.R1 |
| Platforms | All |

### **time** *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger dot1x event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 23.7.R1 |
| Platforms | All |

### **value** *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger dot1x event *keyword* entry *number* debounce value *number* |
| Tree | value |


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| | |
|---|---|
| Range | 2 to 15 |
| Introduced | 23.7.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger dot1x event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 23.7.R1 |
| Platforms | All |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger dot1x event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 23.7.R1 |
| Platforms | All |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger dot1x event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 23.7.R1 |
| Platforms | All |

### **dynsvc** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **dynsvc** list instance |
| Context | **configure** log event-trigger dynsvc event *keyword* |


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| | |
|---|---|
| Tree | dynsvc |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger dynsvc event *keyword* |
| Tree | dynsvc |
| Options | tmnxDynSvcSapFailed |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger dynsvc event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger dynsvc event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger dynsvc event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger dynsvc event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger dynsvc event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **debounce**

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger dynsvc event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **time** *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger dynsvc event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **value** *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger dynsvc event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger dynsvc event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger dynsvc event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger dynsvc event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **efm-oam** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **efm-oam** list instance |
| Context | **configure** log event-trigger efm-oam event *keyword* |
| Tree | efm-oam |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger efm-oam event *keyword* |
| Tree | efm-oam |
| Options | tmnxDot3OamPeerChanged, tmnxDot3OamLoopDetected, tmnxDot3OamLoopCleared, dot3OamThresholdEvent, dot3OamNonThresholdEvent, tmnxDot3OamSdThresholdEvent, tmnxDot3OamThresholdEventClr, tmnxDot3OamNonThresholdEventClr |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |


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| | |
|---|---|
| Context | **configure** log event-trigger efm-oam event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger efm-oam event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger efm-oam event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger efm-oam event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger efm-oam event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **debounce**

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger efm-oam event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | All |

### **time** *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger efm-oam event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **value** *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger efm-oam event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger efm-oam event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger efm-oam event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger efm-oam event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **elmi** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **elmi** list instance |
| Context | **configure** log event-trigger elmi event *keyword* |


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| | |
|---|---|
| Tree | elmi |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger elmi event *keyword* |
| Tree | elmi |
| Options | tmnxElmiIfStatusChangeEvent, tmnxElmiEVCStatusChangeEvent |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger elmi event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger elmi event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger elmi event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger elmi event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger elmi event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **debounce**

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger elmi event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **time** *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger elmi event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **value** *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger elmi event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger elmi event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger elmi event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger elmi event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ering** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **ering** list instance |
| Context | **configure** log event-trigger ering event *keyword* |
| Tree | ering |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger ering event *keyword* |
| Tree | ering |
| Options | tmnxEthRingPathFwdStateChange, tmnxEthRingApsPrvsnRaiseAlarm, tmnxEthRingApsPrvsnClearAlarm |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger ering event *keyword* admin-state *keyword* |
| Tree | admin-state |


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| | |
|---|---|
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger ering event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger ering event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger ering event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |


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| | |
|---|---|
| Context | **configure** log event-trigger ering event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

## debounce

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger ering event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | All |

## time *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger ering event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

## value *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger ering event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger ering event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger ering event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger ering event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **eth-cfm** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **eth-cfm** list instance |
| Context | **configure** log event-trigger eth-cfm event *keyword* |
| Tree | eth-cfm |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger eth-cfm event *keyword* |
| Tree | eth-cfm |
| Options | dot1agCfmFaultAlarm, tmnxDot1agCfmMepLbmTestComplete, tmnxDot1agCfmMepLtmTestComplete, tmnxDot1agCfmMepEthTestComplete, tmnxDot1agCfmMepDMTestComplete, tmnxDot1agCfmMepAisStateChanged, tmnxDot1agCfmMipEvaluation, tmnxDot1agCfmMepSLMTestComplete, tmnxDot1agCfmMepCsfStateChanged, tmnxDot1agCfmMepFcltyFaultRaise, tmnxDot1agCfmMepFcltyFaultClear, tmnxDot1agCfmMepOperGrpStateChgd |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger eth-cfm event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger eth-cfm event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |


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| | |
|---|---|
| Context | **configure** log event-trigger eth-cfm event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger eth-cfm event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger eth-cfm event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **debounce**

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger eth-cfm event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **time** *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger eth-cfm event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **value** *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger eth-cfm event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger eth-cfm event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger eth-cfm event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger eth-cfm event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **etun** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **etun** list instance |
| Context | **configure** log event-trigger etun event *keyword* |
| Tree | etun |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger etun event *keyword* |
| Tree | etun |
| Options | tmnxEthTunnelApsCfgRaiseAlarm, tmnxEthTunnelApsCfgClearAlarm, tmnxEthTunnelApsPrvsnRaiseAlarm, tmnxEthTunnelApsPrvsnClearAlarm, tmnxEthTunnelApsNoRspRaiseAlarm, tmnxEthTunnelApsNoRspClearAlarm, tmnxEthTunnelApsSwitchoverAlarm |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |


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| | |
|---|---|
| Context | **configure** log event-trigger etun event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger etun event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger etun event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger etun event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger etun event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **debounce**

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger etun event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | All |

### **time** *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger etun event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **value** *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger etun event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger etun event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger etun event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger etun event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **filter** list instance |
| Context | **configure** log event-trigger filter event *keyword* |
| Tree | filter |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger filter event *keyword* |
| Tree | filter |
| Options | tIPFilterPBRPacketsDrop, tFilterSubInsSpaceAlarmRaised, tFilterSubInsSpaceAlarmCleared, tFilterSubInsFltrEntryDropped, tFilterBgpFlowSpecProblem, tFilterApplyPathProblem, tFilterRadSharedFltrAlarmRaised, tFilterRadSharedFltrAlarmClear, tFilterEmbeddingOperStateChange, tFilterEmbedOpenflowOperStateChg, tFilterOpenflowRequestRejected, tFilterEmbedFlowspecOperStateChg, tFilterRPActiveDestChangeEvent |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger filter event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger filter event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger filter event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger filter event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger filter event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **debounce**

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger filter event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **time** *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger filter event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **value** *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger filter event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger filter event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger filter event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger filter event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **gsmp** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **gsmp** list instance |
| Context | **configure** log event-trigger gsmp event *keyword* |
| Tree | gsmp |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger gsmp event *keyword* |
| Tree | gsmp |
| Options | tmnxAncpIngRateMonitorEvent, tmnxAncpIngRateMonitorEventL, tmnxAncpEgrRateMonitorEvent, tmnxAncpEgrRateMonitorEventL, tmnxAncpShcvDisabledEvent, tmnxAncpShcvDisabledEventL, tmnxAncpSesRejected, tmnxAncpStringRejected |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger gsmp event *keyword* admin-state *keyword* |


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| | |
|---|---|
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger gsmp event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger gsmp event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger gsmp event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger gsmp event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **debounce**

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger gsmp event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | All |

### **time** *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger gsmp event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **value** *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger gsmp event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger gsmp event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger gsmp event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger gsmp event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **igmp** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **igmp** list instance |
| Context | **configure** log event-trigger igmp event *keyword* |
| Tree | igmp |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger igmp event *keyword* |
| Tree | igmp |
| Options | vRtrIgmpIfRxQueryVerMismatch, vRtrIgmpIfCModeRxQueryMismatch, vRtrIgmpMaxGrpsLimitExceeded, vRtrIgmpMcacPlcyDropped, vRtrIgmpHostInstantiationFail, vRtrIgmpHostMaxGrpsLimitExceeded, vRtrIgmpHostMcacPlcyDropped, vRtrIgmpHostCModeRxQueryMismatch, vRtrIgmpHostRxQueryVerMismatch, vRtrIgmpHostMaxSrcsLimitExceeded, vRtrIgmpMaxSrcsLimitExceeded, vRtrIgmpGrpIfSapMaxGrpsLimExceed, vRtrIgmpGrpIfSapMaxSrcsLimExceed, vRtrIgmpGrpIfSapMcacPlcyDropped, vRtrIgmpGrpIfSapCModeRxQueryMism, vRtrIgmpGrpIfSapRxQueryVerMism, vRtrIgmpHostMaxGrpSrcsLimitExcd, vRtrIgmpMaxGrpSrcsLimitExceeded, vRtrIgmpGrpIfSapMaxGrpSrcLimExcd, vRtrIgmpHostQryIntervalConflict, vRtrIgmpNotifyNumOfIPsecIfLowWm, vRtrIgmpNotifyNumOfIPsecIfHighWm, vRtrIgmpNotifyNumOfIPsecIfMaxRch, vRtrIgmpSlaProfInstMcacPlcyDrop |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger igmp event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger igmp event *keyword* description *description* |
| Tree | description |


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| | |
|---|---|
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger igmp event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger igmp event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger igmp event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **debounce**

| | |
|---|---|
| Synopsis | Enter the **debounce** context |


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| | |
|---|---|
| Context | **configure** log event-trigger igmp event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | All |

### **time** *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger igmp event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **value** *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger igmp event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger igmp event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger igmp event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger igmp event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **igmp-snooping** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **igmp-snooping** list instance |
| Context | **configure** log event-trigger igmp-snooping event *keyword* |
| Tree | igmp-snooping |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger igmp-snooping event *keyword* |
| Tree | igmp-snooping |
| Options | sapIgmpSnpgGrpLimitExceeded, sapIgmpSnpgMcacPlcyDropped, sdpBndIgmpSnpgGrpLimitExceeded, sdpBndIgmpSnpgMcacPlcyDropped, sapIgmpSnpgMcsFailure, sapIgmpSnpgSrcLimitExceeded, sdpBndIgmpSnpgSrcLimitExceeded, sdpBndIgmpSnpgGrpSrcLimitExceed, sapIgmpSnpgGrpSrcLimitExceeded, eMplsIgmpSnpgMfibFailure |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger igmp-snooping event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger igmp-snooping event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger igmp-snooping event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger igmp-snooping event *keyword* entry *number* |


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| | |
|---|---|
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger igmp-snooping event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

## **debounce**

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger igmp-snooping event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | All |

## **time** *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger igmp-snooping event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **value** *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger igmp-snooping event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger igmp-snooping event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger igmp-snooping event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger igmp-snooping event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## **ip** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **ip** list instance |
| Context | **configure** log event-trigger ip event *keyword* |
| Tree | ip |
| Introduced | 16.0.R1 |
| Platforms | All |

## **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger ip event *keyword* |
| Tree | ip |
| Options | clearRTMError, ipEtherBroadcast, ipDuplicateAddress, ipArpInfoOverwritten, fibAddFailed, qosNetworkPolicyMallocFailed, ipArpBadInterface, ipArpDuplicateIpAddress, ipArpDuplicateMacAddress, ipAnyDuplicateAddress, labelIndexAllocFailed |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger ip event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger ip event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger ip event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger ip event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger ip event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### debounce

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger ip event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | All |

### time *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger ip event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### value *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger ip event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | All |

### description *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger ip event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger ip event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger ip event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipsec** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **ipsec** list instance |
| Context | **configure** log event-trigger ipsec event *keyword* |
| Tree | ipsec |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger ipsec event *keyword* |
| Tree | ipsec |


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| | |
|---|---|
| Options | tIPsecRUTnlFailToCreate, tIPsecRUSAFailToAddRoute, tIPsecBfdIntfSessStateChgd, tIPsecRadAcctPlcyFailure, tIPSecTrustAnchorPrfOprChg, tIPsecTunnelEncapIpMtuTooSmall, tIPsecRuTnlEncapIpMtuTooSmall, tmnxSecNotifCmptedCertHashChngd, tmnxSecNotifCmptedCertChnChngd, tmnxSecNotifSendChnNotInCmptChn, tmnxIPsecTunnelOperStateChange, tmnxIPsecGWOperStateChange, tIPsecRUTnlRemoved, tIPsecTunnelProtocolFailed |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger ipsec event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger ipsec event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger ipsec event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger ipsec event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger ipsec event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **debounce**

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger ipsec event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **time** *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger ipsec event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **value** *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger ipsec event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger ipsec event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger ipsec event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger ipsec event *keyword* entry *number* handler *reference* |
| Tree | handler |


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| | |
|---|---|
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **isis** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **isis** list instance |
| Context | **configure** log event-trigger isis event *keyword* |
| Tree | isis |
| Introduced | 16.0.R1 |
| Platforms | All |

## **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger isis event *keyword* |
| Tree | isis |
| Options | vRtrIsisSpbNbrMultAdjExists, vRtrIsisSpbNbrMultAdjExistsClear, vRtrSpbEctFidCfgChg, tmnxIsisDatabaseOverload, tmnxIsisManualAddressDrops, tmnxIsisCorruptedLSPDetected, tmnxIsisMaxSeqExceedAttempt, tmnxIsisIDLenMismatch, tmnxIsisMaxAreaAddrsMismatch, tmnxIsisOwnLSPPurge, tmnxIsisSequenceNumberSkip, tmnxIsisAutTypeFail, tmnxIsisAuthFail, tmnxIsisVersionSkew, tmnxIsisAreaMismatch, tmnxIsisRejectedAdjacency, tmnxIsisLSPTooLargeToPropagate, tmnxIsisOrigLSPBufSizeMismatch, tmnxIsisProtoSuppMismatch, tmnxIsisAdjacencyChange, tmnxIsisCircIdExhausted, tmnxIsisAdjRestartStatusChange, tmnxIsisLdpSyncTimerStarted, tmnxIsisLdpSyncExit, tmnxIsisExportLimitReached, tmnxIsisExportLimitWarning, tmnxIsisRoutesExpLmtDropped, tmnxIsisFailureDisabled, tmnxIsisSidError, tmnxIsisSidNotInLabelRange, tmnxIsisRejectedAdjacencySid, tmnxIsisLSPPurge, tmnxIsisPfxLimitOverloadWarning, tmnxIsisAdjBfdSessionSetupFail, tmnxIsisSrgbBadLabelRange, tmnxIsisCircMtuTooLow, tmnxIsisRejectedAdjacencySet, tmnxIsisCorruptRemainingLifetime, tmnxIsisSidStatsIndexAlloc, tmnxIsisFaOperParticipationDown, tmnxIsisRejectedEndXSid, tmnxIsisRejectedPgId, tmnxIsisSrv6LocError, tmnxIsisSrv6StaticSidIfTypeError |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger isis event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger isis event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger isis event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger isis event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger isis event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **debounce**

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger isis event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | All |

### **time** *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger isis event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **value** *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger isis event *keyword* entry *number* debounce value *number* |
| Tree | value |


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| | |
|---|---|
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger isis event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger isis event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger isis event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **l2tp** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **l2tp** list instance |
| Context | **configure** log event-trigger l2tp event *keyword* |


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| | |
|---|---|
| Tree | l2tp |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger l2tp event *keyword* |
| Tree | l2tp |
| Options | tmnxL2tpPeerUnreachable, tmnxL2tpIsaMdaVRtrStateChange, tmnxL2tpLnsSePppSessionFailure, tmnxL2tpVappVRtrStateChange, tmnxL2tpTunnelBlacklisted, tmnxL2tpTunnelSelBlacklistFull, tmnxL2tpLnsPppNcpFailure, tmnxL2tpApFailure |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger l2tp event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger l2tp event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger l2tp event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger l2tp event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger l2tp event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **debounce**

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger l2tp event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **time** *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger l2tp event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **value** *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger l2tp event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger l2tp event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger l2tp event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger l2tp event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **lag** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **lag** list instance |
| Context | **configure** log event-trigger lag event *keyword* |
| Tree | lag |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger lag event *keyword* |
| Tree | lag |
| Options | DynamicCostOn, DynamicCostOff, LagPortAddFailed, LagSubGroupSelected, LagPortAddFailureCleared, LagStateEvent, tLagMemberStateEvent, tmnxLagBfdMemStateChanged, tLagAdaptiveLoadbalancingChanged |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger lag event *keyword* admin-state *keyword* |
| Tree | admin-state |


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| | |
|---|---|
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger lag event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger lag event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger lag event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |


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| | |
|---|---|
| Context | **configure** log event-trigger lag event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

## debounce

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger lag event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | All |

## time *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger lag event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

## value *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger lag event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger lag event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger lag event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger lag event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ldap** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **ldap** list instance |
| Context | **configure** log event-trigger ldap event *keyword* |
| Tree | ldap |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger ldap event *keyword* |
| Tree | ldap |
| Options | tmnxLdapOperStateChange, tmnxLdapServerOperStateChange |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger ldap event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger ldap event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger ldap event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger ldap event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger ldap event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **debounce**

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger ldap event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | All |

### **time** *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger ldap event *keyword* entry *number* debounce time *number* |
| Tree | time |


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| | |
|---|---|
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **value** *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger ldap event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger ldap event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger ldap event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |


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| | |
|---|---|
| Context | **configure** log event-trigger ldap event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **ldp** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **ldp** list instance |
| Context | **configure** log event-trigger ldp event *keyword* |
| Tree | ldp |
| Introduced | 16.0.R1 |
| Platforms | All |

## **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger ldp event *keyword* |
| Tree | ldp |
| Options | vRtrLdpStateChange, vRtrLdpGroupIdMismatch, vRtrLdpNgIpv4InstStateChange, vRtrLdpNgIpv6InstStateChange, vRtrLdpNgIfStateChange, vRtrLdpNgInetIfStateChange, vRtrLdpNgTargPeerStateChange, vRtrLdpNgSessionStateChange, vRtrLdpNgSessMaxFecThresChanged, vRtrLdpNgSessMaxFecLimitReached, vRtrLdpNgResourceExhaustion, vRtrLdpNgAddrFecCommMismatch |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger ldp event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger ldp event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger ldp event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger ldp event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger ldp event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |


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| | |
|---|---|
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### debounce

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger ldp event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | All |

### time *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger ldp event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### value *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger ldp event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | All |

### description *description*

| | |
|---|---|
| Synopsis | Text description |


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| | |
|---|---|
| Context | **configure** log event-trigger ldp event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger ldp event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger ldp event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **li** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **li** list instance |
| Context | **configure** log event-trigger li event *keyword* |
| Tree | li |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |


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| | |
|---|---|
| Context | **configure** log event-trigger li event *keyword* |
| Tree | li |
| Options | sbiBootLiConfig, sourceEnabled, sourceDisabled, destinationEnabled, destinationDisabled, sourceSapChange, sourceSubscriberChange, tMirrorSourceIPFltrChangeReject, tMirrorSourceMacFltrChangeReject, tMirrorSourceFilterAssignReject, tMirrorDestinationChangeReject, tMirrorSourceFilterOverruled, tMirrorSourceFilterAssignWarn, tMirrorFilterAssignToSapWarn, tMirrorFilterAssignToSdpWarn, tMirrorFilterAssignToItfWarn, tMirrorSourceLiFilterChanged, tMirrorSourceLiSubProblem, tMirrorSourceIPv6FltrChangeRej, tMirrorLiNatLsnSubOperStateCh, tMirrorLiNatL2awSubOperStateCh, tMirrorLiNat64SubOperStateCh, tMirrorLiX2Alarm, tFltrLiRsvdBlockRangeChangeEvent, tMirrorLiSrcPortLicInvalid, tMirrorLiXIfLicenseInvalid, tMirrorLiUpSubFailed, tMirrorLiUpSubSuccess, tMirrorLiUpIeInvalid, tMirrorLiSapUnavailSath, tMirrorLiSapUnavailSathClr, tMirrorLiFltrUnavailSath, tMirrorLiFltrUnavailSathClr, tMirrorLiPortUnavailSath, tMirrorLiPortUnavailSathClr, cli_user_login, cli_user_logout, cli_user_login_failed, cli_user_login_max_attempts, ftp_user_login, ftp_user_logout, ftp_user_login_failed, ftp_user_login_max_attempts, ssh_user_login, ssh_user_logout, ssh_user_login_failed, ssh_user_login_max_attempts, cli_user_io, snmp_user_set, cli_config_io, cli_unauth_user_io, cli_unauth_config_io, grpc_user_login, grpc_user_logout, grpc_user_login_failed, grpc_user_login_max_attempts, host_snmp_attempts, radiusFailed, netconf_user_login, netconf_user_logout, netconf_user_login_failed, netconf_user_login_max_attempts, mdSaveCommitHistoryFailed, sbiBootMdReadCommitHistoryFailed, mdCommitSucceeded, ssiSaveConfigSucceeded, ssiSaveConfigFailed, tmnxConfigModify, tmnxConfigCreate, tmnxConfigDelete, tmnxStateChange, mdLiConfigChange, ssiSyncConfigOK, ssiSyncConfigFailed, md_cli_io, md_cli_unauth_io, tmnxClear, netconf_auth, netconf_unauth, grpc_auth, grpc_unauth |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger li event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger li event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger li event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger li event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger li event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### debounce

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger li event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | All |

### time *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger li event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### value *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger li event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | All |

### description *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger li event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger li event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger li event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lldp** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **lldp** list instance |
| Context | **configure** log event-trigger lldp event *keyword* |
| Tree | lldp |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger lldp event *keyword* |
| Tree | lldp |


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| | |
|---|---|
| Options | lldpRemTablesChange, tmnxLldpRemEntryPeerAdded, tmnxLldpRemEntryPeerUpdated, tmnxLldpRemEntryPeerRemoved, tmnxLldpRemManAddrEntryAdded, tmnxLldpRemManAddrEntryRemoved |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger lldp event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger lldp event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger lldp event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger lldp event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger lldp event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **debounce**

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger lldp event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | All |

### **time** *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger lldp event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **value** *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger lldp event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger lldp event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger lldp event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger lldp event *keyword* entry *number* handler *reference* |
| Tree | handler |


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| | |
|---|---|
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **logger** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **logger** list instance |
| Context | **configure** log event-trigger logger event *keyword* |
| Tree | logger |
| Introduced | 16.0.R1 |
| Platforms | All |

## **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger logger event *keyword* |
| Tree | logger |
| Options | STARTED, tmnxLogTraceError, tmnxLogSpaceContention, tmnxLogAdminLocFailed, tmnxLogBackupLocFailed, tmnxLogFileRollover, tmnxLogFileDeleted, tmnxClear, tmnxTestEvent, tmnxLogEventThrottled, tmnxSysLogTargetProblem, tmnxLogAccountingDataLoss, tmnxStdEventsReplayed, tmnxLogOnlyEventThrottled, tmnxLogEventOverrun, tmnxLogOnlyEventOverrun, tmnxCustomEvent1, tmnxCustomEvent2, tmnxCustomEvent3, tmnxCustomEvent4, tmnxCustomEvent5, tmnxCustomEvent6 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger logger event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger logger event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger logger event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger logger event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger logger event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### debounce

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger logger event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | All |

### time *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger logger event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### value *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger logger event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | All |

### description *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger logger event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger logger event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger logger event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **macsec** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **macsec** list instance |
| Context | **configure** log event-trigger macsec event *keyword* |
| Tree | macsec |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger macsec event *keyword* |
| Tree | macsec |


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| | |
|---|---|
| Options | tmnxMacsecConfiguredPortCA, tmnxMacsecUnconfiguredPortCA, tmnxMacsecEnabledPort, tmnxMacsecDisabledPort, tmnxMacsecMaxPeerLimitExceeded, tmnxMkaSessionEstablished, tmnxMkaPskRollover, tmnxMkaSessionEnded, tmnxMkaOperStateChanged, tmnxMacsecMaxPeerLimitCleared, tmnxMacsecCaCreate, tmnxMacsecSakCreate, tmnxMacsecSakInstalledRx, tmnxMacsecSakInstalledTx, tmnxMacsecMkaReplayAttemptDisc, tmnxMacsecDpReplayAttempt, tmnxMacsecSakDelete |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger macsec event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger macsec event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger macsec event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger macsec event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger macsec event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **debounce**

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger macsec event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | All |

### **time** *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger macsec event *keyword* entry *number* debounce time *number* |


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| | |
|---|---|
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **value** *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger macsec event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger macsec event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger macsec event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger macsec event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mc-redundancy** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **mc-redundancy** list instance |
| Context | **configure** log event-trigger mc-redundancy event *keyword* |
| Tree | mc-redundancy |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger mc-redundancy event *keyword* |
| Tree | mc-redundancy |
| Options | tmnxMcRedundancyPeerStateChanged, tmnxMcRedundancyMismatchDetected, tmnxMcRedundancyMismatchResolved, tmnxMcPeerSyncStatusChanged, tmnxMcSyncClientAlarmRaised, tmnxMcSyncClientAlarmCleared, tmnxSrrpSubnetMismatch, tmnxSrrpSubnetMismatchCleared, tmnxSrrpInstanceIdMismatch, tmnxSrrpSapMismatch, tmnxSrrpSapTagMismatch, tmnxSrrpRedIfMismatch, tmnxSrrpDualMaster, tmnxMcLagInfoLagChanged, tmnxSrrpSystemIpNotSet, tmnxMcRingOperStateChanged, tmnxMcRingInbCtrlOperStateChgd, tmnxMcRingNodeLocOperStateChgd, tmnxMcSyncClockSkewRaised, tmnxMcSyncClockSkewCleared, tmnxSrrpDuplicateSubIfAddress, tmnxMcPeerRingsOperStateChanged, tmnxSrrpTrapNewMaster, tmnxSrrpBecameBackup, srrpPacketDiscarded, tmnxSrrpBfdIntfSessStateChgd, tmnxMcPeerEPBfdSessionOpen, tmnxMcPeerEPBfdSessionClose, tmnxMcPeerEPBfdSessionUp, tmnxMcPeerEPBfdSessionDown, tmnxMcPeerEPOperDown, tmnxMcPeerEPOperUp, tmnxMCEPSessionPsvModeEnabled, tmnxMCEPSessionPsvModeDisabled, tMcPeerIPsecTnlGrpMasterStateChg, tMcPeerIPsecTnlGrpProtStatusChg, tmnxMcOmcrStatFailedChanged, tmnxMcOmcrClientNumEntriesHigh, tmnxSrrpOperDownInvalidMac, tmnxSrrpOperDownInvalidMacClear, |


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| | |
|---|---|
| | tmnxSrrpPrivRetailMismatch, tMcIPsecDomainActivityStateChg, tMcIpsecDomainProtStatusChg |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger mc-redundancy event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger mc-redundancy event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger mc-redundancy event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |


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| | |
|---|---|
| Context | **configure** log event-trigger mc-redundancy event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger mc-redundancy event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

## **debounce**

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger mc-redundancy event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | All |

## **time** *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger mc-redundancy event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **value** *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger mc-redundancy event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger mc-redundancy event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger mc-redundancy event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger mc-redundancy event *keyword* entry *number* handler *reference* |


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| | |
|---|---|
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mcpath** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **mcpath** list instance |
| Context | **configure** log event-trigger mcpath event *keyword* |
| Tree | mcpath |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger mcpath event *keyword* |
| Tree | mcpath |
| Options | tmnxMcPathSrcGrpBlackHole, tmnxMcPathSrcGrpBlackHoleCleared, tmnxMcPathAvailBwLimitExceeded, tmnxMcPathAvailBwLimitCleared |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger mcpath event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger mcpath event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger mcpath event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger mcpath event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger mcpath event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## debounce

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger mcpath event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | All |

## time *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger mcpath event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

## value *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger mcpath event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | All |

## description *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger mcpath event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger mcpath event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger mcpath event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mgmt-core** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **mgmt-core** list instance |
| Context | **configure** log event-trigger mgmt-core event *keyword* |
| Tree | mgmt-core |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger mgmt-core event *keyword* |
| Tree | mgmt-core |


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| | |
|---|---|
| Options | none, mdConfigChange, mdOcConfigChange, mdBofConfigChange, mdDebugConfigChange, asyncOperationStatusChange, syncOperationStatusChange, mdAutomaticRollbackFailed, mdRollbackFailed |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger mgmt-core event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger mgmt-core event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger mgmt-core event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger mgmt-core event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger mgmt-core event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **debounce**

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger mgmt-core event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | All |

### **time** *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger mgmt-core event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |


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| | |
|---|---|
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **value** *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger mgmt-core event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger mgmt-core event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger mgmt-core event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |


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| | |
|---|---|
| Context | **configure** log event-trigger mgmt-core event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mirror** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **mirror** list instance |
| Context | **configure** log event-trigger mirror event *keyword* |
| Tree | mirror |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger mirror event *keyword* |
| Tree | mirror |
| Options | sourceEnabled, sourceDisabled, destinationEnabled, destinationDisabled, sourceIpFilterChange, sourceMacFilterChange, sourceSapChange, sourceSubscriberChange, tMirrorSourceIpv6FilterChange, tMirrorSapUnavailSath, tMirrorSapUnavailSathClr, tMirrorFltrUnavailSath, tMirrorFltrUnavailSathClr, tMirrorPortUnavailSath, tMirrorPortUnavailSathClr |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger mirror event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger mirror event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger mirror event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger mirror event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger mirror event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |


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| | |
|---|---|
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### debounce

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger mirror event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | All |

### time *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger mirror event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### value *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger mirror event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | All |

### description *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger mirror event *keyword* entry *number* description *description* |


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| | |
|---|---|
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger mirror event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger mirror event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mld** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **mld** list instance |
| Context | **configure** log event-trigger mld event *keyword* |
| Tree | mld |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger mld event *keyword* |


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| | |
|---|---|
| Tree | mld |
| Options | vRtrMldIfRxQueryVerMismatch, vRtrMldIfCModeRxQueryMismatch, vRtrMldMaxGrpsLimitExceeded, vRtrMldMcacPlcyDropped, vRtrMldHostInstantiationFail, vRtrMldHostMaxGrpsLimitExceeded, vRtrMldHostMcacPlcyDropped, vRtrMldHostCModeRxQueryMismatch, vRtrMldHostRxQueryVerMismatch, vRtrMldHostMaxSrcsLimitExceeded, vRtrMldMaxSrcsLimitExceeded, vRtrMldGrpIfSapMaxGrpsLimExceed, vRtrMldGrpIfSapMaxSrcsLimExceed, vRtrMldGrpIfSapMcacPlcyDropped, vRtrMldGrpIfSapCModeRxQueryMism, vRtrMldGrpIfSapRxQueryVerMism, vRtrMldHostMaxGrpSrcsLimitExcd, vRtrMldMaxGrpSrcsLimitExceeded, vRtrMldGrpIfSapMaxGrpSrcLimExcd, vRtrMldHostQryIntervalConflict, vRtrMldSlaProfInstMcacPlcyDrop |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger mld event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger mld event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |


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| | |
|---|---|
| Context | **configure** log event-trigger mld event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger mld event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger mld event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **debounce**

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger mld event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **time** *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger mld event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **value** *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger mld event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger mld event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger mld event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger mld event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mld-snooping** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **mld-snooping** list instance |
| Context | **configure** log event-trigger mld-snooping event *keyword* |
| Tree | mld-snooping |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger mld-snooping event *keyword* |
| Tree | mld-snooping |
| Options | sapMldSnpgGrpLimitExceeded, sdpBndMldSnpgGrpLimitExceeded, sapMldSnpgMcsFailure |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger mld-snooping event *keyword* admin-state *keyword* |
| Tree | admin-state |


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| | |
|---|---|
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger mld-snooping event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger mld-snooping event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger mld-snooping event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |


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| | |
|---|---|
| Context | **configure** log event-trigger mld-snooping event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

## debounce

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger mld-snooping event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | All |

## time *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger mld-snooping event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

## value *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger mld-snooping event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger mld-snooping event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger mld-snooping event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger mld-snooping event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mpls** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **mpls** list instance |
| Context | **configure** log event-trigger mpls event *keyword* |
| Tree | mpls |
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| | |
|---|---|
| Platforms | All |

## **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger mpls event *keyword* |
| Tree | mpls |
| Options | mplsXCUp, mplsXCDown, mplsTunnelUp, mplsTunnelDown, mplsTunnelRerouted, mplsTunnelReoptimized, vRtrMplsStateChange, vRtrMplsIfStateChange, vRtrMplsLspUp, vRtrMplsLspDown, vRtrMplsLspPathUp, vRtrMplsLspPathDown, vRtrMplsLspPathRerouted, vRtrMplsLspPathResignaled, vRtrMplsP2mpInstanceUp, vRtrMplsP2mpInstanceDown, vRtrMplsS2lSubLspUp, vRtrMplsS2lSubLspDown, vRtrMplsS2lSubLspRerouted, vRtrMplsS2lSubLspResignaled, vRtrMplsLspPathSoftPreempted, vRtrMplsLspPathLstFillReoptElig, vRtrMplsP2mpInstanceResignaled, vRtrMplsResignalTimerExpired, vRtrMplsLspPathMbbStatusEvent, vRtrMplsLspSwitchStbyFailure, vRtrMplsLspActivePathChanged, vRtrMplsXCBundleChange, vRtrMplsNodeInIgpOverload, vRtrMplsIPv6StateChange, vRtrMplsIfIPv6StateChange, vRtrMplsLspResourceExhaustion, vRtrMplsLspManualSwitchFailure, vRtrMplsLspPathManualDegStateChg, vRtrMplsS2lSubLspPreempted, vRtrMplsNodeInIgpOverloadIpv6, tmnxMplsResourceHighUsage, tmnxMplsResourceExhausted, tmnxMplsResourceRecovered |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger mpls event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |


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| | |
|---|---|
| Context | **configure** log event-trigger mpls event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger mpls event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger mpls event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger mpls event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |


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### debounce

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger mpls event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | All |

### time *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger mpls event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### value *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger mpls event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | All |

### description *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger mpls event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger mpls event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger mpls event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mpls-tp** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **mpls-tp** list instance |
| Context | **configure** log event-trigger mpls-tp event *keyword* |
| Tree | mpls-tp |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger mpls-tp event *keyword* |
| Tree | mpls-tp |
| Options | vRtrMplsTpLspRevertMismatchAlarm, vRtrMplsTpLspRevertMismatchClear, vRtrMplsTpLspPtTypeMismatchAlarm, vRtrMplsTpLspPtTypeMismatchClear, vRtrMplsTpLspActivePathUp, vRtrMplsTpLspActivePathChange |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger mpls-tp event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger mpls-tp event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger mpls-tp event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger mpls-tp event *keyword* entry *number* |
| Tree | entry |


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| | |
|---|---|
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger mpls-tp event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **debounce**

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger mpls-tp event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | All |

### **time** *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger mpls-tp event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **value** *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger mpls-tp event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger mpls-tp event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger mpls-tp event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger mpls-tp event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **msdp** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **msdp** list instance |
| Context | **configure** log event-trigger msdp event *keyword* |
| Tree | msdp |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger msdp event *keyword* |
| Tree | msdp |
| Options | msdpEstablished, msdpBackwardTransition, tmnxMsdpNgActSrcLimExcd, tmnxMsdpNgPeerActSrcLimExcd, tmnxMsdpNgRPFFailure, tmnxMsdpNgSourceSrcActMsgsExcd, tmnxMsdpNgGroupSrcActMsgsExcd |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger msdp event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger msdp event *keyword* description *description* |


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| | |
|---|---|
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger msdp event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger msdp event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger msdp event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |


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### debounce

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger msdp event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | All |

### time *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger msdp event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### value *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger msdp event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | All |

### description *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger msdp event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger msdp event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger msdp event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **nat** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **nat** list instance |
| Context | **configure** log event-trigger nat event *keyword* |
| Tree | nat |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger nat event *keyword* |
| Tree | nat |
| Options | tmnxNatPlL2AwBlockUsageHigh, tmnxNatIsaMemberSessionUsageHigh, tmnxNatPlLsnMemberBlockUsageHigh, tmnxNatL2AwSubIcmpPortUsageHigh, tmnxNatL2AwSubUdpPortUsageHigh, tmnxNatL2AwSubTcpPortUsageHigh, tmnxNatL2AwSubSessionUsageHigh, tmnxNatPlBlockAllocationLsn, tmnxNatPlBlockAllocationL2Aw, tmnxNatResourceProblemDetected, tmnxNatResourceProblemCause, tmnxNatPlAddrFree, |


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| | |
|---|---|
| | tmnxNatPlLsnRedActiveChanged, tmnxNatPcpSrvStateChanged, tmnxNatMdaActive, tmnxNatLsnSubBlksFree, tmnxNatDetPlcyChanged, tmnxNatMdaDetectsLoadSharingErr, tmnxNatIsaGrpOperStateChanged, tmnxNatIsaGrpIsDegraded, tmnxNatLsnSubIcmpPortUsgHigh, tmnxNatLsnSubUdpPortUsgHigh, tmnxNatLsnSubTcpPortUsgHigh, tmnxNatLsnSubSessionUsgHigh, tmnxNatInAddrPrefixBlksFree, tmnxNatFwd2EntryAdded, tmnxNatFwd2OperStateChanged, tmnxNatVrtrOutDnatOnlyRoutesHigh, tmnxNatMapRuleChange, tmnxNatMaxNbrSubsOrHostsExceeded, tmnxNatNbrSubsOrHostsBelowThrsh, tmnxNatVappActive, tmnxNatVappDetectsLoadSharingErr, tmnxNatDetPfxMapOperStateChanged, tmnxNatDetMap2OperStateChanged, tmnxNatDynamicConfigMismatch, tmnxNatPlL2AwMembrBlockUsageHigh, tmnxNatPlMemberExtBlockUsageHigh, tmnxNatPlLsnMemberPortUsageHigh, tmnxNatDetAddrMapOperStateChngd |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger nat event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger nat event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger nat event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger nat event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger nat event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **debounce**

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger nat event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **time** *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger nat event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **value** *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger nat event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger nat event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger nat event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger nat event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ntp** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **ntp** list instance |
| Context | **configure** log event-trigger ntp event *keyword* |
| Tree | ntp |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger ntp event *keyword* |
| Tree | ntp |
| Options | tmnxNtpAuthMismatch, tmnxNtpNoServersAvail, tmnxNtpServersAvail, tmnxNtpOperChange, tmnxNtpServerChange |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger ntp event *keyword* admin-state *keyword* |
| Tree | admin-state |


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| | |
|---|---|
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger ntp event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger ntp event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger ntp event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |


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| | |
|---|---|
| Context | **configure** log event-trigger ntp event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

## debounce

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger ntp event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | All |

## time *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger ntp event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

## value *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger ntp event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger ntp event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger ntp event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger ntp event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **oam** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **oam** list instance |
| Context | **configure** log event-trigger oam event *keyword* |
| Tree | oam |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger oam event *keyword* |
| Tree | oam |
| Options | tmnxOamPingProbeFailedV3, tmnxOamPingTestFailedV3, tmnxOamPingTestCompletedV3, tmnxAncpLoopbackTestCompleted, tmnxAncpLoopbackTestCompletedL, tmnxOamTrPathChange, tmnxOamTrTestFailed, tmnxOamTrTestCompleted, svcIdInvalid, svcIdWrongType, tmnxOamLdpTtraceAutoDiscState, tmnxOamLdpTtraceFecProbeState, tmnxOamLdpTtraceFecDisStatus, tmnxOamLdpTtraceFecPFailUpdate, tmnxOamSaaThreshold, tmnxOamDiagTestCompleted, tmnxTwampSrvInactivityTimeout, tmnxTwampSrvMaxConnsExceeded, tmnxTwampSrvPfxMaxConnsExceeded, tmnxTwampSrvMaxSessExceeded, tmnxTwampSrvPfxMaxSessExceeded, tmnxTwampRflInactivityTimeout, tmnxOamPmThrRaise, tmnxOamPmThrClear, tmnxOamSathSvcTestCompleted, tmnxOamSathSvcStrmCompleted |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger oam event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger oam event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger oam event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger oam event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger oam event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **debounce**

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger oam event *keyword* entry *number* debounce |
| Tree | debounce |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **time** *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger oam event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **value** *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger oam event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger oam event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger oam event *keyword* entry *number* filter *reference* |


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| | |
|---|---|
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger oam event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **openflow** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **openflow** list instance |
| Context | **configure** log event-trigger openflow event *keyword* |
| Tree | openflow |
| Introduced | 16.0.R2 |
| Platforms | VSR |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger openflow event *keyword* |
| Tree | openflow |
| Options | tmnxOFFlowEntryInsertFailed |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R2 |
| Platforms | VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |


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| | |
|---|---|
| Context | **configure** log event-trigger openflow event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R2 |
| Platforms | VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger openflow event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R2 |
| Platforms | VSR |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger openflow event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R2 |
| Platforms | VSR |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger openflow event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R2 |
| Platforms | VSR |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger openflow event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R2 |
| Platforms | VSR |

### **debounce**

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger openflow event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R2 |
| Platforms | VSR |

### **time** *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger openflow event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R2 |
| Platforms | VSR |

### **value** *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger openflow event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |


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| | |
|---|---|
| Introduced | 16.0.R2 |
| Platforms | VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger openflow event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R2 |
| Platforms | VSR |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger openflow event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R2 |
| Platforms | VSR |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger openflow event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R2 |
| Platforms | VSR |

### **ospf** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **ospf** list instance |
| Context | **configure** log event-trigger ospf event *keyword* |


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| | |
|---|---|
| Tree | ospf |
| Introduced | 16.0.R1 |
| Platforms | All |

## **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger ospf event *keyword* |
| Tree | ospf |
| Options | tmnxOspfVirtIfStateChange, tmnxOspfVirtNbrStateChange, tmnxOspfVirtIfConfigError, tmnxOspfVirtIfAuthFailure, tmnxOspfVirtIfRxBadPacket, tmnxOspfAreaOriginateLsa, tmnxOspfAreaMaxAgeLsa, tmnxOspfLsdbOverflow, tmnxOspfLsdbApproachingOverflow, tmnxOspfNssaTranslatorStatusChg, tmnxOspfRestartStatusChange, tmnxOspfVirtNbrRestartHlprStsChg, tmnxOspfSpfRunsStopped, tmnxOspfSpfRunsRestarted, tmnxOspfOverloadEntered, tmnxOspfOverloadExited, tmnxOspfAsOriginateLsa, tmnxOspfAsMaxAgeLsa, tmnxOspfShamIfStateChange, tmnxOspfShamNbrStateChange, tmnxOspfShamIfConfigError, tmnxOspfShamIfAuthFailure, tmnxOspfShamIfRxBadPacket, tmnxOspfShamNbrRestartHlprStsChg, tmnxOspfFailureDisabled, tmnxOspfExportLimitReached, tmnxOspfExportLimitWarning, tmnxOspfRoutesExpLmtDropped, tmnxOspfNgNbrStateChange, tmnxOspfNgIfConfigError, tmnxOspfNgIfAuthFailure, tmnxOspfNgIfRxBadPacket, tmnxOspfNgIfStateChange, tmnxOspfNgNbrRestartHlprStsChg, tmnxOspfNgLinkOriginateLsa, tmnxOspfNgLinkMaxAgeLsa, tmnxOspfNgLdpSyncTimerStarted, tmnxOspfNgLdpSyncExit, tmnxOspfSrSidError, tmnxOspfSrSidNotInLabelRange, tmnxOspfOverloadWarning, tmnxOspfRejectedAdjacencySid, tmnxOspfAdjBfdSessionSetupFail, tmnxOspfSrgbBadLabelRange, tmnxOspfRejectedAdjacencySet, tmnxOspfSidStatsIndexAlloc, tmnxOspfDynHostnameDuplicate, tmnxOspfDynHostnameInconsistent, tmnxOspfFaOperParticipationDown, tmnxOspfNgNbrStrictBfdBlocked |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger ospf event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger ospf event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger ospf event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger ospf event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger ospf event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |


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| | |
|---|---|
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### debounce

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger ospf event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | All |

### time *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger ospf event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### value *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger ospf event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | All |

### description *description*

| | |
|---|---|
| Synopsis | Text description |


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| | |
|---|---|
| Context | **configure** log event-trigger ospf event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger ospf event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger ospf event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **pcap** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **pcap** list instance |
| Context | **configure** log event-trigger pcap event *keyword* |
| Tree | pcap |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |


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| | |
|---|---|
| Context | **configure** log event-trigger pcap event *keyword* |
| Tree | pcap |
| Options | tmnxPcapFileError, tmnxPcapBufferFull, tmnxPcapBufferReadWriteFailure, tmnxPcapSoftwareFailure |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger pcap event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger pcap event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger pcap event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger pcap event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger pcap event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **debounce**

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger pcap event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | All |

### **time** *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger pcap event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **value** *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger pcap event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger pcap event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger pcap event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger pcap event *keyword* entry *number* handler *reference* |
| Tree | handler |


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| | |
|---|---|
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **pcep** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **pcep** list instance |
| Context | **configure** log event-trigger pcep event *keyword* |
| Tree | pcep |
| Introduced | 22.2.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | PCEP module events |
| Context | **configure** log event-trigger pcep event *keyword* |
| Tree | pcep |
| Options | tmnxPcepPccPeerStateChange |
| Notes | This element is part of a list key. |
| Introduced | 22.2.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger pcep event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 22.2.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |


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| | |
|---|---|
| Context | **configure** log event-trigger pcep event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 22.2.R1 |
| Platforms | All |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger pcep event *keyword* entry *number* |
| Tree | entry |
| Introduced | 22.2.R1 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger pcep event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 22.2.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger pcep event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 22.2.R1 |
| Platforms | All |


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### debounce

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger pcep event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 22.2.R1 |
| Platforms | All |

### time *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger pcep event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 22.2.R1 |
| Platforms | All |

### value *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger pcep event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 22.2.R1 |
| Platforms | All |

### description *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger pcep event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 22.2.R1 |
| Platforms | All |


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### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger pcep event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 22.2.R1 |
| Platforms | All |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger pcep event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 22.2.R1 |
| Platforms | All |

### **pfcp** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **pfcp** list instance |
| Context | **configure** log event-trigger pfcp event *keyword* |
| Tree | pfcp |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **event** *keyword*

| | |
|---|---|
| Synopsis | PFCP events |
| Context | **configure** log event-trigger pfcp event *keyword* |
| Tree | pfcp |
| Options | tmnxPfcpInvalidIe, tmnxPfcpNoSuchCalltraceProfile, tmnxPfcpNoSecondaryInterface |
| Notes | This element is part of a list key. |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger pfcp event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger pfcp event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger pfcp event *keyword* entry *number* |
| Tree | entry |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger pfcp event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 23.7.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger pfcp event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **debounce**

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger pfcp event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **time** *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger pfcp event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **value** *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger pfcp event *keyword* entry *number* debounce value *number* |
| Tree | value |


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| | |
|---|---|
| Range | 2 to 15 |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger pfcp event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger pfcp event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger pfcp event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **pim** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **pim** list instance |
| Context | **configure** log event-trigger pim event *keyword* |


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| | |
|---|---|
| Tree | pim |
| Introduced | 16.0.R1 |
| Platforms | All |

## **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger pim event *keyword* |
| Tree | pim |
| Options | vRtrPimNgIfNeighborLoss, vRtrPimNgIfNeighborUp, vRtrPimNgInvalidJoinPrune, vRtrPimNgInvalidRegister, vRtrPimNgGrpInSSMRange, vRtrPimNgBSRStateChange, vRtrPimNgHelloDropped, vRtrPimNgSGLimitExceeded, vRtrPimNgReplicationLmtExceeded, vRtrPimNgMDTLimitExceeded, vRtrPimNgMaxGrpsLimitExceeded, vRtrPimNgDataMtReused, vRtrPimNgMcacPlcyDropped, vRtrPimNgInvalidIPmsiTunnel, vRtrPimNgMaxGraftRetry, vRtrPimNgBierInbInvSD, vRtrPimNgBierInbInvBfrId, vRtrPimNgUmhBMonFastFailPriToStb, vRtrPimNgUmhBMonFastFailStbToPri, vRtrPimNgInstMaxNbrReached, vRtrPimNgIfMaxNbrReached |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger pim event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger pim event *keyword* description *description* |
| Tree | description |


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| | |
|---|---|
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger pim event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger pim event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger pim event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **debounce**

| | |
|---|---|
| Synopsis | Enter the **debounce** context |


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| | |
|---|---|
| Context | **configure** log event-trigger pim event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | All |

### **time** *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger pim event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **value** *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger pim event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger pim event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger pim event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger pim event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **pim-snooping** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **pim-snooping** list instance |
| Context | **configure** log event-trigger pim-snooping event *keyword* |
| Tree | pim-snooping |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger pim-snooping event *keyword* |
| Tree | pim-snooping |
| Options | tmnxPimSnpgIfNeighborLoss, tmnxPimSnpgIfNeighborUp, tmnxPimSnpgSGLimitExceeded, tmnxPimSnpgSnoopModeChanged, tmnxPimSnpgIfMaxNbrReached, tmnxPimSnpgMaxNbrReached |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger pim-snooping event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger pim-snooping event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger pim-snooping event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger pim-snooping event *keyword* entry *number* |
| Tree | entry |


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| | |
|---|---|
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger pim-snooping event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **debounce**

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger pim-snooping event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | All |

### **time** *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger pim-snooping event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **value** *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger pim-snooping event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger pim-snooping event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger pim-snooping event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger pim-snooping event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## **port** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **port** list instance |
| Context | **configure** log event-trigger port event *keyword* |
| Tree | port |
| Introduced | 16.0.R1 |
| Platforms | All |

## **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger port event *keyword* |
| Tree | port |
| Options | sonetSDHAlarmSet, sonetSDHAlarmClear, sonetSDHChannelAlarmSet, sonetSDHChannelAlarmClear, SFPInserted, SFPRemoved, SFPStatusFailure, portError, ds3AlarmSet, ds3AlarmClear, ds1AlarmSet, ds1AlarmClear, etherAlarmSet, etherAlarmClear, ds1LoopbackStart, ds1LoopbackStop, ds3LoopbackStart, ds3LoopbackStop, sdhLoopbackStart, sdhLoopbackStop, etherLoopDetected, etherLoopCleared, etherSpeedNotCompatible, etherDuplexNotCompatible, etherIngressRateCfgNotCompatible, digitalDiagnosticMonitorFailed, SFPStatusDDMCorrupt, SFPStatusReadError, SFPStatusUnsupported, dsxClockSyncStateChange, tmnxPortUnsupportedFunction, otuAlarms, tPortAccEgrQGrpHostMatchFailure, tPortEgrVPortHostMatchFailure, digitalDiagnosticMonitorCleared, tmnxEqSonetClockSrcNotCompatible, tmnxEqSonetSfThreshNotCompatible, tmnxEqSonetFramingNotCompatible, tmnxResvCbsPoolThreshGreen, tmnxResvCbsPoolThreshAmber, tmnxResvCbsPoolThreshRed, tmnxEqPortEtherCrcAlarm, tmnxEqPortEtherCrcAlarmClear, tmnxEqPortEtherInternalAlarm, tmnxEqPortEtherInternalAlarmClr, tmnxEqCohOptPortAlarm, tmnxEqPortEtherSymMonAlarm, tmnxEqPortEtherSymMonAlarmClear, SFPStatusCulprit, SFPStatusBlocked, SFPStatusOperational, tmnxRS232ControlLeadSignalChg, tmnxRS232SquelchStatusChange, tmnxRS232SquelchResetIssued, tmnxCellularBearerCreated, tmnxCellularBearerDeleted, tmnxCellularBearerModified, tmnxEqPortEtherEgressRateChange, tmnxCellularNoServiceReset, tmnxCellularActiveSimCardChange, tmnxPortEtherLoopbackStarted, tmnxPortEtherLoopbackStopped, tmnxPortGnssStatusChange, tmnxWlanNetworkConnected, tmnxWlanNetworkDisconnected, tmnxPortAUIReset, tmnxCellPortCbsdRegistered, tmnxCellPortCbsdUnregistered, tmnxCellPortCbsdGranted, tmnxCellPortCbsdAuthorized, tmnxCellPortCbsdTransDown, tmnxHwAggShpSchedOperColorGreen, tmnxHwAggShpSchedOperColorAmber, |


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| | |
|---|---|
| | tmnxHwAggShpSchedOperColorRed, tmnxCellularRssiAlarm, tmnxCellularRssiAlarmClear, SFPStatusInvalidFormFactor, SFPStatusModuleFault, tmnxDS0ChanGrpLoopbackStarted, tmnxDS0ChanGrpLoopbackStopped, tmnxResvPoolUseThreshExcd, tmnxResvPoolUseThreshNotExcd, tmnxTotalPoolUseThreshExcd, tmnxTotalPoolUseThreshNotExcd, tmnxSharedPoolUseThreshExcd, tmnxSharedPoolUseThreshNotExcd |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger port event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger port event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger port event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger port event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger port event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **debounce**

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger port event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | All |

### **time** *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger port event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **value** *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger port event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger port event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger port event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger port event *keyword* entry *number* handler *reference* |
| Tree | handler |


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| | |
|---|---|
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **pppoe** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **pppoe** list instance |
| Context | **configure** log event-trigger pppoe event *keyword* |
| Tree | pppoe |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger pppoe event *keyword* |
| Tree | pppoe |
| Options | tmnxPppoeSessionFailure, tmnxPppoeNcpFailure, tmnxMlpppBundleIndicatorsChange, tmnxPppoeLacSteeringActive, tmnxPppoeLacSteeringStopped, tmnxPppoeLacSteeringFailed, tmnxPppoeMaxSessionsOvrExceeded |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger pppoe event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger pppoe event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger pppoe event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger pppoe event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger pppoe event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### debounce

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger pppoe event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### time *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger pppoe event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### value *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger pppoe event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### description *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger pppoe event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger pppoe event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger pppoe event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **pppoe-clnt** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **pppoe-clnt** list instance |
| Context | **configure** log event-trigger pppoe-clnt event *keyword* |
| Tree | pppoe-clnt |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger pppoe-clnt event *keyword* |
| Tree | pppoe-clnt |


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| | |
|---|---|
| Options | tmnxPppoeClientSetupFailure, tmnxPppoeClientEchoTimeout, tmnxPppoeClientNcpFailure |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger pppoe-clnt event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger pppoe-clnt event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger pppoe-clnt event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger pppoe-clnt event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger pppoe-clnt event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **debounce**

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger pppoe-clnt event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **time** *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger pppoe-clnt event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |


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| | |
|---|---|
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **value** *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger pppoe-clnt event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger pppoe-clnt event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger pppoe-clnt event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |


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| | |
|---|---|
| Context | **configure** log event-trigger pppoe-clnt event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **ptp** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **ptp** list instance |
| Context | **configure** log event-trigger ptp event *keyword* |
| Tree | ptp |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger ptp event *keyword* |
| Tree | ptp |
| Options | tmnxPtpCardNotSupported, tmnxPtpCardNotSupportedClear, tmnxPtpMasterClockChangedEvent, tmnxPtpClockRecoveryStateChange, tmnxPtpOutOfResources, tmnxPtpOutOfResourcesClear, tmnxPtpDynamicChange, tmnxPtpPortNoTimestamping, tmnxPtpPortPtsfUnusable, tmnxPtpRequiresSystemReboot, tmnxPtpRequiresSystemRebootClear, tmnxPtpTimeRecoveryStateChange, tmnxPtpPeerNoTxTimestamping, tmnxPtpPeerNoTxTimestampingClear, tmnxPtpPeerNoRxTimestamping, tmnxPtpPeerNoRxTimestampingClear |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger ptp event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |


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| | |
|---|---|
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger ptp event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger ptp event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger ptp event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger ptp event *keyword* entry *number* admin-state *keyword* |


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| | |
|---|---|
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### debounce

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger ptp event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### time *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger ptp event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### value *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger ptp event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger ptp event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger ptp event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger ptp event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **python** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **python** list instance |
| Context | **configure** log event-trigger python event *keyword* |
| Tree | python |
| Introduced | 23.3.R2 |
| Platforms | All |


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### **event** *keyword*

| | |
|---|---|
| Synopsis | Python module events |
| Context | **configure** log event-trigger python event *keyword* |
| Tree | python |
| Options | tmnxPythonInterpreterRestarted |
| Notes | This element is part of a list key. |
| Introduced | 23.3.R2 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger python event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 23.3.R2 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger python event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 23.3.R2 |
| Platforms | All |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger python event *keyword* entry *number* |
| Tree | entry |
| Introduced | 23.3.R2 |


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| | |
|---|---|
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger python event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 23.3.R2 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger python event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 23.3.R2 |
| Platforms | All |

### **debounce**

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger python event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 23.3.R2 |
| Platforms | All |

### **time** *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger python event *keyword* entry *number* debounce time *number* |
| Tree | time |


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| | |
|---|---|
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 23.3.R2 |
| Platforms | All |

### **value** *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger python event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 23.3.R2 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger python event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 23.3.R2 |
| Platforms | All |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger python event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 23.3.R2 |
| Platforms | All |


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### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger python event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 23.3.R2 |
| Platforms | All |

### **radius** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **radius** list instance |
| Context | **configure** log event-trigger radius event *keyword* |
| Tree | radius |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger radius event *keyword* |
| Tree | radius |
| Options | tmnxRadSrvPlcySrvOperStateCh, tmnxRadRouteDownloadFailed, tmnxRadAcctOnOngoing |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger radius event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger radius event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger radius event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger radius event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger radius event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |


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| | |
|---|---|
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### debounce

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger radius event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | All |

### time *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger radius event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### value *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger radius event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | All |

### description *description*

| | |
|---|---|
| Synopsis | Text description |


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| | |
|---|---|
| Context | **configure** log event-trigger radius event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger radius event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger radius event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rip** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **rip** list instance |
| Context | **configure** log event-trigger rip event *keyword* |
| Tree | rip |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |


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| | |
|---|---|
| Context | **configure** log event-trigger rip event *keyword* |
| Tree | rip |
| Options | ripPacketDiscarded, vRtrRipAuthTypeMismatch, vRtrRipAuthTypeFailure, vRtrRipInstanceShuttingDown, vRtrRipInstanceRestarted, vRtrRipInstanceExpLmtReached, vRtrRipInstanceExpLmtWarning, vRtrRipInstanceRtsExpLmtDropped, vRtrRipPeerBfdDown |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger rip event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger rip event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger rip event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger rip event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger rip event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **debounce**

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger rip event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | All |

### **time** *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger rip event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **value** *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger rip event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger rip event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger rip event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger rip event *keyword* entry *number* handler *reference* |
| Tree | handler |


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| | |
|---|---|
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **ripng** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **ripng** list instance |
| Context | **configure** log event-trigger ripng event *keyword* |
| Tree | ripng |
| Introduced | 16.0.R3 |
| Platforms | All |

## **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger ripng event *keyword* |
| Tree | ripng |
| Options | tmnxRipNgPacketDiscarded, tmnxRipNgAuthTypeMismatch, tmnxRipNgAuthFailure, tmnxRipNgInstShuttingDown, tmnxRipNgInstRestarted, tmnxRipNgInstExpLmtReached, tmnxRipNgInstExpLmtWarning, tmnxRipNgInstRtsExpLmtDropped, tmnxRipNgIfUcastAddrNotUsed, tmnxRipNgPeerBfdDown |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R3 |
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger ripng event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R3 |
| Platforms | All |


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### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger ripng event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R3 |
| Platforms | All |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger ripng event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R3 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger ripng event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R3 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger ripng event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R3 |


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| | |
|---|---|
| Platforms | All |

### debounce

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger ripng event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R3 |
| Platforms | All |

### time *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger ripng event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R3 |
| Platforms | All |

### value *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger ripng event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R3 |
| Platforms | All |

### description *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger ripng event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |


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| | |
|---|---|
| Introduced | 16.0.R3 |
| Platforms | All |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger ripng event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R3 |
| Platforms | All |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger ripng event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R3 |
| Platforms | All |

### **route-policy** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **route-policy** list instance |
| Context | **configure** log event-trigger route-policy event *keyword* |
| Tree | route-policy |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger route-policy event *keyword* |
| Tree | route-policy |
| Options | trigPolicyPrevEval |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger route-policy event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger route-policy event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger route-policy event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger route-policy event *keyword* entry *number* |


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| | |
|---|---|
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger route-policy event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **debounce**

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger route-policy event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | All |

### **time** *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger route-policy event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **value** *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger route-policy event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger route-policy event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger route-policy event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger route-policy event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **rpki** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **rpki** list instance |
| Context | **configure** log event-trigger rpki event *keyword* |
| Tree | rpki |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger rpki event *keyword* |
| Tree | rpki |
| Options | tmnxRpkiNotifySession, tmnxRpkiStaleTimerExpiry |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger rpki event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger rpki event *keyword* description *description* |


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| | |
|---|---|
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger rpki event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger rpki event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger rpki event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |


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### debounce

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger rpki event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | All |

### time *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger rpki event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### value *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger rpki event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | All |

### description *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger rpki event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger rpki event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger rpki event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rsvp** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **rsvp** list instance |
| Context | **configure** log event-trigger rsvp event *keyword* |
| Tree | rsvp |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger rsvp event *keyword* |
| Tree | rsvp |
| Options | vRtrRsvpStateChange, vRtrRsvpIfStateChange, vRtrRsvpIfNbrStateUp, vRtrRsvpIfNbrStateDown, vRtrRsvpPEFailOverPriToStdBy, vRtrRsvpPEFailOverStdByToPri |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger rsvp event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger rsvp event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger rsvp event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger rsvp event *keyword* entry *number* |
| Tree | entry |


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| | |
|---|---|
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger rsvp event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **debounce**

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger rsvp event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | All |

### **time** *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger rsvp event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **value** *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger rsvp event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger rsvp event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger rsvp event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger rsvp event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **satellite** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **satellite** list instance |
| Context | **configure** log event-trigger satellite event *keyword* |
| Tree | satellite |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger satellite event *keyword* |
| Tree | satellite |
| Options | tmnxSatelliteOperStateChange, tmnxSatSyncIfTimRefSwitch, tmnxSatSyncIfTimSystemQuality, tmnxSatSyncIfTimRef1Quality, tmnxSatSyncIfTimRef2Quality, tmnxSatSyncIfTimHoldover, tmnxSatSyncIfTimHoldoverClear, tmnxSatSyncIfTimRef1Alarm, tmnxSatSyncIfTimRef1AlarmClear, tmnxSatSyncIfTimRef2Alarm, tmnxSatSyncIfTimRef2AlarmClear, tmnxSatLocalForwardStateChg, tmnxSatLocalForwardSapStateChg |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger satellite event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |


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| | |
|---|---|
| Context | **configure** log event-trigger satellite event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger satellite event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger satellite event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger satellite event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### debounce

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger satellite event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### time *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger satellite event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### value *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger satellite event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### description *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger satellite event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger satellite event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger satellite event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **security** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **security** list instance |
| Context | **configure** log event-trigger security event *keyword* |
| Tree | security |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger security event *keyword* |
| Tree | security |
| Options | cli_user_login, cli_user_logout, cli_user_login_failed, cli_user_login_max_attempts, ftp_user_login, ftp_user_logout, ftp_user_login_failed, ftp_user_login_max_attempts, ssh_user_login, ssh_user_logout, ssh_user_login_failed, |


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ssh_user_login_max_attempts, radiusOperStatusChange, user_disconnect, radiusSystemIpAddrNotSet, tacplusOperStatusChange, mafEntryMatch, ftp_transfer_successful, ftp_transfer_failed, enable_admin, host_snmp_attempts, SSH_server_preserve_key_fail, tacplusInetSrvrOperStatusChange, radiusInetServerOperStatusChange, tmnxKeyChainAuthFailure, tmnxCpmProtViolPort, tmnxCpmProtViolPortAgg, tmnxCpmProtViolIf, tmnxCpmProtViolSap, tmnxCpmProtViolMac, tmnxCpmProtViolVdoSvcClient, tmnxCpmProtViolVdoVrtrClient, tmnxMD5AuthFailure, tmnxCpmProtDefPolModified, tmnxCpmProtViolSdpBind, tmnxCpmProtExcdSdpBind, tmnxCpmProtExcdSapEcm, tmnxCpmProtExcdSdpBindEcm, tmnxPkiFileReadFailed, tmnxPkiCertVerificationFailed, tmnxCAProfileStateChange, tmnxCpmProtExcdSapIp, tmnxDcpFpDynPoolUsageHiAlmRaise, tmnxDcpFpDynPoolUsageHiAlmClear, tmnxDcpCardFpEventOvrflwClr, tmnxDcpCardSapEventOvrflwClr, tmnxDcpCardVrtrIfEventOvrflwClr, sapDcpStaticExcd, sapDcpDynamicExcd, sapDcpStaticHoldDownStart, sapDcpDynamicHoldDownStart, sapDcpStaticHoldDownEnd, sapDcpDynamicHoldDownEnd, sapDcpStaticConform, sapDcpDynamicConform, sapDcpLocMonExcd, sapDcpLocMonExcdDynResource, sapDcpLocMonExcdAllDynAlloc, sapDcpLocMonExcdAllDynFreed, sapDcpDynamicEnforceAlloc, sapDcpDynamicEnforceFreed, vRtrIfDcpStaticExcd, vRtrIfDcpDynamicExcd, vRtrIfDcpStaticHoldDownStart, vRtrIfDcpDynamicHoldDownStart, vRtrIfDcpStaticHoldDownEnd, vRtrIfDcpDynamicHoldDownEnd, vRtrIfDcpStaticConform, vRtrIfDcpDynamicConform, vRtrIfDcpLocMonExcd, vRtrIfDcpLocMonExcdDynResource, vRtrIfDcpLocMonExcdAllDynAlloc, vRtrIfDcpLocMonExcdAllDynFreed, vRtrIfDcpDynamicEnforceAlloc, vRtrIfDcpDynamicEnforceFreed, tmnxDcpCardFpEventOvrflw, tmnxDcpCardSapEventOvrflw, tmnxDcpCardVrtrIfEventOvrflw, tmnxPkiCAProfActnStatusChg, tmnxCpmProtViolSapOutProf, tmnxCpmProtViolIfOutProf, sysDNSSecFailedAuthentication, tmnxCpmProtExcdSdpBindIp, tmnxSecComputeCertChainFailure, tmnxCpmProtViolSdpBindOutProf, tmnxSecNotifKeyChainExpired, tmnxSysLicenseInvalid, tmnxSysLicenseExpiresSoon, tmnxPkiCAProfRevokeChkWarning, tmnxCAProfUpDueToRevokeChkCrlOpt, tmnxPkiCertBeforeExpWarning, tmnxPkiCertAfterExpWarning, tmnxPkiCertExpWarningCleared, tmnxPkiCRLBeforeExpWarning, tmnxPkiCRLAfterExpWarning, tmnxPkiCRLExpWarningCleared, tmnxSecNotifFileReloaded, tmnxSysLicenseValid, tmnxSecPwdHistoryFileLoadFailed, tmnxSecPwdHistoryFileWriteFailed, tmnxPkiCAProfCrlUpdateStart, tmnxPkiCAProfCrlUpdateSuccess, tmnxPkiCAProfCrlUpdateUrlFail, tmnxPkiCAProfCrlUpdAllUrlsFail, tmnxPkiFileWriteFailed, tmnxPkiCAProfCrlUpdNoNxtUpdTime, tmnxUsrProfSessionLimitExceeded, tmnxCliGroupSessionLimitExceeded, tmnxPkiCAProfCrlUpdLargPreUpdTm, tmnxPkiCertNotYetValid, tmnxPkiCRLNotYetValid, tmnxAppPkiCertVerificationFailed, grpc_user_login, grpc_user_logout, grpc_user_login_failed, grpc_user_login_max_attempts, netconf_user_login, netconf_user_logout, netconf_user_login_failed, netconf_user_login_max_attempts, tmnxSysLicenseActivated, tmnxConfigModify, tmnxConfigCreate, tmnxConfigDelete, tmnxStateChange, radiusUserProfileInvalid, tmnxSysStandbyLicensingError, tmnxSysStandbyLicensingReady, md_cli_io, md_cli_unauth_io, tmnxSysAppLicenseInsufficient, tmnxSysLicenseUpdateRequired, netconf_auth, netconf_unauth, grpc_auth, grpc_unauth, tmnxCertKeyPairGen, tmnxCertImport, tmnxCertExport, tmnxFileDeleted, tmnxFileMoved, tmnxFileCopied,


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| | |
|---|---|
| | tmnxFileUnzip, tmnxPasswordHashingChanged, tmnxUserPasswordChangedByAdmin, tmnxSSHSessionFailed, tmnxSecSignedSwCpmBootEvent, tSecSgndSwUefiVarsUpdtReqd, tmnxPkiCertUpdUpdateStarted, tmnxPkiCertUpdUpdateFinished, tmnxPkiCertUpdUpdateFailed, tmnxSystemPasswordChangedByAdmin, tmnxSysLicenseCleared, tmnxSysLicensingStateOk, tmnxPkiCertChainCompareCaNoMatch, ssh_auth_key_gen, ssh_auth_key_synch_fail, tmnxSSHListeningPortChanged, tmnxTelnetListeningPortChanged, tmnxSSHListeningPortOccupied, tmnxTelnetListeningPortOccupied, tmnxSSHListeningPortInUse, tmnxTelnetListeningPortInUse, tmnxSysSwDSValidationResult |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger security event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger security event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger security event *keyword* entry *number* |
| Tree | entry |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger security event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger security event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **debounce**

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger security event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | All |

### **time** *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |


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| | |
|---|---|
| Context | **configure** log event-trigger security event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **value** *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger security event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger security event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger security event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger security event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sflow** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **sflow** list instance |
| Context | **configure** log event-trigger sflow event *keyword* |
| Tree | sflow |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-s, 7950 XRS |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger sflow event *keyword* |
| Tree | sflow |
| Options | none, tmnxSflowCpEntrySampling, tmnxSflowPacketTxFailure |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-s, 7950 XRS |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger sflow event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7750 SR, 7750 SR-s, 7950 XRS |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger sflow event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-s, 7950 XRS |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger sflow event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-s, 7950 XRS |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger sflow event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-s, 7950 XRS |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger sflow event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |


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| | |
|---|---|
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-s, 7950 XRS |

### debounce

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger sflow event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-s, 7950 XRS |

### time *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger sflow event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-s, 7950 XRS |

### value *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger sflow event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-s, 7950 XRS |

### description *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger sflow event *keyword* entry *number* description *description* |


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| | |
|---|---|
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-s, 7950 XRS |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger sflow event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-s, 7950 XRS |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger sflow event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-s, 7950 XRS |

### **snmp** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **snmp** list instance |
| Context | **configure** log event-trigger snmp event *keyword* |
| Tree | snmp |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger snmp event *keyword* |


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| | |
|---|---|
| Tree | snmp |
| Options | coldStart, warmStart, authenticationFailure, linkDown, linkUp, risingAlarm, fallingAlarm, snmpdError |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger snmp event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger snmp event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger snmp event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger snmp event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger snmp event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **debounce**

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger snmp event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | All |

### **time** *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger snmp event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **value** *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger snmp event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger snmp event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger snmp event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger snmp event *keyword* entry *number* handler *reference* |
| Tree | handler |


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| | |
|---|---|
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sr-mpls** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **sr-mpls** list instance |
| Context | **configure** log event-trigger sr-mpls event *keyword* |
| Tree | sr-mpls |
| Introduced | 21.10.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | SR MPLS event |
| Context | **configure** log event-trigger sr-mpls event *keyword* |
| Tree | sr-mpls |
| Options | tmnxSrMplsPfxSidFailure, tmnxSrMplsPfxSidFlexAlgoFailure |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger sr-mpls event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.10.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |


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| | |
|---|---|
| Context | **configure** log event-trigger sr-mpls event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 21.10.R1 |
| Platforms | All |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger sr-mpls event *keyword* entry *number* |
| Tree | entry |
| Introduced | 21.10.R1 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger sr-mpls event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger sr-mpls event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 21.10.R1 |
| Platforms | All |


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### debounce

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger sr-mpls event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 21.10.R1 |
| Platforms | All |

### time *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger sr-mpls event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 21.10.R1 |
| Platforms | All |

### value *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger sr-mpls event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 21.10.R1 |
| Platforms | All |

### description *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger sr-mpls event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 21.10.R1 |


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| | |
|---|---|
| Platforms | All |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger sr-mpls event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 21.10.R1 |
| Platforms | All |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger sr-mpls event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 21.10.R1 |
| Platforms | All |

### **sr-policy** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **sr-policy** list instance |
| Context | **configure** log event-trigger sr-policy event *keyword* |
| Tree | sr-policy |
| Introduced | 23.10.R2 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Events for SR policy module |
| Context | **configure** log event-trigger sr-policy event *keyword* |
| Tree | sr-policy |
| Options | vRtrSrPathIsCandPathOperChanged, vRtrSrPlcyPathActiveStateChanged |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 23.10.R2 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger sr-policy event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 23.10.R2 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger sr-policy event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 23.10.R2 |
| Platforms | All |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger sr-policy event *keyword* entry *number* |
| Tree | entry |
| Introduced | 23.10.R2 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger sr-policy event *keyword* entry *number* |
| Tree | entry |


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| | |
|---|---|
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 23.10.R2 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger sr-policy event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 23.10.R2 |
| Platforms | All |

### **debounce**

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger sr-policy event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 23.10.R2 |
| Platforms | All |

### **time** *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger sr-policy event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 23.10.R2 |
| Platforms | All |


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### **value** *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger sr-policy event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 23.10.R2 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger sr-policy event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 23.10.R2 |
| Platforms | All |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger sr-policy event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 23.10.R2 |
| Platforms | All |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger sr-policy event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |


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| | |
|---|---|
| Introduced | 23.10.R2 |
| Platforms | All |

### **srv6** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **srv6** list instance |
| Context | **configure** log event-trigger srv6 event *keyword* |
| Tree | srv6 |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger srv6 event *keyword* |
| Tree | srv6 |
| Options | vRtrSrv6FunctionExhaustion, vRtrSrv6SvcSidIndex, vRtrSrv6LocatorResExhaustion |
| Notes | This element is part of a list key. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger srv6 event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger srv6 event *keyword* description *description* |


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| | |
|---|---|
| Tree | description |
| String length | 1 to 80 |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger srv6 event *keyword* entry *number* |
| Tree | entry |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger srv6 event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger srv6 event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |


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### debounce

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger srv6 event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### time *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger srv6 event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### value *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger srv6 event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### description *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger srv6 event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |


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### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger srv6 event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger srv6 event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **stp** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **stp** list instance |
| Context | **configure** log event-trigger stp event *keyword* |
| Tree | stp |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger stp event *keyword* |
| Tree | stp |
| Options | topologyChangeSapMajorState, newRootSap, topologyChangeVcpState, newRootVcpState, topologyChangeSapState, receivedTCN, newRootBridge, unacknowledgedTCN, higherPriorityBridge, sapEncapPVST, sapEncapDot1d, tmnxSvcTopoChgSdpBindMajorState, tmnxSvcNewRootSdpBind, tmnxSvcTopoChgSdpBindState, tmnxSvcSdpBindRcvdTCN, tmnxSvcSdpBindRcvdHigherBriPrio, tmnxSvcSdpBindEncapPVST, |


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| | |
|---|---|
| | tmnxSvcSdpBindEncapDot1d, tmnxNewCistRegionalRootBridge, tmnxNewMstiRegionalRootBridge, tmnxStpRootGuardViolation, tmnxStpMeshNotInMstRegion, tmnxSapStpExcepCondStateChng, tmnxSdpBndStpExcepCondStateChng, sapActiveProtocolChange, tmnxSvcSdpActiveProtocolChange, vcpActiveProtocolChange, topologyChangePipMajorState, topologyChangePipState, tmnxPipStpExcepCondStateChng, pipActiveProtocolChange |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger stp event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger stp event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger stp event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger stp event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger stp event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **debounce**

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger stp event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | All |

### **time** *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger stp event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **value** *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger stp event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger stp event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger stp event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger stp event *keyword* entry *number* handler *reference* |
| Tree | handler |


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| | |
|---|---|
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **svcmgr** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **svcmgr** list instance |
| Context | **configure** log event-trigger svcmgr event *keyword* |
| Tree | svcmgr |
| Introduced | 16.0.R1 |
| Platforms | All |

## **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger svcmgr event *keyword* |
| Tree | svcmgr |
| Options | svcTlsMacPinningViolation, tmnxSubSlaacOverride, svcEvpnMplsMacMoveExceedNonBlock, svcTlsVxInstReplicatorChgd, svcArpHostOverride, svcEvpnMHEsEviDFStateChgd, svcEvpnMHEsIsidDFStateChgd, svcEvpnRcvdProtSrcMac, svcBgpEvpnBHDupMacAddrsDetected, svcEvpnEtreeBumLabelSysHiUsgSet, svcEvpnEtreeBumLabelSysHiUsgClr, svcVxlanEvpnMplsDestSysHiUsgSet, svcVxlanEvpnMplsDestSysHiUsgClr, svcStatusChanged, svcTlsFdbTableFullAlarmRaised, svcTlsFdbTableFullAlarmCleared, svcSysEvpnESDfPrefOperValChange, tmnxSvcSysFdbTableHighUsgSet, iesIfStatusChanged, tmnxEndPointTxActiveChanged, tmnxSvcSysFdbTableHighUsgClr, svcEvpnMHStandbyStatusChg, svcEvpnVxVTepLclBiasAddFailSet, svcEvpnESVxVTepLclBiasAddFailSet, svcEvpnVxVTepLclBiasAddFailClr, svcEvpnESVxVTepLclBiasAddFailClr, svcEvpnRcvdPbbProtSrcMac, svcTlsMrpAttrRegistrationFailed, svcTlsMrpAttrTblFullAlarmRaised, svcTlsMrpAttrTblFullAlarmCleared, svcEvpnMplsTEPEgrLblStateChgd, svcEpipePbbOperStatusChanged, svcTlsVxInstVTEPEgrVniStateChgd, svcEvpnVxInstESDstTEPStateChgd, svcSrv6InstTEPSidOperStateChgd, svcSrv6InstESDstTEPOperStateChgd, svcEvpnMplsESDestTEPStateChgd, svcBgpEvpnTepStateChgd, svcSrv6FunctionOutOfResources, sapStatusChanged, sapTlsMacAddrLimitAlarmRaised, sapTlsMacAddrLimitAlarmCleared, hostConnectivityLost, hostConnectivityRestored, sapReceivedProtSrcMac, sapTlsMacMoveExceeded, sapPortStateChangeProcessed, sapCemPacketDefectAlarm, sapCemPacketDefectAlarmClear, msapStateChanged, msapCreationFailure, sapTlsMacMoveExceedNonBlock, sapEthLoopbackStarted, sapEthLoopbackStopped, sapTunnelEncapIpMtuTooSmall, tmnxIpTunnelOperStateChange, sapIfIgnorePortStateStart, sapIfIgnorePortStateStop, sapReceivedPbbProtSrcMac, sdpStatusChanged, sdpBindStatusChanged, |


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sdpKeepAliveStarted, sdpKeepAliveStopped, sdpKeepAliveProbeFailure, sdpKeepAliveLateReply, sdpTlsMacAddrLimitAlarmRaised, sdpTlsMacAddrLimitAlarmCleared, sdpBindPwPeerStatusBitsChanged, sdpBindTlsMacMoveExceeded, sdpBindPwPeerFaultAddrChanged, sdpBindSdpStateChangeProcessed, sdpBandwidthOverbooked, sdpBindInsufficientBandwidth, dynamicSdpConfigChanged, dynamicSdpBindConfigChanged, dynamicSdpCreationFailed, dynamicSdpBindCreationFailed, sdpEgrIfsNetDomInconsCntChanged, sdpBindIpipeCeIpAddressChange, sdpBindReceivedProtSrcMac, sdpBindPwLocalStatusBitsChanged, sdpBindTlsMacMoveExceedNonBlock, sdpBindEthLoopbackStarted, sdpBindEthLoopbackStopped, sdpPbbActvPwWithNonActvCtrlPwChg, svcBgpEvpnDupMacAddrsDetected, svcBgpEvpnDupMacAddrsCleared, svcTlsVTEPHiUsageAlarmRaised, svcTlsVTEPHiUsageAlarmCleared, svcTlsVTEPEgrVniSysHiUsgAlarmSet, svcTlsVTEPEgrVniSysHiUsgAlarmClr, svcTlsVTEPEgrVniSvcHiUsgAlarmSet, svcTlsVTEPEgrVniSvcHiUsgAlarmClr, svcBindSysHiUsageAlarmRaised, svcBindSysHiUsageAlarmCleared, sdpControlPwActiveStateChg, svcTlsProxyArpDupDetect, svcTlsProxyArpDupClear, svcTlsProxyNdDupDetect, svcTlsProxyNdDupClear, svcTlsEvpnTunnNHopHiUsgAlarmSet, svcTlsEvpnTunnNHopHiUsgAlarmClr, svcEvpnMplsTEPHiUsageRaised, svcEvpnMplsTEPHiUsageCleared, svcEvpnMplsTEPEgrBndSysHiUsgSet, svcEvpnMplsTEPEgrBndSysHiUsgClr, svcEvpnMplsTEPEgrBndSvcHiUsgSet, svcEvpnMplsTEPEgrBndSvcHiUsgClr, svcTlsProxyArpSysHiUsgSet, svcTlsProxyArpSysHiUsgClr, svcTlsProxyArpSvcHiUsgSet, svcTlsProxyArpSvcHiUsgClr, svcTlsProxyNdSysHiUsgSet, svcTlsProxyNdSysHiUsgClr, svcTlsProxyNdSvcHiUsgSet, svcTlsProxyNdSvcHiUsgClr, svcSiteMinDnTimerStateChg, sdpBindReceivedPbbProtSrcMac, svcTlsMfibTableFullAlarmRaised, svcTlsMfibTableFullAlarmCleared, tmnxSubscriberCreated, tmnxSubscriberDeleted, tmnxSubscriberRenamed, tmnxSubAcctPlcyFailure, tmnxSubMcsRelatedProblem, tmnxSubAuthPlcyRadSerOperStatChg, tmnxSubAcctPlcyRadSerOperStatChg, svcEndPointMacLimitAlarmRaised, svcEndPointMacLimitAlarmCleared, tmnxSubRadSapDisconnectError, tmnxSubRadSdpBndDisconnectError, tmnxSubRadSapCoAError, tmnxSubRadSdpBndCoAError, tmnxSubRadSapSubAuthError, tmnxSubRadSdpBndSubAuthError, svcFdbMimDestTblFullAlrm, svcFdbMimDestTblFullAlrmCleared, svcPersistencyProblem, svcArpHostPopulateErr, svcEPMCEPConfigMismatch, svcEPMCEPConfigMismatchResolved, svcEPMCEPPassiveModeActive, svcEPMCEPPassiveModePassive, sapHostBGPPeeringSetupFailed, tmnxSubUserCategoryOutOfCredit, svcRestoreHostProblem, tmnxSubUserCategoryRefreshCredit, tmnxSubUserCategoryError, svcTlsSiteDesigFwdrChg, sapTlsDataSapInstStatusChgd, svcTlsGroupOperStatusChanged, sapTunnelStateChange, tmnxSubHostInconsistentAtmTdOvr, svcMSPwRtMisconfig, svcOperGrpOperStatusChanged, sapIpipeCeIpAddrChange, svcMSPwRetryExpiredNotif, svcVllSiteDesigFwdrChg, tmnxSubSlaacSetupFailure, tmnxIpTunnelOperRemIpChg, tmnxSubHostLcktLimitReached, tmnxSubHostLcktSapLimitReached, tmnxSubSysChassMemoryUsageHi, tmnxSubVSubnetHostsDeleted, sapHostRipListenerSetupFailed, tmnxSubIpoeInvalidSessionKey, tmnxSubIpoeInvalidCidRidChange, tmnxSubIpoeSessionLimitReached, tmnxSubIpoePersistenceRecovery, tmnxSubIpoeMigrHostDeleted, tmnxSubMngdHostCreationFail,


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tmnxSubMngdHostOverride, tmnxSubHostInfoConflict, tmnxSubPlBndFailed, tmnxSubBrgCreated, tmnxSubBrgDeleted, tmnxSubBrgCvInitFailed, tmnxSubBrgRadiusUpdateIpoeSeFail, tmnxSubBrgRadiusCoaError, tmnxSubBrgRadiusAuthError, tmnxSubBrgSessionLimitReached, tmnxSubStatsResourceLimitReached, tmnxSubDhcpOverloadDetected, aluIpTransportStateChanged, tmnxSubBrgRadiusProxyAuthError, tmnxSubIpoeSessionBrgNotAuth, tmnxSubRadiusCoaNatFwdFailed, tmnxSubSVlanStatsReachedMaximum, svcTlsVxInstMacAdrLimitAlrmRsd, svcTlsVxInstMacAdrLimitAlrmClrd, tmnxSubCupsUpSapCreationFailed, tmnxSubCupsUpIfCreationFailed, tmnxPfcpAssocPathMgmtStateChgd, tmnxSubInfoEgrAggRateLimitLowReq, tmnxSubIpoeWppRegistrationFailed, svcEvpnMplsTEPIpSysHiUsgSet, svcEvpnMplsTEPIpSysHiUsgClr, svcEvpnMHAutoEsiCreated, svcEvpnMHAutoEsiConflict, svcSrv6TEPEgrBndSysHiUsgSet, svcSrv6TEPEgrBndSysHiUsgClr, svcIfSubForwardingStatsDisNotify, svcIfSubForwardingStatsEnNotify, svcRoutedVplsEvpnGWDrStateChgd, svcSrv6TEPEgrBndSvcHiUsgSet, svcSrv6TEPEgrBndSvcHiUsgClr, tmnxSapMRtCpeChkStatusChange, svcEvpnMplsMldpESLblHiUsgSet, svcEvpnMplsMldpESLblHiUsgClr, svcTlsProxyArpUnauthorizedIP, svcTlsProxyNdUnauthorizedIP, svcRvplsEvpnMcastDestSysHiUsgSet, svcRvplsEvpnMcastDestSysHiUsgClr, tmnxSubPysrosExec, tmnxSubPysrosExecFail

| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger svcmgr event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger svcmgr event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger svcmgr event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger svcmgr event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger svcmgr event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **debounce**

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger svcmgr event *keyword* entry *number* debounce |


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| | |
|---|---|
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | All |

### **time** *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger svcmgr event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **value** *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger svcmgr event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger svcmgr event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |


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| | |
|---|---|
| Context | **configure** log event-trigger svcmgr event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger svcmgr event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **system** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **system** list instance |
| Context | **configure** log event-trigger system event *keyword* |
| Tree | system |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger system event *keyword* |
| Tree | system |
| Options | stiDateAndTimeChanged, ssiSaveConfigSucceeded, ssiSaveConfigFailed, sbiBootConfig, sbiBootSnmpd, tmnxConfigModify, tmnxConfigCreate, tmnxConfigDelete, tmnxStateChange, tmnxModuleMallocFailed, tmnxTrapDropped, ssiSyncConfigOK, ssiSyncConfigFailed, ssiSyncBootEnvOK, ssiSyncBootEnvFailed, socket_bind_failed, socket_conn_accept_failed, sntpTimeDiffExceedsThreshold, tmnxSssiMismatch, tmnxSnmpdStateChange, tmnxRedStandbySyncing, tmnxRedStandbyReady, tmnxRedStandbySyncLost, tmnxRedSwitchover, tmnxRedCpmActive, tmnxRedSingleCpm, persistencyClosedAlarmRaised, persistencyClosedAlarmCleared, tmnxSntpOperChange, tmnxFtpClientFailure, persistencyEventReport, sbiBootConfigFailFileError, sbiBootConfigOKFileError, |


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persistenceRestoreProblem, tmnxSysRollbackStarted, tmnxSysRollbackStatusChange, tmnxSysRollbackSaveStatusChange, tmnxSysRollbackFileDeleteStatus, ssiSyncRollbackOK, ssiSyncRollbackFailed, ssiSyncCertOK, ssiSyncCertFailed, persistencyFileSysThresRaised, persistencyFileSysThresCleared, tmnxSysExecStarted, tmnxSysExecFinished, tmnxSysRollbackSaveStarted, tmnxSysRollbackDeleteStarted, tmnxSysNvsysFileError, tmnxConfigConflict, tmnxSysBaseMacAddressNotSet, tmnxSmLaunchStartFailed, tmnxEhsHandlerInvoked, tmnxEhsDroppedByMinDelay, tmnxSysAppStats24HrsAvailable, tmnxSysAppStatsWeekAvailable, tmnxSysMgmtIfModeChangeStart, tmnxSysMgmtIfModeChangeComplete, tmnxSysMgmtIfModeChangeFailure, tmnxSysMgmtIfLiIncorrectFormat, tmnxSysMgmtIfLiCfgNotEncrypted, stiDateAndTimeChanging, tmnxSysSwFabFailRecStarted, tmnxSysSwFabFailRecCompleted, tmnxSysSwFabFailRecAborted, tmnxSysSwFabFailRecDetected, tMirrorLiXIfLicenseInvalid, mdSaveCommitHistoryFailed, sbiBootMdReadCommitHistoryFailed, tmnxSysDyingGasp, tmnxSysHttpRdrOutOfSeqLimitExc, schedActionFailure, smScriptAbort, smScriptResult, smScriptException, ssiSaveIncrementConfigSucceeded, ssiSaveIncrementConfigFailed, ssiSaveBackgroundConfigSucceeded, ssiSaveBackgroundConfigFailed, tmnxLastSystemRebootAdmin, mdCommitInProgress, mdCommitSucceeded

| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger system event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger system event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger system event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger system event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger system event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **debounce**

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger system event *keyword* entry *number* debounce |
| Tree | debounce |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **time** *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger system event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **value** *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger system event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger system event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger system event *keyword* entry *number* filter *reference* |


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| | |
|---|---|
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger system event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **tls** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **tls** list instance |
| Context | **configure** log event-trigger tls event *keyword* |
| Tree | tls |
| Introduced | 20.5.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger tls event *keyword* |
| Tree | tls |
| Options | tmnxTlsInitiateSession, tmnxTlsTermination, tmnxTlsFailure |
| Notes | This element is part of a list key. |
| Introduced | 20.5.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |


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| | |
|---|---|
| Context | **configure** log event-trigger tls event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 20.5.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger tls event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 20.5.R1 |
| Platforms | All |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger tls event *keyword* entry *number* |
| Tree | entry |
| Introduced | 20.5.R1 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger tls event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 20.5.R1 |
| Platforms | All |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger tls event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 20.5.R1 |
| Platforms | All |

### **debounce**

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger tls event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 20.5.R1 |
| Platforms | All |

### **time** *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger tls event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 20.5.R1 |
| Platforms | All |

### **value** *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger tls event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 20.5.R1 |


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| | |
|---|---|
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger tls event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 20.5.R1 |
| Platforms | All |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger tls event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 20.5.R1 |
| Platforms | All |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger tls event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 20.5.R1 |
| Platforms | All |

### **tree-sid** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **tree-sid** list instance |
| Context | **configure** log event-trigger tree-sid event *keyword* |
| Tree | tree-sid |
| Introduced | 20.10.R1 |


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| | |
|---|---|
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger tree-sid event *keyword* |
| Tree | tree-sid |
| Options | vRtrTreeSidCdtPathChanged, vRtrTreeSidCdtPathActInsChanged, vRtrTreeSidInSidRegFailure, vRtrTreeSidTreeIdAllocFailure, vRtrTreeSidRepSegResExhaustion, vRtrTreeSidRepSegResExhstCleared, vRtrTreeSidLabelRangeExhaustion, vRtrTreeSidLblRangeExhstCleared, vRtrTreeSidFailOverPriToStdBy, vRtrTreeSidFailOverStdByToPri |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger tree-sid event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 20.10.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger tree-sid event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 20.10.R1 |
| Platforms | All |


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### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger tree-sid event *keyword* entry *number* |
| Tree | entry |
| Introduced | 20.10.R1 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger tree-sid event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger tree-sid event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 20.10.R1 |
| Platforms | All |

### **debounce**

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger tree-sid event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 20.10.R1 |
| Platforms | All |


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### **time** *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger tree-sid event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 20.10.R1 |
| Platforms | All |

### **value** *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger tree-sid event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 20.10.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger tree-sid event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 20.10.R1 |
| Platforms | All |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger tree-sid event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |


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| | |
|---|---|
| Introduced | 20.10.R1 |
| Platforms | All |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger tree-sid event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 20.10.R1 |
| Platforms | All |

### **user** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **user** list instance |
| Context | **configure** log event-trigger user event *keyword* |
| Tree | user |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger user event *keyword* |
| Tree | user |
| Options | cli_user_login, cli_user_logout, cli_user_login_failed, cli_user_login_max_attempts, ftp_user_login, ftp_user_logout, ftp_user_login_failed, ftp_user_login_max_attempts, cli_user_io, snmp_user_set, cli_config_io, cli_unauth_user_io, cli_unauth_config_io, grpc_user_login, grpc_user_logout, grpc_user_login_failed, grpc_user_login_max_attempts, netconf_user_login, netconf_user_logout, netconf_user_login_failed, netconf_user_login_max_attempts |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger user event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger user event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger user event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger user event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger user event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **debounce**

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger user event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | All |

### **time** *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger user event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **value** *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger user event *keyword* entry *number* debounce value *number* |
| Tree | value |


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| | |
|---|---|
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger user event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger user event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger user event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **video** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **video** list instance |
| Context | **configure** log event-trigger video event *keyword* |


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| | |
|---|---|
| Tree | video |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger video event *keyword* |
| Tree | video |
| Options | tmnxVdoDuplicateSsrcId, tmnxVdoMdaSessionsLimitExceeded, tmnxVdoMdaSGLimitExceeded, tmnxVdoMdaSessionsLimitCleared, tmnxVdoMdaSGLimitCleared, tmnxVdoAdSpliceAbort, tmnxVdoClientSessionsLmtExceeded, tmnxVdoClientSessionsLmtCleared, tmnxVdoGrpSrcAnlyzrErrState, tmnxVdoGrpSrcAnlyzrStClear, tmnxVdoMdaFccBwLimitExceeded, tmnxVdoMdaFccBwLimitCleared, tmnxVdoMdaRetBwLimitExceeded, tmnxVdoMdaRetBwLimitCleared, tmnxVdoMdaFccRetTotBwLmtExceeded, tmnxVdoMdaFccRetTotBwLmtCleared, tmnxVdoMdaFccSesLimitExceeded, tmnxVdoMdaFccSesLimitCleared, tmnxVdoMdaRetSesLimitExceeded, tmnxVdoMdaRetSesLimitCleared, tmnxVdoMdaFccRetTotSeLmtExceeded, tmnxVdoMdaFccRetTotSeLmtCleared, tmnxVdoVappSessionsLimitExceeded, tmnxVdoVappSGLimitExceeded, tmnxVdoVappSessionsLimitCleared, tmnxVdoVappSGLimitCleared, tmnxVdoVappFccBwLimitExceeded, tmnxVdoVappFccBwLimitCleared, tmnxVdoVappRetBwLimitExceeded, tmnxVdoVappRetBwLimitCleared, tmnxVdoVappFccRetTotBwLmtExceded, tmnxVdoVappFccRetTotBwLmtCleared, tmnxVdoVappFccSesLimitExceeded, tmnxVdoVappFccSesLimitCleared, tmnxVdoVappRetSesLimitExceeded, tmnxVdoVappRetSesLimitCleared, tmnxVdoVappFccRetTotSeLmtExceded, tmnxVdoVappFccRetTotSeLmtCleared |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger video event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger video event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger video event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger video event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger video event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |


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| | |
|---|---|
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### debounce

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger video event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### time *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger video event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### value *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger video event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### description *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger video event *keyword* entry *number* description *description* |


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| | |
|---|---|
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger video event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger video event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **vrrp** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **vrrp** list instance |
| Context | **configure** log event-trigger vrrp event *keyword* |
| Tree | vrrp |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger vrrp event *keyword* |


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| | |
|---|---|
| Tree | vrrp |
| Options | vrrpTrapNewMaster, vrrpTrapAuthFailure, tmnxVrrpIPListMismatch, tmnxVrrpIPListMismatchClear, tmnxVrrpMultipleOwners, tmnxVrrpBecameBackup, vrrpPacketDiscarded, tmnxVrrpBfdIntfSessStateChgd, vrrpTrapProtoError, tVrrpBecameBackup, tVrrpTrapNewMaster, tVrrpIPListMismatch, tVrrpIPListMismatchClear, tVrrpMultipleOwners, tVrrpPacketDiscarded, tVrrpRouterAdvNotActivated, tVrrpRouterAdvNotActivatedClear, tVrrpOperDownInvalidMac, tVrrpOperDownInvalidMacClear, tmnxVrrpOperDownInvalidMac, tmnxVrrpOperDownInvalidMacClear |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger vrrp event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger vrrp event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger vrrp event *keyword* entry *number* |
| Tree | entry |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger vrrp event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger vrrp event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **debounce**

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger vrrp event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | All |

### **time** *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger vrrp event *keyword* entry *number* debounce time *number* |


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| | |
|---|---|
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **value** *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger vrrp event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger vrrp event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger vrrp event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger vrrp event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **vrtr** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **vrtr** list instance |
| Context | **configure** log event-trigger vrtr event *keyword* |
| Tree | vrtr |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger vrtr event *keyword* |
| Tree | vrtr |
| Options | tmnxVRtrMidRouteTCA, tmnxVRtrHighRouteTCA, tmnxVRtrHighRouteCleared, tmnxVRtrMcastMidRouteTCA, tmnxVRtrMcastMaxRoutesTCA, tmnxVRtrMcastMaxRoutesCleared, tmnxVRtrMaxArpEntriesTCA, tmnxVRtrMaxArpEntriesCleared, tmnxVRtrMaxRoutes, tmnxVRtrBfdMaxSessionOnSlot, tmnxVRtrBfdPortTypeNotSupported, tmnxVRtrIPv6MidRouteTCA, tmnxVRtrIPv6HighRouteTCA, tmnxVRtrIPv6HighRouteCleared, tmnxVRtrStaticRouteCPEStatus, tmnxVRtrManagedRouteAddFailed, tmnxVRtrFibOccupancyThreshold, tmnxVRtrInetAddressAttachFailed, tmnxVRtrSingleSfmOverloadStateCh, tmnxVRtrGrtExportLimitReached, tmnxVRtrGrtRoutesExpLimitDropped, tmnxVRtrIfLdpSyncTimerStart, tmnxVRtrIfLdpSyncTimerStop, tmnxVRtrGrtV6ExportLimitReached, tmnxVRtrGrtV6RoutesExpLimDropped, tmnxVRtrStaticRouteStatusChanged, tmnxVRtrBfdSessExtDown, tmnxVRtrBfdSessExtUp, tmnxVRtrBfdSessExtDeleted, tmnxVRtrBfdSessExtProtChange, tmnxVRtrBfdExtNoCpmNpResources, tmnxVRtrDnsFault, tmnxVRtrMacAcctLimitReached, tmnxVRtrMacAcctLimitCleared, tmnxVRtrNgBfdSessDown, tmnxVRtrNgBfdSessUp, tmnxVRtrNgBfdSessDeleted, tmnxVRtrNgBfdSessProtChange, tmnxVRtrNgBfdNoCpmNpResources, tmnxVRtrNHRvplsARPHighUsage, tmnxVRtrNHRvplsARPExhaust, tmnxVRtrNHRvplsARPHighUsageClr, tmnxVRtrArpLmt, |


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| | |
|---|---|
| | tmnxVRtrArpThresholdExceeded, tmnxVRtrIpv6NbrLmt, tmnxVRtrIpv6NbrThresholdExceeded, tmnxVRtrIfIgnorePortState, tmnxVRtrPdnAddrMismatch, tmnxVRtrPdnAddrMismatchCleared, tmnxVRtrLeakExportLimitReached, tmnxVRtrLeakExportLimitDropped, tmnxVRtrDhcpClientStatusChanged, tmnxVRtrDhcp6ClientStatusChanged, tmnxVRtrNeDiscovered, tmnxVRtrNeRemoved, tmnxVRtrNeModified, vRtrIfDhcpClRtStatusChanged, vRtrIfDhcpClStateDnsChanged, vRtrAutoCfgRaRtStatusChanged, vRtrIfDhcp6ClStateDnsChanged, tipNbrAllocFailed, vRtrIfEthLoopbackStarted, vRtrIfEthLoopbackStopped, tmnxVRtrBfdExtNoFreeTxIntrvlSlot, tmnxVRtrFibVPNOccupancyThreshold, tmnxVRtrBfdMultiHopFpMismatch, vRtrBgpInstanceError, vrtrIfIpTunnelOperStateChange |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger vrtr event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger vrtr event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger vrtr event *keyword* entry *number* |


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| | |
|---|---|
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger vrtr event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger vrtr event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **debounce**

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger vrtr event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | All |

### **time** *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |


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| | |
|---|---|
| Context | **configure** log event-trigger vrtr event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **value** *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger vrtr event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger vrtr event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger vrtr event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger vrtr event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **wlan-gw** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **wlan-gw** list instance |
| Context | **configure** log event-trigger wlan-gw event *keyword* |
| Tree | wlan-gw |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger wlan-gw event *keyword* |
| Tree | wlan-gw |
| Options | tmnxWlanGwResrcProblemDetected, tmnxWlanGwResrcProblemCause, tmnxWlanGwTuQosProblem, tmnxWlanGwGrpOperStateChanged, tmnxWlanGwIomActive, tmnxWlanGwMgwConnected, tmnxWlanGwMgwRestarted, tmnxWlanGwNumMgwHi, tmnxWlanGwMgwStateChanged, tmnxWlanGwQosRadiusGtpMismatch, tmnxWlanGwSubIfRedActiveChanged, tmnxWlanGwDsmGtpTunnelSetupFail, tmnxWlanGwSubIfPmStartD6cFailed, tmnxWlanGwSubIfPmNewPlReqFailed, tmnxWlanGwSubIfPmAddNewPlFailed, tmnxWlanGwSubIfPmCrIntObjFailed, tmnxWlanGwSubIfPmPoolTimeout, tmnxWlanGwSubIfPmPoolUsageLow, tmnxWlanGwSubIfPmLsQryRtryFailed, tmnxWlanGwGtpMessageDropped, tmnxWlanGwSubIfPmPoolPartialUse, tmnxWlanGwBdCreated, tmnxWlanGwBdDeleted, tmnxWlanGwUeCreationFail, tmnxWlanGwUeReplacement, tmnxWlanGwGrpMemberUsageHigh |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger wlan-gw event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger wlan-gw event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger wlan-gw event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger wlan-gw event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger wlan-gw event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **debounce**

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger wlan-gw event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | All |

### **time** *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger wlan-gw event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **value** *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger wlan-gw event *keyword* entry *number* debounce value *number* |


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| | |
|---|---|
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger wlan-gw event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger wlan-gw event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger wlan-gw event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **wpp** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **wpp** list instance |


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| | |
|---|---|
| Context | **configure** log event-trigger wpp event *keyword* |
| Tree | wpp |
| Introduced | 16.0.R1 |
| Platforms | All |

## **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log event-trigger wpp event *keyword* |
| Tree | wpp |
| Options | tmnxWppPortalStatChanged, tmnxWppHostAuthenticationFailed, tmnxWppPortalUnreachable, tmnxWppPortalGroupStatChanged, tmnxWppPGHostAuthFailed |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger |
| Context | **configure** log event-trigger wpp event *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger wpp event *keyword* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** log event-trigger wpp event *keyword* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of the EHS event trigger entry |
| Context | **configure** log event-trigger wpp event *keyword* entry *number* |
| Tree | entry |
| Range | 1 to 1500 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EHS event trigger entry |
| Context | **configure** log event-trigger wpp event *keyword* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **debounce**

| | |
|---|---|
| Synopsis | Enter the **debounce** context |
| Context | **configure** log event-trigger wpp event *keyword* entry *number* debounce |
| Tree | debounce |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **time** *number*

| | |
|---|---|
| Synopsis | Time window for events for EHS to trigger a response |
| Context | **configure** log event-trigger wpp event *keyword* entry *number* debounce time *number* |
| Tree | time |
| Range | 1 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **value** *number*

| | |
|---|---|
| Synopsis | Occurrences in time interval to trigger EHS response |
| Context | **configure** log event-trigger wpp event *keyword* entry *number* debounce value *number* |
| Tree | value |
| Range | 2 to 15 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log event-trigger wpp event *keyword* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter** *reference*

| | |
|---|---|
| Synopsis | Log filter for EHS event trigger entry |
| Context | **configure** log event-trigger wpp event *keyword* entry *number* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **handler** *reference*

| | |
|---|---|
| Synopsis | Event handler for EHS event trigger entry |
| Context | **configure** log event-trigger wpp event *keyword* entry *number* handler *reference* |
| Tree | handler |
| Reference | **configure** log event-handling handler *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **file** [file-policy-name] *file-policy-name*

| | |
|---|---|
| Synopsis | Enter the **file** list instance |
| Context | **configure** log file *file-policy-name* |
| Tree | file |
| Max. instances | 99 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**file-policy-name**] *file-policy-name*

| | |
|---|---|
| Synopsis | File ID for a log or accounting file |
| Context | **configure** log file *file-policy-name* |
| Tree | file |
| Description | This command specifies the identification name or number for a log or accounting file. If the name begins with a numerical digit (from 1 to 9), the name must be a number from 1 to 99. |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 22.2.R1 |
| Platforms | All |


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## compact-flash-location

| | |
|---|---|
| Synopsis | Enter the **compact-flash-location** context |
| Context | **configure** log file *file-policy-name* compact-flash-location |
| Tree | compact-flash-location |
| Introduced | 16.0.R1 |
| Platforms | All |

## backup *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Log file location |
| Context | **configure** log file *file-policy-name* compact-flash-location backup *keyword* |
| Tree | backup |
| Options | cf-unspecified, cf1, cf2, cf3, cf4 |
| Default | cf-unspecified |
| Introduced | 16.0.R1 |
| Platforms | All |

## primary *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Log file location |
| Context | **configure** log file *file-policy-name* compact-flash-location primary *keyword* |
| Tree | primary |
| Options | cf-unspecified, cf1, cf2, cf3, cf4 |
| Default | cf-unspecified |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log file *file-policy-name* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **retention** *number*

| | |
|---|---|
| Synopsis | Minimum time that a file is retained on the media |
| Context | **configure** log file *file-policy-name* retention *number* |
| Tree | retention |
| Range | 1 to 500 |
| Units | hours |
| Default | 12 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rollover** *number*

| | |
|---|---|
| Synopsis | Frequency at which a new log or accounting file is created |
| Context | **configure** log file *file-policy-name* rollover *number* |
| Tree | rollover |
| Range | 5 to 10080 |
| Units | minutes |
| Default | 1440 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **file-storage-control**

| | |
|---|---|
| Synopsis | Enter the **file-storage-control** context |
| Context | **configure** log file-storage-control |


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| | |
|---|---|
| Tree | file-storage-control |
| Introduced | 23.3.R1 |
| Platforms | All |

## **accounting-files-total-size** *number*

| | |
|---|---|
| Synopsis | Per CF total accounting file storage limit |
| Context | **configure** log file-storage-control accounting-files-total-size *number* |
| Tree | accounting-files-total-size |
| Description | This command configures the limit for the total space that all accounting files can occupy on each storage device on the active CPM.<br>When this threshold is reached, new accounting files are no longer created in the \act-collect directory of the storage device until SR OS removes older accounting files from the \act directory and the occupancy is below the limit. Currently open, in-progress accounting files in the \act-collect directory are not affected by this limit and are completed.<br>When unconfigured, there is no specific limit for the total size of all accounting files.<br>Only accounting files in the \act directory with system generated names (including no file extension) are applicable toward the total size limit.<br>If a user manually adds or deletes accounting files from the \act directory, the size of the files is not taken into account for up to 1 hour.<br>The configured total size limit is not validated against the actual size of the installed storage devices. If the configured limit is larger than the installed compact flash (CF) device, the limit is never reached. |
| Range | 50 to 4194304 |
| Units | megabytes |
| Introduced | 23.3.R1 |
| Platforms | All |

## **log-files-total-size** *number*

| | |
|---|---|
| Synopsis | Per CF total log file storage limit |
| Context | **configure** log file-storage-control log-files-total-size *number* |
| Tree | log-files-total-size |
| Description | This command configures the limit for the total space that all log files can occupy on each storage device on the active CPM.<br>When this threshold is reached, log events are no longer written to the files in the \log directory until SR OS removes older log files and the occupancy is below the limit.<br>When unconfigured, there is no specific limit for the total size of all log files. |


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Only log files in the \log directory with system generated names (including no file extension) are applicable toward the total size limit.

If a user manually adds or deletes log files from the \log directory, the size of the files is not taken into account for up to 1 hour.

The configured total size limit is not validated against the actual size of the installed storage devices. If the configured limit is larger than the installed CF device, the limit is never reached.

| | |
|---|---|
| Range | 50 to 4194304 |
| Units | megabytes |
| Introduced | 23.3.R1 |
| Platforms | All |

### **filter** [filter-name] *log-filter-name*

| | |
|---|---|
| Synopsis | Enter the **filter** list instance |
| Context | **configure** log filter *log-filter-name* |
| Tree | filter |
| Max. instances | 1500 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**filter-name**] *log-filter-name*

| | |
|---|---|
| Synopsis | Filter name |
| Context | **configure** log filter *log-filter-name* |
| Tree | filter |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 21.2.R1 |
| Platforms | All |

### **default-action** *keyword*

| | |
|---|---|
| Synopsis | Default action for the event filter |
| Context | **configure** log filter *log-filter-name* default-action *keyword* |
| Tree | default-action |


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| | |
|---|---|
| Options | drop, forward |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log filter *log-filter-name* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **named-entry** [entry-name] *log-filter-entry-name*

| | |
|---|---|
| Synopsis | Enter the **named-entry** list instance |
| Context | **configure** log filter *log-filter-name* named-entry *log-filter-entry-name* |
| Tree | named-entry |
| Description | Commands in this context create or edit an event filter entry. |
| Max. instances | 999 |
| Notes | This element is ordered by the user. |
| Introduced | 21.2.R1 |
| Platforms | All |

### [**entry-name**] *log-filter-entry-name*

| | |
|---|---|
| Synopsis | Entry name |
| Context | **configure** log filter *log-filter-name* named-entry *log-filter-entry-name* |
| Tree | named-entry |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 21.2.R1 |
| Platforms | All |


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### **action** *keyword*

| | |
|---|---|
| Synopsis | Action for this event filter entry |
| Context | **configure** log filter *log-filter-name* named-entry *log-filter-entry-name* action *keyword* |
| Tree | action |
| Options | drop, forward |
| Introduced | 21.2.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log filter *log-filter-name* named-entry *log-filter-entry-name* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 21.2.R1 |
| Platforms | All |

### **match**

| | |
|---|---|
| Synopsis | Enter the **match** context |
| Context | **configure** log filter *log-filter-name* named-entry *log-filter-entry-name* match |
| Tree | match |
| Introduced | 21.2.R1 |
| Platforms | All |

### **application**

| | |
|---|---|
| Synopsis | Enter the **application** context |
| Context | **configure** log filter *log-filter-name* named-entry *log-filter-entry-name* match application |
| Tree | application |
| Introduced | 21.2.R1 |
| Platforms | All |


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## **eq** *keyword*

| | |
|---|---|
| Synopsis | Application to match |
| Context | **configure** log filter *log-filter-name* named-entry *log-filter-entry-name* match application eq *keyword* |
| Tree | eq |
| Options | application-assurance, aps, bgp, cflowd, chassis, debug, dhcp, dhcps, diameter, dot1x, efm-oam, elmi, ering, eth-cfm, etun, filter, gsmp, igmp, igmp-snooping, ip, ipsec, isis, l2tp, lag, ldp, li, lldp, logger, mcpath, mc-redundancy, mirror, mld, mld-snooping, mpls, msdp, nat, ntp, oam, ospf, pim, pim-snooping, port, pppoe, ptp, rip, route-policy, rsvp, security, snmp, stp, svcmgr, system, user, video, vrrp, vrtr, radius, wpp, wlan-gw, dynsvc, mpls-tp, bfd, python, ripng, openflow, sflow, rpki, pcep, calltrace, satellite, ldap, pppoe-clnt, tls, adp, mgmt-core, macsec, sr-policy, pcap, auto-prov, bier, pfcp, tree-sid, srv6, sr-mpls, anysec |
| Notes | The following elements are part of a choice: **eq** or **neq**. |
| Introduced | 21.2.R1 |
| Platforms | All |

## **neq** *keyword*

| | |
|---|---|
| Synopsis | Application to be filtered out |
| Context | **configure** log filter *log-filter-name* named-entry *log-filter-entry-name* match application neq *keyword* |
| Tree | neq |
| Options | application-assurance, aps, bgp, cflowd, chassis, debug, dhcp, dhcps, diameter, dot1x, efm-oam, elmi, ering, eth-cfm, etun, filter, gsmp, igmp, igmp-snooping, ip, ipsec, isis, l2tp, lag, ldp, li, lldp, logger, mcpath, mc-redundancy, mirror, mld, mld-snooping, mpls, msdp, nat, ntp, oam, ospf, pim, pim-snooping, port, pppoe, ptp, rip, route-policy, rsvp, security, snmp, stp, svcmgr, system, user, video, vrrp, vrtr, radius, wpp, wlan-gw, dynsvc, mpls-tp, bfd, python, ripng, openflow, sflow, rpki, pcep, calltrace, satellite, ldap, pppoe-clnt, tls, adp, mgmt-core, macsec, sr-policy, pcap, auto-prov, bier, pfcp, tree-sid, srv6, sr-mpls, anysec |
| Notes | The following elements are part of a choice: **eq** or **neq**. |
| Introduced | 21.2.R1 |
| Platforms | All |

## **event**

| | |
|---|---|
| Synopsis | Enter the **event** context |
| Context | **configure** log filter *log-filter-name* named-entry *log-filter-entry-name* match event |


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| | |
|---|---|
| Tree | event |
| Introduced | 21.2.R1 |
| Platforms | All |

### **eq** *number*

| | |
|---|---|
| Synopsis | Log event message to match |
| Context | **configure** log filter *log-filter-name* named-entry *log-filter-entry-name* match event eq *number* |
| Tree | eq |
| Range | 1 to 4294967295 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **gte**, **lt**, **lte**, or **neq**. |
| Introduced | 21.2.R1 |
| Platforms | All |

### **gt** *number*

| | |
|---|---|
| Synopsis | Number of the log event to match |
| Context | **configure** log filter *log-filter-name* named-entry *log-filter-entry-name* match event gt *number* |
| Tree | gt |
| Range | 1 to 4294967295 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **gte**, **lt**, **lte**, or **neq**. |
| Introduced | 21.2.R1 |
| Platforms | All |

### **gte** *number*

| | |
|---|---|
| Synopsis | Number of the log event to match |
| Context | **configure** log filter *log-filter-name* named-entry *log-filter-entry-name* match event gte *number* |
| Tree | gte |
| Range | 1 to 4294967295 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **gte**, **lt**, **lte**, or **neq**. |
| Introduced | 21.2.R1 |


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| | |
|---|---|
| Platforms | All |

### **lt** *number*

| | |
|---|---|
| Synopsis | Number of the log event to match |
| Context | **configure** log filter *log-filter-name* named-entry *log-filter-entry-name* match event lt *number* |
| Tree | lt |
| Range | 1 to 4294967295 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **gte**, **lt**, **lte**, or **neq**. |
| Introduced | 21.2.R1 |
| Platforms | All |

### **lte** *number*

| | |
|---|---|
| Synopsis | Number of the log event to match |
| Context | **configure** log filter *log-filter-name* named-entry *log-filter-entry-name* match event lte *number* |
| Tree | lte |
| Range | 1 to 4294967295 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **gte**, **lt**, **lte**, or **neq**. |
| Introduced | 21.2.R1 |
| Platforms | All |

### **neq** *number*

| | |
|---|---|
| Synopsis | Log event message to filter out |
| Context | **configure** log filter *log-filter-name* named-entry *log-filter-entry-name* match event neq *number* |
| Tree | neq |
| Range | 1 to 4294967295 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **gte**, **lt**, **lte**, or **neq**. |
| Introduced | 21.2.R1 |
| Platforms | All |


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## message

| | |
|---|---|
| Synopsis | Enter the **message** context |
| Context | **configure** log filter *log-filter-name* named-entry *log-filter-entry-name* match message |
| Tree | message |
| Introduced | 21.2.R1 |
| Platforms | All |

## eq *string*

| | |
|---|---|
| Synopsis | Log event message to match |
| Context | **configure** log filter *log-filter-name* named-entry *log-filter-entry-name* match message eq *string* |
| Tree | eq |
| String length | 1 to 400 |
| Notes | The following elements are part of a choice: **eq** or **neq**. |
| Introduced | 21.2.R1 |
| Platforms | All |

## neq *string*

| | |
|---|---|
| Synopsis | Log event message to be filtered out |
| Context | **configure** log filter *log-filter-name* named-entry *log-filter-entry-name* match message neq *string* |
| Tree | neq |
| String length | 1 to 400 |
| Notes | The following elements are part of a choice: **eq** or **neq**. |
| Introduced | 21.2.R1 |
| Platforms | All |

## regexp *boolean*

| | |
|---|---|
| Synopsis | String comparison to determine if the log event matches the value of pattern |
| Context | **configure** log filter *log-filter-name* named-entry *log-filter-entry-name* match message regexp *boolean* |
| Tree | regexp |


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| | |
|---|---|
| Default | false |
| Introduced | 21.2.R1 |
| Platforms | All |

## severity

| | |
|---|---|
| Synopsis | Enter the **severity** context |
| Context | **configure** log filter *log-filter-name* named-entry *log-filter-entry-name* match severity |
| Tree | severity |
| Introduced | 21.2.R1 |
| Platforms | All |

## eq *keyword*

| | |
|---|---|
| Synopsis | Log event severity level to match |
| Context | **configure** log filter *log-filter-name* named-entry *log-filter-entry-name* match severity eq *keyword* |
| Tree | eq |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Notes | The following elements are part of a choice: **eq**, **gt**, **gte**, **lt**, **lte**, or **neq**. |
| Introduced | 21.2.R1 |
| Platforms | All |

## gt *keyword*

| | |
|---|---|
| Synopsis | Log event severity level |
| Context | **configure** log filter *log-filter-name* named-entry *log-filter-entry-name* match severity gt *keyword* |
| Tree | gt |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Notes | The following elements are part of a choice: **eq**, **gt**, **gte**, **lt**, **lte**, or **neq**. |
| Introduced | 21.2.R1 |
| Platforms | All |


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### **gte** *keyword*

| | |
|---|---|
| Synopsis | Log event severity level |
| Context | **configure** log filter *log-filter-name* named-entry *log-filter-entry-name* match severity gte *keyword* |
| Tree | gte |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Notes | The following elements are part of a choice: **eq**, **gt**, **gte**, **lt**, **lte**, or **neq**. |
| Introduced | 21.2.R1 |
| Platforms | All |

### **lt** *keyword*

| | |
|---|---|
| Synopsis | Log event severity level |
| Context | **configure** log filter *log-filter-name* named-entry *log-filter-entry-name* match severity lt *keyword* |
| Tree | lt |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Notes | The following elements are part of a choice: **eq**, **gt**, **gte**, **lt**, **lte**, or **neq**. |
| Introduced | 21.2.R1 |
| Platforms | All |

### **lte** *keyword*

| | |
|---|---|
| Synopsis | Log event severity level |
| Context | **configure** log filter *log-filter-name* named-entry *log-filter-entry-name* match severity lte *keyword* |
| Tree | lte |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Notes | The following elements are part of a choice: **eq**, **gt**, **gte**, **lt**, **lte**, or **neq**. |
| Introduced | 21.2.R1 |
| Platforms | All |

### **neq** *keyword*

| | |
|---|---|
| Synopsis | Log event severity level to filter out |


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| | |
|---|---|
| Context | **configure** log filter *log-filter-name* named-entry *log-filter-entry-name* match severity neq *keyword* |
| Tree | neq |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Notes | The following elements are part of a choice: **eq**, **gt**, **gte**, **lt**, **lte**, or **neq**. |
| Introduced | 21.2.R1 |
| Platforms | All |

## subject

| | |
|---|---|
| Synopsis | Enter the **subject** context |
| Context | **configure** log filter *log-filter-name* named-entry *log-filter-entry-name* match subject |
| Tree | subject |
| Introduced | 21.2.R1 |
| Platforms | All |

## **eq** *named-item*

| | |
|---|---|
| Synopsis | Log event subject string to match |
| Context | **configure** log filter *log-filter-name* named-entry *log-filter-entry-name* match subject eq *named-item* |
| Tree | eq |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **eq** or **neq**. |
| Introduced | 21.2.R1 |
| Platforms | All |

## **neq** *named-item*

| | |
|---|---|
| Synopsis | Log event subject string to filter out |
| Context | **configure** log filter *log-filter-name* named-entry *log-filter-entry-name* match subject neq *named-item* |
| Tree | neq |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **eq** or **neq**. |
| Introduced | 21.2.R1 |


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| | |
|---|---|
| Platforms | All |

### **regexp** *boolean*

| | |
|---|---|
| Synopsis | String comparison to determine if the log event matches the value of subject |
| Context | **configure** log filter *log-filter-name* named-entry *log-filter-entry-name* match subject regexp *boolean* |
| Tree | regexp |
| Default | false |
| Introduced | 21.2.R1 |
| Platforms | All |

### **vrtr-name**

| | |
|---|---|
| Synopsis | Enter the **vrtr-name** context |
| Context | **configure** log filter *log-filter-name* named-entry *log-filter-entry-name* match vrtr-name |
| Tree | vrtr-name |
| Description | Commands in this context configure the criteria for the name of a router instance.<br>The vrtr-name is a name for a router instance, in a special format, used in the logging system. Examples of names include Base and vprn101, where 101 is the service ID of the VPRN service. The name represents the router instance that generated the log event. |
| Introduced | 21.2.R1 |
| Platforms | All |

### **eq** *named-item*

| | |
|---|---|
| Synopsis | Log event router instance to match |
| Context | **configure** log filter *log-filter-name* named-entry *log-filter-entry-name* match vrtr-name eq *named-item* |
| Tree | eq |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **eq** or **neq**. |
| Introduced | 21.2.R1 |
| Platforms | All |


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### **neq** *named-item*

| | |
|---|---|
| Synopsis | Log event router instance to filter out |
| Context | **configure** log filter *log-filter-name* named-entry *log-filter-entry-name* match vrtr-name neq *named-item* |
| Tree | neq |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **eq** or **neq**. |
| Introduced | 21.2.R1 |
| Platforms | All |

### **regexp** *boolean*

| | |
|---|---|
| Synopsis | Match the router instance string |
| Context | **configure** log filter *log-filter-name* named-entry *log-filter-entry-name* match vrtr-name regexp *boolean* |
| Tree | regexp |
| Default | false |
| Introduced | 21.2.R1 |
| Platforms | All |

### **log-events**

| | |
|---|---|
| Synopsis | Enter the **log-events** context |
| Context | **configure** log log-events |
| Tree | log-events |
| Introduced | 16.0.R1 |
| Platforms | All |

### **adp** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **adp** list instance |
| Context | **configure** log log-events adp event *keyword* |
| Tree | adp |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS-7, 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-7, 7750 SR-1e, 7750 SR-2e, 7750 SR-s |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events adp event *keyword* |
| Tree | adp |
| Options | tmnxDiscoveryEndNotify, tmnxDiscoveryCellularReq |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS-7, 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-7, 7750 SR-1e, 7750 SR-2e, 7750 SR-s |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events adp event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS-7, 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-7, 7750 SR-1e, 7750 SR-2e, 7750 SR-s |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events adp event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS-7, 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-7, 7750 SR-1e, 7750 SR-2e, 7750 SR-s |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |


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| | |
|---|---|
| Context | **configure** log log-events adp event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS-7, 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-7, 7750 SR-1e, 7750 SR-2e, 7750 SR-s |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events adp event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS-7, 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-7, 7750 SR-1e, 7750 SR-2e, 7750 SR-s |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events adp event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS-7, 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-7, 7750 SR-1e, 7750 SR-2e, 7750 SR-s |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events adp event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS-7, 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-7, 7750 SR-1e, 7750 SR-2e, 7750 SR-s |


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### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events adp event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS-7, 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-7, 7750 SR-1e, 7750 SR-2e, 7750 SR-s |

### **anysec** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **anysec** list instance |
| Context | **configure** log log-events anysec event *keyword* |
| Tree | anysec |
| Introduced | 23.3.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se |

### **event** *keyword*

| | |
|---|---|
| Synopsis | ANYSec module event |
| Context | **configure** log log-events anysec event *keyword* |
| Tree | anysec |
| Options | tmnxAnySecMkaPskRollover, tmnxAnySecMkaOperStateChanged, tmnxAnySecMkaSessionInitiation, tmnxAnySecMkaSessionTermination, tmnxAnySecSessionEnabled, tmnxAnySecSessionDisabled, tmnxAnySecPeerInconsisRxSciDtctd, tmnxAnySecPeerInconsisRxSciClrd, tmnxAnySecMkaSessionEstablished, tmnxAnySecMkaSessionEnded |
| Notes | This element is part of a list key. |
| Introduced | 23.3.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events anysec event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 23.3.R1 |


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| | |
|---|---|
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events anysec event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 23.3.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events anysec event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 23.3.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events anysec event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 23.3.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events anysec event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 23.3.R1 |


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| | |
|---|---|
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events anysec event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 23.3.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events anysec event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 23.3.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se |

### **application-assurance** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **application-assurance** list instance |
| Context | **configure** log log-events application-assurance event *keyword* |
| Tree | application-assurance |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events application-assurance event *keyword* |
| Tree | application-assurance |
| Options | tmnxBsxIsaAaGrpFailureV2, tmnxBsxIsaAaGrpFailureClearV2, tmnxBsxIsaAaGrpNonRedundantV2, tmnxBsxIsaAaGrpSwitchover, tmnxBsxIsaAaGrpFlowFull, tmnxBsxIsaAaGrpFlowFullClear, tmnxBsxIsaAaSubLoadBalance, tmnxBsxIsaAaGrpCapCostThres, tmnxBsxIsaAaGrpCapCostThresClear, tmnxBsxAaSubscribersUnassigned, |


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tmnxBsxAaSubscriberAcctDataLoss, tmnxBsxAaSubPolResExceeded, tmnxBsxAaSubPolResExceededClear, tmnxBsxIsaAaGrpFlowSetup, tmnxBsxIsaAaGrpFlowSetupClear, tmnxBsxIsaAaGrpPacketRate, tmnxBsxIsaAaGrpPacketRateClear, tmnxBsxIsaAaGrpBitRate, tmnxBsxIsaAaGrpBitRateClear, tmnxBsxTransIpPolAaSubCreated, tmnxBsxTransIpPolAaSubDeleted, tmnxBsxTransIpPolRadCoAAudit, tmnxBsxTransIpPolRadCoAError, tmnxBsxTransIpPolRadDiscError, tmnxBsxTransIpPolDhcpAddWarning, tmnxBsxTransIpPolDhcpDelWarning, tmnxBsxIsaAaGrpFmSbWaSBufOvld, tmnxBsxIsaAaGrpFmSbWaSBufOvldClr, tmnxBsxIsaAaGrpToSbWaSBufOvld, tmnxBsxIsaAaGrpToSbWaSBufOvldClr, tmnxBsxIsaAaGrpOvrldCutthru, tmnxBsxIsaAaGrpOvrldCutthruClr, tmnxBsxTransitIpPersistenceWarn, tmnxBsxAarpInstOperStateChanged, tmnxBsxAarpInstStateChanged, tmnxBsxRadApFailure, tmnxBsxRadApServOperStateChange, tmnxBsxMobileSubModifyFailure, tmnxBsxRadApIntrmUpdateSkipped, tmnxBsxHttpUrlParamLimitExceeded, tmnxBsxUrlFilterOperStateChange, tmnxBsxSubModifyFailure, tmnxBsxDnsIpCacheFull, tmnxBsxDnsIpCacheFullClear, tmnxBsxUrlListUpdate, tmnxBsxUrlListFailure, tmnxBsxIsaAaTimFileProcFailure, tmnxBsxStatTcaThreshCrossed, tmnxBsxStatTcaThreshCrossedClear, tmnxBsxStatPolcrTcaThreshCrossed, tmnxBsxStatPolcrTcaThreshCrClear, tmnxBsxStatFtrTcaThreshCrossed, tmnxBsxStatFtrTcaThreshCrClear, tmnxBsxStatFtrEnTcaThreshCrossed, tmnxBsxStatFtrEnTcaThreshCrClear, tmnxBsxTransIpPolDiamGxError, tmnxBsxDatapathCpuUsage, tmnxBsxDatapathCpuUsageClear, tmnxBsxTcpValTcaCrossed, tmnxBsxTcpValTcaCrossedClear, tmnxBsxCertProfileOperStateChngd, tmnxBsxSubQuarantined, tmnxBsxSubQuarantinedClear, tmnxBsxUrlFltrWebServOprStateChg

| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events application-assurance event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events application-assurance event *keyword* repeat *boolean* |


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| | |
|---|---|
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events application-assurance event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events application-assurance event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events application-assurance event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |


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| | |
|---|---|
| Context | **configure** log log-events application-assurance event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events application-assurance event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **aps** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **aps** list instance |
| Context | **configure** log log-events aps event *keyword* |
| Tree | aps |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events aps event *keyword* |
| Tree | aps |
| Options | apsEventSwitchover, apsEventModeMismatch, apsEventChannelMismatch, apsEventPSBF, apsEventFEPLF, tApsModeMismatchClear, tApsChannelMismatchClear, tApsPSBFClear, tApsFEPLFClear, tApsLocalSwitchCommandSet, tApsLocalSwitchCommandClear, tApsRemoteSwitchCommandSet, tApsRemoteSwitchCommandClear, tApsMcApsCtlLinkStateChange, tApsChanTxLaisStateChange, tApsPrimaryChannelChange |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events aps event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events aps event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events aps event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events aps event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |


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### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events aps event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events aps event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events aps event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **auto-prov** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **auto-prov** list instance |
| Context | **configure** log log-events auto-prov event *keyword* |
| Tree | auto-prov |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events auto-prov event *keyword* |
| Tree | auto-prov |
| Options | autoNodeProv |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events auto-prov event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events auto-prov event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events auto-prov event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events auto-prov event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events auto-prov event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events auto-prov event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events auto-prov event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **bfd** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **bfd** list instance |
| Context | **configure** log log-events bfd event *keyword* |
| Tree | bfd |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events bfd event *keyword* |
| Tree | bfd |
| Options | tmnxBfdOnLspSessDown, tmnxBfdOnLspSessUp, tmnxBfdOnLspSessDeleted, tmnxBfdOnLspSessProtChange, tmnxBfdOnLspSessNoCpmNpResources, tmnxBfdOnLspSessNoTailResources, tmnxBfdOnLspExtSessDown, tmnxBfdOnLspExtSessUp, tmnxBfdOnLspExtSessDeleted, tmnxBfdOnLspExtSessProtChange, tmnxBfdOnLspExtSessNoCpmNpResrcs |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events bfd event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events bfd event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | All |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events bfd event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events bfd event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events bfd event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events bfd event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events bfd event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bgp** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **bgp** list instance |
| Context | **configure** log log-events bgp event *keyword* |
| Tree | bgp |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events bgp event *keyword* |
| Tree | bgp |
| Options | sendNotification, receiveNotification, bgpInterfaceDown, bgpConnNoKA, bgpConnNoOpenRcvd, bgpRejectConnBadLocAddr, bgpRemoteEndClosedConn, bgpPeerNotFound, bgpConnMgrTerminated, bgpTerminated, bgpNoMemoryPeer, bgpVariableRangeViolation, bgpCfgViol, tBgpPeerGRStatusChange, tBgpNgEstablished, tBgpNgBackwardTransition, tBgpPeerNgHoldTimeInconsistent, tBgpFlowspecUnsupportdComAction, tBgp4RouteInvalid, tBgp4PathAttrInvalid, tBgp4WithdrawnRtFromUpdateError, tBgp4UpdateInvalid, tBgpGeneral, tBgpFibResourceFailPeer, tBgpReceivedInvalidNlri, tBgpMaxNgPfxLmt, tBgpMaxNgPfxLmtThresholdReached, tBgpInstanceDynamicPeerLmtReachd, tBgpPGDynamicPeerLmtReached, bgpEstablishedNotification, bgpBackwardTransNotification, tBgp4PathAttrDiscarded, tmnxBmpSessionStatusChange, tBgpInstConvStateTransition, tBgpPeerNgGRStatusChange, tBgpPGDynNbrIfMaxSessLmtReachd |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events bgp event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events bgp event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events bgp event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters that throttle this specific event |
| Context | **configure** log log-events bgp event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events bgp event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events bgp event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events bgp event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bier** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **bier** list instance |
| Context | **configure** log log-events bier event *keyword* |
| Tree | bier |
| Introduced | 19.5.R1 |
| Platforms | All |


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### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events bier event *keyword* |
| Tree | bier |
| Options | vRtrBierBfrIdCollision, vRtrBierMtMismatch, vRtrBierSubDomainMismatch, vRtrBierUnsupportedNhop |
| Notes | This element is part of a list key. |
| Introduced | 19.5.R1 |
| Platforms | All |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events bier event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 19.5.R1 |
| Platforms | All |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events bier event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 19.5.R1 |
| Platforms | All |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events bier event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 19.5.R1 |


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| | |
|---|---|
| Platforms | All |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events bier event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 19.5.R1 |
| Platforms | All |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events bier event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 19.5.R1 |
| Platforms | All |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events bier event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 19.5.R1 |
| Platforms | All |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events bier event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 19.5.R1 |
| Platforms | All |


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### **calltrace** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **calltrace** list instance |
| Context | **configure** log log-events calltrace event *keyword* |
| Tree | calltrace |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events calltrace event *keyword* |
| Tree | calltrace |
| Options | tmnxCallTraceMaxFilesNumReached, tmnxCallTraceLocSizeLimitReached, calltraceDebugEvent |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events calltrace event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events calltrace event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events calltrace event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events calltrace event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events calltrace event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events calltrace event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events calltrace event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **cflowd** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **cflowd** list instance |
| Context | **configure** log log-events cflowd event *keyword* |
| Tree | cflowd |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events cflowd event *keyword* |
| Tree | cflowd |
| Options | tmnxCflowdCreateFailure, tmnxCflowdStateChange, tmnxCflowdFlowCreateFailure, tmnxCflowdPacketTxFailure |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events cflowd event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events cflowd event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events cflowd event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events cflowd event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events cflowd event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events cflowd event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events cflowd event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **chassis** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **chassis** list instance |
| Context | **configure** log log-events chassis event *keyword* |
| Tree | chassis |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events chassis event *keyword* |
| Tree | chassis |
| Options | tmnxEqCardFailure, tmnxEqCardInserted, tmnxEqCardRemoved, tmnxEqWrongCard, tmnxEnvTempTooHigh, tmnxEqPowerSupplyInserted, tmnxEqPowerSupplyRemoved, tmnxRedPrimaryCPMFail, tmnxChassisNotificationClear, tmnxEqSyncIfTimingHoldover, tmnxEqSyncIfTimingHoldoverClear, tmnxEqSyncIfTimingRef1Alarm, tmnxEqSyncIfTimingRef1AlarmClear, tmnxEqSyncIfTimingRef2Alarm, tmnxEqSyncIfTimingRef2AlarmClear, tmnxEqFlashDataLoss, tmnxEqFlashDiskFull, tmnxPeSoftwareVersionMismatch, tmnxPeSoftwareLoadFailed, |


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tmnxPeBootloaderVersionMismatch, tmnxPeBootromVersionMismatch, tmnxPeFPGAVersionMismatch, tmnxEqSyncIfTimingBITSAlarm, tmnxEqSyncIfTimingBITSAlarmClear, tmnxEqCardFirmwareUpgraded, tmnxChassisUpgradeInProgress, tmnxChassisUpgradeComplete, tmnxChassisHiBwMcastAlarm, tmnxEqOperStateChange, tmnxEqMdaCfgNotCompatible, tmnxCpmCardSyncFileNotPresent, tmnxEqMdaXplError, tmnxEqCardPChipError, tmnxEqCardSoftResetAlarm, tmnxEqMdaSyncENotCompatible, tmnxIPsecIsaGrpActiveIsaChgd, tmnxEqCardPChipMemoryEvent, tmnxIPsecIsaGrpUnableToSwitch, tmnxIPsecIsaGrpTnlLowWMark, tmnxIPsecIsaGrpTnlHighWMark, tmnxIPsecIsaGrpTnlMax, tmnxEqSyncIfTimingRef1Quality, tmnxEqSyncIfTimingRef2Quality, tmnxEqSyncIfTimingBITSQuality, tmnxEqSyncIfTimingBITS2Quality, tmnxEqSyncIfTimingRefSwitch, tmnxEqSyncIfTimingBITS2Alarm, tmnxEqSyncIfTimingBITS2AlarmClr, tmnxEqSyncIfTimingBITSOutRefChg, tmnxEqCardPChipCamEvent, tmnxEqSyncIfTimingSystemQuality, tmnxEqHwEnhancedCapability, tmnxEqSyncIfTimingPTPQuality, tmnxEqSyncIfTimingPTPAlarm, tmnxEqSyncIfTimingPTPAlarmClr, tmnxPeFirmwareVersionWarning, tmnxMDAIsaTunnelGroupChange, tmnxEqPowerCapacityExceeded, tmnxEqPowerCapacityExceededClear, tmnxEqPowerLostCapacity, tmnxEqPowerLostCapacityClear, tmnxEqPowerOverloadState, tmnxEqPowerOverloadStateClear, tmnxEqCardQChipBufMemoryEvent, tmnxEqCardQChipStatsMemoryEvent, tmnxEqCardQChipIntMemoryEvent, tmnxEqCardChipIfDownEvent, tmnxEqCardChipIfCellEvent, tmnxEqLowSwitchFabricCap, tmnxEqLowSwitchFabricCapClear, tmnxEqPowerSafetyAlertThreshold, tmnxEqPowerSafetyAlertClear, tmnxEqPowerSafetyLevelThreshold, tmnxEqPowerSafetyLevelClear, tmnxEqCardTChipParityEvent, tmnxEqProvPowerCapacityAlm, tmnxEqProvPowerCapacityAlmClr, tmnxPlcyAcctStatsPoolExcResource, tmnxPlcyAcctStatsPoolLowResource, tmnxPlcyAcctStatsEventOvrflwClr, tmnxPlcyAcctStatsEventOvrflw, tmnxIomResHighLimitReached, tmnxIomResExhausted, tmnxIomResStateClr, tmnxIomEventOverflow, tmnxIomEventOverflowClr, tmnxEqDataPathFailureProtImpact, tmnxExtStandbyCpmReboot, tmnxExtStandbyCpmRebootFail, tmnxEqMdaIngrXplError, tmnxSyncIfTimBITS2048khzUnsup, tmnxSyncIfTimBITS2048khzUnsupClr, tmnxEqMgmtEthRedStandbyRaise, tmnxEqMgmtEthRedStandbyClear, tmnxEqPhysChassPowerSupOvrTmp, tmnxEqPhysChassPowerSupOvrTmpClr, tmnxEqPhysChassPowerSupAcFail, tmnxEqPhysChassPowerSupAcFailClr, tmnxEqPhysChassPowerSupDcFail, tmnxEqPhysChassPowerSupDcFailClr, tmnxEqPhysChassPowerSupInFail, tmnxEqPhysChassPowerSupInFailClr, tmnxEqPhysChassPowerSupOutFail, tmnxEqPhysChassPowerSupOutFailCl, tmnxEqPhysChassisFanFailure, tmnxEqPhysChassisFanFailureClear, tIPsecIsaMemLowWatermark, tIPsecIsaMemHighWatermark, tIPsecIsaMemMax, tmnxCpmMemSizeMismatch, tmnxCpmMemSizeMismatchClear, tmnxPhysChassPwrSupWrgFanDir, tmnxPhysChassPwrSupWrgFanDirClr, tmnxPhysChassPwrSupPemACRect, tmnxPhysChassPwrSupPemACRectClr, tmnxPhysChassPwrSupInputFeed, tmnxPhysChassPwrSupInputFeedClr, tmnxEqBpEpromFail, tmnxEqBpEpromFailClear, tmnxEqBpEpromWarning, tmnxEqBpEpromWarningClear, tmnxPhysChassisPCMInputFeed, tmnxPhysChassisPCMInputFeedClr, tmnxIPMacQosIngOverload, tmnxIPMacQosIngOverloadClear,


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tmnxIPQosEgrOverload, tmnxIPQosEgrOverloadClear, tmnxIPv6QosIngOverload, tmnxIPv6QosIngOverloadClear, tmnxIPv6QosEgrOverload, tmnxIPv6QosEgrOverloadClear, tmnxIPMacFilterIngOverload, tmnxIPMacFilterIngOverloadClear, tmnxIPMacFilterEgrOverload, tmnxIPMacFilterEgrOverloadClear, tmnxIPv6FilterIngOverload, tmnxIPv6FilterIngOverloadClear, tmnxIPv6FilterEgrOverload, tmnxIPv6FilterEgrOverloadClear, tmnxIPMacCpmFilterOverload, tmnxIPMacCpmFilterOverloadClear, tmnxIPv6CpmFilterOverload, tmnxIPv6CpmFilterOverloadClear, tmnxBluetoothModuleConnectionChg, tmnxGnssAcquiringFix, tmnxGnssAcquiredFix, tmnxPhysChassisPMOutFail, tmnxPhysChassisPMOutFailClr, tmnxPhysChassisPMInputFeed, tmnxPhysChassisPMInputFeedClr, tmnxPhysChassisFilterDoorOpen, tmnxPhysChassisFilterDoorClosed, tmnxPhysChassisPMOverTemp, tmnxPhysChassisPMOverTempClr, tmnxEqFpgaSoftError, tmnxEqSyncIfTimingSyncEQuality, tmnxEqSyncIfTimingSyncE2Quality, tmnxEqSyncIfTimingSyncEAlarm, tmnxEqSyncIfTimingSyncEAlarmClr, tmnxEqSyncIfTimingSyncE2Alarm, tmnxEqSyncIfTimingSyncE2AlarmClr, tmnxEqHwEventDetected, tmnxTunnelGrpEsaVmActivity, tmnxEsaDiscovered, tmnxEsaConnected, tmnxEsaDisconnected, tmnxEsaFailure, tmnxEsaCleared, tmnxEsaVmCreated, tmnxEsaVmBooted, tmnxEsaVmRemoved, tmnxEsaVmCleared, tmnxEsaVmFailure, tIPsecEsaVmMemLowWatermark, tIPsecEsaVmMemHighWatermark, tmnxPeKernelVersionMismatch, tmnxFPResourcePolicyModified, tmnxFPResourcePolicyModifiedClr, tmnxEqSyncIfTimingGnssQuality, tmnxEqSyncIfTimingGnss2Quality, tmnxEqSyncIfTimingGnssAlarm, tmnxEqSyncIfTimingGnss2Alarm, tmnxEqSyncIfTimingGnssAlarmClr, tmnxEqSyncIfTimingGnss2AlarmClr, tmnxEsaFirmwareUpgradeStarted, tmnxPlcyAcctPlcrPoolExcResource, tmnxPlcyAcctPlcrPoolLowResource, tChassisAirflowDirMismatch, tChassisAirflowDirMismatchClr, tChassisPowerSupplyMismatch, tChassisPowerSupplyMismatchClr, tChassisPowerSupplyUnsup, tmnxHwAggShpSchedEventOvrflwClr, tmnxHwAggShpSchedEventOvrflw, tmnxFPResOversubscribed, tmnxFPResOversubscribedCleared, tmnxIPMacFilterIngNearFull, tmnxIPMacFilterIngNearFullClear, tmnxIPMacFilterEgrNearFull, tmnxIPMacFilterEgrNearFullClear, tmnxIPv6FilterIngNearFull, tmnxIPv6FilterIngNearFullClear, tmnxIPv6FilterEgrNearFull, tmnxIPv6FilterEgrNearFullClear, tmnxEsaStolenTimeDetected, tmnxEsaHwStatusDegraded, tmnxEsaHwStatusDegradedClr, tmnxEsaHwStatusCritical, tmnxEsaHwStatusCriticalClr, tmnxEsaHwPwrSup1Degraded, tmnxEsaHwPwrSup1DegradedClr, tmnxEsaHwPwrSup1Failed, tmnxEsaHwPwrSup1FailedClr, tmnxEsaHwPwrSup2Degraded, tmnxEsaHwPwrSup2DegradedClr, tmnxEsaHwPwrSup2Failed, tmnxEsaHwPwrSup2FailedClr, tmnxEsaHwFanBankNonRedun, tmnxEsaHwFanBankNonRedunClr, tmnxEsaHwFanBankFailRedun, tmnxEsaHwFanBankFailRedunClr, tmnxEsaHwFanStatusDegraded, tmnxEsaHwFanStatusDegradedClr, tmnxEsaHwFanStatusFailed, tmnxEsaHwFanStatusFailedClr, tmnxEsaHwPwrSupMismatch, tmnxEsaHwPwrSupMismatchClr, tmnxEsaHwPwrSupBankNonRedun, tmnxEsaHwPwrSupBankNonRedunClr, tmnxEsaHwPwrSupBankFailRedun, tmnxEsaHwPwrSupBankFailRedunClr, tmnxEsaHwTemperatureDegraded, tmnxEsaHwTemperatureDegradedClr, tmnxEsaHwTemperatureFailed, tmnxEsaHwTemperatureFailedClr, tmnxPowerSupplyFanFailed,


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tmnxPowerSupplyFanFailedClear, tmnxIxrResourceHighUsage, tmnxIxrResourceExhausted, tmnxIxrResourceRecovered, tmnxIxrResourceHighUsageByOwner, tmnxIxrResourceExhaustedByOwner, tmnxIxrResourceRecoveredByOwner, tmnxSasAlarminput1StateChanged, tmnxSasAlarminput2StateChanged, tmnxSasAlarminput3StateChanged, tmnxSasAlarminput4StateChanged, tmnxAlarmInputVoltageFailure, tmnxIomRsrcUsageHighLimitReached, tmnxIomRsrcUsageExhausted, tmnxIomRsrcUsageRecovered, tmnxIomRsrcEventOverflow, tmnxIomRsrcEventOverflowClr, tmnxIomRsrcOwnerOversubscribed, tmnxIomRsrcOwnerOversubscrbdClr, tmnxInterChassisCommsDown, tmnxInterChassisCommsUp, tmnxCpmIcPortDown, tmnxCpmIcPortUp, tmnxCpmIcPortSFFInserted, tmnxCpmIcPortSFFRemoved, tmnxCpmANoLocalIcPort, tmnxCpmBNoLocalIcPort, tmnxCpmALocalIcPortAvail, tmnxCpmBLocalIcPortAvail, CpmIcPortSFFStatusFailure, CpmIcPortSFFStatusDDMCorrupt, CpmIcPortSFFStatusReadError, CpmIcPortSFFStatusUnsupported, tmnxCpmIcPortDDMFailure, tmnxCpmIcPortDDMClear, tmnxSfmIcPortDown, tmnxSfmIcPortUp, tmnxSfmIcPortSFFInserted, tmnxSfmIcPortSFFRemoved, SfmIcPortSFFStatusFailure, SfmIcPortSFFStatusDDMCorrupt, SfmIcPortSFFStatusReadError, SfmIcPortSFFStatusUnsupported, tmnxSfmIcPortDDMFailure, tmnxSfmIcPortDDMClear, tmnxSfmIcPortDegraded, tmnxSfmIcPortDegradedClear, tmnxCardResMacFdbHighUsgSet, tmnxCardResMacFdbHighUsgClr, tmnxPowerShelfInputPwrModeSwitch, tmnxPowerShelfCommsDown, tmnxPowerShelfCommsUp, tmnxPowerShelfOutputStatusSwitch, tmnxPowerShelfOutputStatusDown, tmnxPowerShelfOutputStatusUp, tmnxEqCardMissing, tmnxEqCardMissingClear, tmnxEqEsaHostPortCrcAlarm, tmnxEqEsaHostPortCrcAlarmClear, tmnxEsaFirmwareUpgradeInProgress, tmnxEsaFirmwareUpgradeDone, tmnxEsaFirmwareUpgradeFailed

Notes This element is part of a list key.

Introduced 16.0.R1

Platforms All

## **generate** *boolean*

Synopsis Generate log events when the event occurs

Context **configure** log log-events chassis event *keyword* generate *boolean*

Tree generate

Introduced 16.0.R1

Platforms All

## **repeat** *boolean*

Synopsis Repeat the log event until the condition is cleared

Context **configure** log log-events chassis event *keyword* repeat *boolean*


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| | |
|---|---|
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events chassis event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events chassis event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events chassis event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events chassis event *keyword* specific-throttle-limit *number* |


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| | |
|---|---|
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events chassis event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **debug** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **debug** list instance |
| Context | **configure** log log-events debug event *keyword* |
| Tree | debug |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events debug event *keyword* |
| Tree | debug |
| Options | traceEvent |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events debug event *keyword* generate *boolean* |


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| | |
|---|---|
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events debug event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events debug event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events debug event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events debug event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |


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| | |
|---|---|
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events debug event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events debug event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **dhcp** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **dhcp** list instance |
| Context | **configure** log log-events dhcp event *keyword* |
| Tree | dhcp |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events dhcp event *keyword* |
| Tree | dhcp |
| Options | svcDHCPLseStateRestoreProblem, sapDHCPLeaseEntriesExceeded, sapDHCPLseStateOverride, sapDHCPSuspiciousPcktRcvd, |


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| | |
|---|---|
| | sapDHCPLseStatePopulateErr, sdpBindDHCPLeaseEntriesExceeded, sdpBindDHCPLseStateOverride, sdpBindDHCPSuspiciousPcktRcvd, sdpBindDHCPLseStatePopulateErr, tmnxVRtrDHCPSuspiciousPcktRcvd, sapStaticHostDynMacConflict, sapDHCPProxyServerError, tmnxVRtrDHCPIfLseStatesExceeded, sdpBindDHCPProxyServerError, tmnxVRtrDHCP6RelayLseStExceeded, tmnxVRtrDHCP6ServerLseStExceeded, tmnxVRtrDHCP6LseStateOverride, tmnxVRtrDHCP6RelayReplyStripUni, tmnxVRtrDHCP6IllegalClientAddr, tmnxVRtrDHCP6AssignedIllegSubnet, tmnxVRtrDHCP6ClientMacUnresolved, sapDHCPLseStateMobilityError, sdpBindDHCPLseStateMobilityErr, svcDHCPMiscellaneousProblem, sapStatHost6DynMacConflict |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events dhcp event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | All |

## **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events dhcp event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

## **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events dhcp event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events dhcp event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events dhcp event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events dhcp event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events dhcp event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## **dhcps** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **dhcps** list instance |
| Context | **configure** log log-events dhcps event *keyword* |
| Tree | dhcps |
| Introduced | 16.0.R1 |
| Platforms | All |

## **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events dhcps event *keyword* |
| Tree | dhcps |
| Options | tmnxDhcpSvrSubnetMinFreeExc, tmnxDhcpSvrHostConflict, tmnxDhcpSvrPoolUnknown, tmnxDhcpSvrLeaseNotOwner, tmnxDhcpSvrDeclineStaticAddr, tmnxDhcpSvrMsgTooLong, tmnxDhcpsFoStateChange, tmnxDhcpsFoLeaseUpdateFailed, tmnxDhcpSvrUserDbUnknown, tmnxDhcpSvrMaxLeasesReached, tmnxDhcpSvrNoSubnetFixAddr, tmnxDhcpSvrLeaseDefaultTimers, tmnxDhcpSvrPoolMinFreeExc, tmnxDhcpSvrSubnetDepleted, tmnxDhcpSvrPoolDepleted, tmnxDhcpSvrIntLseConflict, tmnxDhcpSvrLeaseModify, tmnxDhcpSvrLeaseCreate, tmnxDhcpSvrLeaseDelete, tmnxLudbDhcpGroupIfTooLong, tmnxLudbPppoeGroupIfTooLong, tmnxDhcpSvrNoContFreeBlocks, tmnxDhcpsPoolFoStateChange, tmnxDhcpsPoolFoLeaseUpdateFailed, tmnxDhcpSvrPlThTooLowV6, tmnxDhcpSvrPlThDepletedV6, tmnxDhcpSvrPfxThTooLowV6, tmnxDhcpSvrPfxThDepletedV6, tmnxDhcpsLeaseOfferedExpired, tmnxDhcpsAddrAllocationFailure, tmnxDhcpsPacketDropped |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events dhcps event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events dhcps event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events dhcps event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events dhcps event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events dhcps event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events dhcps event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events dhcps event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **diameter** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **diameter** list instance |
| Context | **configure** log log-events diameter event *keyword* |
| Tree | diameter |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events diameter event *keyword* |
| Tree | diameter |
| Options | tmnxDiamPolicyPeerStateChange, tmnxDiamAppSessionFailure, tmnxDiamSessionEvent, tmnxDiamPpPrxMcLocStateChanged, tmnxDiamMessageDropped, tmnxDiamNdPeerStatActiveChanged |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events diameter event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events diameter event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events diameter event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events diameter event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events diameter event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events diameter event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events diameter event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **dot1x** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **dot1x** list instance |
| Context | **configure** log log-events dot1x event *keyword* |
| Tree | dot1x |
| Introduced | 21.2.R1 |
| Platforms | All |


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### **event** *keyword*

| | |
|---|---|
| Synopsis | Events for dynsvc module |
| Context | **configure** log log-events dot1x event *keyword* |
| Tree | dot1x |
| Options | alxDot1xHostAuthEvent |
| Notes | This element is part of a list key. |
| Introduced | 21.2.R1 |
| Platforms | All |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events dot1x event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 21.2.R1 |
| Platforms | All |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events dot1x event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 21.2.R1 |
| Platforms | All |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events dot1x event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 21.2.R1 |
| Platforms | All |


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### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events dot1x event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 21.2.R1 |
| Platforms | All |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events dot1x event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 21.2.R1 |
| Platforms | All |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events dot1x event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 21.2.R1 |
| Platforms | All |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events dot1x event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 21.2.R1 |
| Platforms | All |


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### **dynsvc** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **dynsvc** list instance |
| Context | **configure** log log-events dynsvc event *keyword* |
| Tree | dynsvc |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events dynsvc event *keyword* |
| Tree | dynsvc |
| Options | tmnxDynSvcSapFailed |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events dynsvc event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events dynsvc event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events dynsvc event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events dynsvc event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events dynsvc event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events dynsvc event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events dynsvc event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **efm-oam** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **efm-oam** list instance |
| Context | **configure** log log-events efm-oam event *keyword* |
| Tree | efm-oam |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events efm-oam event *keyword* |
| Tree | efm-oam |
| Options | tmnxDot3OamPeerChanged, tmnxDot3OamLoopDetected, tmnxDot3OamLoopCleared, dot3OamThresholdEvent, dot3OamNonThresholdEvent, tmnxDot3OamSdThresholdEvent, tmnxDot3OamThresholdEventClr, tmnxDot3OamNonThresholdEventClr |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events efm-oam event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events efm-oam event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events efm-oam event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events efm-oam event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events efm-oam event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events efm-oam event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events efm-oam event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **elmi** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **elmi** list instance |
| Context | **configure** log log-events elmi event *keyword* |
| Tree | elmi |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events elmi event *keyword* |
| Tree | elmi |
| Options | tmnxElmiIfStatusChangeEvent, tmnxElmiEVCStatusChangeEvent |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events elmi event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events elmi event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events elmi event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events elmi event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events elmi event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events elmi event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events elmi event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ering** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **ering** list instance |
| Context | **configure** log log-events ering event *keyword* |
| Tree | ering |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events ering event *keyword* |
| Tree | ering |
| Options | tmnxEthRingPathFwdStateChange, tmnxEthRingApsPrvsnRaiseAlarm, tmnxEthRingApsPrvsnClearAlarm |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events ering event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events ering event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events ering event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events ering event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events ering event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events ering event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events ering event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **eth-cfm** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **eth-cfm** list instance |
| Context | **configure** log log-events eth-cfm event *keyword* |
| Tree | eth-cfm |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events eth-cfm event *keyword* |
| Tree | eth-cfm |
| Options | dot1agCfmFaultAlarm, tmnxDot1agCfmMepLbmTestComplete, tmnxDot1agCfmMepLtmTestComplete, tmnxDot1agCfmMepEthTestComplete, tmnxDot1agCfmMepDMTestComplete, tmnxDot1agCfmMepAisStateChanged, tmnxDot1agCfmMipEvaluation, tmnxDot1agCfmMepSLMTestComplete, tmnxDot1agCfmMepCsfStateChanged, tmnxDot1agCfmMepFcltyFaultRaise, tmnxDot1agCfmMepFcltyFaultClear, tmnxDot1agCfmMepOperGrpStateChgd |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events eth-cfm event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events eth-cfm event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | All |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events eth-cfm event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events eth-cfm event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events eth-cfm event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events eth-cfm event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events eth-cfm event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **etun** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **etun** list instance |
| Context | **configure** log log-events etun event *keyword* |
| Tree | etun |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events etun event *keyword* |
| Tree | etun |
| Options | tmnxEthTunnelApsCfgRaiseAlarm, tmnxEthTunnelApsCfgClearAlarm, tmnxEthTunnelApsPrvsnRaiseAlarm, tmnxEthTunnelApsPrvsnClearAlarm, tmnxEthTunnelApsNoRspRaiseAlarm, tmnxEthTunnelApsNoRspClearAlarm, tmnxEthTunnelApsSwitchoverAlarm |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events etun event *keyword* generate *boolean* |


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| | |
|---|---|
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events etun event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events etun event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events etun event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events etun event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |


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| | |
|---|---|
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events etun event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events etun event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **filter** list instance |
| Context | **configure** log log-events filter event *keyword* |
| Tree | filter |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events filter event *keyword* |
| Tree | filter |
| Options | tIPFilterPBRPacketsDrop, tFilterSubInsSpaceAlarmRaised, tFilterSubInsSpaceAlarmCleared, tFilterSubInsFltrEntryDropped, |


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| | |
|---|---|
| | tFilterBgpFlowSpecProblem, tFilterApplyPathProblem, tFilterRadSharedFltrAlarmRaised, tFilterRadSharedFltrAlarmClear, tFilterEmbeddingOperStateChange, tFilterEmbedOpenflowOperStateChg, tFilterOpenflowRequestRejected, tFilterEmbedFlowspecOperStateChg, tFilterRPActiveDestChangeEvent |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events filter event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events filter event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events filter event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events filter event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events filter event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events filter event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events filter event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **gsmp** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **gsmp** list instance |
| Context | **configure** log log-events gsmp event *keyword* |
| Tree | gsmp |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events gsmp event *keyword* |
| Tree | gsmp |
| Options | tmnxAncpIngRateMonitorEvent, tmnxAncpIngRateMonitorEventL, tmnxAncpEgrRateMonitorEvent, tmnxAncpEgrRateMonitorEventL, tmnxAncpShcvDisabledEvent, tmnxAncpShcvDisabledEventL, tmnxAncpSesRejected, tmnxAncpStringRejected |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events gsmp event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events gsmp event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |


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| | |
|---|---|
| Platforms | All |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events gsmp event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events gsmp event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events gsmp event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events gsmp event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events gsmp event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **igmp** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **igmp** list instance |
| Context | **configure** log log-events igmp event *keyword* |
| Tree | igmp |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events igmp event *keyword* |
| Tree | igmp |
| Options | vRtrIgmpIfRxQueryVerMismatch, vRtrIgmpIfCModeRxQueryMismatch, vRtrIgmpMaxGrpsLimitExceeded, vRtrIgmpMcacPlcyDropped, vRtrIgmpHostInstantiationFail, vRtrIgmpHostMaxGrpsLimitExceeded, vRtrIgmpHostMcacPlcyDropped, vRtrIgmpHostCModeRxQueryMismatch, vRtrIgmpHostRxQueryVerMismatch, vRtrIgmpHostMaxSrcsLimitExceeded, vRtrIgmpMaxSrcsLimitExceeded, vRtrIgmpGrpIfSapMaxGrpsLimExceed, vRtrIgmpGrpIfSapMaxSrcsLimExceed, vRtrIgmpGrpIfSapMcacPlcyDropped, vRtrIgmpGrpIfSapCModeRxQueryMism, vRtrIgmpGrpIfSapRxQueryVerMism, vRtrIgmpHostMaxGrpSrcsLimitExcd, vRtrIgmpMaxGrpSrcsLimitExceeded, vRtrIgmpGrpIfSapMaxGrpSrcLimExcd, vRtrIgmpHostQryIntervalConflict, vRtrIgmpNotifyNumOfIPsecIfLowWm, vRtrIgmpNotifyNumOfIPsecIfHighWm, vRtrIgmpNotifyNumOfIPsecIfMaxRch, vRtrIgmpSlaProfInstMcacPlcyDrop |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events igmp event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events igmp event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events igmp event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events igmp event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events igmp event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events igmp event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events igmp event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **igmp-snooping** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **igmp-snooping** list instance |
| Context | **configure** log log-events igmp-snooping event *keyword* |
| Tree | igmp-snooping |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events igmp-snooping event *keyword* |
| Tree | igmp-snooping |
| Options | sapIgmpSnpgGrpLimitExceeded, sapIgmpSnpgMcacPlcyDropped, sdpBndIgmpSnpgGrpLimitExceeded, sdpBndIgmpSnpgMcacPlcyDropped, sapIgmpSnpgMcsFailure, sapIgmpSnpgSrcLimitExceeded, sdpBndIgmpSnpgSrcLimitExceeded, sdpBndIgmpSnpgGrpSrcLimitExceed, sapIgmpSnpgGrpSrcLimitExceeded, eMplsIgmpSnpgMfibFailure |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events igmp-snooping event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events igmp-snooping event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events igmp-snooping event *keyword* severity *keyword* |
| Tree | severity |


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| | |
|---|---|
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events igmp-snooping event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events igmp-snooping event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events igmp-snooping event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events igmp-snooping event *keyword* throttle *boolean* |
| Tree | throttle |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **ip** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **ip** list instance |
| Context | **configure** log log-events ip event *keyword* |
| Tree | ip |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events ip event *keyword* |
| Tree | ip |
| Options | clearRTMError, ipEtherBroadcast, ipDuplicateAddress, ipArpInfoOverwritten, fibAddFailed, qosNetworkPolicyMallocFailed, ipArpBadInterface, ipArpDuplicateIpAddress, ipArpDuplicateMacAddress, ipAnyDuplicateAddress, labelIndexAllocFailed |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events ip event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events ip event *keyword* repeat *boolean* |


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| | |
|---|---|
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events ip event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events ip event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events ip event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events ip event *keyword* specific-throttle-limit *number* |


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| | |
|---|---|
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events ip event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipsec** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **ipsec** list instance |
| Context | **configure** log log-events ipsec event *keyword* |
| Tree | ipsec |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events ipsec event *keyword* |
| Tree | ipsec |
| Options | tIPsecRUTnlFailToCreate, tIPsecRUSAFailToAddRoute, tIPsecBfdIntfSessStateChgd, tIPsecRadAcctPlcyFailure, tIPSecTrustAnchorPrfOprChg, tIPsecTunnelEncapIpMtuTooSmall, tIPsecRuTnlEncapIpMtuTooSmall, tmnxSecNotifCmptedCertHashChngd, tmnxSecNotifCmptedCertChnChngd, tmnxSecNotifSendChnNotInCmptChn, tmnxIPsecTunnelOperStateChange, tmnxIPsecGWOperStateChange, tIPsecRUTnlRemoved, tIPsecTunnelProtocolFailed |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events ipsec event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events ipsec event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events ipsec event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events ipsec event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events ipsec event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events ipsec event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events ipsec event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **isis** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **isis** list instance |
| Context | **configure** log log-events isis event *keyword* |
| Tree | isis |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events isis event *keyword* |
| Tree | isis |
| Options | vRtrIsisSpbNbrMultAdjExists, vRtrIsisSpbNbrMultAdjExistsClear, vRtrSpbEctFidCfgChg, tmnxIsisDatabaseOverload, tmnxIsisManualAddressDrops, tmnxIsisCorruptedLSPDetected, tmnxIsisMaxSeqExceedAttempt, tmnxIsisIDLenMismatch, tmnxIsisMaxAreaAddrsMismatch, tmnxIsisOwnLSPPurge, tmnxIsisSequenceNumberSkip, tmnxIsisAutTypeFail, tmnxIsisAuthFail, tmnxIsisVersionSkew, tmnxIsisAreaMismatch, tmnxIsisRejectedAdjacency, tmnxIsisLSPTooLargeToPropagate, tmnxIsisOrigLSPBufSizeMismatch, tmnxIsisProtoSuppMismatch, tmnxIsisAdjacencyChange, tmnxIsisCircIdExhausted, tmnxIsisAdjRestartStatusChange, tmnxIsisLdpSyncTimerStarted, tmnxIsisLdpSyncExit, tmnxIsisExportLimitReached, tmnxIsisExportLimitWarning, tmnxIsisRoutesExpLmtDropped, tmnxIsisFailureDisabled, tmnxIsisSidError, tmnxIsisSidNotInLabelRange, tmnxIsisRejectedAdjacencySid, tmnxIsisLSPPurge, tmnxIsisPfxLimitOverloadWarning, tmnxIsisAdjBfdSessionSetupFail, tmnxIsisSrgbBadLabelRange, tmnxIsisCircMtuTooLow, tmnxIsisRejectedAdjacencySet, tmnxIsisCorruptRemainingLifetime, tmnxIsisSidStatsIndexAlloc, tmnxIsisFaOperParticipationDown, tmnxIsisRejectedEndXSid, tmnxIsisRejectedPgId, tmnxIsisSrv6LocError, tmnxIsisSrv6StaticSidIfTypeError |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events isis event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | All |

## **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events isis event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | All |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events isis event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events isis event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events isis event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events isis event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events isis event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **l2tp** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **l2tp** list instance |
| Context | **configure** log log-events l2tp event *keyword* |
| Tree | l2tp |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events l2tp event *keyword* |
| Tree | l2tp |
| Options | tmnxL2tpPeerUnreachable, tmnxL2tpIsaMdaVRtrStateChange, tmnxL2tpLnsSePppSessionFailure, tmnxL2tpVappVRtrStateChange, tmnxL2tpTunnelBlacklisted, tmnxL2tpTunnelSelBlacklistFull, tmnxL2tpLnsPppNcpFailure, tmnxL2tpApFailure |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events l2tp event *keyword* generate *boolean* |


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| | |
|---|---|
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events l2tp event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events l2tp event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events l2tp event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events l2tp event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |


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| | |
|---|---|
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events l2tp event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events l2tp event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **lag** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **lag** list instance |
| Context | **configure** log log-events lag event *keyword* |
| Tree | lag |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events lag event *keyword* |
| Tree | lag |


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| | |
|---|---|
| Options | DynamicCostOn, DynamicCostOff, LagPortAddFailed, LagSubGroupSelected, LagPortAddFailureCleared, LagStateEvent, tLagMemberStateEvent, tmnxLagBfdMemStateChanged, tLagAdaptiveLoadbalancingChanged |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events lag event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events lag event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events lag event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |


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| | |
|---|---|
| Context | **configure** log log-events lag event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events lag event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events lag event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events lag event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ldap** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **ldap** list instance |
| Context | **configure** log log-events ldap event *keyword* |


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| | |
|---|---|
| Tree | ldap |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events ldap event *keyword* |
| Tree | ldap |
| Options | tmnxLdapOperStateChange, tmnxLdapServerOperStateChange |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events ldap event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events ldap event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events ldap event *keyword* severity *keyword* |


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| | |
|---|---|
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events ldap event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events ldap event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events ldap event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events ldap event *keyword* throttle *boolean* |


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| | |
|---|---|
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ldp** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **ldp** list instance |
| Context | **configure** log log-events ldp event *keyword* |
| Tree | ldp |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events ldp event *keyword* |
| Tree | ldp |
| Options | vRtrLdpStateChange, vRtrLdpGroupIdMismatch, vRtrLdpNgIpv4InstStateChange, vRtrLdpNgIpv6InstStateChange, vRtrLdpNgIfStateChange, vRtrLdpNgInetIfStateChange, vRtrLdpNgTargPeerStateChange, vRtrLdpNgSessionStateChange, vRtrLdpNgSessMaxFecThresChanged, vRtrLdpNgSessMaxFecLimitReached, vRtrLdpNgResourceExhaustion, vRtrLdpNgAddrFecCommMismatch |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events ldp event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events ldp event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events ldp event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events ldp event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events ldp event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events ldp event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events ldp event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **li** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **li** list instance |
| Context | **configure** log log-events li event *keyword* |
| Tree | li |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events li event *keyword* |
| Tree | li |
| Options | sbiBootLiConfig, sourceEnabled, sourceDisabled, destinationEnabled, destinationDisabled, sourceSapChange, sourceSubscriberChange, tMirrorSourceIPFltrChangeReject, tMirrorSourceMacFltrChangeReject, tMirrorSourceFilterAssignReject, tMirrorDestinationChangeReject, tMirrorSourceFilterOverruled, tMirrorSourceFilterAssignWarn, tMirrorFilterAssignToSapWarn, tMirrorFilterAssignToSdpWarn, tMirrorFilterAssignToItfWarn, tMirrorSourceLiFilterChanged, |


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tMirrorSourceLiSubProblem, tMirrorSourceIPv6FltrChangeRej, tMirrorLiNatLsnSubOperStateCh, tMirrorLiNatL2awSubOperStateCh, tMirrorLiNat64SubOperStateCh, tMirrorLiX2Alarm, tFltrLiRsvdBlockRangeChangeEvent, tMirrorLiSrcPortLicInvalid, tMirrorLiXIfLicenseInvalid, tMirrorLiUpSubFailed, tMirrorLiUpSubSuccess, tMirrorLiUpIeInvalid, tMirrorLiSapUnavailSath, tMirrorLiSapUnavailSathClr, tMirrorLiFltrUnavailSath, tMirrorLiFltrUnavailSathClr, tMirrorLiPortUnavailSath, tMirrorLiPortUnavailSathClr, cli_user_login, cli_user_logout, cli_user_login_failed, cli_user_login_max_attempts, ftp_user_login, ftp_user_logout, ftp_user_login_failed, ftp_user_login_max_attempts, ssh_user_login, ssh_user_logout, ssh_user_login_failed, ssh_user_login_max_attempts, cli_user_io, snmp_user_set, cli_config_io, cli_unauth_user_io, cli_unauth_config_io, grpc_user_login, grpc_user_logout, grpc_user_login_failed, grpc_user_login_max_attempts, host_snmp_attempts, radiusFailed, netconf_user_login, netconf_user_logout, netconf_user_login_failed, netconf_user_login_max_attempts, mdSaveCommitHistoryFailed, sbiBootMdReadCommitHistoryFailed, mdCommitSucceeded, ssiSaveConfigSucceeded, ssiSaveConfigFailed, tmnxConfigModify, tmnxConfigCreate, tmnxConfigDelete, tmnxStateChange, mdLiConfigChange, ssiSyncConfigOK, ssiSyncConfigFailed, md_cli_io, md_cli_unauth_io, tmnxClear, netconf_auth, netconf_unauth, grpc_auth, grpc_unauth

| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events li event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | All |

## **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events li event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events li event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events li event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events li event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events li event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events li event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lldp** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **lldp** list instance |
| Context | **configure** log log-events lldp event *keyword* |
| Tree | lldp |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events lldp event *keyword* |
| Tree | lldp |
| Options | lldpRemTablesChange, tmnxLldpRemEntryPeerAdded, tmnxLldpRemEntryPeerUpdated, tmnxLldpRemEntryPeerRemoved, tmnxLldpRemManAddrEntryAdded, tmnxLldpRemManAddrEntryRemoved |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events lldp event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events lldp event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events lldp event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events lldp event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events lldp event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events lldp event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events lldp event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **logger** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **logger** list instance |
| Context | **configure** log log-events logger event *keyword* |
| Tree | logger |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events logger event *keyword* |
| Tree | logger |
| Options | STARTED, tmnxLogTraceError, tmnxLogSpaceContention, tmnxLogAdminLocFailed, tmnxLogBackupLocFailed, tmnxLogFileRollover, tmnxLogFileDeleted, tmnxClear, tmnxTestEvent, tmnxLogEventThrottled, tmnxSysLogTargetProblem, tmnxLogAccountingDataLoss, tmnxStdEventsReplayed, tmnxLogOnlyEventThrottled, tmnxLogEventOverrun, tmnxLogOnlyEventOverrun, tmnxCustomEvent1, tmnxCustomEvent2, tmnxCustomEvent3, tmnxCustomEvent4, tmnxCustomEvent5, tmnxCustomEvent6 |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events logger event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events logger event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events logger event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events logger event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events logger event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events logger event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events logger event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **macsec** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **macsec** list instance |
| Context | **configure** log log-events macsec event *keyword* |
| Tree | macsec |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events macsec event *keyword* |
| Tree | macsec |
| Options | tmnxMacsecConfiguredPortCA, tmnxMacsecUnconfiguredPortCA, tmnxMacsecEnabledPort, tmnxMacsecDisabledPort, tmnxMacsecMaxPeerLimitExceeded, tmnxMkaSessionEstablished, tmnxMkaPskRollover, tmnxMkaSessionEnded, tmnxMkaOperStateChanged, tmnxMacsecMaxPeerLimitCleared, tmnxMacsecCaCreate, tmnxMacsecSakCreate, tmnxMacsecSakInstalledRx, tmnxMacsecSakInstalledTx, tmnxMacsecMkaReplayAttemptDisc, tmnxMacsecDpReplayAttempt, tmnxMacsecSakDelete |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events macsec event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events macsec event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events macsec event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events macsec event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events macsec event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events macsec event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events macsec event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mc-redundancy** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **mc-redundancy** list instance |
| Context | **configure** log log-events mc-redundancy event *keyword* |
| Tree | mc-redundancy |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events mc-redundancy event *keyword* |
| Tree | mc-redundancy |
| Options | tmnxMcRedundancyPeerStateChanged, tmnxMcRedundancyMismatchDetected, tmnxMcRedundancyMismatchResolved, tmnxMcPeerSyncStatusChanged, tmnxMcSyncClientAlarmRaised, tmnxMcSyncClientAlarmCleared, tmnxSrrpSubnetMismatch, tmnxSrrpSubnetMismatchCleared, tmnxSrrpInstanceIdMismatch, tmnxSrrpSapMismatch, tmnxSrrpSapTagMismatch, tmnxSrrpRedIfMismatch, tmnxSrrpDualMaster, tmnxMcLagInfoLagChanged, tmnxSrrpSystemIpNotSet, tmnxMcRingOperStateChanged, tmnxMcRingInbCtrlOperStateChgd, tmnxMcRingNodeLocOperStateChgd, tmnxMcSyncClockSkewRaised, tmnxMcSyncClockSkewCleared, tmnxSrrpDuplicateSubIfAddress, tmnxMcPeerRingsOperStateChanged, tmnxSrrpTrapNewMaster, tmnxSrrpBecameBackup, srrpPacketDiscarded, tmnxSrrpBfdIntfSessStateChgd, tmnxMcPeerEPBfdSessionOpen, tmnxMcPeerEPBfdSessionClose, tmnxMcPeerEPBfdSessionUp, tmnxMcPeerEPBfdSessionDown, tmnxMcPeerEPOperDown, tmnxMcPeerEPOperUp, tmnxMCEPSessionPsvModeEnabled, tmnxMCEPSessionPsvModeDisabled, tMcPeerIPsecTnlGrpMasterStateChg, tMcPeerIPsecTnlGrpProtStatusChg, tmnxMcOmcrStatFailedChanged, tmnxMcOmcrClientNumEntriesHigh, tmnxSrrpOperDownInvalidMac, tmnxSrrpOperDownInvalidMacClear, tmnxSrrpPrivRetailMismatch, tMcIPsecDomainActivityStateChg, tMcIpsecDomainProtStatusChg |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events mc-redundancy event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events mc-redundancy event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events mc-redundancy event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events mc-redundancy event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events mc-redundancy event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events mc-redundancy event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events mc-redundancy event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mcpath** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **mcpath** list instance |
| Context | **configure** log log-events mcpath event *keyword* |
| Tree | mcpath |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events mcpath event *keyword* |
| Tree | mcpath |
| Options | tmnxMcPathSrcGrpBlackHole, tmnxMcPathSrcGrpBlackHoleCleared, tmnxMcPathAvailBwLimitExceeded, tmnxMcPathAvailBwLimitCleared |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events mcpath event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events mcpath event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events mcpath event *keyword* severity *keyword* |
| Tree | severity |


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| | |
|---|---|
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events mcpath event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events mcpath event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events mcpath event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events mcpath event *keyword* throttle *boolean* |
| Tree | throttle |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **mgmt-core** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **mgmt-core** list instance |
| Context | **configure** log log-events mgmt-core event *keyword* |
| Tree | mgmt-core |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events mgmt-core event *keyword* |
| Tree | mgmt-core |
| Options | none, mdConfigChange, mdOcConfigChange, mdBofConfigChange, mdDebugConfigChange, asyncOperationStatusChange, syncOperationStatusChange, mdAutomaticRollbackFailed, mdRollbackFailed |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events mgmt-core event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events mgmt-core event *keyword* repeat *boolean* |
| Tree | repeat |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events mgmt-core event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events mgmt-core event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events mgmt-core event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events mgmt-core event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |


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| | |
|---|---|
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events mgmt-core event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mirror** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **mirror** list instance |
| Context | **configure** log log-events mirror event *keyword* |
| Tree | mirror |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events mirror event *keyword* |
| Tree | mirror |
| Options | sourceEnabled, sourceDisabled, destinationEnabled, destinationDisabled, sourceIpFilterChange, sourceMacFilterChange, sourceSapChange, sourceSubscriberChange, tMirrorSourceIpv6FilterChange, tMirrorSapUnavailSath, tMirrorSapUnavailSathClr, tMirrorFltrUnavailSath, tMirrorFltrUnavailSathClr, tMirrorPortUnavailSath, tMirrorPortUnavailSathClr |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events mirror event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events mirror event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events mirror event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events mirror event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events mirror event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events mirror event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events mirror event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mld** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **mld** list instance |
| Context | **configure** log log-events mld event *keyword* |
| Tree | mld |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events mld event *keyword* |
| Tree | mld |
| Options | vRtrMldIfRxQueryVerMismatch, vRtrMldIfCModeRxQueryMismatch, vRtrMldMaxGrpsLimitExceeded, vRtrMldMcacPlcyDropped, vRtrMldHostInstantiationFail, vRtrMldHostMaxGrpsLimitExceeded, vRtrMldHostMcacPlcyDropped, vRtrMldHostCModeRxQueryMismatch, vRtrMldHostRxQueryVerMismatch, vRtrMldHostMaxSrcsLimitExceeded, vRtrMldMaxSrcsLimitExceeded, vRtrMldGrpIfSapMaxGrpsLimExceed, vRtrMldGrpIfSapMaxSrcsLimExceed, vRtrMldGrpIfSapMcacPlcyDropped, vRtrMldGrpIfSapCModeRxQueryMism, vRtrMldGrpIfSapRxQueryVerMism, vRtrMldHostMaxGrpSrcsLimitExcd, vRtrMldMaxGrpSrcsLimitExceeded, vRtrMldGrpIfSapMaxGrpSrcLimExcd, vRtrMldHostQryIntervalConflict, vRtrMldSlaProfInstMcacPlcyDrop |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events mld event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | All |

## **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events mld event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events mld event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events mld event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events mld event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events mld event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events mld event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mld-snooping** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **mld-snooping** list instance |
| Context | **configure** log log-events mld-snooping event *keyword* |
| Tree | mld-snooping |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events mld-snooping event *keyword* |
| Tree | mld-snooping |
| Options | sapMldSnpgGrpLimitExceeded, sdpBndMldSnpgGrpLimitExceeded, sapMldSnpgMcsFailure |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events mld-snooping event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events mld-snooping event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events mld-snooping event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events mld-snooping event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events mld-snooping event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events mld-snooping event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events mld-snooping event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mpls** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **mpls** list instance |
| Context | **configure** log log-events mpls event *keyword* |
| Tree | mpls |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events mpls event *keyword* |
| Tree | mpls |
| Options | mplsXCUp, mplsXCDown, mplsTunnelUp, mplsTunnelDown, mplsTunnelRerouted, mplsTunnelReoptimized, vRtrMplsStateChange, vRtrMplsIfStateChange, vRtrMplsLspUp, vRtrMplsLspDown, vRtrMplsLspPathUp, vRtrMplsLspPathDown, vRtrMplsLspPathRerouted, vRtrMplsLspPathResignaled, vRtrMplsP2mpInstanceUp, vRtrMplsP2mpInstanceDown, vRtrMplsS2lSubLspUp, vRtrMplsS2lSubLspDown, vRtrMplsS2lSubLspRerouted, vRtrMplsS2lSubLspResignaled, vRtrMplsLspPathSoftPreempted, vRtrMplsLspPathLstFillReoptElig, |


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| | |
|---|---|
| | vRtrMplsP2mpInstanceResignaled, vRtrMplsResignalTimerExpired, vRtrMplsLspPathMbbStatusEvent, vRtrMplsLspSwitchStbyFailure, vRtrMplsLspActivePathChanged, vRtrMplsXCBundleChange, vRtrMplsNodeInIgpOverload, vRtrMplsIPv6StateChange, vRtrMplsIfIPv6StateChange, vRtrMplsLspResourceExhaustion, vRtrMplsLspManualSwitchFailure, vRtrMplsLspPathManualDegStateChg, vRtrMplsS2lSubLspPreempted, vRtrMplsNodeInIgpOverloadIpv6, tmnxMplsResourceHighUsage, tmnxMplsResourceExhausted, tmnxMplsResourceRecovered |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events mpls event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events mpls event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events mpls event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events mpls event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events mpls event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events mpls event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events mpls event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **mpls-tp** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **mpls-tp** list instance |
| Context | **configure** log log-events mpls-tp event *keyword* |
| Tree | mpls-tp |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events mpls-tp event *keyword* |
| Tree | mpls-tp |
| Options | vRtrMplsTpLspRevertMismatchAlarm, vRtrMplsTpLspRevertMismatchClear, vRtrMplsTpLspPtTypeMismatchAlarm, vRtrMplsTpLspPtTypeMismatchClear, vRtrMplsTpLspActivePathUp, vRtrMplsTpLspActivePathChange |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events mpls-tp event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events mpls-tp event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |


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| | |
|---|---|
| Platforms | All |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events mpls-tp event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events mpls-tp event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events mpls-tp event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events mpls-tp event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events mpls-tp event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **msdp** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **msdp** list instance |
| Context | **configure** log log-events msdp event *keyword* |
| Tree | msdp |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events msdp event *keyword* |
| Tree | msdp |
| Options | msdpEstablished, msdpBackwardTransition, tmnxMsdpNgActSrcLimExcd, tmnxMsdpNgPeerActSrcLimExcd, tmnxMsdpNgRPFFailure, tmnxMsdpNgSourceSrcActMsgsExcd, tmnxMsdpNgGroupSrcActMsgsExcd |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events msdp event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events msdp event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events msdp event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events msdp event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events msdp event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events msdp event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events msdp event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **nat** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **nat** list instance |
| Context | **configure** log log-events nat event *keyword* |
| Tree | nat |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events nat event *keyword* |
| Tree | nat |
| Options | tmnxNatPlL2AwBlockUsageHigh, tmnxNatIsaMemberSessionUsageHigh, tmnxNatPlLsnMemberBlockUsageHigh, tmnxNatL2AwSubIcmpPortUsageHigh, tmnxNatL2AwSubUdpPortUsageHigh, tmnxNatL2AwSubTcpPortUsageHigh, tmnxNatL2AwSubSessionUsageHigh, tmnxNatPlBlockAllocationLsn, tmnxNatPlBlockAllocationL2Aw, tmnxNatResourceProblemDetected, |


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tmnxNatResourceProblemCause, tmnxNatPlAddrFree, tmnxNatPlLsnRedActiveChanged, tmnxNatPcpSrvStateChanged, tmnxNatMdaActive, tmnxNatLsnSubBlksFree, tmnxNatDetPlcyChanged, tmnxNatMdaDetectsLoadSharingErr, tmnxNatIsaGrpOperStateChanged, tmnxNatIsaGrpIsDegraded, tmnxNatLsnSubIcmpPortUsgHigh, tmnxNatLsnSubUdpPortUsgHigh, tmnxNatLsnSubTcpPortUsgHigh, tmnxNatLsnSubSessionUsgHigh, tmnxNatInAddrPrefixBlksFree, tmnxNatFwd2EntryAdded, tmnxNatFwd2OperStateChanged, tmnxNatVrtrOutDnatOnlyRoutesHigh, tmnxNatMapRuleChange, tmnxNatMaxNbrSubsOrHostsExceeded, tmnxNatNbrSubsOrHostsBelowThrsh, tmnxNatVappActive, tmnxNatVappDetectsLoadSharingErr, tmnxNatDetPfxMapOperStateChanged, tmnxNatDetMap2OperStateChanged, tmnxNatDynamicConfigMismatch, tmnxNatPlL2AwMembrBlockUsageHigh, tmnxNatPlMemberExtBlockUsageHigh, tmnxNatPlLsnMemberPortUsageHigh, tmnxNatDetAddrMapOperStateChngd

Notes This element is part of a list key.

Introduced 16.0.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR

## **generate** *boolean*

Synopsis Generate log events when the event occurs

Context **configure** log log-events nat event *keyword* generate *boolean*

Tree generate

Introduced 16.0.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR

## **repeat** *boolean*

Synopsis Repeat the log event until the condition is cleared

Context **configure** log log-events nat event *keyword* repeat *boolean*

Tree repeat

Default false

Introduced 16.0.R4

Platforms 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR

## **severity** *keyword*

Synopsis Severity level associated with event type

Context **configure** log log-events nat event *keyword* severity *keyword*


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| | |
|---|---|
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events nat event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events nat event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events nat event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events nat event *keyword* throttle *boolean* |


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| | |
|---|---|
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ntp** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **ntp** list instance |
| Context | **configure** log log-events ntp event *keyword* |
| Tree | ntp |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events ntp event *keyword* |
| Tree | ntp |
| Options | tmnxNtpAuthMismatch, tmnxNtpNoServersAvail, tmnxNtpServersAvail, tmnxNtpOperChange, tmnxNtpServerChange |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events ntp event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events ntp event *keyword* repeat *boolean* |


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| | |
|---|---|
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events ntp event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events ntp event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events ntp event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events ntp event *keyword* specific-throttle-limit *number* |


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| | |
|---|---|
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events ntp event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **oam** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **oam** list instance |
| Context | **configure** log log-events oam event *keyword* |
| Tree | oam |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events oam event *keyword* |
| Tree | oam |
| Options | tmnxOamPingProbeFailedV3, tmnxOamPingTestFailedV3, tmnxOamPingTestCompletedV3, tmnxAncpLoopbackTestCompleted, tmnxAncpLoopbackTestCompletedL, tmnxOamTrPathChange, tmnxOamTrTestFailed, tmnxOamTrTestCompleted, svcIdInvalid, svcIdWrongType, tmnxOamLdpTtraceAutoDiscState, tmnxOamLdpTtraceFecProbeState, tmnxOamLdpTtraceFecDisStatus, tmnxOamLdpTtraceFecPFailUpdate, tmnxOamSaaThreshold, tmnxOamDiagTestCompleted, tmnxTwampSrvInactivityTimeout, tmnxTwampSrvMaxConnsExceeded, tmnxTwampSrvPfxMaxConnsExceeded, tmnxTwampSrvMaxSessExceeded, tmnxTwampSrvPfxMaxSessExceeded, tmnxTwampRflInactivityTimeout, tmnxOamPmThrRaise, tmnxOamPmThrClear, tmnxOamSathSvcTestCompleted, tmnxOamSathSvcStrmCompleted |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events oam event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events oam event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events oam event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events oam event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events oam event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events oam event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events oam event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **openflow** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **openflow** list instance |
| Context | **configure** log log-events openflow event *keyword* |
| Tree | openflow |
| Introduced | 16.0.R2 |


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| | |
|---|---|
| Platforms | VSR |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events openflow event *keyword* |
| Tree | openflow |
| Options | tmnxOFFlowEntryInsertFailed |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R2 |
| Platforms | VSR |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events openflow event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R2 |
| Platforms | VSR |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events openflow event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | VSR |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events openflow event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |


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| | |
|---|---|
| Introduced | 16.0.R2 |
| Platforms | VSR |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events openflow event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R2 |
| Platforms | VSR |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events openflow event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R2 |
| Platforms | VSR |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events openflow event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R2 |
| Platforms | VSR |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events openflow event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R2 |


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| | |
|---|---|
| Platforms | VSR |

## **ospf** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **ospf** list instance |
| Context | **configure** log log-events ospf event *keyword* |
| Tree | ospf |
| Introduced | 16.0.R1 |
| Platforms | All |

## **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events ospf event *keyword* |
| Tree | ospf |
| Options | tmnxOspfVirtIfStateChange, tmnxOspfVirtNbrStateChange, tmnxOspfVirtIfConfigError, tmnxOspfVirtIfAuthFailure, tmnxOspfVirtIfRxBadPacket, tmnxOspfAreaOriginateLsa, tmnxOspfAreaMaxAgeLsa, tmnxOspfLsdbOverflow, tmnxOspfLsdbApproachingOverflow, tmnxOspfNssaTranslatorStatusChg, tmnxOspfRestartStatusChange, tmnxOspfVirtNbrRestartHlprStsChg, tmnxOspfSpfRunsStopped, tmnxOspfSpfRunsRestarted, tmnxOspfOverloadEntered, tmnxOspfOverloadExited, tmnxOspfAsOriginateLsa, tmnxOspfAsMaxAgeLsa, tmnxOspfShamIfStateChange, tmnxOspfShamNbrStateChange, tmnxOspfShamIfConfigError, tmnxOspfShamIfAuthFailure, tmnxOspfShamIfRxBadPacket, tmnxOspfShamNbrRestartHlprStsChg, tmnxOspfFailureDisabled, tmnxOspfExportLimitReached, tmnxOspfExportLimitWarning, tmnxOspfRoutesExpLmtDropped, tmnxOspfNgNbrStateChange, tmnxOspfNgIfConfigError, tmnxOspfNgIfAuthFailure, tmnxOspfNgIfRxBadPacket, tmnxOspfNgIfStateChange, tmnxOspfNgNbrRestartHlprStsChg, tmnxOspfNgLinkOriginateLsa, tmnxOspfNgLinkMaxAgeLsa, tmnxOspfNgLdpSyncTimerStarted, tmnxOspfNgLdpSyncExit, tmnxOspfSrSidError, tmnxOspfSrSidNotInLabelRange, tmnxOspfOverloadWarning, tmnxOspfRejectedAdjacencySid, tmnxOspfAdjBfdSessionSetupFail, tmnxOspfSrgbBadLabelRange, tmnxOspfRejectedAdjacencySet, tmnxOspfSidStatsIndexAlloc, tmnxOspfDynHostnameDuplicate, tmnxOspfDynHostnameInconsistent, tmnxOspfFaOperParticipationDown, tmnxOspfNgNbrStrictBfdBlocked |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events ospf event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events ospf event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events ospf event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events ospf event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events ospf event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events ospf event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events ospf event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **pcap** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **pcap** list instance |
| Context | **configure** log log-events pcap event *keyword* |
| Tree | pcap |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events pcap event *keyword* |
| Tree | pcap |
| Options | tmnxPcapFileError, tmnxPcapBufferFull, tmnxPcapBufferReadWriteFailure, tmnxPcapSoftwareFailure |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events pcap event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events pcap event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events pcap event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events pcap event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events pcap event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events pcap event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events pcap event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **pcep** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **pcep** list instance |
| Context | **configure** log log-events pcep event *keyword* |
| Tree | pcep |
| Introduced | 22.2.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | PCEP module events |
| Context | **configure** log log-events pcep event *keyword* |
| Tree | pcep |
| Options | tmnxPcepPccPeerStateChange |
| Notes | This element is part of a list key. |
| Introduced | 22.2.R1 |
| Platforms | All |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events pcep event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 22.2.R1 |
| Platforms | All |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events pcep event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 22.2.R1 |
| Platforms | All |


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### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events pcep event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 22.2.R1 |
| Platforms | All |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events pcep event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 22.2.R1 |
| Platforms | All |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events pcep event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 22.2.R1 |
| Platforms | All |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events pcep event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 22.2.R1 |
| Platforms | All |


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### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events pcep event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 22.2.R1 |
| Platforms | All |

### **pfcp** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **pfcp** list instance |
| Context | **configure** log log-events pfcp event *keyword* |
| Tree | pfcp |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **event** *keyword*

| | |
|---|---|
| Synopsis | PFCP events |
| Context | **configure** log log-events pfcp event *keyword* |
| Tree | pfcp |
| Options | tmnxPfcpInvalidIe, tmnxPfcpNoSuchCalltraceProfile, tmnxPfcpNoSecondaryInterface |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events pfcp event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events pfcp event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events pfcp event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events pfcp event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events pfcp event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events pfcp event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events pfcp event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **pim** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **pim** list instance |
| Context | **configure** log log-events pim event *keyword* |
| Tree | pim |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events pim event *keyword* |
| Tree | pim |
| Options | vRtrPimNgIfNeighborLoss, vRtrPimNgIfNeighborUp, vRtrPimNgInvalidJoinPrune, vRtrPimNgInvalidRegister, vRtrPimNgGrpInSSMRange, vRtrPimNgBSRStateChange, vRtrPimNgHelloDropped, vRtrPimNgSGLimitExceeded, vRtrPimNgReplicationLmtExceeded, vRtrPimNgMDTLimitExceeded, vRtrPimNgMaxGrpsLimitExceeded, vRtrPimNgDataMtReused, vRtrPimNgMcacPlcyDropped, vRtrPimNgInvalidIPmsiTunnel, vRtrPimNgMaxGraftRetry, vRtrPimNgBierInbInvSD, vRtrPimNgBierInbInvBfrId, |


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| | |
|---|---|
| | vRtrPimNgUmhBMonFastFailPriToStb, vRtrPimNgUmhBMonFastFailStbToPri, vRtrPimNgInstMaxNbrReached, vRtrPimNgIfMaxNbrReached |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events pim event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events pim event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events pim event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events pim event *keyword* specific-throttle *boolean* |


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| | |
|---|---|
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events pim event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events pim event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events pim event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **pim-snooping** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **pim-snooping** list instance |
| Context | **configure** log log-events pim-snooping event *keyword* |
| Tree | pim-snooping |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events pim-snooping event *keyword* |
| Tree | pim-snooping |
| Options | tmnxPimSnpgIfNeighborLoss, tmnxPimSnpgIfNeighborUp, tmnxPimSnpgSGLimitExceeded, tmnxPimSnpgSnoopModeChanged, tmnxPimSnpgIfMaxNbrReached, tmnxPimSnpgMaxNbrReached |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events pim-snooping event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events pim-snooping event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events pim-snooping event *keyword* severity *keyword* |


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| | |
|---|---|
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events pim-snooping event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events pim-snooping event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events pim-snooping event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events pim-snooping event *keyword* throttle *boolean* |


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| | |
|---|---|
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

## **port** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **port** list instance |
| Context | **configure** log log-events port event *keyword* |
| Tree | port |
| Introduced | 16.0.R1 |
| Platforms | All |

## **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events port event *keyword* |
| Tree | port |
| Options | sonetSDHAlarmSet, sonetSDHAlarmClear, sonetSDHChannelAlarmSet, sonetSDHChannelAlarmClear, SFPInserted, SFPRemoved, SFPStatusFailure, portError, ds3AlarmSet, ds3AlarmClear, ds1AlarmSet, ds1AlarmClear, etherAlarmSet, etherAlarmClear, ds1LoopbackStart, ds1LoopbackStop, ds3LoopbackStart, ds3LoopbackStop, sdhLoopbackStart, sdhLoopbackStop, etherLoopDetected, etherLoopCleared, etherSpeedNotCompatible, etherDuplexNotCompatible, etherIngressRateCfgNotCompatible, digitalDiagnosticMonitorFailed, SFPStatusDDMCorrupt, SFPStatusReadError, SFPStatusUnsupported, dsxClockSyncStateChange, tmnxPortUnsupportedFunction, otuAlarms, tPortAccEgrQGrpHostMatchFailure, tPortEgrVPortHostMatchFailure, digitalDiagnosticMonitorCleared, tmnxEqSonetClockSrcNotCompatible, tmnxEqSonetSfThreshNotCompatible, tmnxEqSonetFramingNotCompatible, tmnxResvCbsPoolThreshGreen, tmnxResvCbsPoolThreshAmber, tmnxResvCbsPoolThreshRed, tmnxEqPortEtherCrcAlarm, tmnxEqPortEtherCrcAlarmClear, tmnxEqPortEtherInternalAlarm, tmnxEqPortEtherInternalAlarmClr, tmnxEqCohOptPortAlarm, tmnxEqPortEtherSymMonAlarm, tmnxEqPortEtherSymMonAlarmClear, SFPStatusCulprit, SFPStatusBlocked, SFPStatusOperational, tmnxRS232ControlLeadSignalChg, tmnxRS232SquelchStatusChange, tmnxRS232SquelchResetIssued, tmnxCellularBearerCreated, tmnxCellularBearerDeleted, tmnxCellularBearerModified, tmnxEqPortEtherEgressRateChange, tmnxCellularNoServiceReset, tmnxCellularActiveSimCardChange, tmnxPortEtherLoopbackStarted, tmnxPortEtherLoopbackStopped, tmnxPortGnssStatusChange, tmnxWlanNetworkConnected, tmnxWlanNetworkDisconnected, tmnxPortAUIReset, tmnxCellPortCbsdRegistered, tmnxCellPortCbsdUnregistered, |


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| | |
|---|---|
| | tmnxCellPortCbsdGranted, tmnxCellPortCbsdAuthorized, tmnxCellPortCbsdTransDown, tmnxHwAggShpSchedOperColorGreen, tmnxHwAggShpSchedOperColorAmber, tmnxHwAggShpSchedOperColorRed, tmnxCellularRssiAlarm, tmnxCellularRssiAlarmClear, SFPStatusInvalidFormFactor, SFPStatusModuleFault, tmnxDS0ChanGrpLoopbackStarted, tmnxDS0ChanGrpLoopbackStopped, tmnxResvPoolUseThreshExcd, tmnxResvPoolUseThreshNotExcd, tmnxTotalPoolUseThreshExcd, tmnxTotalPoolUseThreshNotExcd, tmnxSharedPoolUseThreshExcd, tmnxSharedPoolUseThreshNotExcd |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events port event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events port event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events port event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters that throttle this specific event |
| Context | **configure** log log-events port event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events port event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events port event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events port event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **pppoe** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **pppoe** list instance |
| Context | **configure** log log-events pppoe event *keyword* |
| Tree | pppoe |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events pppoe event *keyword* |
| Tree | pppoe |
| Options | tmnxPppoeSessionFailure, tmnxPppoeNcpFailure, tmnxMlpppBundleIndicatorsChange, tmnxPppoeLacSteeringActive, tmnxPppoeLacSteeringStopped, tmnxPppoeLacSteeringFailed, tmnxPppoeMaxSessionsOvrExceeded |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events pppoe event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events pppoe event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events pppoe event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events pppoe event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events pppoe event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events pppoe event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events pppoe event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **pppoe-clnt** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **pppoe-clnt** list instance |
| Context | **configure** log log-events pppoe-clnt event *keyword* |
| Tree | pppoe-clnt |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events pppoe-clnt event *keyword* |
| Tree | pppoe-clnt |
| Options | tmnxPppoeClientSetupFailure, tmnxPppoeClientEchoTimeout, tmnxPppoeClientNcpFailure |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events pppoe-clnt event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events pppoe-clnt event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events pppoe-clnt event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events pppoe-clnt event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events pppoe-clnt event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events pppoe-clnt event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events pppoe-clnt event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ptp** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **ptp** list instance |
| Context | **configure** log log-events ptp event *keyword* |
| Tree | ptp |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events ptp event *keyword* |
| Tree | ptp |
| Options | tmnxPtpCardNotSupported, tmnxPtpCardNotSupportedClear, tmnxPtpMasterClockChangedEvent, tmnxPtpClockRecoveryStateChange, tmnxPtpOutOfResources, tmnxPtpOutOfResourcesClear, tmnxPtpDynamicChange, tmnxPtpPortNoTimestamping, tmnxPtpPortPtsfUnusable, tmnxPtpRequiresSystemReboot, tmnxPtpRequiresSystemRebootClear, |


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| | |
|---|---|
| | tmnxPtpTimeRecoveryStateChange, tmnxPtpPeerNoTxTimestamping, tmnxPtpPeerNoTxTimestampingClear, tmnxPtpPeerNoRxTimestamping, tmnxPtpPeerNoRxTimestampingClear |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events ptp event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events ptp event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events ptp event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |


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| | |
|---|---|
| Context | **configure** log log-events ptp event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events ptp event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events ptp event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events ptp event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **python** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **python** list instance |
| Context | **configure** log log-events python event *keyword* |


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| | |
|---|---|
| Tree | python |
| Introduced | 21.2.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Python module events |
| Context | **configure** log log-events python event *keyword* |
| Tree | python |
| Options | tmnxPythonInterpreterRestarted |
| Notes | This element is part of a list key. |
| Introduced | 21.2.R1 |
| Platforms | All |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events python event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 21.2.R1 |
| Platforms | All |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events python event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 21.2.R1 |
| Platforms | All |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events python event *keyword* severity *keyword* |


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| | |
|---|---|
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 21.2.R1 |
| Platforms | All |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events python event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 21.2.R1 |
| Platforms | All |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events python event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 21.2.R1 |
| Platforms | All |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events python event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 21.2.R1 |
| Platforms | All |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events python event *keyword* throttle *boolean* |


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| | |
|---|---|
| Tree | throttle |
| Introduced | 21.2.R1 |
| Platforms | All |

### **radius** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **radius** list instance |
| Context | **configure** log log-events radius event *keyword* |
| Tree | radius |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events radius event *keyword* |
| Tree | radius |
| Options | tmnxRadSrvPlcySrvOperStateCh, tmnxRadRouteDownloadFailed, tmnxRadAcctOnOngoing |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events radius event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events radius event *keyword* repeat *boolean* |


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| | |
|---|---|
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events radius event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events radius event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events radius event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events radius event *keyword* specific-throttle-limit *number* |


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| | |
|---|---|
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events radius event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rip** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **rip** list instance |
| Context | **configure** log log-events rip event *keyword* |
| Tree | rip |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events rip event *keyword* |
| Tree | rip |
| Options | ripPacketDiscarded, vRtrRipAuthTypeMismatch, vRtrRipAuthTypeFailure, vRtrRipInstanceShuttingDown, vRtrRipInstanceRestarted, vRtrRipInstanceExpLmtReached, vRtrRipInstanceExpLmtWarning, vRtrRipInstanceRtsExpLmtDropped, vRtrRipPeerBfdDown |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events rip event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events rip event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events rip event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events rip event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events rip event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events rip event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events rip event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ripng** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **ripng** list instance |
| Context | **configure** log log-events ripng event *keyword* |
| Tree | ripng |
| Introduced | 16.0.R3 |
| Platforms | All |


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### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events ripng event *keyword* |
| Tree | ripng |
| Options | tmnxRipNgPacketDiscarded, tmnxRipNgAuthTypeMismatch, tmnxRipNgAuthFailure, tmnxRipNgInstShuttingDown, tmnxRipNgInstRestarted, tmnxRipNgInstExpLmtReached, tmnxRipNgInstExpLmtWarning, tmnxRipNgInstRtsExpLmtDropped, tmnxRipNgIfUcastAddrNotUsed, tmnxRipNgPeerBfdDown |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R3 |
| Platforms | All |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events ripng event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R3 |
| Platforms | All |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events ripng event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events ripng event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |


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| | |
|---|---|
| Introduced | 16.0.R3 |
| Platforms | All |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events ripng event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R3 |
| Platforms | All |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events ripng event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R3 |
| Platforms | All |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events ripng event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R3 |
| Platforms | All |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events ripng event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R3 |


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| | |
|---|---|
| Platforms | All |

### **route-policy** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **route-policy** list instance |
| Context | **configure** log log-events route-policy event *keyword* |
| Tree | route-policy |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events route-policy event *keyword* |
| Tree | route-policy |
| Options | trigPolicyPrevEval |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events route-policy event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events route-policy event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |


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| | |
|---|---|
| Platforms | All |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events route-policy event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events route-policy event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events route-policy event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events route-policy event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events route-policy event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rpki** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **rpki** list instance |
| Context | **configure** log log-events rpki event *keyword* |
| Tree | rpki |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events rpki event *keyword* |
| Tree | rpki |
| Options | tmnxRpkiNotifySession, tmnxRpkiStaleTimerExpiry |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events rpki event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events rpki event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events rpki event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events rpki event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events rpki event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events rpki event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events rpki event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rsvp** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **rsvp** list instance |
| Context | **configure** log log-events rsvp event *keyword* |
| Tree | rsvp |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events rsvp event *keyword* |
| Tree | rsvp |
| Options | vRtrRsvpStateChange, vRtrRsvpIfStateChange, vRtrRsvpIfNbrStateUp, vRtrRsvpIfNbrStateDown, vRtrRsvpPEFailOverPriToStdBy, vRtrRsvpPEFailOverStdByToPri |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events rsvp event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events rsvp event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events rsvp event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events rsvp event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events rsvp event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events rsvp event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events rsvp event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **satellite** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **satellite** list instance |
| Context | **configure** log log-events satellite event *keyword* |
| Tree | satellite |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events satellite event *keyword* |
| Tree | satellite |
| Options | tmnxSatelliteOperStateChange, tmnxSatSyncIfTimRefSwitch, tmnxSatSyncIfTimSystemQuality, tmnxSatSyncIfTimRef1Quality, tmnxSatSyncIfTimRef2Quality, tmnxSatSyncIfTimHoldover, tmnxSatSyncIfTimHoldoverClear, tmnxSatSyncIfTimRef1Alarm, tmnxSatSyncIfTimRef1AlarmClear, tmnxSatSyncIfTimRef2Alarm, tmnxSatSyncIfTimRef2AlarmClear, tmnxSatLocalForwardStateChg, tmnxSatLocalForwardSapStateChg |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events satellite event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events satellite event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events satellite event *keyword* severity *keyword* |


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| | |
|---|---|
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events satellite event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events satellite event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events satellite event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events satellite event *keyword* throttle *boolean* |


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| | |
|---|---|
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **security** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **security** list instance |
| Context | **configure** log log-events security event *keyword* |
| Tree | security |
| Introduced | 16.0.R1 |
| Platforms | All |

## **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events security event *keyword* |
| Tree | security |
| Options | cli_user_login, cli_user_logout, cli_user_login_failed, cli_user_login_max_attempts, ftp_user_login, ftp_user_logout, ftp_user_login_failed, ftp_user_login_max_attempts, ssh_user_login, ssh_user_logout, ssh_user_login_failed, ssh_user_login_max_attempts, radiusOperStatusChange, user_disconnect, radiusSystemIpAddrNotSet, tacplusOperStatusChange, mafEntryMatch, ftp_transfer_successful, ftp_transfer_failed, enable_admin, host_snmp_attempts, SSH_server_preserve_key_fail, tacplusInetSrvrOperStatusChange, radiusInetServerOperStatusChange, tmnxKeyChainAuthFailure, tmnxCpmProtViolPort, tmnxCpmProtViolPortAgg, tmnxCpmProtViolIf, tmnxCpmProtViolSap, tmnxCpmProtViolMac, tmnxCpmProtViolVdoSvcClient, tmnxCpmProtViolVdoVrtrClient, tmnxMD5AuthFailure, tmnxCpmProtDefPolModified, tmnxCpmProtViolSdpBind, tmnxCpmProtExcdSdpBind, tmnxCpmProtExcdSapEcm, tmnxCpmProtExcdSdpBindEcm, tmnxPkiFileReadFailed, tmnxPkiCertVerificationFailed, tmnxCAProfileStateChange, tmnxCpmProtExcdSapIp, tmnxDcpFpDynPoolUsageHiAlmRaise, tmnxDcpFpDynPoolUsageHiAlmClear, tmnxDcpCardFpEventOvrflwClr, tmnxDcpCardSapEventOvrflwClr, tmnxDcpCardVrtrIfEventOvrflwClr, sapDcpStaticExcd, sapDcpDynamicExcd, sapDcpStaticHoldDownStart, sapDcpDynamicHoldDownStart, sapDcpStaticHoldDownEnd, sapDcpDynamicHoldDownEnd, sapDcpStaticConform, sapDcpDynamicConform, sapDcpLocMonExcd, sapDcpLocMonExcdDynResource, sapDcpLocMonExcdAllDynAlloc, sapDcpLocMonExcdAllDynFreed, sapDcpDynamicEnforceAlloc, sapDcpDynamicEnforceFreed, vRtrIfDcpStaticExcd, vRtrIfDcpDynamicExcd, vRtrIfDcpStaticHoldDownStart, vRtrIfDcpDynamicHoldDownStart, vRtrIfDcpStaticHoldDownEnd, vRtrIfDcpDynamicHoldDownEnd, vRtrIfDcpStaticConform, vRtrIfDcpDynamicConform, vRtrIfDcpLocMonExcd, vRtrIfDcpLocMonExcdDynResource, |


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vRtrIfDcpLocMonExcdAllDynAlloc, vRtrIfDcpLocMonExcdAllDynFreed, vRtrIfDcpDynamicEnforceAlloc, vRtrIfDcpDynamicEnforceFreed, tmnxDcpCardFpEventOvrflw, tmnxDcpCardSapEventOvrflw, tmnxDcpCardVrtrIfEventOvrflw, tmnxPkiCAProfActnStatusChg, tmnxCpmProtViolSapOutProf, tmnxCpmProtViolIfOutProf, sysDNSSecFailedAuthentication, tmnxCpmProtExcdSdpBindIp, tmnxSecComputeCertChainFailure, tmnxCpmProtViolSdpBindOutProf, tmnxSecNotifKeyChainExpired, tmnxSysLicenseInvalid, tmnxSysLicenseExpiresSoon, tmnxPkiCAProfRevokeChkWarning, tmnxCAProfUpDueToRevokeChkCrlOpt, tmnxPkiCertBeforeExpWarning, tmnxPkiCertAfterExpWarning, tmnxPkiCertExpWarningCleared, tmnxPkiCRLBeforeExpWarning, tmnxPkiCRLAfterExpWarning, tmnxPkiCRLExpWarningCleared, tmnxSecNotifFileReloaded, tmnxSysLicenseValid, tmnxSecPwdHistoryFileLoadFailed, tmnxSecPwdHistoryFileWriteFailed, tmnxPkiCAProfCrlUpdateStart, tmnxPkiCAProfCrlUpdateSuccess, tmnxPkiCAProfCrlUpdateUrlFail, tmnxPkiCAProfCrlUpdAllUrlsFail, tmnxPkiFileWriteFailed, tmnxPkiCAProfCrlUpdNoNxtUpdTime, tmnxUsrProfSessionLimitExceeded, tmnxCliGroupSessionLimitExceeded, tmnxPkiCAProfCrlUpdLargPreUpdTm, tmnxPkiCertNotYetValid, tmnxPkiCRLNotYetValid, tmnxAppPkiCertVerificationFailed, grpc_user_login, grpc_user_logout, grpc_user_login_failed, grpc_user_login_max_attempts, netconf_user_login, netconf_user_logout, netconf_user_login_failed, netconf_user_login_max_attempts, tmnxSysLicenseActivated, tmnxConfigModify, tmnxConfigCreate, tmnxConfigDelete, tmnxStateChange, radiusUserProfileInvalid, tmnxSysStandbyLicensingError, tmnxSysStandbyLicensingReady, md_cli_io, md_cli_unauth_io, tmnxSysAppLicenseInsufficient, tmnxSysLicenseUpdateRequired, netconf_auth, netconf_unauth, grpc_auth, grpc_unauth, tmnxCertKeyPairGen, tmnxCertImport, tmnxCertExport, tmnxFileDeleted, tmnxFileMoved, tmnxFileCopied, tmnxFileUnzip, tmnxPasswordHashingChanged, tmnxUserPasswordChangedByAdmin, tmnxSSHSessionFailed, tmnxSecSignedSwCpmBootEvent, tSecSgndSwUefiVarsUpdtReqd, tmnxPkiCertUpdUpdateStarted, tmnxPkiCertUpdUpdateFinished, tmnxPkiCertUpdUpdateFailed, tmnxSystemPasswordChangedByAdmin, tmnxSysLicenseCleared, tmnxSysLicensingStateOk, tmnxPkiCertChainCompareCaNoMatch, ssh_auth_key_gen, ssh_auth_key_synch_fail, tmnxSSHListeningPortChanged, tmnxTelnetListeningPortChanged, tmnxSSHListeningPortOccupied, tmnxTelnetListeningPortOccupied, tmnxSSHListeningPortInUse, tmnxTelnetListeningPortInUse, tmnxSysSwDSValidationResult

Notes This element is part of a list key.

Introduced 16.0.R1

Platforms All

## **generate** *boolean*

Synopsis Generate log events when the event occurs

Context **configure** log log-events security event *keyword* generate *boolean*

Tree generate


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events security event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events security event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events security event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events security event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events security event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events security event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sflow** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **sflow** list instance |
| Context | **configure** log log-events sflow event *keyword* |
| Tree | sflow |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-s, 7950 XRS |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events sflow event *keyword* |
| Tree | sflow |
| Options | none, tmnxSflowCpEntrySampling, tmnxSflowPacketTxFailure |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-s, 7950 XRS |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events sflow event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-s, 7950 XRS |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events sflow event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR, 7750 SR-s, 7950 XRS |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events sflow event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-s, 7950 XRS |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events sflow event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7750 SR, 7750 SR-s, 7950 XRS |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events sflow event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-s, 7950 XRS |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events sflow event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-s, 7950 XRS |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events sflow event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-s, 7950 XRS |

### **snmp** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **snmp** list instance |
| Context | **configure** log log-events snmp event *keyword* |
| Tree | snmp |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events snmp event *keyword* |
| Tree | snmp |
| Options | coldStart, warmStart, authenticationFailure, linkDown, linkUp, risingAlarm, fallingAlarm, snmpdError |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events snmp event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events snmp event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events snmp event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events snmp event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events snmp event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events snmp event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events snmp event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **sr-mpls** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **sr-mpls** list instance |
| Context | **configure** log log-events sr-mpls event *keyword* |
| Tree | sr-mpls |
| Introduced | 21.10.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | SR MPLS event |
| Context | **configure** log log-events sr-mpls event *keyword* |
| Tree | sr-mpls |
| Options | tmnxSrMplsPfxSidFailure, tmnxSrMplsPfxSidFlexAlgoFailure |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | All |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events sr-mpls event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 21.10.R1 |
| Platforms | All |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events sr-mpls event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | All |


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### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events sr-mpls event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 21.10.R1 |
| Platforms | All |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events sr-mpls event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 21.10.R1 |
| Platforms | All |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events sr-mpls event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 21.10.R1 |
| Platforms | All |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events sr-mpls event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 21.10.R1 |
| Platforms | All |


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### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events sr-mpls event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 21.10.R1 |
| Platforms | All |

### **sr-policy** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **sr-policy** list instance |
| Context | **configure** log log-events sr-policy event *keyword* |
| Tree | sr-policy |
| Introduced | 23.10.R2 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Events for SR policy module |
| Context | **configure** log log-events sr-policy event *keyword* |
| Tree | sr-policy |
| Options | vRtrSrPathIsCandPathOperChanged, vRtrSrPlcyPathActiveStateChanged |
| Notes | This element is part of a list key. |
| Introduced | 23.10.R2 |
| Platforms | All |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events sr-policy event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 23.10.R2 |
| Platforms | All |


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### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events sr-policy event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 23.10.R2 |
| Platforms | All |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events sr-policy event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 23.10.R2 |
| Platforms | All |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events sr-policy event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 23.10.R2 |
| Platforms | All |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events sr-policy event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 23.10.R2 |
| Platforms | All |


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### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events sr-policy event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 23.10.R2 |
| Platforms | All |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events sr-policy event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 23.10.R2 |
| Platforms | All |

### **srv6** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **srv6** list instance |
| Context | **configure** log log-events srv6 event *keyword* |
| Tree | srv6 |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events srv6 event *keyword* |
| Tree | srv6 |
| Options | vRtrSrv6FunctionExhaustion, vRtrSrv6SvcSidIndex, vRtrSrv6LocatorResExhaustion |
| Notes | This element is part of a list key. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |


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### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events srv6 event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events srv6 event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events srv6 event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events srv6 event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |


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### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events srv6 event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events srv6 event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events srv6 event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **stp** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **stp** list instance |
| Context | **configure** log log-events stp event *keyword* |
| Tree | stp |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events stp event *keyword* |
| Tree | stp |
| Options | topologyChangeSapMajorState, newRootSap, topologyChangeVcpState, newRootVcpState, topologyChangeSapState, receivedTCN, newRootBridge, unacknowledgedTCN, higherPriorityBridge, sapEncapPVST, sapEncapDot1d, tmnxSvcTopoChgSdpBindMajorState, tmnxSvcNewRootSdpBind, tmnxSvcTopoChgSdpBindState, tmnxSvcSdpBindRcvdTCN, tmnxSvcSdpBindRcvdHigherBriPrio, tmnxSvcSdpBindEncapPVST, tmnxSvcSdpBindEncapDot1d, tmnxNewCistRegionalRootBridge, tmnxNewMstiRegionalRootBridge, tmnxStpRootGuardViolation, tmnxStpMeshNotInMstRegion, tmnxSapStpExcepCondStateChng, tmnxSdpBndStpExcepCondStateChng, sapActiveProtocolChange, tmnxSvcSdpActiveProtocolChange, vcpActiveProtocolChange, topologyChangePipMajorState, topologyChangePipState, tmnxPipStpExcepCondStateChng, pipActiveProtocolChange |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events stp event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events stp event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events stp event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events stp event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events stp event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events stp event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events stp event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **svcmgr** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **svcmgr** list instance |
| Context | **configure** log log-events svcmgr event *keyword* |
| Tree | svcmgr |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events svcmgr event *keyword* |
| Tree | svcmgr |
| Options | svcTlsMacPinningViolation, tmnxSubSlaacOverride, svcEvpnMplsMacMoveExceedNonBlock, svcTlsVxInstReplicatorChgd, svcArpHostOverride, svcEvpnMHEsEviDFStateChgd, svcEvpnMHEsIsidDFStateChgd, svcEvpnRcvdProtSrcMac, svcBgpEvpnBHDupMacAddrsDetected, svcEvpnEtreeBumLabelSysHiUsgSet, svcEvpnEtreeBumLabelSysHiUsgClr, svcVxlanEvpnMplsDestSysHiUsgSet, svcVxlanEvpnMplsDestSysHiUsgClr, svcStatusChanged, svcTlsFdbTableFullAlarmRaised, svcTlsFdbTableFullAlarmCleared, svcSysEvpnESDfPrefOperValChange, tmnxSvcSysFdbTableHighUsgSet, iesIfStatusChanged, tmnxEndPointTxActiveChanged, tmnxSvcSysFdbTableHighUsgClr, svcEvpnMHStandbyStatusChg, svcEvpnVxVTepLclBiasAddFailSet, svcEvpnESVxVTepLclBiasAddFailSet, svcEvpnVxVTepLclBiasAddFailClr, svcEvpnESVxVTepLclBiasAddFailClr, svcEvpnRcvdPbbProtSrcMac, svcTlsMrpAttrRegistrationFailed, svcTlsMrpAttrTblFullAlarmRaised, svcTlsMrpAttrTblFullAlarmCleared, svcEvpnMplsTEPEgrLblStateChgd, svcEpipePbbOperStatusChanged, svcTlsVxInstVTEPEgrVniStateChgd, svcEvpnVxInstESDstTEPStateChgd, svcSrv6InstTEPSidOperStateChgd, svcSrv6InstESDstTEPOperStateChgd, svcEvpnMplsESDestTEPStateChgd, svcBgpEvpnTepStateChgd, svcSrv6FunctionOutOfResources, sapStatusChanged, sapTlsMacAddrLimitAlarmRaised, sapTlsMacAddrLimitAlarmCleared, hostConnectivityLost, hostConnectivityRestored, sapReceivedProtSrcMac, sapTlsMacMoveExceeded, sapPortStateChangeProcessed, |


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sapCemPacketDefectAlarm, sapCemPacketDefectAlarmClear, msapStateChanged, msapCreationFailure, sapTlsMacMoveExceedNonBlock, sapEthLoopbackStarted, sapEthLoopbackStopped, sapTunnelEncapIpMtuTooSmall, tmnxIpTunnelOperStateChange, sapIfIgnorePortStateStart, sapIfIgnorePortStateStop, sapReceivedPbbProtSrcMac, sdpStatusChanged, sdpBindStatusChanged, sdpKeepAliveStarted, sdpKeepAliveStopped, sdpKeepAliveProbeFailure, sdpKeepAliveLateReply, sdpTlsMacAddrLimitAlarmRaised, sdpTlsMacAddrLimitAlarmCleared, sdpBindPwPeerStatusBitsChanged, sdpBindTlsMacMoveExceeded, sdpBindPwPeerFaultAddrChanged, sdpBindSdpStateChangeProcessed, sdpBandwidthOverbooked, sdpBindInsufficientBandwidth, dynamicSdpConfigChanged, dynamicSdpBindConfigChanged, dynamicSdpCreationFailed, dynamicSdpBindCreationFailed, sdpEgrIfsNetDomInconsCntChanged, sdpBindIpipeCeIpAddressChange, sdpBindReceivedProtSrcMac, sdpBindPwLocalStatusBitsChanged, sdpBindTlsMacMoveExceedNonBlock, sdpBindEthLoopbackStarted, sdpBindEthLoopbackStopped, sdpPbbActvPwWithNonActvCtrlPwChg, svcBgpEvpnDupMacAddrsDetected, svcBgpEvpnDupMacAddrsCleared, svcTlsVTEPHiUsageAlarmRaised, svcTlsVTEPHiUsageAlarmCleared, svcTlsVTEPEgrVniSysHiUsgAlarmSet, svcTlsVTEPEgrVniSysHiUsgAlarmClr, svcTlsVTEPEgrVniSvcHiUsgAlarmSet, svcTlsVTEPEgrVniSvcHiUsgAlarmClr, svcBindSysHiUsageAlarmRaised, svcBindSysHiUsageAlarmCleared, sdpControlPwActiveStateChg, svcTlsProxyArpDupDetect, svcTlsProxyArpDupClear, svcTlsProxyNdDupDetect, svcTlsProxyNdDupClear, svcTlsEvpnTunnNHopHiUsgAlarmSet, svcTlsEvpnTunnNHopHiUsgAlarmClr, svcEvpnMplsTEPHiUsageRaised, svcEvpnMplsTEPHiUsageCleared, svcEvpnMplsTEPEgrBndSysHiUsgSet, svcEvpnMplsTEPEgrBndSysHiUsgClr, svcEvpnMplsTEPEgrBndSvcHiUsgSet, svcEvpnMplsTEPEgrBndSvcHiUsgClr, svcTlsProxyArpSysHiUsgSet, svcTlsProxyArpSysHiUsgClr, svcTlsProxyArpSvcHiUsgSet, svcTlsProxyArpSvcHiUsgClr, svcTlsProxyNdSysHiUsgSet, svcTlsProxyNdSysHiUsgClr, svcTlsProxyNdSvcHiUsgSet, svcTlsProxyNdSvcHiUsgClr, svcSiteMinDnTimerStateChg, sdpBindReceivedPbbProtSrcMac, svcTlsMfibTableFullAlarmRaised, svcTlsMfibTableFullAlarmCleared, tmnxSubscriberCreated, tmnxSubscriberDeleted, tmnxSubscriberRenamed, tmnxSubAcctPlcyFailure, tmnxSubMcsRelatedProblem, tmnxSubAuthPlcyRadSerOperStatChg, tmnxSubAcctPlcyRadSerOperStatChg, svcEndPointMacLimitAlarmRaised, svcEndPointMacLimitAlarmCleared, tmnxSubRadSapDisconnectError, tmnxSubRadSdpBndDisconnectError, tmnxSubRadSapCoAError, tmnxSubRadSdpBndCoAError, tmnxSubRadSapSubAuthError, tmnxSubRadSdpBndSubAuthError, svcFdbMimDestTblFullAlrm, svcFdbMimDestTblFullAlrmCleared, svcPersistencyProblem, svcArpHostPopulateErr, svcEPMCEPConfigMismatch, svcEPMCEPConfigMismatchResolved, svcEPMCEPPassiveModeActive, svcEPMCEPPassiveModePassive, sapHostBGPPeeringSetupFailed, tmnxSubUserCategoryOutOfCredit, svcRestoreHostProblem, tmnxSubUserCategoryRefreshCredit, tmnxSubUserCategoryError, svcTlsSiteDesigFwdrChg, sapTlsDataSapInstStatusChgd, svcTlsGroupOperStatusChanged, sapTunnelStateChange, tmnxSubHostInconsistentAtmTdOvr, svcMSPwRtMisconfig, svcOperGrpOperStatusChanged, sapIpipeCeIpAddrChange, svcMSPwRetryExpiredNotif, svcVllSiteDesigFwdrChg, tmnxSubSlaacSetupFailure, tmnxIpTunnelOperRemIpChg, tmnxSubHostLcktLimitReached,


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tmnxSubHostLcktSapLimitReached, tmnxSubSysChassMemoryUsageHi, tmnxSubVSubnetHostsDeleted, sapHostRipListenerSetupFailed, tmnxSubIpoeInvalidSessionKey, tmnxSubIpoeInvalidCidRidChange, tmnxSubIpoeSessionLimitReached, tmnxSubIpoePersistenceRecovery, tmnxSubIpoeMigrHostDeleted, tmnxSubMngdHostCreationFail, tmnxSubMngdHostOverride, tmnxSubHostInfoConflict, tmnxSubPlBndFailed, tmnxSubBrgCreated, tmnxSubBrgDeleted, tmnxSubBrgCvInitFailed, tmnxSubBrgRadiusUpdateIpoeSeFail, tmnxSubBrgRadiusCoaError, tmnxSubBrgRadiusAuthError, tmnxSubBrgSessionLimitReached, tmnxSubStatsResourceLimitReached, tmnxSubDhcpOverloadDetected, aluIpTransportStateChanged, tmnxSubBrgRadiusProxyAuthError, tmnxSubIpoeSessionBrgNotAuth, tmnxSubRadiusCoaNatFwdFailed, tmnxSubSVlanStatsReachedMaximum, svcTlsVxInstMacAdrLimitAlrmRsd, svcTlsVxInstMacAdrLimitAlrmClrd, tmnxSubCupsUpSapCreationFailed, tmnxSubCupsUpIfCreationFailed, tmnxPfcpAssocPathMgmtStateChgd, tmnxSubInfoEgrAggRateLimitLowReq, tmnxSubIpoeWppRegistrationFailed, svcEvpnMplsTEPIpSysHiUsgSet, svcEvpnMplsTEPIpSysHiUsgClr, svcEvpnMHAutoEsiCreated, svcEvpnMHAutoEsiConflict, svcSrv6TEPEgrBndSysHiUsgSet, svcSrv6TEPEgrBndSysHiUsgClr, svcIfSubForwardingStatsDisNotify, svcIfSubForwardingStatsEnNotify, svcRoutedVplsEvpnGWDrStateChgd, svcSrv6TEPEgrBndSvcHiUsgSet, svcSrv6TEPEgrBndSvcHiUsgClr, tmnxSapMRtCpeChkStatusChange, svcEvpnMplsMldpESLblHiUsgSet, svcEvpnMplsMldpESLblHiUsgClr, svcTlsProxyArpUnauthorizedIP, svcTlsProxyNdUnauthorizedIP, svcRvplsEvpnMcastDestSysHiUsgSet, svcRvplsEvpnMcastDestSysHiUsgClr, tmnxSubPysrosExec, tmnxSubPysrosExecFail

| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events svcmgr event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | All |

## **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events svcmgr event *keyword* repeat *boolean* |
| Tree | repeat |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events svcmgr event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events svcmgr event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events svcmgr event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events svcmgr event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |


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| | |
|---|---|
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events svcmgr event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **system** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **system** list instance |
| Context | **configure** log log-events system event *keyword* |
| Tree | system |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events system event *keyword* |
| Tree | system |
| Options | stiDateAndTimeChanged, ssiSaveConfigSucceeded, ssiSaveConfigFailed, sbiBootConfig, sbiBootSnmpd, tmnxConfigModify, tmnxConfigCreate, tmnxConfigDelete, tmnxStateChange, tmnxModuleMallocFailed, tmnxTrapDropped, ssiSyncConfigOK, ssiSyncConfigFailed, ssiSyncBootEnvOK, ssiSyncBootEnvFailed, socket_bind_failed, socket_conn_accept_failed, sntpTimeDiffExceedsThreshold, tmnxSssiMismatch, tmnxSnmpdStateChange, tmnxRedStandbySyncing, tmnxRedStandbyReady, tmnxRedStandbySyncLost, tmnxRedSwitchover, tmnxRedCpmActive, tmnxRedSingleCpm, persistencyClosedAlarmRaised, persistencyClosedAlarmCleared, tmnxSntpOperChange, tmnxFtpClientFailure, persistencyEventReport, sbiBootConfigFailFileError, sbiBootConfigOKFileError, persistenceRestoreProblem, tmnxSysRollbackStarted, tmnxSysRollbackStatusChange, tmnxSysRollbackSaveStatusChange, tmnxSysRollbackFileDeleteStatus, ssiSyncRollbackOK, ssiSyncRollbackFailed, ssiSyncCertOK, ssiSyncCertFailed, persistencyFileSysThresRaised, persistencyFileSysThresCleared, tmnxSysExecStarted, tmnxSysExecFinished, tmnxSysRollbackSaveStarted, |


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tmnxSysRollbackDeleteStarted, tmnxSysNvsysFileError, tmnxConfigConflict, tmnxSysBaseMacAddressNotSet, tmnxSmLaunchStartFailed, tmnxEhsHandlerInvoked, tmnxEhsDroppedByMinDelay, tmnxSysAppStats24HrsAvailable, tmnxSysAppStatsWeekAvailable, tmnxSysMgmtIfModeChangeStart, tmnxSysMgmtIfModeChangeComplete, tmnxSysMgmtIfModeChangeFailure, tmnxSysMgmtIfLiIncorrectFormat, tmnxSysMgmtIfLiCfgNotEncrypted, stiDateAndTimeChanging, tmnxSysSwFabFailRecStarted, tmnxSysSwFabFailRecCompleted, tmnxSysSwFabFailRecAborted, tmnxSysSwFabFailRecDetected, tMirrorLiXIfLicenseInvalid, mdSaveCommitHistoryFailed, sbiBootMdReadCommitHistoryFailed, tmnxSysDyingGasp, tmnxSysHttpRdrOutOfSeqLimitExc, schedActionFailure, smScriptAbort, smScriptResult, smScriptException, ssiSaveIncrementConfigSucceeded, ssiSaveIncrementConfigFailed, ssiSaveBackgroundConfigSucceeded, ssiSaveBackgroundConfigFailed, tmnxLastSystemRebootAdmin, mdCommitInProgress, mdCommitSucceeded

| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events system event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events system event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events system event *keyword* severity *keyword* |


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| | |
|---|---|
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events system event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events system event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events system event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events system event *keyword* throttle *boolean* |


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| | |
|---|---|
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **tls** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **tls** list instance |
| Context | **configure** log log-events tls event *keyword* |
| Tree | tls |
| Introduced | 20.5.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events tls event *keyword* |
| Tree | tls |
| Options | tmnxTlsInitiateSession, tmnxTlsTermination, tmnxTlsFailure |
| Notes | This element is part of a list key. |
| Introduced | 20.5.R1 |
| Platforms | All |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events tls event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 20.5.R1 |
| Platforms | All |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events tls event *keyword* repeat *boolean* |
| Tree | repeat |


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| | |
|---|---|
| Default | false |
| Introduced | 20.5.R1 |
| Platforms | All |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events tls event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 20.5.R1 |
| Platforms | All |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events tls event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 20.5.R1 |
| Platforms | All |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events tls event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 20.5.R1 |
| Platforms | All |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events tls event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |


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| | |
|---|---|
| Range | 1 to 20000 |
| Introduced | 20.5.R1 |
| Platforms | All |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events tls event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 20.5.R1 |
| Platforms | All |

### **tree-sid** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **tree-sid** list instance |
| Context | **configure** log log-events tree-sid event *keyword* |
| Tree | tree-sid |
| Introduced | 20.10.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events tree-sid event *keyword* |
| Tree | tree-sid |
| Options | vRtrTreeSidCdtPathChanged, vRtrTreeSidCdtPathActInsChanged, vRtrTreeSidInSidRegFailure, vRtrTreeSidTreeIdAllocFailure, vRtrTreeSidRepSegResExhaustion, vRtrTreeSidRepSegResExhstCleared, vRtrTreeSidLabelRangeExhaustion, vRtrTreeSidLblRangeExhstCleared, vRtrTreeSidFailOverPriToStdBy, vRtrTreeSidFailOverStdByToPri |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | All |


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### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events tree-sid event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 20.10.R1 |
| Platforms | All |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events tree-sid event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | All |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events tree-sid event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 20.10.R1 |
| Platforms | All |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events tree-sid event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 20.10.R1 |
| Platforms | All |


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### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events tree-sid event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 20.10.R1 |
| Platforms | All |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events tree-sid event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 20.10.R1 |
| Platforms | All |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events tree-sid event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 20.10.R1 |
| Platforms | All |

### **user** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **user** list instance |
| Context | **configure** log log-events user event *keyword* |
| Tree | user |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events user event *keyword* |
| Tree | user |
| Options | cli_user_login, cli_user_logout, cli_user_login_failed, cli_user_login_max_attempts, ftp_user_login, ftp_user_logout, ftp_user_login_failed, ftp_user_login_max_attempts, cli_user_io, snmp_user_set, cli_config_io, cli_unauth_user_io, cli_unauth_config_io, grpc_user_login, grpc_user_logout, grpc_user_login_failed, grpc_user_login_max_attempts, netconf_user_login, netconf_user_logout, netconf_user_login_failed, netconf_user_login_max_attempts |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events user event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events user event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events user event *keyword* severity *keyword* |
| Tree | severity |


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| | |
|---|---|
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events user event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events user event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events user event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events user event *keyword* throttle *boolean* |
| Tree | throttle |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## **video** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **video** list instance |
| Context | **configure** log log-events video event *keyword* |
| Tree | video |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events video event *keyword* |
| Tree | video |
| Options | tmnxVdoDuplicateSsrcId, tmnxVdoMdaSessionsLimitExceeded, tmnxVdoMdaSGLimitExceeded, tmnxVdoMdaSessionsLimitCleared, tmnxVdoMdaSGLimitCleared, tmnxVdoAdSpliceAbort, tmnxVdoClientSessionsLmtExceeded, tmnxVdoClientSessionsLmtCleared, tmnxVdoGrpSrcAnlyzrErrState, tmnxVdoGrpSrcAnlyzrStClear, tmnxVdoMdaFccBwLimitExceeded, tmnxVdoMdaFccBwLimitCleared, tmnxVdoMdaRetBwLimitExceeded, tmnxVdoMdaRetBwLimitCleared, tmnxVdoMdaFccRetTotBwLmtExceeded, tmnxVdoMdaFccRetTotBwLmtCleared, tmnxVdoMdaFccSesLimitExceeded, tmnxVdoMdaFccSesLimitCleared, tmnxVdoMdaRetSesLimitExceeded, tmnxVdoMdaRetSesLimitCleared, tmnxVdoMdaFccRetTotSeLmtExceeded, tmnxVdoMdaFccRetTotSeLmtCleared, tmnxVdoVappSessionsLimitExceeded, tmnxVdoVappSGLimitExceeded, tmnxVdoVappSessionsLimitCleared, tmnxVdoVappSGLimitCleared, tmnxVdoVappFccBwLimitExceeded, tmnxVdoVappFccBwLimitCleared, tmnxVdoVappRetBwLimitExceeded, tmnxVdoVappRetBwLimitCleared, tmnxVdoVappFccRetTotBwLmtExceded, tmnxVdoVappFccRetTotBwLmtCleared, tmnxVdoVappFccSesLimitExceeded, tmnxVdoVappFccSesLimitCleared, tmnxVdoVappRetSesLimitExceeded, tmnxVdoVappRetSesLimitCleared, tmnxVdoVappFccRetTotSeLmtExceded, tmnxVdoVappFccRetTotSeLmtCleared |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |


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### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events video event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events video event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events video event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events video event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |


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### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events video event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events video event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events video event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **vrrp** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **vrrp** list instance |
| Context | **configure** log log-events vrrp event *keyword* |
| Tree | vrrp |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events vrrp event *keyword* |
| Tree | vrrp |
| Options | vrrpTrapNewMaster, vrrpTrapAuthFailure, tmnxVrrpIPListMismatch, tmnxVrrpIPListMismatchClear, tmnxVrrpMultipleOwners, tmnxVrrpBecameBackup, vrrpPacketDiscarded, tmnxVrrpBfdIntfSessStateChgd, vrrpTrapProtoError, tVrrpBecameBackup, tVrrpTrapNewMaster, tVrrpIPListMismatch, tVrrpIPListMismatchClear, tVrrpMultipleOwners, tVrrpPacketDiscarded, tVrrpRouterAdvNotActivated, tVrrpRouterAdvNotActivatedClear, tVrrpOperDownInvalidMac, tVrrpOperDownInvalidMacClear, tmnxVrrpOperDownInvalidMac, tmnxVrrpOperDownInvalidMacClear |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events vrrp event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events vrrp event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |


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| | |
|---|---|
| Context | **configure** log log-events vrrp event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events vrrp event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events vrrp event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events vrrp event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |


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| | |
|---|---|
| Context | **configure** log log-events vrrp event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **vrtr** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **vrtr** list instance |
| Context | **configure** log log-events vrtr event *keyword* |
| Tree | vrtr |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events vrtr event *keyword* |
| Tree | vrtr |
| Options | tmnxVRtrMidRouteTCA, tmnxVRtrHighRouteTCA, tmnxVRtrHighRouteCleared, tmnxVRtrMcastMidRouteTCA, tmnxVRtrMcastMaxRoutesTCA, tmnxVRtrMcastMaxRoutesCleared, tmnxVRtrMaxArpEntriesTCA, tmnxVRtrMaxArpEntriesCleared, tmnxVRtrMaxRoutes, tmnxVRtrBfdMaxSessionOnSlot, tmnxVRtrBfdPortTypeNotSupported, tmnxVRtrIPv6MidRouteTCA, tmnxVRtrIPv6HighRouteTCA, tmnxVRtrIPv6HighRouteCleared, tmnxVRtrStaticRouteCPEStatus, tmnxVRtrManagedRouteAddFailed, tmnxVRtrFibOccupancyThreshold, tmnxVRtrInetAddressAttachFailed, tmnxVRtrSingleSfmOverloadStateCh, tmnxVRtrGrtExportLimitReached, tmnxVRtrGrtRoutesExpLimitDropped, tmnxVRtrIfLdpSyncTimerStart, tmnxVRtrIfLdpSyncTimerStop, tmnxVRtrGrtV6ExportLimitReached, tmnxVRtrGrtV6RoutesExpLimDropped, tmnxVRtrStaticRouteStatusChanged, tmnxVRtrBfdSessExtDown, tmnxVRtrBfdSessExtUp, tmnxVRtrBfdSessExtDeleted, tmnxVRtrBfdSessExtProtChange, tmnxVRtrBfdExtNoCpmNpResources, tmnxVRtrDnsFault, tmnxVRtrMacAcctLimitReached, tmnxVRtrMacAcctLimitCleared, tmnxVRtrNgBfdSessDown, tmnxVRtrNgBfdSessUp, tmnxVRtrNgBfdSessDeleted, tmnxVRtrNgBfdSessProtChange, tmnxVRtrNgBfdNoCpmNpResources, tmnxVRtrNHRvplsARPHighUsage, tmnxVRtrNHRvplsARPExhaust, tmnxVRtrNHRvplsARPHighUsageClr, tmnxVRtrArpLmt, tmnxVRtrArpThresholdExceeded, tmnxVRtrIpv6NbrLmt, tmnxVRtrIpv6NbrThresholdExceeded, tmnxVRtrIfIgnorePortState, tmnxVRtrPdnAddrMismatch, tmnxVRtrPdnAddrMismatchCleared, tmnxVRtrLeakExportLimitReached, tmnxVRtrLeakExportLimitDropped, tmnxVRtrDhcpClientStatusChanged, tmnxVRtrDhcp6ClientStatusChanged, tmnxVRtrNeDiscovered, tmnxVRtrNeRemoved, tmnxVRtrNeModified, |


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| | |
|---|---|
| | vRtrIfDhcpClRtStatusChanged, vRtrIfDhcpClStateDnsChanged, vRtrAutoCfgRaRtStatusChanged, vRtrIfDhcp6ClStateDnsChanged, tipNbrAllocFailed, vRtrIfEthLoopbackStarted, vRtrIfEthLoopbackStopped, tmnxVRtrBfdExtNoFreeTxIntrvlSlot, tmnxVRtrFibVPNOccupancyThreshold, tmnxVRtrBfdMultiHopFpMismatch, vRtrBgpInstanceError, vrtrIfIpTunnelOperStateChange |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events vrtr event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events vrtr event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events vrtr event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events vrtr event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events vrtr event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events vrtr event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events vrtr event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **wlan-gw** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **wlan-gw** list instance |
| Context | **configure** log log-events wlan-gw event *keyword* |
| Tree | wlan-gw |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events wlan-gw event *keyword* |
| Tree | wlan-gw |
| Options | tmnxWlanGwResrcProblemDetected, tmnxWlanGwResrcProblemCause, tmnxWlanGwTuQosProblem, tmnxWlanGwGrpOperStateChanged, tmnxWlanGwIomActive, tmnxWlanGwMgwConnected, tmnxWlanGwMgwRestarted, tmnxWlanGwNumMgwHi, tmnxWlanGwMgwStateChanged, tmnxWlanGwQosRadiusGtpMismatch, tmnxWlanGwSubIfRedActiveChanged, tmnxWlanGwDsmGtpTunnelSetupFail, tmnxWlanGwSubIfPmStartD6cFailed, tmnxWlanGwSubIfPmNewPlReqFailed, tmnxWlanGwSubIfPmAddNewPlFailed, tmnxWlanGwSubIfPmCrIntObjFailed, tmnxWlanGwSubIfPmPoolTimeout, tmnxWlanGwSubIfPmPoolUsageLow, tmnxWlanGwSubIfPmLsQryRtryFailed, tmnxWlanGwGtpMessageDropped, tmnxWlanGwSubIfPmPoolPartialUse, tmnxWlanGwBdCreated, tmnxWlanGwBdDeleted, tmnxWlanGwUeCreationFail, tmnxWlanGwUeReplacement, tmnxWlanGwGrpMemberUsageHigh |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events wlan-gw event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events wlan-gw event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events wlan-gw event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events wlan-gw event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events wlan-gw event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events wlan-gw event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events wlan-gw event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **wpp** event *keyword*

| | |
|---|---|
| Synopsis | Enter the **wpp** list instance |
| Context | **configure** log log-events wpp event *keyword* |
| Tree | wpp |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** *keyword*

| | |
|---|---|
| Synopsis | Log event as a trigger for one or more EHS handlers |
| Context | **configure** log log-events wpp event *keyword* |
| Tree | wpp |
| Options | tmnxWppPortalStatChanged, tmnxWppHostAuthenticationFailed, tmnxWppPortalUnreachable, tmnxWppPortalGroupStatChanged, tmnxWppPGHostAuthFailed |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **generate** *boolean*

| | |
|---|---|
| Synopsis | Generate log events when the event occurs |
| Context | **configure** log log-events wpp event *keyword* generate *boolean* |
| Tree | generate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **repeat** *boolean*

| | |
|---|---|
| Synopsis | Repeat the log event until the condition is cleared |
| Context | **configure** log log-events wpp event *keyword* repeat *boolean* |
| Tree | repeat |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level associated with event type |
| Context | **configure** log log-events wpp event *keyword* severity *keyword* |
| Tree | severity |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle** *boolean*

| | |
|---|---|
| Synopsis | Use parameters to throttle the specific event |
| Context | **configure** log log-events wpp event *keyword* specific-throttle *boolean* |
| Tree | specific-throttle |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **specific-throttle-interval** *number*

| | |
|---|---|
| Synopsis | Duration of the event specific throttling interval |
| Context | **configure** log log-events wpp event *keyword* specific-throttle-interval *number* |
| Tree | specific-throttle-interval |
| Range | 1 to 1200 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **specific-throttle-limit** *number*

| | |
|---|---|
| Synopsis | Throttle limit within which events can be logged |
| Context | **configure** log log-events wpp event *keyword* specific-throttle-limit *number* |
| Tree | specific-throttle-limit |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **throttle** *boolean*

| | |
|---|---|
| Synopsis | Throttle log events of this type |
| Context | **configure** log log-events wpp event *keyword* throttle *boolean* |
| Tree | throttle |
| Introduced | 16.0.R1 |
| Platforms | All |

### **log-id** [name] *log-name*

| | |
|---|---|
| Synopsis | Enter the **log-id** list instance |
| Context | **configure** log log-id *log-name* |
| Tree | log-id |
| Max. instances | 30 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**name**] *log-name*

| | |
|---|---|
| Synopsis | Log ID |
| Context | **configure** log log-id *log-name* |
| Tree | log-id |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 21.2.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the log |
| Context | **configure** log log-id *log-name* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log log-id *log-name* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **destination**

| | |
|---|---|
| Synopsis | Enter the **destination** context |
| Context | **configure** log log-id *log-name* destination |
| Tree | destination |
| Description | Commands in this context specify where log event data is to be sent. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## cli

| | |
|---|---|
| Synopsis | Enable the **cli** context |
| Context | **configure** log log-id *log-name* destination cli |
| Tree | cli |
| Description | Commands in this context configure log events directed to any subscribed CLI session.<br>Subscribe to a CLI log from within a CLI session using the **tools perform log subscribe-to log-id** command. Events are sent to the CLI session for the duration of the CLI session or until a **tools perform log unsubscribe-from** command is issued. A local circular memory log is maintained for CLI logs. |
| Notes | The following elements are part of a choice: **cli**, **console**, **file**, **memory**, **netconf**, **snmp**, or **syslog**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## max-entries *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Number of events stored in this CLI log |
| Context | **configure** log log-id *log-name* destination cli max-entries *number* |
| Tree | max-entries |
| Range | 50 to 3000 |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

## console

**WARNING:**
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| | |
|---|---|
| Synopsis | Send log events to the system console port |
| Context | **configure** log log-id *log-name* destination console |
| Tree | console |
| Description | When specified, the system directs log events to the console port. If the console is not connected, the system drops all entries. |
| Notes | The following elements are part of a choice: **cli**, **console**, **file**, **memory**, **netconf**, **snmp**, or **syslog**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **file** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | File to send log events |
| Context | **configure** log log-id *log-name* destination file *reference* |
| Tree | file |
| Description | This command specifies the file where the system directs log events.<br>When the command is modified, log files are not written to the new location until a rollover occurs or the log is manually cleared. Use the **clear log** command to force a rollover. Subsequent log entries are then written to the new location. If a rollover does not occur or the log is not cleared, the system continues to use the old location. |
| Reference | **configure** log file *file-policy-name* |
| Notes | The following elements are part of a choice: **cli**, **console**, **file**, **memory**, **netconf**, **snmp**, or **syslog**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **memory**

| | |
|---|---|
| Synopsis | Enable the **memory** context |
| Context | **configure** log log-id *log-name* destination memory |
| Tree | memory |
| Description | Commands in this context configure log events directed to a memory file. A memory file is a circular buffer. When the file is full, each new entry replaces the oldest entry in the log. |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **cli**, **console**, **file**, **memory**, **netconf**, **snmp**, or **syslog**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **max-entries** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Number of events stored in this memory log |
| Context | **configure** log log-id *log-name* destination memory max-entries *number* |
| Tree | max-entries |
| Range | 50 to 3000 |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **netconf**

| | |
|---|---|
| Synopsis | Enable the **netconf** context |
| Context | **configure** log log-id *log-name* destination netconf |
| Tree | netconf |
| Description | Commands in this context configure log events directed to a NETCONF session as notifications. A NETCONF client can subscribe to a NETCONF log using the configured **netconf-stream** for the log in a subscription request. One or more NETCONF sessions can subscribe to a NETCONF log or stream. |
| Notes | The following elements are part of a choice: **cli**, **console**, **file**, **memory**, **netconf**, **snmp**, or **syslog**. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **max-entries** *number*

**WARNING:**
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| | |
|---|---|
| Synopsis | Number of events stored in this NETCONF log |
| Context | **configure** log log-id *log-name* destination netconf max-entries *number* |
| Tree | max-entries |
| Range | 50 to 3000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **snmp**

| | |
|---|---|
| Synopsis | Enable the **snmp** context |
| Context | **configure** log log-id *log-name* destination snmp |
| Tree | snmp |
| Description | Commands in this context configure log events directed to the **snmp-trap-group** associated with the log ID. A local circular memory log is maintained for SNMP logs. |
| Notes | The following elements are part of a choice: **cli**, **console**, **file**, **memory**, **netconf**, **snmp**, or **syslog**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **max-entries** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Number of events stored in this SNMP log |
| Context | **configure** log log-id *log-name* destination snmp max-entries *number* |
| Tree | max-entries |
| Range | 50 to 3000 |
| Default | 100 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## **syslog** *reference*

**WARNING:**
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| | |
|---|---|
| Synopsis | Syslog collector to send log events |
| Context | **configure** log log-id *log-name* destination syslog *reference* |
| Tree | syslog |
| Description | This command specifies the syslog collector to direct log events. To remain consistent with the standards governing syslog, messages to syslog are truncated to 1024 bytes. |
| Reference | **configure** log syslog *log-syslog-name* |
| Notes | The following elements are part of a choice: **cli**, **console**, **file**, **memory**, **netconf**, **snmp**, or **syslog**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **filter** *reference*

| | |
|---|---|
| Synopsis | Event filter policy with the log destination |
| Context | **configure** log log-id *log-name* filter *reference* |
| Tree | filter |
| Reference | **configure** log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **netconf-stream** *named-item*

| | |
|---|---|
| Synopsis | Destination NETCONF stream name |
| Context | **configure** log log-id *log-name* netconf-stream *named-item* |
| Tree | netconf-stream |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **python-policy** *reference*

| | |
|---|---|
| Synopsis | Python policy name |
| Context | **configure** log log-id *log-name* python-policy *reference* |
| Tree | python-policy |
| Reference | **configure** python python-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **source**

| | |
|---|---|
| Synopsis | Enter the **source** context |
| Context | **configure** log log-id *log-name* source |
| Tree | source |
| Introduced | 16.0.R1 |
| Platforms | All |

### **change** *boolean*

| | |
|---|---|
| Synopsis | Collect log events from change event stream |
| Context | **configure** log log-id *log-name* source change *boolean* |
| Tree | change |
| Introduced | 16.0.R1 |
| Platforms | All |

### **debug** *boolean*

| | |
|---|---|
| Synopsis | Collect log events from the debug event stream |
| Context | **configure** log log-id *log-name* source debug *boolean* |
| Tree | debug |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **main** *boolean*

| | |
|---|---|
| Synopsis | Collect log events from the main event stream |
| Context | **configure** log log-id *log-name* source main *boolean* |
| Tree | main |
| Introduced | 16.0.R1 |
| Platforms | All |

### **security** *boolean*

| | |
|---|---|
| Synopsis | Collect log events from the security event stream |
| Context | **configure** log log-id *log-name* source security *boolean* |
| Tree | security |
| Introduced | 16.0.R1 |
| Platforms | All |

### **time-format** *keyword*

| | |
|---|---|
| Synopsis | Time zone output for file log contents and syslog |
| Context | **configure** log log-id *log-name* time-format *keyword* |
| Tree | time-format |
| Options | utc, local |
| Default | utc |
| Introduced | 16.0.R1 |
| Platforms | All |

### **route-preference**

| | |
|---|---|
| Synopsis | Enter the **route-preference** context |
| Context | **configure** log route-preference |
| Tree | route-preference |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **primary** *keyword*

| | |
|---|---|
| Synopsis | Primary routing preference for traffic that is generated for SNMP notifications and syslog messages |
| Context | **configure** log route-preference primary *keyword* |
| Tree | primary |
| Options | inband, outband |
| Default | outband |
| Introduced | 16.0.R1 |
| Platforms | All |

### **secondary** *keyword*

| | |
|---|---|
| Synopsis | Secondary route preference for SNMP and syslog traffic |
| Context | **configure** log route-preference secondary *keyword* |
| Tree | secondary |
| Options | inband, outband, none |
| Default | inband |
| Introduced | 16.0.R1 |
| Platforms | All |

### **services-all-events**

| | |
|---|---|
| Synopsis | Enter the **services-all-events** context |
| Context | **configure** log services-all-events |
| Tree | services-all-events |
| Introduced | 19.10.R1 |
| Platforms | All |

### **service** [service-name] *reference*

| | |
|---|---|
| Synopsis | Add a list entry for **service** |
| Context | **configure** log services-all-events service *reference* |
| Tree | service |
| Introduced | 19.10.R1 |


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| | |
|---|---|
| Platforms | All |

### [**service-name**] *reference*

| | |
|---|---|
| Synopsis | Administrative service name |
| Context | **configure** log services-all-events service *reference* |
| Tree | service |
| Reference | **configure** service vprn *service-name* |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **snmp-trap-group** [log-name] *snmp-trap-group-name*

| | |
|---|---|
| Synopsis | Enter the **snmp-trap-group** list instance |
| Context | **configure** log snmp-trap-group *snmp-trap-group-name* |
| Tree | snmp-trap-group |
| Max. instances | 15 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**log-name**] *snmp-trap-group-name*

| | |
|---|---|
| Synopsis | Log ID |
| Context | **configure** log snmp-trap-group *snmp-trap-group-name* |
| Tree | snmp-trap-group |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 21.2.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |


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| | |
|---|---|
| Context | **configure** log snmp-trap-group *snmp-trap-group-name* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **trap-target** [name] *string*

| | |
|---|---|
| Synopsis | Enter the **trap-target** list instance |
| Context | **configure** log snmp-trap-group *snmp-trap-group-name* trap-target *string* |
| Tree | trap-target |
| Max. instances | 25 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**name**] *string*

| | |
|---|---|
| Synopsis | Trap target name |
| Context | **configure** log snmp-trap-group *snmp-trap-group-name* trap-target *string* |
| Tree | trap-target |
| String length | 1 to 28 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the trap receiver |
| Context | **configure** log snmp-trap-group *snmp-trap-group-name* trap-target *string* address *(ipv4-address-no-zone | ipv6-address-no-zone)* |
| Tree | address |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log snmp-trap-group *snmp-trap-group-name* trap-target *string* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **notify-community** *string*

| | |
|---|---|
| Synopsis | SNMPv1 or SNMPv2c community name string, or SNMPv3 security name, for sending a notification |
| Context | **configure** log snmp-trap-group *snmp-trap-group-name* trap-target *string* notify-community *string* |
| Tree | notify-community |
| String length | 1 to 31 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **port** *number*

| | |
|---|---|
| Synopsis | UDP port number to send messages to this remote SNMP notification collector |
| Context | **configure** log snmp-trap-group *snmp-trap-group-name* trap-target *string* port *number* |
| Tree | port |
| Range | 0 \| 1 to 65535 |
| Default | 162 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **replay** *boolean*

| | |
|---|---|
| Synopsis | Retransmit missed notifications |
| Context | **configure** log snmp-trap-group *snmp-trap-group-name* trap-target *string* replay *boolean* |


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| | |
|---|---|
| Tree | replay |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **security-level** *keyword*

| | |
|---|---|
| Synopsis | Security level at which SNMP notification messages are sent to SNMP notification collector |
| Context | **configure** log snmp-trap-group *snmp-trap-group-name* trap-target *string* security-level *keyword* |
| Tree | security-level |
| Options | no-auth-no-privacy, auth-no-privacy, privacy |
| Default | no-auth-no-privacy |
| Introduced | 16.0.R1 |
| Platforms | All |

### **version** *keyword*

| | |
|---|---|
| Synopsis | SNMP version to format notification messages sent to this SNMP notification collector |
| Context | **configure** log snmp-trap-group *snmp-trap-group-name* trap-target *string* version *keyword* |
| Tree | version |
| Options | snmpv1, snmpv2c, snmpv3 |
| Default | snmpv3 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **syslog** [syslog-name] *log-syslog-name*

| | |
|---|---|
| Synopsis | Enter the **syslog** list instance |
| Context | **configure** log syslog *log-syslog-name* |
| Tree | syslog |
| Max. instances | 10 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### [**syslog-name**] *log-syslog-name*

| | |
|---|---|
| Synopsis | Syslog name |
| Context | **configure** log syslog *log-syslog-name* |
| Tree | syslog |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 21.2.R1 |
| Platforms | All |

### **address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the Syslog target host |
| Context | **configure** log syslog *log-syslog-name* address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | address |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** log syslog *log-syslog-name* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **facility** *keyword*

| | |
|---|---|
| Synopsis | Facility code for messages |
| Context | **configure** log syslog *log-syslog-name* facility *keyword* |
| Tree | facility |


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| | |
|---|---|
| Options | kernel, user, mail, systemd, auth, syslogd, printer, netnews, uucp, cron, authpriv, ftp, ntp, logaudit, logalert, cron2, local0, local1, local2, local3, local4, local5, local6, local7 |
| Default | local7 |
| Introduced | 16.0.R1 |
| Platforms | All |

## hostname

| | |
|---|---|
| Synopsis | Enter the **hostname** context |
| Context | **configure** log syslog *log-syslog-name* hostname |
| Tree | hostname |
| Description | Commands in this context control how the HOSTNAME field of syslog messages is populated. |
| Introduced | 23.7.R1 |
| Platforms | All |

## use-system-name

| | |
|---|---|
| Synopsis | Enable the **use-system-name** context |
| Context | **configure** log syslog *log-syslog-name* hostname use-system-name |
| Tree | use-system-name |
| Description | This command configures the system to use the system name configured with the **configure system name** command as the HOSTNAME field of syslog messages.<br>Do not use any spaces in the system name if it is being used for the syslog HOSTNAME. |
| Notes | The following elements are part of a choice: **use-system-name** or **value**. |
| Introduced | 23.7.R1 |
| Platforms | All |

## value *named-item-255*

| | |
|---|---|
| Synopsis | Syslog HOSTNAME field value |
| Context | **configure** log syslog *log-syslog-name* hostname value *named-item-255* |
| Tree | value |
| Description | This command configures the system to use a specified string as the HOSTNAME field of syslog messages. |


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| | |
|---|---|
| | Do not use any spaces in the string used for the syslog HOSTNAME. |
| String length | 1 to 255 |
| Notes | The following elements are part of a choice: **use-system-name** or **value**. |
| Introduced | 23.7.R1 |
| Platforms | All |

### **log-prefix** *(keyword | string)*

| | |
|---|---|
| Synopsis | String that is prepended to every log message sent to this target syslog host |
| Context | **configure** log syslog *log-syslog-name* log-prefix *(keyword | string)* |
| Tree | log-prefix |
| String length | 1 to 32 |
| Options | no-prefix |
| Default | TMNX |
| Introduced | 16.0.R1 |
| Platforms | All |

### **port** *number*

| | |
|---|---|
| Synopsis | Destination port when sending syslog over UDP |
| Context | **configure** log syslog *log-syslog-name* port *number* |
| Tree | port |
| Range | 0 | 1 to 65535 |
| Default | 514 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level threshold for the syslog message |
| Context | **configure** log syslog *log-syslog-name* severity *keyword* |
| Tree | severity |
| Options | emergency, alert, critical, error, warning, notice, info, debug |
| Default | info |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## **timestamp-format** *keyword*

| | |
|---|---|
| Synopsis | Syslog timestamp format |
| Context | **configure** log syslog *log-syslog-name* timestamp-format *keyword* |
| Tree | timestamp-format |
| Options | millisecond – Set timestamp format to milliseconds |
| Introduced | 24.7.R1 |
| Platforms | All |

## **tls-client-profile** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | TLS client profile used to encrypt syslog communication |
| Context | **configure** log syslog *log-syslog-name* tls-client-profile *reference* |
| Tree | tls-client-profile |
| Description | This command specifies the Transport Layer Security (TLS) client profile used to encrypt syslog communications. When configured, syslog messages are sent using TLS.<br>Any change to this command results in a brief interruption of the event log, which may cause the loss of a few syslog messages.<br>When this command is unconfigured, the syslog messages are sent over UDP. |
| Reference | **configure** system security tls client-tls-profile *named-item* |
| Introduced | 21.10.R1 |
| Platforms | All |

## **throttle-rate**

| | |
|---|---|
| Synopsis | Enter the **throttle-rate** context |
| Context | **configure** log throttle-rate |
| Tree | throttle-rate |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **interval** *number*

| | |
|---|---|
| Synopsis | Duration of an event throttling interval |
| Context | **configure** log throttle-rate interval *number* |
| Tree | interval |
| Range | 1 to 1200 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **limit** *number*

| | |
|---|---|
| Synopsis | Number of log events within the throttle interval |
| Context | **configure** log throttle-rate limit *number* |
| Tree | limit |
| Range | 1 to 20000 |
| Default | 2000 |
| Introduced | 16.0.R1 |
| Platforms | All |


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## 4.25 macsec commands

```
configure
   - macsec
      - apply-groups reference
      - apply-groups-exclude reference
      - connectivity-association string
         - admin-state keyword
         - anysec boolean
         - apply-groups reference
         - apply-groups-exclude reference
         - cipher-suite keyword
         - clear-tag-mode keyword
         - delay-protection boolean
         - description string
         - encryption-offset number
         - macsec-encrypt boolean
         - replay-protection boolean
         - replay-window-size number
         - static-cak
            - active-psk number
            - apply-groups reference
            - apply-groups-exclude reference
            - mka-hello-interval keyword
            - mka-key-server-priority number
            - pre-shared-key number
               - apply-groups reference
               - apply-groups-exclude reference
               - cak encrypted-leaf-hex-without-prefix
               - cak-name cak-name
               - encryption-type keyword
      - mac-policy number
         - apply-groups reference
         - apply-groups-exclude reference
         - destination-mac-address mac-address
```


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## 4.25.1 macsec command descriptions

### macsec

| | |
|---|---|
| Synopsis | Enter the **macsec** context |
| Context | **configure** macsec |
| Tree | macsec |
| Introduced | 16.0.R1 |
| Platforms | All |

### **connectivity-association** [ca-name] *string*

| | |
|---|---|
| Synopsis | Enter the **connectivity-association** list instance |
| Context | **configure** macsec connectivity-association *string* |
| Tree | connectivity-association |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ca-name**] *string*

| | |
|---|---|
| Synopsis | Connectivity association name |
| Context | **configure** macsec connectivity-association *string* |
| Tree | connectivity-association |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the connectivity association |
| Context | **configure** macsec connectivity-association *string* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## **anysec** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Mark the CA for use by ANYsec encryption only |
| Context | **configure** macsec connectivity-association *string* anysec *boolean* |
| Tree | anysec |
| Description | When configured to **true**, the system configures the Connectivity Association (CA) for exclusive use with ANYsec encyrption.<br>The following MACsec commands cannot be configured while ANYsec is configured.<br>• **configure macsec connectivity-association clear-tag-mode**<br>• **configure macsec connectivity-association delay-protection**<br>• **configure macsec connectivity-association encryption-offset**<br>• **configure macsec connectivity-association macsec-encrypt**<br>• **configure macsec connectivity-association replay-window-size**<br>• **configure macsec mac-policy**<br>When configured to **false**, the system removes the CA. |
| Default | false |
| Introduced | 23.3.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se |

## **cipher-suite** *keyword*

| | |
|---|---|
| Synopsis | Data path encryption algorithm |
| Context | **configure** macsec connectivity-association *string* cipher-suite *keyword* |
| Tree | cipher-suite |
| Options | gcm-aes-128, gcm-aes-256, gcm-aes-xpn-128, gcm-aes-xpn-256 |
| Default | gcm-aes-128 |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **clear-tag-mode** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Clear tag mode for clear text before the SecTAG |
| Context | **configure** macsec connectivity-association *string* clear-tag-mode *keyword* |
| Tree | clear-tag-mode |
| Options | none, single-tag, dual-tag |
| Default | none |
| Introduced | 16.0.R1 |
| Platforms | All |

## **delay-protection** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable delay protection |
| Context | **configure** macsec connectivity-association *string* delay-protection *boolean* |
| Tree | delay-protection |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | All |

## **description** *string*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** macsec connectivity-association *string* description *string* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **encryption-offset** *number*

| | |
|---|---|
| Synopsis | Confidentiality (encryption) offset |
| Context | **configure** macsec connectivity-association *string* encryption-offset *number* |
| Tree | encryption-offset |
| Range | 0 \| 30 \| 50 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **macsec-encrypt** *boolean*

| | |
|---|---|
| Synopsis | Encrypt and authenticate all PDUs |
| Context | **configure** macsec connectivity-association *string* macsec-encrypt *boolean* |
| Tree | macsec-encrypt |
| Description | When configured to **true**, all PDUs are encrypted and authenticated.<br>When configured to **false**, all PDUs are transmitted in clear text, however, they are still authenticated and have the trailing ICV. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **replay-protection** *boolean*

| | |
|---|---|
| Synopsis | Discard packet when not within the replay window size |
| Context | **configure** macsec connectivity-association *string* replay-protection *boolean* |
| Tree | replay-protection |
| Description | When configured to **true**, replay protection is enabled and packets are discarded when they are not within the replay window size.<br>With replay protection, the sequence of the ID number of received packets is checked. If a packet arrives out of sequence and the difference between the packet IDs exceeds the replay protection window size, the packet is counted by the receiving port and discarded. For example if the replay protection window size is configured to five and a packet with an ID of 1006 arrives on the receiving link immediately following the packet assigned an ID of 1000, the packet with ID 1006 is counted and discarded because it is outside the parameter of the window size.<br>Replay protection is particularly useful for addressing man-in-the-middle attacks. A packet that is replayed by a man-in-the-middle attacker on the Ethernet link that arrives |


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on the receiving link out of sequence will be detected and dropped instead of forwarded through the network.

Replay protection should not be enabled in cases where packets are expected to arrive out of order.

When configured to **false**, replay protection is not enabled.

| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **replay-window-size** *number*

| | |
|---|---|
| Synopsis | Replay protection window size |
| Context | **configure** macsec connectivity-association *string* replay-window-size *number* |
| Tree | replay-window-size |
| Range | 0 to 4294967294 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **static-cak**

| | |
|---|---|
| Synopsis | Enter the **static-cak** context |
| Context | **configure** macsec connectivity-association *string* static-cak |
| Tree | static-cak |
| Description | Commands in this context configure the Connectivity Association Key (CAK) to manage the MACsec Key Agreement (MKA). |
| Introduced | 16.0.R1 |
| Platforms | All |

### **active-psk** *number*

| | |
|---|---|
| Synopsis | Active pre-shared-key (PSK) |
| Context | **configure** macsec connectivity-association *string* static-cak active-psk *number* |
| Tree | active-psk |
| Description | This command specifies the active transmitting PSK. If two PSKs are configured, the arriving MACsec MKA can be decrypted via CAKs using either PSK; however, only the active PSK is used for TX encryption of MKA PDUs. |


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| | |
|---|---|
| Range | 1 to 2 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mka-hello-interval** *keyword*

| | |
|---|---|
| Synopsis | MKA hello interval |
| Context | **configure** macsec connectivity-association *string* static-cak mka-hello-interval *keyword* |
| Tree | mka-hello-interval |
| Description | This command configures the interval at which MKA hello packets are sent or received for the connectivity association. |
| Options | 1, 2, 3, 4, 5, 6, 500ms |
| Default | 2 |
| Introduced | 19.5.R1 |
| Platforms | All |

### **mka-key-server-priority** *number*

| | |
|---|---|
| Synopsis | Key server priority used by the MKA protocol |
| Context | **configure** macsec connectivity-association *string* static-cak mka-key-server-priority *number* |
| Tree | mka-key-server-priority |
| Description | This command specifies the key server priority used by the MACsec Key Agreement (MKA) protocol to select the key server when MACsec is enabled using static connectivity association key (CAK) security mode. |
| Range | 0 to 255 |
| Default | 16 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **pre-shared-key** [psk-id] *number*

| | |
|---|---|
| Synopsis | Enter the **pre-shared-key** list instance |
| Context | **configure** macsec connectivity-association *string* static-cak pre-shared-key *number* |
| Tree | pre-shared-key |


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| | |
|---|---|
| Description | Commands in this context configure pre-shared key attributes to enable MACsec using static connectivity association key (CAK) security mode.<br>A pre-shared key includes a connectivity association key name (CKN) and a connectivity association key (CAK). The pre-shared key, the CKN and the CAK, must match on both ends of a link.<br>A pre-shared key is configured on both devices at each end of a point-to-point link to enable MACsec via static CAK security mode. The MACsec Key Agreement (MKA) protocol is enabled after the successful MKA liveliness negotiation.<br>The encryption type is used to encrypt the SAK and authenticate the MKA packet. The symmetric encryption key SAK (Security Association Key) must be encrypted (wrapped) via the MKA protocols. The AES key is derived from the pre-shared-key. |
| Max. instances | 2 |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**psk-id**] *number*

| | |
|---|---|
| Synopsis | Pre-shared-key (PSK) ID |
| Context | **configure** macsec connectivity-association *string* static-cak pre-shared-key *number* |
| Tree | pre-shared-key |
| Range | 1 to 2 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **cak** *encrypted-leaf-hex-without-prefix*

| | |
|---|---|
| Synopsis | Connectivity association key (CAK) for the PSK |
| Context | **configure** macsec connectivity-association *string* static-cak pre-shared-key *number* cak *encrypted-leaf-hex-without-prefix* |
| Tree | cak |
| Description | This command specifies the connectivity association key (CAK) for the pre-shared key. Two values are derived from the CAK:<br>• Key Encryption Key (KEK), used to encrypt the MKA and SAK (symmetric key used for data path PDUs) distributed between all members<br>• Integrity Check Value (ICV), used to authenticate the MKA and SAK PDUs distributed between all members |
| String length | 1 to 71 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **cak-name** *cak-name*

| | |
|---|---|
| Synopsis | Connectivity association key name (CKN) for the PSK |
| Context | **configure** macsec connectivity-association *string* static-cak pre-shared-key *number* cak-name *cak-name* |
| Tree | cak-name |
| Description | This command specifies the connectivity association key name (CKN) for the pre-shared key. The CKN is appended to the MKA for identification of the appropriate CAK by the peer. |
| String length | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **encryption-type** *keyword*

| | |
|---|---|
| Synopsis | Encryption for authentication of the MKA packet |
| Context | **configure** macsec connectivity-association *string* static-cak pre-shared-key *number* encryption-type *keyword* |
| Tree | encryption-type |
| Options | aes-128-cmac, aes-256-cmac |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mac-policy** [mac-policy-id] *number*

| | |
|---|---|
| Synopsis | Enter the **mac-policy** list instance |
| Context | **configure** macsec mac-policy *number* |
| Tree | mac-policy |
| Introduced | 16.0.R5 |
| Platforms | All |


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### [**mac-policy-id**] *number*

| | |
|---|---|
| Synopsis | MAC address policy ID |
| Context | **configure** macsec mac-policy *number* |
| Tree | mac-policy |
| Max. range | 0 to 4294967295 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R5 |
| Platforms | All |

### **destination-mac-address** [dest-mac-addr] *mac-address*

| | |
|---|---|
| Synopsis | Add a list entry for **destination-mac-address** |
| Context | **configure** macsec mac-policy *number* destination-mac-address *mac-address* |
| Tree | destination-mac-address |
| Max. instances | 5 |
| Introduced | 16.0.R5 |
| Platforms | All |

### [**dest-mac-addr**] *mac-address*

| | |
|---|---|
| Synopsis | Destination MAC address added to the MAC policy |
| Context | **configure** macsec mac-policy *number* destination-mac-address *mac-address* |
| Tree | destination-mac-address |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R5 |
| Platforms | All |


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## 4.26 mcac commands

```
configure
   - mcac
      - apply-groups reference
      - apply-groups-exclude reference
      - interface-policy string
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - bandwidth
            - mandatory (number | keyword)
            - total (number | keyword)
         - description description
      - policy string
         - apply-groups reference
         - apply-groups-exclude reference
         - bundle string
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - bandwidth number
            - channel start (ipv4-address-no-zone | ipv6-address-no-zone) end (ipv4-address-
no-zone | ipv6-address-no-zone) source (ipv4-prefix | ipv6-prefix)
               - apply-groups reference
               - apply-groups-exclude reference
               - bandwidth number
               - priority-class keyword
               - type keyword
            - description description
            - mc-constraints
               - lag-port-down lag-interface number-down number
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - level number
               - level number
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - bandwidth number
               - use-lag-port-weight boolean
            - source-specific-accounting keyword
         - default-action keyword
         - description description
         - source-specific-accounting boolean
```


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## 4.26.1 mcac command descriptions

### mcac

| | |
|---|---|
| Synopsis | Enter the **mcac** context |
| Context | **configure** mcac |
| Tree | mcac |
| Introduced | 16.0.R1 |
| Platforms | All |

### **interface-policy** [policy-name] *string*

| | |
|---|---|
| Synopsis | Enter the **interface-policy** list instance |
| Context | **configure** mcac interface-policy *string* |
| Tree | interface-policy |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**policy-name**] *string*

| | |
|---|---|
| Synopsis | MCAC interface policy name |
| Context | **configure** mcac interface-policy *string* |
| Tree | interface-policy |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the MCAC interface policy |
| Context | **configure** mcac interface-policy *string* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## bandwidth

| | |
|---|---|
| Synopsis | Enter the **bandwidth** context |
| Context | **configure** mcac interface-policy *string* bandwidth |
| Tree | bandwidth |
| Introduced | 16.0.R1 |
| Platforms | All |

## mandatory *(number | keyword)*

| | |
|---|---|
| Synopsis | Pre-reserved bandwidth for all mandatory channels |
| Context | **configure** mcac interface-policy *string* bandwidth mandatory *(number \| keyword)* |
| Tree | mandatory |
| Range | 0 to 2147483647 |
| Options | unlimited |
| Default | unlimited |
| Introduced | 16.0.R1 |
| Platforms | All |

## total *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum allowed bandwidth |
| Context | **configure** mcac interface-policy *string* bandwidth total *(number \| keyword)* |
| Tree | total |
| Range | 0 to 2147483647 |
| Options | unlimited |
| Default | unlimited |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** mcac interface-policy *string* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **policy** [policy-name] *string*

| | |
|---|---|
| Synopsis | Enter the **policy** list instance |
| Context | **configure** mcac policy *string* |
| Tree | policy |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**policy-name**] *string*

| | |
|---|---|
| Synopsis | Name of the global MCAC channel definition policy |
| Context | **configure** mcac policy *string* |
| Tree | policy |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bundle** [bundle-name] *string*

| | |
|---|---|
| Synopsis | Enter the **bundle** list instance |
| Context | **configure** mcac policy *string* bundle *string* |
| Tree | bundle |
| Max. instances | 64 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### [**bundle-name**] *string*

| | |
|---|---|
| Synopsis | Multicast policy bundle name |
| Context | **configure** mcac policy *string* bundle *string* |
| Tree | bundle |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the policy bundle |
| Context | **configure** mcac policy *string* bundle *string* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bandwidth** *number*

| | |
|---|---|
| Synopsis | Maximum bandwidth for the MCAC policy bundle |
| Context | **configure** mcac policy *string* bundle *string* bandwidth *number* |
| Tree | bandwidth |
| Range | 1 to 4294967295 |
| Units | kilobps |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **channel** start *(ipv4-address-no-zone | ipv6-address-no-zone)* end *(ipv4-address-no-zone | ipv6-address-no-zone)* source *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Enter the **channel** list instance |
| Context | **configure** mcac policy *string* bundle *string* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* source *(ipv4-prefix \| ipv6-prefix)* |
| Tree | channel |
| Introduced | 16.0.R1 |
| Platforms | All |

### **start** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Starting multicast IP address for a multicast stream |
| Context | **configure** mcac policy *string* bundle *string* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* source *(ipv4-prefix \| ipv6-prefix)* |
| Tree | channel |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **end** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Ending multicast IP address for a multicast stream |
| Context | **configure** mcac policy *string* bundle *string* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* source *(ipv4-prefix \| ipv6-prefix)* |
| Tree | channel |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **source** *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Source prefix for the multicast IP stream |


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| | |
|---|---|
| Context | **configure** mcac policy *string* bundle *string* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* source *(ipv4-prefix \| ipv6-prefix)* |
| Tree | channel |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **bandwidth** *number*

| | |
|---|---|
| Synopsis | Bandwidth required by the channel |
| Context | **configure** mcac policy *string* bundle *string* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* source *(ipv4-prefix \| ipv6-prefix)* bandwidth *number* |
| Tree | bandwidth |
| Range | 10 to 10000000 |
| Units | kilobps |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **priority-class** *keyword*

| | |
|---|---|
| Synopsis | Channel classification for when LAG ports change state |
| Context | **configure** mcac policy *string* bundle *string* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* source *(ipv4-prefix \| ipv6-prefix)* priority-class *keyword* |
| Tree | priority-class |
| Options | low, high |
| Default | low |
| Introduced | 16.0.R1 |
| Platforms | All |

## **type** *keyword*

| | |
|---|---|
| Synopsis | Channel type |


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| | |
|---|---|
| Context | **configure** mcac policy *string* bundle *string* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* source *(ipv4-prefix \| ipv6-prefix)* type *keyword* |
| Tree | type |
| Options | optional, mandatory |
| Default | optional |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** mcac policy *string* bundle *string* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mc-constraints**

| | |
|---|---|
| Synopsis | Enter the **mc-constraints** context |
| Context | **configure** mcac policy *string* bundle *string* mc-constraints |
| Tree | mc-constraints |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lag-port-down** [lag-name] *lag-interface* number-down *number*

| | |
|---|---|
| Synopsis | Enter the **lag-port-down** list instance |
| Context | **configure** mcac policy *string* bundle *string* mc-constraints lag-port-down *lag-interface* number-down *number* |
| Tree | lag-port-down |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**lag-name**] *lag-interface*

| | |
|---|---|
| Synopsis | LAG name |
| Context | **configure** mcac policy *string* bundle *string* mc-constraints lag-port-down *lag-interface* number-down *number* |
| Tree | lag-port-down |
| String length | 1 to 27 |
| Notes | This element is part of a list key. |
| Introduced | 21.2.R1 |
| Platforms | All |

### **number-down** *number*

| | |
|---|---|
| Synopsis | Number of LAG ports that are down |
| Context | **configure** mcac policy *string* bundle *string* mc-constraints lag-port-down *lag-interface* number-down *number* |
| Tree | lag-port-down |
| Range | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **level** *number*

| | |
|---|---|
| Synopsis | Level ID to associate with number of down LAG ports |
| Context | **configure** mcac policy *string* bundle *string* mc-constraints lag-port-down *lag-interface* number-down *number* level *number* |
| Tree | level |
| Description | This command specifies the bandwidth for a given level. Level 1 has the highest priority and level 8 has the lowest priority. |
| Range | 1 to 8 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **level** [level-id] *number*

| | |
|---|---|
| Synopsis | Enter the **level** list instance |
| Context | **configure** mcac policy *string* bundle *string* mc-constraints level *number* |
| Tree | level |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**level-id**] *number*

| | |
|---|---|
| Synopsis | Bandwidth level ID for an MCAC constraint |
| Context | **configure** mcac policy *string* bundle *string* mc-constraints level *number* |
| Tree | level |
| Range | 1 to 8 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bandwidth** *number*

| | |
|---|---|
| Synopsis | Bandwidth available for this level |
| Context | **configure** mcac policy *string* bundle *string* mc-constraints level *number* bandwidth *number* |
| Tree | bandwidth |
| Range | 0 to 2147483647 |
| Units | kilobps |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **use-lag-port-weight** *boolean*

| | |
|---|---|
| Synopsis | Use LAG port weight in calculating MCAC constraints |
| Context | **configure** mcac policy *string* bundle *string* mc-constraints use-lag-port-weight *boolean* |
| Tree | use-lag-port-weight |


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| | |
|---|---|
| Description | When configured to **true**, port weight is used when determining available bandwidth per level when LAG ports go down or come up. This command is required for proper operation on mixed port-speed LAGs and can also be used for unmixed port-speed LAGs. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **source-specific-accounting** *keyword*

| | |
|---|---|
| Synopsis | MCAC accounting setting |
| Context | **configure** mcac policy *string* bundle *string* source-specific-accounting *keyword* |
| Tree | source-specific-accounting |
| Description | This command configures the MCAC policy accounting behavior.<br>**true** - Both multicast group and multicast source are used for MCAC accounting. For example, if multiple, multicast joins are for the same multicast group but each has a different multicast source, the MCAC accounts for each combination of group and source.<br>**false** - Only the multicast group is used for MCAC accounting. The multicast source address is not used for MCAC accounting. For example, if multiple, multicast joins are for the same multicast group but each have a different multicast source, the MCAC only accounts for the mutlicast group once.<br>**policy** - The bundle uses the source-specific accounting setting in the MCAC policy level. |
| Options | true – Use source-specific accounting at policy level<br>false – Use multicast group and source MCAC accounting<br>policy – Use multicast group for MCAC accounting |
| Default | policy |
| Introduced | 24.7.R1 |
| Platforms | All |

## **default-action** *keyword*

| | |
|---|---|
| Synopsis | Default action for the MCAC policy |
| Context | **configure** mcac policy *string* default-action *keyword* |
| Tree | default-action |
| Options | accept, discard |
| Default | discard |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** mcac policy *string* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **source-specific-accounting** *boolean*

| | |
|---|---|
| Synopsis | Enable multicast group and source for MCAC accounting |
| Context | **configure** mcac policy *string* source-specific-accounting *boolean* |
| Tree | source-specific-accounting |
| Description | When configured to **true**, the router uses both multicast group and multicast source for MCAC accounting. For example, if multiple, multicast joins are for the same multicast group but each has a different multicast source, the MCAC accounts for each combination of group and source.<br><br>If the multicast source is configured as a subnet instead of an address, the MCAC automatically accounts for every source address within the subnet.<br><br>If the multicast source is not configured, the MCAC assumes only one source when calculating the mandatory bandwidth. However, when joins are coming in, each group and source combination is taken into account.<br><br>When configured to **false**, the router only uses the multicast group for MCAC accounting. The multicast source address is not used for MCAC accounting. For example, if multiple, multicast joins are for the same multicast group but each has a different multicast source, the MCAC only accounts for the multicast group once. |
| Default | false |
| Introduced | 24.7.R1 |
| Platforms | All |


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## 4.27 mirror commands

```
configure
   - mirror
      - apply-groups reference
      - apply-groups-exclude reference
      - global-sampling-rate number
      - mirror-dest service-name
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - description description
         - encap
            - layer-3-encap
               - apply-groups reference
               - apply-groups-exclude reference
               - direction-bit boolean
               - gateway
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - ip-address
                     - destination ipv4-unicast-address
                     - source ipv4-unicast-address
                  - udp-port
                     - destination number
                     - source number
               - header-type keyword
               - router-instance string
         - endpoint named-item
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - revert-time (number | keyword)
         - fc keyword
         - pcap named-item
            - apply-groups reference
            - apply-groups-exclude reference
            - file-url ts-url
            - router-instance named-item-64
         - per-lag-hashing boolean
         - remote-source
            - far-end ipv4-address
               - apply-groups reference
               - apply-groups-exclude reference
               - icb boolean
               - ing-vc-label number
               - label-signaling keyword
               - vc-id number
            - spoke-sdp sdp-bind-id
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - control-word boolean
               - egress
                  - vc-label number
               - endpoint
                  - icb boolean
                  - name reference
               - ingress
                  - l2tpv3
                     - cookie
```


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configure mirror mirror-dest remote-source spoke-sdp ingress l2tpv3 cookie cookie1

```
                        - cookie1 cookie-value
                        - cookie2 cookie-value
                  - vc-label number
        - sampling-rate number
        - sap sap
           - apply-groups reference
           - apply-groups-exclude reference
           - egress
              - ip-mirror
                 - mac
                    - destination mac-address
                    - source mac-unicast-address
              - qos
                 - sap-egress
                    - policy-name reference
                    - port-redirect-group
                       - group-name reference
                       - instance number
           - endpoint reference
        - service-id number
        - slice-size number
        - spoke-sdp sdp-bind-id
           - admin-state keyword
           - apply-groups reference
           - apply-groups-exclude reference
           - control-word boolean
           - egress
              - l2tpv3
                 - cookie cookie-value
              - vc-label number
           - endpoint
              - icb boolean
              - name reference
              - precedence (number | keyword)
           - ingress
              - vc-label number
        - type keyword
        - use-global-sampling-rate boolean
     - mirror-source service-name
        - admin-state keyword
        - apply-groups reference
        - apply-groups-exclude reference
        - ip-filter reference
           - apply-groups reference
           - apply-groups-exclude reference
           - entry number
        - ipv6-filter reference
           - apply-groups reference
           - apply-groups-exclude reference
           - entry number
        - mac-filter reference
           - apply-groups reference
           - apply-groups-exclude reference
           - entry number
        - port mirror-source-port-lag-key
           - apply-groups reference
           - apply-groups-exclude reference
           - egress boolean
           - ingress boolean
        - sap sap
           - apply-groups reference
           - apply-groups-exclude reference
           - egress boolean
           - ingress boolean
```


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```
        - subscriber subscriber-id
          - apply-groups reference
          - apply-groups-exclude reference
          - egress boolean
          - fc keyword
          - host-type keyword
          - ingress boolean
          - ip-address ipv4-address
          - ip-family keyword
          - mac-address mac-address
          - sap-id sap
          - sla-profile named-item
```


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## 4.27.1 mirror command descriptions

### mirror

| | |
|---|---|
| Synopsis | Enter the **mirror** context |
| Context | **configure** mirror |
| Tree | mirror |
| Introduced | 16.0.R1 |
| Platforms | All |

### global-sampling-rate *number*

| | |
|---|---|
| Synopsis | System wide global sampling rate |
| Context | **configure** mirror global-sampling-rate *number* |
| Tree | global-sampling-rate |
| Description | This command configures the global sampling rate. The global sampling rate provides a higher sampling rate than the sampling rate specified on the mirror destination. When set, this command applies to all mirror destination services that have the **use-global-sampling-rate** command configured.<br><br>The global sampling rate takes precedence over the rate specified on the mirror destination. This means that when this command and the **configure mirror mirror-dest sampling-rate** are configured under the same mirror destination, the system automatically samples using the higher rate configured with this command and ignores the lower rate configured with the **sampling-rate** command.<br><br>When unconfigured, no mirror destinations are associated to a global sampling rate and all mirror destinations mirror at the full rate, which means every packet is mirrored unless a mirror destination rate is specified. |
| Range | 0 \| 2 to 255 |
| Default | 0 |
| Introduced | 22.10.R1 |
| Platforms | All |

### mirror-dest [service-name] *service-name*

| | |
|---|---|
| Synopsis | Enter the **mirror-dest** list instance |
| Context | **configure** mirror mirror-dest *service-name* |
| Tree | mirror-dest |


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| | |
|---|---|
| Description | Commands in this context set up a packet mirroring service to allow mirrored packets to be directed locally (within the same router) or remotely (over the core of the network and with a far-end decode mirror encapsulation).<br>The mirror destination service is composed of destination options that define where the mirrored packets are sent. It also specifies whether the defined service will receive mirrored packets from a far-end router over the network core.<br>The mirror destination services are persistent between boots of the router and are included in the configuration saves. |
| Max. instances | 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**service-name**] *service-name*

| | |
|---|---|
| Synopsis | Administrative service name |
| Context | **configure** mirror mirror-dest *service-name* |
| Tree | mirror-dest |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the service |
| Context | **configure** mirror mirror-dest *service-name* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** mirror mirror-dest *service-name* description *description* |


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| | |
|---|---|
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### encap

| | |
|---|---|
| Synopsis | Enter the **encap** context |
| Context | **configure** mirror mirror-dest *service-name* encap |
| Tree | encap |
| Introduced | 16.0.R1 |
| Platforms | All |

### layer-3-encap

| | |
|---|---|
| Synopsis | Enable the **layer-3-encap** context |
| Context | **configure** mirror mirror-dest *service-name* encap layer-3-encap |
| Tree | layer-3-encap |
| Introduced | 16.0.R1 |
| Platforms | All |

### direction-bit *boolean*

| | |
|---|---|
| Synopsis | Use the highest bit to specify traffic flow direction |
| Context | **configure** mirror mirror-dest *service-name* encap layer-3-encap direction-bit *boolean* |
| Tree | direction-bit |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### gateway

| | |
|---|---|
| Synopsis | Enable the **gateway** context |
| Context | **configure** mirror mirror-dest *service-name* encap layer-3-encap gateway |
| Tree | gateway |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## ip-address

| | |
|---|---|
| Synopsis | Enter the **ip-address** context |
| Context | **configure** mirror mirror-dest *service-name* encap layer-3-encap gateway ip-address |
| Tree | ip-address |
| Introduced | 16.0.R1 |
| Platforms | All |

## destination *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IPv4 destination address for the gateway |
| Context | **configure** mirror mirror-dest *service-name* encap layer-3-encap gateway ip-address destination *ipv4-unicast-address* |
| Tree | destination |
| Introduced | 16.0.R1 |
| Platforms | All |

## source *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IPv4 source address for the gateway |
| Context | **configure** mirror mirror-dest *service-name* encap layer-3-encap gateway ip-address source *ipv4-unicast-address* |
| Tree | source |
| Introduced | 16.0.R1 |
| Platforms | All |

## udp-port

| | |
|---|---|
| Synopsis | Enter the **udp-port** context |
| Context | **configure** mirror mirror-dest *service-name* encap layer-3-encap gateway udp-port |
| Tree | udp-port |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **destination** *number*

| | |
|---|---|
| Synopsis | UDP destination port to use with the gateway |
| Context | **configure** mirror mirror-dest *service-name* encap layer-3-encap gateway udp-port destination *number* |
| Tree | destination |
| Range | 0 \| 1 to 65535 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **source** *number*

| | |
|---|---|
| Synopsis | UDP source port to use with the gateway |
| Context | **configure** mirror mirror-dest *service-name* encap layer-3-encap gateway udp-port source *number* |
| Tree | source |
| Range | 0 \| 1 to 65535 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **header-type** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Header type for Layer 3 encapsulation |
| Context | **configure** mirror mirror-dest *service-name* encap layer-3-encap header-type *keyword* |
| Tree | header-type |
| Options | ip-udp-shim, ip-gre, ip-udp-shim-sampled |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **router-instance** *string*

| | |
|---|---|
| Synopsis | Router instance to use with routed encapsulation |
| Context | **configure** mirror mirror-dest *service-name* encap layer-3-encap router-instance *string* |
| Tree | router-instance |
| Default | Base |
| Introduced | 16.0.R1 |
| Platforms | All |

### **endpoint** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **endpoint** list instance |
| Context | **configure** mirror mirror-dest *service-name* endpoint *named-item* |
| Tree | endpoint |
| Max. instances | 2 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | Service endpoint name |
| Context | **configure** mirror mirror-dest *service-name* endpoint *named-item* |
| Tree | endpoint |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** mirror mirror-dest *service-name* endpoint *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **revert-time** *(number | keyword)*

| | |
|---|---|
| Synopsis | Time to wait before reverting back to primary spoke SDP |
| Context | **configure** mirror mirror-dest *service-name* endpoint *named-item* revert-time *(number \| keyword)* |
| Tree | revert-time |
| Range | 1 to 600 |
| Units | seconds |
| Options | never, immediate |
| Default | immediate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **fc** *keyword*

| | |
|---|---|
| Synopsis | Forwarding class for destination traffic |
| Context | **configure** mirror mirror-dest *service-name* fc *keyword* |
| Tree | fc |
| Options | be – Best effort<br>l2 – Low 2 (best effort)<br>af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority)<br>ef – Expedited forwarding (high priority)<br>h1 – High 1 (high priority)<br>nc – Network control (high priority) |
| Default | be |
| Introduced | 16.0.R1 |
| Platforms | All |

### **pcap** [session-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **pcap** list instance |
| Context | **configure** mirror mirror-dest *service-name* pcap *named-item* |
| Tree | pcap |


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| | |
|---|---|
| Max. instances | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**session-name**] *named-item*

| | |
|---|---|
| Synopsis | PCAP session name |
| Context | **configure** mirror mirror-dest *service-name* pcap *named-item* |
| Tree | pcap |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **file-url** *ts-url*

| | |
|---|---|
| Synopsis | URL and file name for packet capture transfer |
| Context | **configure** mirror mirror-dest *service-name* pcap *named-item* file-url *ts-url* |
| Tree | file-url |
| String length | 1 to 180 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **router-instance** *named-item-64*

| | |
|---|---|
| Synopsis | Router name used for FTP transmission of the PCAP file |
| Context | **configure** mirror mirror-dest *service-name* pcap *named-item* router-instance *named-item-64* |
| Tree | router-instance |
| String length | 1 to 64 |
| Introduced | 24.10.R1 |
| Platforms | All |


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### **per-lag-hashing** *boolean*

| | |
|---|---|
| Synopsis | Enable per-LAG hashing on the mirror destination |
| Context | **configure** mirror mirror-dest *service-name* per-lag-hashing *boolean* |
| Tree | per-lag-hashing |
| Description | When configured to **true**, the router enables the use of all link members of the mirror destination SAP or SDP of type LAG. The hashing to link members are based on IP flows.<br><br>When configured to **false**, the router disables per-LAG hashing. All mirrored packets sent to a SAP or SDP of type LAG, are sent to only one of the LAG link members. If the link member to which the mirrored packets are being sent fails, another link member takes over and provides mirrored packet forwarding. Although no hashing is performed, resiliency is still provided by this next link member. |
| Default | false |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **remote-source**

| | |
|---|---|
| Synopsis | Enable the **remote-source** context |
| Context | **configure** mirror mirror-dest *service-name* remote-source |
| Tree | remote-source |
| Introduced | 16.0.R1 |
| Platforms | All |

### **far-end** [far-end-addr] *ipv4-address*

| | |
|---|---|
| Synopsis | Enter the **far-end** list instance |
| Context | **configure** mirror mirror-dest *service-name* remote-source far-end *ipv4-address* |
| Tree | far-end |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**far-end-addr**] *ipv4-address*

| | |
|---|---|
| Synopsis | Far end IP address |
| Context | **configure** mirror mirror-dest *service-name* remote-source far-end *ipv4-address* |


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| | |
|---|---|
| Tree | far-end |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **icb** *boolean*

| | |
|---|---|
| Synopsis | Remote source as an inter-chassis backup |
| Context | **configure** mirror mirror-dest *service-name* remote-source far-end *ipv4-address* icb *boolean* |
| Tree | icb |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **ing-vc-label** *number*

| | |
|---|---|
| Synopsis | Ingress virtual circuit label |
| Context | **configure** mirror mirror-dest *service-name* remote-source far-end *ipv4-address* ing-vc-label *number* |
| Tree | ing-vc-label |
| Range | 32 to 18431 |
| Notes | The following elements are part of a choice: **ing-vc-label** or **label-signaling**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **label-signaling** *keyword*

| | |
|---|---|
| Synopsis | Protocol to obtain the ingress labels |
| Context | **configure** mirror mirror-dest *service-name* remote-source far-end *ipv4-address* label-signaling *keyword* |
| Tree | label-signaling |
| Options | tldp |
| Default | tldp |
| Notes | The following elements are part of a choice: **ing-vc-label** or **label-signaling**. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **vc-id** *number*

| | |
|---|---|
| Synopsis | Virtual circuit ID associated with the remote source |
| Context | **configure** mirror mirror-dest *service-name* remote-source far-end *ipv4-address* vc-id *number* |
| Tree | vc-id |
| Range | 1 to 4294967295 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **spoke-sdp** [sdp-bind-id] *sdp-bind-id*

| | |
|---|---|
| Synopsis | Enter the **spoke-sdp** list instance |
| Context | **configure** mirror mirror-dest *service-name* remote-source spoke-sdp *sdp-bind-id* |
| Tree | spoke-sdp |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**sdp-bind-id**] *sdp-bind-id*

| | |
|---|---|
| Synopsis | SDP ID number |
| Context | **configure** mirror mirror-dest *service-name* remote-source spoke-sdp *sdp-bind-id* |
| Tree | spoke-sdp |
| String length | 3 to 16 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the service SDP binding |
| Context | **configure** mirror mirror-dest *service-name* remote-source spoke-sdp *sdp-bind-id* admin-state *keyword* |


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| | |
|---|---|
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

## **control-word** *boolean*

| | |
|---|---|
| Synopsis | Enable the PW control word on spoke SDPs |
| Context | **configure** mirror mirror-dest *service-name* remote-source spoke-sdp *sdp-bind-id* control-word *boolean* |
| Tree | control-word |
| Description | When configured to **true**, this command enables the PW control word on spoke SDPs that are part of a mirror destination. The control word must be enabled to allow MPLS-TP OAM on spoke SDP and is only valid for spoke SDPs that are part of a mirror service of type **ether**.<br>When configured to **false**, this command disables the PW control word. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **egress**

| | |
|---|---|
| Synopsis | Enter the **egress** context |
| Context | **configure** mirror mirror-dest *service-name* remote-source spoke-sdp *sdp-bind-id* egress |
| Tree | egress |
| Introduced | 16.0.R1 |
| Platforms | All |

## **vc-label** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | MPLS VC label that sends packets to the far end device |


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| | |
|---|---|
| Context | **configure** mirror mirror-dest *service-name* remote-source spoke-sdp *sdp-bind-id* egress vc-label *number* |
| Tree | vc-label |
| Range | 16 to 1048575 |
| Introduced | 16.0.R1 |
| Platforms | All |

## endpoint

| | |
|---|---|
| Synopsis | Enter the **endpoint** context |
| Context | **configure** mirror mirror-dest *service-name* remote-source spoke-sdp *sdp-bind-id* endpoint |
| Tree | endpoint |
| Introduced | 16.0.R1 |
| Platforms | All |

## icb *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Bind the SDP as the Inter-Chassis Backup (ICB) type |
| Context | **configure** mirror mirror-dest *service-name* remote-source spoke-sdp *sdp-bind-id* endpoint icb *boolean* |
| Tree | icb |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## name *reference*

| | |
|---|---|
| Synopsis | SAP-associated endpoint name |
| Context | **configure** mirror mirror-dest *service-name* remote-source spoke-sdp *sdp-bind-id* endpoint name *reference* |
| Tree | name |
| Reference | **configure** mirror mirror-dest *service-name* endpoint *named-item* |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## ingress

| | |
|---|---|
| Synopsis | Enter the **ingress** context |
| Context | **configure** mirror mirror-dest *service-name* remote-source spoke-sdp *sdp-bind-id* ingress |
| Tree | ingress |
| Introduced | 16.0.R1 |
| Platforms | All |

## l2tpv3

| | |
|---|---|
| Synopsis | Enter the **l2tpv3** context |
| Context | **configure** mirror mirror-dest *service-name* remote-source spoke-sdp *sdp-bind-id* ingress l2tpv3 |
| Tree | l2tpv3 |
| Introduced | 16.0.R1 |
| Platforms | All |

## cookie

| | |
|---|---|
| Synopsis | Enter the **cookie** context |
| Context | **configure** mirror mirror-dest *service-name* remote-source spoke-sdp *sdp-bind-id* ingress l2tpv3 cookie |
| Tree | cookie |
| Introduced | 16.0.R1 |
| Platforms | All |

## **cookie1** *cookie-value*

| | |
|---|---|
| Synopsis | Value of the first cookie for the tunnel |
| Context | **configure** mirror mirror-dest *service-name* remote-source spoke-sdp *sdp-bind-id* ingress l2tpv3 cookie cookie1 *cookie-value* |
| Tree | cookie1 |
| String length | 18 to 23 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **cookie2** *cookie-value*

| | |
|---|---|
| Synopsis | Value of the second cookie for the tunnel |
| Context | **configure** mirror mirror-dest *service-name* remote-source spoke-sdp *sdp-bind-id* ingress l2tpv3 cookie cookie2 *cookie-value* |
| Tree | cookie2 |
| String length | 18 to 23 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **vc-label** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | MPLS VC label that sends packets to the far end device |
| Context | **configure** mirror mirror-dest *service-name* remote-source spoke-sdp *sdp-bind-id* ingress vc-label *number* |
| Tree | vc-label |
| Range | 32 to 18431 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sampling-rate** *number*

| | |
|---|---|
| Synopsis | Sampling rate |
| Context | **configure** mirror mirror-dest *service-name* sampling-rate *number* |
| Tree | sampling-rate |
| Description | This command configures the packet sampling rate value for mirrored traffic and is supported with mirror source configurations. The sampling rate is common to all endpoints on a given line card FP per mirror destination service. |
| Range | 1 to 60000 |
| Introduced | 20.7.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **sap** [sap-id] *sap*

| | |
|---|---|
| Synopsis | Enter the **sap** list instance |
| Context | **configure** mirror mirror-dest *service-name* sap *sap* |
| Tree | sap |
| Max. instances | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**sap-id**] *sap*

| | |
|---|---|
| Synopsis | SAP ID |
| Context | **configure** mirror mirror-dest *service-name* sap *sap* |
| Tree | sap |
| String length | 1 to 45 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **egress**

| | |
|---|---|
| Synopsis | Enter the **egress** context |
| Context | **configure** mirror mirror-dest *service-name* sap *sap* egress |
| Tree | egress |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ip-mirror**

| | |
|---|---|
| Synopsis | Enter the **ip-mirror** context |
| Context | **configure** mirror mirror-dest *service-name* sap *sap* egress ip-mirror |
| Tree | ip-mirror |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## mac

| | |
|---|---|
| Synopsis | Enter the **mac** context |
| Context | **configure** mirror mirror-dest *service-name* sap *sap* egress ip-mirror mac |
| Tree | mac |
| Introduced | 16.0.R1 |
| Platforms | All |

## destination *mac-address*

| | |
|---|---|
| Synopsis | Destination MAC address |
| Context | **configure** mirror mirror-dest *service-name* sap *sap* egress ip-mirror mac destination *mac-address* |
| Tree | destination |
| Introduced | 16.0.R1 |
| Platforms | All |

## source *mac-unicast-address*

| | |
|---|---|
| Synopsis | Source MAC address |
| Context | **configure** mirror mirror-dest *service-name* sap *sap* egress ip-mirror mac source *mac-unicast-address* |
| Tree | source |
| Introduced | 16.0.R1 |
| Platforms | All |

## qos

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** mirror mirror-dest *service-name* sap *sap* egress qos |
| Tree | qos |
| Introduced | 16.0.R1 |
| Platforms | All |


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### sap-egress

| | |
|---|---|
| Synopsis | Enter the **sap-egress** context |
| Context | **configure** mirror mirror-dest *service-name* sap *sap* egress qos sap-egress |
| Tree | sap-egress |
| Introduced | 16.0.R1 |
| Platforms | All |

### policy-name *reference*

| | |
|---|---|
| Synopsis | Policy ID to associate with SAP for mirrored service |
| Context | **configure** mirror mirror-dest *service-name* sap *sap* egress qos sap-egress policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos sap-egress *qos-policy-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### port-redirect-group

| | |
|---|---|
| Synopsis | Enter the **port-redirect-group** context |
| Context | **configure** mirror mirror-dest *service-name* sap *sap* egress qos sap-egress port-redirect-group |
| Tree | port-redirect-group |
| Introduced | 16.0.R1 |
| Platforms | All |

### group-name *reference*

| | |
|---|---|
| Synopsis | Name of the queue group redirect list policy |
| Context | **configure** mirror mirror-dest *service-name* sap *sap* egress qos sap-egress port-redirect-group group-name *reference* |
| Tree | group-name |
| Reference | **configure** qos queue-group-templates egress queue-group *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **instance** *number*

| | |
|---|---|
| Synopsis | Port queue group instance |
| Context | **configure** mirror mirror-dest *service-name* sap *sap* egress qos sap-egress port-redirect-group instance *number* |
| Tree | instance |
| Range | 1 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **endpoint** *reference*

| | |
|---|---|
| Synopsis | Service endpoint name |
| Context | **configure** mirror mirror-dest *service-name* sap *sap* endpoint *reference* |
| Tree | endpoint |
| Reference | **configure** mirror mirror-dest *service-name* endpoint *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **service-id** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Service ID |
| Context | **configure** mirror mirror-dest *service-name* service-id *number* |
| Tree | service-id |
| Range | 1 to 2147483647 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **slice-size** *number*

| | |
|---|---|
| Synopsis | Maximum size of the transmitted mirrored frame |
| Context | **configure** mirror mirror-dest *service-name* slice-size *number* |


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| | |
|---|---|
| Tree | slice-size |
| Range | 0 \| 128 to 9216 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **spoke-sdp** [sdp-bind-id] *sdp-bind-id*

| | |
|---|---|
| Synopsis | Enter the **spoke-sdp** list instance |
| Context | **configure** mirror mirror-dest *service-name* spoke-sdp *sdp-bind-id* |
| Tree | spoke-sdp |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**sdp-bind-id**] *sdp-bind-id*

| | |
|---|---|
| Synopsis | SDP ID number |
| Context | **configure** mirror mirror-dest *service-name* spoke-sdp *sdp-bind-id* |
| Tree | spoke-sdp |
| String length | 3 to 16 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the service SDP binding |
| Context | **configure** mirror mirror-dest *service-name* spoke-sdp *sdp-bind-id* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **control-word** *boolean*

| | |
|---|---|
| Synopsis | Enable the PW control word on spoke SDPs |
| Context | **configure** mirror mirror-dest *service-name* spoke-sdp *sdp-bind-id* control-word *boolean* |
| Tree | control-word |
| Description | When configured to **true**, this command enables the PW control word on spoke SDPs that are part of a mirror destination. The control word must be enabled to allow MPLS-TP OAM on spoke SDP and is only valid for spoke SDPs that are part of a mirror service of type **ether**.<br>When configured to **false**, this command disables the PW control word. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **egress**

| | |
|---|---|
| Synopsis | Enter the **egress** context |
| Context | **configure** mirror mirror-dest *service-name* spoke-sdp *sdp-bind-id* egress |
| Tree | egress |
| Introduced | 16.0.R1 |
| Platforms | All |

### **l2tpv3**

| | |
|---|---|
| Synopsis | Enter the **l2tpv3** context |
| Context | **configure** mirror mirror-dest *service-name* spoke-sdp *sdp-bind-id* egress l2tpv3 |
| Tree | l2tpv3 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cookie** *cookie-value*

| | |
|---|---|
| Synopsis | RX or TX cookie for L2TPv3 spoke SDPs |
| Context | **configure** mirror mirror-dest *service-name* spoke-sdp *sdp-bind-id* egress l2tpv3 cookie *cookie-value* |
| Tree | cookie |


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| | |
|---|---|
| String length | 18 to 23 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **vc-label** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | MPLS VC label that sends packets to the far end device |
| Context | **configure** mirror mirror-dest *service-name* spoke-sdp *sdp-bind-id* egress vc-label *number* |
| Tree | vc-label |
| Range | 16 to 1048575 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **endpoint**

| | |
|---|---|
| Synopsis | Enter the **endpoint** context |
| Context | **configure** mirror mirror-dest *service-name* spoke-sdp *sdp-bind-id* endpoint |
| Tree | endpoint |
| Introduced | 16.0.R1 |
| Platforms | All |

## **icb** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Bind the SDP as the Inter-Chassis Backup (ICB) type |
| Context | **configure** mirror mirror-dest *service-name* spoke-sdp *sdp-bind-id* endpoint icb *boolean* |
| Tree | icb |
| Default | false |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **name** *reference*

| | |
|---|---|
| Synopsis | Endpoint name associated with the SAP |
| Context | **configure** mirror mirror-dest *service-name* spoke-sdp *sdp-bind-id* endpoint name *reference* |
| Tree | name |
| Reference | **configure** mirror mirror-dest *service-name* endpoint *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **precedence** *(number | keyword)*

| | |
|---|---|
| Synopsis | Precedence when multiple SDP binds are on one endpoint |
| Context | **configure** mirror mirror-dest *service-name* spoke-sdp *sdp-bind-id* endpoint precedence *(number \| keyword)* |
| Tree | precedence |
| Range | 1 to 4 |
| Options | primary |
| Default | 4 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ingress**

| | |
|---|---|
| Synopsis | Enter the **ingress** context |
| Context | **configure** mirror mirror-dest *service-name* spoke-sdp *sdp-bind-id* ingress |
| Tree | ingress |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **vc-label** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | MPLS VC label that sends packets to the far end device |
| Context | **configure** mirror mirror-dest *service-name* spoke-sdp *sdp-bind-id* ingress vc-label *number* |
| Tree | vc-label |
| Range | 32 to 18431 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **type** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Mirror type information |
| Context | **configure** mirror mirror-dest *service-name* type *keyword* |
| Tree | type |
| Options | ether, ip-only |
| Default | ether |
| Introduced | 16.0.R1 |
| Platforms | All |

### **use-global-sampling-rate** *boolean*

| | |
|---|---|
| Synopsis | Enables global sampling rate by mirror destination |
| Context | **configure** mirror mirror-dest *service-name* use-global-sampling-rate *boolean* |
| Tree | use-global-sampling-rate |
| Description | When configured to **true**, this command configures each mirror destination service to use the global sampling rate, which allows a single high sampling rate for the entire system. |


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When configured to **false**, the mirror destination mirrors at the full rate (all packets) or mirrors based on the sampling rate for the mirror destination if the **sampling-rate** command is configured.

| | |
|---|---|
| Default | false |
| Introduced | 22.10.R1 |
| Platforms | All |

### **mirror-source** [service-name] *service-name*

| | |
|---|---|
| Synopsis | Enter the **mirror-source** list instance |
| Context | **configure** mirror mirror-source *service-name* |
| Tree | mirror-source |
| Introduced | 19.10.R1 |
| Platforms | All |

### [**service-name**] *service-name*

| | |
|---|---|
| Synopsis | Administrative service name |
| Context | **configure** mirror mirror-source *service-name* |
| Tree | mirror-source |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the mirror service |
| Context | **configure** mirror mirror-source *service-name* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 19.10.R1 |
| Platforms | All |


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### **ip-filter** [filter-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **ip-filter** list instance |
| Context | **configure** mirror mirror-source *service-name* ip-filter *reference* |
| Tree | ip-filter |
| Introduced | 19.10.R1 |
| Platforms | All |

### [**filter-name**] *reference*

| | |
|---|---|
| Synopsis | IP filter name |
| Context | **configure** mirror mirror-source *service-name* ip-filter *reference* |
| Tree | ip-filter |
| Reference | **configure** filter ip-filter *filter-name* |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **entry** [entry-id] *number*

| | |
|---|---|
| Synopsis | Add a list entry for **entry** |
| Context | **configure** mirror mirror-source *service-name* ip-filter *reference* entry *number* |
| Tree | entry |
| Min. instances | 1 |
| Introduced | 19.10.R1 |
| Platforms | All |

### [**entry-id**] *number*

| | |
|---|---|
| Synopsis | IP filter entry ID |
| Context | **configure** mirror mirror-source *service-name* ip-filter *reference* entry *number* |
| Tree | entry |
| Range | 1 to 2097151 |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 19.10.R1 |
| Platforms | All |

### **ipv6-filter** [filter-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **ipv6-filter** list instance |
| Context | **configure** mirror mirror-source *service-name* ipv6-filter *reference* |
| Tree | ipv6-filter |
| Introduced | 19.10.R1 |
| Platforms | All |

### [**filter-name**] *reference*

| | |
|---|---|
| Synopsis | IPv6 filter name |
| Context | **configure** mirror mirror-source *service-name* ipv6-filter *reference* |
| Tree | ipv6-filter |
| Reference | **configure** filter ipv6-filter *filter-name* |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **entry** [entry-id] *number*

| | |
|---|---|
| Synopsis | Add a list entry for **entry** |
| Context | **configure** mirror mirror-source *service-name* ipv6-filter *reference* entry *number* |
| Tree | entry |
| Min. instances | 1 |
| Introduced | 19.10.R1 |
| Platforms | All |

### [**entry-id**] *number*

| | |
|---|---|
| Synopsis | IPv6 filter entry ID |
| Context | **configure** mirror mirror-source *service-name* ipv6-filter *reference* entry *number* |


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| | |
|---|---|
| Tree | entry |
| Range | 1 to 2097151 |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **mac-filter** [filter-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **mac-filter** list instance |
| Context | **configure** mirror mirror-source *service-name* mac-filter *reference* |
| Tree | mac-filter |
| Introduced | 19.10.R1 |
| Platforms | All |

### [**filter-name**] *reference*

| | |
|---|---|
| Synopsis | MAC filter name |
| Context | **configure** mirror mirror-source *service-name* mac-filter *reference* |
| Tree | mac-filter |
| Reference | **configure** filter mac-filter *filter-name* |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **entry** [entry-id] *number*

| | |
|---|---|
| Synopsis | Add a list entry for **entry** |
| Context | **configure** mirror mirror-source *service-name* mac-filter *reference* entry *number* |
| Tree | entry |
| Min. instances | 1 |
| Introduced | 19.10.R1 |
| Platforms | All |


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### [**entry-id**] *number*

| | |
|---|---|
| Synopsis | MAC filter entry ID |
| Context | **configure** mirror mirror-source *service-name* mac-filter *reference* entry *number* |
| Tree | entry |
| Range | 1 to 2097151 |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **port** [port-id] *mirror-source-port-lag-key*

| | |
|---|---|
| Synopsis | Enter the **port** list instance |
| Context | **configure** mirror mirror-source *service-name* port *mirror-source-port-lag-key* |
| Tree | port |
| Introduced | 19.10.R1 |
| Platforms | All |

### [**port-id**] *mirror-source-port-lag-key*

| | |
|---|---|
| Synopsis | Port ID |
| Context | **configure** mirror mirror-source *service-name* port *mirror-source-port-lag-key* |
| Tree | port |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **egress** *boolean*

| | |
|---|---|
| Synopsis | Mirror egress packets |
| Context | **configure** mirror mirror-source *service-name* port *mirror-source-port-lag-key* egress *boolean* |
| Tree | egress |
| Description | When configured to **true**, egressing packets are mirrored. Egress packets are mirrored to the mirror destination after egress packet modification. |


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| | |
|---|---|
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **ingress** *boolean*

| | |
|---|---|
| Synopsis | Mirror ingress packets |
| Context | **configure** mirror mirror-source *service-name* port *mirror-source-port-lag-key* ingress *boolean* |
| Tree | ingress |
| Description | When configured to **true**, ingressing packets are mirrored. Ingress packets are mirrored to the mirror destination before ingress packet modification. |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **sap** [sap-id] *sap*

| | |
|---|---|
| Synopsis | Enter the **sap** list instance |
| Context | **configure** mirror mirror-source *service-name* sap *sap* |
| Tree | sap |
| Introduced | 19.10.R1 |
| Platforms | All |

### [**sap-id**] *sap*

| | |
|---|---|
| Synopsis | SAP ID |
| Context | **configure** mirror mirror-source *service-name* sap *sap* |
| Tree | sap |
| String length | 1 to 45 |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | All |


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### **egress** *boolean*

| | |
|---|---|
| Synopsis | Mirror egress packets |
| Context | **configure** mirror mirror-source *service-name* sap *sap* egress *boolean* |
| Tree | egress |
| Description | When configured to **true**, egressing packets are mirrored. Egress packets are mirrored to the mirror destination after egress packet modification. |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **ingress** *boolean*

| | |
|---|---|
| Synopsis | Mirror ingress packets |
| Context | **configure** mirror mirror-source *service-name* sap *sap* ingress *boolean* |
| Tree | ingress |
| Description | When configured to **true**, ingressing packets are mirrored. Ingress packets are mirrored to the mirror destination before ingress packet modification. |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **subscriber** [subscriber-id] *subscriber-id*

| | |
|---|---|
| Synopsis | Enter the **subscriber** list instance |
| Context | **configure** mirror mirror-source *service-name* subscriber *subscriber-id* |
| Tree | subscriber |
| Introduced | 19.10.R1 |
| Platforms | All |

### [**subscriber-id**] *subscriber-id*

| | |
|---|---|
| Synopsis | Subscriber ID |
| Context | **configure** mirror mirror-source *service-name* subscriber *subscriber-id* |
| Tree | subscriber |


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| | |
|---|---|
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **egress** *boolean*

| | |
|---|---|
| Synopsis | Mirror egress packets |
| Context | **configure** mirror mirror-source *service-name* subscriber *subscriber-id* egress *boolean* |
| Tree | egress |
| Description | When configured to **true**, egressing packets are mirrored. Egress packets are mirrored to the mirror destination after egress packet modification. |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **fc** *keyword*

| | |
|---|---|
| Synopsis | The forwarding classes traffic which should be mirrored |
| Context | **configure** mirror mirror-source *service-name* subscriber *subscriber-id* fc *keyword* |
| Tree | fc |
| Options | be, l2, af, l1, h2, ef, h1, nc |
| Max. instances | 8 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **host-type** *keyword*

| | |
|---|---|
| Synopsis | Host type for mirroring |
| Context | **configure** mirror mirror-source *service-name* subscriber *subscriber-id* host-type *keyword* |
| Tree | host-type |
| Options | ipoe, ppp |
| Introduced | 19.10.R1 |
| Platforms | All |


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### **ingress** *boolean*

| | |
|---|---|
| Synopsis | Mirror ingress packets |
| Context | **configure** mirror mirror-source *service-name* subscriber *subscriber-id* ingress *boolean* |
| Tree | ingress |
| Description | When configured to **true**, ingressing packets are mirrored. Ingress packets are mirrored to the mirror destination before ingress packet modification. |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **ip-address** *ipv4-address*

| | |
|---|---|
| Synopsis | Service IP address of remote device sending LI traffic |
| Context | **configure** mirror mirror-source *service-name* subscriber *subscriber-id* ip-address *ipv4-address* |
| Tree | ip-address |
| Notes | The following elements are part of a choice: (**ip-address**, **mac-address**, and **sap-id**) or **sla-profile**. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **ip-family** *keyword*

| | |
|---|---|
| Synopsis | IP family for mirroring |
| Context | **configure** mirror mirror-source *service-name* subscriber *subscriber-id* ip-family *keyword* |
| Tree | ip-family |
| Options | ipv4, ipv6 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **mac-address** *mac-address*

| | |
|---|---|
| Synopsis | MAC address for the subscriber |
| Context | **configure** mirror mirror-source *service-name* subscriber *subscriber-id* mac-address *mac-address* |


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| | |
|---|---|
| Tree | mac-address |
| Notes | The following elements are part of a choice: (**ip-address**, **mac-address**, and **sap-id**) or **sla-profile**. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **sap-id** *sap*

| | |
|---|---|
| Synopsis | Subscriber SAP ID |
| Context | **configure** mirror mirror-source *service-name* subscriber *subscriber-id* sap-id *sap* |
| Tree | sap-id |
| String length | 1 to 45 |
| Notes | The following elements are part of a choice: (**ip-address**, **mac-address**, and **sap-id**) or **sla-profile**. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **sla-profile** *named-item*

| | |
|---|---|
| Synopsis | SLA profile name |
| Context | **configure** mirror mirror-source *service-name* subscriber *subscriber-id* sla-profile *named-item* |
| Tree | sla-profile |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: (**ip-address**, **mac-address**, and **sap-id**) or **sla-profile**. |
| Introduced | 19.10.R1 |
| Platforms | All |


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## 4.28 multicast-management commands

```
configure
   – multicast-management
      – apply-groups reference
      – apply-groups-exclude reference
      – bandwidth-policy named-item
         – admin-bw-threshold number
         – apply-groups reference
         – apply-groups-exclude reference
         – description description
         – falling-percent-reset number
         – impm-paths
            – primary-path
               – apply-groups reference
               – apply-groups-exclude reference
               – queue-parameters
                  – cbs decimal-number
                  – drop-tail
                     – low
                        – percent-reduction-from-mbs number
                  – mbs decimal-number
            – secondary-path
               – apply-groups reference
               – apply-groups-exclude reference
               – number-paths
                  – number-of-paths number
                  – redundant-sfm number
               – queue-parameters
                  – cbs decimal-number
                  – drop-tail
                     – low
                        – percent-reduction-from-mbs number
                  – mbs decimal-number
         – mcast-pool
            – percent-of-total number
            – resv-cbs number
            – slope-policy reference
      – chassis-level
         – apply-groups reference
         – apply-groups-exclude reference
         – mmrp-impm-override boolean
         – per-mcast-plane-capacity
            – mcast-capacity
               – primary-percentage decimal-number
               – secondary-percentage decimal-number
            – redundant-mcast-capacity
               – primary-percentage decimal-number
               – secondary-percentage decimal-number
            – total-capacity keyword
         – round-robin-inactive-records boolean
      – multicast-info-policy named-item
         – apply-groups reference
         – apply-groups-exclude reference
         – bundle named-item
            – admin-bw number
            – apply-groups reference
            – apply-groups-exclude reference
            – bw-activity
               – black-hole-rate number
               – bw-activity-type keyword
```


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configure multicast-management multicast-info-policy bundle bw-activity falling-delay

```
                - falling-delay number
            - channel start (ipv4-address-no-zone | ipv6-address-no-zone) end (ipv4-address-
no-zone | ipv6-address-no-zone)
                - admin-bw number
                - apply-groups reference
                - apply-groups-exclude reference
                - bw-activity
                  - black-hole-rate number
                  - bw-activity-type keyword
                  - falling-delay number
                - explicit-sf-path keyword
                - keepalive-override number
                - preference number
                - primary-tunnel-interface
                  - ldp-p2mp number
                  - rsvp-p2mp named-item
                  - sender ipv4-address
                - source-override (ipv4-address-no-zone | ipv6-address-no-zone)
                  - admin-bw number
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - bw-activity
                    - black-hole-rate number
                    - bw-activity-type keyword
                    - falling-delay number
                  - explicit-sf-path keyword
                  - keepalive-override number
                  - preference number
                  - primary-tunnel-interface
                    - ldp-p2mp number
                    - rsvp-p2mp named-item
                    - sender ipv4-address
                  - video
                    - analyzer
                      - alarms
                        - cc-error boolean
                        - non-vid-pid-absent number
                        - pat-repetition
                          - poa number
                          - qos number
                          - tnc number
                        - pat-syntax boolean
                        - pcr-repetition
                          - poa number
                          - qos number
                          - tnc number
                        - pid-pmt-unref boolean
                        - pmt-repetition
                          - poa number
                          - qos number
                          - tnc number
                        - pmt-syntax boolean
                        - report-alarm
                          - severity keyword
                        - tei-set boolean
                        - ts-sync-loss boolean
                        - vid-pid-absent number
                      - description description
                    - fcc-channel-type keyword
                    - fcc-min-duration number
                    - fcc-server keyword
                    - local-rt-server keyword
                    - reorder-audio number
                    - rt-buffer-size number
```


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configure multicast-management multicast-info-policy bundle channel source-override video rt-server

```
                    - rt-server
                      - ip-address ipv4-unicast-address
                      - port number
                      - rt-state keyword
                    - stream-selection
                      - intf1 named-item
                      - intf2 named-item
                      - source1 ipv4-address
                      - source2 ipv4-address
                    - video-group (number | keyword)
                - video
                  - analyzer
                    - alarms
                      - cc-error boolean
                      - non-vid-pid-absent number
                      - pat-repetition
                        - poa number
                        - qos number
                        - tnc number
                      - pat-syntax boolean
                      - pcr-repetition
                        - poa number
                        - qos number
                        - tnc number
                      - pid-pmt-unref boolean
                      - pmt-repetition
                        - poa number
                        - qos number
                        - tnc number
                      - pmt-syntax boolean
                      - report-alarm
                        - severity keyword
                      - tei-set boolean
                      - ts-sync-loss boolean
                      - vid-pid-absent number
                    - description description
                  - fcc-channel-type keyword
                  - fcc-min-duration number
                  - fcc-server keyword
                  - local-rt-server keyword
                  - reorder-audio number
                  - rt-buffer-size number
                  - rt-server
                    - ip-address ipv4-unicast-address
                    - port number
                    - rt-state keyword
                  - stream-selection
                    - intf1 named-item
                    - intf2 named-item
                    - source1 ipv4-address
                    - source2 ipv4-address
                  - video-group (number | keyword)
            - cong-priority-threshold number
            - description description
            - ecmp-opt-threshold number
            - explicit-sf-path keyword
            - keepalive-override number
            - preference number
            - primary-tunnel-interface
              - ldp-p2mp number
              - rsvp-p2mp named-item
              - sender ipv4-address
            - video
              - analyzer
```


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configure multicast-management multicast-info-policy bundle video analyzer alarms

```
                  - alarms
                     - cc-error boolean
                     - non-vid-pid-absent number
                     - pat-repetition
                        - poa number
                        - qos number
                        - tnc number
                     - pat-syntax boolean
                     - pcr-repetition
                        - poa number
                        - qos number
                        - tnc number
                     - pid-pmt-unref boolean
                     - pmt-repetition
                        - poa number
                        - qos number
                        - tnc number
                     - pmt-syntax boolean
                     - report-alarm
                        - severity keyword
                     - tei-set boolean
                     - ts-sync-loss boolean
                     - vid-pid-absent number
                  - description description
               - fcc-channel-type keyword
               - fcc-min-duration number
               - fcc-server boolean
               - local-fcc-port number
               - local-rt-port number
               - local-rt-server boolean
               - reorder-audio number
               - rt-buffer-size number
               - rt-server
                  - ip-address ipv4-unicast-address
                  - port number
               - stream-selection
                  - intf1 named-item
                  - intf2 named-item
                  - source1 ipv4-address
                  - source2 ipv4-address
               - video-group number
            - description description
            - video-policy
               - video-interface ipv4-unicast-address
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - extended-unicast boolean
                  - fcc-session-timeout number
                  - hd
                     - apply-groups reference
                     - apply-groups-exclude reference
                     - dent-threshold number
                     - fcc-burst number
                     - fcc-server
                        - mode keyword
                     - local-rt-server boolean
                     - mc-handover number
                     - rt-rate number
                  - max-igmp-latency number
                  - max-sessions number
                  - pip
                     - apply-groups reference
                     - apply-groups-exclude reference
                     - dent-threshold number
```


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configure multicast-management multicast-info-policy video-policy video-interface pip fcc-burst

```
                  -  fcc-burst number
                  -  fcc-server
                     -  mode keyword
                  -  local-rt-server boolean
                  -  mc-handover number
                  -  rt-rate number
               -  ret-session-timeout number
               -  rt-payload-type number
               -  rt-rate number
               -  sd
                  -  apply-groups reference
                  -  apply-groups-exclude reference
                  -  dent-threshold number
                  -  fcc-burst number
                  -  fcc-server
                     -  mode keyword
                  -  local-rt-server boolean
                  -  mc-handover number
                  -  rt-rate number
               -  subscriber-bw-limit number
      -  multicast-reporting-destination named-item
         -  address ipv4-address
         -  admin-state keyword
         -  apply-groups reference
         -  apply-groups-exclude reference
         -  description description
         -  maximum-transmission-delay number
         -  udp-port number
```


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## 4.28.1 multicast-management command descriptions

### multicast-management

| | |
|---|---|
| Synopsis | Enter the **multicast-management** context |
| Context | **configure** multicast-management |
| Tree | multicast-management |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bandwidth-policy** [policy-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **bandwidth-policy** list instance |
| Context | **configure** multicast-management bandwidth-policy *named-item* |
| Tree | bandwidth-policy |
| Max. instances | 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-1x-48D, 7750 SR-1x-92S, 7750 SR-7/12/12e, 7750 SR-s, 7950 XRS, VSR |

### [**policy-name**] *named-item*

| | |
|---|---|
| Synopsis | Bandwidth policy name |
| Context | **configure** multicast-management bandwidth-policy *named-item* |
| Tree | bandwidth-policy |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-1x-48D, 7750 SR-1x-92S, 7750 SR-7/12/12e, 7750 SR-s, 7950 XRS, VSR |

### **admin-bw-threshold** *number*

| | |
|---|---|
| Synopsis | Administrative bandwidth threshold |


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| | |
|---|---|
| Context | **configure** multicast-management bandwidth-policy *named-item* admin-bw-threshold *number* |
| Tree | admin-bw-threshold |
| Range | 1 to 40000000 |
| Units | kilobps |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-1x-48D, 7750 SR-1x-92S, 7750 SR-7/12/12e, 7750 SR-s, 7950 XRS, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** multicast-management bandwidth-policy *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-1x-48D, 7750 SR-1x-92S, 7750 SR-7/12/12e, 7750 SR-s, 7950 XRS, VSR |

### **falling-percent-reset** *number*

| | |
|---|---|
| Synopsis | Percent of bandwidth that decreases before resetting |
| Context | **configure** multicast-management bandwidth-policy *named-item* falling-percent-reset *number* |
| Tree | falling-percent-reset |
| Range | 1 to 100 |
| Units | percent |
| Default | 50 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-1x-48D, 7750 SR-1x-92S, 7750 SR-7/12/12e, 7750 SR-s, 7950 XRS, VSR |

### **impm-paths**

| | |
|---|---|
| Synopsis | Enter the **impm-paths** context |
| Context | **configure** multicast-management bandwidth-policy *named-item* impm-paths |


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| | |
|---|---|
| Tree | impm-paths |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-1x-48D, 7750 SR-1x-92S, 7750 SR-7/12/12e, 7750 SR-s, 7950 XRS, VSR |

## primary-path

| | |
|---|---|
| Synopsis | Enter the **primary-path** context |
| Context | **configure** multicast-management bandwidth-policy *named-item* impm-paths primary-path |
| Tree | primary-path |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-1x-48D, 7750 SR-1x-92S, 7750 SR-7/12/12e, 7750 SR-s, 7950 XRS, VSR |

## queue-parameters

| | |
|---|---|
| Synopsis | Enter the **queue-parameters** context |
| Context | **configure** multicast-management bandwidth-policy *named-item* impm-paths primary-path queue-parameters |
| Tree | queue-parameters |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-1x-48D, 7750 SR-1x-92S, 7750 SR-7/12/12e, 7750 SR-s, 7950 XRS, VSR |

## **cbs** *decimal-number*

| | |
|---|---|
| Synopsis | Override for default CBS for single queue for each path |
| Context | **configure** multicast-management bandwidth-policy *named-item* impm-paths primary-path queue-parameters cbs *decimal-number* |
| Tree | cbs |
| Range | 0.00 to 100.00 |
| Units | percent |
| Default | 5.00 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-1x-48D, 7750 SR-1x-92S, 7750 SR-7/12/12e, 7750 SR-s, 7950 XRS, VSR |


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## drop-tail

| | |
|---|---|
| Synopsis | Enter the **drop-tail** context |
| Context | **configure** multicast-management bandwidth-policy *named-item* impm-paths primary-path queue-parameters drop-tail |
| Tree | drop-tail |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-1x-48D, 7750 SR-1x-92S, 7750 SR-7/12/12e, 7750 SR-s, 7950 XRS, VSR |

## low

| | |
|---|---|
| Synopsis | Enter the **low** context |
| Context | **configure** multicast-management bandwidth-policy *named-item* impm-paths primary-path queue-parameters drop-tail low |
| Tree | low |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-1x-48D, 7750 SR-1x-92S, 7750 SR-7/12/12e, 7750 SR-s, 7950 XRS, VSR |

## percent-reduction-from-mbs *number*

| | |
|---|---|
| Synopsis | Low drop-tail percent from MBS that is reduced |
| Context | **configure** multicast-management bandwidth-policy *named-item* impm-paths primary-path queue-parameters drop-tail low percent-reduction-from-mbs *number* |
| Tree | percent-reduction-from-mbs |
| Range | 0 to 100 |
| Units | percent |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-1x-48D, 7750 SR-1x-92S, 7750 SR-7/12/12e, 7750 SR-s, 7950 XRS, VSR |

## mbs *decimal-number*

| | |
|---|---|
| Synopsis | Override for default MBS for single queue for each path |


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| | |
|---|---|
| Context | **configure** multicast-management bandwidth-policy *named-item* impm-paths primary-path queue-parameters mbs *decimal-number* |
| Tree | mbs |
| Range | 0.00 to 100.00 |
| Units | percent |
| Default | 7.00 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-1x-48D, 7750 SR-1x-92S, 7750 SR-7/12/12e, 7750 SR-s, 7950 XRS, VSR |

## secondary-path

| | |
|---|---|
| Synopsis | Enter the **secondary-path** context |
| Context | **configure** multicast-management bandwidth-policy *named-item* impm-paths secondary-path |
| Tree | secondary-path |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-1x-48D, 7750 SR-1x-92S, 7750 SR-7/12/12e, 7750 SR-s, 7950 XRS, VSR |

## number-paths

| | |
|---|---|
| Synopsis | Enter the **number-paths** context |
| Context | **configure** multicast-management bandwidth-policy *named-item* impm-paths secondary-path number-paths |
| Tree | number-paths |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-1x-48D, 7750 SR-1x-92S, 7750 SR-7/12/12e, 7750 SR-s, 7950 XRS, VSR |

## number-of-paths *number*

| | |
|---|---|
| Synopsis | Number of secondary paths |
| Context | **configure** multicast-management bandwidth-policy *named-item* impm-paths secondary-path number-paths number-of-paths *number* |
| Tree | number-of-paths |
| Range | 1 to 15 |


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| | |
|---|---|
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-1x-48D, 7750 SR-1x-92S, 7750 SR-7/12/12e, 7750 SR-s, 7950 XRS, VSR |

### **redundant-sfm** *number*

| | |
|---|---|
| Synopsis | Number of secondary paths in redundant SFM mode |
| Context | **configure** multicast-management bandwidth-policy *named-item* impm-paths secondary-path number-paths redundant-sfm *number* |
| Tree | redundant-sfm |
| Range | 1 to 15 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s, 7950 XRS, VSR |

### **queue-parameters**

| | |
|---|---|
| Synopsis | Enter the **queue-parameters** context |
| Context | **configure** multicast-management bandwidth-policy *named-item* impm-paths secondary-path queue-parameters |
| Tree | queue-parameters |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-1x-48D, 7750 SR-1x-92S, 7750 SR-7/12/12e, 7750 SR-s, 7950 XRS, VSR |

### **cbs** *decimal-number*

| | |
|---|---|
| Synopsis | Override for default CBS for single queue for each path |
| Context | **configure** multicast-management bandwidth-policy *named-item* impm-paths secondary-path queue-parameters cbs *decimal-number* |
| Tree | cbs |
| Range | 0.00 to 100.00 |
| Units | percent |
| Default | 30.00 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR-1x-48D, 7750 SR-1x-92S, 7750 SR-7/12/12e, 7750 SR-s, 7950 XRS, VSR |

## drop-tail

| | |
|---|---|
| Synopsis | Enter the **drop-tail** context |
| Context | **configure** multicast-management bandwidth-policy *named-item* impm-paths secondary-path queue-parameters drop-tail |
| Tree | drop-tail |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-1x-48D, 7750 SR-1x-92S, 7750 SR-7/12/12e, 7750 SR-s, 7950 XRS, VSR |

## low

| | |
|---|---|
| Synopsis | Enter the **low** context |
| Context | **configure** multicast-management bandwidth-policy *named-item* impm-paths secondary-path queue-parameters drop-tail low |
| Tree | low |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-1x-48D, 7750 SR-1x-92S, 7750 SR-7/12/12e, 7750 SR-s, 7950 XRS, VSR |

## percent-reduction-from-mbs *number*

| | |
|---|---|
| Synopsis | Low drop-tail percent from MBS that is reduced |
| Context | **configure** multicast-management bandwidth-policy *named-item* impm-paths secondary-path queue-parameters drop-tail low percent-reduction-from-mbs *number* |
| Tree | percent-reduction-from-mbs |
| Range | 0 to 100 |
| Units | percent |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-1x-48D, 7750 SR-1x-92S, 7750 SR-7/12/12e, 7750 SR-s, 7950 XRS, VSR |


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### **mbs** *decimal-number*

| | |
|---|---|
| Synopsis | Override for default MBS for single queue for each path |
| Context | **configure** multicast-management bandwidth-policy *named-item* impm-paths secondary-path queue-parameters mbs *decimal-number* |
| Tree | mbs |
| Range | 0.00 to 100.00 |
| Units | percent |
| Default | 40.00 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-1x-48D, 7750 SR-1x-92S, 7750 SR-7/12/12e, 7750 SR-s, 7950 XRS, VSR |

### **mcast-pool**

| | |
|---|---|
| Synopsis | Enter the **mcast-pool** context |
| Context | **configure** multicast-management bandwidth-policy *named-item* mcast-pool |
| Tree | mcast-pool |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-1x-48D, 7750 SR-1x-92S, 7750 SR-7/12/12e, 7750 SR-s, 7950 XRS, VSR |

### **percent-of-total** *number*

| | |
|---|---|
| Synopsis | Percent of ingress buffers assigned to multicast pool |
| Context | **configure** multicast-management bandwidth-policy *named-item* mcast-pool percent-of-total *number* |
| Tree | percent-of-total |
| Range | 1 to 50 |
| Units | percent |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-1x-48D, 7750 SR-1x-92S, 7750 SR-7/12/12e, 7750 SR-s, 7950 XRS, VSR |


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### **resv-cbs** *number*

| | |
|---|---|
| Synopsis | Percentage of pool reserved for multicast path queues |
| Context | **configure** multicast-management bandwidth-policy *named-item* mcast-pool resv-cbs *number* |
| Tree | resv-cbs |
| Range | 1 to 100 |
| Units | percent |
| Default | 50 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-1x-48D, 7750 SR-1x-92S, 7750 SR-7/12/12e, 7750 SR-s, 7950 XRS, VSR |

### **slope-policy** *reference*

| | |
|---|---|
| Synopsis | Slope policy name |
| Context | **configure** multicast-management bandwidth-policy *named-item* mcast-pool slope-policy *reference* |
| Tree | slope-policy |
| Reference | **configure** qos slope-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-1x-48D, 7750 SR-1x-92S, 7750 SR-7/12/12e, 7750 SR-s, 7950 XRS, VSR |

### **chassis-level**

| | |
|---|---|
| Synopsis | Enter the **chassis-level** context |
| Context | **configure** multicast-management chassis-level |
| Tree | chassis-level |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-1x-48D, 7750 SR-1x-92S, 7750 SR-7/12/12e, 7750 SR-s, 7950 XRS, VSR |

### **mmrp-impm-override** *boolean*

| | |
|---|---|
| Synopsis | Manage MMRP traffic by IMPM |
| Context | **configure** multicast-management chassis-level mmrp-impm-override *boolean* |


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| | |
|---|---|
| Tree | mmrp-impm-override |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-1x-48D, 7750 SR-1x-92S, 7750 SR-7/12/12e, 7750 SR-s, 7950 XRS, VSR |

## per-mcast-plane-capacity

| | |
|---|---|
| Synopsis | Enter the **per-mcast-plane-capacity** context |
| Context | **configure** multicast-management chassis-level per-mcast-plane-capacity |
| Tree | per-mcast-plane-capacity |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-1x-48D, 7750 SR-1x-92S, 7750 SR-7/12/12e, 7750 SR-s, 7950 XRS, VSR |

## mcast-capacity

| | |
|---|---|
| Synopsis | Enter the **mcast-capacity** context |
| Context | **configure** multicast-management chassis-level per-mcast-plane-capacity mcast-capacity |
| Tree | mcast-capacity |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-1x-48D, 7750 SR-1x-92S, 7750 SR-7/12/12e, 7750 SR-s, 7950 XRS, VSR |

## primary-percentage *decimal-number*

| | |
|---|---|
| Synopsis | Percent of plane capacity for primary multicast planes |
| Context | **configure** multicast-management chassis-level per-mcast-plane-capacity mcast-capacity primary-percentage *decimal-number* |
| Tree | primary-percentage |
| Range | 0.01 to 100.00 |
| Units | percent |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-1x-48D, 7750 SR-1x-92S, 7750 SR-7/12/12e, 7750 SR-s, 7950 XRS, VSR |


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### **secondary-percentage** *decimal-number*

| | |
|---|---|
| Synopsis | Percent of plane capacity for secondary multicast plane |
| Context | **configure** multicast-management chassis-level per-mcast-plane-capacity mcast-capacity secondary-percentage *decimal-number* |
| Tree | secondary-percentage |
| Range | 0.01 to 100.00 |
| Units | percent |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-1x-48D, 7750 SR-1x-92S, 7750 SR-7/12/12e, 7750 SR-s, 7950 XRS, VSR |

### **redundant-mcast-capacity**

| | |
|---|---|
| Synopsis | Enter the **redundant-mcast-capacity** context |
| Context | **configure** multicast-management chassis-level per-mcast-plane-capacity redundant-mcast-capacity |
| Tree | redundant-mcast-capacity |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-1x-48D, 7750 SR-1x-92S, 7750 SR-7/12/12e, 7750 SR-s, 7950 XRS, VSR |

### **primary-percentage** *decimal-number*

| | |
|---|---|
| Synopsis | Percent of plane capacity for primary multicast planes |
| Context | **configure** multicast-management chassis-level per-mcast-plane-capacity redundant-mcast-capacity primary-percentage *decimal-number* |
| Tree | primary-percentage |
| Range | 0.01 to 100.00 |
| Units | percent |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-1x-48D, 7750 SR-1x-92S, 7750 SR-7/12/12e, 7750 SR-s, 7950 XRS, VSR |

### **secondary-percentage** *decimal-number*

| | |
|---|---|
| Synopsis | Percent of plane capacity for secondary multicast plane |


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| | |
|---|---|
| Context | **configure** multicast-management chassis-level per-mcast-plane-capacity redundant-mcast-capacity secondary-percentage *decimal-number* |
| Tree | secondary-percentage |
| Range | 0.01 to 100.00 |
| Units | percent |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-1x-48D, 7750 SR-1x-92S, 7750 SR-7/12/12e, 7750 SR-s, 7950 XRS, VSR |

### **total-capacity** *keyword*

| | |
|---|---|
| Synopsis | Total multicast plane bandwidth |
| Context | **configure** multicast-management chassis-level per-mcast-plane-capacity total-capacity *keyword* |
| Tree | total-capacity |
| Units | megabps |
| Options | dynamic, 2000, 4000, 5250, 8250, 15000, 17000, 19000, 27000, 42000, 90000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-1x-48D, 7750 SR-1x-92S, 7750 SR-7/12/12e, 7750 SR-s, 7950 XRS, VSR |

### **round-robin-inactive-records** *boolean*

| | |
|---|---|
| Synopsis | Redistribute newly populated inactive records |
| Context | **configure** multicast-management chassis-level round-robin-inactive-records *boolean* |
| Tree | round-robin-inactive-records |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-1x-48D, 7750 SR-1x-92S, 7750 SR-7/12/12e, 7750 SR-s, 7950 XRS, VSR |

### **multicast-info-policy** [policy-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **multicast-info-policy** list instance |
| Context | **configure** multicast-management multicast-info-policy *named-item* |
| Tree | multicast-info-policy |


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| | |
|---|---|
| Max. instances | 32 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**policy-name**] *named-item*

| | |
|---|---|
| Synopsis | Multicast information policy name |
| Context | **configure** multicast-management multicast-info-policy *named-item* |
| Tree | multicast-info-policy |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bundle** [bundle-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **bundle** list instance |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* |
| Tree | bundle |
| Max. instances | 32 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**bundle-name**] *named-item*

| | |
|---|---|
| Synopsis | Bundle name |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* |
| Tree | bundle |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **admin-bw** *number*

| | |
|---|---|
| Synopsis | Administrative bandwidth |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* admin-bw *number* |
| Tree | admin-bw |
| Range | 1 to 40000000 |
| Units | kilobps |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bw-activity**

| | |
|---|---|
| Synopsis | Enter the **bw-activity** context |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* bw-activity |
| Tree | bw-activity |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-1x-48D, 7750 SR-1x-92S, 7750 SR-7/12/12e, 7750 SR-s, 7950 XRS, VSR |

### **black-hole-rate** *number*

| | |
|---|---|
| Synopsis | Rate that a channel is placed in the blackhole state |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* bw-activity black-hole-rate *number* |
| Tree | black-hole-rate |
| Range | 1 to 40000000 |
| Units | kilobps |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-1x-48D, 7750 SR-1x-92S, 7750 SR-7/12/12e, 7750 SR-s, 7950 XRS, VSR |

### **bw-activity-type** *keyword*

| | |
|---|---|
| Synopsis | Bandwidth required by a multicast channel |


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| | |
|---|---|
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* bw-activity bw-activity-type *keyword* |
| Tree | bw-activity-type |
| Options | use-admin-bw, dynamic |
| Default | dynamic |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-1x-48D, 7750 SR-1x-92S, 7750 SR-7/12/12e, 7750 SR-s, 7950 XRS, VSR |

### **falling-delay** *number*

| | |
|---|---|
| Synopsis | Falling delay threshold value until delay time expires |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* bw-activity falling-delay *number* |
| Tree | falling-delay |
| Range | 10 to 3600 |
| Units | seconds |
| Default | 30 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-1x-48D, 7750 SR-1x-92S, 7750 SR-7/12/12e, 7750 SR-s, 7950 XRS, VSR |

### **channel** start *(ipv4-address-no-zone | ipv6-address-no-zone)* end *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Enter the **channel** list instance |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | channel |
| Introduced | 16.0.R1 |
| Platforms | All |

### **start** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Starting IP address for the channel range |


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| | |
|---|---|
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | channel |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **end** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Ending IP address for the channel range |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | channel |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **admin-bw** *number*

| | |
|---|---|
| Synopsis | Administrative bandwidth |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* admin-bw *number* |
| Tree | admin-bw |
| Range | 1 to 40000000 |
| Units | kilobps |
| Introduced | 16.0.R1 |
| Platforms | All |

## **bw-activity**

| | |
|---|---|
| Synopsis | Enter the **bw-activity** context |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* bw-activity |


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| | |
|---|---|
| Tree | bw-activity |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-1x-48D, 7750 SR-1x-92S, 7750 SR-7/12/12e, 7750 SR-s, 7950 XRS, VSR |

### **black-hole-rate** *number*

| | |
|---|---|
| Synopsis | Rate that a channel is placed in the blackhole state |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* bw-activity black-hole-rate *number* |
| Tree | black-hole-rate |
| Range | 0 to 40000000 |
| Units | kilobps |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-1x-48D, 7750 SR-1x-92S, 7750 SR-7/12/12e, 7750 SR-s, 7950 XRS, VSR |

### **bw-activity-type** *keyword*

| | |
|---|---|
| Synopsis | Bandwidth required by a multicast channel |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* bw-activity bw-activity-type *keyword* |
| Tree | bw-activity-type |
| Options | use-admin-bw, dynamic |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-1x-48D, 7750 SR-1x-92S, 7750 SR-7/12/12e, 7750 SR-s, 7950 XRS, VSR |

### **falling-delay** *number*

| | |
|---|---|
| Synopsis | Falling delay threshold value until delay time expires |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* bw-activity falling-delay *number* |
| Tree | falling-delay |


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| | |
|---|---|
| Range | 10 to 3600 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-1x-48D, 7750 SR-1x-92S, 7750 SR-7/12/12e, 7750 SR-s, 7950 XRS, VSR |

### **explicit-sf-path** *keyword*

| | |
|---|---|
| Synopsis | Explicit switch fabric path shared to multicast channel |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* explicit-sf-path *keyword* |
| Tree | explicit-sf-path |
| Options | primary, secondary |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-1x-48D, 7750 SR-1x-92S, 7750 SR-7/12/12e, 7750 SR-s, 7950 XRS, VSR |

### **keepalive-override** *number*

| | |
|---|---|
| Synopsis | Keepalive timer override |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* keepalive-override *number* |
| Tree | keepalive-override |
| Range | 10 to 86000 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **preference** *number*

| | |
|---|---|
| Synopsis | Relative preference level for multicast channels |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* preference *number* |
| Tree | preference |
| Range | 1 to 7 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## primary-tunnel-interface

| | |
|---|---|
| Synopsis | Enter the **primary-tunnel-interface** context |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* primary-tunnel-interface |
| Tree | primary-tunnel-interface |
| Introduced | 16.0.R1 |
| Platforms | All |

## ldp-p2mp *number*

| | |
|---|---|
| Synopsis | ID for signaling MLDP P2MP LSP |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* primary-tunnel-interface ldp-p2mp *number* |
| Tree | ldp-p2mp |
| Range | 1 to 4294967295 |
| Notes | The following elements are part of a choice: **ldp-p2mp** or **rsvp-p2mp**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## rsvp-p2mp *named-item*

| | |
|---|---|
| Synopsis | P2MP name for the LDP P2MP |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* primary-tunnel-interface rsvp-p2mp *named-item* |
| Tree | rsvp-p2mp |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **ldp-p2mp** or **rsvp-p2mp**. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **sender** *ipv4-address*

| | |
|---|---|
| Synopsis | Bundle set to receive from the primary tunnel interface |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* primary-tunnel-interface sender *ipv4-address* |
| Tree | sender |
| Introduced | 16.0.R1 |
| Platforms | All |

### **source-override** [ip-address] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Enter the **source-override** list instance |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* source-override *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | source-override |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ip-address**] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address for the source override |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* source-override *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | source-override |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-bw** *number*

| | |
|---|---|
| Synopsis | Administrative bandwidth |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* source-override *(ipv4-address-no-zone \| ipv6-address-no-zone)* admin-bw *number* |


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| | |
|---|---|
| Tree | admin-bw |
| Range | 1 to 40000000 |
| Units | kilobps |
| Introduced | 16.0.R1 |
| Platforms | All |

## bw-activity

| | |
|---|---|
| Synopsis | Enter the **bw-activity** context |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* source-override *(ipv4-address-no-zone \| ipv6-address-no-zone)* bw-activity |
| Tree | bw-activity |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-1x-48D, 7750 SR-1x-92S, 7750 SR-7/12/12e, 7750 SR-s, 7950 XRS, VSR |

## black-hole-rate *number*

| | |
|---|---|
| Synopsis | Rate that a channel is placed in the blackhole state |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* source-override *(ipv4-address-no-zone \| ipv6-address-no-zone)* bw-activity black-hole-rate *number* |
| Tree | black-hole-rate |
| Range | 0 to 40000000 |
| Units | kilobps |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-1x-48D, 7750 SR-1x-92S, 7750 SR-7/12/12e, 7750 SR-s, 7950 XRS, VSR |

## bw-activity-type *keyword*

| | |
|---|---|
| Synopsis | Bandwidth required by a multicast channel |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone* |


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| *ipv6-address-no-zone)* source-override *(ipv4-address-no-zone* | *ipv6-address-no-zone)* bw-activity bw-activity-type *keyword*

Tree bw-activity-type

Options use-admin-bw, dynamic

Introduced 16.0.R1

Platforms 7450 ESS, 7750 SR-1x-48D, 7750 SR-1x-92S, 7750 SR-7/12/12e, 7750 SR-s, 7950 XRS, VSR

## **falling-delay** *number*

Synopsis Falling delay threshold value until delay time expires

Context **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone* | *ipv6-address-no-zone)* end *(ipv4-address-no-zone* | *ipv6-address-no-zone)* source-override *(ipv4-address-no-zone* | *ipv6-address-no-zone)* bw-activity falling-delay *number*

Tree falling-delay

Range 10 to 3600

Units seconds

Introduced 16.0.R1

Platforms 7450 ESS, 7750 SR-1x-48D, 7750 SR-1x-92S, 7750 SR-7/12/12e, 7750 SR-s, 7950 XRS, VSR

## **explicit-sf-path** *keyword*

Synopsis Explicit switch fabric path shared to multicast channel

Context **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone* | *ipv6-address-no-zone)* end *(ipv4-address-no-zone* | *ipv6-address-no-zone)* source-override *(ipv4-address-no-zone* | *ipv6-address-no-zone)* explicit-sf-path *keyword*

Tree explicit-sf-path

Options primary, secondary

Introduced 16.0.R1

Platforms 7450 ESS, 7750 SR-1x-48D, 7750 SR-1x-92S, 7750 SR-7/12/12e, 7750 SR-s, 7950 XRS, VSR

## **keepalive-override** *number*

Synopsis Keepalive timer override


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| | |
|---|---|
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* source-override *(ipv4-address-no-zone \| ipv6-address-no-zone)* keepalive-override *number* |
| Tree | keepalive-override |
| Range | 10 to 86000 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

## **preference** *number*

| | |
|---|---|
| Synopsis | Relative preference level for multicast channels |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* source-override *(ipv4-address-no-zone \| ipv6-address-no-zone)* preference *number* |
| Tree | preference |
| Range | 1 to 7 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **primary-tunnel-interface**

| | |
|---|---|
| Synopsis | Enter the **primary-tunnel-interface** context |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* source-override *(ipv4-address-no-zone \| ipv6-address-no-zone)* primary-tunnel-interface |
| Tree | primary-tunnel-interface |
| Introduced | 16.0.R1 |
| Platforms | All |

## **ldp-p2mp** *number*

| | |
|---|---|
| Synopsis | ID for signaling MLDP P2MP LSP |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone* |


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| *ipv6-address-no-zone)* source-override *(ipv4-address-no-zone* | *ipv6-address-no-zone)* primary-tunnel-interface ldp-p2mp *number*

Tree ldp-p2mp

Range 1 to 4294967295

Notes The following elements are part of a choice: **ldp-p2mp** or **rsvp-p2mp**.

Introduced 16.0.R1

Platforms All

## **rsvp-p2mp** *named-item*

Synopsis P2MP name for the LDP P2MP

Context **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone* | *ipv6-address-no-zone)* end *(ipv4-address-no-zone* | *ipv6-address-no-zone)* source-override *(ipv4-address-no-zone* | *ipv6-address-no-zone)* primary-tunnel-interface rsvp-p2mp *named-item*

Tree rsvp-p2mp

String length 1 to 32

Notes The following elements are part of a choice: **ldp-p2mp** or **rsvp-p2mp**.

Introduced 16.0.R1

Platforms All

## **sender** *ipv4-address*

Synopsis Bundle set to receive from the primary tunnel interface

Context **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone* | *ipv6-address-no-zone)* end *(ipv4-address-no-zone* | *ipv6-address-no-zone)* source-override *(ipv4-address-no-zone* | *ipv6-address-no-zone)* primary-tunnel-interface sender *ipv4-address*

Tree sender

Introduced 16.0.R1

Platforms All

## **video**

Synopsis Enter the **video** context

Context **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone* | *ipv6-address-no-zone)* end *(ipv4-address-no-zone*


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| *ipv6-address-no-zone)* source-override *(ipv4-address-no-zone* | *ipv6-address-no-zone)* video

Tree video

Introduced 16.0.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-s

## analyzer

Synopsis Enable the **analyzer** context

Context **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone* | *ipv6-address-no-zone)* end *(ipv4-address-no-zone* | *ipv6-address-no-zone)* source-override *(ipv4-address-no-zone* | *ipv6-address-no-zone)* video analyzer

Tree analyzer

Introduced 16.0.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-s

## alarms

Synopsis Enter the **alarms** context

Context **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone* | *ipv6-address-no-zone)* end *(ipv4-address-no-zone* | *ipv6-address-no-zone)* source-override *(ipv4-address-no-zone* | *ipv6-address-no-zone)* video analyzer alarms

Tree alarms

Introduced 16.0.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-s

## cc-error *boolean*

Synopsis Check the continuity counter

Context **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone* | *ipv6-address-no-zone)* end *(ipv4-address-no-zone* | *ipv6-address-no-zone)* source-override *(ipv4-address-no-zone* | *ipv6-address-no-zone)* video analyzer alarms cc-error *boolean*

Tree cc-error

Default false

Introduced 16.0.R1


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## **non-vid-pid-absent** *number*

| | |
|---|---|
| Synopsis | PID checked within the specified interval |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* source-override *(ipv4-address-no-zone \| ipv6-address-no-zone)* video analyzer alarms non-vid-pid-absent *number* |
| Tree | non-vid-pid-absent |
| Range | 100 to 5000 |
| Units | milliseconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## **pat-repetition**

| | |
|---|---|
| Synopsis | Enable the **pat-repetition** context |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* source-override *(ipv4-address-no-zone \| ipv6-address-no-zone)* video analyzer alarms pat-repetition |
| Tree | pat-repetition |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## **poa** *number*

| | |
|---|---|
| Synopsis | Time between two PATs for which a POA alarm is raised |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* source-override *(ipv4-address-no-zone \| ipv6-address-no-zone)* video analyzer alarms pat-repetition poa *number* |
| Tree | poa |
| Range | 300 to 1000 |
| Units | milliseconds |
| Default | 500 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **qos** *number*

| | |
|---|---|
| Synopsis | Time between two PATs for which a QoS alarm is raised |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* source-override *(ipv4-address-no-zone \| ipv6-address-no-zone)* video analyzer alarms pat-repetition qos *number* |
| Tree | qos |
| Range | 200 to 900 |
| Units | milliseconds |
| Default | 200 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **tnc** *number*

| | |
|---|---|
| Synopsis | Time between two PATs for which a TNC alarm is raised |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* source-override *(ipv4-address-no-zone \| ipv6-address-no-zone)* video analyzer alarms pat-repetition tnc *number* |
| Tree | tnc |
| Range | 100 to 800 |
| Units | milliseconds |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **pat-syntax** *boolean*

| | |
|---|---|
| Synopsis | Check for PAT syntax errors |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* source-override *(ipv4-address-no-zone \| ipv6-address-no-zone)* video analyzer alarms pat-syntax *boolean* |
| Tree | pat-syntax |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## pcr-repetition

| | |
|---|---|
| Synopsis | Enable the **pcr-repetition** context |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* source-override *(ipv4-address-no-zone \| ipv6-address-no-zone)* video analyzer alarms pcr-repetition |
| Tree | pcr-repetition |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## poa *number*

| | |
|---|---|
| Synopsis | Time between two PCRs for which a POA alarm is raised |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* source-override *(ipv4-address-no-zone \| ipv6-address-no-zone)* video analyzer alarms pcr-repetition poa *number* |
| Tree | poa |
| Range | 300 to 1000 |
| Units | milliseconds |
| Default | 500 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## qos *number*

| | |
|---|---|
| Synopsis | Time between two PCRs for which a QoS alarm is raised |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* source-override *(ipv4-address-no-zone \| ipv6-address-no-zone)* video analyzer alarms pcr-repetition qos *number* |
| Tree | qos |
| Range | 200 to 900 |


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| | |
|---|---|
| Units | milliseconds |
| Default | 200 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **tnc** *number*

| | |
|---|---|
| Synopsis | Time between two PCRs for which a TNC alarm is raised |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* source-override *(ipv4-address-no-zone \| ipv6-address-no-zone)* video analyzer alarms pcr-repetition tnc *number* |
| Tree | tnc |
| Range | 100 to 800 |
| Units | milliseconds |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **pid-pmt-unref** *boolean*

| | |
|---|---|
| Synopsis | Check for unreferenced PIDs in the PMT |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* source-override *(ipv4-address-no-zone \| ipv6-address-no-zone)* video analyzer alarms pid-pmt-unref *boolean* |
| Tree | pid-pmt-unref |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **pmt-repetition**

| | |
|---|---|
| Synopsis | Enable the **pmt-repetition** context |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* source-override *(ipv4-address-no-zone \| ipv6-address-no-zone)* video analyzer alarms pmt-repetition |


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| | |
|---|---|
| Tree | pmt-repetition |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## **poa** *number*

| | |
|---|---|
| Synopsis | Time between two PMTs for which a POA alarm is raised |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* source-override *(ipv4-address-no-zone \| ipv6-address-no-zone)* video analyzer alarms pmt-repetition poa *number* |
| Tree | poa |
| Range | 300 to 5000 |
| Units | milliseconds |
| Default | 2000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## **qos** *number*

| | |
|---|---|
| Synopsis | Time between two PMTs for which a QoS alarm is raised |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* source-override *(ipv4-address-no-zone \| ipv6-address-no-zone)* video analyzer alarms pmt-repetition qos *number* |
| Tree | qos |
| Range | 200 to 4900 |
| Units | milliseconds |
| Default | 800 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## **tnc** *number*

| | |
|---|---|
| Synopsis | Time between two PMTs for which a TNC alarm is raised |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone* |


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| *ipv6-address-no-zone)* source-override *(ipv4-address-no-zone* | *ipv6-address-no-zone)* video analyzer alarms pmt-repetition tnc *number*

| | |
|---|---|
| Tree | tnc |
| Range | 100 to 4800 |
| Units | milliseconds |
| Default | 400 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## **pmt-syntax** *boolean*

| | |
|---|---|
| Synopsis | Check for PMT syntax errors |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* end *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* source-override *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* video analyzer alarms pmt-syntax *boolean* |
| Tree | pmt-syntax |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## **report-alarm**

| | |
|---|---|
| Synopsis | Enter the **report-alarm** context |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* end *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* source-override *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* video analyzer alarms report-alarm |
| Tree | report-alarm |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## **severity** *keyword*

| | |
|---|---|
| Synopsis | Keyword for the type of alarm |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* end *(ipv4-address-no-zone* |


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| *ipv6-address-no-zone)* source-override *(ipv4-address-no-zone* | *ipv6-address-no-zone)* video analyzer alarms report-alarm severity *keyword*

Tree severity

Options tnc, qos, poa

Introduced 16.0.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-s

## **tei-set** *boolean*

Synopsis Check for TEI set errors

Context **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone* | *ipv6-address-no-zone)* end *(ipv4-address-no-zone* | *ipv6-address-no-zone)* source-override *(ipv4-address-no-zone* | *ipv6-address-no-zone)* video analyzer alarms tei-set *boolean*

Tree tei-set

Default false

Introduced 16.0.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-s

## **ts-sync-loss** *boolean*

Synopsis Check for synchronization loss errors

Context **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone* | *ipv6-address-no-zone)* end *(ipv4-address-no-zone* | *ipv6-address-no-zone)* source-override *(ipv4-address-no-zone* | *ipv6-address-no-zone)* video analyzer alarms ts-sync-loss *boolean*

Tree ts-sync-loss

Default false

Introduced 16.0.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-s

## **vid-pid-absent** *number*

Synopsis VID PID checked within the specified time interval

Context **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone* | *ipv6-address-no-zone)* end *(ipv4-address-no-zone* | *ipv6-address-no-zone)* source-override *(ipv4-address-no-zone* | *ipv6-address-no-zone)* video analyzer alarms vid-pid-absent *number*


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| | |
|---|---|
| Tree | vid-pid-absent |
| Range | 100 to 5000 |
| Units | milliseconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* source-override *(ipv4-address-no-zone \| ipv6-address-no-zone)* video analyzer description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **fcc-channel-type** *keyword*

| | |
|---|---|
| Synopsis | Channel type for the bundle or channel |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* source-override *(ipv4-address-no-zone \| ipv6-address-no-zone)* video fcc-channel-type *keyword* |
| Tree | fcc-channel-type |
| Options | hd, sd, pip |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **fcc-min-duration** *number*

| | |
|---|---|
| Synopsis | Minimum duration of the FCC burst |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* source-override *(ipv4-address-no-zone \| ipv6-address-no-zone)* video fcc-min-duration *number* |
| Tree | fcc-min-duration |


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| | |
|---|---|
| Range | 300 to 8000 |
| Units | milliseconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **fcc-server** *keyword*

| | |
|---|---|
| Synopsis | Value to override the parent value of the FCC server |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* source-override *(ipv4-address-no-zone \| ipv6-address-no-zone)* video fcc-server *keyword* |
| Tree | fcc-server |
| Options | false, true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **local-rt-server** *keyword*

| | |
|---|---|
| Synopsis | Value to override the parent value of local RT server |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* source-override *(ipv4-address-no-zone \| ipv6-address-no-zone)* video local-rt-server *keyword* |
| Tree | local-rt-server |
| Options | false, true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **reorder-audio** *number*

| | |
|---|---|
| Synopsis | Time the audio packets are reordered in the ad stream |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* source-override *(ipv4-address-no-zone \| ipv6-address-no-zone)* video reorder-audio *number* |
| Tree | reorder-audio |
| Range | 100 to 1000 |


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| | |
|---|---|
| Units | milliseconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## **rt-buffer-size** *number*

| | |
|---|---|
| Synopsis | Buffer size to store channel packets |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* source-override *(ipv4-address-no-zone \| ipv6-address-no-zone)* video rt-buffer-size *number* |
| Tree | rt-buffer-size |
| Range | 300 to 8000 |
| Units | milliseconds |
| Default | 300 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## **rt-server**

| | |
|---|---|
| Synopsis | Enter the **rt-server** context |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* source-override *(ipv4-address-no-zone \| ipv6-address-no-zone)* video rt-server |
| Tree | rt-server |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## **ip-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IP address of the upstream retransmission server |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* source-override *(ipv4-address-no-zone \| ipv6-address-no-zone)* video rt-server ip-address *ipv4-unicast-address* |
| Tree | ip-address |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **port** *number*

| | |
|---|---|
| Synopsis | UDP port to send RET requests to the upstream RET sever |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* source-override *(ipv4-address-no-zone \| ipv6-address-no-zone)* video rt-server port *number* |
| Tree | port |
| Range | 1024 to 5999 \| 6251 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **rt-state** *keyword*

| | |
|---|---|
| Synopsis | Retransmission server state |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* source-override *(ipv4-address-no-zone \| ipv6-address-no-zone)* video rt-server rt-state *keyword* |
| Tree | rt-state |
| Options | false, true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **stream-selection**

| | |
|---|---|
| Synopsis | Enter the **stream-selection** context |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* source-override *(ipv4-address-no-zone \| ipv6-address-no-zone)* video stream-selection |
| Tree | stream-selection |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |


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### **intf1** *named-item*

| | |
|---|---|
| Synopsis | Primary interface |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* source-override *(ipv4-address-no-zone \| ipv6-address-no-zone)* video stream-selection intf1 *named-item* |
| Tree | intf1 |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **intf2** *named-item*

| | |
|---|---|
| Synopsis | Secondary interface |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* source-override *(ipv4-address-no-zone \| ipv6-address-no-zone)* video stream-selection intf2 *named-item* |
| Tree | intf2 |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **source1** *ipv4-address*

| | |
|---|---|
| Synopsis | Primary source IP address |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* source-override *(ipv4-address-no-zone \| ipv6-address-no-zone)* video stream-selection source1 *ipv4-address* |
| Tree | source1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **source2** *ipv4-address*

| | |
|---|---|
| Synopsis | Secondary source IP address |


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| | |
|---|---|
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* source-override *(ipv4-address-no-zone \| ipv6-address-no-zone)* video stream-selection source2 *ipv4-address* |
| Tree | source2 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## **video-group** *(number | keyword)*

| | |
|---|---|
| Synopsis | Video group ID |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* source-override *(ipv4-address-no-zone \| ipv6-address-no-zone)* video video-group *(number \| keyword)* |
| Tree | video-group |
| Range | 1 to 4 |
| Options | none |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## **video**

| | |
|---|---|
| Synopsis | Enter the **video** context |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* video |
| Tree | video |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## **analyzer**

| | |
|---|---|
| Synopsis | Enable the **analyzer** context |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* video analyzer |
| Tree | analyzer |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## alarms

| | |
|---|---|
| Synopsis | Enter the **alarms** context |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* video analyzer alarms |
| Tree | alarms |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## cc-error *boolean*

| | |
|---|---|
| Synopsis | Check the continuity counter |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* video analyzer alarms cc-error *boolean* |
| Tree | cc-error |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## non-vid-pid-absent *number*

| | |
|---|---|
| Synopsis | PID checked within the specified interval |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* video analyzer alarms non-vid-pid-absent *number* |
| Tree | non-vid-pid-absent |
| Range | 100 to 5000 |
| Units | milliseconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |


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## pat-repetition

| | |
|---|---|
| Synopsis | Enable the **pat-repetition** context |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* video analyzer alarms pat-repetition |
| Tree | pat-repetition |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## poa *number*

| | |
|---|---|
| Synopsis | Time between two PATs for which a POA alarm is raised |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* video analyzer alarms pat-repetition poa *number* |
| Tree | poa |
| Range | 300 to 1000 |
| Units | milliseconds |
| Default | 500 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## qos *number*

| | |
|---|---|
| Synopsis | Time between two PATs for which a QoS alarm is raised |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* video analyzer alarms pat-repetition qos *number* |
| Tree | qos |
| Range | 200 to 900 |
| Units | milliseconds |
| Default | 200 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |


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### **tnc** *number*

| | |
|---|---|
| Synopsis | Time between two PATs for which a TNC alarm is raised |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* video analyzer alarms pat-repetition tnc *number* |
| Tree | tnc |
| Range | 100 to 800 |
| Units | milliseconds |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **pat-syntax** *boolean*

| | |
|---|---|
| Synopsis | Check for PAT syntax errors |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* video analyzer alarms pat-syntax *boolean* |
| Tree | pat-syntax |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **pcr-repetition**

| | |
|---|---|
| Synopsis | Enable the **pcr-repetition** context |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* video analyzer alarms pcr-repetition |
| Tree | pcr-repetition |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **poa** *number*

| | |
|---|---|
| Synopsis | Time between two PCRs for which a POA alarm is raised |


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| | |
|---|---|
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* video analyzer alarms pcr-repetition poa *number* |
| Tree | poa |
| Range | 300 to 1000 |
| Units | milliseconds |
| Default | 500 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## **qos** *number*

| | |
|---|---|
| Synopsis | Time between two PCRs for which a QoS alarm is raised |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* video analyzer alarms pcr-repetition qos *number* |
| Tree | qos |
| Range | 200 to 900 |
| Units | milliseconds |
| Default | 200 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## **tnc** *number*

| | |
|---|---|
| Synopsis | Time between two PCRs for which a TNC alarm is raised |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* video analyzer alarms pcr-repetition tnc *number* |
| Tree | tnc |
| Range | 100 to 800 |
| Units | milliseconds |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |


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### **pid-pmt-unref** *boolean*

| | |
|---|---|
| Synopsis | Check for unreferenced PIDs in the PMT |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* video analyzer alarms pid-pmt-unref *boolean* |
| Tree | pid-pmt-unref |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **pmt-repetition**

| | |
|---|---|
| Synopsis | Enable the **pmt-repetition** context |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* video analyzer alarms pmt-repetition |
| Tree | pmt-repetition |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **poa** *number*

| | |
|---|---|
| Synopsis | Time between two PMTs for which a POA alarm is raised |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* video analyzer alarms pmt-repetition poa *number* |
| Tree | poa |
| Range | 300 to 5000 |
| Units | milliseconds |
| Default | 2000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **qos** *number*

| | |
|---|---|
| Synopsis | Time between two PMTs for which a QoS alarm is raised |


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| | |
|---|---|
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* video analyzer alarms pmt-repetition qos *number* |
| Tree | qos |
| Range | 200 to 4900 |
| Units | milliseconds |
| Default | 800 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **tnc** *number*

| | |
|---|---|
| Synopsis | Time between two PMTs for which a TNC alarm is raised |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* video analyzer alarms pmt-repetition tnc *number* |
| Tree | tnc |
| Range | 100 to 4800 |
| Units | milliseconds |
| Default | 400 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **pmt-syntax** *boolean*

| | |
|---|---|
| Synopsis | Check for PMT syntax errors |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* video analyzer alarms pmt-syntax *boolean* |
| Tree | pmt-syntax |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **report-alarm**

| | |
|---|---|
| Synopsis | Enter the **report-alarm** context |


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| | |
|---|---|
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* video analyzer alarms report-alarm |
| Tree | report-alarm |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **severity** *keyword*

| | |
|---|---|
| Synopsis | Keyword for the type of alarm |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* video analyzer alarms report-alarm severity *keyword* |
| Tree | severity |
| Options | tnc, qos, poa |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **tei-set** *boolean*

| | |
|---|---|
| Synopsis | Check for TEI set errors |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* video analyzer alarms tei-set *boolean* |
| Tree | tei-set |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **ts-sync-loss** *boolean*

| | |
|---|---|
| Synopsis | Check for synchronization loss errors |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* video analyzer alarms ts-sync-loss *boolean* |
| Tree | ts-sync-loss |
| Default | false |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **vid-pid-absent** *number*

| | |
|---|---|
| Synopsis | VID PID checked within the specified time interval |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* video analyzer alarms vid-pid-absent *number* |
| Tree | vid-pid-absent |
| Range | 100 to 5000 |
| Units | milliseconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* video analyzer description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **fcc-channel-type** *keyword*

| | |
|---|---|
| Synopsis | Channel type for the bundle or channel |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* video fcc-channel-type *keyword* |
| Tree | fcc-channel-type |
| Options | hd, sd, pip |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |


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### **fcc-min-duration** *number*

| | |
|---|---|
| Synopsis | Minimum duration of the FCC burst |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* video fcc-min-duration *number* |
| Tree | fcc-min-duration |
| Range | 300 to 8000 |
| Units | milliseconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **fcc-server** *keyword*

| | |
|---|---|
| Synopsis | Value to override the parent value of the FCC server |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* video fcc-server *keyword* |
| Tree | fcc-server |
| Options | false, true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **local-rt-server** *keyword*

| | |
|---|---|
| Synopsis | Value to override the parent value of local RT server |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* video local-rt-server *keyword* |
| Tree | local-rt-server |
| Options | false, true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **reorder-audio** *number*

| | |
|---|---|
| Synopsis | Time the audio packets are reordered in the ad stream |


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| | |
|---|---|
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* video reorder-audio *number* |
| Tree | reorder-audio |
| Range | 100 to 1000 |
| Units | milliseconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## **rt-buffer-size** *number*

| | |
|---|---|
| Synopsis | Buffer size to store channel packets |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* video rt-buffer-size *number* |
| Tree | rt-buffer-size |
| Range | 300 to 8000 |
| Units | milliseconds |
| Default | 300 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## **rt-server**

| | |
|---|---|
| Synopsis | Enter the **rt-server** context |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* video rt-server |
| Tree | rt-server |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## **ip-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IP address of the upstream retransmission server |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* video rt-server ip-address *ipv4-unicast-address* |


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| | |
|---|---|
| Tree | ip-address |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## **port** *number*

| | |
|---|---|
| Synopsis | UDP port to send RET requests to the upstream RET sever |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* video rt-server port *number* |
| Tree | port |
| Range | 1024 to 5999 \| 6251 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## **rt-state** *keyword*

| | |
|---|---|
| Synopsis | Retransmission server state |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* video rt-server rt-state *keyword* |
| Tree | rt-state |
| Options | false, true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## **stream-selection**

| | |
|---|---|
| Synopsis | Enter the **stream-selection** context |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* video stream-selection |
| Tree | stream-selection |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |


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### **intf1** *named-item*

| | |
|---|---|
| Synopsis | Primary interface |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* video stream-selection intf1 *named-item* |
| Tree | intf1 |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **intf2** *named-item*

| | |
|---|---|
| Synopsis | Secondary interface |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* video stream-selection intf2 *named-item* |
| Tree | intf2 |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **source1** *ipv4-address*

| | |
|---|---|
| Synopsis | Primary source IP address |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* video stream-selection source1 *ipv4-address* |
| Tree | source1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **source2** *ipv4-address*

| | |
|---|---|
| Synopsis | Secondary source IP address |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone \| ipv6-address-no-zone)* end *(ipv4-address-no-zone \| ipv6-address-no-zone)* video stream-selection source2 *ipv4-address* |


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| | |
|---|---|
| Tree | source2 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **video-group** *(number | keyword)*

| | |
|---|---|
| Synopsis | Video group ID |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* channel start *(ipv4-address-no-zone | ipv6-address-no-zone)* end *(ipv4-address-no-zone | ipv6-address-no-zone)* video video-group *(number | keyword)* |
| Tree | video-group |
| Range | 1 to 4 |
| Options | none |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **cong-priority-threshold** *number*

| | |
|---|---|
| Synopsis | Preference level threshold from low to high priority |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* cong-priority-threshold *number* |
| Tree | cong-priority-threshold |
| Range | 0 to 7 |
| Default | 4 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **ecmp-opt-threshold** *number*

| | |
|---|---|
| Synopsis | ECMP threshold |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* ecmp-opt-threshold *number* |
| Tree | ecmp-opt-threshold |
| Range | 0 to 7 |
| Default | 7 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **explicit-sf-path** *keyword*

| | |
|---|---|
| Synopsis | Explicit ingress switch fabric multicast path |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* explicit-sf-path *keyword* |
| Tree | explicit-sf-path |
| Options | primary, secondary |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-1x-48D, 7750 SR-1x-92S, 7750 SR-7/12/12e, 7750 SR-s, 7950 XRS, VSR |

### **keepalive-override** *number*

| | |
|---|---|
| Synopsis | Keepalive timer override |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* keepalive-override *number* |
| Tree | keepalive-override |
| Range | 10 to 86000 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **preference** *number*

| | |
|---|---|
| Synopsis | Relative preference level for multicast channels |


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| | |
|---|---|
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* preference *number* |
| Tree | preference |
| Range | 1 to 7 |
| Introduced | 16.0.R1 |
| Platforms | All |

## primary-tunnel-interface

| | |
|---|---|
| Synopsis | Enter the **primary-tunnel-interface** context |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* primary-tunnel-interface |
| Tree | primary-tunnel-interface |
| Introduced | 16.0.R1 |
| Platforms | All |

## ldp-p2mp *number*

| | |
|---|---|
| Synopsis | ID for signaling MLDP P2MP LSP |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* primary-tunnel-interface ldp-p2mp *number* |
| Tree | ldp-p2mp |
| Range | 1 to 4294967295 |
| Notes | The following elements are part of a choice: **ldp-p2mp** or **rsvp-p2mp**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## rsvp-p2mp *named-item*

| | |
|---|---|
| Synopsis | P2MP name for the LDP P2MP |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* primary-tunnel-interface rsvp-p2mp *named-item* |
| Tree | rsvp-p2mp |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **ldp-p2mp** or **rsvp-p2mp**. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## **sender** *ipv4-address*

| | |
|---|---|
| Synopsis | Bundle set to receive from the primary tunnel interface |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* primary-tunnel-interface sender *ipv4-address* |
| Tree | sender |
| Introduced | 16.0.R1 |
| Platforms | All |

## video

| | |
|---|---|
| Synopsis | Enter the **video** context |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* video |
| Tree | video |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## analyzer

| | |
|---|---|
| Synopsis | Enable the **analyzer** context |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* video analyzer |
| Tree | analyzer |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## alarms

| | |
|---|---|
| Synopsis | Enter the **alarms** context |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* video analyzer alarms |
| Tree | alarms |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **cc-error** *boolean*

| | |
|---|---|
| Synopsis | Check the continuity counter |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* video analyzer alarms cc-error *boolean* |
| Tree | cc-error |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **non-vid-pid-absent** *number*

| | |
|---|---|
| Synopsis | PID checked within the specified interval |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* video analyzer alarms non-vid-pid-absent *number* |
| Tree | non-vid-pid-absent |
| Range | 100 to 5000 |
| Units | milliseconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **pat-repetition**

| | |
|---|---|
| Synopsis | Enable the **pat-repetition** context |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* video analyzer alarms pat-repetition |
| Tree | pat-repetition |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **poa** *number*

| | |
|---|---|
| Synopsis | Time between two PATs for which a POA alarm is raised |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* video analyzer alarms pat-repetition poa *number* |


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| | |
|---|---|
| Tree | poa |
| Range | 300 to 1000 |
| Units | milliseconds |
| Default | 500 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **qos** *number*

| | |
|---|---|
| Synopsis | Time between two PATs for which a QoS alarm is raised |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* video analyzer alarms pat-repetition qos *number* |
| Tree | qos |
| Range | 200 to 900 |
| Units | milliseconds |
| Default | 200 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **tnc** *number*

| | |
|---|---|
| Synopsis | Time between two PATs for which a TNC alarm is raised |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* video analyzer alarms pat-repetition tnc *number* |
| Tree | tnc |
| Range | 100 to 800 |
| Units | milliseconds |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **pat-syntax** *boolean*

| | |
|---|---|
| Synopsis | Check for PAT syntax errors |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* video analyzer alarms pat-syntax *boolean* |


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| | |
|---|---|
| Tree | pat-syntax |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## pcr-repetition

| | |
|---|---|
| Synopsis | Enable the **pcr-repetition** context |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* video analyzer alarms pcr-repetition |
| Tree | pcr-repetition |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## poa *number*

| | |
|---|---|
| Synopsis | Time between two PCRs for which a POA alarm is raised |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* video analyzer alarms pcr-repetition poa *number* |
| Tree | poa |
| Range | 300 to 1000 |
| Units | milliseconds |
| Default | 500 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## qos *number*

| | |
|---|---|
| Synopsis | Time between two PCRs for which a QoS alarm is raised |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* video analyzer alarms pcr-repetition qos *number* |
| Tree | qos |
| Range | 200 to 900 |
| Units | milliseconds |
| Default | 200 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **tnc** *number*

| | |
|---|---|
| Synopsis | Time between two PCRs for which a TNC alarm is raised |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* video analyzer alarms pcr-repetition tnc *number* |
| Tree | tnc |
| Range | 100 to 800 |
| Units | milliseconds |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **pid-pmt-unref** *boolean*

| | |
|---|---|
| Synopsis | Check for unreferenced PIDs in the PMT |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* video analyzer alarms pid-pmt-unref *boolean* |
| Tree | pid-pmt-unref |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **pmt-repetition**

| | |
|---|---|
| Synopsis | Enable the **pmt-repetition** context |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* video analyzer alarms pmt-repetition |
| Tree | pmt-repetition |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **poa** *number*

| | |
|---|---|
| Synopsis | Time between two PMTs for which a POA alarm is raised |


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| | |
|---|---|
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* video analyzer alarms pmt-repetition poa *number* |
| Tree | poa |
| Range | 300 to 5000 |
| Units | milliseconds |
| Default | 2000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **qos** *number*

| | |
|---|---|
| Synopsis | Time between two PMTs for which a QoS alarm is raised |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* video analyzer alarms pmt-repetition qos *number* |
| Tree | qos |
| Range | 200 to 4900 |
| Units | milliseconds |
| Default | 800 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **tnc** *number*

| | |
|---|---|
| Synopsis | Time between two PMTs for which a TNC alarm is raised |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* video analyzer alarms pmt-repetition tnc *number* |
| Tree | tnc |
| Range | 100 to 4800 |
| Units | milliseconds |
| Default | 400 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **pmt-syntax** *boolean*

| | |
|---|---|
| Synopsis | Check for PMT syntax errors |


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| | |
|---|---|
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* video analyzer alarms pmt-syntax *boolean* |
| Tree | pmt-syntax |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## report-alarm

| | |
|---|---|
| Synopsis | Enter the **report-alarm** context |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* video analyzer alarms report-alarm |
| Tree | report-alarm |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## severity *keyword*

| | |
|---|---|
| Synopsis | Keyword for the type of alarm |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* video analyzer alarms report-alarm severity *keyword* |
| Tree | severity |
| Options | tnc, qos, poa |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## tei-set *boolean*

| | |
|---|---|
| Synopsis | Check for TEI set errors |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* video analyzer alarms tei-set *boolean* |
| Tree | tei-set |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |


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### **ts-sync-loss** *boolean*

| | |
|---|---|
| Synopsis | Check for synchronization loss errors |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* video analyzer alarms ts-sync-loss *boolean* |
| Tree | ts-sync-loss |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **vid-pid-absent** *number*

| | |
|---|---|
| Synopsis | VID PID checked within the specified time interval |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* video analyzer alarms vid-pid-absent *number* |
| Tree | vid-pid-absent |
| Range | 100 to 5000 |
| Units | milliseconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* video analyzer description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **fcc-channel-type** *keyword*

| | |
|---|---|
| Synopsis | Channel type for the bundle or channel |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* video fcc-channel-type *keyword* |


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| | |
|---|---|
| Tree | fcc-channel-type |
| Options | hd, sd, pip |
| Default | hd |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **fcc-min-duration** *number*

| | |
|---|---|
| Synopsis | Minimum duration of the FCC burst |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* video fcc-min-duration *number* |
| Tree | fcc-min-duration |
| Range | 300 to 8000 |
| Units | milliseconds |
| Default | 300 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **fcc-server** *boolean*

| | |
|---|---|
| Synopsis | Enable the FCC server for a multicast bundle |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* video fcc-server *boolean* |
| Tree | fcc-server |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **local-fcc-port** *number*

| | |
|---|---|
| Synopsis | Local port for FCC requests |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* video local-fcc-port *number* |
| Tree | local-fcc-port |
| Range | 1024 to 5999 \| 6251 to 65535 |
| Default | 4098 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **local-rt-port** *number*

| | |
|---|---|
| Synopsis | Local port for RET requests |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* video local-rt-port *number* |
| Tree | local-rt-port |
| Range | 1024 to 5999 \| 6251 to 65535 |
| Default | 4096 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **local-rt-server** *boolean*

| | |
|---|---|
| Synopsis | Enable local retransmission server capability |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* video local-rt-server *boolean* |
| Tree | local-rt-server |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **reorder-audio** *number*

| | |
|---|---|
| Synopsis | Time the audio packets are reordered in the ad stream |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* video reorder-audio *number* |
| Tree | reorder-audio |
| Range | 100 to 1000 |
| Units | milliseconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |


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### **rt-buffer-size** *number*

| | |
|---|---|
| Synopsis | Buffer size to store channel packets |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* video rt-buffer-size *number* |
| Tree | rt-buffer-size |
| Range | 300 to 8000 |
| Units | milliseconds |
| Default | 300 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **rt-server**

| | |
|---|---|
| Synopsis | Enable the **rt-server** context |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* video rt-server |
| Tree | rt-server |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **ip-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IP address of the upstream retransmission server |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* video rt-server ip-address *ipv4-unicast-address* |
| Tree | ip-address |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **port** *number*

| | |
|---|---|
| Synopsis | RET server port number |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* video rt-server port *number* |


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| | |
|---|---|
| Tree | port |
| Range | 1024 to 5999 \| 6251 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## stream-selection

| | |
|---|---|
| Synopsis | Enter the **stream-selection** context |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* video stream-selection |
| Tree | stream-selection |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## intf1 *named-item*

| | |
|---|---|
| Synopsis | Primary interface |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* video stream-selection intf1 *named-item* |
| Tree | intf1 |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## intf2 *named-item*

| | |
|---|---|
| Synopsis | Secondary interface |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* video stream-selection intf2 *named-item* |
| Tree | intf2 |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |


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### **source1** *ipv4-address*

| | |
|---|---|
| Synopsis | Primary source IP address |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* video stream-selection source1 *ipv4-address* |
| Tree | source1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **source2** *ipv4-address*

| | |
|---|---|
| Synopsis | Secondary source IP address |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* video stream-selection source2 *ipv4-address* |
| Tree | source2 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **video-group** *number*

| | |
|---|---|
| Synopsis | Video group for the bundle |
| Context | **configure** multicast-management multicast-info-policy *named-item* bundle *named-item* video video-group *number* |
| Tree | video-group |
| Range | 1 to 4 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** multicast-management multicast-info-policy *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## video-policy

| | |
|---|---|
| Synopsis | Enter the **video-policy** context |
| Context | **configure** multicast-management multicast-info-policy *named-item* video-policy |
| Tree | video-policy |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## video-interface [ip-address] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Enter the **video-interface** list instance |
| Context | **configure** multicast-management multicast-info-policy *named-item* video-policy video-interface *ipv4-unicast-address* |
| Tree | video-interface |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## [ip-address] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IP address of the video interface |
| Context | **configure** multicast-management multicast-info-policy *named-item* video-policy video-interface *ipv4-unicast-address* |
| Tree | video-interface |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## extended-unicast *boolean*

| | |
|---|---|
| Synopsis | Extend video unicast session |
| Context | **configure** multicast-management multicast-info-policy *named-item* video-policy video-interface *ipv4-unicast-address* extended-unicast *boolean* |
| Tree | extended-unicast |
| Description | When configured to **true**, video unicast is delayed from switching over to multicast for 5 minutes. The unicast session can be extended further by sending an RTCP |


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extension request, which resets the 5-minute timer. This is ideal for services that require unicast video and end devices that require extended time to switch over from unicast to multicast.

When configured to **false**, the unicast session switches over to multicast 1.5 seconds after the IGMP request is sent. Most Fast Channel Change deployments do not require a time extension.

| | |
|---|---|
| Default | false |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## **fcc-session-timeout** *number*

| | |
|---|---|
| Synopsis | FCC session timeout |
| Context | **configure** multicast-management multicast-info-policy *named-item* video-policy video-interface *ipv4-unicast-address* fcc-session-timeout *number* |
| Tree | fcc-session-timeout |
| Range | 5 to 300 |
| Units | seconds |
| Default | 300 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## **hd**

| | |
|---|---|
| Synopsis | Enter the **hd** context |
| Context | **configure** multicast-management multicast-info-policy *named-item* video-policy video-interface *ipv4-unicast-address* hd |
| Tree | hd |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## **dent-threshold** *number*

| | |
|---|---|
| Synopsis | Threshold below which the FCC server dents unicast data |
| Context | **configure** multicast-management multicast-info-policy *named-item* video-policy video-interface *ipv4-unicast-address* hd dent-threshold *number* |
| Tree | dent-threshold |


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| | |
|---|---|
| Range | 1 to 31 |
| Default | 16 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## **fcc-burst** *number*

| | |
|---|---|
| Synopsis | Burst rate FCC server sends unicast data to FCC client |
| Context | **configure** multicast-management multicast-info-policy *named-item* video-policy video-interface *ipv4-unicast-address* hd fcc-burst *number* |
| Tree | fcc-burst |
| Range | 0 to 600 |
| Units | percent |
| Default | 25 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## **fcc-server**

| | |
|---|---|
| Synopsis | Enter the **fcc-server** context |
| Context | **configure** multicast-management multicast-info-policy *named-item* video-policy video-interface *ipv4-unicast-address* hd fcc-server |
| Tree | fcc-server |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## **mode** *keyword*

| | |
|---|---|
| Synopsis | Mode the FCC server sends information to the client |
| Context | **configure** multicast-management multicast-info-policy *named-item* video-policy video-interface *ipv4-unicast-address* hd fcc-server mode *keyword* |
| Tree | mode |
| Options | burst, dent, hybrid |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |


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### **local-rt-server** *boolean*

| | |
|---|---|
| Synopsis | Enable local retransmission server capability |
| Context | **configure** multicast-management multicast-info-policy *named-item* video-policy video-interface *ipv4-unicast-address* hd local-rt-server *boolean* |
| Tree | local-rt-server |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **mc-handover** *number*

| | |
|---|---|
| Synopsis | Rate the FCC server sends data during the handover |
| Context | **configure** multicast-management multicast-info-policy *named-item* video-policy video-interface *ipv4-unicast-address* hd mc-handover *number* |
| Tree | mc-handover |
| Range | 0 to 100 |
| Units | percent |
| Default | 25 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **rt-rate** *number*

| | |
|---|---|
| Synopsis | Rate the RET packets are sent to client |
| Context | **configure** multicast-management multicast-info-policy *named-item* video-policy video-interface *ipv4-unicast-address* hd rt-rate *number* |
| Tree | rt-rate |
| Range | 1 to 100 |
| Units | percent |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |


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### **max-igmp-latency** *number*

| | |
|---|---|
| Synopsis | Maximum IGMP latency per client |
| Context | **configure** multicast-management multicast-info-policy *named-item* video-policy video-interface *ipv4-unicast-address* max-igmp-latency *number* |
| Tree | max-igmp-latency |
| Range | 10 to 1000 |
| Units | milliseconds |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **max-sessions** *number*

| | |
|---|---|
| Synopsis | Maximum number of sessions per client |
| Context | **configure** multicast-management multicast-info-policy *named-item* video-policy video-interface *ipv4-unicast-address* max-sessions *number* |
| Tree | max-sessions |
| Range | 1 to 65536 |
| Default | 256 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **pip**

| | |
|---|---|
| Synopsis | Enter the **pip** context |
| Context | **configure** multicast-management multicast-info-policy *named-item* video-policy video-interface *ipv4-unicast-address* pip |
| Tree | pip |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **dent-threshold** *number*

| | |
|---|---|
| Synopsis | Threshold below which the FCC server dents unicast data |


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| | |
|---|---|
| Context | **configure** multicast-management multicast-info-policy *named-item* video-policy video-interface *ipv4-unicast-address* pip dent-threshold *number* |
| Tree | dent-threshold |
| Range | 1 to 31 |
| Default | 16 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## **fcc-burst** *number*

| | |
|---|---|
| Synopsis | Burst rate FCC server sends unicast data to FCC client |
| Context | **configure** multicast-management multicast-info-policy *named-item* video-policy video-interface *ipv4-unicast-address* pip fcc-burst *number* |
| Tree | fcc-burst |
| Range | 0 to 600 |
| Units | percent |
| Default | 25 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## **fcc-server**

| | |
|---|---|
| Synopsis | Enter the **fcc-server** context |
| Context | **configure** multicast-management multicast-info-policy *named-item* video-policy video-interface *ipv4-unicast-address* pip fcc-server |
| Tree | fcc-server |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## **mode** *keyword*

| | |
|---|---|
| Synopsis | Mode the FCC server sends information to the client |
| Context | **configure** multicast-management multicast-info-policy *named-item* video-policy video-interface *ipv4-unicast-address* pip fcc-server mode *keyword* |
| Tree | mode |
| Options | burst, dent, hybrid |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **local-rt-server** *boolean*

| | |
|---|---|
| Synopsis | Enable local retransmission server capability |
| Context | **configure** multicast-management multicast-info-policy *named-item* video-policy video-interface *ipv4-unicast-address* pip local-rt-server *boolean* |
| Tree | local-rt-server |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **mc-handover** *number*

| | |
|---|---|
| Synopsis | Rate the FCC server sends data during the handover |
| Context | **configure** multicast-management multicast-info-policy *named-item* video-policy video-interface *ipv4-unicast-address* pip mc-handover *number* |
| Tree | mc-handover |
| Range | 0 to 600 |
| Units | percent |
| Default | 25 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **rt-rate** *number*

| | |
|---|---|
| Synopsis | Rate the RET packets are sent to client |
| Context | **configure** multicast-management multicast-info-policy *named-item* video-policy video-interface *ipv4-unicast-address* pip rt-rate *number* |
| Tree | rt-rate |
| Range | 1 to 100 |
| Units | percent |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |


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### **ret-session-timeout** *number*

| | |
|---|---|
| Synopsis | RET session timeout |
| Context | **configure** multicast-management multicast-info-policy *named-item* video-policy video-interface *ipv4-unicast-address* ret-session-timeout *number* |
| Tree | ret-session-timeout |
| Range | 5 to 300 |
| Units | seconds |
| Default | 300 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **rt-payload-type** *number*

| | |
|---|---|
| Synopsis | Format for the received retransmission packets |
| Context | **configure** multicast-management multicast-info-policy *named-item* video-policy video-interface *ipv4-unicast-address* rt-payload-type *number* |
| Tree | rt-payload-type |
| Range | 33 \| 96 to 127 |
| Default | 99 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **rt-rate** *number*

| | |
|---|---|
| Synopsis | Rate the RET packets are sent to client |
| Context | **configure** multicast-management multicast-info-policy *named-item* video-policy video-interface *ipv4-unicast-address* rt-rate *number* |
| Tree | rt-rate |
| Range | 1 to 100 |
| Units | percent |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |


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## sd

| | |
|---|---|
| Synopsis | Enter the **sd** context |
| Context | **configure** multicast-management multicast-info-policy *named-item* video-policy video-interface *ipv4-unicast-address* sd |
| Tree | sd |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## dent-threshold *number*

| | |
|---|---|
| Synopsis | Threshold below which the FCC server dents unicast data |
| Context | **configure** multicast-management multicast-info-policy *named-item* video-policy video-interface *ipv4-unicast-address* sd dent-threshold *number* |
| Tree | dent-threshold |
| Range | 1 to 31 |
| Default | 16 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## fcc-burst *number*

| | |
|---|---|
| Synopsis | Burst rate FCC server sends unicast data to FCC client |
| Context | **configure** multicast-management multicast-info-policy *named-item* video-policy video-interface *ipv4-unicast-address* sd fcc-burst *number* |
| Tree | fcc-burst |
| Range | 0 to 600 |
| Units | percent |
| Default | 25 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## fcc-server

| | |
|---|---|
| Synopsis | Enter the **fcc-server** context |


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| | |
|---|---|
| Context | **configure** multicast-management multicast-info-policy *named-item* video-policy video-interface *ipv4-unicast-address* sd fcc-server |
| Tree | fcc-server |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **mode** *keyword*

| | |
|---|---|
| Synopsis | Mode the FCC server sends information to the client |
| Context | **configure** multicast-management multicast-info-policy *named-item* video-policy video-interface *ipv4-unicast-address* sd fcc-server mode *keyword* |
| Tree | mode |
| Options | burst, dent, hybrid |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **local-rt-server** *boolean*

| | |
|---|---|
| Synopsis | Enable local retransmission server capability |
| Context | **configure** multicast-management multicast-info-policy *named-item* video-policy video-interface *ipv4-unicast-address* sd local-rt-server *boolean* |
| Tree | local-rt-server |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **mc-handover** *number*

| | |
|---|---|
| Synopsis | Rate the FCC server sends data during the handover |
| Context | **configure** multicast-management multicast-info-policy *named-item* video-policy video-interface *ipv4-unicast-address* sd mc-handover *number* |
| Tree | mc-handover |
| Range | 0 to 600 |
| Units | percent |
| Default | 25 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **rt-rate** *number*

| | |
|---|---|
| Synopsis | Rate the RET packets are sent to client |
| Context | **configure** multicast-management multicast-info-policy *named-item* video-policy video-interface *ipv4-unicast-address* sd rt-rate *number* |
| Tree | rt-rate |
| Range | 1 to 100 |
| Units | percent |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **subscriber-bw-limit** *number*

| | |
|---|---|
| Synopsis | Egress bandwidth limit per subscriber |
| Context | **configure** multicast-management multicast-info-policy *named-item* video-policy video-interface *ipv4-unicast-address* subscriber-bw-limit *number* |
| Tree | subscriber-bw-limit |
| Range | 1 to 4294967295 |
| Units | kilobps |
| Default | 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **multicast-reporting-destination** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **multicast-reporting-destination** list instance |
| Context | **configure** multicast-management multicast-reporting-destination *named-item* |
| Tree | multicast-reporting-destination |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**name**] *named-item*

| | |
|---|---|
| Synopsis | Multicast reporting destination name |
| Context | **configure** multicast-management multicast-reporting-destination *named-item* |
| Tree | multicast-reporting-destination |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **address** *ipv4-address*

| | |
|---|---|
| Synopsis | IP address of the multicast reporting destination |
| Context | **configure** multicast-management multicast-reporting-destination *named-item* address *ipv4-address* |
| Tree | address |
| Default | 0.0.0.0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of multicast reporting destination |
| Context | **configure** multicast-management multicast-reporting-destination *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** multicast-management multicast-reporting-destination *named-item* description *description* |


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| | |
|---|---|
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **maximum-transmission-delay** *number*

| | |
|---|---|
| Synopsis | Time delay before packet transmits to the destination |
| Context | **configure** multicast-management multicast-reporting-destination *named-item* maximum-transmission-delay *number* |
| Tree | maximum-transmission-delay |
| Range | 0 to 100 |
| Units | deciseconds |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **udp-port** *number*

| | |
|---|---|
| Synopsis | UDP port where multicast reports are sent |
| Context | **configure** multicast-management multicast-reporting-destination *named-item* udp-port *number* |
| Tree | udp-port |
| Range | 1 to 65535 |
| Default | 1037 |
| Introduced | 16.0.R1 |
| Platforms | All |


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## 4.29 oam-pm commands

```
configure
  - oam-pm
    - apply-groups reference
    - apply-groups-exclude reference
    - bin-group number
      - admin-state keyword
      - apply-groups reference
      - apply-groups-exclude reference
      - bin-type keyword
        - apply-groups reference
        - apply-groups-exclude reference
        - bin number
          - apply-groups reference
          - apply-groups-exclude reference
          - lower-bound number
        - delay-event keyword
          - apply-groups reference
          - apply-groups-exclude reference
          - clear-threshold number
          - exclude-lowest-bin number
          - lowest-bin number
          - raise-threshold number
        - exclude-from-avg keyword
          - apply-groups reference
          - apply-groups-exclude reference
          - bins string
      - description description
    - session named-item
      - apply-groups reference
      - apply-groups-exclude reference
      - bin-group reference
      - description description
      - ethernet
        - dest-mac mac-unicast-address
        - dmm
          - admin-state keyword
          - apply-groups reference
          - apply-groups-exclude reference
          - data-tlv-size number
          - delay-template named-item-64
          - interval number
          - test-duration number
          - test-id (number | keyword)
        - lmm
          - admin-state keyword
          - apply-groups reference
          - apply-groups-exclude reference
          - availability
            - admin-state keyword
            - flr-threshold number
            - hli-force-count boolean
            - timing
              - chli-threshold number
              - consec-delta-t number
              - frames-per-delta-t number
          - fc-collection boolean
          - interval number
          - loss-events
            - avg-flr-event keyword
```


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configure oam-pm session ethernet lmm loss-events avg-flr-event apply-groups

```
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - clear-threshold decimal-number
                    - raise-threshold decimal-number
                 - chli-event keyword
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - clear-threshold number
                    - raise-threshold number
                 - hli-event keyword
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - clear-threshold number
                    - raise-threshold number
                 - unavailability-event keyword
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - clear-threshold number
                    - raise-threshold number
                 - undet-availability-event keyword
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - clear-threshold number
                    - raise-threshold number
                 - undet-unavailability-event keyword
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - clear-threshold number
                    - raise-threshold number
              - test-duration number
              - test-id (number | keyword)
           - priority number
           - remote-mep number
           - slm
              - admin-state keyword
              - apply-groups reference
              - apply-groups-exclude reference
              - data-tlv-size number
              - flr-threshold number
              - hli-force-count boolean
              - interval number
              - loss-events
                 - avg-flr-event keyword
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - clear-threshold decimal-number
                    - raise-threshold decimal-number
                 - chli-event keyword
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - clear-threshold number
                    - raise-threshold number
                 - hli-event keyword
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - clear-threshold number
                    - raise-threshold number
                 - unavailability-event keyword
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - clear-threshold number
                    - raise-threshold number
                 - undet-availability-event keyword
                    - apply-groups reference
```


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configure oam-pm session ethernet slm loss-events undet-availability-event apply-groups-exclude

```
                    - apply-groups-exclude reference
                    - clear-threshold number
                    - raise-threshold number
                 - undet-unavailability-event keyword
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - clear-threshold number
                    - raise-threshold number
              - test-duration number
              - test-id (number | keyword)
              - timing
                 - chli-threshold number
                 - consec-delta-t number
                 - frames-per-delta-t number
           - source
              - ma-admin-name (named-item-64 | admin-name)
              - md-admin-name (named-item-64 | admin-name)
              - mep number
        - ip
           - allow-egress-remark-dscp boolean
           - destination (ipv4-address-no-zone | ipv6-address-no-zone)
           - destination-udp-port number
           - do-not-fragment boolean
           - dscp (keyword | keyword)
           - fc keyword
           - forwarding
              - bypass-routing
              - interface interface-name
              - next-hop (ipv4-address-no-zone | ipv6-address-no-zone)
           - pattern (keyword | number)
           - profile keyword
           - router-instance string
           - source (ipv4-address-no-zone | ipv6-address-no-zone)
           - source-udp-port number
           - ttl number
           - tunnel
              - mpls
                 - rsvp-te
                    - lsp named-item-64
                 - rsvp-te-auto
                    - from ipv4-unicast-address
                    - lsp-template named-item
                    - to ipv4-unicast-address
                 - sr-isis
                    - flex-algo number
                    - igp-instance number
                    - prefix (ipv4-prefix | ipv6-prefix)
                 - sr-ospf
                    - flex-algo number
                    - igp-instance number
                    - prefix ipv4-unicast-prefix
                 - sr-ospf3
                    - igp-instance number
                    - prefix (ipv4-prefix | ipv6-prefix)
                 - sr-policy
                    - color number
                    - endpoint (ipv4-address-no-zone | ipv6-address-no-zone)
                    - segment-list number
                 - sr-te
                    - lsp named-item-64
           - twamp-light
              - admin-state keyword
              - allow-ipv6-udp-checksum-zero boolean
              - apply-groups reference
```


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configure oam-pm session ip twamp-light apply-groups-exclude

```
            - apply-groups-exclude reference
            - delay-template named-item-64
            - interval number
            - loss
               - flr-threshold number
               - hli-force-count boolean
               - timing
                  - chli-threshold number
                  - consec-delta-t number
                  - frames-per-delta-t number
            - loss-events
               - avg-flr-event keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - clear-threshold decimal-number
                  - raise-threshold decimal-number
               - chli-event keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - clear-threshold number
                  - raise-threshold number
               - hli-event keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - clear-threshold number
                  - raise-threshold number
               - unavailability-event keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - clear-threshold number
                  - raise-threshold number
               - undet-availability-event keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - clear-threshold number
                  - raise-threshold number
               - undet-unavailability-event keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - clear-threshold number
                  - raise-threshold number
            - pad-size number
            - pad-tlv-size number
            - record-stats keyword
            - session-sender-type keyword
            - test-duration number
            - test-id (number | keyword)
            - timestamp-format keyword
         - measurement-interval keyword
            - accounting-policy reference
            - apply-groups reference
            - apply-groups-exclude reference
            - boundary-type keyword
            - clock-offset number
            - intervals-stored number
            - threshold-cross-alerts
               - admin-state keyword
               - delay-events boolean
               - loss-events boolean
         - mpls
            - dm
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
```


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configure oam-pm session mpls dm delay-template

```
            - delay-template named-item-64
            - interval number
            - pad-tlv-size number
            - reflect-pad boolean
            - test-duration number
            - test-id number
         - dscp keyword
         - fc keyword
         - lsp
            - mpls-tp-static
               - lsp named-item-64
            - rsvp
               - lsp named-item-64
               - udp-return-object (ipv4-address-no-zone | ipv6-address-no-zone)
            - rsvp-auto
               - from ipv4-unicast-address
               - lsp-template named-item
               - to ipv4-unicast-address
               - udp-return-object (ipv4-address-no-zone | ipv6-address-no-zone)
         - pattern (keyword | number)
         - profile keyword
         - ttl number
      - session-type keyword
   - streaming
      - delay-template named-item-64
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - description description
         - fd-avg keyword
         - ifdv-avg keyword
         - sample-window number
         - window-integrity number
```


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## 4.29.1 oam-pm command descriptions

### oam-pm

| | |
|---|---|
| Synopsis | Enter the **oam-pm** context |
| Context | **configure** oam-pm |
| Tree | oam-pm |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bin-group** [bin-group-id] *number*

| | |
|---|---|
| Synopsis | Enter the **bin-group** list instance |
| Context | **configure** oam-pm bin-group *number* |
| Tree | bin-group |
| Introduced | 16.0.R5 |
| Platforms | All |

### [**bin-group-id**] *number*

| | |
|---|---|
| Synopsis | Bin group ID |
| Context | **configure** oam-pm bin-group *number* |
| Tree | bin-group |
| Range | 1 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R5 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the bin group |
| Context | **configure** oam-pm bin-group *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Introduced | 16.0.R5 |


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| | |
|---|---|
| Platforms | All |

### **bin-type** [bin-metric] *keyword*

| | |
|---|---|
| Synopsis | Enter the **bin-type** list instance |
| Context | **configure** oam-pm bin-group *number* bin-type *keyword* |
| Tree | bin-type |
| Introduced | 16.0.R5 |
| Platforms | All |

### [**bin-metric**] *keyword*

| | |
|---|---|
| Synopsis | Delay metric bin structure |
| Context | **configure** oam-pm bin-group *number* bin-type *keyword* |
| Tree | bin-type |
| Options | fd – Frame Delay<br>fdr – Frame Delay Range<br>ifdv – Inter-Frame Delay Variation |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R5 |
| Platforms | All |

### **bin** [bin-number] *number*

| | |
|---|---|
| Synopsis | Enter the **bin** list instance |
| Context | **configure** oam-pm bin-group *number* bin-type *keyword* bin *number* |
| Tree | bin |
| Introduced | 16.0.R5 |
| Platforms | All |

### [**bin-number**] *number*

| | |
|---|---|
| Synopsis | Bin number |
| Context | **configure** oam-pm bin-group *number* bin-type *keyword* bin *number* |
| Tree | bin |
| Range | 0 to 9 |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 16.0.R5 |
| Platforms | All |

### **lower-bound** *number*

| | |
|---|---|
| Synopsis | Lower bound for the bin |
| Context | **configure** oam-pm bin-group *number* bin-type *keyword* bin *number* lower-bound *number* |
| Tree | lower-bound |
| Range | 0 \| 1 to 4294967295 |
| Units | microseconds |
| Introduced | 16.0.R5 |
| Platforms | All |

### **delay-event** [direction] *keyword*

| | |
|---|---|
| Synopsis | Enter the **delay-event** list instance |
| Context | **configure** oam-pm bin-group *number* bin-type *keyword* delay-event *keyword* |
| Tree | delay-event |
| Introduced | 16.0.R5 |
| Platforms | All |

### [**direction**] *keyword*

| | |
|---|---|
| Synopsis | Traffic flow direction of the OAM-PM test or metric |
| Context | **configure** oam-pm bin-group *number* bin-type *keyword* delay-event *keyword* |
| Tree | delay-event |
| Options | forward, backward, round-trip |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R5 |
| Platforms | All |


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### **clear-threshold** *number*

| | |
|---|---|
| Synopsis | OAM-PM clear threshold for an excessive delay |
| Context | **configure** oam-pm bin-group *number* bin-type *keyword* delay-event *keyword* clear-threshold *number* |
| Tree | clear-threshold |
| Range | 0 to 863999 |
| Introduced | 16.0.R5 |
| Platforms | All |

### **exclude-lowest-bin** *number*

| | |
|---|---|
| Synopsis | Lowest bin excluded from the TCA count |
| Context | **configure** oam-pm bin-group *number* bin-type *keyword* delay-event *keyword* exclude-lowest-bin *number* |
| Tree | exclude-lowest-bin |
| Range | 1 to 9 |
| Introduced | 16.0.R5 |
| Platforms | All |

### **lowest-bin** *number*

| | |
|---|---|
| Synopsis | Lowest delay bin used when applying a delay threshold |
| Context | **configure** oam-pm bin-group *number* bin-type *keyword* delay-event *keyword* lowest-bin *number* |
| Tree | lowest-bin |
| Range | 0 to 9 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R5 |
| Platforms | All |

### **raise-threshold** *number*

| | |
|---|---|
| Synopsis | Raise threshold for excessive delay |
| Context | **configure** oam-pm bin-group *number* bin-type *keyword* delay-event *keyword* raise-threshold *number* |


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| | |
|---|---|
| Tree | raise-threshold |
| Range | 1 to 864000 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R5 |
| Platforms | All |

### **exclude-from-avg** [direction] *keyword*

| | |
|---|---|
| Synopsis | Enter the **exclude-from-avg** list instance |
| Context | **configure** oam-pm bin-group *number* bin-type *keyword* exclude-from-avg *keyword* |
| Tree | exclude-from-avg |
| Introduced | 16.0.R5 |
| Platforms | All |

### [**direction**] *keyword*

| | |
|---|---|
| Synopsis | Traffic flow direction of the OAM-PM test or metric |
| Context | **configure** oam-pm bin-group *number* bin-type *keyword* exclude-from-avg *keyword* |
| Tree | exclude-from-avg |
| Options | forward, backward, round-trip |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R5 |
| Platforms | All |

### **bins** *string*

| | |
|---|---|
| Synopsis | Bin numbers excluded from the average calculation |
| Context | **configure** oam-pm bin-group *number* bin-type *keyword* exclude-from-avg *keyword* bins *string* |
| Tree | bins |
| String length | 1 to 39 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R5 |
| Platforms | All |


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### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** oam-pm bin-group *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R5 |
| Platforms | All |

### **session** [session-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **session** list instance |
| Context | **configure** oam-pm session *named-item* |
| Tree | session |
| Introduced | 16.0.R5 |
| Platforms | All |

### [**session-name**] *named-item*

| | |
|---|---|
| Synopsis | OAM-PM session name |
| Context | **configure** oam-pm session *named-item* |
| Tree | session |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R5 |
| Platforms | All |

### **bin-group** *reference*

| | |
|---|---|
| Synopsis | Bin group for the session |
| Context | **configure** oam-pm session *named-item* bin-group *reference* |
| Tree | bin-group |
| Reference | **configure** oam-pm bin-group *number* |
| Introduced | 16.0.R5 |
| Platforms | All |


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### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** oam-pm session *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R5 |
| Platforms | All |

### **ethernet**

| | |
|---|---|
| Synopsis | Enable the **ethernet** context |
| Context | **configure** oam-pm session *named-item* ethernet |
| Tree | ethernet |
| Notes | The following elements are part of a mandatory choice: **ethernet**, **ip**, or **mpls**. |
| Introduced | 16.0.R5 |
| Platforms | All |

### **dest-mac** *mac-unicast-address*

| | |
|---|---|
| Synopsis | Destination MAC address for the session |
| Context | **configure** oam-pm session *named-item* ethernet dest-mac *mac-unicast-address* |
| Tree | dest-mac |
| Introduced | 16.0.R5 |
| Platforms | All |

### **dmm**

| | |
|---|---|
| Synopsis | Enable the **dmm** context |
| Context | **configure** oam-pm session *named-item* ethernet dmm |
| Tree | dmm |
| Introduced | 16.0.R5 |
| Platforms | All |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the test |
| Context | **configure** oam-pm session *named-item* ethernet dmm admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R5 |
| Platforms | All |

### **data-tlv-size** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Size of the pad TLV in the frames sent for the test |
| Context | **configure** oam-pm session *named-item* ethernet dmm data-tlv-size *number* |
| Tree | data-tlv-size |
| Range | 0 \| 3 to 2000 |
| Units | octets |
| Default | 0 |
| Introduced | 16.0.R5 |
| Platforms | All |

### **delay-template** *named-item-64*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Reference to a streaming delay template for the test |
| Context | **configure** oam-pm session *named-item* ethernet dmm delay-template *named-item-64* |
| Tree | delay-template |
| String length | 1 to 64 |
| Introduced | 19.7.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **interval** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Time between transmission PDUs for the session test |
| Context | **configure** oam-pm session *named-item* ethernet dmm interval *number* |
| Tree | interval |
| Description | This command configures the message period or probe spacing for the transmission of a frame. |
| Range | 50 \| 100 \| 200 \| 300 \| 400 \| 500 \| 600 \| 700 \| 800 \| 900 \| 1000 \| 10000 |
| Units | milliseconds |
| Introduced | 16.0.R5 |
| Platforms | All |

### **test-duration** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Duration of an on-demand test |
| Context | **configure** oam-pm session *named-item* ethernet dmm test-duration *number* |
| Tree | test-duration |
| Range | 1 to 86400 |
| Units | seconds |
| Introduced | 16.0.R5 |
| Platforms | All |

### **test-id** *(number | keyword)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.


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| | |
|---|---|
| Synopsis | Test ID |
| Context | **configure** oam-pm session *named-item* ethernet dmm test-id *(number \| keyword)* |
| Tree | test-id |
| Range | 0 to 2147483647 |
| Options | auto – Automatically assigns a test-id |
| Notes | This element is mandatory. |
| Introduced | 16.0.R5 |
| Platforms | All |

## lmm

| | |
|---|---|
| Synopsis | Enable the **lmm** context |
| Context | **configure** oam-pm session *named-item* ethernet lmm |
| Tree | lmm |
| Introduced | 16.0.R5 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the test |
| Context | **configure** oam-pm session *named-item* ethernet lmm admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R5 |
| Platforms | All |

## availability

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **availability** context |
| Context | **configure** oam-pm session *named-item* ethernet lmm availability |
| Tree | availability |


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| | |
|---|---|
| Introduced | 16.0.R5 |
| Platforms | All |

## **admin-state** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Administrative state of availability statistics |
| Context | **configure** oam-pm session *named-item* ethernet lmm availability admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R5 |
| Platforms | All |

## **flr-threshold** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | FLR threshold for the test |
| Context | **configure** oam-pm session *named-item* ethernet lmm availability flr-threshold *number* |
| Tree | flr-threshold |
| Range | 0 to 100 |
| Units | percent |
| Default | 50 |
| Introduced | 16.0.R5 |
| Platforms | All |

## **hli-force-count** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.


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| | |
|---|---|
| Synopsis | Increment HLI/CHLI counters regardless of availability |
| Context | **configure** oam-pm session *named-item* ethernet lmm availability hli-force-count *boolean* |
| Tree | hli-force-count |
| Default | false |
| Introduced | 16.0.R5 |
| Platforms | All |

## timing

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **timing** context |
| Context | **configure** oam-pm session *named-item* ethernet lmm availability timing |
| Tree | timing |
| Introduced | 16.0.R5 |
| Platforms | All |

## chli-threshold *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | CHLI threshold |
| Context | **configure** oam-pm session *named-item* ethernet lmm availability timing chli-threshold *number* |
| Tree | chli-threshold |
| Range | 1 to 9 |
| Default | 5 |
| Introduced | 16.0.R5 |
| Platforms | All |


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## **consec-delta-t** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Number of consecutive delta-t intervals |
| Context | **configure** oam-pm session *named-item* ethernet lmm availability timing consec-delta-t *number* |
| Tree | consec-delta-t |
| Range | 2 to 10 |
| Default | 10 |
| Introduced | 16.0.R5 |
| Platforms | All |

## **frames-per-delta-t** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Number of frames sent in one delta-t |
| Context | **configure** oam-pm session *named-item* ethernet lmm availability timing frames-per-delta-t *number* |
| Tree | frames-per-delta-t |
| Range | 1 to 50 |
| Units | frames |
| Introduced | 16.0.R5 |
| Platforms | All |

## **fc-collection** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable collection of per-forwarding class counters |
| Context | **configure** oam-pm session *named-item* ethernet lmm fc-collection *boolean* |


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| | |
|---|---|
| Tree | fc-collection |
| Default | false |
| Introduced | 16.0.R5 |
| Platforms | All |

## **interval** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Time between transmission PDUs for the session test |
| Context | **configure** oam-pm session *named-item* ethernet lmm interval *number* |
| Tree | interval |
| Description | This command configures the message period or probe spacing for the transmission of a frame. |
| Range | 100 \| 1000 \| 10000 |
| Units | milliseconds |
| Introduced | 16.0.R5 |
| Platforms | All |

## **loss-events**

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **loss-events** context |
| Context | **configure** oam-pm session *named-item* ethernet lmm loss-events |
| Tree | loss-events |
| Introduced | 16.0.R5 |
| Platforms | All |

## **avg-flr-event** [direction] *keyword*

| | |
|---|---|
| Synopsis | Enter the **avg-flr-event** list instance |
| Context | **configure** oam-pm session *named-item* ethernet lmm loss-events avg-flr-event *keyword* |


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| | |
|---|---|
| Tree | avg-flr-event |
| Introduced | 16.0.R5 |
| Platforms | All |

### [**direction**] *keyword*

| | |
|---|---|
| Synopsis | Traffic flow direction |
| Context | **configure** oam-pm session *named-item* ethernet lmm loss-events avg-flr-event *keyword* |
| Tree | avg-flr-event |
| Options | forward, backward |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R5 |
| Platforms | All |

### **clear-threshold** *decimal-number*

| | |
|---|---|
| Synopsis | Clear threshold for the average FLR |
| Context | **configure** oam-pm session *named-item* ethernet lmm loss-events avg-flr-event *keyword* clear-threshold *decimal-number* |
| Tree | clear-threshold |
| Range | 0.000 to 99.999 |
| Units | percent |
| Introduced | 16.0.R5 |
| Platforms | All |

### **raise-threshold** *decimal-number*

| | |
|---|---|
| Synopsis | Raise threshold for the average FLR |
| Context | **configure** oam-pm session *named-item* ethernet lmm loss-events avg-flr-event *keyword* raise-threshold *decimal-number* |
| Tree | raise-threshold |
| Range | 0.000 to 100.000 |
| Units | percent |
| Notes | This element is mandatory. |
| Introduced | 16.0.R5 |


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| | |
|---|---|
| Platforms | All |

### **chli-event** [direction] *keyword*

| | |
|---|---|
| Synopsis | Enter the **chli-event** list instance |
| Context | **configure** oam-pm session *named-item* ethernet lmm loss-events chli-event *keyword* |
| Tree | chli-event |
| Introduced | 16.0.R5 |
| Platforms | All |

### [**direction**] *keyword*

| | |
|---|---|
| Synopsis | Traffic flow direction |
| Context | **configure** oam-pm session *named-item* ethernet lmm loss-events chli-event *keyword* |
| Tree | chli-event |
| Options | forward, backward, aggregate |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R5 |
| Platforms | All |

### **clear-threshold** *number*

| | |
|---|---|
| Synopsis | Clear threshold |
| Context | **configure** oam-pm session *named-item* ethernet lmm loss-events chli-event *keyword* clear-threshold *number* |
| Tree | clear-threshold |
| Range | 0 to 863999 |
| Introduced | 16.0.R5 |
| Platforms | All |

### **raise-threshold** *number*

| | |
|---|---|
| Synopsis | Rising threshold that determines when to generate event |
| Context | **configure** oam-pm session *named-item* ethernet lmm loss-events chli-event *keyword* raise-threshold *number* |
| Tree | raise-threshold |


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| | |
|---|---|
| Range | 1 to 864000 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R5 |
| Platforms | All |

### **hli-event** [direction] *keyword*

| | |
|---|---|
| Synopsis | Enter the **hli-event** list instance |
| Context | **configure** oam-pm session *named-item* ethernet lmm loss-events hli-event *keyword* |
| Tree | hli-event |
| Introduced | 16.0.R5 |
| Platforms | All |

### [**direction**] *keyword*

| | |
|---|---|
| Synopsis | Traffic flow direction |
| Context | **configure** oam-pm session *named-item* ethernet lmm loss-events hli-event *keyword* |
| Tree | hli-event |
| Options | forward, backward, aggregate |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R5 |
| Platforms | All |

### **clear-threshold** *number*

| | |
|---|---|
| Synopsis | Clear threshold |
| Context | **configure** oam-pm session *named-item* ethernet lmm loss-events hli-event *keyword* clear-threshold *number* |
| Tree | clear-threshold |
| Range | 0 to 863999 |
| Introduced | 16.0.R5 |
| Platforms | All |


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### **raise-threshold** *number*

| | |
|---|---|
| Synopsis | Rising threshold that determines when to generate event |
| Context | **configure** oam-pm session *named-item* ethernet lmm loss-events hli-event *keyword* raise-threshold *number* |
| Tree | raise-threshold |
| Range | 1 to 864000 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R5 |
| Platforms | All |

### **unavailability-event** [direction] *keyword*

| | |
|---|---|
| Synopsis | Enter the **unavailability-event** list instance |
| Context | **configure** oam-pm session *named-item* ethernet lmm loss-events unavailability-event *keyword* |
| Tree | unavailability-event |
| Introduced | 16.0.R5 |
| Platforms | All |

### [**direction**] *keyword*

| | |
|---|---|
| Synopsis | Traffic flow direction |
| Context | **configure** oam-pm session *named-item* ethernet lmm loss-events unavailability-event *keyword* |
| Tree | unavailability-event |
| Options | forward, backward, aggregate |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R5 |
| Platforms | All |

### **clear-threshold** *number*

| | |
|---|---|
| Synopsis | Clear threshold |
| Context | **configure** oam-pm session *named-item* ethernet lmm loss-events unavailability-event *keyword* clear-threshold *number* |


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| | |
|---|---|
| Tree | clear-threshold |
| Range | 0 to 863999 |
| Introduced | 16.0.R5 |
| Platforms | All |

### **raise-threshold** *number*

| | |
|---|---|
| Synopsis | Rising threshold that determines when to generate event |
| Context | **configure** oam-pm session *named-item* ethernet lmm loss-events unavailability-event *keyword* raise-threshold *number* |
| Tree | raise-threshold |
| Range | 1 to 864000 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R5 |
| Platforms | All |

### **undet-availability-event** [direction] *keyword*

| | |
|---|---|
| Synopsis | Enter the **undet-availability-event** list instance |
| Context | **configure** oam-pm session *named-item* ethernet lmm loss-events undet-availability-event *keyword* |
| Tree | undet-availability-event |
| Introduced | 16.0.R5 |
| Platforms | All |

### [**direction**] *keyword*

| | |
|---|---|
| Synopsis | Traffic flow direction |
| Context | **configure** oam-pm session *named-item* ethernet lmm loss-events undet-availability-event *keyword* |
| Tree | undet-availability-event |
| Options | forward, backward, aggregate |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R5 |
| Platforms | All |


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### **clear-threshold** *number*

| | |
|---|---|
| Synopsis | Clear threshold |
| Context | **configure** oam-pm session *named-item* ethernet lmm loss-events undet-availability-event *keyword* clear-threshold *number* |
| Tree | clear-threshold |
| Range | 0 to 863999 |
| Introduced | 16.0.R5 |
| Platforms | All |

### **raise-threshold** *number*

| | |
|---|---|
| Synopsis | Rising threshold that determines when to generate event |
| Context | **configure** oam-pm session *named-item* ethernet lmm loss-events undet-availability-event *keyword* raise-threshold *number* |
| Tree | raise-threshold |
| Range | 1 to 864000 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R5 |
| Platforms | All |

### **undet-unavailability-event** [direction] *keyword*

| | |
|---|---|
| Synopsis | Enter the **undet-unavailability-event** list instance |
| Context | **configure** oam-pm session *named-item* ethernet lmm loss-events undet-unavailability-event *keyword* |
| Tree | undet-unavailability-event |
| Introduced | 16.0.R5 |
| Platforms | All |

### [**direction**] *keyword*

| | |
|---|---|
| Synopsis | Traffic flow direction |
| Context | **configure** oam-pm session *named-item* ethernet lmm loss-events undet-unavailability-event *keyword* |
| Tree | undet-unavailability-event |


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| | |
|---|---|
| Options | forward, backward, aggregate |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R5 |
| Platforms | All |

### **clear-threshold** *number*

| | |
|---|---|
| Synopsis | Clear threshold |
| Context | **configure** oam-pm session *named-item* ethernet lmm loss-events undet-unavailability-event *keyword* clear-threshold *number* |
| Tree | clear-threshold |
| Range | 0 to 863999 |
| Introduced | 16.0.R5 |
| Platforms | All |

### **raise-threshold** *number*

| | |
|---|---|
| Synopsis | Rising threshold that determines when to generate event |
| Context | **configure** oam-pm session *named-item* ethernet lmm loss-events undet-unavailability-event *keyword* raise-threshold *number* |
| Tree | raise-threshold |
| Range | 1 to 864000 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R5 |
| Platforms | All |

### **test-duration** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Duration of an on-demand test |
| Context | **configure** oam-pm session *named-item* ethernet lmm test-duration *number* |
| Tree | test-duration |
| Range | 1 to 86400 |


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| | |
|---|---|
| Units | seconds |
| Introduced | 16.0.R5 |
| Platforms | All |

### **test-id** *(number | keyword)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Test ID |
| Context | **configure** oam-pm session *named-item* ethernet lmm test-id *(number \| keyword)* |
| Tree | test-id |
| Range | 0 to 2147483647 |
| Options | auto – Automatically assigns a test-id |
| Notes | This element is mandatory. |
| Introduced | 16.0.R5 |
| Platforms | All |

### **priority** *number*

| | |
|---|---|
| Synopsis | Priority and forwarding class for the session |
| Context | **configure** oam-pm session *named-item* ethernet priority *number* |
| Tree | priority |
| Range | 0 to 7 |
| Default | 0 |
| Introduced | 16.0.R5 |
| Platforms | All |

### **remote-mep** *number*

| | |
|---|---|
| Synopsis | Remote MEP for the session |
| Context | **configure** oam-pm session *named-item* ethernet remote-mep *number* |
| Tree | remote-mep |
| Range | 1 to 8191 |
| Introduced | 16.0.R5 |


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| | |
|---|---|
| Platforms | All |

## slm

| | |
|---|---|
| Synopsis | Enable the **slm** context |
| Context | **configure** oam-pm session *named-item* ethernet slm |
| Tree | slm |
| Introduced | 16.0.R5 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the test |
| Context | **configure** oam-pm session *named-item* ethernet slm admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R5 |
| Platforms | All |

## data-tlv-size *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Size of the pad TLV in the frames sent for the test |
| Context | **configure** oam-pm session *named-item* ethernet slm data-tlv-size *number* |
| Tree | data-tlv-size |
| Range | 0 \| 3 to 2000 |
| Units | octets |
| Default | 0 |
| Introduced | 16.0.R5 |
| Platforms | All |


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## **flr-threshold** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | FLR threshold for the test |
| Context | **configure** oam-pm session *named-item* ethernet slm flr-threshold *number* |
| Tree | flr-threshold |
| Range | 0 to 100 |
| Units | percent |
| Default | 50 |
| Introduced | 16.0.R5 |
| Platforms | All |

## **hli-force-count** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Increment HLI/CHLI counters regardless of availability |
| Context | **configure** oam-pm session *named-item* ethernet slm hli-force-count *boolean* |
| Tree | hli-force-count |
| Default | false |
| Introduced | 16.0.R5 |
| Platforms | All |

## **interval** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Time between transmission PDUs for the session test |
| Context | **configure** oam-pm session *named-item* ethernet slm interval *number* |
| Tree | interval |


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| | |
|---|---|
| Description | This command configures the message period or probe spacing for the transmission of a frame. |
| Range | 50 \| 100 \| 200 \| 300 \| 400 \| 500 \| 600 \| 700 \| 800 \| 900 \| 1000 |
| Units | milliseconds |
| Introduced | 16.0.R5 |
| Platforms | All |

## loss-events

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **loss-events** context |
| Context | **configure** oam-pm session *named-item* ethernet slm loss-events |
| Tree | loss-events |
| Introduced | 16.0.R5 |
| Platforms | All |

## **avg-flr-event** [direction] *keyword*

| | |
|---|---|
| Synopsis | Enter the **avg-flr-event** list instance |
| Context | **configure** oam-pm session *named-item* ethernet slm loss-events avg-flr-event *keyword* |
| Tree | avg-flr-event |
| Introduced | 16.0.R5 |
| Platforms | All |

## [**direction**] *keyword*

| | |
|---|---|
| Synopsis | Traffic flow direction |
| Context | **configure** oam-pm session *named-item* ethernet slm loss-events avg-flr-event *keyword* |
| Tree | avg-flr-event |
| Options | forward, backward |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R5 |
| Platforms | All |


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### **clear-threshold** *decimal-number*

| | |
|---|---|
| Synopsis | Clear threshold for the average FLR |
| Context | **configure** oam-pm session *named-item* ethernet slm loss-events avg-flr-event *keyword* clear-threshold *decimal-number* |
| Tree | clear-threshold |
| Range | 0.000 to 99.999 |
| Units | percent |
| Introduced | 16.0.R5 |
| Platforms | All |

### **raise-threshold** *decimal-number*

| | |
|---|---|
| Synopsis | Raise threshold for the average FLR |
| Context | **configure** oam-pm session *named-item* ethernet slm loss-events avg-flr-event *keyword* raise-threshold *decimal-number* |
| Tree | raise-threshold |
| Range | 0.000 to 100.000 |
| Units | percent |
| Notes | This element is mandatory. |
| Introduced | 16.0.R5 |
| Platforms | All |

### **chli-event** [direction] *keyword*

| | |
|---|---|
| Synopsis | Enter the **chli-event** list instance |
| Context | **configure** oam-pm session *named-item* ethernet slm loss-events chli-event *keyword* |
| Tree | chli-event |
| Introduced | 16.0.R5 |
| Platforms | All |

### [**direction**] *keyword*

| | |
|---|---|
| Synopsis | Traffic flow direction |
| Context | **configure** oam-pm session *named-item* ethernet slm loss-events chli-event *keyword* |
| Tree | chli-event |


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| | |
|---|---|
| Options | forward, backward, aggregate |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R5 |
| Platforms | All |

### **clear-threshold** *number*

| | |
|---|---|
| Synopsis | Clear threshold |
| Context | **configure** oam-pm session *named-item* ethernet slm loss-events chli-event *keyword* clear-threshold *number* |
| Tree | clear-threshold |
| Range | 0 to 863999 |
| Introduced | 16.0.R5 |
| Platforms | All |

### **raise-threshold** *number*

| | |
|---|---|
| Synopsis | Rising threshold that determines when to generate event |
| Context | **configure** oam-pm session *named-item* ethernet slm loss-events chli-event *keyword* raise-threshold *number* |
| Tree | raise-threshold |
| Range | 1 to 864000 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R5 |
| Platforms | All |

### **hli-event** [direction] *keyword*

| | |
|---|---|
| Synopsis | Enter the **hli-event** list instance |
| Context | **configure** oam-pm session *named-item* ethernet slm loss-events hli-event *keyword* |
| Tree | hli-event |
| Introduced | 16.0.R5 |
| Platforms | All |


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### [**direction**] *keyword*

| | |
|---|---|
| Synopsis | Traffic flow direction |
| Context | **configure** oam-pm session *named-item* ethernet slm loss-events hli-event *keyword* |
| Tree | hli-event |
| Options | forward, backward, aggregate |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R5 |
| Platforms | All |

### **clear-threshold** *number*

| | |
|---|---|
| Synopsis | Clear threshold |
| Context | **configure** oam-pm session *named-item* ethernet slm loss-events hli-event *keyword* clear-threshold *number* |
| Tree | clear-threshold |
| Range | 0 to 863999 |
| Introduced | 16.0.R5 |
| Platforms | All |

### **raise-threshold** *number*

| | |
|---|---|
| Synopsis | Rising threshold that determines when to generate event |
| Context | **configure** oam-pm session *named-item* ethernet slm loss-events hli-event *keyword* raise-threshold *number* |
| Tree | raise-threshold |
| Range | 1 to 864000 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R5 |
| Platforms | All |

### **unavailability-event** [direction] *keyword*

| | |
|---|---|
| Synopsis | Enter the **unavailability-event** list instance |
| Context | **configure** oam-pm session *named-item* ethernet slm loss-events unavailability-event *keyword* |


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| | |
|---|---|
| Tree | unavailability-event |
| Introduced | 16.0.R5 |
| Platforms | All |

### [**direction**] *keyword*

| | |
|---|---|
| Synopsis | Traffic flow direction |
| Context | **configure** oam-pm session *named-item* ethernet slm loss-events unavailability-event *keyword* |
| Tree | unavailability-event |
| Options | forward, backward, aggregate |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R5 |
| Platforms | All |

### **clear-threshold** *number*

| | |
|---|---|
| Synopsis | Clear threshold |
| Context | **configure** oam-pm session *named-item* ethernet slm loss-events unavailability-event *keyword* clear-threshold *number* |
| Tree | clear-threshold |
| Range | 0 to 863999 |
| Introduced | 16.0.R5 |
| Platforms | All |

### **raise-threshold** *number*

| | |
|---|---|
| Synopsis | Rising threshold that determines when to generate event |
| Context | **configure** oam-pm session *named-item* ethernet slm loss-events unavailability-event *keyword* raise-threshold *number* |
| Tree | raise-threshold |
| Range | 1 to 864000 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R5 |
| Platforms | All |


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### **undet-availability-event** [direction] *keyword*

| | |
|---|---|
| Synopsis | Enter the **undet-availability-event** list instance |
| Context | **configure** oam-pm session *named-item* ethernet slm loss-events undet-availability-event *keyword* |
| Tree | undet-availability-event |
| Introduced | 16.0.R5 |
| Platforms | All |

### [**direction**] *keyword*

| | |
|---|---|
| Synopsis | Traffic flow direction |
| Context | **configure** oam-pm session *named-item* ethernet slm loss-events undet-availability-event *keyword* |
| Tree | undet-availability-event |
| Options | forward, backward, aggregate |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R5 |
| Platforms | All |

### **clear-threshold** *number*

| | |
|---|---|
| Synopsis | Clear threshold |
| Context | **configure** oam-pm session *named-item* ethernet slm loss-events undet-availability-event *keyword* clear-threshold *number* |
| Tree | clear-threshold |
| Range | 0 to 863999 |
| Introduced | 16.0.R5 |
| Platforms | All |

### **raise-threshold** *number*

| | |
|---|---|
| Synopsis | Rising threshold that determines when to generate event |
| Context | **configure** oam-pm session *named-item* ethernet slm loss-events undet-availability-event *keyword* raise-threshold *number* |
| Tree | raise-threshold |


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| | |
|---|---|
| Range | 1 to 864000 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R5 |
| Platforms | All |

### **undet-unavailability-event** [direction] *keyword*

| | |
|---|---|
| Synopsis | Enter the **undet-unavailability-event** list instance |
| Context | **configure** oam-pm session *named-item* ethernet slm loss-events undet-unavailability-event *keyword* |
| Tree | undet-unavailability-event |
| Introduced | 16.0.R5 |
| Platforms | All |

### [**direction**] *keyword*

| | |
|---|---|
| Synopsis | Traffic flow direction |
| Context | **configure** oam-pm session *named-item* ethernet slm loss-events undet-unavailability-event *keyword* |
| Tree | undet-unavailability-event |
| Options | forward, backward, aggregate |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R5 |
| Platforms | All |

### **clear-threshold** *number*

| | |
|---|---|
| Synopsis | Clear threshold |
| Context | **configure** oam-pm session *named-item* ethernet slm loss-events undet-unavailability-event *keyword* clear-threshold *number* |
| Tree | clear-threshold |
| Range | 0 to 863999 |
| Introduced | 16.0.R5 |
| Platforms | All |


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### **raise-threshold** *number*

| | |
|---|---|
| Synopsis | Rising threshold that determines when to generate event |
| Context | **configure** oam-pm session *named-item* ethernet slm loss-events undet-unavailability-event *keyword* raise-threshold *number* |
| Tree | raise-threshold |
| Range | 1 to 864000 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R5 |
| Platforms | All |

### **test-duration** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Duration of an on-demand test |
| Context | **configure** oam-pm session *named-item* ethernet slm test-duration *number* |
| Tree | test-duration |
| Range | 1 to 86400 |
| Units | seconds |
| Introduced | 16.0.R5 |
| Platforms | All |

### **test-id** *(number | keyword)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Test ID |
| Context | **configure** oam-pm session *named-item* ethernet slm test-id *(number \| keyword)* |
| Tree | test-id |
| Range | 0 to 2147483647 |
| Options | auto – Automatically assigns a test-id |
| Notes | This element is mandatory. |


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| | |
|---|---|
| Introduced | 16.0.R5 |
| Platforms | All |

## timing

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **timing** context |
| Context | **configure** oam-pm session *named-item* ethernet slm timing |
| Tree | timing |
| Introduced | 16.0.R5 |
| Platforms | All |

## chli-threshold *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | CHLI threshold |
| Context | **configure** oam-pm session *named-item* ethernet slm timing chli-threshold *number* |
| Tree | chli-threshold |
| Range | 1 to 9 |
| Default | 5 |
| Introduced | 16.0.R5 |
| Platforms | All |

## consec-delta-t *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Number of consecutive delta-t intervals |
| Context | **configure** oam-pm session *named-item* ethernet slm timing consec-delta-t *number* |
| Tree | consec-delta-t |


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| | |
|---|---|
| Range | 2 to 10 |
| Default | 10 |
| Introduced | 16.0.R5 |
| Platforms | All |

### **frames-per-delta-t** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Number of frames sent in one delta-t |
| Context | **configure** oam-pm session *named-item* ethernet slm timing frames-per-delta-t *number* |
| Tree | frames-per-delta-t |
| Range | 1 to 50 |
| Units | frames |
| Introduced | 16.0.R5 |
| Platforms | All |

### **source**

| | |
|---|---|
| Synopsis | Enable the **source** context |
| Context | **configure** oam-pm session *named-item* ethernet source |
| Tree | source |
| Introduced | 16.0.R5 |
| Platforms | All |

### **ma-admin-name** *(named-item-64 | admin-name)*

| | |
|---|---|
| Synopsis | Source Ethernet MA name |
| Context | **configure** oam-pm session *named-item* ethernet source ma-admin-name *(named-item-64 \| admin-name)* |
| Tree | ma-admin-name |
| String length | 1 to 64 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R5 |


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| | |
|---|---|
| Platforms | All |

### **md-admin-name** *(named-item-64 | admin-name)*

| | |
|---|---|
| Synopsis | Source Ethernet MD name |
| Context | **configure** oam-pm session *named-item* ethernet source md-admin-name *(named-item-64 \| admin-name)* |
| Tree | md-admin-name |
| String length | 1 to 64 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R5 |
| Platforms | All |

### **mep** *number*

| | |
|---|---|
| Synopsis | Source Ethernet MEP ID |
| Context | **configure** oam-pm session *named-item* ethernet source mep *number* |
| Tree | mep |
| Range | 1 to 8191 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R5 |
| Platforms | All |

### **ip**

| | |
|---|---|
| Synopsis | Enable the **ip** context |
| Context | **configure** oam-pm session *named-item* ip |
| Tree | ip |
| Notes | The following elements are part of a mandatory choice: **ethernet**, **ip**, or **mpls**. |
| Introduced | 16.0.R5 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **allow-egress-remark-dscp** *boolean*

| | |
|---|---|
| Synopsis | Allow DSCP modification by the egress QoS policy |


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| | |
|---|---|
| Context | **configure** oam-pm session *named-item* ip allow-egress-remark-dscp *boolean* |
| Tree | allow-egress-remark-dscp |
| Default | false |
| Introduced | 16.0.R5 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **destination** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Destination IP address for the session |
| Context | **configure** oam-pm session *named-item* ip destination *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | destination |
| Introduced | 16.0.R5 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **destination-udp-port** *number*

| | |
|---|---|
| Synopsis | Destination UDP port for the session |
| Context | **configure** oam-pm session *named-item* ip destination-udp-port *number* |
| Tree | destination-udp-port |
| Range | 1 to 65535 |
| Introduced | 16.0.R5 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **do-not-fragment** *boolean*

| | |
|---|---|
| Synopsis | Do not allow packet fragmentation in the IPv4 header |
| Context | **configure** oam-pm session *named-item* ip do-not-fragment *boolean* |
| Tree | do-not-fragment |
| Default | false |
| Introduced | 16.0.R5 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **dscp** *(keyword | keyword)*

| | |
|---|---|
| Synopsis | DSCP value configured to the DSCP name |


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| | |
|---|---|
| Context | **configure** oam-pm session *named-item* ip dscp *(keyword* \| *keyword)* |
| Tree | dscp |
| Description | This command allows for the explicit setting of the DSCP rather than deriving the DSCP value from the egress network QoS policy 1 using the **fc** and **profile** values.<br>Although disconnected from the **fc** and **profile** settings unless required, the three parameters should be aligned to ensure proper treatment within the node and along the path. |
| Options | be, cp1, cp2, cp3, cp4, cp5, cp6, cp7, cs1, cp9, af11, cp11, af12, cp13, af13, cp15, cs2, cp17, af21, cp19, af22, cp21, af23, cp23, cs3, cp25, af31, cp27, af32, cp29, af33, cp31, cs4, cp33, af41, cp35, af42, cp37, af43, cp39, cs5, cp41, cp42, cp43, cp44, cp45, ef, cp47, nc1, cp49, cp50, cp51, cp52, cp53, cp54, cp55, nc2, cp57, cp58, cp59, cp60, cp61, cp62, cp63 |
| Options | resolve |
| Default | resolve |
| Introduced | 16.0.R5 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **fc** *keyword*

| | |
|---|---|
| Synopsis | Forwarding class for the session |
| Context | **configure** oam-pm session *named-item* ip fc *keyword* |
| Tree | fc |
| Options | be, l2, af, l1, h2, ef, h1, nc |
| Default | be |
| Introduced | 16.0.R5 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **forwarding**

| | |
|---|---|
| Synopsis | Enable the **forwarding** context |
| Context | **configure** oam-pm session *named-item* ip forwarding |
| Tree | forwarding |
| Introduced | 16.0.R5 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### bypass-routing

| | |
|---|---|
| Synopsis | Bypass the routing table when sending test packets |
| Context | **configure** oam-pm session *named-item* ip forwarding bypass-routing |
| Tree | bypass-routing |
| Notes | The following elements are part of a mandatory choice: **bypass-routing**, **interface**, or **next-hop**. |
| Introduced | 16.0.R5 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### interface *interface-name*

| | |
|---|---|
| Synopsis | Interface name |
| Context | **configure** oam-pm session *named-item* ip forwarding interface *interface-name* |
| Tree | interface |
| String length | 1 to 32 |
| Notes | The following elements are part of a mandatory choice: **bypass-routing**, **interface**, or **next-hop**. |
| Introduced | 16.0.R5 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### next-hop *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address for forwarding |
| Context | **configure** oam-pm session *named-item* ip forwarding next-hop *(ipv4-address-no-zone | ipv6-address-no-zone)* |
| Tree | next-hop |
| Notes | The following elements are part of a mandatory choice: **bypass-routing**, **interface**, or **next-hop**. |
| Introduced | 16.0.R5 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### pattern *(keyword | number)*

| | |
|---|---|
| Synopsis | Pattern used to fill the packet padding field |
| Context | **configure** oam-pm session *named-item* ip pattern *(keyword | number)* |


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| | |
|---|---|
| Tree | pattern |
| Range | 0 to 65535 |
| Options | sequential |
| Default | 0 |
| Introduced | 16.0.R5 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **profile** *keyword*

| | |
|---|---|
| Synopsis | Profile type for the session |
| Context | **configure** oam-pm session *named-item* ip profile *keyword* |
| Tree | profile |
| Options | in, out |
| Default | out |
| Introduced | 16.0.R5 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **router-instance** *string*

| | |
|---|---|
| Synopsis | Router instance for the session |
| Context | **configure** oam-pm session *named-item* ip router-instance *string* |
| Tree | router-instance |
| Default | Base |
| Introduced | 16.0.R5 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **source** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source IP address for the session |
| Context | **configure** oam-pm session *named-item* ip source *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | source |
| Introduced | 16.0.R5 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **source-udp-port** *number*

| | |
|---|---|
| Synopsis | Source UDP port for the session |
| Context | **configure** oam-pm session *named-item* ip source-udp-port *number* |
| Tree | source-udp-port |
| Range | 64374 to 64383 |
| Introduced | 16.0.R5 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ttl** *number*

| | |
|---|---|
| Synopsis | TTL value for the session |
| Context | **configure** oam-pm session *named-item* ip ttl *number* |
| Tree | ttl |
| Range | 1 to 255 |
| Default | 255 |
| Introduced | 16.0.R5 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **tunnel**

| | |
|---|---|
| Synopsis | Enter the **tunnel** context |
| Context | **configure** oam-pm session *named-item* ip tunnel |
| Tree | tunnel |
| Description | Commands in this context configure packet tunneling options for the session. This command and the **oam-pm session ip forwarding** command are mutually exclusive. |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **mpls**

| | |
|---|---|
| Synopsis | Enable the **mpls** context |
| Context | **configure** oam-pm session *named-item* ip tunnel mpls |
| Tree | mpls |
| Description | Commands in this context configure the MPLS packet tunneling options for the session. Configure the **oam-pm session ip router-instance** to Base to configure commands in |


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the tunnel MPLS context. When entering a context under MPLS, the system removes any previous configuration of any sibling context. You can only configure one of the contexts for each OAM-PM session.

Introduced 23.3.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS

## rsvp-te

Synopsis Enable the **rsvp-te** context

Context **configure** oam-pm session *named-item* ip tunnel mpls rsvp-te

Tree rsvp-te

Description Commands in this context allow for the specification of RSVP-TE specific tunnel information used to transport the test packets. Entering this context removes all other tunnel-type options configured under the **configure oam-pm session ip tunnel mpls** context. Only a single MPLS type can be configured for an OAM-PM session.

Notes The following elements are part of a choice: **rsvp-te**, **rsvp-te-auto**, **sr-isis**, **sr-ospf**, **sr-ospf3**, **sr-policy**, or **sr-te**.

Introduced 23.3.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS

## lsp *named-item-64*

Synopsis Name of LSP that carries the test packets

Context **configure** oam-pm session *named-item* ip tunnel mpls rsvp-te lsp *named-item-64*

Tree lsp

String length 1 to 64

Introduced 23.3.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS

## rsvp-te-auto

Synopsis Enable the **rsvp-te-auto** context

Context **configure** oam-pm session *named-item* ip tunnel mpls rsvp-te-auto

Tree rsvp-te-auto

Description Commands in this context configure the RSVP-TE-Auto feature and **rsvp-te-auto** (RSVP TE with dynamically-created LSPs) packet tunneling options for the session. If you enter a context within the MPLS context, the system removes any previous


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configuration of any sibling context. You can only configure one of the contexts for each OAM-PM session.

Notes The following elements are part of a choice: **rsvp-te**, **rsvp-te-auto**, **sr-isis**, **sr-ospf**, **sr-ospf3**, **sr-policy**, or **sr-te**.

Introduced 23.3.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS

## **from** *ipv4-unicast-address*

Synopsis IPv4 address used to identify the LSP to be tested

Context **configure** oam-pm session *named-item* ip tunnel mpls rsvp-te-auto from *ipv4-unicast-address*

Tree from

Description This command configures the headend of the RSV LSP. Configure the following three commands to identify an RSVP-TE Auto LSP: **from**, **to**, and **lsp-template**. When all three of these values are configured, the specific RSVP LSP can be identified and the test packets can be carried across the tunnel.

Introduced 23.3.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS

## **lsp-template** *named-item*

Synopsis LSP template used to identify the LSP to be tested

Context **configure** oam-pm session *named-item* ip tunnel mpls rsvp-te-auto lsp-template *named-item*

Tree lsp-template

Description This command configures the name of the LSP template used to identify the unique LSP. Configure the following three commands to identify an RSVP-TE Auto LSP: **from**, **to**, and **lsp-template**. When all three of these values are configured, the specific RSVP LSP can be identified and the test packets can be carried across the tunnel.

String length 1 to 32

Introduced 23.3.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS

## **to** *ipv4-unicast-address*

Synopsis IPv4 unicast address to identify the LSP to be tested


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| | |
|---|---|
| Context | **configure** oam-pm session *named-item* ip tunnel mpls rsvp-te-auto to *ipv4-unicast-address* |
| Tree | to |
| Description | This command configures the termination point of the RSVP LSP. Configure the following three commands to identify an RSVP-TE Auto LSP: **from**, **to**, and **lsp-template**. When all three of these values are configured, the specific RSVP LSP can be identified and the test packets can be carried across the tunnel. |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## sr-isis

| | |
|---|---|
| Synopsis | Enable the **sr-isis** context |
| Context | **configure** oam-pm session *named-item* ip tunnel mpls sr-isis |
| Tree | sr-isis |
| Description | Commands in this context allow for the specification of SR-ISIS specific tunnel information used to transport the test packets. Entering this context removes all the other tunnel type commands configured in the **configure oam-pm session ip tunnel mpls** context. Only a single MPLS type can be configured for an OAM-PM session. |
| Notes | The following elements are part of a choice: **rsvp-te**, **rsvp-te-auto**, **sr-isis**, **sr-ospf**, **sr-ospf3**, **sr-policy**, or **sr-te**. |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## flex-algo *number*

| | |
|---|---|
| Synopsis | Flex-algorithm to tunnel IP packets for session tests |
| Context | **configure** oam-pm session *named-item* ip tunnel mpls sr-isis flex-algo *number* |
| Tree | flex-algo |
| Range | 128 to 255 |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## igp-instance *number*

| | |
|---|---|
| Synopsis | IGP instance used to tunnel IP packets |
| Context | **configure** oam-pm session *named-item* ip tunnel mpls sr-isis igp-instance *number* |


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| | |
|---|---|
| Tree | igp-instance |
| Description | This command configures the IGP instance to tunnel IP packets for the session test. |
| Range | 0 to 127 |
| Default | 0 |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **prefix** *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | IP prefix to tunnel IP packets for the session tests |
| Context | **configure** oam-pm session *named-item* ip tunnel mpls sr-isis prefix *(ipv4-prefix \| ipv6-prefix)* |
| Tree | prefix |
| Description | This command configures the IP prefix used with the IGP instance to tunnel IP packets for the session tests. |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **sr-ospf**

| | |
|---|---|
| Synopsis | Enable the **sr-ospf** context |
| Context | **configure** oam-pm session *named-item* ip tunnel mpls sr-ospf |
| Tree | sr-ospf |
| Description | Commands in this context allow for the specification of SR-OSPF specific tunnel information used to transport the test packets. Entering this context removes all other tunnel type options configured under the **configure oam-pm session ip tunnel mpls** context. Only a single MPLS type can be configured for an OAM-PM session. |
| Notes | The following elements are part of a choice: **rsvp-te**, **rsvp-te-auto**, **sr-isis**, **sr-ospf**, **sr-ospf3**, **sr-policy**, or **sr-te**. |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **flex-algo** *number*

| | |
|---|---|
| Synopsis | Flex-algorithm to tunnel IP packets for session tests |
| Context | **configure** oam-pm session *named-item* ip tunnel mpls sr-ospf flex-algo *number* |


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| | |
|---|---|
| Tree | flex-algo |
| Range | 128 to 255 |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **igp-instance** *number*

| | |
|---|---|
| Synopsis | IGP instance used to tunnel IP packets |
| Context | **configure** oam-pm session *named-item* ip tunnel mpls sr-ospf igp-instance *number* |
| Tree | igp-instance |
| Range | 0 to 31 |
| Default | 0 |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **prefix** *ipv4-unicast-prefix*

| | |
|---|---|
| Synopsis | IP prefix to tunnel IP packets for the session tests |
| Context | **configure** oam-pm session *named-item* ip tunnel mpls sr-ospf prefix *ipv4-unicast-prefix* |
| Tree | prefix |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **sr-ospf3**

| | |
|---|---|
| Synopsis | Enable the **sr-ospf3** context |
| Context | **configure** oam-pm session *named-item* ip tunnel mpls sr-ospf3 |
| Tree | sr-ospf3 |
| Description | Commands in this context allow for the specification of SR-OSPFv3 specific tunnel information used to transport the test packets. Entering this context removes all other tunnel type options configured under the **configure oam-pm session ip tunnel mpls** context. Only a single MPLS type can be configured for an OAM-PM session. |
| Notes | The following elements are part of a choice: **rsvp-te**, **rsvp-te-auto**, **sr-isis**, **sr-ospf**, **sr-ospf3**, **sr-policy**, or **sr-te**. |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **igp-instance** *number*

| | |
|---|---|
| Synopsis | IGP instance used to tunnel IP packets |
| Context | **configure** oam-pm session *named-item* ip tunnel mpls sr-ospf3 igp-instance *number* |
| Tree | igp-instance |
| Range | 0 to 31 \| 64 to 95 |
| Default | 0 |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **prefix** *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | IP prefix to tunnel IP packets for the session tests |
| Context | **configure** oam-pm session *named-item* ip tunnel mpls sr-ospf3 prefix *(ipv4-prefix \| ipv6-prefix)* |
| Tree | prefix |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **sr-policy**

| | |
|---|---|
| Synopsis | Enable the **sr-policy** context |
| Context | **configure** oam-pm session *named-item* ip tunnel mpls sr-policy |
| Tree | sr-policy |
| Description | Commands in this context identify the SR policy used to tunnel IP packets for the session tests. |
| Notes | The following elements are part of a choice: **rsvp-te**, **rsvp-te-auto**, **sr-isis**, **sr-ospf**, **sr-ospf3**, **sr-policy**, or **sr-te**. |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **color** *number*

| | |
|---|---|
| Synopsis | Color for associating the SR policy with an objective |
| Context | **configure** oam-pm session *named-item* ip tunnel mpls sr-policy color *number* |
| Tree | color |


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| | |
|---|---|
| Max. range | 0 to 4294967295 |
| Default | 0 |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **endpoint** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Segment Routing endpoint for the session |
| Context | **configure** oam-pm session *named-item* ip tunnel mpls sr-policy endpoint *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | endpoint |
| Description | This command configures the unicast IPv4 or globally routable IPv6 address endpoint of the tunnel. |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **segment-list** *number*

| | |
|---|---|
| Synopsis | Segment Routing segment list for the session |
| Context | **configure** oam-pm session *named-item* ip tunnel mpls sr-policy segment-list *number* |
| Tree | segment-list |
| Description | This command configures the identification of the segment list for the specific policy. |
| Range | 1 to 32 |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **sr-te**

| | |
|---|---|
| Synopsis | Enable the **sr-te** context |
| Context | **configure** oam-pm session *named-item* ip tunnel mpls sr-te |
| Tree | sr-te |
| Description | Commands in this context allow for the specification of SR-TE specific tunnel information used to transport the test packets. Entering this context removes all other tunnel type options configured under the **configure oam-pm session ip tunnel mpls** context. Only a single MPLS type can be configured for an OAM-PM session. |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **rsvp-te**, **rsvp-te-auto**, **sr-isis**, **sr-ospf**, **sr-ospf3**, **sr-policy**, or **sr-te**. |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **lsp** *named-item-64*

| | |
|---|---|
| Synopsis | Name of LSP that carries the test packets |
| Context | **configure** oam-pm session *named-item* ip tunnel mpls sr-te lsp *named-item-64* |
| Tree | lsp |
| String length | 1 to 64 |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **twamp-light**

| | |
|---|---|
| Synopsis | Enable the **twamp-light** context |
| Context | **configure** oam-pm session *named-item* ip twamp-light |
| Tree | twamp-light |
| Description | Commands in this context configure the TWAMP-Light (Two Way Active Measurement Protocol, Light) or STAMP (Simple Two Way Active Measurement Protocol) test for the session. |
| Introduced | 16.0.R5 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the test |
| Context | **configure** oam-pm session *named-item* ip twamp-light admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R5 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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## **allow-ipv6-udp-checksum-zero** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Process IPv6 packets with a zero UDP checksum |
| Context | **configure** oam-pm session *named-item* ip twamp-light allow-ipv6-udp-checksum-zero *boolean* |
| Tree | allow-ipv6-udp-checksum-zero |
| Description | When configured to **true**, this command configures the acceptance of IPv6 packets with UDP checksums of 0. This optional configuration allows the router to process arriving IPv6 TWAMP Test packets that contain IPv6 UDP checksum of 0x0000. The UDP port specific to this TWAMP Light test bypasses the default discard IPv6 UDP checksum 0x0000. If this optional command is not configured, IPv6 UDP checksum 0x000 arriving packets are discarded.<br>When configured to **false**, packets that arrive with an IPv6 UDP checksum of 0x0000 are discarded. |
| Default | false |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **delay-template** *named-item-64*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Reference to a streaming delay template for the test |
| Context | **configure** oam-pm session *named-item* ip twamp-light delay-template *named-item-64* |
| Tree | delay-template |
| String length | 1 to 64 |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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## **interval** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Time between transmission PDUs for the session test |
| Context | **configure** oam-pm session *named-item* ip twamp-light interval *number* |
| Tree | interval |
| Description | This command configures the message period or probe spacing for the transmission of a frame. |
| Range | 50 \| 100 \| 200 \| 300 \| 400 \| 500 \| 600 \| 700 \| 800 \| 900 \| 1000 \| 10000 |
| Units | milliseconds |
| Introduced | 16.0.R5 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **loss**

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **loss** context |
| Context | **configure** oam-pm session *named-item* ip twamp-light loss |
| Tree | loss |
| Introduced | 16.0.R5 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **flr-threshold** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | FLR threshold for the test |
| Context | **configure** oam-pm session *named-item* ip twamp-light loss flr-threshold *number* |
| Tree | flr-threshold |
| Range | 0 to 100 |


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| | |
|---|---|
| Units | percent |
| Default | 50 |
| Introduced | 16.0.R5 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **hli-force-count** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Increment HLI/CHLI counters regardless of availability |
| Context | **configure** oam-pm session *named-item* ip twamp-light loss hli-force-count *boolean* |
| Tree | hli-force-count |
| Default | false |
| Introduced | 16.0.R5 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **timing**

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **timing** context |
| Context | **configure** oam-pm session *named-item* ip twamp-light loss timing |
| Tree | timing |
| Introduced | 16.0.R5 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **chli-threshold** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | CHLI threshold |
| Context | **configure** oam-pm session *named-item* ip twamp-light loss timing chli-threshold *number* |


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| | |
|---|---|
| Tree | chli-threshold |
| Range | 1 to 9 |
| Default | 5 |
| Introduced | 16.0.R5 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **consec-delta-t** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Number of consecutive delta-t intervals |
| Context | **configure** oam-pm session *named-item* ip twamp-light loss timing consec-delta-t *number* |
| Tree | consec-delta-t |
| Range | 2 to 10 |
| Default | 10 |
| Introduced | 16.0.R5 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **frames-per-delta-t** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Number of frames sent in one delta-t |
| Context | **configure** oam-pm session *named-item* ip twamp-light loss timing frames-per-delta-t *number* |
| Tree | frames-per-delta-t |
| Range | 1 to 50 |
| Units | frames |
| Introduced | 16.0.R5 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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## loss-events

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **loss-events** context |
| Context | **configure** oam-pm session *named-item* ip twamp-light loss-events |
| Tree | loss-events |
| Introduced | 16.0.R5 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **avg-flr-event** [direction] *keyword*

| | |
|---|---|
| Synopsis | Enter the **avg-flr-event** list instance |
| Context | **configure** oam-pm session *named-item* ip twamp-light loss-events avg-flr-event *keyword* |
| Tree | avg-flr-event |
| Introduced | 16.0.R5 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## [**direction**] *keyword*

| | |
|---|---|
| Synopsis | Traffic flow direction |
| Context | **configure** oam-pm session *named-item* ip twamp-light loss-events avg-flr-event *keyword* |
| Tree | avg-flr-event |
| Options | forward, backward |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R5 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **clear-threshold** *decimal-number*

| | |
|---|---|
| Synopsis | Clear threshold for the average FLR |
| Context | **configure** oam-pm session *named-item* ip twamp-light loss-events avg-flr-event *keyword* clear-threshold *decimal-number* |


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| | |
|---|---|
| Tree | clear-threshold |
| Range | 0.000 to 99.999 |
| Units | percent |
| Introduced | 16.0.R5 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **raise-threshold** *decimal-number*

| | |
|---|---|
| Synopsis | Raise threshold for the average FLR |
| Context | **configure** oam-pm session *named-item* ip twamp-light loss-events avg-flr-event *keyword* raise-threshold *decimal-number* |
| Tree | raise-threshold |
| Range | 0.000 to 100.000 |
| Units | percent |
| Notes | This element is mandatory. |
| Introduced | 16.0.R5 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **chli-event** [direction] *keyword*

| | |
|---|---|
| Synopsis | Enter the **chli-event** list instance |
| Context | **configure** oam-pm session *named-item* ip twamp-light loss-events chli-event *keyword* |
| Tree | chli-event |
| Introduced | 16.0.R5 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### [**direction**] *keyword*

| | |
|---|---|
| Synopsis | Traffic flow direction |
| Context | **configure** oam-pm session *named-item* ip twamp-light loss-events chli-event *keyword* |
| Tree | chli-event |
| Options | forward, backward, aggregate |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R5 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **clear-threshold** *number*

| | |
|---|---|
| Synopsis | Clear threshold |
| Context | **configure** oam-pm session *named-item* ip twamp-light loss-events chli-event *keyword* clear-threshold *number* |
| Tree | clear-threshold |
| Range | 0 to 863999 |
| Introduced | 16.0.R5 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **raise-threshold** *number*

| | |
|---|---|
| Synopsis | Rising threshold that determines when to generate event |
| Context | **configure** oam-pm session *named-item* ip twamp-light loss-events chli-event *keyword* raise-threshold *number* |
| Tree | raise-threshold |
| Range | 1 to 864000 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R5 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **hli-event** [direction] *keyword*

| | |
|---|---|
| Synopsis | Enter the **hli-event** list instance |
| Context | **configure** oam-pm session *named-item* ip twamp-light loss-events hli-event *keyword* |
| Tree | hli-event |
| Introduced | 16.0.R5 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### [**direction**] *keyword*

| | |
|---|---|
| Synopsis | Traffic flow direction |
| Context | **configure** oam-pm session *named-item* ip twamp-light loss-events hli-event *keyword* |
| Tree | hli-event |
| Options | forward, backward, aggregate |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 16.0.R5 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **clear-threshold** *number*

| | |
|---|---|
| Synopsis | Clear threshold |
| Context | **configure** oam-pm session *named-item* ip twamp-light loss-events hli-event *keyword* clear-threshold *number* |
| Tree | clear-threshold |
| Range | 0 to 863999 |
| Introduced | 16.0.R5 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **raise-threshold** *number*

| | |
|---|---|
| Synopsis | Rising threshold that determines when to generate event |
| Context | **configure** oam-pm session *named-item* ip twamp-light loss-events hli-event *keyword* raise-threshold *number* |
| Tree | raise-threshold |
| Range | 1 to 864000 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R5 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **unavailability-event** [direction] *keyword*

| | |
|---|---|
| Synopsis | Enter the **unavailability-event** list instance |
| Context | **configure** oam-pm session *named-item* ip twamp-light loss-events unavailability-event *keyword* |
| Tree | unavailability-event |
| Introduced | 16.0.R5 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### [**direction**] *keyword*

| | |
|---|---|
| Synopsis | Traffic flow direction |
| Context | **configure** oam-pm session *named-item* ip twamp-light loss-events unavailability-event *keyword* |
| Tree | unavailability-event |
| Options | forward, backward, aggregate |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R5 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **clear-threshold** *number*

| | |
|---|---|
| Synopsis | Clear threshold |
| Context | **configure** oam-pm session *named-item* ip twamp-light loss-events unavailability-event *keyword* clear-threshold *number* |
| Tree | clear-threshold |
| Range | 0 to 863999 |
| Introduced | 16.0.R5 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **raise-threshold** *number*

| | |
|---|---|
| Synopsis | Rising threshold that determines when to generate event |
| Context | **configure** oam-pm session *named-item* ip twamp-light loss-events unavailability-event *keyword* raise-threshold *number* |
| Tree | raise-threshold |
| Range | 1 to 864000 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R5 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **undet-availability-event** [direction] *keyword*

| | |
|---|---|
| Synopsis | Enter the **undet-availability-event** list instance |


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| | |
|---|---|
| Context | **configure** oam-pm session *named-item* ip twamp-light loss-events undet-availability-event *keyword* |
| Tree | undet-availability-event |
| Introduced | 16.0.R5 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### [**direction**] *keyword*

| | |
|---|---|
| Synopsis | Traffic flow direction |
| Context | **configure** oam-pm session *named-item* ip twamp-light loss-events undet-availability-event *keyword* |
| Tree | undet-availability-event |
| Options | forward, backward, aggregate |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R5 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **clear-threshold** *number*

| | |
|---|---|
| Synopsis | Clear threshold |
| Context | **configure** oam-pm session *named-item* ip twamp-light loss-events undet-availability-event *keyword* clear-threshold *number* |
| Tree | clear-threshold |
| Range | 0 to 863999 |
| Introduced | 16.0.R5 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **raise-threshold** *number*

| | |
|---|---|
| Synopsis | Rising threshold that determines when to generate event |
| Context | **configure** oam-pm session *named-item* ip twamp-light loss-events undet-availability-event *keyword* raise-threshold *number* |
| Tree | raise-threshold |
| Range | 1 to 864000 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R5 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **undet-unavailability-event** [direction] *keyword*

| | |
|---|---|
| Synopsis | Enter the **undet-unavailability-event** list instance |
| Context | **configure** oam-pm session *named-item* ip twamp-light loss-events undet-unavailability-event *keyword* |
| Tree | undet-unavailability-event |
| Introduced | 16.0.R5 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### [**direction**] *keyword*

| | |
|---|---|
| Synopsis | Traffic flow direction |
| Context | **configure** oam-pm session *named-item* ip twamp-light loss-events undet-unavailability-event *keyword* |
| Tree | undet-unavailability-event |
| Options | forward, backward, aggregate |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R5 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **clear-threshold** *number*

| | |
|---|---|
| Synopsis | Clear threshold |
| Context | **configure** oam-pm session *named-item* ip twamp-light loss-events undet-unavailability-event *keyword* clear-threshold *number* |
| Tree | clear-threshold |
| Range | 0 to 863999 |
| Introduced | 16.0.R5 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **raise-threshold** *number*

| | |
|---|---|
| Synopsis | Rising threshold that determines when to generate event |


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| | |
|---|---|
| Context | **configure** oam-pm session *named-item* ip twamp-light loss-events undet-unavailability-event *keyword* raise-threshold *number* |
| Tree | raise-threshold |
| Range | 1 to 864000 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R5 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **pad-size** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Amount of packet padding sent for the TWAMP-Light test |
| Context | **configure** oam-pm session *named-item* ip twamp-light pad-size *number* |
| Tree | pad-size |
| Range | 0 to 2000 |
| Units | octets |
| Default | 0 |
| Introduced | 16.0.R5 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **pad-tlv-size** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Pad TLV size in each sent STAMP packet |
| Context | **configure** oam-pm session *named-item* ip twamp-light pad-tlv-size *number* |
| Tree | pad-tlv-size |
| Description | This command configures the PAD TLV included in the STAMP test packet with a total byte count specified by this command.<br>TWAMP Light test packets do not allow TLVs. To pad the size of the TWAMP Light test packet the user must configure the **pad-size** command. STAMP test packets (the standard form of TWAMP Light) introduces TLVs for padding. Therefore, STAMP test packets must use the **pad-tlv-size** value. |


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| | |
|---|---|
| Range | 4 to 2000 |
| Units | octets |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **record-stats** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Type of statistics recorded for the TWAMP-Light test |
| Context | **configure** oam-pm session *named-item* ip twamp-light record-stats *keyword* |
| Tree | record-stats |
| Options | delay, loss, delay-and-loss |
| Default | delay |
| Introduced | 16.0.R5 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **session-sender-type** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Packet type sent by the test |
| Context | **configure** oam-pm session *named-item* ip twamp-light session-sender-type *keyword* |
| Tree | session-sender-type |
| Description | This command configures the type of test packet format to transmit.<br>When the **stamp** option is configured, STAMP transmission, packet formatting, and packet processing is allowed and STAMP test packets support TLVs. When the **twamp-light** option is configured, TWAMP Light transmission, packet formatting, and packet processing is allowed, but TWAMP Light test packets do not allow TLVs. |
| Options | twamp-light – Two-Way Active Measurement Protocol, Light<br>stamp – Simple Two-Way Active Measurement Protocol |
| Default | twamp-light |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **test-duration** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Duration of an on-demand test |
| Context | **configure** oam-pm session *named-item* ip twamp-light test-duration *number* |
| Tree | test-duration |
| Range | 1 to 86400 |
| Units | seconds |
| Introduced | 16.0.R5 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **test-id** *(number | keyword)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Test ID |
| Context | **configure** oam-pm session *named-item* ip twamp-light test-id *(number \| keyword)* |
| Tree | test-id |
| Range | 0 to 2147483647 |
| Options | auto – Automatically assigns a test-id |
| Notes | This element is mandatory. |
| Introduced | 16.0.R5 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **timestamp-format** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | TWAMP Light or STAMP test packet timestamp format |
| Context | **configure** oam-pm session *named-item* ip twamp-light timestamp-format *keyword* |


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| | |
|---|---|
| Tree | timestamp-format |
| Description | This command configures the format of the timestamp structure and epoch to include in the STAMP and TWAMP Light test packets. The command option value also sets the z-bit in the test packet.<br>When **timestamp-format** value is **ntp**, the z-bit in the test packet is 0. When the **timestamp-format** is **ptp**, the z-bit in the test packets is 1. |
| Options | ntp – Network Time Protocol<br>ptp – Precision Time Protocol |
| Default | ntp |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **measurement-interval** [duration] *keyword*

| | |
|---|---|
| Synopsis | Enter the **measurement-interval** list instance |
| Context | **configure** oam-pm session *named-item* measurement-interval *keyword* |
| Tree | measurement-interval |
| Description | Commands in this context establish individual measurement intervals to be used by the session. A maximum of three different measurement intervals may be configured under each session. |
| Introduced | 16.0.R5 |
| Platforms | All |

## [**duration**] *keyword*

| | |
|---|---|
| Synopsis | Duration of the measurement interval |
| Context | **configure** oam-pm session *named-item* measurement-interval *keyword* |
| Tree | measurement-interval |
| Options | 15-mins, 1-hour, 1-day, 5-mins, 1-min |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R5 |
| Platforms | All |

## **accounting-policy** *reference*

| | |
|---|---|
| Synopsis | Accounting policy for the measurement interval |


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| | |
|---|---|
| Context | **configure** oam-pm session *named-item* measurement-interval *keyword* accounting-policy *reference* |
| Tree | accounting-policy |
| Reference | **configure** log accounting-policy *number* |
| Introduced | 16.0.R5 |
| Platforms | All |

## **boundary-type** *keyword*

| | |
|---|---|
| Synopsis | Alignment of the start of the measurement interval |
| Context | **configure** oam-pm session *named-item* measurement-interval *keyword* boundary-type *keyword* |
| Tree | boundary-type |
| Options | clock-aligned, test-relative |
| Default | clock-aligned |
| Introduced | 16.0.R5 |
| Platforms | All |

## **clock-offset** *number*

| | |
|---|---|
| Synopsis | Offset for a clock-aligned measurement interval |
| Context | **configure** oam-pm session *named-item* measurement-interval *keyword* clock-offset *number* |
| Tree | clock-offset |
| Range | 0 to 86399 |
| Units | seconds |
| Default | 0 |
| Introduced | 16.0.R5 |
| Platforms | All |

## **intervals-stored** *number*

| | |
|---|---|
| Synopsis | Maximum number of measurement intervals stored |
| Context | **configure** oam-pm session *named-item* measurement-interval *keyword* intervals-stored *number* |
| Tree | intervals-stored |


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| | |
|---|---|
| Range | 1 to 96 |
| Introduced | 16.0.R5 |
| Platforms | All |

## threshold-cross-alerts

| | |
|---|---|
| Synopsis | Enter the **threshold-cross-alerts** context |
| Context | **configure** oam-pm session *named-item* measurement-interval *keyword* threshold-cross-alerts |
| Tree | threshold-cross-alerts |
| Introduced | 16.0.R5 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of TCAs for measurement interval |
| Context | **configure** oam-pm session *named-item* measurement-interval *keyword* threshold-cross-alerts admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R5 |
| Platforms | All |

## delay-events *boolean*

| | |
|---|---|
| Synopsis | Enable delay TCAs for the measurement interval |
| Context | **configure** oam-pm session *named-item* measurement-interval *keyword* threshold-cross-alerts delay-events *boolean* |
| Tree | delay-events |
| Default | false |
| Introduced | 16.0.R5 |
| Platforms | All |


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### **loss-events** *boolean*

| | |
|---|---|
| Synopsis | Enable loss TCAs for the measurement interval |
| Context | **configure** oam-pm session *named-item* measurement-interval *keyword* threshold-cross-alerts loss-events *boolean* |
| Tree | loss-events |
| Default | false |
| Introduced | 16.0.R5 |
| Platforms | All |

### **mpls**

| | |
|---|---|
| Synopsis | Enable the **mpls** context |
| Context | **configure** oam-pm session *named-item* mpls |
| Tree | mpls |
| Notes | The following elements are part of a mandatory choice: **ethernet**, **ip**, or **mpls**. |
| Introduced | 16.0.R6 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **dm**

| | |
|---|---|
| Synopsis | Enable the **dm** context |
| Context | **configure** oam-pm session *named-item* mpls dm |
| Tree | dm |
| Introduced | 16.0.R6 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the MPLS DM test |
| Context | **configure** oam-pm session *named-item* mpls dm admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R6 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **delay-template** *named-item-64*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Reference to a streaming delay template for the test |
| Context | **configure** oam-pm session *named-item* mpls dm delay-template *named-item-64* |
| Tree | delay-template |
| String length | 1 to 64 |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **interval** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Elapsed time between query messages sent for the test |
| Context | **configure** oam-pm session *named-item* mpls dm interval *number* |
| Tree | interval |
| Range | 1000 \| 2000 \| 3000 \| 4000 \| 5000 \| 6000 \| 7000 \| 8000 \| 9000 \| 10000 |
| Units | milliseconds |
| Default | 1000 |
| Introduced | 16.0.R6 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **pad-tlv-size** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Size of the pad TLV in query messages sent for the test |
| Context | **configure** oam-pm session *named-item* mpls dm pad-tlv-size *number* |


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| | |
|---|---|
| Tree | pad-tlv-size |
| Range | 0 \| 2 to 257 |
| Units | octets |
| Default | 0 |
| Introduced | 16.0.R6 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **reflect-pad** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Copy the pad TLV in each query to the response |
| Context | **configure** oam-pm session *named-item* mpls dm reflect-pad *boolean* |
| Tree | reflect-pad |
| Default | false |
| Introduced | 16.0.R6 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **test-duration** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Duration of an on-demand test |
| Context | **configure** oam-pm session *named-item* mpls dm test-duration *number* |
| Tree | test-duration |
| Range | 1 to 86400 |
| Units | seconds |
| Introduced | 16.0.R6 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **test-id** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Test ID for query and response messages |
| Context | **configure** oam-pm session *named-item* mpls dm test-id *number* |
| Tree | test-id |
| Range | 0 to 67108863 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R6 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **dscp** *keyword*

| | |
|---|---|
| Synopsis | DSCP value for the session |
| Context | **configure** oam-pm session *named-item* mpls dscp *keyword* |
| Tree | dscp |
| Options | be, cp1, cp2, cp3, cp4, cp5, cp6, cp7, cs1, cp9, af11, cp11, af12, cp13, af13, cp15, cs2, cp17, af21, cp19, af22, cp21, af23, cp23, cs3, cp25, af31, cp27, af32, cp29, af33, cp31, cs4, cp33, af41, cp35, af42, cp37, af43, cp39, cs5, cp41, cp42, cp43, cp44, cp45, ef, cp47, nc1, cp49, cp50, cp51, cp52, cp53, cp54, cp55, nc2, cp57, cp58, cp59, cp60, cp61, cp62, cp63 |
| Default | be |
| Introduced | 16.0.R6 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **fc** *keyword*

| | |
|---|---|
| Synopsis | Forwarding class for the session |
| Context | **configure** oam-pm session *named-item* mpls fc *keyword* |
| Tree | fc |
| Options | be, l2, af, l1, h2, ef, h1, nc |
| Default | be |
| Introduced | 16.0.R6 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### lsp

| | |
|---|---|
| Synopsis | Enter the **lsp** context |
| Context | **configure** oam-pm session *named-item* mpls lsp |
| Tree | lsp |
| Introduced | 16.0.R6 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### mpls-tp-static

| | |
|---|---|
| Synopsis | Enable the **mpls-tp-static** context |
| Context | **configure** oam-pm session *named-item* mpls lsp mpls-tp-static |
| Tree | mpls-tp-static |
| Notes | The following elements are part of a choice: **mpls-tp-static**, **rsvp**, or **rsvp-auto**. |
| Introduced | 16.0.R6 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### lsp *named-item-64*

| | |
|---|---|
| Synopsis | LSP to be tested |
| Context | **configure** oam-pm session *named-item* mpls lsp mpls-tp-static lsp *named-item-64* |
| Tree | lsp |
| String length | 1 to 64 |
| Introduced | 16.0.R6 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### rsvp

| | |
|---|---|
| Synopsis | Enable the **rsvp** context |
| Context | **configure** oam-pm session *named-item* mpls lsp rsvp |
| Tree | rsvp |
| Notes | The following elements are part of a choice: **mpls-tp-static**, **rsvp**, or **rsvp-auto**. |
| Introduced | 16.0.R6 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **lsp** *named-item-64*

| | |
|---|---|
| Synopsis | LSP to be tested |
| Context | **configure** oam-pm session *named-item* mpls lsp rsvp lsp *named-item-64* |
| Tree | lsp |
| String length | 1 to 64 |
| Introduced | 16.0.R6 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **udp-return-object** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address used by far end of the test to send response |
| Context | **configure** oam-pm session *named-item* mpls lsp rsvp udp-return-object *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | udp-return-object |
| Introduced | 16.0.R6 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **rsvp-auto**

| | |
|---|---|
| Synopsis | Enable the **rsvp-auto** context |
| Context | **configure** oam-pm session *named-item* mpls lsp rsvp-auto |
| Tree | rsvp-auto |
| Notes | The following elements are part of a choice: **mpls-tp-static**, **rsvp**, or **rsvp-auto**. |
| Introduced | 16.0.R6 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **from** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IPv4 address used to identify the LSP to be tested |
| Context | **configure** oam-pm session *named-item* mpls lsp rsvp-auto from *ipv4-unicast-address* |
| Tree | from |
| Introduced | 16.0.R6 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **lsp-template** *named-item*

| | |
|---|---|
| Synopsis | LSP template used to identify the LSP to be tested |
| Context | **configure** oam-pm session *named-item* mpls lsp rsvp-auto lsp-template *named-item* |
| Tree | lsp-template |
| String length | 1 to 32 |
| Introduced | 16.0.R6 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **to** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IPv4 address used to identify the LSP to be tested |
| Context | **configure** oam-pm session *named-item* mpls lsp rsvp-auto to *ipv4-unicast-address* |
| Tree | to |
| Introduced | 16.0.R6 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **udp-return-object** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address used by far end of the test to send response |
| Context | **configure** oam-pm session *named-item* mpls lsp rsvp-auto udp-return-object *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | udp-return-object |
| Introduced | 16.0.R6 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **pattern** *(keyword | number)*

| | |
|---|---|
| Synopsis | Pattern value repeated to fill padding field of packet |
| Context | **configure** oam-pm session *named-item* mpls pattern *(keyword \| number)* |
| Tree | pattern |
| Range | 0 to 65535 |
| Options | sequential |
| Default | 0 |
| Introduced | 16.0.R6 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **profile** *keyword*

| | |
|---|---|
| Synopsis | QoS profile for the session |
| Context | **configure** oam-pm session *named-item* mpls profile *keyword* |
| Tree | profile |
| Options | in, out |
| Default | out |
| Introduced | 16.0.R6 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ttl** *number*

| | |
|---|---|
| Synopsis | MPLS TTL value for the session |
| Context | **configure** oam-pm session *named-item* mpls ttl *number* |
| Tree | ttl |
| Range | 1 to 255 |
| Default | 255 |
| Introduced | 16.0.R6 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **session-type** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Session type |
| Context | **configure** oam-pm session *named-item* session-type *keyword* |
| Tree | session-type |
| Options | proactive, on-demand |
| Default | proactive |
| Introduced | 16.0.R5 |
| Platforms | All |


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### streaming

| | |
|---|---|
| Synopsis | Enter the **streaming** context |
| Context | **configure** oam-pm streaming |
| Tree | streaming |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **delay-template** [delay-template-name] *named-item-64*

| | |
|---|---|
| Synopsis | Enter the **delay-template** list instance |
| Context | **configure** oam-pm streaming delay-template *named-item-64* |
| Tree | delay-template |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### [**delay-template-name**] *named-item-64*

| | |
|---|---|
| Synopsis | Streaming delay template name |
| Context | **configure** oam-pm streaming delay-template *named-item-64* |
| Tree | delay-template |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the delay template |
| Context | **configure** oam-pm streaming delay-template *named-item-64* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** oam-pm streaming delay-template *named-item-64* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **fd-avg** [direction] *keyword*

| | |
|---|---|
| Synopsis | Add a list entry for **fd-avg** |
| Context | **configure** oam-pm streaming delay-template *named-item-64* fd-avg *keyword* |
| Tree | fd-avg |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### [**direction**] *keyword*

| | |
|---|---|
| Synopsis | Traffic flow direction of the OAM-PM test or metric |
| Context | **configure** oam-pm streaming delay-template *named-item-64* fd-avg *keyword* |
| Tree | fd-avg |
| Options | forward, backward, round-trip |
| Notes | This element is part of a list key. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ifdv-avg** [direction] *keyword*

| | |
|---|---|
| Synopsis | Add a list entry for **ifdv-avg** |
| Context | **configure** oam-pm streaming delay-template *named-item-64* ifdv-avg *keyword* |
| Tree | ifdv-avg |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### [**direction**] *keyword*

| | |
|---|---|
| Synopsis | Traffic flow direction of the OAM-PM test or metric |
| Context | **configure** oam-pm streaming delay-template *named-item-64* ifdv-avg *keyword* |
| Tree | ifdv-avg |
| Options | forward, backward, round-trip |
| Notes | This element is part of a list key. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **sample-window** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Sample window duration for the template |
| Context | **configure** oam-pm streaming delay-template *named-item-64* sample-window *number* |
| Tree | sample-window |
| Range | 10 to 60 |
| Units | seconds |
| Default | 60 |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **window-integrity** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Measurements for the sample window validity |
| Context | **configure** oam-pm streaming delay-template *named-item-64* window-integrity *number* |
| Tree | window-integrity |
| Range | 1 to 100 |
| Units | percent |


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| | |
|---|---|
| Default | 50 |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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## 4.30 openflow commands

```
configure
   –  openflow
      –  apply-groups reference
      –  apply-groups-exclude reference
      –  of-switch named-item
         –  admin-state keyword
         –  apply-groups reference
         –  apply-groups-exclude reference
         –  aux-channel boolean
         –  controller (ipv4-address-no-zone | ipv6-address-no-zone) port number
            –  apply-groups reference
            –  apply-groups-exclude reference
            –  ofc-loopback (ipv4-address-no-zone | ipv6-address-no-zone)
            –  service-name service-name
            –  tls-client-profile reference
         –  description very-long-description
         –  echo-interval number
         –  echo-multiple number
         –  flowtable number
            –  apply-groups reference
            –  apply-groups-exclude reference
            –  max-size number
            –  mismatch-action keyword
            –  switch-defined-cookie boolean
         –  logical-port-status keyword
         –  ofs-id number
```


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## 4.30.1 openflow command descriptions

### openflow

| | |
|---|---|
| Synopsis | Enter the **openflow** context |
| Context | **configure** openflow |
| Tree | openflow |
| Introduced | 16.0.R4 |
| Platforms | VSR |

### **of-switch** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **of-switch** list instance |
| Context | **configure** openflow of-switch *named-item* |
| Tree | of-switch |
| Max. instances | 8 |
| Introduced | 16.0.R4 |
| Platforms | VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | OpenFlow switch name |
| Context | **configure** openflow of-switch *named-item* |
| Tree | of-switch |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the OpenFlow switch instance |
| Context | **configure** openflow of-switch *named-item* admin-state *keyword* |
| Tree | admin-state |


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| | |
|---|---|
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R4 |
| Platforms | VSR |

### **aux-channel** *boolean*

| | |
|---|---|
| Synopsis | Enable the auxiliary connection for the H-OFS instance |
| Context | **configure** openflow of-switch *named-item* aux-channel *boolean* |
| Tree | aux-channel |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | VSR |

### **controller** [address] *(ipv4-address-no-zone | ipv6-address-no-zone)* port *number*

| | |
|---|---|
| Synopsis | Enter the **controller** list instance |
| Context | **configure** openflow of-switch *named-item* controller *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* |
| Tree | controller |
| Max. instances | 2 |
| Introduced | 16.0.R4 |
| Platforms | VSR |

### [**address**] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the OpenFlow channel to the controller |
| Context | **configure** openflow of-switch *named-item* controller *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* |
| Tree | controller |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | VSR |


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### **port** *number*

| | |
|---|---|
| Synopsis | Controller port ID |
| Context | **configure** openflow of-switch *named-item* controller *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* |
| Tree | controller |
| Range | 1 to 65535 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | VSR |

### **ofc-loopback** *(ipv4-address-no-zone \| ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Loopback IP address in the VPRN |
| Context | **configure** openflow of-switch *named-item* controller *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* ofc-loopback *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | ofc-loopback |
| Introduced | 16.0.R4 |
| Platforms | VSR |

### **service-name** *service-name*

| | |
|---|---|
| Synopsis | Administrative service name |
| Context | **configure** openflow of-switch *named-item* controller *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* service-name *service-name* |
| Tree | service-name |
| String length | 1 to 64 |
| Introduced | 16.0.R4 |
| Platforms | VSR |

### **tls-client-profile** *reference*

| | |
|---|---|
| Synopsis | TLS profile name for use on the control channel |
| Context | **configure** openflow of-switch *named-item* controller *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* tls-client-profile *reference* |
| Tree | tls-client-profile |


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| | |
|---|---|
| Reference | **configure** system security tls client-tls-profile *named-item* |
| Introduced | 16.0.R4 |
| Platforms | VSR |

### **description** *very-long-description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** openflow of-switch *named-item* description *very-long-description* |
| Tree | description |
| String length | 1 to 255 |
| Introduced | 16.0.R4 |
| Platforms | VSR |

### **echo-interval** *number*

| | |
|---|---|
| Synopsis | Interval for monitoring OpenFlow control channels |
| Context | **configure** openflow of-switch *named-item* echo-interval *number* |
| Tree | echo-interval |
| Range | 1 to 3600 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R4 |
| Platforms | VSR |

### **echo-multiple** *number*

| | |
|---|---|
| Synopsis | Consecutive lost messages before channel declared down |
| Context | **configure** openflow of-switch *named-item* echo-multiple *number* |
| Tree | echo-multiple |
| Range | 3 to 100 |
| Default | 3 |
| Introduced | 16.0.R4 |
| Platforms | VSR |


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### **flowtable** [table-id] *number*

| | |
|---|---|
| Synopsis | Enter the **flowtable** list instance |
| Context | **configure** openflow of-switch *named-item* flowtable *number* |
| Tree | flowtable |
| Max. instances | 1 |
| Introduced | 16.0.R4 |
| Platforms | VSR |

### [**table-id**] *number*

| | |
|---|---|
| Synopsis | OpenFlow table ID |
| Context | **configure** openflow of-switch *named-item* flowtable *number* |
| Tree | flowtable |
| Max. range | 0 to 4294967295 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | VSR |

### **max-size** *number*

| | |
|---|---|
| Synopsis | Maximum size of the flow table |
| Context | **configure** openflow of-switch *named-item* flowtable *number* max-size *number* |
| Tree | max-size |
| Range | 1 to 524288 |
| Default | 1000 |
| Introduced | 16.0.R4 |
| Platforms | VSR |

### **mismatch-action** *keyword*

| | |
|---|---|
| Synopsis | Action taken when no match entries found in flow table |
| Context | **configure** openflow of-switch *named-item* flowtable *number* mismatch-action *keyword* |
| Tree | mismatch-action |


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| | |
|---|---|
| Options | drop, fall-through, packet-in |
| Default | fall-through |
| Introduced | 16.0.R4 |
| Platforms | VSR |

### **switch-defined-cookie** *boolean*

| | |
|---|---|
| Synopsis | Enable switch-defined cookie encoding |
| Context | **configure** openflow of-switch *named-item* flowtable *number* switch-defined-cookie *boolean* |
| Tree | switch-defined-cookie |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | VSR |

### **logical-port-status** *keyword*

| | |
|---|---|
| Synopsis | Logical port type for status change reporting |
| Context | **configure** openflow of-switch *named-item* logical-port-status *keyword* |
| Tree | logical-port-status |
| Options | rsvp-te, mpls-tp, sr-te |
| Max. instances | 3 |
| Introduced | 16.0.R4 |
| Platforms | VSR |

### **ofs-id** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | OFS switch ID |
| Context | **configure** openflow of-switch *named-item* ofs-id *number* |
| Tree | ofs-id |
| Range | 1 to 8 |


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| | |
|---|---|
| Introduced | 16.0.R6 |
| Platforms | VSR |


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## 4.31 policy-options commands

```
configure
   –  policy-options
      –  apply-groups reference
      –  apply-groups-exclude reference
      –  as-path named-item
         –  apply-groups reference
         –  apply-groups-exclude reference
         –  expression policy-as-path-regexp
      –  as-path-group named-item
         –  apply-groups reference
         –  apply-groups-exclude reference
         –  entry number
            –  apply-groups reference
            –  apply-groups-exclude reference
            –  expression policy-as-path-regexp
      –  community policy-community-name
         –  apply-groups reference
         –  apply-groups-exclude reference
         –  expression
            –  apply-groups reference
            –  apply-groups-exclude reference
            –  exact boolean
            –  expr expression-community
         –  member member-community
      –  damping named-item
         –  apply-groups reference
         –  apply-groups-exclude reference
         –  half-life number
         –  max-suppress number
         –  reuse number
         –  suppress number
      –  global-variables
         –  name policy-var-name
            –  address (ipv4-address-no-zone | ipv6-address-no-zone)
            –  apply-groups reference
            –  apply-groups-exclude reference
            –  decimal decimal-number
            –  number number
            –  prefix (ipv4-prefix | ipv6-prefix)
            –  value named-item
      –  policy-statement named-item-64
         –  apply-groups reference
         –  apply-groups-exclude reference
         –  default-action
            –  action-type keyword
            –  add-paths-send-limit (number | keyword)
            –  admin-tag-policy (param-midstring-64 | string)
            –  advertise-label keyword
            –  aigp-metric
               –  add (number | string)
               –  set (keyword | number | string)
            –  apply-groups reference
            –  apply-groups-exclude reference
            –  as-path
               –  add (param-midstring | string)
               –  replace (param-midstring | string)
            –  as-path-prepend
               –  as-path (number | string | keyword)
               –  repeat (number | string)
```


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configure policy-options policy-statement default-action bgp-high-priority

```
            - bgp-high-priority boolean
            - bgp-leak boolean
            - bgp-med
               - adjust string
               - set (keyword | number | string)
            - bgp-tunnel-metric
               - prefer-aigp boolean
               - prefer-med boolean
               - value (string | number)
            - community
               - add (param-midstring-64 | string)
               - apply-groups reference
               - apply-groups-exclude reference
               - remove (param-midstring-64 | string)
               - replace (param-midstring-64 | string)
            - create-mpls-tunnel boolean
            - create-udp-tunnel boolean
            - damping (keyword | param-midstring | string)
            - dest-class number
            - egress-statistics boolean
            - flex-algo (string | number)
            - ingress-statistics boolean
            - install-backup-path boolean
            - local-preference (number | string)
            - metric
               - add (number | string)
               - set (number | string)
               - subtract (number | string)
            - multicast-redirection
               - fwd-service string
               - ip-int-name interface-name
            - nat-policy (param-midstring | string)
            - next-hop (keyword | ipv4-address-no-zone | ipv6-address-no-zone | string)
            - origin (keyword | string)
            - origin-validation-state (keyword | string)
            - preference (number | string)
            - resolve-static boolean
            - route-table-install boolean
            - source-class number
            - sr-label-index
               - prefer-igp boolean
               - value (string | number)
            - sr-maintenance-policy (param-midstring | string)
            - sr-return-path-bfd-label (policy-var-name | number)
            - srv6-locator (param-midstring-64 | string)
            - srv6-micro-segment-locator (param-midstring-64 | string)
            - srv6-return-path-bfd-sid (policy-var-name | ipv6-address)
            - sticky-ecmp boolean
            - tag (number | string)
            - type (number | string)
         - description description
         - entry number
            - action
               - action-type keyword
               - add-paths-send-limit (number | keyword)
               - admin-tag-policy (param-midstring-64 | string)
               - advertise-label keyword
               - aigp-metric
                  - add (number | string)
                  - set (keyword | number | string)
               - apply-groups reference
               - apply-groups-exclude reference
               - as-path
                  - add (param-midstring | string)
```


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configure policy-options policy-statement entry action as-path replace

```
                - replace (param-midstring | string)
            - as-path-prepend
                - as-path (number | string | keyword)
                - repeat (number | string)
            - bgp-high-priority boolean
            - bgp-leak boolean
            - bgp-med
                - adjust string
                - set (keyword | number | string)
            - bgp-tunnel-metric
                - prefer-aigp boolean
                - prefer-med boolean
                - value (string | number)
            - community
                - add (param-midstring-64 | string)
                - apply-groups reference
                - apply-groups-exclude reference
                - remove (param-midstring-64 | string)
                - replace (param-midstring-64 | string)
            - create-mpls-tunnel boolean
            - create-udp-tunnel boolean
            - damping (keyword | param-midstring | string)
            - dest-class number
            - egress-statistics boolean
            - flex-algo (string | number)
            - forwarding-class
                - fc keyword
                - priority keyword
            - ingress-statistics boolean
            - install-backup-path boolean
            - local-preference (number | string)
            - metric
                - add (number | string)
                - set (number | string)
                - subtract (number | string)
            - multicast-redirection
                - fwd-service string
                - ip-int-name interface-name
            - nat-policy (param-midstring | string)
            - next-hop (keyword | ipv4-address-no-zone | ipv6-address-no-zone | string)
            - origin (keyword | string)
            - origin-validation-state (keyword | string)
            - preference (number | string)
            - resolve-static boolean
            - route-table-install boolean
            - source-class number
            - sr-label-index
                - prefer-igp boolean
                - value (string | number)
            - sr-maintenance-policy (param-midstring | string)
            - sr-return-path-bfd-label (policy-var-name | number)
            - srv6-locator (param-midstring-64 | string)
            - srv6-micro-segment-locator (param-midstring-64 | string)
            - srv6-return-path-bfd-sid (policy-var-name | ipv6-address)
            - sticky-ecmp boolean
            - tag (number | string)
            - type (number | string)
        - apply-groups reference
        - apply-groups-exclude reference
        - conditional-expression
            - apply-groups reference
            - apply-groups-exclude reference
            - route-exists string
        - description description
```


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configure policy-options policy-statement entry from

```
            – from
               – aggregate-contributor boolean
               – apply-groups reference
               – apply-groups-exclude reference
               – area ipv4-address
               – as-path
                  – group (param-midstring | string)
                  – length
                     – qualifier keyword
                     – unique boolean
                     – value (number | string)
                  – name (param-midstring | string)
               – cluster-id
                  – ip-address ipv4-prefix-with-host-bits
                  – none-cluster-list boolean
               – color number
               – community
                  – count
                     – qualifier keyword
                     – type keyword
                     – value (number | string)
                  – expression string
                  – name (param-midstring-64 | string)
               – distinguisher number
               – endpoint (ipv4-address-no-zone | ipv6-address-no-zone)
               – evpn-type keyword
               – external boolean
               – family keyword
               – flowspec
                  – dest (param-midstring | string)
                  – source (param-midstring | string)
               – group-address (param-midstring | string)
               – host-ip (param-midstring | string)
               – interface (named-item | interface-name | interface-name | interface-name)
               – interface-subnets
                  – ip-int-name interface-name
                  – service string
               – level number
               – local-preference
                  – qualifier keyword
                  – value (number | string)
               – metric
                  – qualifier keyword
                  – value (number | string)
               – mvpn-type keyword
               – neighbor
                  – ip-address (ipv4-address-no-zone | ipv6-address-no-zone | ipv4-address-
with-zone | ipv6-address-with-zone)
                  – prefix-list (param-midstring | string)
               – next-hop
                  – ip-address (ipv4-address-no-zone | ipv6-address-no-zone)
                  – prefix-list (param-midstring | string)
               – origin keyword
               – origin-validation-state keyword
               – ospf-type number
               – path-type keyword
               – policy (string | string)
               – policy-variables
                  – name policy-var-name
                     – address (ipv4-address-no-zone | ipv6-address-no-zone)
                     – apply-groups reference
                     – apply-groups-exclude reference
                     – decimal decimal-number
                     – number number
```


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configure policy-options policy-statement entry from policy-variables name prefix

```
                    -  prefix (ipv4-prefix | ipv6-prefix)
                    -  value named-item
              -  prefix-list (param-midstring-64 | string)
              -  prefix-list-override string
                 -  apply-groups reference
                 -  apply-groups-exclude reference
                 -  end-length number
                 -  start-length number
                 -  through-length number
                 -  type keyword
              -  protocol
                 -  instance (keyword | number)
                 -  name keyword
              -  route-distinguisher-list (param-midstring-64 | string)
              -  source-address
                 -  ip-address (ipv4-address-no-zone | ipv6-address-no-zone)
                 -  prefix-list (param-midstring | string)
              -  srv6-sid-prefix (policy-var-name | ipv6-unicast-prefix)
              -  srv6-tlv keyword
              -  state keyword
              -  tag (number | keyword)
           -  to
              -  apply-groups reference
              -  apply-groups-exclude reference
              -  level number
              -  neighbor
                 -  ip-address (ipv4-address-no-zone | ipv6-address-no-zone | ipv4-address-
with-zone | ipv6-address-with-zone)
                 -  prefix-list (param-midstring | string)
              -  prefix-list (param-midstring-64 | string)
              -  protocol
                 -  instance (keyword | number)
                 -  name keyword
        -  entry-type keyword
        -  named-entry named-item-255
           -  action
              -  action-type keyword
              -  add-paths-send-limit (number | keyword)
              -  admin-tag-policy (param-midstring-64 | string)
              -  advertise-label keyword
              -  aigp-metric
                 -  add (number | string)
                 -  set (keyword | number | string)
              -  apply-groups reference
              -  apply-groups-exclude reference
              -  as-path
                 -  add (param-midstring | string)
                 -  replace (param-midstring | string)
              -  as-path-prepend
                 -  as-path (number | string | keyword)
                 -  repeat (number | string)
              -  bgp-high-priority boolean
              -  bgp-leak boolean
              -  bgp-med
                 -  adjust string
                 -  set (keyword | number | string)
              -  bgp-tunnel-metric
                 -  prefer-aigp boolean
                 -  prefer-med boolean
                 -  value (string | number)
              -  community
                 -  add (param-midstring-64 | string)
                 -  apply-groups reference
                 -  apply-groups-exclude reference
```


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configure policy-options policy-statement named-entry action community remove

```
                - remove (param-midstring-64 | string)
                - replace (param-midstring-64 | string)
            - create-mpls-tunnel boolean
            - create-udp-tunnel boolean
            - damping (keyword | param-midstring | string)
            - dest-class number
            - egress-statistics boolean
            - flex-algo (string | number)
            - forwarding-class
                - fc keyword
                - priority keyword
            - ingress-statistics boolean
            - install-backup-path boolean
            - local-preference (number | string)
            - metric
                - add (number | string)
                - set (number | string)
                - subtract (number | string)
            - multicast-redirection
                - fwd-service string
                - ip-int-name interface-name
            - nat-policy (param-midstring | string)
            - next-hop (keyword | ipv4-address-no-zone | ipv6-address-no-zone | string)
            - origin (keyword | string)
            - origin-validation-state (keyword | string)
            - preference (number | string)
            - resolve-static boolean
            - route-table-install boolean
            - source-class number
            - sr-label-index
                - prefer-igp boolean
                - value (string | number)
            - sr-maintenance-policy (param-midstring | string)
            - sr-return-path-bfd-label (policy-var-name | number)
            - srv6-locator (param-midstring-64 | string)
            - srv6-micro-segment-locator (param-midstring-64 | string)
            - srv6-return-path-bfd-sid (policy-var-name | ipv6-address)
            - sticky-ecmp boolean
            - tag (number | string)
            - type (number | string)
        - apply-groups reference
        - apply-groups-exclude reference
        - conditional-expression
            - apply-groups reference
            - apply-groups-exclude reference
            - route-exists string
        - description description
        - from
            - aggregate-contributor boolean
            - apply-groups reference
            - apply-groups-exclude reference
            - area ipv4-address
            - as-path
                - group (param-midstring | string)
                - length
                    - qualifier keyword
                    - unique boolean
                    - value (number | string)
                - name (param-midstring | string)
            - cluster-id
                - ip-address ipv4-prefix-with-host-bits
                - none-cluster-list boolean
            - color number
            - community
```


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configure policy-options policy-statement named-entry from community count

```
                  – count
                     – qualifier keyword
                     – type keyword
                     – value (number | string)
                  – expression string
                  – name (param-midstring-64 | string)
               – distinguisher number
               – endpoint (ipv4-address-no-zone | ipv6-address-no-zone)
               – evpn-type keyword
               – external boolean
               – family keyword
               – flowspec
                  – dest (param-midstring | string)
                  – source (param-midstring | string)
               – group-address (param-midstring | string)
               – host-ip (param-midstring | string)
               – interface (named-item | interface-name | interface-name | interface-name)
               – interface-subnets
                  – ip-int-name interface-name
                  – service string
               – level number
               – local-preference
                  – qualifier keyword
                  – value (number | string)
               – metric
                  – qualifier keyword
                  – value (number | string)
               – mvpn-type keyword
               – neighbor
                  – ip-address (ipv4-address-no-zone | ipv6-address-no-zone | ipv4-address-
with-zone | ipv6-address-with-zone)
                  – prefix-list (param-midstring | string)
               – next-hop
                  – ip-address (ipv4-address-no-zone | ipv6-address-no-zone)
                  – prefix-list (param-midstring | string)
               – origin keyword
               – origin-validation-state keyword
               – ospf-type number
               – path-type keyword
               – policy (string | string)
               – policy-variables
                  – name policy-var-name
                     – address (ipv4-address-no-zone | ipv6-address-no-zone)
                     – apply-groups reference
                     – apply-groups-exclude reference
                     – decimal decimal-number
                     – number number
                     – prefix (ipv4-prefix | ipv6-prefix)
                     – value named-item
               – prefix-list (param-midstring-64 | string)
               – prefix-list-override string
                  – apply-groups reference
                  – apply-groups-exclude reference
                  – end-length number
                  – start-length number
                  – through-length number
                  – type keyword
               – protocol
                  – instance (keyword | number)
                  – name keyword
               – route-distinguisher-list (param-midstring-64 | string)
               – source-address
                  – ip-address (ipv4-address-no-zone | ipv6-address-no-zone)
                  – prefix-list (param-midstring | string)
```


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configure policy-options policy-statement named-entry from srv6-sid-prefix

```
                - srv6-sid-prefix (policy-var-name | ipv6-unicast-prefix)
                - srv6-tlv keyword
                - state keyword
                - tag (number | keyword)
            - to
                - apply-groups reference
                - apply-groups-exclude reference
                - level number
                - neighbor
                  - ip-address (ipv4-address-no-zone | ipv6-address-no-zone | ipv4-address-
with-zone | ipv6-address-with-zone)
                  - prefix-list (param-midstring | string)
                - prefix-list (param-midstring-64 | string)
                - protocol
                  - instance (keyword | number)
                  - name keyword
      - prefix-list named-item-64
        - apply-groups reference
        - apply-groups-exclude reference
        - prefix (ipv4-prefix | ipv6-prefix) type keyword
          - apply-groups reference
          - apply-groups-exclude reference
          - end-length number
          - mask-pattern (ipv4-address-no-zone | ipv6-address-no-zone)
          - start-length number
          - through-length number
          - to-prefix (ipv4-prefix | ipv6-prefix)
      - route-distinguisher-list named-item-64
        - apply-groups reference
        - apply-groups-exclude reference
        - rd-entry string
```


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## 4.31.1 policy-options command descriptions

### policy-options

| | |
|---|---|
| Synopsis | Enter the **policy-options** context |
| Context | **configure** policy-options |
| Tree | policy-options |
| Introduced | 16.0.R1 |
| Platforms | All |

### **as-path** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **as-path** list instance |
| Context | **configure** policy-options as-path *named-item* |
| Tree | as-path |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | AS path name |
| Context | **configure** policy-options as-path *named-item* |
| Tree | as-path |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **expression** *policy-as-path-regexp*

| | |
|---|---|
| Synopsis | Regular expression string |
| Context | **configure** policy-options as-path *named-item* expression *policy-as-path-regexp* |
| Tree | expression |
| Description | This command configures a route policy AS path regular expression statement to use in route policy entries. |


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An AS path in a BGP route matches an AS path regular expression, if the path matches the pattern of the regular expression. A regular expression incorporates terms and operators that use the terms. An individual AS number is an elementary term in the AS path regular expression. More complex terms can be built from elementary terms. The following are key operators supported by SR OS:

- .
- *
- ?
- {n}
- {m,n}
- {m, }

To reverse the match criteria when specifying a list of ranges or single values using square brackets, use the non-match operator (^) before the elements within the square brackets.

| | |
|---|---|
| String length | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **as-path-group** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **as-path-group** list instance |
| Context | **configure** policy-options as-path-group *named-item* |
| Tree | as-path-group |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | AS path group name |
| Context | **configure** policy-options as-path-group *named-item* |
| Tree | as-path-group |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **entry** [entry] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** policy-options as-path-group *named-item* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**entry**] *number*

| | |
|---|---|
| Synopsis | AS path entry ID |
| Context | **configure** policy-options as-path-group *named-item* entry *number* |
| Tree | entry |
| Range | 1 to 128 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **expression** *policy-as-path-regexp*

| | |
|---|---|
| Synopsis | Regular expression string |
| Context | **configure** policy-options as-path-group *named-item* entry *number* expression *policy-as-path-regexp* |
| Tree | expression |
| Description | This command configures an AS path group regular expression. |

An AS path in a BGP route matches an AS path group, if the pattern of the path matches the concatenation of all regular expressions in the group. A regular expression incorporates terms and operators that use the terms. An individual AS number is an elementary term in the AS path regular expression. More complex terms can be built from elementary terms. The following are key operators supported by SR OS:

- .
- *
- ?
- {n}
- {m,n}
- {m, }


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| | |
|---|---|
| | To reverse the match criteria when specifying a list of ranges or single values using square brackets, use the non-match operator (^) before the elements within the square brackets. |
| String length | 1 to 255 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **community** [name] *policy-community-name*

| | |
|---|---|
| Synopsis | Enter the **community** list instance |
| Context | **configure** policy-options community *policy-community-name* |
| Tree | community |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**name**] *policy-community-name*

| | |
|---|---|
| Synopsis | Community name |
| Context | **configure** policy-options community *policy-community-name* |
| Tree | community |
| Description | This command configures a route policy community name.<br>String values must be composed of printable, 7-bit ASCII characters. If the string contains special characters (#, $, spaces, and so on), the entire string must be enclosed within double quotes. |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **expression**

| | |
|---|---|
| Synopsis | Enable the **expression** context |
| Context | **configure** policy-options community *policy-community-name* expression |
| Tree | expression |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **exact** *boolean*

| | |
|---|---|
| Synopsis | Match exactly for the specified expression |
| Context | **configure** policy-options community *policy-community-name* expression exact *boolean* |
| Tree | exact |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **expr** *expression-community*

| | |
|---|---|
| Synopsis | Community expression value |
| Context | **configure** policy-options community *policy-community-name* expression expr *expression-community* |
| Tree | expr |
| String length | 1 to 900 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **member** [member] *member-community*

| | |
|---|---|
| Synopsis | Add a list entry for **member** |
| Context | **configure** policy-options community *policy-community-name* member *member-community* |
| Tree | member |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**member**] *member-community*

| | |
|---|---|
| Synopsis | Community member value |
| Context | **configure** policy-options community *policy-community-name* member *member-community* |


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| | |
|---|---|
| Tree | member |
| Description | This command configures a BGP community value.<br>Each member of a community list is a standard, extended, or large community value or a regular expression that potentially matches many community values. A regular expression incorporates terms and operators that use the terms. An individual numerical digit is an elementary term in the community regular expression. More complex terms can be built from elementary terms. The following are key operators supported by SR OS:<br>• .<br>• *<br>• ?<br>• {n}<br>• {m,n}<br>• {m, }<br>To reverse the match criteria when specifying a list of ranges or single values using square brackets, use the non-match operator (^) before the elements within the square brackets. |
| String length | 1 to 72 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **damping** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **damping** list instance |
| Context | **configure** policy-options damping *named-item* |
| Tree | damping |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**name**] *named-item*

| | |
|---|---|
| Synopsis | Damping profile name |
| Context | **configure** policy-options damping *named-item* |
| Tree | damping |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **half-life** *number*

| | |
|---|---|
| Synopsis | Time after the FOM value is halved |
| Context | **configure** policy-options damping *named-item* half-life *number* |
| Tree | half-life |
| Range | 1 to 45 |
| Units | minutes |
| Introduced | 16.0.R1 |
| Platforms | All |

### **max-suppress** *number*

| | |
|---|---|
| Synopsis | Maximum time for a route to remain suppressed |
| Context | **configure** policy-options damping *named-item* max-suppress *number* |
| Tree | max-suppress |
| Range | 1 to 720 |
| Units | minutes |
| Introduced | 16.0.R1 |
| Platforms | All |

### **reuse** *number*

| | |
|---|---|
| Synopsis | Value below which a suppressed route can be used again |
| Context | **configure** policy-options damping *named-item* reuse *number* |
| Tree | reuse |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **suppress** *number*

| | |
|---|---|
| Synopsis | Value above which a route is suppressed |


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| | |
|---|---|
| Context | **configure** policy-options damping *named-item* suppress *number* |
| Tree | suppress |
| Range | 1 to 20000 |
| Introduced | 16.0.R1 |
| Platforms | All |

## global-variables

| | |
|---|---|
| Synopsis | Enter the **global-variables** context |
| Context | **configure** policy-options global-variables |
| Tree | global-variables |
| Introduced | 16.0.R4 |
| Platforms | All |

## **name** [variable-name] *policy-var-name*

| | |
|---|---|
| Synopsis | Enter the **name** list instance |
| Context | **configure** policy-options global-variables name *policy-var-name* |
| Tree | name |
| Max. instances | 1000 |
| Introduced | 16.0.R4 |
| Platforms | All |

## [**variable-name**] *policy-var-name*

| | |
|---|---|
| Synopsis | Global variable name used to reference policy functions |
| Context | **configure** policy-options global-variables name *policy-var-name* |
| Tree | name |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the policy variable |
| Context | **configure** policy-options global-variables name *policy-var-name* address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | address |
| Notes | The following elements are part of a mandatory choice: **address**, **decimal**, **number**, **prefix**, or **value**. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **decimal** *decimal-number*

| | |
|---|---|
| Synopsis | Attribute decimal to which variable name is resolved |
| Context | **configure** policy-options global-variables name *policy-var-name* decimal *decimal-number* |
| Tree | decimal |
| Range | 0.000 to 4294967295.000 |
| Notes | The following elements are part of a mandatory choice: **address**, **decimal**, **number**, **prefix**, or **value**. |
| Introduced | 19.7.R1 |
| Platforms | All |

### **number** *number*

| | |
|---|---|
| Synopsis | Numerical value of the policy variable |
| Context | **configure** policy-options global-variables name *policy-var-name* number *number* |
| Tree | number |
| Range | 0 to 4294967295 |
| Notes | The following elements are part of a mandatory choice: **address**, **decimal**, **number**, **prefix**, or **value**. |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **prefix** *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Prefix value associated with the variable name |
| Context | **configure** policy-options global-variables name *policy-var-name* prefix *(ipv4-prefix \| ipv6-prefix)* |
| Tree | prefix |
| Notes | The following elements are part of a mandatory choice: **address**, **decimal**, **number**, **prefix**, or **value**. |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **value** *named-item*

| | |
|---|---|
| Synopsis | Policy variable value |
| Context | **configure** policy-options global-variables name *policy-var-name* value *named-item* |
| Tree | value |
| String length | 1 to 32 |
| Notes | The following elements are part of a mandatory choice: **address**, **decimal**, **number**, **prefix**, or **value**. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **policy-statement** [name] *named-item-64*

| | |
|---|---|
| Synopsis | Enter the **policy-statement** list instance |
| Context | **configure** policy-options policy-statement *named-item-64* |
| Tree | policy-statement |
| Max. instances | 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**name**] *named-item-64*

| | |
|---|---|
| Synopsis | Route policy statement name |
| Context | **configure** policy-options policy-statement *named-item-64* |


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| | |
|---|---|
| Tree | policy-statement |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## default-action

| | |
|---|---|
| Synopsis | Enable the **default-action** context |
| Context | **configure** policy-options policy-statement *named-item-64* default-action |
| Tree | default-action |
| Introduced | 16.0.R1 |
| Platforms | All |

## action-type *keyword*

| | |
|---|---|
| Synopsis | Action type for routes matching the route policy entry |
| Context | **configure** policy-options policy-statement *named-item-64* default-action action-type *keyword* |
| Tree | action-type |
| Options | accept, reject, next-entry, next-policy |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## add-paths-send-limit *(number | keyword)*

| | |
|---|---|
| Synopsis | BGP Add-Paths send limit applied for routes |
| Context | **configure** policy-options policy-statement *named-item-64* default-action add-paths-send-limit *(number \| keyword)* |
| Tree | add-paths-send-limit |
| Range | 1 to 16 |
| Options | multipaths |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **admin-tag-policy** *(param-midstring-64 | string)*

| | |
|---|---|
| Synopsis | Administrative tag policy name |
| Context | **configure** policy-options policy-statement *named-item-64* default-action admin-tag-policy *(param-midstring-64 \| string)* |
| Tree | admin-tag-policy |
| String length | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **advertise-label** *keyword*

| | |
|---|---|
| Synopsis | Label allocation for matched BGP routes |
| Context | **configure** policy-options policy-statement *named-item-64* default-action advertise-label *keyword* |
| Tree | advertise-label |
| Description | This command configures the label allocation method for advertised routes. The effect of this command depends on the context where the associated policy is applied. |
| Options | per-prefix, pop, pop-and-forward |
| Introduced | 16.0.R1 |
| Platforms | All |

### **aigp-metric**

| | |
|---|---|
| Synopsis | Enter the **aigp-metric** context |
| Context | **configure** policy-options policy-statement *named-item-64* default-action aigp-metric |
| Tree | aigp-metric |
| Introduced | 16.0.R1 |
| Platforms | All |

### **add** *(number | string)*

| | |
|---|---|
| Synopsis | AIGP metric to add |
| Context | **configure** policy-options policy-statement *named-item-64* default-action aigp-metric add *(number \| string)* |
| Tree | add |


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| | |
|---|---|
| String length | 1 to 32 |
| Range | 0 to 4294967295 |
| Notes | The following elements are part of a choice: **add** or **set**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **set** *(keyword | number | string)*

| | |
|---|---|
| Synopsis | AIGP metric |
| Context | **configure** policy-options policy-statement *named-item-64* default-action aigp-metric set *(keyword | number | string)* |
| Tree | set |
| String length | 1 to 32 |
| Range | 0 to 4294967295 |
| Options | igp |
| Notes | The following elements are part of a choice: **add** or **set**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **as-path**

| | |
|---|---|
| Synopsis | Enter the **as-path** context |
| Context | **configure** policy-options policy-statement *named-item-64* default-action as-path |
| Tree | as-path |
| Introduced | 16.0.R1 |
| Platforms | All |

### **add** *(param-midstring | string)*

| | |
|---|---|
| Synopsis | AS path to add |
| Context | **configure** policy-options policy-statement *named-item-64* default-action as-path add *(param-midstring | string)* |
| Tree | add |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **add** or **replace**. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **replace** *(param-midstring | string)*

| | |
|---|---|
| Synopsis | AS path to replace |
| Context | **configure** policy-options policy-statement *named-item-64* default-action as-path replace *(param-midstring | string)* |
| Tree | replace |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **add** or **replace**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **as-path-prepend**

| | |
|---|---|
| Synopsis | Enter the **as-path-prepend** context |
| Context | **configure** policy-options policy-statement *named-item-64* default-action as-path-prepend |
| Tree | as-path-prepend |
| Introduced | 16.0.R1 |
| Platforms | All |

### **as-path** *(number | string | keyword)*

| | |
|---|---|
| Synopsis | AS number to prepend to the AS path attribute |
| Context | **configure** policy-options policy-statement *named-item-64* default-action as-path-prepend as-path *(number | string | keyword)* |
| Tree | as-path |
| String length | 1 to 32 |
| Range | 1 to 4294967295 |
| Options | most-recent |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **repeat** *(number | string)*

| | |
|---|---|
| Synopsis | Number of times to prepend the specified AS number |
| Context | **configure** policy-options policy-statement *named-item-64* default-action as-path-prepend repeat *(number \| string)* |
| Tree | repeat |
| String length | 1 to 32 |
| Range | 1 to 50 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bgp-high-priority** *boolean*

| | |
|---|---|
| Synopsis | Tag routes as high priority for fast table updates |
| Context | **configure** policy-options policy-statement *named-item-64* default-action bgp-high-priority *boolean* |
| Tree | bgp-high-priority |
| Description | When configured to **true**, eligible BGP routes matched by the policy entry or policy default-action are tagged as needing faster route table updates.<br>This action applies only when the policy is applied as a BGP import policy to a base router BGP peer or VPRN BGP peer and applies only to the following route types:<br>• IPv4<br>• label-IPv4<br>• IPv6<br>• label-IPv6<br>This command is useful when the BGP RIB contains a large number of routes and quick routing table updates are needed for a small subset of these routes. The effectiveness of this command decreases as the subset becomes a larger proportion of the total RIB.<br>When configured to **false**, no routes are tagged for faster route table updates. |
| Default | false |
| Introduced | 20.5.R1 |
| Platforms | All |

### **bgp-leak** *boolean*

| | |
|---|---|
| Synopsis | Allow leaking for BGP routes |


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| | |
|---|---|
| Context | **configure** policy-options policy-statement *named-item-64* default-action bgp-leak *boolean* |
| Tree | bgp-leak |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## bgp-med

| | |
|---|---|
| Synopsis | Enter the **bgp-med** context |
| Context | **configure** policy-options policy-statement *named-item-64* default-action bgp-med |
| Tree | bgp-med |
| Introduced | 19.7.R1 |
| Platforms | All |

## adjust *string*

| | |
|---|---|
| Synopsis | BGP-MED adjustment |
| Context | **configure** policy-options policy-statement *named-item-64* default-action bgp-med adjust *string* |
| Tree | adjust |
| String length | 1 to 64 |
| Notes | The following elements are part of a choice: **adjust** or **set**. |
| Introduced | 19.7.R1 |
| Platforms | All |

## set *(keyword | number | string)*

| | |
|---|---|
| Synopsis | BGP-MED assignment |
| Context | **configure** policy-options policy-statement *named-item-64* default-action bgp-med set *(keyword \| number \| string)* |
| Tree | set |
| String length | 1 to 32 |
| Range | 0 to 4294967295 |
| Options | igp, min-igp |
| Notes | The following elements are part of a choice: **adjust** or **set**. |


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| | |
|---|---|
| Introduced | 19.7.R1 |
| Platforms | All |

## bgp-tunnel-metric

| | |
|---|---|
| Synopsis | Enter the **bgp-tunnel-metric** context |
| Context | **configure** policy-options policy-statement *named-item-64* default-action bgp-tunnel-metric |
| Tree | bgp-tunnel-metric |
| Description | Commands in this context configure the tunnel-table metrics associated with BGP label unicast routes that pass through to the default action of the policy. |
| Introduced | 20.5.R1 |
| Platforms | All |

## prefer-aigp *boolean*

| | |
|---|---|
| Synopsis | Use AIGP attribute as tunnel metric when present |
| Context | **configure** policy-options policy-statement *named-item-64* default-action bgp-tunnel-metric prefer-aigp *boolean* |
| Tree | prefer-aigp |
| Description | When configured to **true**, and a BGP-LU route is selected for installation in TTM and it is matched by this action in a BGP import policy. The TTM metric of the tunnel is set to the AIGP metric value of the BGP-LU route plus the IGP cost to reach the BGP next-hop if it has the AIGP path attribute, otherwise it is set to the value implied by the value leaf.<br><br>When configured to **false**, the AIGP attribute is removed from the advertised routes and is ignored if present in the received routes. |
| Default | false |
| Introduced | 20.5.R1 |
| Platforms | All |

## prefer-med *boolean*

| | |
|---|---|
| Synopsis | Use MED attribute as tunnel metric when present |
| Context | **configure** policy-options policy-statement *named-item-64* default-action bgp-tunnel-metric prefer-med *boolean* |
| Tree | prefer-med |
| Description | When configured to **true**, if a BGP-LU route is selected for installation in the TTM and is matched by this action in a BGP import policy, the TTM metric of the tunnel is set to |


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the MED metric value of the BGP-LU route with the IGP cost to reach the BGP next hop added to it.

When configured to **false**, the BGP tunnel metric associated with the BGP-LU route accepted by this policy action is not determined using the MED attribute.

| | |
|---|---|
| Default | false |
| Introduced | 23.3.R1 |
| Platforms | All |

## **value** *(string | number)*

| | |
|---|---|
| Synopsis | BGP tunnel table metric value |
| Context | **configure** policy-options policy-statement *named-item-64* default-action bgp-tunnel-metric value *(string \| number)* |
| Tree | value |
| Description | This command configures a BGP tunnel metric is assigned to routes that do not match any entry.<br>If a BGP-LU route is selected for installation in TTM and it is matched by this action in a BGP import policy, the TTM metric of the associated tunnel is set to this value (or the value associated with the parameter name) if either:<br>• the prefer-aigp option is set to false<br>• the prefer-aigp option is set to true but the BGP-LU route does not have an AIGP attribute |
| String length | 1 to 32 |
| Range | 0 to 4294967295 |
| Introduced | 20.5.R1 |
| Platforms | All |

## **community**

| | |
|---|---|
| Synopsis | Enter the **community** context |
| Context | **configure** policy-options policy-statement *named-item-64* default-action community |
| Tree | community |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **add** *(param-midstring-64 | string)*

| | |
|---|---|
| Synopsis | List of community names to add |
| Context | **configure** policy-options policy-statement *named-item-64* default-action community add *(param-midstring-64 \| string)* |
| Tree | add |
| String length | 1 to 64 |
| Max. instances | 28 |
| Notes | The following elements are part of a choice: (**add** and **remove**) or **replace**.<br>This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **remove** *(param-midstring-64 | string)*

| | |
|---|---|
| Synopsis | List of community names to remove |
| Context | **configure** policy-options policy-statement *named-item-64* default-action community remove *(param-midstring-64 \| string)* |
| Tree | remove |
| String length | 1 to 64 |
| Max. instances | 28 |
| Notes | The following elements are part of a choice: (**add** and **remove**) or **replace**.<br>This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **replace** *(param-midstring-64 | string)*

| | |
|---|---|
| Synopsis | List of community names to replace |
| Context | **configure** policy-options policy-statement *named-item-64* default-action community replace *(param-midstring-64 \| string)* |
| Tree | replace |
| String length | 1 to 64 |
| Max. instances | 28 |


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| | |
|---|---|
| Notes | The following elements are part of a choice: (**add** and **remove**) or **replace**.<br>This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **create-mpls-tunnel** *boolean*

| | |
|---|---|
| Synopsis | Create an MPLS tunnel |
| Context | **configure** policy-options policy-statement *named-item-64* default-action create-mpls-tunnel *boolean* |
| Tree | create-mpls-tunnel |
| Description | When configured to **true**, the router creates an MPLS tunnel.<br>This command is supported for only the following address families:<br>• evpn<br>• ipv4<br>• ipv6<br>• label-ipv4<br>• label-ipv6<br>• vpn-ipv4<br>• vpn-ipv6 |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | All |

## **create-udp-tunnel** *boolean*

| | |
|---|---|
| Synopsis | Create an MPLS-over-UDP tunnel |
| Context | **configure** policy-options policy-statement *named-item-64* default-action create-udp-tunnel *boolean* |
| Tree | create-udp-tunnel |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **damping** *(keyword | param-midstring | string)*

| | |
|---|---|
| Synopsis | Damping profile used for routes |
| Context | **configure** policy-options policy-statement *named-item-64* default-action damping *(keyword \| param-midstring \| string)* |
| Tree | damping |
| String length | 1 to 32 |
| Options | none |
| Introduced | 16.0.R1 |
| Platforms | All |

### **dest-class** *number*

| | |
|---|---|
| Synopsis | Default destination class for the policy statement |
| Context | **configure** policy-options policy-statement *named-item-64* default-action dest-class *number* |
| Tree | dest-class |
| Description | This command specifies the policy accounting destination class index to associate with matched routes. |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### **egress-statistics** *boolean*

| | |
|---|---|
| Synopsis | Enable egress statistics for BGP-LU routes |
| Context | **configure** policy-options policy-statement *named-item-64* default-action egress-statistics *boolean* |
| Tree | egress-statistics |
| Description | When configured to **true**, this command enables the allocation of statistical indexes to BGP labeled unicast route entries that are programmed on egress data paths.<br>When configured to **false**, this command disables the allocation of statistical indexes to BGP-LU route entries. |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | All |


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### **flex-algo** *(string | number)*

| | |
|---|---|
| Synopsis | Flexible algorithm for BGP next-hop autobind operation |
| Context | **configure** policy-options policy-statement *named-item-64* default-action flex-algo *(string \| number)* |
| Tree | flex-algo |
| Description | This command configures the Flex-Algorithm for use in the BGP next-hop automatic bind operation in a BGP import policy. A Flex-Algorithm aware autobind of the BGP next-hop is enabled when the route is matched by the policy statement entry.<br>Flex-Algorithm aware next-hop lookup is supported for unicast BGP, VPRN, and BGP-LU.<br>This command is not supported for multicast address families. |
| String length | 1 to 32 |
| Range | 128 to 255 |
| Introduced | 20.10.R1 |
| Platforms | All |

### **ingress-statistics** *boolean*

| | |
|---|---|
| Synopsis | Enable ingress statistics for BGP-LU routes |
| Context | **configure** policy-options policy-statement *named-item-64* default-action ingress-statistics *boolean* |
| Tree | ingress-statistics |
| Description | When configured to **true**, this command enables the allocation of statistical indexes to BGP labeled unicast route entries that are programmed on ingress data paths. For effective operation, a prefix must be advertised with a label per prefix for ILM statistics.<br>When configured to **false**, this command disables the allocation of statistical indexes to BGP-LU route entries. |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | All |

### **install-backup-path** *boolean*

| | |
|---|---|
| Synopsis | Install a preprogrammed backup path for the prefix |
| Context | **configure** policy-options policy-statement *named-item-64* default-action install-backup-path *boolean* |
| Tree | install-backup-path |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **local-preference** *(number | string)*

| | |
|---|---|
| Synopsis | BGP local preference for routes not matching any entry |
| Context | **configure** policy-options policy-statement *named-item-64* default-action local-preference *(number | string)* |
| Tree | local-preference |
| String length | 1 to 32 |
| Range | 0 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **metric**

| | |
|---|---|
| Synopsis | Enter the **metric** context |
| Context | **configure** policy-options policy-statement *named-item-64* default-action metric |
| Tree | metric |
| Introduced | 16.0.R1 |
| Platforms | All |

### **add** *(number | string)*

| | |
|---|---|
| Synopsis | Metric to add |
| Context | **configure** policy-options policy-statement *named-item-64* default-action metric add *(number | string)* |
| Tree | add |
| String length | 1 to 32 |
| Range | 0 to 4294967295 |
| Notes | The following elements are part of a choice: **add**, **set**, or **subtract**. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **set** *(number | string)*

| | |
|---|---|
| Synopsis | Metric to assign |
| Context | **configure** policy-options policy-statement *named-item-64* default-action metric set *(number \| string)* |
| Tree | set |
| String length | 1 to 32 |
| Range | 0 to 4294967295 |
| Notes | The following elements are part of a choice: **add**, **set**, or **subtract**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **subtract** *(number | string)*

| | |
|---|---|
| Synopsis | Metric to subtract |
| Context | **configure** policy-options policy-statement *named-item-64* default-action metric subtract *(number \| string)* |
| Tree | subtract |
| String length | 1 to 32 |
| Range | 0 to 4294967295 |
| Notes | The following elements are part of a choice: **add**, **set**, or **subtract**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **multicast-redirection**

| | |
|---|---|
| Synopsis | Enter the **multicast-redirection** context |
| Context | **configure** policy-options policy-statement *named-item-64* default-action multicast-redirection |
| Tree | multicast-redirection |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **fwd-service** *string*

| | |
|---|---|
| Synopsis | Service ID for multicast redirection |


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| | |
|---|---|
| Context | **configure** policy-options policy-statement *named-item-64* default-action multicast-redirection fwd-service *string* |
| Tree | fwd-service |
| Default | Base |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ip-int-name** *interface-name*

| | |
|---|---|
| Synopsis | Alternate interface where IGMP messages are redirected |
| Context | **configure** policy-options policy-statement *named-item-64* default-action multicast-redirection ip-int-name *interface-name* |
| Tree | ip-int-name |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **nat-policy** *(param-midstring | string)*

| | |
|---|---|
| Synopsis | BGP-VPN imported route and a NAT policy association |
| Context | **configure** policy-options policy-statement *named-item-64* default-action nat-policy *(param-midstring | string)* |
| Tree | nat-policy |
| Description | This command assigns a NAT policy to the matched routes that do not have a more specific NAT policy configured under action.<br><br>A dynamic route obtained by BGP-VPN can be imported into an inside (private side) routing context in NAT environment. This route must be associated with a NAT policy that maps traffic into a NAT pool and outside routing context. If the NAT policy is not specified within the route policy entry, the imported NAT route is, by default, associated with the default NAT policy defined in the NAT inside routing context.<br><br>All BGP-VPN routes that are destined to be imported into the NAT inside routing context must have action-type **accept** regardless of whether the NAT policy is configured in the action. |
| String length | 1 to 32 |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **next-hop** *(keyword | ipv4-address-no-zone | ipv6-address-no-zone | string)*

| | |
|---|---|
| Synopsis | Next-hop IP address applied to routes |
| Context | **configure** policy-options policy-statement *named-item-64* default-action next-hop *(keyword \| ipv4-address-no-zone \| ipv6-address-no-zone \| string)* |
| Tree | next-hop |
| String length | 1 to 32 |
| Options | peer-address, self |
| Introduced | 16.0.R1 |
| Platforms | All |

### **origin** *(keyword | string)*

| | |
|---|---|
| Synopsis | BGP origin for routes that are exported into BGP |
| Context | **configure** policy-options policy-statement *named-item-64* default-action origin *(keyword \| string)* |
| Tree | origin |
| String length | 1 to 32 |
| Options | igp, egp, incomplete |
| Introduced | 16.0.R1 |
| Platforms | All |

### **origin-validation-state** *(keyword | string)*

| | |
|---|---|
| Synopsis | Origin validation state for routes |
| Context | **configure** policy-options policy-statement *named-item-64* default-action origin-validation-state *(keyword \| string)* |
| Tree | origin-validation-state |
| String length | 1 to 32 |
| Options | valid, not-found, invalid |
| Introduced | 16.0.R1 |
| Platforms | All |

### **preference** *(number | string)*

| | |
|---|---|
| Synopsis | Route preference applied to routes |


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| | |
|---|---|
| Context | **configure** policy-options policy-statement *named-item-64* default-action preference *(number \| string)* |
| Tree | preference |
| String length | 1 to 32 |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **resolve-static** *boolean*

| | |
|---|---|
| Synopsis | Resolve next hop of a static route for the BGP next hop |
| Context | **configure** policy-options policy-statement *named-item-64* default-action resolve-static *boolean* |
| Tree | resolve-static |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **route-table-install** *boolean*

| | |
|---|---|
| Synopsis | Allow BGP route installation in the route table |
| Context | **configure** policy-options policy-statement *named-item-64* default-action route-table-install *boolean* |
| Tree | route-table-install |
| Default | true |
| Introduced | 19.10.R1 |
| Platforms | All |

### **source-class** *number*

| | |
|---|---|
| Synopsis | Default source class for the policy statement |
| Context | **configure** policy-options policy-statement *named-item-64* default-action source-class *number* |
| Tree | source-class |
| Description | This command specifies the policy accounting source class index to associate with matched routes. |


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| | |
|---|---|
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## sr-label-index

| | |
|---|---|
| Synopsis | Enter the **sr-label-index** context |
| Context | **configure** policy-options policy-statement *named-item-64* default-action sr-label-index |
| Tree | sr-label-index |
| Description | Commands in this context configure the policy action to associate a BGP segment-routing label index value with all /32 BGP labeled IPv4 routes.<br>The use of this action in a policy entry that matches more than one /32 labeled IPv4 route may create SID conflicts.<br>This action only takes effect in BGP peer import policies (and only on received /32 labeled IPv4 routes) and in route table import policies associated with the labeled IPv4 RIB.<br>When this action occurs in a policy applied as a peer import policy, a prefix SID attribute can be added to a received /32 labeled IPv4 route that was not sent with this attribute, or the received prefix SID attribute can be replaced with a new one. |
| Introduced | 19.10.R1 |
| Platforms | All |

## prefer-igp *boolean*

| | |
|---|---|
| Synopsis | Use the SR label index from the IGP route when present |
| Context | **configure** policy-options policy-statement *named-item-64* default-action sr-label-index prefer-igp *boolean* |
| Tree | prefer-igp |
| Description | When configured to **true**, BGP obtains the SID index from the IGP route (if a SID index is present) and the **configure router bgp segment-routing prefix-sid-range global** command is set to **true**.<br>This command applies only to route table import policies.<br>When configured to **false**, or the SID index is not present in the IGP route, or the **configure router bgp segment-routing prefix-sid-range global** command is not set to **true**, BGP obtains the label index value from the **value** command. |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |


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### **value** *(string | number)*

| | |
|---|---|
| Synopsis | BGP SR label index associated with routes |
| Context | **configure** policy-options policy-statement *named-item-64* default-action sr-label-index value *(string \| number)* |
| Tree | value |
| Description | This command specifies the BGP SR label index value to be associated with a route or routes.<br>If this command specifies an index value that causes a SID conflict with another BGP route, all conflicting BGP routes are re-advertised with label values based on dynamic allocation rather than SID-based allocation.<br>If this command specifies an index value that causes a SID conflict with an IGP route, the BGP route is re-advertised with a label value based on dynamic allocation rather than SID-based allocation. |
| String length | 1 to 32 |
| Range | 0 to 1048575 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **sr-maintenance-policy** *(param-midstring | string)*

| | |
|---|---|
| Synopsis | SR maintenance policy as an action |
| Context | **configure** policy-options policy-statement *named-item-64* default-action sr-maintenance-policy *(param-midstring \| string)* |
| Tree | sr-maintenance-policy |
| Description | This command applies a named segment routing maintenance policy as an action for route policies. It is only used for SR policy routes. |
| String length | 1 to 32 |
| Introduced | 20.10.R1 |
| Platforms | All |

### **sr-return-path-bfd-label** *(policy-var-name | number)*

| | |
|---|---|
| Synopsis | S-BFD return path label |
| Context | **configure** policy-options policy-statement *named-item-64* default-action sr-return-path-bfd-label *(policy-var-name \| number)* |
| Tree | sr-return-path-bfd-label |


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Description This command configures an additional MPLS label to add to the bottom of the label stack for the S-BFD packet and sets the S-BFD session to echo mode.

This command applies to the initiator of the S-BFD sessions. The label value can either be a binding SID for an SR policy or another MPLS path configured on the reflector router. Instead of being routed through the IGP path, the S-BFD packet returns to the initiator through the MPLS return path. This value takes precedence over the return path label value in a maintenance policy (configured using the **configure router segment-routing maintenance-policy return-path-label** command) that is also applied as the policy-statement action. This command can only be configured if the **sr-maintenance-policy** is also configured.

If this command is unconfigured, and there is no **return-path-label** command configuration in the maintenance policy that is also applied as an action, and the policy statement is reevaluated, S-BFD returns to asynchronous mode and no return path label is pushed by the initiator node. S-BFD packets for this LSP or path received by the reflector are routed through the IGP path.

String length 1 to 32

Range 32 to 1048575

Introduced 23.10.R1

Platforms All

## **srv6-locator** *(param-midstring-64 | string)*

Synopsis Locator for SRv6 TLV to use

Context **configure** policy-options policy-statement *named-item-64* default-action srv6-locator *(param-midstring-64 | string)*

Tree srv6-locator

Description This command configures either a string encoding a midstring parameter delimited by at signs (@), or a reference to a named locator for the SRv6 TLV to use.

For a VRF export policy, the referenced locator must already be configured using the commands in the **configure service vprn segment-routing-v6 locator** context.

For a BGP export policy, the referenced locator must already be configured using the commands in the **configure router segment-routing segment-routing-v6 base-routing-instance locator** context.

String length 1 to 64

Introduced 23.7.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR

## **srv6-micro-segment-locator** *(param-midstring-64 | string)*

Synopsis Micro-segment locator for SRv6 TLV to use


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| | |
|---|---|
| Context | **configure** policy-options policy-statement *named-item-64* default-action srv6-micro-segment-locator *(param-midstring-64 \| string)* |
| Tree | srv6-micro-segment-locator |
| Description | This command configures either a string encoding a midstring parameter delimited by at signs (@), or a reference to a named micro-segment locator for the SRv6 TLV to use.<br>For a VRF export policy, the referenced micro-segment locator must already be configured using the commands in the **configure service vprn segment-routing-v6 micro-segment-locator** context.<br>For a BGP export policy, the referenced micro-SID locator must already be configured using the commands in the **configure router segment-routing segment-routing-v6 base-routing-instance micro-segment-locator** context. |
| String length | 1 to 64 |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **srv6-return-path-bfd-sid** *(policy-var-name | ipv6-address)*

| | |
|---|---|
| Synopsis | SRv6 return path BFD SID applied to SRv6 policy routes |
| Context | **configure** policy-options policy-statement *named-item-64* default-action srv6-return-path-bfd-sid *(policy-var-name \| ipv6-address)* |
| Tree | srv6-return-path-bfd-sid |
| Description | This command configures the S-BFD session to echo mode and pushes an additional SRv6 SID in the SRH only for S-BFD packets sent on the imported SRv6 policy. |
| String length | 1 to 32 |
| Introduced | 23.3.R1 |
| Platforms | All |

## **sticky-ecmp** *boolean*

| | |
|---|---|
| Synopsis | Specify the sticky ECMP flag for BGP ECMP routes |
| Context | **configure** policy-options policy-statement *named-item-64* default-action sticky-ecmp *boolean* |
| Tree | sticky-ecmp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **tag** *(number | string)*

| | |
|---|---|
| Synopsis | OSPF RIP or IS-IS tag applied to routes |
| Context | **configure** policy-options policy-statement *named-item-64* default-action tag *(number \| string)* |
| Tree | tag |
| String length | 1 to 32 |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **type** *(number | string)*

| | |
|---|---|
| Synopsis | OSPF metric type applied to routes |
| Context | **configure** policy-options policy-statement *named-item-64* default-action type *(number \| string)* |
| Tree | type |
| String length | 1 to 32 |
| Range | 1 to 2 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** policy-options policy-statement *named-item-64* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **entry** [entry-id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* |
| Tree | entry |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### [**entry-id**] *number*

| | |
|---|---|
| Synopsis | Entry ID for a route policy entry |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* |
| Tree | entry |
| Range | 1 to 4294967295 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **action**

| | |
|---|---|
| Synopsis | Enable the **action** context |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action |
| Tree | action |
| Introduced | 16.0.R1 |
| Platforms | All |

### **action-type** *keyword*

| | |
|---|---|
| Synopsis | Action type for routes matching the route policy entry |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action action-type *keyword* |
| Tree | action-type |
| Options | accept, reject, next-entry, next-policy |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **add-paths-send-limit** *(number | keyword)*

| | |
|---|---|
| Synopsis | BGP Add-Paths send limit applied for routes |


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| | |
|---|---|
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action add-paths-send-limit *(number \| keyword)* |
| Tree | add-paths-send-limit |
| Range | 1 to 16 |
| Options | multipaths |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-tag-policy** *(param-midstring-64 | string)*

| | |
|---|---|
| Synopsis | Administrative tag policy name |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action admin-tag-policy *(param-midstring-64 \| string)* |
| Tree | admin-tag-policy |
| String length | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **advertise-label** *keyword*

| | |
|---|---|
| Synopsis | Label allocation for matched BGP routes |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action advertise-label *keyword* |
| Tree | advertise-label |
| Description | This command configures the label allocation method for advertised routes. The effect of this command depends on the context where the associated policy is applied. |
| Options | per-prefix, pop, pop-and-forward |
| Introduced | 16.0.R1 |
| Platforms | All |

### **aigp-metric**

| | |
|---|---|
| Synopsis | Enter the **aigp-metric** context |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action aigp-metric |
| Tree | aigp-metric |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **add** *(number | string)*

| | |
|---|---|
| Synopsis | AIGP metric to add |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action aigp-metric add *(number | string)* |
| Tree | add |
| String length | 1 to 32 |
| Range | 0 to 4294967295 |
| Notes | The following elements are part of a choice: **add** or **set**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **set** *(keyword | number | string)*

| | |
|---|---|
| Synopsis | AIGP metric |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action aigp-metric set *(keyword | number | string)* |
| Tree | set |
| String length | 1 to 32 |
| Range | 0 to 4294967295 |
| Options | igp |
| Notes | The following elements are part of a choice: **add** or **set**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **as-path**

| | |
|---|---|
| Synopsis | Enter the **as-path** context |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action as-path |
| Tree | as-path |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **add** *(param-midstring | string)*

| | |
|---|---|
| Synopsis | AS path to add |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action as-path add *(param-midstring | string)* |
| Tree | add |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **add** or **replace**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **replace** *(param-midstring | string)*

| | |
|---|---|
| Synopsis | AS path to replace |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action as-path replace *(param-midstring | string)* |
| Tree | replace |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **add** or **replace**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **as-path-prepend**

| | |
|---|---|
| Synopsis | Enter the **as-path-prepend** context |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action as-path-prepend |
| Tree | as-path-prepend |
| Introduced | 16.0.R1 |
| Platforms | All |

### **as-path** *(number | string | keyword)*

| | |
|---|---|
| Synopsis | AS number to prepend to the AS path attribute |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action as-path-prepend as-path *(number | string | keyword)* |


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| | |
|---|---|
| Tree | as-path |
| String length | 1 to 32 |
| Range | 1 to 4294967295 |
| Options | most-recent |
| Introduced | 16.0.R1 |
| Platforms | All |

### **repeat** *(number | string)*

| | |
|---|---|
| Synopsis | Number of times to prepend the specified AS number |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action as-path-prepend repeat *(number | string)* |
| Tree | repeat |
| String length | 1 to 32 |
| Range | 1 to 50 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bgp-high-priority** *boolean*

| | |
|---|---|
| Synopsis | Tag routes as high priority for fast table updates |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action bgp-high-priority *boolean* |
| Tree | bgp-high-priority |
| Description | When configured to **true**, eligible BGP routes matched by the policy entry or policy default-action are tagged as needing faster route table updates.<br>This action applies only when the policy is applied as a BGP import policy to a base router BGP peer or VPRN BGP peer and applies only to the following route types:<br>• IPv4<br>• label-IPv4<br>• IPv6<br>• label-IPv6<br>This command is useful when the BGP RIB contains a large number of routes and quick routing table updates are needed for a small subset of these routes. The effectiveness of this command decreases as the subset becomes a larger proportion of the total RIB.<br>When configured to **false**, no routes are tagged for faster route table updates. |


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| | |
|---|---|
| Default | false |
| Introduced | 20.5.R1 |
| Platforms | All |

### **bgp-leak** *boolean*

| | |
|---|---|
| Synopsis | Allow leaking for BGP routes |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action bgp-leak *boolean* |
| Tree | bgp-leak |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bgp-med**

| | |
|---|---|
| Synopsis | Enter the **bgp-med** context |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action bgp-med |
| Tree | bgp-med |
| Introduced | 19.7.R1 |
| Platforms | All |

### **adjust** *string*

| | |
|---|---|
| Synopsis | BGP-MED adjustment |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action bgp-med adjust *string* |
| Tree | adjust |
| String length | 1 to 64 |
| Notes | The following elements are part of a choice: **adjust** or **set**. |
| Introduced | 19.7.R1 |
| Platforms | All |

### **set** *(keyword | number | string)*

| | |
|---|---|
| Synopsis | BGP-MED assignment |


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| | |
|---|---|
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action bgp-med set *(keyword* \| *number* \| *string)* |
| Tree | set |
| String length | 1 to 32 |
| Range | 0 to 4294967295 |
| Options | igp, min-igp |
| Notes | The following elements are part of a choice: **adjust** or **set**. |
| Introduced | 19.7.R1 |
| Platforms | All |

## bgp-tunnel-metric

| | |
|---|---|
| Synopsis | Enter the **bgp-tunnel-metric** context |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action bgp-tunnel-metric |
| Tree | bgp-tunnel-metric |
| Description | Commands in this context configure the tunnel-table metrics associated with BGP label unicast routes that pass through to the default action of the policy. |
| Introduced | 20.5.R1 |
| Platforms | All |

## prefer-aigp *boolean*

| | |
|---|---|
| Synopsis | Use AIGP attribute as tunnel metric when present |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action bgp-tunnel-metric prefer-aigp *boolean* |
| Tree | prefer-aigp |
| Description | When configured to **true**, and a BGP-LU route is selected for installation in TTM and it is matched by this action in a BGP import policy. The TTM metric of the tunnel is set to the AIGP metric value of the BGP-LU route plus the IGP cost to reach the BGP next-hop if it has the AIGP path attribute, otherwise it is set to the value implied by the value leaf.<br>When configured to **false**, the AIGP attribute is removed from the advertised routes and is ignored if present in the received routes. |
| Default | false |
| Introduced | 20.5.R1 |
| Platforms | All |


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### **prefer-med** *boolean*

| | |
|---|---|
| Synopsis | Use MED attribute as tunnel metric when present |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action bgp-tunnel-metric prefer-med *boolean* |
| Tree | prefer-med |
| Description | When configured to **true**, if a BGP-LU route is selected for installation in the TTM and is matched by this action in a BGP import policy, the TTM metric of the tunnel is set to the MED metric value of the BGP-LU route with the IGP cost to reach the BGP next hop added to it.<br>When configured to **false**, the BGP tunnel metric associated with the BGP-LU route accepted by this policy action is not determined using the MED attribute. |
| Default | false |
| Introduced | 23.3.R1 |
| Platforms | All |

### **value** *(string | number)*

| | |
|---|---|
| Synopsis | BGP tunnel table metric value |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action bgp-tunnel-metric value *(string \| number)* |
| Tree | value |
| Description | This command configures a BGP tunnel metric is assigned to routes that do not match any entry.<br>If a BGP-LU route is selected for installation in TTM and it is matched by this action in a BGP import policy, the TTM metric of the associated tunnel is set to this value (or the value associated with the parameter name) if either:<br>• the prefer-aigp option is set to false<br>• the prefer-aigp option is set to true but the BGP-LU route does not have an AIGP attribute |
| String length | 1 to 32 |
| Range | 0 to 4294967295 |
| Introduced | 20.5.R1 |
| Platforms | All |

### **community**

| | |
|---|---|
| Synopsis | Enter the **community** context |


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| | |
|---|---|
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action community |
| Tree | community |
| Introduced | 16.0.R1 |
| Platforms | All |

### **add** *(param-midstring-64 | string)*

| | |
|---|---|
| Synopsis | List of community names to add |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action community add *(param-midstring-64 | string)* |
| Tree | add |
| String length | 1 to 64 |
| Max. instances | 28 |
| Notes | The following elements are part of a choice: (**add** and **remove**) or **replace**.<br>This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **remove** *(param-midstring-64 | string)*

| | |
|---|---|
| Synopsis | List of community names to remove |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action community remove *(param-midstring-64 | string)* |
| Tree | remove |
| String length | 1 to 64 |
| Max. instances | 28 |
| Notes | The following elements are part of a choice: (**add** and **remove**) or **replace**.<br>This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **replace** *(param-midstring-64 | string)*

| | |
|---|---|
| Synopsis | List of community names to replace |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action community replace *(param-midstring-64 \| string)* |
| Tree | replace |
| String length | 1 to 64 |
| Max. instances | 28 |
| Notes | The following elements are part of a choice: (**add** and **remove**) or **replace**.<br>This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **create-mpls-tunnel** *boolean*

| | |
|---|---|
| Synopsis | Create an MPLS tunnel |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action create-mpls-tunnel *boolean* |
| Tree | create-mpls-tunnel |
| Description | When configured to **true**, the router creates an MPLS tunnel.<br>This command is supported for only the following address families:<br>• evpn<br>• ipv4<br>• ipv6<br>• label-ipv4<br>• label-ipv6<br>• vpn-ipv4<br>• vpn-ipv6 |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | All |

### **create-udp-tunnel** *boolean*

| | |
|---|---|
| Synopsis | Create an MPLS-over-UDP tunnel |


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| | |
|---|---|
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action create-udp-tunnel *boolean* |
| Tree | create-udp-tunnel |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **damping** *(keyword | param-midstring | string)*

| | |
|---|---|
| Synopsis | Damping profile used for routes |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action damping *(keyword | param-midstring | string)* |
| Tree | damping |
| String length | 1 to 32 |
| Options | none |
| Introduced | 16.0.R1 |
| Platforms | All |

### **dest-class** *number*

| | |
|---|---|
| Synopsis | Default destination class for the policy statement |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action dest-class *number* |
| Tree | dest-class |
| Description | This command specifies the policy accounting destination class index to associate with matched routes. |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### **egress-statistics** *boolean*

| | |
|---|---|
| Synopsis | Enable egress statistics for BGP-LU routes |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action egress-statistics *boolean* |
| Tree | egress-statistics |


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| | |
|---|---|
| Description | When configured to **true**, this command enables the allocation of statistical indexes to BGP labeled unicast route entries that are programmed on egress data paths.<br>When configured to **false**, this command disables the allocation of statistical indexes to BGP-LU route entries. |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | All |

## **flex-algo** *(string | number)*

| | |
|---|---|
| Synopsis | Flexible algorithm for BGP next-hop autobind operation |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action flex-algo *(string \| number)* |
| Tree | flex-algo |
| Description | This command configures the Flex-Algorithm for use in the BGP next-hop automatic bind operation in a BGP import policy. A Flex-Algorithm aware autobind of the BGP next-hop is enabled when the route is matched by the policy statement entry.<br>Flex-Algorithm aware next-hop lookup is supported for unicast BGP, VPRN, and BGP-LU.<br>This command is not supported for multicast address families. |
| String length | 1 to 32 |
| Range | 128 to 255 |
| Introduced | 20.10.R1 |
| Platforms | All |

## **forwarding-class**

| | |
|---|---|
| Synopsis | Enter the **forwarding-class** context |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action forwarding-class |
| Tree | forwarding-class |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **fc** *keyword*

| | |
|---|---|
| Synopsis | Forwarding class associated with the route |


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| | |
|---|---|
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action forwarding-class fc *keyword* |
| Tree | fc |
| Options | be, l2, af, l1, h2, ef, h1, nc |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **priority** *keyword*

| | |
|---|---|
| Synopsis | Route priority |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action forwarding-class priority *keyword* |
| Tree | priority |
| Options | low, high |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **ingress-statistics** *boolean*

| | |
|---|---|
| Synopsis | Enable ingress statistics for BGP-LU routes |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action ingress-statistics *boolean* |
| Tree | ingress-statistics |
| Description | When configured to **true**, this command enables the allocation of statistical indexes to BGP labeled unicast route entries that are programmed on ingress data paths. For effective operation, a prefix must be advertised with a label per prefix for ILM statistics.<br>When configured to **false**, this command disables the allocation of statistical indexes to BGP-LU route entries. |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | All |

## **install-backup-path** *boolean*

| | |
|---|---|
| Synopsis | Install a preprogrammed backup path for the prefix |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action install-backup-path *boolean* |


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| | |
|---|---|
| Tree | install-backup-path |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **local-preference** *(number | string)*

| | |
|---|---|
| Synopsis | BGP local preference for routes not matching any entry |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action local-preference *(number | string)* |
| Tree | local-preference |
| String length | 1 to 32 |
| Range | 0 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **metric**

| | |
|---|---|
| Synopsis | Enter the **metric** context |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action metric |
| Tree | metric |
| Introduced | 16.0.R1 |
| Platforms | All |

### **add** *(number | string)*

| | |
|---|---|
| Synopsis | Metric to add |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action metric add *(number | string)* |
| Tree | add |
| String length | 1 to 32 |
| Range | 0 to 4294967295 |
| Notes | The following elements are part of a choice: **add**, **set**, or **subtract**. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **set** *(number | string)*

| | |
|---|---|
| Synopsis | Metric to assign |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action metric set *(number | string)* |
| Tree | set |
| String length | 1 to 32 |
| Range | 0 to 4294967295 |
| Notes | The following elements are part of a choice: **add**, **set**, or **subtract**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **subtract** *(number | string)*

| | |
|---|---|
| Synopsis | Metric to subtract |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action metric subtract *(number | string)* |
| Tree | subtract |
| String length | 1 to 32 |
| Range | 0 to 4294967295 |
| Notes | The following elements are part of a choice: **add**, **set**, or **subtract**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **multicast-redirection**

| | |
|---|---|
| Synopsis | Enter the **multicast-redirection** context |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action multicast-redirection |
| Tree | multicast-redirection |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **fwd-service** *string*

| | |
|---|---|
| Synopsis | Service ID for multicast redirection |


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| | |
|---|---|
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action multicast-redirection fwd-service *string* |
| Tree | fwd-service |
| Default | Base |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ip-int-name** *interface-name*

| | |
|---|---|
| Synopsis | Alternate interface where IGMP messages are redirected |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action multicast-redirection ip-int-name *interface-name* |
| Tree | ip-int-name |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **nat-policy** *(param-midstring | string)*

| | |
|---|---|
| Synopsis | BGP-VPN imported route and a NAT policy association |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action nat-policy *(param-midstring | string)* |
| Tree | nat-policy |
| Description | This command assigns a NAT policy to the matched routes that do not have a more specific NAT policy configured under action.<br><br>A dynamic route obtained by BGP-VPN can be imported into an inside (private side) routing context in NAT environment. This route must be associated with a NAT policy that maps traffic into a NAT pool and outside routing context. If the NAT policy is not specified within the route policy entry, the imported NAT route is, by default, associated with the default NAT policy defined in the NAT inside routing context.<br><br>All BGP-VPN routes that are destined to be imported into the NAT inside routing context must have action-type **accept** regardless of whether the NAT policy is configured in the action. |
| String length | 1 to 32 |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **next-hop** *(keyword | ipv4-address-no-zone | ipv6-address-no-zone | string)*

| | |
|---|---|
| Synopsis | Next-hop IP address applied to routes |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action next-hop *(keyword \| ipv4-address-no-zone \| ipv6-address-no-zone \| string)* |
| Tree | next-hop |
| String length | 1 to 32 |
| Options | peer-address, self |
| Introduced | 16.0.R1 |
| Platforms | All |

### **origin** *(keyword | string)*

| | |
|---|---|
| Synopsis | BGP origin for routes that are exported into BGP |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action origin *(keyword \| string)* |
| Tree | origin |
| String length | 1 to 32 |
| Options | igp, egp, incomplete |
| Introduced | 16.0.R1 |
| Platforms | All |

### **origin-validation-state** *(keyword | string)*

| | |
|---|---|
| Synopsis | Origin validation state for routes |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action origin-validation-state *(keyword \| string)* |
| Tree | origin-validation-state |
| String length | 1 to 32 |
| Options | valid, not-found, invalid |
| Introduced | 16.0.R1 |
| Platforms | All |

### **preference** *(number | string)*

| | |
|---|---|
| Synopsis | Route preference applied to routes |


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| | |
|---|---|
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action preference *(number* \| *string)* |
| Tree | preference |
| String length | 1 to 32 |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **resolve-static** *boolean*

| | |
|---|---|
| Synopsis | Resolve next hop of a static route for the BGP next hop |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action resolve-static *boolean* |
| Tree | resolve-static |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **route-table-install** *boolean*

| | |
|---|---|
| Synopsis | Allow BGP route installation in the route table |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action route-table-install *boolean* |
| Tree | route-table-install |
| Default | true |
| Introduced | 19.10.R1 |
| Platforms | All |

### **source-class** *number*

| | |
|---|---|
| Synopsis | Default source class for the policy statement |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action source-class *number* |
| Tree | source-class |
| Description | This command specifies the policy accounting source class index to associate with matched routes. |


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| | |
|---|---|
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## sr-label-index

| | |
|---|---|
| Synopsis | Enter the **sr-label-index** context |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action sr-label-index |
| Tree | sr-label-index |
| Description | Commands in this context configure the policy action to associate a BGP segment-routing label index value with all /32 BGP labeled IPv4 routes.<br>The use of this action in a policy entry that matches more than one /32 labeled IPv4 route may create SID conflicts.<br>This action only takes effect in BGP peer import policies (and only on received /32 labeled IPv4 routes) and in route table import policies associated with the labeled IPv4 RIB.<br>When this action occurs in a policy applied as a peer import policy, a prefix SID attribute can be added to a received /32 labeled IPv4 route that was not sent with this attribute, or the received prefix SID attribute can be replaced with a new one. |
| Introduced | 19.10.R1 |
| Platforms | All |

## prefer-igp *boolean*

| | |
|---|---|
| Synopsis | Use the SR label index from the IGP route when present |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action sr-label-index prefer-igp *boolean* |
| Tree | prefer-igp |
| Description | When configured to **true**, BGP obtains the SID index from the IGP route (if a SID index is present) and the **configure router bgp segment-routing prefix-sid-range global** command is set to **true**.<br>This command applies only to route table import policies.<br>When configured to **false**, or the SID index is not present in the IGP route, or the **configure router bgp segment-routing prefix-sid-range global** command is not set to **true**, BGP obtains the label index value from the **value** command. |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |


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### **value** *(string | number)*

| | |
|---|---|
| Synopsis | BGP SR label index associated with routes |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action sr-label-index value *(string \| number)* |
| Tree | value |
| Description | This command specifies the BGP SR label index value to be associated with a route or routes.<br>If this command specifies an index value that causes a SID conflict with another BGP route, all conflicting BGP routes are re-advertised with label values based on dynamic allocation rather than SID-based allocation.<br>If this command specifies an index value that causes a SID conflict with an IGP route, the BGP route is re-advertised with a label value based on dynamic allocation rather than SID-based allocation. |
| String length | 1 to 32 |
| Range | 0 to 1048575 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **sr-maintenance-policy** *(param-midstring | string)*

| | |
|---|---|
| Synopsis | SR maintenance policy as an action |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action sr-maintenance-policy *(param-midstring \| string)* |
| Tree | sr-maintenance-policy |
| Description | This command applies a named segment routing maintenance policy as an action for route policies. It is only used for SR policy routes. |
| String length | 1 to 32 |
| Introduced | 20.10.R1 |
| Platforms | All |

### **sr-return-path-bfd-label** *(policy-var-name | number)*

| | |
|---|---|
| Synopsis | S-BFD return path label |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action sr-return-path-bfd-label *(policy-var-name \| number)* |
| Tree | sr-return-path-bfd-label |


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Description This command configures an additional MPLS label to add to the bottom of the label stack for the S-BFD packet and sets the S-BFD session to echo mode.

This command applies to the initiator of the S-BFD sessions. The label value can either be a binding SID for an SR policy or another MPLS path configured on the reflector router. Instead of being routed through the IGP path, the S-BFD packet returns to the initiator through the MPLS return path. This value takes precedence over the return path label value in a maintenance policy (configured using the **configure router segment-routing maintenance-policy return-path-label** command) that is also applied as the policy-statement action. This command can only be configured if the **sr-maintenance-policy** is also configured.

If this command is unconfigured, and there is no **return-path-label** command configuration in the maintenance policy that is also applied as an action, and the policy statement is reevaluated, S-BFD returns to asynchronous mode and no return path label is pushed by the initiator node. S-BFD packets for this LSP or path received by the reflector are routed through the IGP path.

String length 1 to 32

Range 32 to 1048575

Introduced 23.10.R1

Platforms All

## **srv6-locator** *(param-midstring-64 | string)*

Synopsis Locator for SRv6 TLV to use

Context **configure** policy-options policy-statement *named-item-64* entry *number* action srv6-locator *(param-midstring-64 | string)*

Tree srv6-locator

Description This command configures either a string encoding a midstring parameter delimited by at signs (@), or a reference to a named locator for the SRv6 TLV to use.

For a VRF export policy, the referenced locator must already be configured using the commands in the **configure service vprn segment-routing-v6 locator** context.

For a BGP export policy, the referenced locator must already be configured using the commands in the **configure router segment-routing segment-routing-v6 base-routing-instance locator** context.

String length 1 to 64

Introduced 23.7.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR

## **srv6-micro-segment-locator** *(param-midstring-64 | string)*

Synopsis Micro-segment locator for SRv6 TLV to use


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| | |
|---|---|
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action srv6-micro-segment-locator *(param-midstring-64 \| string)* |
| Tree | srv6-micro-segment-locator |
| Description | This command configures either a string encoding a midstring parameter delimited by at signs (@), or a reference to a named micro-segment locator for the SRv6 TLV to use.<br>For a VRF export policy, the referenced micro-segment locator must already be configured using the commands in the **configure service vprn segment-routing-v6 micro-segment-locator** context.<br>For a BGP export policy, the referenced micro-SID locator must already be configured using the commands in the **configure router segment-routing segment-routing-v6 base-routing-instance micro-segment-locator** context. |
| String length | 1 to 64 |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **srv6-return-path-bfd-sid** *(policy-var-name | ipv6-address)*

| | |
|---|---|
| Synopsis | SRv6 return path BFD SID applied to SRv6 policy routes |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action srv6-return-path-bfd-sid *(policy-var-name \| ipv6-address)* |
| Tree | srv6-return-path-bfd-sid |
| Description | This command configures the S-BFD session to echo mode and pushes an additional SRv6 SID in the SRH only for S-BFD packets sent on the imported SRv6 policy. |
| String length | 1 to 32 |
| Introduced | 23.3.R1 |
| Platforms | All |

## **sticky-ecmp** *boolean*

| | |
|---|---|
| Synopsis | Specify the sticky ECMP flag for BGP ECMP routes |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action sticky-ecmp *boolean* |
| Tree | sticky-ecmp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **tag** *(number | string)*

| | |
|---|---|
| Synopsis | OSPF RIP or IS-IS tag applied to routes |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action tag *(number \| string)* |
| Tree | tag |
| String length | 1 to 32 |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **type** *(number | string)*

| | |
|---|---|
| Synopsis | OSPF metric type applied to routes |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* action type *(number \| string)* |
| Tree | type |
| String length | 1 to 32 |
| Range | 1 to 2 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **conditional-expression**

| | |
|---|---|
| Synopsis | Enable the **conditional-expression** context |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* conditional-expression |
| Tree | conditional-expression |
| Introduced | 16.0.R1 |
| Platforms | All |

### **route-exists** *string*

| | |
|---|---|
| Synopsis | Conditional expression to test route existence |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* conditional-expression route-exists *string* |


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| | |
|---|---|
| Tree | route-exists |
| String length | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **from**

| | |
|---|---|
| Synopsis | Enable the **from** context |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from |
| Tree | from |
| Description | Commands in this context configure policy match criteria based on the route's source or the protocol from which it is received. If conditions are not specified, all route sources are considered to match. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **aggregate-contributor** *boolean*

| | |
|---|---|
| Synopsis | Enable aggregate route match criterion |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from aggregate-contributor *boolean* |
| Tree | aggregate-contributor |
| Description | When configured to **true**, matches all routes (BGP and non-BGP) that have contributed to an active aggregate route. If the prefix tree above a particular route includes no active aggregate routes or the most specific active aggregate route in the prefix tree above this route has a policy that rejects the route, then it is not considered as an aggregate-contributor. |


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This match condition is only supported when used in a BGP export policy. If it is used in an entry of a BGP import policy, **vrf-export** policy or **vrf-import** policy, no routes are matched by that entry.

When configured to **false**, no routes (BGP and non-BGP) that have contributed to an active aggregate route are matched.

| | |
|---|---|
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | All |

### **area** *ipv4-address*

| | |
|---|---|
| Synopsis | OSPF area as a match criterion |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from area *ipv4-address* |
| Tree | area |
| Introduced | 16.0.R1 |
| Platforms | All |

### **as-path**

| | |
|---|---|
| Synopsis | Enter the **as-path** context |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from as-path |
| Tree | as-path |
| Introduced | 16.0.R1 |
| Platforms | All |

### **group** *(param-midstring | string)*

| | |
|---|---|
| Synopsis | AS path group as a match criterion |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from as-path group *(param-midstring | string)* |
| Tree | group |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **group** or **name**. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### length

| | |
|---|---|
| Synopsis | Enter the **length** context |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from as-path length |
| Tree | length |
| Introduced | 16.0.R1 |
| Platforms | All |

### qualifier *keyword*

| | |
|---|---|
| Synopsis | Higher or lower values to be accepted as match criteria |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from as-path length qualifier *keyword* |
| Tree | qualifier |
| Options | equal, or-higher, or-lower |
| Default | equal |
| Introduced | 16.0.R1 |
| Platforms | All |

### unique *boolean*

| | |
|---|---|
| Synopsis | Use unique AS numbers as matching criteria |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from as-path length unique *boolean* |
| Tree | unique |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### value *(number | string)*

| | |
|---|---|
| Synopsis | AS numbers in the AS path that match on the BGP route |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from as-path length value *(number | string)* |
| Tree | value |


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| | |
|---|---|
| String length | 1 to 32 |
| Range | 0 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **name** *(param-midstring | string)*

| | |
|---|---|
| Synopsis | AS path name to match |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from as-path name *(param-midstring | string)* |
| Tree | name |
| Description | This command specifies an AS path regular expression name for the route policy entry.<br>Policy parameters must be enclosed by at-signs (@) and may be midstring; for example, "@variable@," "start@variable@end", "@variable@end", or "start@variable@". |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **group** or **name**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cluster-id**

| | |
|---|---|
| Synopsis | Enter the **cluster-id** context |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from cluster-id |
| Tree | cluster-id |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ip-address** *ipv4-prefix-with-host-bits*

| | |
|---|---|
| Synopsis | Cluster list attribute IP addresses for route matching |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from cluster-id ip-address *ipv4-prefix-with-host-bits* |
| Tree | ip-address |
| Max. instances | 5 |
| Notes | The following elements are part of a choice: **ip-address** or **none-cluster-list**. |


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| | |
|---|---|
| | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **none-cluster-list** *boolean*

| | |
|---|---|
| Synopsis | Specify matching BGP routes without a cluster ID |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from cluster-id none-cluster-list *boolean* |
| Tree | none-cluster-list |
| Default | false |
| Notes | The following elements are part of a choice: **ip-address** or **none-cluster-list**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **color** *number*

| | |
|---|---|
| Synopsis | Color ID as a match criterion |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from color *number* |
| Tree | color |
| Description | This command configures an SR Policy color ID as a route policy match criterion. This match criterion is only used in import policies. |
| Range | 0 to 4294967295 |
| Introduced | 20.10.R1 |
| Platforms | All |

## **community**

| | |
|---|---|
| Synopsis | Enter the **community** context |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from community |
| Tree | community |
| Introduced | 16.0.R1 |
| Platforms | All |


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### count

| | |
|---|---|
| Synopsis | Enter the **count** context |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from community count |
| Tree | count |
| Introduced | 16.0.R1 |
| Platforms | All |

### qualifier *keyword*

| | |
|---|---|
| Synopsis | Higher or lower values to be accepted as match criteria |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from community count qualifier *keyword* |
| Tree | qualifier |
| Options | equal, or-higher, or-lower |
| Default | equal |
| Introduced | 16.0.R1 |
| Platforms | All |

### type *keyword*

| | |
|---|---|
| Synopsis | Community count to match the community count criteria |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from community count type *keyword* |
| Tree | type |
| Options | standard, extended, large |
| Introduced | 16.0.R1 |
| Platforms | All |

### value *(number | string)*

| | |
|---|---|
| Synopsis | Number of BGP communities to match the BGP route |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from community count value *(number | string)* |
| Tree | value |


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| | |
|---|---|
| String length | 1 to 32 |
| Range | 0 to 1024 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **expression** *string*

| | |
|---|---|
| Synopsis | Community expression statement as a match criterion |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from community expression *string* |
| Tree | expression |
| Description | This command configures a community expression statement as a match criterion for the policy statement. This statement is a logical expression string composed of logical operators (keywords AND, OR, NOT), community names delimited by square brackets [], and parentheses ( ) to group subexpressions. If the expression contains special characters (for example, #, $, spaces), the entire string must be enclosed in double quotes.<br>The expression specified must already be defined using the **configure policy-options community expression expr** command.<br>The following are examples of valid logical expressions:<br>"[community_list_A] OR ([community_list_B] AND [community_list_C])"<br>"NOT [community_list_A]"<br>"[community_list_A] AND [community_list_B] OR [community_list_C]"<br>"NOT ([community_list_A] OR [community_list_B] OR [community_list_C])" |
| String length | 1 to 900 |
| Notes | The following elements are part of a choice: **expression** or **name**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **name** *(param-midstring-64 | string)*

| | |
|---|---|
| Synopsis | Community list name |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from community name *(param-midstring-64 \| string)* |
| Tree | name |
| String length | 1 to 64 |
| Notes | The following elements are part of a choice: **expression** or **name**. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **distinguisher** *number*

| | |
|---|---|
| Synopsis | SR policy distinguisher as a match criterion |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from distinguisher *number* |
| Tree | distinguisher |
| Description | This command configures an SR Policy distinguisher as a route policy match criterion. This match criterion is only used in import policies. |
| Range | 0 to 4294967295 |
| Introduced | 20.10.R1 |
| Platforms | All |

### **endpoint** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | SR policy endpoint address as a match criterion |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from endpoint *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | endpoint |
| Description | This command configures an SR Policy endpoint address as a route policy match criterion. This match criterion is only used in import policies. |
| Introduced | 20.10.R1 |
| Platforms | All |

### **evpn-type** *keyword*

| | |
|---|---|
| Synopsis | EVPN type as a match criterion for the entry |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from evpn-type *keyword* |
| Tree | evpn-type |
| Options | ethernet-auto-discovery, mac-ip-advertisement, inclusive-multicast, ethernet-segment, ip-prefix, selective-multicast, multicast-join-sync, multicast-leave-sync, selective-pmsi-auto-discovery |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **external** *boolean*

| | |
|---|---|
| Synopsis | Specify the external IS-IS route as a match criterion |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from external *boolean* |
| Tree | external |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **family** *keyword*

| | |
|---|---|
| Synopsis | Address family as the match condition |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from family *keyword* |
| Tree | family |
| Description | This command specifies address families as matching conditions. |
| Options | ipv4, vpn-ipv4, ipv6, mcast-ipv4, vpn-ipv6, l2-vpn, mvpn-ipv4, mdt-safi, ms-pw, flow-ipv4, route-target, mcast-vpn-ipv4, mvpn-ipv6, flow-ipv6, evpn, mcast-ipv6, label-ipv4, label-ipv6, bgp-ls, mcast-vpn-ipv6, sr-policy-ipv4, sr-policy-ipv6, flow-vpn-ipv4, flow-vpn-ipv6 |
| Max. instances | 20 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **flowspec**

| | |
|---|---|
| Synopsis | Enter the **flowspec** context |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from flowspec |
| Tree | flowspec |
| Description | Commands in this context configure the route-matching rules for BGP FlowSpec routes. |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **dest** *(param-midstring | string)*

| | |
|---|---|
| Synopsis | Destination IP prefix list to match BGP FlowSpec routes |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from flowspec dest *(param-midstring \| string)* |
| Tree | dest |
| Description | This command specifies a prefix list used by the router to match BGP FlowSpec routes based on the destination IP prefix in the flow specification.<br>An IPv4 FlowSpec route is matched if its NLRI contains a type 1 subcomponent encoding a prefix and prefix length that is covered by an entry in the referenced prefix list. An IPv6 FlowSpec route is matched if its NLRI contains a type 1 component encoding prefix-offset = 0 and a prefix and prefix length that is covered by an entry in the referenced prefix list.<br>This command has no effect when the policy is not applied as a BGP import or export policy. |
| String length | 1 to 32 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **source** *(param-midstring | string)*

| | |
|---|---|
| Synopsis | Source IP prefix list to match BGP FlowSpec routes |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from flowspec source *(param-midstring \| string)* |
| Tree | source |
| Description | This command specifies a prefix list used by the router to match BGP FlowSpec routes based on the source IP prefix in the flow specification.<br>An IPv4 FlowSpec route is matched if its NLRI contains a type 2 subcomponent encoding a prefix and prefix length that is covered by an entry in the referenced prefix list. An IPv6 FlowSpec route is matched if its NLRI contains a type 2 component encoding prefix-offset = 0 and a prefix and prefix length that is covered by an entry in the referenced prefix list.<br>This command has no effect when the policy is not applied as a BGP import or export policy. |
| String length | 1 to 32 |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **group-address** *(param-midstring | string)*

| | |
|---|---|
| Synopsis | Prefix list of multicast group addresses for mathcing |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from group-address *(param-midstring | string)* |
| Tree | group-address |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **host-ip** *(param-midstring | string)*

| | |
|---|---|
| Synopsis | Prefix list of IGMP host IP addresses for matching |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from host-ip *(param-midstring | string)* |
| Tree | host-ip |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **interface** *(named-item | interface-name | interface-name | interface-name)*

| | |
|---|---|
| Synopsis | Interface name as match criterion |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from interface *(named-item | interface-name | interface-name | interface-name)* |
| Tree | interface |
| String length | 1 to 32 |
| Max. instances | 1 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **interface-subnets**

| | |
|---|---|
| Synopsis | Enter the **interface-subnets** context |


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| | |
|---|---|
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from interface-subnets |
| Tree | interface-subnets |
| Description | Commands in this context configure the applied router instance and interfaces that are used as the matching condition within each policy statement entry when exporting the IP address of the associated interface to a routing protocol.<br>The interface subnet policy statement match criterion is applied to the following unicast use case contexts:<br>• **export**, when used with OSPFv2, OSPFv3, IS-IS, RIP, RIPng, and BGP<br>• **route-table-import**, when used with BGP<br>• **vrf-export**, when used with MP-BGP |
| Introduced | 21.2.R1 |
| Platforms | All |

## **ip-int-name** *interface-name*

| | |
|---|---|
| Synopsis | Interface name as the match criterion |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from interface-subnets ip-int-name *interface-name* |
| Tree | ip-int-name |
| Description | This command specifies the interface name to match when exporting the IP address of the associated interface to a routing protocol. |
| String length | 1 to 32 |
| Max. instances | 10 |
| Notes | This element is ordered by the user. |
| Introduced | 21.2.R1 |
| Platforms | All |

## **service** *string*

| | |
|---|---|
| Synopsis | Service ID of the interface subnets |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from interface-subnets service *string* |
| Tree | service |
| Default | Base |
| Introduced | 21.2.R1 |


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| | |
|---|---|
| Platforms | All |

### **level** *number*

| | |
|---|---|
| Synopsis | IS-IS route level as a match criterion |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from level *number* |
| Tree | level |
| Range | 1 to 2 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **local-preference**

| | |
|---|---|
| Synopsis | Enter the **local-preference** context |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from local-preference |
| Tree | local-preference |
| Introduced | 16.0.R1 |
| Platforms | All |

### **qualifier** *keyword*

| | |
|---|---|
| Synopsis | Higher or lower values to be accepted as match criteria |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from local-preference qualifier *keyword* |
| Tree | qualifier |
| Options | equal, or-higher, or-lower |
| Default | equal |
| Introduced | 16.0.R1 |
| Platforms | All |

### **value** *(number | string)*

| | |
|---|---|
| Synopsis | BGP routes per local preference value or variable name |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from local-preference value *(number | string)* |


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| | |
|---|---|
| Tree | value |
| String length | 1 to 32 |
| Range | 0 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

### metric

| | |
|---|---|
| Synopsis | Enter the **metric** context |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from metric |
| Tree | metric |
| Introduced | 16.0.R1 |
| Platforms | All |

### qualifier *keyword*

| | |
|---|---|
| Synopsis | Higher or lower values to be accepted as match criteria |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from metric qualifier *keyword* |
| Tree | qualifier |
| Options | equal, or-higher, or-lower |
| Default | equal |
| Introduced | 16.0.R1 |
| Platforms | All |

### value *(number | string)*

| | |
|---|---|
| Synopsis | Local preference value or variable name |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from metric value *(number | string)* |
| Tree | value |
| String length | 1 to 32 |
| Range | 0 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **mvpn-type** *keyword*

| | |
|---|---|
| Synopsis | MVPN type as a match criterion for the entry |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from mvpn-type *keyword* |
| Tree | mvpn-type |
| Options | intra-as-ipmsi-auto-discovery, inter-as-ipmsi-auto-discovery, s-pmsi-auto-discovery, intra-as-segment-leaf-auto-discovery, source-active-auto-discovery, shared-tree-join, source-tree-join |
| Introduced | 16.0.R1 |
| Platforms | All |

### **neighbor**

| | |
|---|---|
| Synopsis | Enter the **neighbor** context |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from neighbor |
| Tree | neighbor |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ip-address** *(ipv4-address-no-zone | ipv6-address-no-zone | ipv4-address-with-zone | ipv6-address-with-zone)*

| | |
|---|---|
| Synopsis | IP address to match the neighbor |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from neighbor ip-address *(ipv4-address-no-zone \| ipv6-address-no-zone \| ipv4-address-with-zone \| ipv6-address-with-zone)* |
| Tree | ip-address |
| Notes | The following elements are part of a choice: **ip-address** or **prefix-list**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **prefix-list** *(param-midstring | string)*

| | |
|---|---|
| Synopsis | Name to match the neighbor prefix list |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from neighbor prefix-list *(param-midstring \| string)* |


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| | |
|---|---|
| Tree | prefix-list |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **ip-address** or **prefix-list**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## next-hop

| | |
|---|---|
| Synopsis | Enter the **next-hop** context |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from next-hop |
| Tree | next-hop |
| Introduced | 16.0.R1 |
| Platforms | All |

## ip-address *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the next hop to match |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from next-hop ip-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | ip-address |
| Notes | The following elements are part of a choice: **ip-address** or **prefix-list**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## prefix-list *(param-midstring | string)*

| | |
|---|---|
| Synopsis | Name of a next hop prefix list to match |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from next-hop prefix-list *(param-midstring \| string)* |
| Tree | prefix-list |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **ip-address** or **prefix-list**. |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **origin** *keyword*

| | |
|---|---|
| Synopsis | Route origin match criteria |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from origin *keyword* |
| Tree | origin |
| Description | This command configures a match criteria for the origin attribute of the route. The origin attribute is applicable to BGP routes and to the following subscriber-management routes:<br><br>Host routes (for example, IPv4 /32 address, or IPv6 SLAAC prefix) carry the origin attribute with AAA, dynamic, or static values, depending on the address assignment method. For CUPS hosts, the origin attribute is always PFCP. Host routes can also be distinguished using the **sub-mgmt** option for the **protocol** command.<br><br>Dynamically provisioned prefixes or loopback addresses use AAA or PFCP origin values, depending on the protocol that provides the prefix and address. Dynamic routes can also be distinguished using the **direct** option for the **protocol** command.<br><br>Statically configured prefixes under the subscriber interface do not have an origin attribute. These routes can be distinguished using the **direct** option for the **protocol** command.<br><br>Framed routes for non-CUPS hosts do not have an origin attribute. Framed routes for CUPS hosts use PFCP for the origin attribute. Alternatively, framed routes can be distinguished using the **managed** option for the **protocol** command.<br><br>The values that are specific to subscriber-management routes are never carried in BGP updates as part of the BGP origin attribute and are not visible within the BGP process. |
| Options | igp, egp, incomplete, any, aaa, dynamic, static, bonding, pfcp |
| Introduced | 16.0.R1 |
| Platforms | All |

## **origin-validation-state** *keyword*

| | |
|---|---|
| Synopsis | Origin validation state used for match criteria |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from origin-validation-state *keyword* |
| Tree | origin-validation-state |
| Description | This command specifies a validation state that is used to match BGP routes based on their origin validation state. |
| Options | valid, not-found, invalid |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **ospf-type** *number*

| | |
|---|---|
| Synopsis | OSPF type metric applied to unmatching route entries |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from ospf-type *number* |
| Tree | ospf-type |
| Range | 1 to 2 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **path-type** *keyword*

| | |
|---|---|
| Synopsis | Path type as a match criterion |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from path-type *keyword* |
| Tree | path-type |
| Options | ibgp, ebgp |
| Introduced | 16.0.R1 |
| Platforms | All |

### **policy** *(string | string)*

| | |
|---|---|
| Synopsis | Policy statement as a match criterion |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from policy *(string | string)* |
| Tree | policy |
| String length | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **policy-variables**

| | |
|---|---|
| Synopsis | Enter the **policy-variables** context |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from policy-variables |
| Tree | policy-variables |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **name** [variable-name] *policy-var-name*

| | |
|---|---|
| Synopsis | Enter the **name** list instance |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from policy-variables name *policy-var-name* |
| Tree | name |
| Max. instances | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**variable-name**] *policy-var-name*

| | |
|---|---|
| Synopsis | Global variable name used to reference policy functions |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from policy-variables name *policy-var-name* |
| Tree | name |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the policy variable |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from policy-variables name *policy-var-name* address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | address |
| Notes | The following elements are part of a mandatory choice: **address**, **decimal**, **number**, **prefix**, or **value**. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **decimal** *decimal-number*

| | |
|---|---|
| Synopsis | Attribute decimal to which variable name is resolved |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from policy-variables name *policy-var-name* decimal *decimal-number* |
| Tree | decimal |
| Range | 0.000 to 4294967295.000 |
| Notes | The following elements are part of a mandatory choice: **address**, **decimal**, **number**, **prefix**, or **value**. |
| Introduced | 19.7.R1 |
| Platforms | All |

### **number** *number*

| | |
|---|---|
| Synopsis | Numerical value of the policy variable |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from policy-variables name *policy-var-name* number *number* |
| Tree | number |
| Range | 0 to 4294967295 |
| Notes | The following elements are part of a mandatory choice: **address**, **decimal**, **number**, **prefix**, or **value**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **prefix** *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Prefix value associated with the variable name |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from policy-variables name *policy-var-name* prefix *(ipv4-prefix \| ipv6-prefix)* |
| Tree | prefix |
| Notes | The following elements are part of a mandatory choice: **address**, **decimal**, **number**, **prefix**, or **value**. |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |


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### **value** *named-item*

| | |
|---|---|
| Synopsis | Policy variable value |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from policy-variables name *policy-var-name* value *named-item* |
| Tree | value |
| String length | 1 to 32 |
| Notes | The following elements are part of a mandatory choice: **address**, **decimal**, **number**, **prefix**, or **value**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **prefix-list** *(param-midstring-64 | string)*

| | |
|---|---|
| Synopsis | Prefix list as match criterion |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from prefix-list *(param-midstring-64 | string)* |
| Tree | prefix-list |
| String length | 1 to 64 |
| Max. instances | 28 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **prefix-list-override** [prefix-list] *string*

| | |
|---|---|
| Synopsis | Enter the **prefix-list-override** list instance |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from prefix-list-override *string* |
| Tree | prefix-list-override |
| Description | Commands in this context convert a prefix list to a specific match type. The routing policy uses the converted list as a match condition.<br>The prefix list to be converted can be specified by its name, as an expression containing the name of a global variable that holds the name of the prefix list, or as an expression containing the name of a subroutine variable that holds the name of the prefix list. |


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| | |
|---|---|
| Max. instances | 1 |
| Introduced | 23.10.R1 |
| Platforms | All |

### [**prefix-list**] *string*

| | |
|---|---|
| Synopsis | Prefix list to be converted |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from prefix-list-override *string* |
| Tree | prefix-list-override |
| Notes | This element is part of a list key. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **end-length** *number*

| | |
|---|---|
| Synopsis | Prefix range end length |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from prefix-list-override *string* end-length *number* |
| Tree | end-length |
| Range | 0 to 128 |
| Notes | The following elements are part of a choice: (**end-length** and **start-length**) or **through-length**. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **start-length** *number*

| | |
|---|---|
| Synopsis | Prefix range start length |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from prefix-list-override *string* start-length *number* |
| Tree | start-length |
| Range | 0 to 128 |
| Notes | The following elements are part of a choice: (**end-length** and **start-length**) or **through-length**. |
| Introduced | 23.10.R1 |


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| | |
|---|---|
| Platforms | All |

## **through-length** *number*

| | |
|---|---|
| Synopsis | Prefix through length |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from prefix-list-override *string* through-length *number* |
| Tree | through-length |
| Range | 0 to 128 |
| Notes | The following elements are part of a choice: (**end-length** and **start-length**) or **through-length**. |
| Introduced | 23.10.R1 |
| Platforms | All |

## **type** *keyword*

| | |
|---|---|
| Synopsis | New match type for entries in referenced prefix list |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from prefix-list-override *string* type *keyword* |
| Tree | type |
| Options | exact, longer, through, range |
| Default | exact |
| Introduced | 23.10.R1 |
| Platforms | All |

## **protocol**

| | |
|---|---|
| Synopsis | Enter the **protocol** context |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from protocol |
| Tree | protocol |
| Description | Commands in this context configure the match criterion based on protocols for a route policy statement entry and may be used for both import and export policies. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **instance** *(keyword | number)*

| | |
|---|---|
| Synopsis | Instance for protocol IS-IS, OSPF, or OSPFv3 to match |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from protocol instance *(keyword \| number)* |
| Tree | instance |
| Description | This command specifies the OSPF, OSPFv3, or IS-IS instance to be used as the match criterion.<br>When this command is explicitly configured, the **name** command must be configured to identify the protocol (OSPF, OSPFv3, or IS-IS). |
| Range | 0 to 127 |
| Options | all |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **name** *keyword*

| | |
|---|---|
| Synopsis | List of protocol names as the match criterion |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from protocol name *keyword* |
| Tree | name |
| Description | This command specifies a protocol list for the match criterion. If multiple protocols are specified, the protocol names must belong to the following protocol set:<br>• direct<br>• static<br>• isis<br>• aggregate<br>• bgp<br>• bgp-label<br>• direct-interface<br>If multiple protocols are specified, the **instance** command cannot be explicitly configured.<br>The protocol **direct-interface** route type matches the specific direct interface host IPv4 / 32 and IPv6 /128 routes. |
| Options | direct, static, bgp, isis, ospf, rip, aggregate, bgp-vpn, igmp, pim, ospf3, ldp, sub-mgmt, mld, managed, vpn-leak, nat, periodic, ipsec, dhcpv6-pd, dhcpv6-na, dhcpv6-ta, |


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| | |
|---|---|
| | dhcpv6-pd-excl, ripng, bgp-label, direct-interface, arp-nd, rib-api, dhcp-client, evpn-ifl, srv6, video, evpn-ifl-host |
| Max. instances | 5 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **route-distinguisher-list** *(param-midstring-64 | string)*

| | |
|---|---|
| Synopsis | Route distinguisher list as a match criterion |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from route-distinguisher-list *(param-midstring-64 \| string)* |
| Tree | route-distinguisher-list |
| Description | This command specifies the (possibly parameterized) name of a route distinguisher (RD) list.<br>This match condition is supported by policies applied as VRF-import or BGP peer import policies. A BGP route can match a policy entry with this match criterion if the NLRI field contains an RD that is matched by at least one of the entries in the RD list.<br>BGP routes belonging to address families other than VPN-IPv4, VPN-IPv6, MCAST-VPN-IPv4, MCAST-VPN-IPv6, EVPN, FlowSpec-VPN IPv4, FlowSpec-VPN IPv6, MVPN-IPv4, or MVPN-IPv6 route do not match policy entries with this match criterion. |
| String length | 1 to 64 |
| Introduced | 23.3.R1 |
| Platforms | All |

## **source-address**

| | |
|---|---|
| Synopsis | Enter the **source-address** context |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from source-address |
| Tree | source-address |
| Introduced | 16.0.R1 |
| Platforms | All |

## **ip-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source IP address to match |


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| | |
|---|---|
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from source-address ip-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | ip-address |
| Notes | The following elements are part of a choice: **ip-address** or **prefix-list**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **prefix-list** *(param-midstring | string)*

| | |
|---|---|
| Synopsis | Name of a source address prefix list to match |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from source-address prefix-list *(param-midstring \| string)* |
| Tree | prefix-list |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **ip-address** or **prefix-list**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **srv6-sid-prefix** *(policy-var-name | ipv6-unicast-prefix)*

| | |
|---|---|
| Synopsis | SRv6 SID or uSID as match criterion for the BGP route |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from srv6-sid-prefix *(policy-var-name \| ipv6-unicast-prefix)* |
| Tree | srv6-sid-prefix |
| Description | This command configures either the name of a prefix policy variable or an IPv6 prefix and prefix length, as a match criterion for a BGP route.<br>**Note**: If the name of a prefix policy variable is the match criterion, the name must start and end with an at sign (@).<br>A BGP route matches this condition if it has an SRv6 TLV, and the SID or micro-segment (uSID) value in that TLV is matched by the bits of the IPv6 prefix (up to the specified prefix length).<br>This match condition is supported in BGP import policies, BGP export policies, and VRF or VSI import policies. |
| String length | 1 to 32 |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |


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### **srv6-tlv** *keyword*

| | |
|---|---|
| Synopsis | SRv6 TLV presence as match criterion for BGP route |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from srv6-tlv *keyword* |
| Tree | srv6-tlv |
| Description | This command configures whether the entry matches a BGP route with a prefix SID attribute containing an SRv6 TLV.<br>If this command is not configured, a BGP route can match the entry, regardless of whether it has a prefix SID attribute or whether that prefix SID attribute has SRv6 TLVs.<br>This match condition is supported in BGP import policies, BGP export policies, and VRF or VSI import policies.<br>If the **present** option is configured, a BGP route only matches this entry if it has a prefix SID attribute containing an SRv6 TLV.<br>If the **not-present** option is configured, a BGP route only matches this entry if it does not have a prefix SID attribute containing an SRv6 TLV. |
| Options | present, not-present |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **state** *keyword*

| | |
|---|---|
| Synopsis | State used as a match criterion |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from state *keyword* |
| Tree | state |
| Description | This command configures a criterion that identifies in resilient gateways which routes are associated with an active context and which routes are associated with a standby context. |
| Options | srrp-master, srrp-non-master, ipsec-master-with-peer, ipsec-master-without-peer, ipsec-non-master, fsg-active, fsg-standby, fsg-active-path-restoration |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **tag** *(number | keyword)*

| | |
|---|---|
| Synopsis | Route tag used as a match criterion |


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| | |
|---|---|
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* from tag *(number \| keyword)* |
| Tree | tag |
| Range | 1 to 4294967295 |
| Options | no-tag |
| Introduced | 16.0.R1 |
| Platforms | All |

## to

| | |
|---|---|
| Synopsis | Enable the **to** context |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* to |
| Tree | to |
| Introduced | 16.0.R1 |
| Platforms | All |

## level *number*

| | |
|---|---|
| Synopsis | IS-IS route level as a match criterion |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* to level *number* |
| Tree | level |
| Range | 1 to 2 |
| Introduced | 16.0.R1 |
| Platforms | All |

## neighbor

| | |
|---|---|
| Synopsis | Enter the **neighbor** context |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* to neighbor |
| Tree | neighbor |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **ip-address** *(ipv4-address-no-zone | ipv6-address-no-zone | ipv4-address-with-zone | ipv6-address-with-zone)*

| | |
|---|---|
| Synopsis | IP address to match the neighbor |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* to neighbor ip-address *(ipv4-address-no-zone \| ipv6-address-no-zone \| ipv4-address-with-zone \| ipv6-address-with-zone)* |
| Tree | ip-address |
| Notes | The following elements are part of a choice: **ip-address** or **prefix-list**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **prefix-list** *(param-midstring | string)*

| | |
|---|---|
| Synopsis | Name to match the neighbor prefix list |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* to neighbor prefix-list *(param-midstring \| string)* |
| Tree | prefix-list |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **ip-address** or **prefix-list**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **prefix-list** *(param-midstring-64 | string)*

| | |
|---|---|
| Synopsis | Prefix list as match criterion |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* to prefix-list *(param-midstring-64 \| string)* |
| Tree | prefix-list |
| String length | 1 to 64 |
| Max. instances | 28 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |


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## protocol

| | |
|---|---|
| Synopsis | Enter the **protocol** context |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* to protocol |
| Tree | protocol |
| Introduced | 16.0.R1 |
| Platforms | All |

## instance *(keyword | number)*

| | |
|---|---|
| Synopsis | Instance for the IS-IS, OSPF, or OSPF3 protocol |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* to protocol instance *(keyword \| number)* |
| Tree | instance |
| Range | 0 to 127 |
| Options | all |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

## name *keyword*

| | |
|---|---|
| Synopsis | Protocol name to match |
| Context | **configure** policy-options policy-statement *named-item-64* entry *number* to protocol name *keyword* |
| Tree | name |
| Options | bgp, isis, ospf, rip, bgp-vpn, ospf3, ldp, vpn-leak, ripng, bgp-label, evpn-ifl |
| Max. instances | 2 |
| Introduced | 16.0.R1 |
| Platforms | All |

## entry-type *keyword*

| | |
|---|---|
| Synopsis | The entry type for a route policy entry |
| Context | **configure** policy-options policy-statement *named-item-64* entry-type *keyword* |


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| | |
|---|---|
| Tree | entry-type |
| Options | numbered, named |
| Default | numbered |
| Introduced | 19.10.R1 |
| Platforms | All |

## **named-entry** [entry-name] *named-item-255*

| | |
|---|---|
| Synopsis | Enter the **named-entry** list instance |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* |
| Tree | named-entry |
| Max. instances | 16384 |
| Notes | This element is ordered by the user. |
| Introduced | 19.10.R1 |
| Platforms | All |

## [**entry-name**] *named-item-255*

| | |
|---|---|
| Synopsis | Route policy entry name |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* |
| Tree | named-entry |
| String length | 1 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | All |

## **action**

| | |
|---|---|
| Synopsis | Enable the **action** context |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action |
| Tree | action |
| Introduced | 19.10.R1 |
| Platforms | All |


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### **action-type** *keyword*

| | |
|---|---|
| Synopsis | Action type for routes matching the route policy entry |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action action-type *keyword* |
| Tree | action-type |
| Options | accept, reject, next-entry, next-policy |
| Notes | This element is mandatory. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **add-paths-send-limit** *(number | keyword)*

| | |
|---|---|
| Synopsis | BGP Add-Paths send limit applied for routes |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action add-paths-send-limit *(number | keyword)* |
| Tree | add-paths-send-limit |
| Range | 1 to 16 |
| Options | multipaths |
| Introduced | 19.10.R1 |
| Platforms | All |

### **admin-tag-policy** *(param-midstring-64 | string)*

| | |
|---|---|
| Synopsis | Administrative tag policy name |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action admin-tag-policy *(param-midstring-64 | string)* |
| Tree | admin-tag-policy |
| String length | 1 to 64 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **advertise-label** *keyword*

| | |
|---|---|
| Synopsis | Label allocation for matched BGP routes |


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| | |
|---|---|
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action advertise-label *keyword* |
| Tree | advertise-label |
| Description | This command configures the label allocation method for advertised routes. The effect of this command depends on the context where the associated policy is applied. |
| Options | per-prefix, pop, pop-and-forward |
| Introduced | 19.10.R1 |
| Platforms | All |

## aigp-metric

| | |
|---|---|
| Synopsis | Enter the **aigp-metric** context |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action aigp-metric |
| Tree | aigp-metric |
| Introduced | 19.10.R1 |
| Platforms | All |

## **add** *(number | string)*

| | |
|---|---|
| Synopsis | AIGP metric to add |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action aigp-metric add *(number | string)* |
| Tree | add |
| String length | 1 to 32 |
| Range | 0 to 4294967295 |
| Notes | The following elements are part of a choice: **add** or **set**. |
| Introduced | 19.10.R1 |
| Platforms | All |

## **set** *(keyword | number | string)*

| | |
|---|---|
| Synopsis | AIGP metric |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action aigp-metric set *(keyword | number | string)* |
| Tree | set |


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| | |
|---|---|
| String length | 1 to 32 |
| Range | 0 to 4294967295 |
| Options | igp |
| Notes | The following elements are part of a choice: **add** or **set**. |
| Introduced | 19.10.R1 |
| Platforms | All |

## as-path

| | |
|---|---|
| Synopsis | Enter the **as-path** context |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action as-path |
| Tree | as-path |
| Introduced | 19.10.R1 |
| Platforms | All |

## add *(param-midstring | string)*

| | |
|---|---|
| Synopsis | AS path to add |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action as-path add *(param-midstring | string)* |
| Tree | add |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **add** or **replace**. |
| Introduced | 19.10.R1 |
| Platforms | All |

## replace *(param-midstring | string)*

| | |
|---|---|
| Synopsis | AS path to replace |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action as-path replace *(param-midstring | string)* |
| Tree | replace |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **add** or **replace**. |
| Introduced | 19.10.R1 |


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| | |
|---|---|
| Platforms | All |

### as-path-prepend

| | |
|---|---|
| Synopsis | Enter the **as-path-prepend** context |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action as-path-prepend |
| Tree | as-path-prepend |
| Introduced | 19.10.R1 |
| Platforms | All |

### as-path *(number | string | keyword)*

| | |
|---|---|
| Synopsis | AS number to prepend to the AS path attribute |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action as-path-prepend as-path *(number | string | keyword)* |
| Tree | as-path |
| String length | 1 to 32 |
| Range | 1 to 4294967295 |
| Options | most-recent |
| Introduced | 19.10.R1 |
| Platforms | All |

### repeat *(number | string)*

| | |
|---|---|
| Synopsis | Number of times to prepend the specified AS number |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action as-path-prepend repeat *(number | string)* |
| Tree | repeat |
| String length | 1 to 32 |
| Range | 1 to 50 |
| Default | 1 |
| Introduced | 19.10.R1 |
| Platforms | All |


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## **bgp-high-priority** *boolean*

| | |
|---|---|
| Synopsis | Tag routes as high priority for fast table updates |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action bgp-high-priority *boolean* |
| Tree | bgp-high-priority |
| Description | When configured to **true**, eligible BGP routes matched by the policy entry or policy default-action are tagged as needing faster route table updates.<br>This action applies only when the policy is applied as a BGP import policy to a base router BGP peer or VPRN BGP peer and applies only to the following route types:<br>• IPv4<br>• label-IPv4<br>• IPv6<br>• label-IPv6<br>This command is useful when the BGP RIB contains a large number of routes and quick routing table updates are needed for a small subset of these routes. The effectiveness of this command decreases as the subset becomes a larger proportion of the total RIB.<br>When configured to **false**, no routes are tagged for faster route table updates. |
| Default | false |
| Introduced | 20.5.R1 |
| Platforms | All |

## **bgp-leak** *boolean*

| | |
|---|---|
| Synopsis | Allow leaking for BGP routes |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action bgp-leak *boolean* |
| Tree | bgp-leak |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

## **bgp-med**

| | |
|---|---|
| Synopsis | Enter the **bgp-med** context |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action bgp-med |


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| | |
|---|---|
| Tree | bgp-med |
| Introduced | 19.10.R1 |
| Platforms | All |

### **adjust** *string*

| | |
|---|---|
| Synopsis | BGP-MED adjustment |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action bgp-med adjust *string* |
| Tree | adjust |
| String length | 1 to 64 |
| Notes | The following elements are part of a choice: **adjust** or **set**. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **set** *(keyword | number | string)*

| | |
|---|---|
| Synopsis | BGP-MED assignment |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action bgp-med set *(keyword | number | string)* |
| Tree | set |
| String length | 1 to 32 |
| Range | 0 to 4294967295 |
| Options | igp, min-igp |
| Notes | The following elements are part of a choice: **adjust** or **set**. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **bgp-tunnel-metric**

| | |
|---|---|
| Synopsis | Enter the **bgp-tunnel-metric** context |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action bgp-tunnel-metric |
| Tree | bgp-tunnel-metric |
| Description | Commands in this context configure the tunnel-table metrics associated with BGP label unicast routes that pass through to the default action of the policy. |


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| | |
|---|---|
| Introduced | 20.5.R1 |
| Platforms | All |

### **prefer-aigp** *boolean*

| | |
|---|---|
| Synopsis | Use AIGP attribute as tunnel metric when present |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action bgp-tunnel-metric prefer-aigp *boolean* |
| Tree | prefer-aigp |
| Description | When configured to **true**, and a BGP-LU route is selected for installation in TTM and it is matched by this action in a BGP import policy. The TTM metric of the tunnel is set to the AIGP metric value of the BGP-LU route plus the IGP cost to reach the BGP next-hop if it has the AIGP path attribute, otherwise it is set to the value implied by the value leaf.<br>When configured to **false**, the AIGP attribute is removed from the advertised routes and is ignored if present in the received routes. |
| Default | false |
| Introduced | 20.5.R1 |
| Platforms | All |

### **prefer-med** *boolean*

| | |
|---|---|
| Synopsis | Use MED attribute as tunnel metric when present |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action bgp-tunnel-metric prefer-med *boolean* |
| Tree | prefer-med |
| Description | When configured to **true**, if a BGP-LU route is selected for installation in the TTM and is matched by this action in a BGP import policy, the TTM metric of the tunnel is set to the MED metric value of the BGP-LU route with the IGP cost to reach the BGP next hop added to it.<br>When configured to **false**, the BGP tunnel metric associated with the BGP-LU route accepted by this policy action is not determined using the MED attribute. |
| Default | false |
| Introduced | 23.3.R1 |
| Platforms | All |

### **value** *(string | number)*

| | |
|---|---|
| Synopsis | BGP tunnel table metric value |


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| | |
|---|---|
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action bgp-tunnel-metric value *(string \| number)* |
| Tree | value |
| Description | This command configures a BGP tunnel metric is assigned to routes that do not match any entry.<br>If a BGP-LU route is selected for installation in TTM and it is matched by this action in a BGP import policy, the TTM metric of the associated tunnel is set to this value (or the value associated with the parameter name) if either:<br>• the prefer-aigp option is set to false<br>• the prefer-aigp option is set to true but the BGP-LU route does not have an AIGP attribute |
| String length | 1 to 32 |
| Range | 0 to 4294967295 |
| Introduced | 20.5.R1 |
| Platforms | All |

## community

| | |
|---|---|
| Synopsis | Enter the **community** context |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action community |
| Tree | community |
| Introduced | 19.10.R1 |
| Platforms | All |

## add *(param-midstring-64 | string)*

| | |
|---|---|
| Synopsis | List of community names to add |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action community add *(param-midstring-64 \| string)* |
| Tree | add |
| String length | 1 to 64 |
| Max. instances | 28 |
| Notes | The following elements are part of a choice: (**add** and **remove**) or **replace**.<br>This element is ordered by the user. |
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| | |
|---|---|
| Platforms | All |

### **remove** *(param-midstring-64 | string)*

| | |
|---|---|
| Synopsis | List of community names to remove |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action community remove *(param-midstring-64 \| string)* |
| Tree | remove |
| String length | 1 to 64 |
| Max. instances | 28 |
| Notes | The following elements are part of a choice: (**add** and **remove**) or **replace**.<br>This element is ordered by the user. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **replace** *(param-midstring-64 | string)*

| | |
|---|---|
| Synopsis | List of community names to replace |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action community replace *(param-midstring-64 \| string)* |
| Tree | replace |
| String length | 1 to 64 |
| Max. instances | 28 |
| Notes | The following elements are part of a choice: (**add** and **remove**) or **replace**.<br>This element is ordered by the user. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **create-mpls-tunnel** *boolean*

| | |
|---|---|
| Synopsis | Create an MPLS tunnel |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action create-mpls-tunnel *boolean* |
| Tree | create-mpls-tunnel |


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| | |
|---|---|
| Description | When configured to **true**, the router creates an MPLS tunnel.<br>This command is supported for only the following address families:<br>• evpn<br>• ipv4<br>• ipv6<br>• label-ipv4<br>• label-ipv6<br>• vpn-ipv4<br>• vpn-ipv6 |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | All |

### **create-udp-tunnel** *boolean*

| | |
|---|---|
| Synopsis | Create an MPLS-over-UDP tunnel |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action create-udp-tunnel *boolean* |
| Tree | create-udp-tunnel |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **damping** *(keyword | param-midstring | string)*

| | |
|---|---|
| Synopsis | Damping profile used for routes |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action damping *(keyword | param-midstring | string)* |
| Tree | damping |
| String length | 1 to 32 |
| Options | none |
| Introduced | 19.10.R1 |
| Platforms | All |


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### **dest-class** *number*

| | |
|---|---|
| Synopsis | Default destination class for the policy statement |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action dest-class *number* |
| Tree | dest-class |
| Description | This command specifies the policy accounting destination class index to associate with matched routes. |
| Range | 1 to 255 |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### **egress-statistics** *boolean*

| | |
|---|---|
| Synopsis | Enable egress statistics for BGP-LU routes |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action egress-statistics *boolean* |
| Tree | egress-statistics |
| Description | When configured to **true**, this command enables the allocation of statistical indexes to BGP labeled unicast route entries that are programmed on egress data paths.<br>When configured to **false**, this command disables the allocation of statistical indexes to BGP-LU route entries. |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | All |

### **flex-algo** *(string | number)*

| | |
|---|---|
| Synopsis | Flexible algorithm for BGP next-hop autobind operation |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action flex-algo *(string \| number)* |
| Tree | flex-algo |
| Description | This command configures the Flex-Algorithm for use in the BGP next-hop automatic bind operation in a BGP import policy. A Flex-Algorithm aware autobind of the BGP next-hop is enabled when the route is matched by the policy statement entry.<br>Flex-Algorithm aware next-hop lookup is supported for unicast BGP, VPRN, and BGP-LU.<br>This command is not supported for multicast address families. |


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| | |
|---|---|
| String length | 1 to 32 |
| Range | 128 to 255 |
| Introduced | 20.10.R1 |
| Platforms | All |

## forwarding-class

| | |
|---|---|
| Synopsis | Enter the **forwarding-class** context |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action forwarding-class |
| Tree | forwarding-class |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **fc** *keyword*

| | |
|---|---|
| Synopsis | Forwarding class associated with the route |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action forwarding-class fc *keyword* |
| Tree | fc |
| Options | be, l2, af, l1, h2, ef, h1, nc |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **priority** *keyword*

| | |
|---|---|
| Synopsis | Route priority |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action forwarding-class priority *keyword* |
| Tree | priority |
| Options | low, high |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **ingress-statistics** *boolean*

| | |
|---|---|
| Synopsis | Enable ingress statistics for BGP-LU routes |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action ingress-statistics *boolean* |
| Tree | ingress-statistics |
| Description | When configured to **true**, this command enables the allocation of statistical indexes to BGP labeled unicast route entries that are programmed on ingress data paths. For effective operation, a prefix must be advertised with a label per prefix for ILM statistics.<br>When configured to **false**, this command disables the allocation of statistical indexes to BGP-LU route entries. |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | All |

### **install-backup-path** *boolean*

| | |
|---|---|
| Synopsis | Install a preprogrammed backup path for the prefix |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action install-backup-path *boolean* |
| Tree | install-backup-path |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **local-preference** *(number | string)*

| | |
|---|---|
| Synopsis | BGP local preference for routes not matching any entry |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action local-preference *(number | string)* |
| Tree | local-preference |
| String length | 1 to 32 |
| Range | 0 to 4294967295 |
| Introduced | 19.10.R1 |
| Platforms | All |


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## metric

| | |
|---|---|
| Synopsis | Enter the **metric** context |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action metric |
| Tree | metric |
| Introduced | 19.10.R1 |
| Platforms | All |

## add *(number | string)*

| | |
|---|---|
| Synopsis | Metric to add |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action metric add *(number | string)* |
| Tree | add |
| String length | 1 to 32 |
| Range | 0 to 4294967295 |
| Notes | The following elements are part of a choice: **add**, **set**, or **subtract**. |
| Introduced | 19.10.R1 |
| Platforms | All |

## set *(number | string)*

| | |
|---|---|
| Synopsis | Metric to assign |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action metric set *(number | string)* |
| Tree | set |
| String length | 1 to 32 |
| Range | 0 to 4294967295 |
| Notes | The following elements are part of a choice: **add**, **set**, or **subtract**. |
| Introduced | 19.10.R1 |
| Platforms | All |

## subtract *(number | string)*

| | |
|---|---|
| Synopsis | Metric to subtract |


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| | |
|---|---|
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action metric subtract *(number* \| *string)* |
| Tree | subtract |
| String length | 1 to 32 |
| Range | 0 to 4294967295 |
| Notes | The following elements are part of a choice: **add**, **set**, or **subtract**. |
| Introduced | 19.10.R1 |
| Platforms | All |

## multicast-redirection

| | |
|---|---|
| Synopsis | Enter the **multicast-redirection** context |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action multicast-redirection |
| Tree | multicast-redirection |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## fwd-service *string*

| | |
|---|---|
| Synopsis | Service ID for multicast redirection |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action multicast-redirection fwd-service *string* |
| Tree | fwd-service |
| Default | Base |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ip-int-name *interface-name*

| | |
|---|---|
| Synopsis | Alternate interface where IGMP messages are redirected |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action multicast-redirection ip-int-name *interface-name* |
| Tree | ip-int-name |
| String length | 1 to 32 |
| Introduced | 19.10.R1 |


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Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR

## **nat-policy** *(param-midstring | string)*

Synopsis BGP-VPN imported route and a NAT policy association

Context **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action nat-policy *(param-midstring | string)*

Tree nat-policy

Description This command assigns a NAT policy to the matched routes that do not have a more specific NAT policy configured under action.

A dynamic route obtained by BGP-VPN can be imported into an inside (private side) routing context in NAT environment. This route must be associated with a NAT policy that maps traffic into a NAT pool and outside routing context. If the NAT policy is not specified within the route policy entry, the imported NAT route is, by default, associated with the default NAT policy defined in the NAT inside routing context.

All BGP-VPN routes that are destined to be imported into the NAT inside routing context must have action-type **accept** regardless of whether the NAT policy is configured in the action.

String length 1 to 32

Introduced 21.5.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR

## **next-hop** *(keyword | ipv4-address-no-zone | ipv6-address-no-zone | string)*

Synopsis Next-hop IP address applied to routes

Context **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action next-hop *(keyword | ipv4-address-no-zone | ipv6-address-no-zone | string)*

Tree next-hop

String length 1 to 32

Options peer-address, self

Introduced 19.10.R1

Platforms All

## **origin** *(keyword | string)*

Synopsis BGP origin for routes that are exported into BGP

Context **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action origin *(keyword | string)*


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| | |
|---|---|
| Tree | origin |
| String length | 1 to 32 |
| Options | igp, egp, incomplete |
| Introduced | 19.10.R1 |
| Platforms | All |

### **origin-validation-state** *(keyword | string)*

| | |
|---|---|
| Synopsis | Origin validation state for routes |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action origin-validation-state *(keyword \| string)* |
| Tree | origin-validation-state |
| String length | 1 to 32 |
| Options | valid, not-found, invalid |
| Introduced | 19.10.R1 |
| Platforms | All |

### **preference** *(number | string)*

| | |
|---|---|
| Synopsis | Route preference applied to routes |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action preference *(number \| string)* |
| Tree | preference |
| String length | 1 to 32 |
| Range | 1 to 255 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **resolve-static** *boolean*

| | |
|---|---|
| Synopsis | Resolve next hop of a static route for the BGP next hop |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action resolve-static *boolean* |
| Tree | resolve-static |
| Default | false |
| Introduced | 19.10.R1 |


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| | |
|---|---|
| Platforms | All |

## **route-table-install** *boolean*

| | |
|---|---|
| Synopsis | Allow BGP route installation in the route table |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action route-table-install *boolean* |
| Tree | route-table-install |
| Default | true |
| Introduced | 19.10.R1 |
| Platforms | All |

## **source-class** *number*

| | |
|---|---|
| Synopsis | Default source class for the policy statement |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action source-class *number* |
| Tree | source-class |
| Description | This command specifies the policy accounting source class index to associate with matched routes. |
| Range | 1 to 255 |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## **sr-label-index**

| | |
|---|---|
| Synopsis | Enter the **sr-label-index** context |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action sr-label-index |
| Tree | sr-label-index |
| Description | Commands in this context configure the policy action to associate a BGP segment-routing label index value with all /32 BGP labeled IPv4 routes.<br>The use of this action in a policy entry that matches more than one /32 labeled IPv4 route may create SID conflicts.<br>This action only takes effect in BGP peer import policies (and only on received /32 labeled IPv4 routes) and in route table import policies associated with the labeled IPv4 RIB. |


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When this action occurs in a policy applied as a peer import policy, a prefix SID attribute can be added to a received /32 labeled IPv4 route that was not sent with this attribute, or the received prefix SID attribute can be replaced with a new one.

Introduced 19.10.R1

Platforms All

### **prefer-igp** *boolean*

Synopsis Use the SR label index from the IGP route when present

Context **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action sr-label-index prefer-igp *boolean*

Tree prefer-igp

Description When configured to **true**, BGP obtains the SID index from the IGP route (if a SID index is present) and the **configure router bgp segment-routing prefix-sid-range global** command is set to **true**.

This command applies only to route table import policies.

When configured to **false**, or the SID index is not present in the IGP route, or the **configure router bgp segment-routing prefix-sid-range global** command is not set to **true**, BGP obtains the label index value from the **value** command.

Default false

Introduced 19.10.R1

Platforms All

### **value** *(string | number)*

Synopsis BGP SR label index associated with routes

Context **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action sr-label-index value *(string | number)*

Tree value

Description This command specifies the BGP SR label index value to be associated with a route or routes.

If this command specifies an index value that causes a SID conflict with another BGP route, all conflicting BGP routes are re-advertised with label values based on dynamic allocation rather than SID-based allocation.

If this command specifies an index value that causes a SID conflict with an IGP route, the BGP route is re-advertised with a label value based on dynamic allocation rather than SID-based allocation.

String length 1 to 32

Range 0 to 1048575


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| | |
|---|---|
| Introduced | 19.10.R1 |
| Platforms | All |

### **sr-maintenance-policy** *(param-midstring | string)*

| | |
|---|---|
| Synopsis | SR maintenance policy as an action |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action sr-maintenance-policy *(param-midstring \| string)* |
| Tree | sr-maintenance-policy |
| Description | This command applies a named segment routing maintenance policy as an action for route policies. It is only used for SR policy routes. |
| String length | 1 to 32 |
| Introduced | 20.10.R1 |
| Platforms | All |

### **sr-return-path-bfd-label** *(policy-var-name | number)*

| | |
|---|---|
| Synopsis | S-BFD return path label |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action sr-return-path-bfd-label *(policy-var-name \| number)* |
| Tree | sr-return-path-bfd-label |
| Description | This command configures an additional MPLS label to add to the bottom of the label stack for the S-BFD packet and sets the S-BFD session to echo mode.<br><br>This command applies to the initiator of the S-BFD sessions. The label value can either be a binding SID for an SR policy or another MPLS path configured on the reflector router. Instead of being routed through the IGP path, the S-BFD packet returns to the initiator through the MPLS return path. This value takes precedence over the return path label value in a maintenance policy (configured using the **configure router segment-routing maintenance-policy return-path-label** command) that is also applied as the policy-statement action. This command can only be configured if the **sr-maintenance-policy** is also configured.<br><br>If this command is unconfigured, and there is no **return-path-label** command configuration in the maintenance policy that is also applied as an action, and the policy statement is reevaluated, S-BFD returns to asynchronous mode and no return path label is pushed by the initiator node. S-BFD packets for this LSP or path received by the reflector are routed through the IGP path. |
| String length | 1 to 32 |
| Range | 32 to 1048575 |
| Introduced | 23.10.R1 |


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Platforms All

## srv6-locator *(param-midstring-64 | string)*

Synopsis Locator for SRv6 TLV to use

Context **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action srv6-locator *(param-midstring-64 | string)*

Tree srv6-locator

Description This command configures either a string encoding a midstring parameter delimited by at signs (@), or a reference to a named locator for the SRv6 TLV to use.

For a VRF export policy, the referenced locator must already be configured using the commands in the **configure service vprn segment-routing-v6 locator** context.

For a BGP export policy, the referenced locator must already be configured using the commands in the **configure router segment-routing segment-routing-v6 base-routing-instance locator** context.

String length 1 to 64

Introduced 23.7.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR

## srv6-micro-segment-locator *(param-midstring-64 | string)*

Synopsis Micro-segment locator for SRv6 TLV to use

Context **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action srv6-micro-segment-locator *(param-midstring-64 | string)*

Tree srv6-micro-segment-locator

Description This command configures either a string encoding a midstring parameter delimited by at signs (@), or a reference to a named micro-segment locator for the SRv6 TLV to use.

For a VRF export policy, the referenced micro-segment locator must already be configured using the commands in the **configure service vprn segment-routing-v6 micro-segment-locator** context.

For a BGP export policy, the referenced micro-SID locator must already be configured using the commands in the **configure router segment-routing segment-routing-v6 base-routing-instance micro-segment-locator** context.

String length 1 to 64

Introduced 23.7.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR


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### **srv6-return-path-bfd-sid** *(policy-var-name | ipv6-address)*

| | |
|---|---|
| Synopsis | SRv6 return path BFD SID applied to SRv6 policy routes |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action srv6-return-path-bfd-sid *(policy-var-name \| ipv6-address)* |
| Tree | srv6-return-path-bfd-sid |
| Description | This command configures the S-BFD session to echo mode and pushes an additional SRv6 SID in the SRH only for S-BFD packets sent on the imported SRv6 policy. |
| String length | 1 to 32 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **sticky-ecmp** *boolean*

| | |
|---|---|
| Synopsis | Specify the sticky ECMP flag for BGP ECMP routes |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action sticky-ecmp *boolean* |
| Tree | sticky-ecmp |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **tag** *(number | string)*

| | |
|---|---|
| Synopsis | OSPF RIP or IS-IS tag applied to routes |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action tag *(number \| string)* |
| Tree | tag |
| String length | 1 to 32 |
| Range | 1 to 4294967295 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **type** *(number | string)*

| | |
|---|---|
| Synopsis | OSPF metric type applied to routes |


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| | |
|---|---|
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* action type *(number \| string)* |
| Tree | type |
| String length | 1 to 32 |
| Range | 1 to 2 |
| Introduced | 19.10.R1 |
| Platforms | All |

## conditional-expression

| | |
|---|---|
| Synopsis | Enable the **conditional-expression** context |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* conditional-expression |
| Tree | conditional-expression |
| Introduced | 19.10.R1 |
| Platforms | All |

## route-exists *string*

| | |
|---|---|
| Synopsis | Conditional expression to test route existence |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* conditional-expression route-exists *string* |
| Tree | route-exists |
| String length | 1 to 255 |
| Introduced | 19.10.R1 |
| Platforms | All |

## description *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 19.10.R1 |
| Platforms | All |


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## from

| | |
|---|---|
| Synopsis | Enable the **from** context |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from |
| Tree | from |
| Introduced | 19.10.R1 |
| Platforms | All |

## aggregate-contributor *boolean*

| | |
|---|---|
| Synopsis | Enable aggregate route match criterion |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from aggregate-contributor *boolean* |
| Tree | aggregate-contributor |
| Description | When configured to **true**, matches all routes (BGP and non-BGP) that have contributed to an active aggregate route. If the prefix tree above a particular route includes no active aggregate routes or the most specific active aggregate route in the prefix tree above this route has a policy that rejects the route, then it is not considered as an aggregate-contributor.<br>This match condition is only supported when used in a BGP export policy. If it is used in an entry of a BGP import policy, **vrf-export** policy or **vrf-import** policy, no routes are matched by that entry.<br>When configured to **false**, no routes (BGP and non-BGP) that have contributed to an active aggregate route are matched. |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | All |

## area *ipv4-address*

| | |
|---|---|
| Synopsis | OSPF area as a match criterion |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from area *ipv4-address* |
| Tree | area |
| Introduced | 19.10.R1 |
| Platforms | All |


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### as-path

| | |
|---|---|
| Synopsis | Enter the **as-path** context |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from as-path |
| Tree | as-path |
| Introduced | 19.10.R1 |
| Platforms | All |

### group *(param-midstring | string)*

| | |
|---|---|
| Synopsis | AS path group as a match criterion |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from as-path group *(param-midstring | string)* |
| Tree | group |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **group** or **name**. |
| Introduced | 19.10.R1 |
| Platforms | All |

### length

| | |
|---|---|
| Synopsis | Enter the **length** context |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from as-path length |
| Tree | length |
| Introduced | 19.10.R1 |
| Platforms | All |

### qualifier *keyword*

| | |
|---|---|
| Synopsis | Higher or lower values to be accepted as match criteria |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from as-path length qualifier *keyword* |
| Tree | qualifier |
| Options | equal, or-higher, or-lower |


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| | |
|---|---|
| Default | equal |
| Introduced | 19.10.R1 |
| Platforms | All |

### **unique** *boolean*

| | |
|---|---|
| Synopsis | Use unique AS numbers as matching criteria |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from as-path length unique *boolean* |
| Tree | unique |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **value** *(number | string)*

| | |
|---|---|
| Synopsis | AS numbers in the AS path that match on the BGP route |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from as-path length value *(number | string)* |
| Tree | value |
| String length | 1 to 32 |
| Range | 0 to 255 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **name** *(param-midstring | string)*

| | |
|---|---|
| Synopsis | AS path name to match |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from as-path name *(param-midstring | string)* |
| Tree | name |
| Description | This command specifies an AS path regular expression name for the route policy entry.<br>Policy parameters must be enclosed by at-signs (@) and may be midstring; for example, "@variable@," "start@variable@end", "@variable@end", or "start@variable@". |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **group** or **name**. |


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| | |
|---|---|
| Introduced | 19.10.R1 |
| Platforms | All |

## cluster-id

| | |
|---|---|
| Synopsis | Enter the **cluster-id** context |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from cluster-id |
| Tree | cluster-id |
| Introduced | 19.10.R1 |
| Platforms | All |

## ip-address *ipv4-prefix-with-host-bits*

| | |
|---|---|
| Synopsis | Cluster list attribute IP addresses for route matching |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from cluster-id ip-address *ipv4-prefix-with-host-bits* |
| Tree | ip-address |
| Max. instances | 5 |
| Notes | The following elements are part of a choice: **ip-address** or **none-cluster-list**.<br>This element is ordered by the user. |
| Introduced | 19.10.R1 |
| Platforms | All |

## none-cluster-list *boolean*

| | |
|---|---|
| Synopsis | Specify matching BGP routes without a cluster ID |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from cluster-id none-cluster-list *boolean* |
| Tree | none-cluster-list |
| Default | false |
| Notes | The following elements are part of a choice: **ip-address** or **none-cluster-list**. |
| Introduced | 19.10.R1 |
| Platforms | All |


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### **color** *number*

| | |
|---|---|
| Synopsis | Color ID as a match criterion |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from color *number* |
| Tree | color |
| Description | This command configures an SR Policy color ID as a route policy match criterion. This match criterion is only used in import policies. |
| Range | 0 to 4294967295 |
| Introduced | 20.10.R1 |
| Platforms | All |

### **community**

| | |
|---|---|
| Synopsis | Enter the **community** context |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from community |
| Tree | community |
| Introduced | 19.10.R1 |
| Platforms | All |

### **count**

| | |
|---|---|
| Synopsis | Enter the **count** context |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from community count |
| Tree | count |
| Introduced | 19.10.R1 |
| Platforms | All |

### **qualifier** *keyword*

| | |
|---|---|
| Synopsis | Higher or lower values to be accepted as match criteria |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from community count qualifier *keyword* |
| Tree | qualifier |
| Options | equal, or-higher, or-lower |


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| | |
|---|---|
| Default | equal |
| Introduced | 19.10.R1 |
| Platforms | All |

### **type** *keyword*

| | |
|---|---|
| Synopsis | Community count to match the community count criteria |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from community count type *keyword* |
| Tree | type |
| Options | standard, extended, large |
| Introduced | 19.10.R1 |
| Platforms | All |

### **value** *(number | string)*

| | |
|---|---|
| Synopsis | Number of BGP communities to match the BGP route |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from community count value *(number | string)* |
| Tree | value |
| String length | 1 to 32 |
| Range | 0 to 1024 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **expression** *string*

| | |
|---|---|
| Synopsis | Community expression statement as a match criterion |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from community expression *string* |
| Tree | expression |
| Description | This command configures a community expression statement as a match criterion for the policy statement. This statement is a logical expression string composed of logical operators (keywords AND, OR, NOT), community names delimited by square brackets [], and parentheses ( ) to group subexpressions. If the expression contains special characters (for example, #, $, spaces), the entire string must be enclosed in double quotes. |


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The expression specified must already be defined using the **configure policy-options community expression expr** command.

The following are examples of valid logical expressions:

"[community_list_A] OR ([community_list_B] AND [community_list_C])"

"NOT [community_list_A]"

"[community_list_A] AND [community_list_B] OR [community_list_C]"

"NOT ([community_list_A] OR [community_list_B] OR [community_list_C])"

| | |
|---|---|
| String length | 1 to 900 |
| Notes | The following elements are part of a choice: **expression** or **name**. |
| Introduced | 19.10.R1 |
| Platforms | All |

## **name** *(param-midstring-64 | string)*

| | |
|---|---|
| Synopsis | Community list name |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from community name *(param-midstring-64 \| string)* |
| Tree | name |
| String length | 1 to 64 |
| Notes | The following elements are part of a choice: **expression** or **name**. |
| Introduced | 19.10.R1 |
| Platforms | All |

## **distinguisher** *number*

| | |
|---|---|
| Synopsis | SR policy distinguisher as a match criterion |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from distinguisher *number* |
| Tree | distinguisher |
| Description | This command configures an SR Policy distinguisher as a route policy match criterion. This match criterion is only used in import policies. |
| Range | 0 to 4294967295 |
| Introduced | 20.10.R1 |
| Platforms | All |


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### **endpoint** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | SR policy endpoint address as a match criterion |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from endpoint *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | endpoint |
| Description | This command configures an SR Policy endpoint address as a route policy match criterion. This match criterion is only used in import policies. |
| Introduced | 20.10.R1 |
| Platforms | All |

### **evpn-type** *keyword*

| | |
|---|---|
| Synopsis | EVPN type as a match criterion for the entry |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from evpn-type *keyword* |
| Tree | evpn-type |
| Options | ethernet-auto-discovery, mac-ip-advertisement, inclusive-multicast, ethernet-segment, ip-prefix, selective-multicast, multicast-join-sync, multicast-leave-sync, selective-pmsi-auto-discovery |
| Introduced | 19.10.R1 |
| Platforms | All |

### **external** *boolean*

| | |
|---|---|
| Synopsis | Specify the external IS-IS route as a match criterion |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from external *boolean* |
| Tree | external |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **family** *keyword*

| | |
|---|---|
| Synopsis | Address family as the match condition |


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| | |
|---|---|
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from family *keyword* |
| Tree | family |
| Description | This command specifies address families as matching conditions. |
| Options | ipv4, vpn-ipv4, ipv6, mcast-ipv4, vpn-ipv6, l2-vpn, mvpn-ipv4, mdt-safi, ms-pw, flow-ipv4, route-target, mcast-vpn-ipv4, mvpn-ipv6, flow-ipv6, evpn, mcast-ipv6, label-ipv4, label-ipv6, bgp-ls, mcast-vpn-ipv6, sr-policy-ipv4, sr-policy-ipv6, flow-vpn-ipv4, flow-vpn-ipv6 |
| Max. instances | 20 |
| Introduced | 19.10.R1 |
| Platforms | All |

## flowspec

| | |
|---|---|
| Synopsis | Enter the **flowspec** context |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from flowspec |
| Tree | flowspec |
| Description | Commands in this context configure the route-matching rules for BGP FlowSpec routes. |
| Introduced | 19.10.R1 |
| Platforms | All |

## dest *(param-midstring | string)*

| | |
|---|---|
| Synopsis | Destination IP prefix list to match BGP FlowSpec routes |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from flowspec dest *(param-midstring | string)* |
| Tree | dest |
| Description | This command specifies a prefix list used by the router to match BGP FlowSpec routes based on the destination IP prefix in the flow specification.<br>An IPv4 FlowSpec route is matched if its NLRI contains a type 1 subcomponent encoding a prefix and prefix length that is covered by an entry in the referenced prefix list. An IPv6 FlowSpec route is matched if its NLRI contains a type 1 component encoding prefix-offset = 0 and a prefix and prefix length that is covered by an entry in the referenced prefix list.<br>This command has no effect when the policy is not applied as a BGP import or export policy. |
| String length | 1 to 32 |


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| | |
|---|---|
| Introduced | 19.10.R1 |
| Platforms | All |

### **source** *(param-midstring | string)*

| | |
|---|---|
| Synopsis | Source IP prefix list to match BGP FlowSpec routes |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from flowspec source *(param-midstring | string)* |
| Tree | source |
| Description | This command specifies a prefix list used by the router to match BGP FlowSpec routes based on the source IP prefix in the flow specification.<br>An IPv4 FlowSpec route is matched if its NLRI contains a type 2 subcomponent encoding a prefix and prefix length that is covered by an entry in the referenced prefix list. An IPv6 FlowSpec route is matched if its NLRI contains a type 2 component encoding prefix-offset = 0 and a prefix and prefix length that is covered by an entry in the referenced prefix list.<br>This command has no effect when the policy is not applied as a BGP import or export policy. |
| String length | 1 to 32 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **group-address** *(param-midstring | string)*

| | |
|---|---|
| Synopsis | Prefix list of multicast group addresses for mathcing |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from group-address *(param-midstring | string)* |
| Tree | group-address |
| String length | 1 to 32 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **host-ip** *(param-midstring | string)*

| | |
|---|---|
| Synopsis | Prefix list of IGMP host IP addresses for matching |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from host-ip *(param-midstring | string)* |
| Tree | host-ip |


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| | |
|---|---|
| String length | 1 to 32 |
| Introduced | 19.10.R1 |
| Platforms | All |

## **interface** *(named-item | interface-name | interface-name | interface-name)*

| | |
|---|---|
| Synopsis | Interface name as match criterion |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from interface *(named-item \| interface-name \| interface-name \| interface-name)* |
| Tree | interface |
| String length | 1 to 32 |
| Max. instances | 1 |
| Notes | This element is ordered by the user. |
| Introduced | 19.10.R1 |
| Platforms | All |

## **interface-subnets**

| | |
|---|---|
| Synopsis | Enter the **interface-subnets** context |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from interface-subnets |
| Tree | interface-subnets |
| Description | Commands in this context configure the applied router instance and interfaces that are used as the matching condition within each policy statement entry when exporting the IP address of the associated interface to a routing protocol.<br>The interface subnet policy statement match criterion is applied to the following unicast use case contexts:<br>• **export**, when used with OSPFv2, OSPFv3, IS-IS, RIP, RIPng, and BGP<br>• **route-table-import**, when used with BGP<br>• **vrf-export**, when used with MP-BGP |
| Introduced | 21.2.R1 |
| Platforms | All |

## **ip-int-name** *interface-name*

| | |
|---|---|
| Synopsis | Interface name as the match criterion |


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| | |
|---|---|
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from interface-subnets ip-int-name *interface-name* |
| Tree | ip-int-name |
| Description | This command specifies the interface name to match when exporting the IP address of the associated interface to a routing protocol. |
| String length | 1 to 32 |
| Max. instances | 10 |
| Notes | This element is ordered by the user. |
| Introduced | 21.2.R1 |
| Platforms | All |

## **service** *string*

| | |
|---|---|
| Synopsis | Service ID of the interface subnets |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from interface-subnets service *string* |
| Tree | service |
| Default | Base |
| Introduced | 21.2.R1 |
| Platforms | All |

## **level** *number*

| | |
|---|---|
| Synopsis | IS-IS route level as a match criterion |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from level *number* |
| Tree | level |
| Range | 1 to 2 |
| Introduced | 19.10.R1 |
| Platforms | All |

## **local-preference**

| | |
|---|---|
| Synopsis | Enter the **local-preference** context |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from local-preference |


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| | |
|---|---|
| Tree | local-preference |
| Introduced | 19.10.R1 |
| Platforms | All |

### **qualifier** *keyword*

| | |
|---|---|
| Synopsis | Higher or lower values to be accepted as match criteria |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from local-preference qualifier *keyword* |
| Tree | qualifier |
| Options | equal, or-higher, or-lower |
| Default | equal |
| Introduced | 19.10.R1 |
| Platforms | All |

### **value** *(number | string)*

| | |
|---|---|
| Synopsis | BGP routes per local preference value or variable name |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from local-preference value *(number | string)* |
| Tree | value |
| String length | 1 to 32 |
| Range | 0 to 4294967295 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **metric**

| | |
|---|---|
| Synopsis | Enter the **metric** context |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from metric |
| Tree | metric |
| Introduced | 19.10.R1 |
| Platforms | All |


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### **qualifier** *keyword*

| | |
|---|---|
| Synopsis | Higher or lower values to be accepted as match criteria |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from metric qualifier *keyword* |
| Tree | qualifier |
| Options | equal, or-higher, or-lower |
| Default | equal |
| Introduced | 19.10.R1 |
| Platforms | All |

### **value** *(number | string)*

| | |
|---|---|
| Synopsis | Local preference value or variable name |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from metric value *(number | string)* |
| Tree | value |
| String length | 1 to 32 |
| Range | 0 to 4294967295 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **mvpn-type** *keyword*

| | |
|---|---|
| Synopsis | MVPN type as a match criterion for the entry |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from mvpn-type *keyword* |
| Tree | mvpn-type |
| Options | intra-as-ipmsi-auto-discovery, inter-as-ipmsi-auto-discovery, s-pmsi-auto-discovery, intra-as-segment-leaf-auto-discovery, source-active-auto-discovery, shared-tree-join, source-tree-join |
| Introduced | 19.10.R1 |
| Platforms | All |

### **neighbor**

| | |
|---|---|
| Synopsis | Enter the **neighbor** context |


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| | |
|---|---|
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from neighbor |
| Tree | neighbor |
| Introduced | 19.10.R1 |
| Platforms | All |

### **ip-address** *(ipv4-address-no-zone | ipv6-address-no-zone | ipv4-address-with-zone | ipv6-address-with-zone)*

| | |
|---|---|
| Synopsis | IP address to match the neighbor |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from neighbor ip-address *(ipv4-address-no-zone \| ipv6-address-no-zone \| ipv4-address-with-zone \| ipv6-address-with-zone)* |
| Tree | ip-address |
| Notes | The following elements are part of a choice: **ip-address** or **prefix-list**. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **prefix-list** *(param-midstring | string)*

| | |
|---|---|
| Synopsis | Name to match the neighbor prefix list |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from neighbor prefix-list *(param-midstring \| string)* |
| Tree | prefix-list |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **ip-address** or **prefix-list**. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **next-hop**

| | |
|---|---|
| Synopsis | Enter the **next-hop** context |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from next-hop |
| Tree | next-hop |
| Introduced | 19.10.R1 |


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| | |
|---|---|
| Platforms | All |

### **ip-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the next hop to match |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from next-hop ip-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | ip-address |
| Notes | The following elements are part of a choice: **ip-address** or **prefix-list**. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **prefix-list** *(param-midstring | string)*

| | |
|---|---|
| Synopsis | Name of a next hop prefix list to match |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from next-hop prefix-list *(param-midstring \| string)* |
| Tree | prefix-list |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **ip-address** or **prefix-list**. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **origin** *keyword*

| | |
|---|---|
| Synopsis | Route origin match criteria |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from origin *keyword* |
| Tree | origin |
| Description | This command configures a match criteria for the origin attribute of the route. The origin attribute is applicable to BGP routes and to the following subscriber-management routes:<br><br>Host routes (for example, IPv4 /32 address, or IPv6 SLAAC prefix) carry the origin attribute with AAA, dynamic, or static values, depending on the address assignment method. For CUPS hosts, the origin attribute is always PFCP. Host routes can also be distinguished using the **sub-mgmt** option for the **protocol** command. |


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Dynamically provisioned prefixes or loopback addresses use AAA or PFCP origin values, depending on the protocol that provides the prefix and address. Dynamic routes can also be distinguished using the **direct** option for the **protocol** command.

Statically configured prefixes under the subscriber interface do not have an origin attribute. These routes can be distinguished using the **direct** option for the **protocol** command.

Framed routes for non-CUPS hosts do not have an origin attribute. Framed routes for CUPS hosts use PFCP for the origin attribute. Alternatively, framed routes can be distinguished using the **managed** option for the **protocol** command.

The values that are specific to subscriber-management routes are never carried in BGP updates as part of the BGP origin attribute and are not visible within the BGP process.

| | |
|---|---|
| Options | igp, egp, incomplete, any, aaa, dynamic, static, bonding, pfcp |
| Introduced | 19.10.R1 |
| Platforms | All |

## **origin-validation-state** *keyword*

| | |
|---|---|
| Synopsis | Origin validation state used for match criteria |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from origin-validation-state *keyword* |
| Tree | origin-validation-state |
| Description | This command specifies a validation state that is used to match BGP routes based on their origin validation state. |
| Options | valid, not-found, invalid |
| Introduced | 19.10.R1 |
| Platforms | All |

## **ospf-type** *number*

| | |
|---|---|
| Synopsis | OSPF type metric applied to unmatching route entries |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from ospf-type *number* |
| Tree | ospf-type |
| Range | 1 to 2 |
| Introduced | 19.10.R1 |
| Platforms | All |


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### **path-type** *keyword*

| | |
|---|---|
| Synopsis | Path type as a match criterion |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from path-type *keyword* |
| Tree | path-type |
| Options | ibgp, ebgp |
| Introduced | 19.10.R1 |
| Platforms | All |

### **policy** *(string | string)*

| | |
|---|---|
| Synopsis | Policy statement as a match criterion |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from policy *(string | string)* |
| Tree | policy |
| String length | 1 to 255 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **policy-variables**

| | |
|---|---|
| Synopsis | Enter the **policy-variables** context |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from policy-variables |
| Tree | policy-variables |
| Introduced | 19.10.R1 |
| Platforms | All |

### **name** [variable-name] *policy-var-name*

| | |
|---|---|
| Synopsis | Enter the **name** list instance |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from policy-variables name *policy-var-name* |
| Tree | name |
| Description | Commands in this context configure global variables for use across BGP peers of a common type (transit, peer, customer, and so on). |


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| | |
|---|---|
| Max. instances | 10 |
| Introduced | 19.10.R1 |
| Platforms | All |

### [**variable-name**] *policy-var-name*

| | |
|---|---|
| Synopsis | Global variable name used to reference policy functions |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from policy-variables name *policy-var-name* |
| Tree | name |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the policy variable |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from policy-variables name *policy-var-name* address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | address |
| Notes | The following elements are part of a mandatory choice: **address**, **decimal**, **number**, **prefix**, or **value**. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **decimal** *decimal-number*

| | |
|---|---|
| Synopsis | Attribute decimal to which variable name is resolved |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from policy-variables name *policy-var-name* decimal *decimal-number* |
| Tree | decimal |
| Range | 0.000 to 4294967295.000 |
| Notes | The following elements are part of a mandatory choice: **address**, **decimal**, **number**, **prefix**, or **value**. |


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| | |
|---|---|
| Introduced | 19.10.R1 |
| Platforms | All |

### **number** *number*

| | |
|---|---|
| Synopsis | Numerical value of the policy variable |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from policy-variables name *policy-var-name* number *number* |
| Tree | number |
| Range | 0 to 4294967295 |
| Notes | The following elements are part of a mandatory choice: **address**, **decimal**, **number**, **prefix**, or **value**. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **prefix** *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Prefix value associated with the variable name |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from policy-variables name *policy-var-name* prefix *(ipv4-prefix | ipv6-prefix)* |
| Tree | prefix |
| Notes | The following elements are part of a mandatory choice: **address**, **decimal**, **number**, **prefix**, or **value**. |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **value** *named-item*

| | |
|---|---|
| Synopsis | Policy variable value |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from policy-variables name *policy-var-name* value *named-item* |
| Tree | value |
| String length | 1 to 32 |
| Notes | The following elements are part of a mandatory choice: **address**, **decimal**, **number**, **prefix**, or **value**. |
| Introduced | 19.10.R1 |


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| | |
|---|---|
| Platforms | All |

### **prefix-list** *(param-midstring-64 | string)*

| | |
|---|---|
| Synopsis | Prefix list as match criterion |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from prefix-list *(param-midstring-64 \| string)* |
| Tree | prefix-list |
| String length | 1 to 64 |
| Max. instances | 28 |
| Notes | This element is ordered by the user. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **prefix-list-override** [prefix-list] *string*

| | |
|---|---|
| Synopsis | Enter the **prefix-list-override** list instance |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from prefix-list-override *string* |
| Tree | prefix-list-override |
| Description | Commands in this context convert a prefix list to a specific match type. The routing policy uses the converted list as a match condition.<br>The prefix list to be converted can be specified by its name, as an expression containing the name of a global variable that holds the name of the prefix list, or as an expression containing the name of a subroutine variable that holds the name of the prefix list. |
| Max. instances | 1 |
| Introduced | 23.10.R1 |
| Platforms | All |

### [**prefix-list**] *string*

| | |
|---|---|
| Synopsis | Prefix list to be converted |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from prefix-list-override *string* |
| Tree | prefix-list-override |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **end-length** *number*

| | |
|---|---|
| Synopsis | Prefix range end length |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from prefix-list-override *string* end-length *number* |
| Tree | end-length |
| Range | 0 to 128 |
| Notes | The following elements are part of a choice: (**end-length** and **start-length**) or **through-length**. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **start-length** *number*

| | |
|---|---|
| Synopsis | Prefix range start length |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from prefix-list-override *string* start-length *number* |
| Tree | start-length |
| Range | 0 to 128 |
| Notes | The following elements are part of a choice: (**end-length** and **start-length**) or **through-length**. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **through-length** *number*

| | |
|---|---|
| Synopsis | Prefix through length |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from prefix-list-override *string* through-length *number* |
| Tree | through-length |
| Range | 0 to 128 |


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| | |
|---|---|
| Notes | The following elements are part of a choice: (**end-length** and **start-length**) or **through-length**. |
| Introduced | 23.10.R1 |
| Platforms | All |

## **type** *keyword*

| | |
|---|---|
| Synopsis | New match type for entries in referenced prefix list |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from prefix-list-override *string* type *keyword* |
| Tree | type |
| Options | exact, longer, through, range |
| Default | exact |
| Introduced | 23.10.R1 |
| Platforms | All |

## **protocol**

| | |
|---|---|
| Synopsis | Enter the **protocol** context |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from protocol |
| Tree | protocol |
| Description | Commands in this context configure the match criterion based on protocols for a route policy statement entry and may be used for both import and export policies. |
| Introduced | 19.10.R1 |
| Platforms | All |

## **instance** *(keyword | number)*

| | |
|---|---|
| Synopsis | Instance for protocol IS-IS, OSPF, or OSPFv3 to match |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from protocol instance *(keyword | number)* |
| Tree | instance |
| Description | This command specifies the OSPF, OSPFv3, or IS-IS instance to be used as the match criterion.<br>When this command is explicitly configured, the **name** command must be configured to identify the protocol (OSPF, OSPFv3, or IS-IS). |


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| | |
|---|---|
| Range | 0 to 127 |
| Options | all |
| Default | 0 |
| Introduced | 19.10.R1 |
| Platforms | All |

## **name** *keyword*

| | |
|---|---|
| Synopsis | List of protocol names as the match criterion |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from protocol name *keyword* |
| Tree | name |
| Description | This command specifies a protocol list for the match criterion. If multiple protocols are specified, the protocol names must belong to the following protocol set:<br>• direct<br>• static<br>• isis<br>• aggregate<br>• bgp<br>• bgp-label<br>• direct-interface<br>If multiple protocols are specified, the **instance** command cannot be explicitly configured.<br>The protocol **direct-interface** route type matches the specific direct interface host IPv4 /32 and IPv6 /128 routes. |
| Options | direct, static, bgp, isis, ospf, rip, aggregate, bgp-vpn, igmp, pim, ospf3, ldp, sub-mgmt, mld, managed, vpn-leak, nat, periodic, ipsec, dhcpv6-pd, dhcpv6-na, dhcpv6-ta, dhcpv6-pd-excl, ripng, bgp-label, direct-interface, arp-nd, rib-api, dhcp-client, evpn-ifl, srv6, video, evpn-ifl-host |
| Max. instances | 5 |
| Introduced | 19.10.R1 |
| Platforms | All |

## **route-distinguisher-list** *(param-midstring-64 | string)*

| | |
|---|---|
| Synopsis | Route distinguisher list as a match criterion |


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| | |
|---|---|
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from route-distinguisher-list *(param-midstring-64 \| string)* |
| Tree | route-distinguisher-list |
| Description | This command specifies the (possibly parameterized) name of a route distinguisher (RD) list.<br>This match condition is supported by policies applied as VRF-import or BGP peer import policies. A BGP route can match a policy entry with this match criterion if the NLRI field contains an RD that is matched by at least one of the entries in the RD list.<br>BGP routes belonging to address families other than VPN-IPv4, VPN-IPv6, MCAST-VPN-IPv4, MCAST-VPN-IPv6, EVPN, FlowSpec-VPN IPv4, FlowSpec-VPN IPv6, MVPN-IPv4, or MVPN-IPv6 route do not match policy entries with this match criterion. |
| String length | 1 to 64 |
| Introduced | 23.3.R1 |
| Platforms | All |

## source-address

| | |
|---|---|
| Synopsis | Enter the **source-address** context |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from source-address |
| Tree | source-address |
| Introduced | 19.10.R1 |
| Platforms | All |

## ip-address *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source IP address to match |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from source-address ip-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | ip-address |
| Notes | The following elements are part of a choice: **ip-address** or **prefix-list**. |
| Introduced | 19.10.R1 |
| Platforms | All |

## prefix-list *(param-midstring | string)*

| | |
|---|---|
| Synopsis | Name of a source address prefix list to match |


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| | |
|---|---|
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from source-address prefix-list *(param-midstring \| string)* |
| Tree | prefix-list |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **ip-address** or **prefix-list**. |
| Introduced | 19.10.R1 |
| Platforms | All |

## **srv6-sid-prefix** *(policy-var-name | ipv6-unicast-prefix)*

| | |
|---|---|
| Synopsis | SRv6 SID or uSID as match criterion for the BGP route |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from srv6-sid-prefix *(policy-var-name \| ipv6-unicast-prefix)* |
| Tree | srv6-sid-prefix |
| Description | This command configures either the name of a prefix policy variable or an IPv6 prefix and prefix length, as a match criterion for a BGP route.<br>**Note**: If the name of a prefix policy variable is the match criterion, the name must start and end with an at sign (@).<br>A BGP route matches this condition if it has an SRv6 TLV, and the SID or micro-segment (uSID) value in that TLV is matched by the bits of the IPv6 prefix (up to the specified prefix length).<br>This match condition is supported in BGP import policies, BGP export policies, and VRF or VSI import policies. |
| String length | 1 to 32 |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **srv6-tlv** *keyword*

| | |
|---|---|
| Synopsis | SRv6 TLV presence as match criterion for BGP route |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from srv6-tlv *keyword* |
| Tree | srv6-tlv |
| Description | This command configures whether the entry matches a BGP route with a prefix SID attribute containing an SRv6 TLV.<br>If this command is not configured, a BGP route can match the entry, regardless of whether it has a prefix SID attribute or whether that prefix SID attribute has SRv6 TLVs.<br>This match condition is supported in BGP import policies, BGP export policies, and VRF or VSI import policies. |


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If the **present** option is configured, a BGP route only matches this entry if it has a prefix SID attribute containing an SRv6 TLV.

If the **not-present** option is configured, a BGP route only matches this entry if it does not have a prefix SID attribute containing an SRv6 TLV.

| | |
|---|---|
| Options | present, not-present |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **state** *keyword*

| | |
|---|---|
| Synopsis | State used as a match criterion |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from state *keyword* |
| Tree | state |
| Description | This command configures a criterion that identifies in resilient gateways which routes are associated with an active context and which routes are associated with a standby context. |
| Options | srrp-master, srrp-non-master, ipsec-master-with-peer, ipsec-master-without-peer, ipsec-non-master, fsg-active, fsg-standby, fsg-active-path-restoration |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **tag** *(number | keyword)*

| | |
|---|---|
| Synopsis | Route tag used as a match criterion |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* from tag *(number \| keyword)* |
| Tree | tag |
| Range | 1 to 4294967295 |
| Options | no-tag |
| Introduced | 19.10.R1 |
| Platforms | All |

### **to**

| | |
|---|---|
| Synopsis | Enable the **to** context |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* to |


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| | |
|---|---|
| Tree | to |
| Introduced | 19.10.R1 |
| Platforms | All |

### **level** *number*

| | |
|---|---|
| Synopsis | IS-IS route level as a match criterion |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* to level *number* |
| Tree | level |
| Range | 1 to 2 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **neighbor**

| | |
|---|---|
| Synopsis | Enter the **neighbor** context |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* to neighbor |
| Tree | neighbor |
| Introduced | 19.10.R1 |
| Platforms | All |

### **ip-address** *(ipv4-address-no-zone | ipv6-address-no-zone | ipv4-address-with-zone | ipv6-address-with-zone)*

| | |
|---|---|
| Synopsis | IP address to match the neighbor |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* to neighbor ip-address *(ipv4-address-no-zone \| ipv6-address-no-zone \| ipv4-address-with-zone \| ipv6-address-with-zone)* |
| Tree | ip-address |
| Notes | The following elements are part of a choice: **ip-address** or **prefix-list**. |
| Introduced | 19.10.R1 |
| Platforms | All |


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### **prefix-list** *(param-midstring | string)*

| | |
|---|---|
| Synopsis | Name to match the neighbor prefix list |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* to neighbor prefix-list *(param-midstring \| string)* |
| Tree | prefix-list |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **ip-address** or **prefix-list**. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **prefix-list** *(param-midstring-64 | string)*

| | |
|---|---|
| Synopsis | Prefix list as match criterion |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* to prefix-list *(param-midstring-64 \| string)* |
| Tree | prefix-list |
| String length | 1 to 64 |
| Max. instances | 28 |
| Notes | This element is ordered by the user. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **protocol**

| | |
|---|---|
| Synopsis | Enter the **protocol** context |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* to protocol |
| Tree | protocol |
| Introduced | 19.10.R1 |
| Platforms | All |

### **instance** *(keyword | number)*

| | |
|---|---|
| Synopsis | Instance for the IS-IS, OSPF, or OSPF3 protocol |


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| | |
|---|---|
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* to protocol instance *(keyword* \| *number)* |
| Tree | instance |
| Range | 0 to 127 |
| Options | all |
| Default | 0 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **name** *keyword*

| | |
|---|---|
| Synopsis | Protocol name to match |
| Context | **configure** policy-options policy-statement *named-item-64* named-entry *named-item-255* to protocol name *keyword* |
| Tree | name |
| Options | bgp, isis, ospf, rip, bgp-vpn, ospf3, ldp, vpn-leak, ripng, bgp-label, evpn-ifl |
| Max. instances | 2 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **prefix-list** [name] *named-item-64*

| | |
|---|---|
| Synopsis | Enter the **prefix-list** list instance |
| Context | **configure** policy-options prefix-list *named-item-64* |
| Tree | prefix-list |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**name**] *named-item-64*

| | |
|---|---|
| Synopsis | Prefix list name |
| Context | **configure** policy-options prefix-list *named-item-64* |
| Tree | prefix-list |
| Description | This command specifies the name for a prefix list. |


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| | |
|---|---|
| | Policy parameters must be enclosed by at-signs (@) and may be midstring; for example, "@variable@", "start@variable@end", "@variable@end", or "start@variable@". |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **prefix** [ip-prefix] *(ipv4-prefix | ipv6-prefix)* type *keyword*

| | |
|---|---|
| Synopsis | Enter the **prefix** list instance |
| Context | **configure** policy-options prefix-list *named-item-64* prefix *(ipv4-prefix | ipv6-prefix)* type *keyword* |
| Tree | prefix |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ip-prefix**] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | IP prefix associated with the prefix length |
| Context | **configure** policy-options prefix-list *named-item-64* prefix *(ipv4-prefix | ipv6-prefix)* type *keyword* |
| Tree | prefix |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **type** *keyword*

| | |
|---|---|
| Synopsis | Prefix list match type |
| Context | **configure** policy-options prefix-list *named-item-64* prefix *(ipv4-prefix | ipv6-prefix)* type *keyword* |
| Tree | prefix |
| Options | exact, longer, through, range, to, address-mask |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **end-length** *number*

| | |
|---|---|
| Synopsis | Prefix range end length |
| Context | **configure** policy-options prefix-list *named-item-64* prefix *(ipv4-prefix \| ipv6-prefix)* type *keyword* end-length *number* |
| Tree | end-length |
| Range | 0 to 128 |
| Notes | The following elements are part of a choice: **mask-pattern**, (**end-length** and **start-length**), **through-length**, or **to-prefix**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mask-pattern** [address] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Add a list entry for **mask-pattern** |
| Context | **configure** policy-options prefix-list *named-item-64* prefix *(ipv4-prefix \| ipv6-prefix)* type *keyword* mask-pattern *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | mask-pattern |
| Notes | The following elements are part of a choice: **mask-pattern**, (**end-length** and **start-length**), **through-length**, or **to-prefix**. |
| Introduced | 20.7.R1 |
| Platforms | All |

### [**address**] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Address mask for matching routes to the prefix entry |
| Context | **configure** policy-options prefix-list *named-item-64* prefix *(ipv4-prefix \| ipv6-prefix)* type *keyword* mask-pattern *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | mask-pattern |
| Description | This command specifies the address mask to compare against the prefix entry to determine whether the route is considered a match.<br><br>A route matches the prefix entry if the following conditions are met.<br>• The bitwise logical AND of the prefix address and its mask matches the bitwise logical AND of the route address and its mask.<br>• The prefix length of the prefix entry matches the prefix length of the route.<br><br>For example, for a prefix entry of 17.1.0.0/32, routes with an address 17.1.x.0 (where x can be 0 through 255) and a prefix length of 32 match the entry. |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 20.7.R1 |
| Platforms | All |

### **start-length** *number*

| | |
|---|---|
| Synopsis | Start in the prefix range length |
| Context | **configure** policy-options prefix-list *named-item-64* prefix *(ipv4-prefix \| ipv6-prefix)* type *keyword* start-length *number* |
| Tree | start-length |
| Range | 0 to 128 |
| Notes | The following elements are part of a choice: **mask-pattern**, (**end-length** and **start-length**), **through-length**, or **to-prefix**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **through-length** *number*

| | |
|---|---|
| Synopsis | Prefix through length |
| Context | **configure** policy-options prefix-list *named-item-64* prefix *(ipv4-prefix \| ipv6-prefix)* type *keyword* through-length *number* |
| Tree | through-length |
| Range | 0 to 128 |
| Notes | The following elements are part of a choice: **mask-pattern**, (**end-length** and **start-length**), **through-length**, or **to-prefix**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **to-prefix** [ip-prefix] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Add a list entry for **to-prefix** |
| Context | **configure** policy-options prefix-list *named-item-64* prefix *(ipv4-prefix \| ipv6-prefix)* type *keyword* to-prefix *(ipv4-prefix \| ipv6-prefix)* |
| Tree | to-prefix |
| Notes | The following elements are part of a choice: **mask-pattern**, (**end-length** and **start-length**), **through-length**, or **to-prefix**. |


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| | |
|---|---|
| Introduced | 20.7.R1 |
| Platforms | All |

### [**ip-prefix**] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | IP prefix for "to" match type |
| Context | **configure** policy-options prefix-list *named-item-64* prefix *(ipv4-prefix \| ipv6-prefix)* type *keyword* to-prefix *(ipv4-prefix \| ipv6-prefix)* |
| Tree | to-prefix |
| Description | This command configures an IP prefix to use in a route policy prefix list for the to match type. If the prefix entry is in the format *prefix1*/*length1*, and this command is configured in the format *prefix2*/*length2*, a route matches the prefix entry if the following conditions are met.<br>• The route shares the same most-significant bits (specified by *length1*) with the prefix entry<br>• The route shares the same most-significant bits (specified by *length2*) with this IP prefix value<br>• The prefix length of the route is in the range of *length1* to *length2* (inclusive)<br>For example, for a prefix entry of 10.0.0.8 with a to IP prefix value of 10.0.0.0/32, routes 10.0.0.0/8, 10.0.0.0/9, 10.0.0.0.0/10, and so on, to 10.0.0.0/32 are considered matches for the prefix entry. |
| Notes | This element is part of a list key. |
| Introduced | 20.7.R1 |
| Platforms | All |

### **route-distinguisher-list** [name] *named-item-64*

| | |
|---|---|
| Synopsis | Enter the **route-distinguisher-list** list instance |
| Context | **configure** policy-options route-distinguisher-list *named-item-64* |
| Tree | route-distinguisher-list |
| Introduced | 23.3.R1 |
| Platforms | All |

### [**name**] *named-item-64*

| | |
|---|---|
| Synopsis | Route distinguisher list name |
| Context | **configure** policy-options route-distinguisher-list *named-item-64* |
| Tree | route-distinguisher-list |


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| | |
|---|---|
| Description | This command creates a list of entries used to match the RD in BGP routes of specific address families. |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **rd-entry** [rd] *string*

| | |
|---|---|
| Synopsis | Add a list entry for **rd-entry** |
| Context | **configure** policy-options route-distinguisher-list *named-item-64* rd-entry *string* |
| Tree | rd-entry |
| Max. instances | 128 |
| Introduced | 23.3.R1 |
| Platforms | All |

### [**rd**] *string*

| | |
|---|---|
| Synopsis | Route distinguisher |
| Context | **configure** policy-options route-distinguisher-list *named-item-64* rd-entry *string* |
| Tree | rd-entry |
| Description | This command creates an RD matching entry containing an IPv4 address or ASN and the assigned number. The following formats are supported:<br>• *a.b.c.d*/*m*:* – RD in IPv4 format with a wildcard character (such as 10.0.0.0/16:*)<br>• *a.b.c.d*/*m*:*n* – RD in IPv4 format with a specific number (such as 10.0.0.2/32:535)<br>• *asn*:* – RD in ASN format with a wildcard character (such as 65000:*)<br>• *asn*:*n* – RD in ASN format with a specific number (such as 65000:535)<br>See the "Route distinguishers" section of the *7450 ESS, 7750 SR, 7950 XRS, and VSR Layer 3 Services Guide: IES and VPRN* for information about Type values. |
| String length | 3 to 28 |
| Notes | This element is part of a list key. |
| Introduced | 23.3.R1 |
| Platforms | All |


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## 4.32 port commands

```
configure
   –  port port
      –  access
         –  apply-groups reference
         –  apply-groups-exclude reference
         –  egress
            –  pool named-item
               –  amber-alarm-threshold number
               –  apply-groups reference
               –  apply-groups-exclude reference
               –  monitor-pool-depth
                  –  admin-state keyword
                  –  alarm-thresholds
                     –  reserved-pool-in-use decimal-number
                     –  shared-pool-in-use decimal-number
                     –  total-pool-in-use decimal-number
               –  red-alarm-threshold number
               –  resv-cbs
                  –  amber-alarm-action
                     –  max number
                     –  step number
                  –  cbs (number | keyword)
               –  slope-policy reference
         –  ingress
            –  pool named-item
               –  amber-alarm-threshold number
               –  apply-groups reference
               –  apply-groups-exclude reference
               –  monitor-pool-depth
                  –  admin-state keyword
                  –  alarm-thresholds
                     –  reserved-pool-in-use decimal-number
                     –  shared-pool-in-use decimal-number
                     –  total-pool-in-use decimal-number
               –  red-alarm-threshold number
               –  resv-cbs
                  –  amber-alarm-action
                     –  max number
                     –  step number
                  –  cbs (number | keyword)
               –  slope-policy reference
      –  admin-state keyword
      –  apply-groups reference
      –  apply-groups-exclude reference
      –  connector
         –  apply-groups reference
         –  apply-groups-exclude reference
         –  breakout keyword
         –  rs-fec-mode keyword
      –  ddm-events boolean
      –  description very-long-description
      –  dist-cpu-protection
         –  policy reference
      –  dwdm
         –  apply-groups reference
         –  apply-groups-exclude reference
         –  coherent
            –  apply-groups reference
            –  apply-groups-exclude reference
```


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configure port dwdm coherent compatibility

```
            - compatibility keyword
            - cpr-window-size number
            - dispersion number
            - mode keyword
            - report-alarm
               - hosttx boolean
               - mod boolean
               - modflt boolean
               - netrx boolean
               - nettx boolean
            - rx-los-reaction keyword
            - rx-los-thresh decimal-number
            - sweep
               - end number
               - start number
            - target-power decimal-number
         - frequency number
      - ethernet
         - access
            - apply-groups reference
            - apply-groups-exclude reference
            - bandwidth number
            - booking-factor number
            - egress
               - queue-group reference instance-id number
                  - accounting-policy reference
                  - aggregate-rate
                     - adaptation-rule keyword
                     - burst-limit (number | keyword)
                     - limit-unused-bandwidth boolean
                     - queue-frame-based-accounting boolean
                     - rate (number | keyword)
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - collect-stats boolean
                  - description description
                  - host-match
                     - int-dest-id int-dest-id
                  - hs-turbo boolean
                  - queue-overrides
                     - queue reference
                        - adaptation-rule
                           - cir keyword
                           - pir keyword
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - burst-limit (number | keyword)
                        - cbs (number | keyword)
                        - drop-tail
                           - low
                              - percent-reduction-from-mbs (number | keyword)
                        - mbs (number | keyword)
                        - monitor-queue-depth
                           - fast-polling boolean
                           - violation-threshold decimal-number
                        - parent
                           - cir-weight number
                           - weight number
                        - percent-rate
                           - cir decimal-number
                           - pir decimal-number
                        - rate
                           - cir (number | keyword)
                           - pir (number | keyword)
```


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configure port ethernet access egress queue-group scheduler-policy

```
                  - scheduler-policy
                     - overrides
                        - scheduler named-item
                           - apply-groups reference
                           - apply-groups-exclude reference
                           - parent
                              - cir-weight number
                              - weight number
                           - rate
                              - cir (number | keyword)
                              - pir (number | keyword)
                     - policy-name reference
               - virtual-port named-item
                  - aggregate-rate
                     - limit-unused-bandwidth boolean
                     - rate (number | keyword)
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - description description
                  - host-match
                     - int-dest-id int-dest-id
                  - hw-agg-shaper-scheduler-policy reference
                  - lag-per-link-hash
                     - class number
                     - weight number
                  - monitor-hw-agg-shaper-scheduler boolean
                  - monitor-port-scheduler boolean
                  - multicast-hqos-adjustment boolean
                  - port-scheduler-policy reference
                  - scheduler-policy
                     - policy-name reference
            - ingress
               - queue-group reference
                  - accounting-policy reference
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - collect-stats boolean
                  - description description
                  - queue-overrides
                     - queue reference
                        - adaptation-rule
                           - cir keyword
                           - pir keyword
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - cbs (number | keyword)
                        - drop-tail
                           - low
                              - percent-reduction-from-mbs (number | keyword)
                        - mbs (number | keyword)
                        - monitor-queue-depth
                           - fast-polling boolean
                        - rate
                           - cir (number | keyword)
                           - pir (number | keyword)
                  - scheduler-policy
                     - overrides
                        - scheduler named-item
                           - apply-groups reference
                           - apply-groups-exclude reference
                           - parent
                              - cir-weight number
                              - weight number
                           - rate
```


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configure port ethernet access ingress queue-group scheduler-policy overrides scheduler rate cir

```
                        - cir (number | keyword)
                        - pir (number | keyword)
                - policy-name reference
        - accounting-policy reference
        - apply-groups reference
        - apply-groups-exclude reference
        - autonegotiate keyword
        - collect-stats boolean
        - crc-monitor
          - signal-degrade
            - multiplier number
            - threshold number
          - signal-failure
            - multiplier number
            - threshold number
          - window-size number
        - dampening
          - admin-state keyword
          - apply-groups reference
          - apply-groups-exclude reference
          - half-life number
          - max-suppress-time number
          - reuse-threshold number
          - suppress-threshold number
        - discard-rx-pause-frames boolean
        - dot1q-etype etype
        - dot1x
          - admin-state keyword
          - apply-groups reference
          - apply-groups-exclude reference
          - macsec
            - apply-groups reference
            - apply-groups-exclude reference
            - exclude-mac-policy reference
            - exclude-protocol
              - cdp boolean
              - eapol-start boolean
              - efm-oam boolean
              - eth-cfm boolean
              - lacp boolean
              - lldp boolean
              - ptp boolean
              - ubfd boolean
            - rx-must-be-encrypted boolean
            - sub-port number
              - admin-state keyword
              - apply-groups reference
              - apply-groups-exclude reference
              - ca-name reference
              - eapol-destination-address mac-address
              - encap-match
                - all-match boolean
                - double-tag double-vlan-encap
                - single-tag single-vlan-encap
                - untagged boolean
              - max-peers number
          - max-authentication-requests number
          - per-host-authentication
            - admin-state keyword
            - allowed-source-macs
              - mac-address mac-address
            - authenticator-init boolean
          - port-control keyword
          - quiet-period number
```


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```
            - radius-policy reference
            - radius-server-policy reference
            - radius-server-policy-acct reference
            - radius-server-policy-auth reference
            - re-authentication
              - period number
            - server-timeout number
            - supplicant-timeout number
            - transmit-period number
            - tunnel-dot1q boolean
            - tunnel-qinq boolean
            - tunneling boolean
         - down-on-internal-error
            - tx-laser keyword
         - down-when-looped
            - admin-state keyword
            - keep-alive number
            - retry-timeout number
            - use-broadcast-address boolean
         - duplex keyword
         - efm-oam
            - accept-remote-loopback boolean
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - discovery
              - advertise-capabilities
                - link-monitoring boolean
            - dying-gasp-tx-on-reset boolean
            - grace-tx boolean
            - grace-vendor-oui string
            - hold-time number
            - ignore-efm-state boolean
            - link-monitoring
              - admin-state keyword
              - apply-groups reference
              - apply-groups-exclude reference
              - errored-frame
                - admin-state keyword
                - event-notification boolean
                - sd-threshold number
                - sf-threshold number
                - window number
              - errored-frame-period
                - admin-state keyword
                - event-notification boolean
                - sd-threshold number
                - sf-threshold number
                - window number
              - errored-frame-seconds
                - admin-state keyword
                - event-notification boolean
                - sd-threshold number
                - sf-threshold number
                - window number
              - errored-symbols
                - admin-state keyword
                - event-notification boolean
                - sd-threshold number
                - sf-threshold number
                - window number
              - local-sf-action
                - event-notification-burst number
                - info-notification
```


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configure port ethernet efm-oam link-monitoring local-sf-action info-notification critical-event

```
                    - critical-event boolean
                    - dying-gasp boolean
                  - local-port-action keyword
            - mode keyword
            - multiplier number
            - peer-rdi-rx
              - critical-event keyword
              - dying-gasp keyword
              - event-notification keyword
              - link-fault keyword
            - transmit-interval number
            - trigger-fault keyword
            - tunneling boolean
        - egress
            - apply-groups reference
            - apply-groups-exclude reference
            - eth-bn-rate-changes boolean
            - hs-port-pool-policy reference
            - hs-scheduler-policy
              - overrides
                - apply-groups reference
                - apply-groups-exclude reference
                - group number
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - rate (number | keyword)
                - max-rate (number | keyword)
                - scheduling-class number
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - rate (number | keyword)
                  - weight number
              - policy-name reference
            - hs-secondary-shaper named-item
              - aggregate
                - low-burst-max-class number
                - rate (number | keyword)
              - apply-groups reference
              - apply-groups-exclude reference
              - class number
                - apply-groups reference
                - apply-groups-exclude reference
                - rate (number | keyword)
              - description description
            - hw-agg-shaper-scheduler
              - monitor boolean
              - policy-name reference
            - monitor-port-scheduler boolean
            - port-scheduler-policy
              - overrides
                - apply-groups reference
                - apply-groups-exclude reference
                - level number
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - percent-rate
                    - cir decimal-number
                    - pir decimal-number
                  - rate
                    - cir (number | keyword)
                    - pir (number | keyword)
                - max-rate
                  - percent-rate decimal-number
                  - rate (number | keyword)
```


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configure port ethernet egress port-scheduler-policy policy-name

```
            - policy-name reference
         - rate number
      - elmi
         - apply-groups reference
         - apply-groups-exclude reference
         - mode keyword
         - n393 number
         - t391 number
         - t392 number
      - encap-type keyword
      - eth-cfm
         - mep md-admin-name reference ma-admin-name reference mep-id number
            - admin-state keyword
            - ais
               - client-meg-level number
               - interface-support boolean
               - interval number
               - low-priority-defect keyword
               - priority number
            - alarm-notification
               - fng-alarm-time number
               - fng-reset-time number
            - apply-groups reference
            - apply-groups-exclude reference
            - ccm boolean
            - ccm-ltm-priority number
            - ccm-padding-size number
            - ccm-tlv-ignore keyword
            - collect-lmm-stats boolean
            - csf
               - multiplier decimal-number
            - description description
            - eth-bn
               - receive boolean
               - rx-update-pacing number
            - eth-test
               - bit-error-threshold number
               - test-pattern
                  - crc-tlv boolean
                  - pattern keyword
            - facility-fault boolean
            - grace
               - eth-ed
                  - max-rx-defect-window number
                  - priority number
                  - rx-eth-ed boolean
                  - tx-eth-ed boolean
               - eth-vsm-grace
                  - rx-eth-vsm-grace boolean
                  - tx-eth-vsm-grace boolean
            - low-priority-defect keyword
            - mac-address mac-unicast-address-no-zero
            - one-way-delay-threshold number
            - vlan (number | keyword)
      - hold-time
         - down number
         - units keyword
         - up number
      - ingress
         - rate number
      - lacp-tunnel boolean
      - lldp
         - apply-groups reference
         - apply-groups-exclude reference
```


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configure port ethernet lldp dest-mac

```
            - dest-mac keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - notification boolean
               - port-id-subtype keyword
               - receive boolean
               - transmit boolean
               - tunnel-nearest-bridge boolean
               - tx-mgmt-address keyword
                  - admin-state keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
               - tx-tlvs
                  - port-desc boolean
                  - sys-cap boolean
                  - sys-desc boolean
                  - sys-name boolean
         - load-balancing-algorithm keyword
         - mac-address mac-address
         - min-frame-length number
         - mode keyword
         - mtu number
         - network
            - accounting-policy reference
            - apply-groups reference
            - apply-groups-exclude reference
            - collect-stats boolean
            - egress
               - port-queues
                  - overrides
                     - queue number
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - monitor-queue-depth
                           - fast-polling boolean
                           - violation-threshold decimal-number
               - queue-group reference instance-id number
                  - accounting-policy reference
                  - aggregate-rate
                     - adaptation-rule keyword
                     - burst-limit (number | keyword)
                     - limit-unused-bandwidth boolean
                     - queue-frame-based-accounting boolean
                     - rate (number | keyword)
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - collect-stats boolean
                  - description description
                  - hs-turbo boolean
                  - policer-control-policy reference
                  - queue-overrides
                     - queue reference
                        - adaptation-rule
                           - cir keyword
                           - pir keyword
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - cbs (number | keyword)
                        - drop-tail
                           - low
                              - percent-reduction-from-mbs (number | keyword)
                        - mbs (number | keyword)
                        - monitor-queue-depth
                           - fast-polling boolean
```


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configure port ethernet network egress queue-group queue-overrides queue monitor-queue-depth violation-threshold

```
                        - violation-threshold decimal-number
                     - percent-rate
                        - cir decimal-number
                        - pir decimal-number
                     - rate
                        - cir (number | keyword)
                        - pir (number | keyword)
                  - scheduler-policy
                     - policy-name reference
               - queue-policy reference
         - pbb-etype etype
         - ptp-asymmetry number
         - ptp-timestamping
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - ipv4-address ipv4-address
            - ipv6-address ipv6-address
         - qinq-etype etype
         - report-alarm
            - alignment-marker-not-locked boolean
            - block-not-locked boolean
            - duplicate-lane boolean
            - frame-not-locked boolean
            - high-ber boolean
            - local boolean
            - remote boolean
            - signal-fail boolean
         - rs-fec-mode keyword
         - single-fiber boolean
         - speed number
         - ssm
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - code-type keyword
            - esmc-tunnel boolean
            - tx-dus boolean
         - symbol-monitor
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - signal-degrade
               - multiplier number
               - threshold number
            - signal-failure
               - multiplier number
               - threshold number
            - window-size number
         - tx-pause-frames boolean
         - util-stats-interval number
         - xgig keyword
      - gnss
         - antenna-cable-delay number
         - apply-groups reference
         - apply-groups-exclude reference
         - constellation
            - galileo boolean
            - glonass boolean
            - gps boolean
         - elevation-mask-angle number
      - hybrid-buffer-allocation
         - egress-weight
            - access number
```


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configure port hybrid-buffer-allocation egress-weight network

```
            - network number
         - ingress-weight
            - access number
            - network number
      - modify-buffer-allocation
         - percentage-of-rate
            - egress number
            - ingress number
      - monitor-agg-egress-queue-stats boolean
      - monitor-oper-group reference
      - network
         - apply-groups reference
         - apply-groups-exclude reference
         - egress
            - pool named-item
               - amber-alarm-threshold number
               - apply-groups reference
               - apply-groups-exclude reference
               - monitor-pool-depth
                  - admin-state keyword
                  - alarm-thresholds
                     - reserved-pool-in-use decimal-number
                     - shared-pool-in-use decimal-number
                     - total-pool-in-use decimal-number
               - red-alarm-threshold number
               - resv-cbs
                  - amber-alarm-action
                     - max number
                     - step number
                  - cbs (number | keyword)
               - slope-policy reference
      - oper-group reference
      - otu
         - apply-groups reference
         - apply-groups-exclude reference
         - async-mapping boolean
         - fec keyword
         - fine-granularity-ber
            - signal-degrade
               - clear
                  - multiplier number
                  - threshold number
               - raise
                  - multiplier number
                  - threshold number
            - signal-failure
               - clear
                  - multiplier number
                  - threshold number
               - raise
                  - multiplier number
                  - threshold number
         - otu2-lan-data-rate keyword
         - path-monitoring
            - trail-trace-identifier
               - expected
                  - auto-generated
                  - bytes string
                  - string string
               - mismatch-reaction keyword
               - transmit
                  - auto-generated
                  - bytes string
                  - string string
```


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configure port otu payload-structure-identifier

```
        – payload-structure-identifier
          – payload
            – expected keyword
            – mismatch-reaction keyword
            – transmit keyword
        – report-alarm
          – fec-fail boolean
          – fec-sd boolean
          – fec-sf boolean
          – fec-uncorr boolean
          – loc boolean
          – lof boolean
          – lom boolean
          – los boolean
          – odu-ais boolean
          – odu-bdi boolean
          – odu-lck boolean
          – odu-oci boolean
          – odu-tim boolean
          – opu-plm boolean
          – otu-ais boolean
          – otu-bdi boolean
          – otu-ber-sd boolean
          – otu-ber-sf boolean
          – otu-biae boolean
          – otu-iae boolean
          – otu-tim boolean
        – sd-threshold number
        – section-monitoring
          – trail-trace-identifier
            – expected
              – auto-generated
              – bytes string
              – string string
            – mismatch-reaction keyword
            – transmit
              – auto-generated
              – bytes string
              – string string
        – sf-sd-method keyword
        – sf-threshold number
      – sonet-sdh
        – apply-groups reference
        – apply-groups-exclude reference
        – clock-source keyword
        – framing keyword
        – group sdh-group-index
          – apply-groups reference
          – apply-groups-exclude reference
          – payload keyword
        – hold-time
          – down number
          – up number
        – loopback keyword
        – path sonet-path-index
          – admin-state keyword
          – apply-groups reference
          – apply-groups-exclude reference
          – crc number
          – description long-description
          – egress
            – port-scheduler-policy
              – overrides
                – apply-groups reference
```


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configure port sonet-sdh path egress port-scheduler-policy overrides apply-groups-exclude

```
                    - apply-groups-exclude reference
                    - level number
                      - apply-groups reference
                      - apply-groups-exclude reference
                      - percent-rate
                        - cir decimal-number
                        - pir decimal-number
                      - rate
                        - cir (number | keyword)
                        - pir (number | keyword)
                    - max-rate
                      - percent-rate decimal-number
                      - rate (number | keyword)
                  - policy-name reference
          - load-balancing-algorithm keyword
          - mac-address mac-address
          - mode keyword
          - mtu number
          - network
            - accounting-policy reference
            - apply-groups reference
            - apply-groups-exclude reference
            - collect-stats boolean
            - queue-policy reference
          - payload keyword
          - report-alarm
            - pais boolean
            - plcd boolean
            - plop boolean
            - pplm boolean
            - prdi boolean
            - prei boolean
            - puneq boolean
          - scramble boolean
          - signal-label string
          - trace-string (keyword | string)
        - report-alarm
          - lais boolean
          - lb2er-sd boolean
          - lb2er-sf boolean
          - loc boolean
          - lrdi boolean
          - lrei boolean
          - slof boolean
          - slos boolean
          - ss1f boolean
        - sd-threshold number
        - section-trace
          - byte string
          - increment-z0
          - string string
        - sf-threshold number
        - single-fiber boolean
        - speed keyword
        - suppress-low-order-alarms boolean
        - tx-dus boolean
      - tdm
        - apply-groups reference
        - apply-groups-exclude reference
        - buildout keyword
        - ds1 tdm-ds1-index
          - admin-state keyword
          - apply-groups reference
          - apply-groups-exclude reference
```


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configure port tdm ds1 ber-threshold

```
            - ber-threshold
              - signal-degrade number
              - signal-failure number
            - channel-group number
              - admin-state keyword
              - apply-groups reference
              - apply-groups-exclude reference
              - description long-description
              - egress
                - port-scheduler-policy
                  - overrides
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - level number
                      - apply-groups reference
                      - apply-groups-exclude reference
                      - percent-rate
                        - cir decimal-number
                        - pir decimal-number
                      - rate
                        - cir (number | keyword)
                        - pir (number | keyword)
                    - max-rate
                      - percent-rate decimal-number
                      - rate (number | keyword)
                  - policy-name reference
              - encap-type keyword
              - idle-payload-fill
                - all-ones
                - pattern number
              - idle-signal-fill
                - all-ones
                - pattern number
              - load-balancing-algorithm keyword
              - mac-address mac-address
              - mode keyword
              - mtu number
              - network
                - accounting-policy reference
                - apply-groups reference
                - apply-groups-exclude reference
                - collect-stats boolean
                - queue-policy reference
              - speed number
              - timeslot number
            - clock-source keyword
            - framing keyword
            - loopback keyword
            - remote-loop-respond boolean
            - report-alarm
              - ais boolean
              - ber-sd boolean
              - ber-sf boolean
              - looped boolean
              - los boolean
              - oof boolean
              - rai boolean
            - signal-mode keyword
          - ds3 tdm-ds3-index
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - channelized keyword
            - clock-source keyword
```


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```
            - crc number
            - description long-description
            - egress
              - port-scheduler-policy
                - overrides
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - level number
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - percent-rate
                      - cir decimal-number
                      - pir decimal-number
                    - rate
                      - cir (number | keyword)
                      - pir (number | keyword)
                  - max-rate
                    - percent-rate decimal-number
                    - rate (number | keyword)
                - policy-name reference
            - encap-type keyword
            - feac-loop-respond boolean
            - framing keyword
            - idle-cycle-flag keyword
            - load-balancing-algorithm keyword
            - loopback keyword
            - mac-address mac-address
            - maintenance-data-link
              - equipment-id-code string
              - facility-id-code string
              - frame-id-code string
              - generator-string string
              - location-id-code string
              - port-string string
              - transmit-message-type
                - idle-signal boolean
                - path boolean
                - test-signal boolean
              - unit-id-code string
            - mode keyword
            - mtu number
            - network
              - accounting-policy reference
              - apply-groups reference
              - apply-groups-exclude reference
              - collect-stats boolean
              - queue-policy reference
            - report-alarm
              - ais boolean
              - looped boolean
              - los boolean
              - oof boolean
              - rai boolean
            - scramble boolean
            - subrate
              - csu-mode keyword
              - rate-step number
          - e1 tdm-e1-index
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - ber-threshold
              - signal-degrade number
              - signal-failure number
```


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```
            – channel-group number
              – admin-state keyword
              – apply-groups reference
              – apply-groups-exclude reference
              – description long-description
              – egress
                – port-scheduler-policy
                  – overrides
                    – apply-groups reference
                    – apply-groups-exclude reference
                    – level number
                      – apply-groups reference
                      – apply-groups-exclude reference
                      – percent-rate
                        – cir decimal-number
                        – pir decimal-number
                      – rate
                        – cir (number | keyword)
                        – pir (number | keyword)
                    – max-rate
                      – percent-rate decimal-number
                      – rate (number | keyword)
                  – policy-name reference
              – encap-type keyword
              – idle-payload-fill
                – all-ones
                – pattern number
              – idle-signal-fill
                – all-ones
                – pattern number
              – load-balancing-algorithm keyword
              – mac-address mac-address
              – mode keyword
              – mtu number
              – network
                – accounting-policy reference
                – apply-groups reference
                – apply-groups-exclude reference
                – collect-stats boolean
                – queue-policy reference
              – speed number
              – timeslot number
            – clock-source keyword
            – framing keyword
            – loopback keyword
            – national-bits
              – sa4 boolean
              – sa5 boolean
              – sa6 boolean
              – sa7 boolean
              – sa8 boolean
            – report-alarm
              – ais boolean
              – ber-sd boolean
              – ber-sf boolean
              – looped boolean
              – los boolean
              – oof boolean
              – rai boolean
            – signal-mode keyword
          – e3 tdm-e3-index
            – admin-state keyword
            – apply-groups reference
            – apply-groups-exclude reference
```


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```
            - clock-source keyword
            - crc number
            - description long-description
            - egress
               - port-scheduler-policy
                  - overrides
                     - apply-groups reference
                     - apply-groups-exclude reference
                     - level number
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - percent-rate
                           - cir decimal-number
                           - pir decimal-number
                        - rate
                           - cir (number | keyword)
                           - pir (number | keyword)
                     - max-rate
                        - percent-rate decimal-number
                        - rate (number | keyword)
                  - policy-name reference
            - encap-type keyword
            - framing keyword
            - idle-cycle-flag keyword
            - load-balancing-algorithm keyword
            - loopback keyword
            - mac-address mac-address
            - mode keyword
            - mtu number
            - network
               - accounting-policy reference
               - apply-groups reference
               - apply-groups-exclude reference
               - collect-stats boolean
               - queue-policy reference
            - report-alarm
               - ais boolean
               - looped boolean
               - los boolean
               - oof boolean
               - rai boolean
            - scramble boolean
         - hold-time
            - down number
            - up number
      - transceiver
         - apply-groups reference
         - apply-groups-exclude reference
         - digital-coherent-optics boolean
         - optical-line-system
            - egress-amplifier-gain decimal-number
```


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## 4.32.1 port command descriptions

### port [port-id] *port*

| | |
|---|---|
| Synopsis | Enter the **port** list instance |
| Context | **configure** port *port* |
| Tree | port |
| Introduced | 16.0.R1 |
| Platforms | All |

### [port-id] *port*

| | |
|---|---|
| Synopsis | Port ID |
| Context | **configure** port *port* |
| Tree | port |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### access

| | |
|---|---|
| Synopsis | Enter the **access** context |
| Context | **configure** port *port* access |
| Tree | access |
| Description | Commands in this context configure egress and ingress pool policy commands. |
| Introduced | 16.0.R1 |
| Platforms | All |

### egress

| | |
|---|---|
| Synopsis | Enter the **egress** context |
| Context | **configure** port *port* access egress |
| Tree | egress |


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| | |
|---|---|
| Description | Commands in this context specify the configuration of access egress buffer pools to determine how a CBS-reserved space is handled and the strategy for utilizing the shared buffer space. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **pool** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **pool** list instance |
| Context | **configure** port *port* access egress pool *named-item* |
| Tree | pool |
| Description | Commands in this context configure pool policies for the pool instance. |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | Pool name for the access port |
| Context | **configure** port *port* access egress pool *named-item* |
| Tree | pool |
| String length | 1 to 32 |
| MD-CLI default | default |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **amber-alarm-threshold** *number*

| | |
|---|---|
| Synopsis | Threshold for the amber alarm on oversubscription |
| Context | **configure** port *port* access egress pool *named-item* amber-alarm-threshold *number* |
| Tree | amber-alarm-threshold |
| Range | 1 to 1000 |
| Units | percent |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## monitor-pool-depth

| | |
|---|---|
| Synopsis | Enter the **monitor-pool-depth** context |
| Context | **configure** port *port* access egress pool *named-item* monitor-pool-depth |
| Tree | monitor-pool-depth |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of pool-depth monitoring |
| Context | **configure** port *port* access egress pool *named-item* monitor-pool-depth admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## alarm-thresholds

| | |
|---|---|
| Synopsis | Enter the **alarm-thresholds** context |
| Context | **configure** port *port* access egress pool *named-item* monitor-pool-depth alarm-thresholds |
| Tree | alarm-thresholds |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## reserved-pool-in-use *decimal-number*

| | |
|---|---|
| Synopsis | Alarm threshold for reserved buffer pool usage |
| Context | **configure** port *port* access egress pool *named-item* monitor-pool-depth alarm-thresholds reserved-pool-in-use *decimal-number* |
| Tree | reserved-pool-in-use |


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| | |
|---|---|
| Description | This command configures the reserved pool in-use threshold. A tmnxResvPoolUse ThreshExcd trap is generated when the reserved pool usage exceeds this threshold percentage. When the usage returns below the threshold percentage, the tmnxResvPool UseThreshNotExcd trap is generated. |
| Range | 0.00 to 100.00 |
| Units | centipercent |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **shared-pool-in-use** *decimal-number*

| | |
|---|---|
| Synopsis | Alarm threshold for shared of buffer pool usage |
| Context | **configure** port *port* access egress pool *named-item* monitor-pool-depth alarm-thresholds shared-pool-in-use *decimal-number* |
| Tree | shared-pool-in-use |
| Description | This command configures the shared pool in-use threshold. A tmnxSharedPoolUse ThreshExcd trap is generated when the shared pool usage exceeds this threshold percentage. When the usage returns below the threshold percentage, the tmnxShared PoolUseThreshNotExcd trap is generated. |
| Range | 0.00 to 100.00 |
| Units | centipercent |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **total-pool-in-use** *decimal-number*

| | |
|---|---|
| Synopsis | Alarm threshold for usage of total buffer pool |
| Context | **configure** port *port* access egress pool *named-item* monitor-pool-depth alarm-thresholds total-pool-in-use *decimal-number* |
| Tree | total-pool-in-use |
| Description | This command configures the total pool in-use threshold. A tmnxTotalPoolUseThresh Excd trap is generated when the total pool usage exceeds this threshold percentage. When the usage returns below the threshold percentage, the tmnxTotalPoolUseThresh NotExcd trap is generated. |
| Range | 0.00 to 100.00 |
| Units | centipercent |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **red-alarm-threshold** *number*

| | |
|---|---|
| Synopsis | Threshold for the red alarm on oversubscription |
| Context | **configure** port *port* access egress pool *named-item* red-alarm-threshold *number* |
| Tree | red-alarm-threshold |
| Range | 1 to 1000 |
| Units | percent |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **resv-cbs**

| | |
|---|---|
| Synopsis | Enter the **resv-cbs** context |
| Context | **configure** port *port* access egress pool *named-item* resv-cbs |
| Tree | resv-cbs |
| Introduced | 16.0.R1 |
| Platforms | All |

### **amber-alarm-action**

| | |
|---|---|
| Synopsis | Enter the **amber-alarm-action** context |
| Context | **configure** port *port* access egress pool *named-item* resv-cbs amber-alarm-action |
| Tree | amber-alarm-action |
| Introduced | 16.0.R1 |
| Platforms | All |

### **max** *number*

| | |
|---|---|
| Synopsis | Maximum percentage for reserved CBS of the pool |
| Context | **configure** port *port* access egress pool *named-item* resv-cbs amber-alarm-action max *number* |
| Tree | max |
| Description | This command specifies the maximum percentage for the reserved CBS of the pool. The maximum reserved CBS must not be less than the value of the reserved CBS.<br><br>To enable adaptive CBS sizing the **max**, **step**, and **cbs** commands must be configured. The **cbs** command must also be configured to a percentage other than the default value. |


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When unconfigured, CBS adaptive sizing is not enabled.

| | |
|---|---|
| Range | 1 to 100 |
| Units | percent |
| Introduced | 16.0.R1 |
| Platforms | All |

### **step** *number*

| | |
|---|---|
| Synopsis | Step-size percentage for reserved CBS of the pool |
| Context | **configure** port *port* access egress pool *named-item* resv-cbs amber-alarm-action step *number* |
| Tree | step |
| Description | This command specifies the step-size percentage for the reserved CBS of the pool.<br>To enable adaptive CBS sizing the **max**, **step**, and **cbs** commands must be configured. The **cbs** command must also be configured to a percentage other than the default value.<br>When unconfigured, CBS adaptive sizing is not enabled. |
| Range | 1 to 100 |
| Units | percent |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | Percentage of the pool buffer space reserved for CBS |
| Context | **configure** port *port* access egress pool *named-item* resv-cbs cbs *(number | keyword)* |
| Tree | cbs |
| Range | 0 to 100 |
| Units | percent |
| Options | auto |
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **slope-policy** *reference*

| | |
|---|---|
| Synopsis | Policy for the RED slope and TAF values |
| Context | **configure** port *port* access egress pool *named-item* slope-policy *reference* |
| Tree | slope-policy |
| Reference | **configure** qos slope-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ingress**

| | |
|---|---|
| Synopsis | Enter the **ingress** context |
| Context | **configure** port *port* access ingress |
| Tree | ingress |
| Introduced | 16.0.R1 |
| Platforms | All |

### **pool** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **pool** list instance |
| Context | **configure** port *port* access ingress pool *named-item* |
| Tree | pool |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | Pool name for the access port |
| Context | **configure** port *port* access ingress pool *named-item* |
| Tree | pool |
| String length | 1 to 32 |
| MD-CLI default | default |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **amber-alarm-threshold** *number*

| | |
|---|---|
| Synopsis | Threshold for the amber alarm on oversubscription |
| Context | **configure** port *port* access ingress pool *named-item* amber-alarm-threshold *number* |
| Tree | amber-alarm-threshold |
| Range | 1 to 1000 |
| Units | percent |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **monitor-pool-depth**

| | |
|---|---|
| Synopsis | Enter the **monitor-pool-depth** context |
| Context | **configure** port *port* access ingress pool *named-item* monitor-pool-depth |
| Tree | monitor-pool-depth |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of pool-depth monitoring |
| Context | **configure** port *port* access ingress pool *named-item* monitor-pool-depth admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **alarm-thresholds**

| | |
|---|---|
| Synopsis | Enter the **alarm-thresholds** context |
| Context | **configure** port *port* access ingress pool *named-item* monitor-pool-depth alarm-thresholds |


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| | |
|---|---|
| Tree | alarm-thresholds |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **reserved-pool-in-use** *decimal-number*

| | |
|---|---|
| Synopsis | Alarm threshold for reserved buffer pool usage |
| Context | **configure** port *port* access ingress pool *named-item* monitor-pool-depth alarm-thresholds reserved-pool-in-use *decimal-number* |
| Tree | reserved-pool-in-use |
| Description | This command configures the reserved pool in-use threshold. A tmnxResvPoolUse ThreshExcd trap is generated when the reserved pool usage exceeds this threshold percentage. When the usage returns below the threshold percentage, the tmnxResvPool UseThreshNotExcd trap is generated. |
| Range | 0.00 to 100.00 |
| Units | centipercent |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **shared-pool-in-use** *decimal-number*

| | |
|---|---|
| Synopsis | Alarm threshold for shared of buffer pool usage |
| Context | **configure** port *port* access ingress pool *named-item* monitor-pool-depth alarm-thresholds shared-pool-in-use *decimal-number* |
| Tree | shared-pool-in-use |
| Description | This command configures the shared pool in-use threshold. A tmnxSharedPoolUse ThreshExcd trap is generated when the shared pool usage exceeds this threshold percentage. When the usage returns below the threshold percentage, the tmnxShared PoolUseThreshNotExcd trap is generated. |
| Range | 0.00 to 100.00 |
| Units | centipercent |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **total-pool-in-use** *decimal-number*

| | |
|---|---|
| Synopsis | Alarm threshold for usage of total buffer pool |


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| | |
|---|---|
| Context | **configure** port *port* access ingress pool *named-item* monitor-pool-depth alarm-thresholds total-pool-in-use *decimal-number* |
| Tree | total-pool-in-use |
| Description | This command configures the total pool in-use threshold. A tmnxTotalPoolUseThresh Excd trap is generated when the total pool usage exceeds this threshold percentage. When the usage returns below the threshold percentage, the tmnxTotalPoolUseThresh NotExcd trap is generated. |
| Range | 0.00 to 100.00 |
| Units | centipercent |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **red-alarm-threshold** *number*

| | |
|---|---|
| Synopsis | Threshold for the red alarm on oversubscription |
| Context | **configure** port *port* access ingress pool *named-item* red-alarm-threshold *number* |
| Tree | red-alarm-threshold |
| Range | 1 to 1000 |
| Units | percent |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **resv-cbs**

| | |
|---|---|
| Synopsis | Enter the **resv-cbs** context |
| Context | **configure** port *port* access ingress pool *named-item* resv-cbs |
| Tree | resv-cbs |
| Introduced | 16.0.R1 |
| Platforms | All |

## **amber-alarm-action**

| | |
|---|---|
| Synopsis | Enter the **amber-alarm-action** context |
| Context | **configure** port *port* access ingress pool *named-item* resv-cbs amber-alarm-action |
| Tree | amber-alarm-action |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## **max** *number*

| | |
|---|---|
| Synopsis | Maximum percentage for reserved CBS of the pool |
| Context | **configure** port *port* access ingress pool *named-item* resv-cbs amber-alarm-action max *number* |
| Tree | max |
| Description | This command specifies the maximum percentage for the reserved CBS of the pool. The maximum reserved CBS must not be less than the value of the reserved CBS.<br>To enable adaptive CBS sizing the **max**, **step**, and **cbs** commands must be configured. The **cbs** command must also be configured to a percentage other than the default value.<br>When unconfigured, CBS adaptive sizing is not enabled. |
| Range | 1 to 100 |
| Units | percent |
| Introduced | 16.0.R1 |
| Platforms | All |

## **step** *number*

| | |
|---|---|
| Synopsis | Step-size percentage for reserved CBS of the pool |
| Context | **configure** port *port* access ingress pool *named-item* resv-cbs amber-alarm-action step *number* |
| Tree | step |
| Description | This command specifies the step-size percentage for the reserved CBS of the pool.<br>To enable adaptive CBS sizing the **max**, **step**, and **cbs** commands must be configured. The **cbs** command must also be configured to a percentage other than the default value.<br>When unconfigured, CBS adaptive sizing is not enabled. |
| Range | 1 to 100 |
| Units | percent |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **cbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | Percentage of the pool buffer space reserved for CBS |
| Context | **configure** port *port* access ingress pool *named-item* resv-cbs cbs *(number | keyword)* |
| Tree | cbs |
| Range | 0 to 100 |
| Units | percent |
| Options | auto |
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | All |

### **slope-policy** *reference*

| | |
|---|---|
| Synopsis | Policy for the RED slope and TAF values |
| Context | **configure** port *port* access ingress pool *named-item* slope-policy *reference* |
| Tree | slope-policy |
| Reference | **configure** qos slope-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the port |
| Context | **configure** port *port* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **connector**

| | |
|---|---|
| Synopsis | Enter the **connector** context |
| Context | **configure** port *port* connector |
| Tree | connector |


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| | |
|---|---|
| Description | Commands in this context configure connector ports and modes. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **breakout** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Port breakout of the transceiver used in the connector |
| Context | **configure** port *port* connector breakout *keyword* |
| Tree | breakout |
| Description | This command defines the port breakout of the transceiver used in the connector. Specifying the type triggers the creation of the ports that will be accessible under the connector.<br><br>When a QSFP28 connector uses an SFP+ optical module with the QSFP28-to-SFP+/SFP28 adapter, set this command to **c1-10g**. This value indicates the presence of the adapter.<br><br>For some connectors (for example, QSFPDD), there can be overlap in the breakout for different host interfaces. The same port breakout can be supported on an optical modules that uses a host interface of CAUI-4 as another optical module that uses 100GAUI-2. To distinguish from the CAUI-4 host interface, the "-aui2" suffix is used on some breakout options. This is only necessary where there is overlap. In other situations, SR OS sets the host interface correctly without requiring the distinction in the breakout option. |
| Options | c1-40g, c4-10g, c1-100g, c4-25g, c10-10g, c1-400g, c2-100g, c4-100g, c1-10g, c1-25g, c1-50g, c8-50g, c1-800g, c3-100g, c8-100g, c2-400g, c1-1g, c2-1g, c1-100g-aui2, c2-100g-aui2, c1-400g-aui4, c4-100g-aui1, c8-10g |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **rs-fec-mode** *keyword*

| | |
|---|---|
| Synopsis | RS-FEC mode for the Ethernet connector |
| Context | **configure** port *port* connector rs-fec-mode *keyword* |
| Tree | rs-fec-mode |
| Description | This command specifies the RS-FEC (Reed-Solomon Forward Error Correction) mode on the Ethernet connector. |


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| | |
|---|---|
| | See "Forward Error Correction" in the *7450 ESS, 7750 SR, 7950 XRS, and VSR Interface Configuration Guide* for more information about FEC settings. |
| Options | cl91-514-528, cl91-514-544 |
| Introduced | 16.0.R2 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ddm-events** *boolean*

| | |
|---|---|
| Synopsis | Enable Digital Diagnostic Monitoring (DDM) events |
| Context | **configure** port *port* ddm-events *boolean* |
| Tree | ddm-events |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *very-long-description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** port *port* description *very-long-description* |
| Tree | description |
| String length | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **dist-cpu-protection**

| | |
|---|---|
| Synopsis | Enter the **dist-cpu-protection** context |
| Context | **configure** port *port* dist-cpu-protection |
| Tree | dist-cpu-protection |
| Introduced | 21.5.R1 |
| Platforms | All |

### **policy** *reference*

| | |
|---|---|
| Synopsis | Distributed CPU protection policy name |
| Context | **configure** port *port* dist-cpu-protection policy *reference* |


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| | |
|---|---|
| Tree | policy |
| Reference | **configure** system security dist-cpu-protection policy *named-item* |
| Introduced | 21.5.R1 |
| Platforms | All |

## dwdm

| | |
|---|---|
| Synopsis | Enter the **dwdm** context |
| Context | **configure** port *port* dwdm |
| Tree | dwdm |
| Description | Commands in this context configure the Dense Wavelength Division Multiplexing (DWDM) parameters for the port. |
| Introduced | 16.0.R1 |
| Platforms | All |

## coherent

| | |
|---|---|
| Synopsis | Enter the **coherent** context |
| Context | **configure** port *port* dwdm coherent |
| Tree | coherent |
| Description | Commands in this context configure the coherent optical module. |
| Introduced | 16.0.R1 |
| Platforms | All |

## compatibility *keyword*

| | |
|---|---|
| Synopsis | Optical mode and rate of operation |
| Context | **configure** port *port* dwdm coherent compatibility *keyword* |
| Tree | compatibility |
| Options | long-haul, metro, access, interop, interop2, interop3, long-haul-non-differential, oif-400g-zr, open-zrp-ofec1, open-zrp-ofec2 |
| Default | long-haul |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **cpr-window-size** *number*

| | |
|---|---|
| Synopsis | Window size for the carrier phase recovery |
| Context | **configure** port *port* dwdm coherent cpr-window-size *number* |
| Tree | cpr-window-size |
| Description | This command configures the window size for the carrier phase recovery.<br>When this command is changed, the link bounces because the receiver needs to be reconfigured. |
| Range | 2 \| 4 \| 8 \| 16 \| 32 \| 64 |
| Units | symbols |
| Default | 32 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **dispersion** *number*

| | |
|---|---|
| Synopsis | Residual chromatic dispersion compensation |
| Context | **configure** port *port* dwdm coherent dispersion *number* |
| Tree | dispersion |
| Description | This command specifies the residual chromatic dispersion compensation when the coherent receiver is operating in manual dispersion control mode. |
| Range | -50000 to 50000 |
| Units | picoseconds per nanometer |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mode** *keyword*

| | |
|---|---|
| Synopsis | Mode used to compensate for chromatic dispersion |
| Context | **configure** port *port* dwdm coherent mode *keyword* |
| Tree | mode |
| Options | automatic, manual |
| Default | automatic |
| Introduced | 16.0.R1 |
| Platforms | All |


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## report-alarm

| | |
|---|---|
| Synopsis | Enter the **report-alarm** context |
| Context | **configure** port *port* dwdm coherent report-alarm |
| Tree | report-alarm |
| Description | Commands in this context configure the alarms reported for the coherent module. |
| Introduced | 16.0.R1 |
| Platforms | All |

## hosttx *boolean*

| | |
|---|---|
| Synopsis | Report the host (electrical side) transmit alarm |
| Context | **configure** port *port* dwdm coherent report-alarm hosttx *boolean* |
| Tree | hosttx |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

## mod *boolean*

| | |
|---|---|
| Synopsis | Report the module alarm |
| Context | **configure** port *port* dwdm coherent report-alarm mod *boolean* |
| Tree | mod |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

## modflt *boolean*

| | |
|---|---|
| Synopsis | Report the module fault alarm |
| Context | **configure** port *port* dwdm coherent report-alarm modflt *boolean* |
| Tree | modflt |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **netrx** *boolean*

| | |
|---|---|
| Synopsis | Report the network (optical side) receive alarm |
| Context | **configure** port *port* dwdm coherent report-alarm netrx *boolean* |
| Tree | netrx |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **nettx** *boolean*

| | |
|---|---|
| Synopsis | Report the network (optical side) transmit alarm |
| Context | **configure** port *port* dwdm coherent report-alarm nettx *boolean* |
| Tree | nettx |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rx-los-reaction** *keyword*

| | |
|---|---|
| Synopsis | Reaction to an RX LOS |
| Context | **configure** port *port* dwdm coherent rx-los-reaction *keyword* |
| Tree | rx-los-reaction |
| Description | This command configures the reaction to an RX LOS.<br>**Note:** If this command is disabled for some coherent DWDM transceivers, the transceiver only reports local fault alarms when an RX LOS condition occurs; however, the port returns to service faster after the LOS condition is cleared. For these transceivers, if this command is enabled, there is better visibility of individual alarms (for example, signal-fail, local fault, no-am-lock), but the port takes longer to service after the LOS condition is cleared. |
| Options | none, squelch |
| Default | squelch |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **rx-los-thresh** *decimal-number*

| | |
|---|---|
| Synopsis | Average input power LOS threshold |
| Context | **configure** port *port* dwdm coherent rx-los-thresh *decimal-number* |
| Tree | rx-los-thresh |
| Range | -30 to -13 |
| Units | decibel-milliwatts |
| Default | -23 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sweep**

| | |
|---|---|
| Synopsis | Enter the **sweep** context |
| Context | **configure** port *port* dwdm coherent sweep |
| Tree | sweep |
| Description | Commands in this context allow users to configure the dispersion sweep **start** and **end** values for the automatic mode of coherent control. If the user knows the approximate or theoretical residual dispersion of the link, these commands can be used to limit the range of sweeping for the automatic control mode and therefore achieve a faster link up. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the dispersion compensation range |
| Context | **configure** port *port* dwdm coherent sweep end *number* |
| Tree | end |
| Range | -50000 to 50000 |
| Units | picoseconds per nanometer |
| Default | 2000 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of the dispersion compensation range |
| Context | **configure** port *port* dwdm coherent sweep start *number* |
| Tree | start |
| Range | -50000 to 50000 |
| Units | picoseconds per nanometer |
| Default | -25500 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **target-power** *decimal-number*

| | |
|---|---|
| Synopsis | Average output power target for the port |
| Context | **configure** port *port* dwdm coherent target-power *decimal-number* |
| Tree | target-power |
| Range | -20 to 3 |
| Units | decibel-milliwatts |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **frequency** *number*

| | |
|---|---|
| Synopsis | Center frequency for tunable DWDM optical interface |
| Context | **configure** port *port* dwdm frequency *number* |
| Tree | frequency |
| Description | This command configures the center frequency to use for a tunable DWDM optical interface. This command can be used to specify any frequency in the C band.<br>To set the DWDM frequency, the port must be a physical port and the provisioned MDA type must have DWDM tunable optics (for example, p1-100g-tun-b), or the MDA must support the option of tunable DWDM optic modules.<br>This command replaces the **configure port dwdm channel** command. |
| Range | 191100000 to 196150000 |
| Units | megahertz |
| Introduced | 21.10.R3 |


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| | |
|---|---|
| Platforms | All |

## ethernet

| | |
|---|---|
| Synopsis | Enter the **ethernet** context |
| Context | **configure** port *port* ethernet |
| Tree | ethernet |
| Description | Commands in this context configure Ethernet port attributes.<br>This context can only be used when configuring Fast Ethernet, Gigabit, or 10-Gb Ethernet LAN ports on an appropriate MDA. |
| Introduced | 16.0.R1 |
| Platforms | All |

## access

| | |
|---|---|
| Synopsis | Enter the **access** context |
| Context | **configure** port *port* ethernet access |
| Tree | access |
| Description | Commands in this context configure Ethernet access port commands. |
| Introduced | 16.0.R1 |
| Platforms | All |

## bandwidth *number*

| | |
|---|---|
| Synopsis | Administrative bandwidth assigned to Ethernet ports |
| Context | **configure** port *port* ethernet access bandwidth *number* |
| Tree | bandwidth |
| Range | 1 to 6400000000 |
| Units | kilobps |
| Introduced | 16.0.R1 |
| Platforms | All |

## booking-factor *number*

| | |
|---|---|
| Synopsis | Booking factor applied to the Ethernet port |


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| | |
|---|---|
| Context | **configure** port *port* ethernet access booking-factor *number* |
| Tree | booking-factor |
| Range | 1 to 1000 |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

## egress

| | |
|---|---|
| Synopsis | Enter the **egress** context |
| Context | **configure** port *port* ethernet access egress |
| Tree | egress |
| Description | Commands in this context configure Ethernet access egress port commands. |
| Introduced | 16.0.R1 |
| Platforms | All |

## queue-group [queue-group-name] *reference* instance-id *number*

| | |
|---|---|
| Synopsis | Enter the **queue-group** list instance |
| Context | **configure** port *port* ethernet access egress queue-group *reference* instance-id *number* |
| Tree | queue-group |
| Introduced | 16.0.R1 |
| Platforms | All |

## [queue-group-name] *reference*

| | |
|---|---|
| Synopsis | Queue group name |
| Context | **configure** port *port* ethernet access egress queue-group *reference* instance-id *number* |
| Tree | queue-group |
| Reference | **configure** qos queue-group-templates egress queue-group *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **instance-id** *number*

| | |
|---|---|
| Synopsis | Instance ID for the egress queue group |
| Context | **configure** port *port* ethernet access egress queue-group *reference* instance-id *number* |
| Tree | queue-group |
| Range | 1 to 65535 |
| MD-CLI default | 1 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **accounting-policy** *reference*

| | |
|---|---|
| Synopsis | Accounting policy for the Ethernet port |
| Context | **configure** port *port* ethernet access egress queue-group *reference* instance-id *number* accounting-policy *reference* |
| Tree | accounting-policy |
| Reference | **configure** log accounting-policy *number* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **aggregate-rate**

| | |
|---|---|
| Synopsis | Enter the **aggregate-rate** context |
| Context | **configure** port *port* ethernet access egress queue-group *reference* instance-id *number* aggregate-rate |
| Tree | aggregate-rate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **adaptation-rule** *keyword*

| | |
|---|---|
| Synopsis | Adaptation rule when an aggregate shaper is used |
| Context | **configure** port *port* ethernet access egress queue-group *reference* instance-id *number* aggregate-rate adaptation-rule *keyword* |


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| | |
|---|---|
| Tree | adaptation-rule |
| Description | This command configures the adaptation rule for the PIR value of the queue-group aggregate rate. This rule determines which configured value is adapted to **oper-agg-rate** based on hardware capabilities. |
| Options | max, min, closest |
| Default | closest |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### **burst-limit** *(number | keyword)*

| | |
|---|---|
| Synopsis | Burst limit of the queue group aggregate rate |
| Context | **configure** port *port* ethernet access egress queue-group *reference* instance-id *number* aggregate-rate burst-limit *(number \| keyword)* |
| Tree | burst-limit |
| Description | This command defines an explicit shaping burst size for a queue. The configured size defines the shaping leaky bucket threshold level that indicates the maximum burst over the queue shaping rate.<br>This command is supported under the SAP ingress and SAP egress QoS policy queues. The command is also supported under the ingress and egress queue-group-templates queues. |
| Range | 1 to 14000000 |
| Units | bytes |
| Options | auto |
| Default | auto |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### **limit-unused-bandwidth** *boolean*

| | |
|---|---|
| Synopsis | Control unused bandwidth |
| Context | **configure** port *port* ethernet access egress queue-group *reference* instance-id *number* aggregate-rate limit-unused-bandwidth *boolean* |
| Tree | limit-unused-bandwidth |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **queue-frame-based-accounting** *boolean*

| | |
|---|---|
| Synopsis | Enable frame-based accounting on policers and queues |
| Context | **configure** port *port* ethernet access egress queue-group *reference* instance-id *number* aggregate-rate queue-frame-based-accounting *boolean* |
| Tree | queue-frame-based-accounting |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rate** *(number | keyword)*

| | |
|---|---|
| Synopsis | Aggregate rate for all queues |
| Context | **configure** port *port* ethernet access egress queue-group *reference* instance-id *number* aggregate-rate rate *(number | keyword)* |
| Tree | rate |
| Range | 1 to 3200000000 |
| Units | kilobps |
| Options | max |
| Default | max |
| Introduced | 16.0.R1 |
| Platforms | All |

### **collect-stats** *boolean*

| | |
|---|---|
| Synopsis | Collect accounting and statistical data |
| Context | **configure** port *port* ethernet access egress queue-group *reference* instance-id *number* collect-stats *boolean* |
| Tree | collect-stats |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |


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| | |
|---|---|
| Context | **configure** port *port* ethernet access egress queue-group *reference* instance-id *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

## host-match

| | |
|---|---|
| Synopsis | Enter the **host-match** context |
| Context | **configure** port *port* ethernet access egress queue-group *reference* instance-id *number* host-match |
| Tree | host-match |
| Introduced | 16.0.R1 |
| Platforms | All |

## int-dest-id [destination-string] *int-dest-id*

| | |
|---|---|
| Synopsis | Add a list entry for **int-dest-id** |
| Context | **configure** port *port* ethernet access egress queue-group *reference* instance-id *number* host-match int-dest-id *int-dest-id* |
| Tree | int-dest-id |
| Introduced | 16.0.R1 |
| Platforms | All |

## [destination-string] *int-dest-id*

| | |
|---|---|
| Synopsis | Host match destination ID |
| Context | **configure** port *port* ethernet access egress queue-group *reference* instance-id *number* host-match int-dest-id *int-dest-id* |
| Tree | int-dest-id |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **hs-turbo** *boolean*

| | |
|---|---|
| Synopsis | Enable HS turbo queues for higher throughput |
| Context | **configure** port *port* ethernet access egress queue-group *reference* instance-id *number* hs-turbo *boolean* |
| Tree | hs-turbo |
| Description | When configured to **true**, this command enables HS turbo queues that allow the corresponding HSQ queue group queues to achieve a higher throughput.<br>This command is not applicable to 10G ports and is ignored when it is configured under a queue group instance on a 10G port.<br>When configured to **false**, HS turbo queues are disabled. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **queue-overrides**

| | |
|---|---|
| Synopsis | Enter the **queue-overrides** context |
| Context | **configure** port *port* ethernet access egress queue-group *reference* instance-id *number* queue-overrides |
| Tree | queue-overrides |
| Introduced | 16.0.R1 |
| Platforms | All |

### **queue** [queue-id] *reference*

| | |
|---|---|
| Synopsis | Enter the **queue** list instance |
| Context | **configure** port *port* ethernet access egress queue-group *reference* instance-id *number* queue-overrides queue *reference* |
| Tree | queue |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**queue-id**] *reference*

| | |
|---|---|
| Synopsis | Queue ID |


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| | |
|---|---|
| Context | **configure** port *port* ethernet access egress queue-group *reference* instance-id *number* queue-overrides queue *reference* |
| Tree | queue |
| Reference | **configure** qos queue-group-templates egress queue-group *named-item* queue *number* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## adaptation-rule

| | |
|---|---|
| Synopsis | Enter the **adaptation-rule** context |
| Context | **configure** port *port* ethernet access egress queue-group *reference* instance-id *number* queue-overrides queue *reference* adaptation-rule |
| Tree | adaptation-rule |
| Introduced | 16.0.R1 |
| Platforms | All |

## **cir** *keyword*

| | |
|---|---|
| Synopsis | Constraint used when deriving the operational CIR value |
| Context | **configure** port *port* ethernet access egress queue-group *reference* instance-id *number* queue-overrides queue *reference* adaptation-rule cir *keyword* |
| Tree | cir |
| Options | max, min, closest |
| Introduced | 16.0.R1 |
| Platforms | All |

## **pir** *keyword*

| | |
|---|---|
| Synopsis | Constraint used when deriving the operational PIR value |
| Context | **configure** port *port* ethernet access egress queue-group *reference* instance-id *number* queue-overrides queue *reference* adaptation-rule pir *keyword* |
| Tree | pir |
| Options | max, min, closest |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **burst-limit** *(number | keyword)*

| | |
|---|---|
| Synopsis | Override for the shaping burst size for the queue |
| Context | **configure** port *port* ethernet access egress queue-group *reference* instance-id *number* queue-overrides queue *reference* burst-limit *(number \| keyword)* |
| Tree | burst-limit |
| Range | 1 to 14000000 |
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | CBS for the template queue |
| Context | **configure** port *port* ethernet access egress queue-group *reference* instance-id *number* queue-overrides queue *reference* cbs *(number \| keyword)* |
| Tree | cbs |
| Range | 0 to 1048576 |
| Units | kilobytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | All |

### **drop-tail**

| | |
|---|---|
| Synopsis | Enter the **drop-tail** context |
| Context | **configure** port *port* ethernet access egress queue-group *reference* instance-id *number* queue-overrides queue *reference* drop-tail |
| Tree | drop-tail |
| Description | Commands in this context configure queue drop tail commands. |
| Introduced | 16.0.R1 |
| Platforms | All |


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## low

| | |
|---|---|
| Synopsis | Enter the **low** context |
| Context | **configure** port *port* ethernet access egress queue-group *reference* instance-id *number* queue-overrides queue *reference* drop-tail low |
| Tree | low |
| Description | Commands in this context configure the queue low drop tail commands. The low drop tail defines the queue depth beyond which the out-of-profile packets are not accepted into the queue and discarded. |
| Introduced | 16.0.R1 |
| Platforms | All |

## percent-reduction-from-mbs *(number | keyword)*

| | |
|---|---|
| Synopsis | Percentage reduction from the MBS for a queue drop tail |
| Context | **configure** port *port* ethernet access egress queue-group *reference* instance-id *number* queue-overrides queue *reference* drop-tail low percent-reduction-from-mbs *(number \| keyword)* |
| Tree | percent-reduction-from-mbs |
| Description | This command overrides the low queue drop tail as a percentage reduction from the MBS of the queue. For example, if a queue has an MBS of 600 kbytes and this percentage is configured to be 30% for the low drop tail, the low drop tail is set to 420 kbytes and the out-of-profile packets are not accepted into the queue if its depth is greater than this value, and is therefore discarded. |
| Range | 0 to 100 |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | All |

## mbs *(number | keyword)*

| | |
|---|---|
| Synopsis | MBS for the template queue |
| Context | **configure** port *port* ethernet access egress queue-group *reference* instance-id *number* queue-overrides queue *reference* mbs *(number \| keyword)* |
| Tree | mbs |
| Range | 0 to 1073741824 |
| Units | bytes |
| Options | auto |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## monitor-queue-depth

| | |
|---|---|
| Synopsis | Enable the **monitor-queue-depth** context |
| Context | **configure** port *port* ethernet access egress queue-group *reference* instance-id *number* queue-overrides queue *reference* monitor-queue-depth |
| Tree | monitor-queue-depth |
| Description | Commands in this context configure queue depth monitoring for the specified queue. |
| Introduced | 20.10.R1 |
| Platforms | All |

## fast-polling *boolean*

| | |
|---|---|
| Synopsis | Enable fast polling of the queue depth |
| Context | **configure** port *port* ethernet access egress queue-group *reference* instance-id *number* queue-overrides queue *reference* monitor-queue-depth fast-polling *boolean* |
| Tree | fast-polling |
| Description | When configured to **true**, this command enables fast polling of the queue depth. Faster polling allows a more accurate view of the actual depth.<br>When configured to **false**, fast queue polling is not enabled. |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | All |

## violation-threshold *decimal-number*

| | |
|---|---|
| Synopsis | Threshold for queue depth before violation is raised |
| Context | **configure** port *port* ethernet access egress queue-group *reference* instance-id *number* queue-overrides queue *reference* monitor-queue-depth violation-threshold *decimal-number* |
| Tree | violation-threshold |
| Description | This command specifies threshold for the queue MBS. When the queue depth exceeds the threshold value, a violation is registered. |
| Range | 0.01 to 99.99 |
| Introduced | 20.10.R1 |


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| | |
|---|---|
| Platforms | All |

## parent

| | |
|---|---|
| Synopsis | Enter the **parent** context |
| Context | **configure** port *port* ethernet access egress queue-group *reference* instance-id *number* queue-overrides queue *reference* parent |
| Tree | parent |
| Description | Commands in this context define the weight of the queue treatment by the parent scheduler that further governs the available bandwidth given to the queue, aside from the queue PIR setting.<br>When multiple schedulers or queues share a child status with the parent scheduler, the weight or level commands define how the queue contends with the other children for the parent bandwidth. |
| Introduced | 16.0.R1 |
| Platforms | All |

## cir-weight *number*

| | |
|---|---|
| Synopsis | CIR that overrides the parent for the queue group |
| Context | **configure** port *port* ethernet access egress queue-group *reference* instance-id *number* queue-overrides queue *reference* parent cir-weight *number* |
| Tree | cir-weight |
| Range | 0 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

## weight *number*

| | |
|---|---|
| Synopsis | PIR that overrides the parent for the queue group |
| Context | **configure** port *port* ethernet access egress queue-group *reference* instance-id *number* queue-overrides queue *reference* parent weight *number* |
| Tree | weight |
| Range | 0 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |


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## percent-rate

| | |
|---|---|
| Synopsis | Enter the **percent-rate** context |
| Context | **configure** port *port* ethernet access egress queue-group *reference* instance-id *number* queue-overrides queue *reference* percent-rate |
| Tree | percent-rate |
| Description | Commands in this context specify percent rates.<br>These commands are ignored for egress HSQ queue group queues, which are attached to an HS WRR group within an associated HS attachment policy. In this case, the configuration of the percent rate is performed under the **hs-wrr-group** command within the egress queue group template. |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **cir** *decimal-number*

| | |
|---|---|
| Synopsis | CIR for the queue |
| Context | **configure** port *port* ethernet access egress queue-group *reference* instance-id *number* queue-overrides queue *reference* percent-rate cir *decimal-number* |
| Tree | cir |
| Range | 0.00 to 100.00 |
| Units | percent |
| Introduced | 16.0.R1 |
| Platforms | All |

## **pir** *decimal-number*

| | |
|---|---|
| Synopsis | PIR for the queue |
| Context | **configure** port *port* ethernet access egress queue-group *reference* instance-id *number* queue-overrides queue *reference* percent-rate pir *decimal-number* |
| Tree | pir |
| Range | 0.01 to 100.00 |
| Units | percent |
| Introduced | 16.0.R1 |
| Platforms | All |


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## rate

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** port *port* ethernet access egress queue-group *reference* instance-id *number* queue-overrides queue *reference* rate |
| Tree | rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## cir *(number | keyword)*

| | |
|---|---|
| Synopsis | CIR for the queue |
| Context | **configure** port *port* ethernet access egress queue-group *reference* instance-id *number* queue-overrides queue *reference* rate cir *(number | keyword)* |
| Tree | cir |
| Description | This command specifies the administrative CIR used by the queue. When the **rate** command is executed, a CIR setting is optional. Fractional values are not allowed and must be given as a positive integer.<br><br>The CIR defines the rate at which the system prioritizes the queue over other queues competing for the same bandwidth. In-profile then out-of-profile packets are preferentially queued by the system at egress and at subsequent next hop nodes where the packet can traverse. To be properly handled throughout the network, the packets must be marked accordingly for profiling at each hop.<br><br>The CIR can be used by the queue's parent **cir-level** and **cir-weight** commands to define the amount of bandwidth considered to be committed for the child queue during bandwidth allocation by the parent scheduler. |
| Range | 0 to 2000000000 |
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | All |

## pir *(number | keyword)*

| | |
|---|---|
| Synopsis | PIR for the queue |
| Context | **configure** port *port* ethernet access egress queue-group *reference* instance-id *number* queue-overrides queue *reference* rate pir *(number | keyword)* |


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| | |
|---|---|
| Tree | pir |
| Description | This command specifies the administrative PIR used by the queue. When the **rate** command is executed, a valid PIR setting must be explicitly defined. Fractional values are not allowed and must be given as a positive integer. The actual PIR rate is dependent on the queue's **adaptation-rule** commands and the actual hardware where the queue is provisioned.<br>The PIR defines the maximum rate that the queue can transmit packets out an egress interface (for SAP egress queues). Defining a PIR does not necessarily guarantee that the queue can transmit at the intended rate. The actual rate sustained by the queue can be limited by oversubscription factors or available egress bandwidth. |
| Range | 1 to 2000000000 |
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | All |

## scheduler-policy

| | |
|---|---|
| Synopsis | Enter the **scheduler-policy** context |
| Context | **configure** port *port* ethernet access egress queue-group *reference* instance-id *number* scheduler-policy |
| Tree | scheduler-policy |
| Description | Commands in this context configure a scheduler policy for the egress queue group. |
| Introduced | 16.0.R1 |
| Platforms | All |

## overrides

| | |
|---|---|
| Synopsis | Enter the **overrides** context |
| Context | **configure** port *port* ethernet access egress queue-group *reference* instance-id *number* scheduler-policy overrides |
| Tree | overrides |
| Introduced | 16.0.R1 |
| Platforms | All |

## scheduler [scheduler-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **scheduler** list instance |


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| | |
|---|---|
| Context | **configure** port *port* ethernet access egress queue-group *reference* instance-id *number* scheduler-policy overrides scheduler *named-item* |
| Tree | scheduler |
| Description | Commands in this context are used to override specific attributes of the specified scheduler name. A scheduler defines bandwidth controls that limit each child (other schedulers and queues) associated with the scheduler. Scheduler objects are created within the hierarchical tiers of the policy. It is assumed that each scheduler created has queues or other schedulers defined as child associations. The scheduler can be a child which takes bandwidth from a scheduler in a higher tier.<br>A total of 32 schedulers can be created within a single scheduler policy with no restriction on the distribution between the tiers. The scheduler name must exist in the applied scheduler policy. |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**scheduler-name**] *named-item*

| | |
|---|---|
| Synopsis | Scheduler name |
| Context | **configure** port *port* ethernet access egress queue-group *reference* instance-id *number* scheduler-policy overrides scheduler *named-item* |
| Tree | scheduler |
| Description | This command specifies the scheduler name. Valid names consist of any string composed of printable, 7-bit ASCII characters. If the string contains special characters (#, $, spaces, and so on), the entire string must be enclosed within double quotes. |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## parent

| | |
|---|---|
| Synopsis | Enter the **parent** context |
| Context | **configure** port *port* ethernet access egress queue-group *reference* instance-id *number* scheduler-policy overrides scheduler *named-item* parent |
| Tree | parent |
| Description | Commands in this context are used to override the scheduler's parent weight and CIR weight. The weights apply to the associated level or CIR level configured in the applied scheduler policy.<br>The override weights are ignored if the scheduler does not have a parent command configured in the scheduler policy. This allows the parent of the scheduler to be removed |


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from the scheduler policy without having to remove all of the queue group overrides. If the parent scheduler does not exist, causing the configured scheduler to be fostered on an egress port scheduler, then the override weights are ignored.

Introduced 16.0.R1

Platforms All

### **cir-weight** *number*

Synopsis CIR that overrides the parent

Context **configure** port *port* ethernet access egress queue-group *reference* instance-id *number* scheduler-policy overrides scheduler *named-item* parent cir-weight *number*

Tree cir-weight

Range 0 to 100

Introduced 16.0.R1

Platforms All

### **weight** *number*

Synopsis PIR that overrides the parent

Context **configure** port *port* ethernet access egress queue-group *reference* instance-id *number* scheduler-policy overrides scheduler *named-item* parent weight *number*

Tree weight

Range 0 to 100

Introduced 16.0.R1

Platforms All

### **rate**

Synopsis Enter the **rate** context

Context **configure** port *port* ethernet access egress queue-group *reference* instance-id *number* scheduler-policy overrides scheduler *named-item* rate

Tree rate

Description Commands in this context override specific attributes of the specified scheduler rate. The actual operating rate of the scheduler is limited by bandwidth constraints other than its maximum rate. The scheduler's parent scheduler may not have the available bandwidth to meet the scheduler's needs. The bandwidth available to the parent scheduler could be allocated to other child schedulers or the child queues on the parent scheduler may be based on a higher priority. The children of the scheduler may not


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need the maximum rate available to the scheduler due to an insufficient offered load or limits to their own maximum rates.

Introduced 16.0.R1

Platforms All

## **cir** *(number | keyword)*

Synopsis CIR for the scheduler

Context **configure** port *port* ethernet access egress queue-group *reference* instance-id *number* scheduler-policy overrides scheduler *named-item* rate cir *(number | keyword)*

Tree cir

Description This command specifies the CIR. When a parent is associated with the scheduler, this command provides the amount of bandwidth to be considered during the parent scheduler's within-cir distribution phase. When the **rate** command is executed, a valid PIR setting must be explicitly defined before specifying the CIR. If the CIR is set to **max**, the CIR rate is set to infinity.

The **sum** keyword specifies that the CIR be used as the summed CIR values of the children schedulers, policers, or queues.

Range 0 to 6400000000

Units kilobps

Options sum, max

Introduced 16.0.R1

Platforms All

## **pir** *(number | keyword)*

Synopsis PIR for the scheduler

Context **configure** port *port* ethernet access egress queue-group *reference* instance-id *number* scheduler-policy overrides scheduler *named-item* rate pir *(number | keyword)*

Tree pir

Description This command specifies the PIR. When the **rate** command is executed, a valid PIR setting must be explicitly defined. Any other value results in an error without modifying the current PIR rate.

Range 1 to 6400000000

Units kilobps

Options max

Introduced 16.0.R1

Platforms All


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### **policy-name** *reference*

| | |
|---|---|
| Synopsis | Scheduler policy name |
| Context | **configure** port *port* ethernet access egress queue-group *reference* instance-id *number* scheduler-policy policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos scheduler-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **virtual-port** [vport-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **virtual-port** list instance |
| Context | **configure** port *port* ethernet access egress virtual-port *named-item* |
| Tree | virtual-port |
| Introduced | 16.0.R4 |
| Platforms | All |

### [**vport-name**] *named-item*

| | |
|---|---|
| Synopsis | Vport scheduling node name |
| Context | **configure** port *port* ethernet access egress virtual-port *named-item* |
| Tree | virtual-port |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **aggregate-rate**

| | |
|---|---|
| Synopsis | Enter the **aggregate-rate** context |
| Context | **configure** port *port* ethernet access egress virtual-port *named-item* aggregate-rate |
| Tree | aggregate-rate |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **limit-unused-bandwidth** *boolean*

| | |
|---|---|
| Synopsis | Control unused bandwidth |
| Context | **configure** port *port* ethernet access egress virtual-port *named-item* aggregate-rate limit-unused-bandwidth *boolean* |
| Tree | limit-unused-bandwidth |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **rate** *(number | keyword)*

| | |
|---|---|
| Synopsis | Enforced aggregate rate for the queue |
| Context | **configure** port *port* ethernet access egress virtual-port *named-item* aggregate-rate rate *(number | keyword)* |
| Tree | rate |
| Range | 1 to 6400000000 |
| Units | kilobps |
| Options | max |
| Default | max |
| Introduced | 16.0.R4 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** port *port* ethernet access egress virtual-port *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **host-match**

| | |
|---|---|
| Synopsis | Enter the **host-match** context |


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| | |
|---|---|
| Context | **configure** port *port* ethernet access egress virtual-port *named-item* host-match |
| Tree | host-match |
| Introduced | 16.0.R4 |
| Platforms | All |

### **int-dest-id** [destination-string] *int-dest-id*

| | |
|---|---|
| Synopsis | Add a list entry for **int-dest-id** |
| Context | **configure** port *port* ethernet access egress virtual-port *named-item* host-match int-dest-id *int-dest-id* |
| Tree | int-dest-id |
| Introduced | 16.0.R4 |
| Platforms | All |

### [**destination-string**] *int-dest-id*

| | |
|---|---|
| Synopsis | Host match destination ID |
| Context | **configure** port *port* ethernet access egress virtual-port *named-item* host-match int-dest-id *int-dest-id* |
| Tree | int-dest-id |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **hw-agg-shaper-scheduler-policy** *reference*

| | |
|---|---|
| Synopsis | Hardware aggregate shaper scheduler policy to apply |
| Context | **configure** port *port* ethernet access egress virtual-port *named-item* hw-agg-shaper-scheduler-policy *reference* |
| Tree | hw-agg-shaper-scheduler-policy |
| Reference | **configure** qos hw-agg-shaper-scheduler-policy *named-item-64* |
| Introduced | 21.7.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |


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## lag-per-link-hash

| | |
|---|---|
| Synopsis | Enter the **lag-per-link-hash** context |
| Context | **configure** port *port* ethernet access egress virtual-port *named-item* lag-per-link-hash |
| Tree | lag-per-link-hash |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **class** *number*

| | |
|---|---|
| Synopsis | Class used on LAG egress using weighted per-link-hash |
| Context | **configure** port *port* ethernet access egress virtual-port *named-item* lag-per-link-hash class *number* |
| Tree | class |
| Range | 1 to 3 |
| Default | 1 |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **weight** *number*

| | |
|---|---|
| Synopsis | Weight used on LAG egress using weighted per-link-hash |
| Context | **configure** port *port* ethernet access egress virtual-port *named-item* lag-per-link-hash weight *number* |
| Tree | weight |
| Range | 1 to 1024 |
| Default | 1 |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **monitor-hw-agg-shaper-scheduler** *boolean*

| | |
|---|---|
| Synopsis | Enable monitoring hardware aggregate shaper scheduler |
| Context | **configure** port *port* ethernet access egress virtual-port *named-item* monitor-hw-agg-shaper-scheduler *boolean* |
| Tree | monitor-hw-agg-shaper-scheduler |


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| | |
|---|---|
| Description | When configured to **true**, enables congestion monitoring of the hardware aggregate shaper scheduler on the specified vport. |
| Default | false |
| Introduced | 21.7.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

## **monitor-port-scheduler** *boolean*

| | |
|---|---|
| Synopsis | Enable congestion monitoring on egress port scheduler |
| Context | **configure** port *port* ethernet access egress virtual-port *named-item* monitor-port-scheduler *boolean* |
| Tree | monitor-port-scheduler |
| Description | The command enables congestion monitoring on an EPS that is applied to a Vport.<br>Congestion monitoring must be further configured under the port-scheduler CLI hierarchy. Once the congestion monitoring is in effect, the offered rate (incoming traffic) is compared to the configured port-scheduler congestion threshold. The results of these measurements are stored as the number of samples representing the number of times the offered rates exceeded the configured congestion threshold since the last clearing of the stats. Therefore, the results represent the number of times that the port-scheduler that is applied to a Vport was congested since the last reset of the stats using a **clear** command. |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

## **multicast-hqos-adjustment** *boolean*

| | |
|---|---|
| Synopsis | Apply HQoS Adjustment (egress rate modification) |
| Context | **configure** port *port* ethernet access egress virtual-port *named-item* multicast-hqos-adjustment *boolean* |
| Tree | multicast-hqos-adjustment |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **port-scheduler-policy** *reference*

| | |
|---|---|
| Synopsis | Port scheduler policy name |


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| | |
|---|---|
| Context | **configure** port *port* ethernet access egress virtual-port *named-item* port-scheduler-policy *reference* |
| Tree | port-scheduler-policy |
| Reference | **configure** qos port-scheduler-policy *named-item* |
| Introduced | 16.0.R4 |
| Platforms | All |

## scheduler-policy

| | |
|---|---|
| Synopsis | Enter the **scheduler-policy** context |
| Context | **configure** port *port* ethernet access egress virtual-port *named-item* scheduler-policy |
| Tree | scheduler-policy |
| Description | This command specifies a scheduler policy to associate with the Vport.<br>The **aggregate-rate** , **port-scheduler-policy** and **scheduler-policy** commands are mutually exclusive. Changing between the use of a scheduler policy and the use of an aggregate rate or port scheduler policy involves removing the existing command and applying the new command. |
| Introduced | 16.0.R4 |
| Platforms | All |

## policy-name *reference*

| | |
|---|---|
| Synopsis | Egress scheduler policy |
| Context | **configure** port *port* ethernet access egress virtual-port *named-item* scheduler-policy policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos scheduler-policy *named-item* |
| Introduced | 22.2.R1 |
| Platforms | All |

## ingress

| | |
|---|---|
| Synopsis | Enter the **ingress** context |
| Context | **configure** port *port* ethernet access ingress |
| Tree | ingress |
| Description | Commands in this context configure Ethernet access ingress port commands. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## **queue-group** [queue-group-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **queue-group** list instance |
| Context | **configure** port *port* ethernet access ingress queue-group *reference* |
| Tree | queue-group |
| Description | Commands in this context create an ingress queue group on the Ethernet port. Queue groups created on access ports are used as an alternative queue destination for SAPs.<br><br>Queue groups can be created on both access and network oriented ports. When the port is in access mode, the queue groups must be created within the port access node. Access ingress queue groups can only be used by ingress SAP forwarding classes and only a single ingress queue group per port is supported. When the queue group is created in an ingress port context, the queue group name must be an existing ingress queue group template. Two ingress queue groups with the same name cannot be created on the same port.<br><br>When creating a queue group, the system will attempt to allocate queue resources based on the queues defined in the queue group template. If the appropriate queue resources do not currently exist, the queue group will not be created. Ingress port queue groups do not support shared-queuing or multipoint shared queuing behavior.<br><br>A port queue group cannot be removed from the port when a forwarding class is currently redirected to the group. All forwarding class redirections must first be removed prior to removing the queue group. |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**queue-group-name**] *reference*

| | |
|---|---|
| Synopsis | Queue group name |
| Context | **configure** port *port* ethernet access ingress queue-group *reference* |
| Tree | queue-group |
| Description | This command specifies the queue group name. The specified queue group name must exist as an ingress or egress queue group template depending on the ingress or egress context of the port queue group. Only a single queue group may be created on an ingress port. |
| Reference | **configure** qos queue-group-templates ingress queue-group *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## **accounting-policy** *reference*

| | |
|---|---|
| Synopsis | Accounting policy for the Ethernet port |
| Context | **configure** port *port* ethernet access ingress queue-group *reference* accounting-policy *reference* |
| Tree | accounting-policy |
| Reference | **configure** log accounting-policy *number* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **collect-stats** *boolean*

| | |
|---|---|
| Synopsis | Collect accounting and statistical data |
| Context | **configure** port *port* ethernet access ingress queue-group *reference* collect-stats *boolean* |
| Tree | collect-stats |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** port *port* ethernet access ingress queue-group *reference* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **queue-overrides**

| | |
|---|---|
| Synopsis | Enter the **queue-overrides** context |
| Context | **configure** port *port* ethernet access ingress queue-group *reference* queue-overrides |


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| | |
|---|---|
| Tree | queue-overrides |
| Description | Commands in this context define queue command overrides for each queue within the queue group. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **queue** [queue-id] *reference*

| | |
|---|---|
| Synopsis | Enter the **queue** list instance |
| Context | **configure** port *port* ethernet access ingress queue-group *reference* queue-overrides queue *reference* |
| Tree | queue |
| Description | Commands in this context associate a queue for use in a queue group template. The template queue is created on each queue group object that is created with the queue group template name. Each queue is identified within the template by a queue ID number. The template ensures that all queue groups created with the template's name have the same queue IDs, providing a uniform structure for the forwarding class redirection commands in the SAP egress QoS policies. The queue commands can be individually changed for each queue in each queue group using per queue overrides. |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**queue-id**] *reference*

| | |
|---|---|
| Synopsis | Queue ID for the queue group template |
| Context | **configure** port *port* ethernet access ingress queue-group *reference* queue-overrides queue *reference* |
| Tree | queue |
| Reference | **configure** qos queue-group-templates ingress queue-group *named-item* queue *number* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **adaptation-rule**

| | |
|---|---|
| Synopsis | Enter the **adaptation-rule** context |
| Context | **configure** port *port* ethernet access ingress queue-group *reference* queue-overrides queue *reference* adaptation-rule |


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| | |
|---|---|
| Tree | adaptation-rule |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cir** *keyword*

| | |
|---|---|
| Synopsis | Constraint used when deriving the operational CIR value |
| Context | **configure** port *port* ethernet access ingress queue-group *reference* queue-overrides queue *reference* adaptation-rule cir *keyword* |
| Tree | cir |
| Options | max, min, closest |
| Introduced | 16.0.R1 |
| Platforms | All |

### **pir** *keyword*

| | |
|---|---|
| Synopsis | Constraint used when deriving the operational PIR value |
| Context | **configure** port *port* ethernet access ingress queue-group *reference* queue-overrides queue *reference* adaptation-rule pir *keyword* |
| Tree | pir |
| Options | max, min, closest |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | CBS for the template queue |
| Context | **configure** port *port* ethernet access ingress queue-group *reference* queue-overrides queue *reference* cbs *(number | keyword)* |
| Tree | cbs |
| Range | 0 to 1048576 |
| Units | kilobytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | All |


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## drop-tail

| | |
|---|---|
| Synopsis | Enter the **drop-tail** context |
| Context | **configure** port *port* ethernet access ingress queue-group *reference* queue-overrides queue *reference* drop-tail |
| Tree | drop-tail |
| Introduced | 16.0.R1 |
| Platforms | All |

## low

| | |
|---|---|
| Synopsis | Enter the **low** context |
| Context | **configure** port *port* ethernet access ingress queue-group *reference* queue-overrides queue *reference* drop-tail low |
| Tree | low |
| Description | Commands in this context configure the queue low drop tail commands. The low drop tail defines the queue depth beyond which out-of-profile packets are accepted into the queue and discarded. |
| Introduced | 16.0.R1 |
| Platforms | All |

## percent-reduction-from-mbs *(number | keyword)*

| | |
|---|---|
| Synopsis | Percentage reduction from the MBS for a queue drop tail |
| Context | **configure** port *port* ethernet access ingress queue-group *reference* queue-overrides queue *reference* drop-tail low percent-reduction-from-mbs *(number \| keyword)* |
| Tree | percent-reduction-from-mbs |
| Description | This command overrides the low queue drop tail as a percentage reduction from the MBS of the queue. For example, if a queue has an MBS of 600 kbytes and this percentage is configured to be 30% for the low drop tail, the low drop tail is set to 420 kbytes and the out-of-profile packets are not accepted into the queue if its depth is greater than this value, and is therefore discarded. |
| Range | 0 to 100 |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **mbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | MBS for the template queue |
| Context | **configure** port *port* ethernet access ingress queue-group *reference* queue-overrides queue *reference* mbs *(number \| keyword)* |
| Tree | mbs |
| Range | 0 to 1073741824 |
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | All |

### **monitor-queue-depth**

| | |
|---|---|
| Synopsis | Enable the **monitor-queue-depth** context |
| Context | **configure** port *port* ethernet access ingress queue-group *reference* queue-overrides queue *reference* monitor-queue-depth |
| Tree | monitor-queue-depth |
| Introduced | 21.7.R1 |
| Platforms | All |

### **fast-polling** *boolean*

| | |
|---|---|
| Synopsis | Enable fast polling of the queue depth |
| Context | **configure** port *port* ethernet access ingress queue-group *reference* queue-overrides queue *reference* monitor-queue-depth fast-polling *boolean* |
| Tree | fast-polling |
| Default | false |
| Introduced | 21.7.R1 |
| Platforms | All |

### **rate**

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** port *port* ethernet access ingress queue-group *reference* queue-overrides queue *reference* rate |


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| | |
|---|---|
| Tree | rate |
| Introduced | 16.0.R1 |
| Platforms | All |

## **cir** *(number | keyword)*

| | |
|---|---|
| Synopsis | CIR for the queue |
| Context | **configure** port *port* ethernet access ingress queue-group *reference* queue-overrides queue *reference* rate cir *(number | keyword)* |
| Tree | cir |
| Description | This command specifies the administrative CIR used by the queue. When the **rate** command is executed, a CIR setting is optional. Fractional values are not allowed and must be given as a positive integer.<br>The CIR defines the rate at which the system prioritizes the queue over other queues competing for the same bandwidth. In-profile then out-of-profile packets are preferentially queued by the system at egress and at subsequent next hop nodes where the packet can traverse. To be properly handled throughout the network, the packets must be marked accordingly for profiling at each hop.<br>The CIR can be used by the queue's parent **cir-level** and **cir-weight** commands to define the amount of bandwidth considered to be committed for the child queue during bandwidth allocation by the parent scheduler. |
| Range | 0 to 2000000000 |
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | All |

## **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | PIR for the queue |
| Context | **configure** port *port* ethernet access ingress queue-group *reference* queue-overrides queue *reference* rate pir *(number | keyword)* |
| Tree | pir |
| Description | This command specifies the administrative PIR used by the queue. When the **rate** command is executed, a valid PIR setting must be explicitly defined. Fractional values are not allowed and must be given as a positive integer. The actual PIR rate is dependent on the queue's **adaptation-rule** commands and the actual hardware where the queue is provisioned.<br>The PIR defines the maximum rate that the queue can transmit packets out an egress interface (for SAP egress queues). Defining a PIR does not necessarily guarantee that |


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| | |
|---|---|
| | the queue can transmit at the intended rate. The actual rate sustained by the queue can be limited by oversubscription factors or available egress bandwidth. |
| Range | 1 to 2000000000 |
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | All |

## scheduler-policy

| | |
|---|---|
| Synopsis | Enter the **scheduler-policy** context |
| Context | **configure** port *port* ethernet access ingress queue-group *reference* scheduler-policy |
| Tree | scheduler-policy |
| Description | Commands in this context configure a scheduler policy for the ingress queue group. |
| Introduced | 16.0.R1 |
| Platforms | All |

## overrides

| | |
|---|---|
| Synopsis | Enter the **overrides** context |
| Context | **configure** port *port* ethernet access ingress queue-group *reference* scheduler-policy overrides |
| Tree | overrides |
| Description | Commands in this context specify the set of attributes specifying values specific to the given queue-group instance. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **scheduler** [scheduler-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **scheduler** list instance |
| Context | **configure** port *port* ethernet access ingress queue-group *reference* scheduler-policy overrides scheduler *named-item* |
| Tree | scheduler |
| Description | Commands in this context are used to override specific attributes of the specified scheduler name. A scheduler defines bandwidth controls that limit each child (other schedulers and queues) associated with the scheduler. Scheduler objects are created |


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within the hierarchical tiers of the policy. It is assumed that each scheduler created has queues or other schedulers defined as child associations. The scheduler can be a child which takes bandwidth from a scheduler in a higher tier.

A total of 32 schedulers can be created within a single scheduler policy with no restriction on the distribution between the tiers. The scheduler name must exist in the applied scheduler policy.

Introduced 16.0.R1

Platforms All

## [**scheduler-name**] *named-item*

Synopsis Scheduler name

Context **configure** port *port* ethernet access ingress queue-group *reference* scheduler-policy overrides scheduler *named-item*

Tree scheduler

Description This command specifies the scheduler name. Valid names consist of any string composed of printable, 7-bit ASCII characters. If the string contains special characters (#, $, spaces, and so on), the entire string must be enclosed within double quotes.

String length 1 to 32

Notes This element is part of a list key.

Introduced 16.0.R1

Platforms All

## parent

Synopsis Enter the **parent** context

Context **configure** port *port* ethernet access ingress queue-group *reference* scheduler-policy overrides scheduler *named-item* parent

Tree parent

Description Commands in this context are used to override the scheduler's parent weight and CIR weight. The weights apply to the associated level or CIR level configured in the applied scheduler policy.

The override weights are ignored if the scheduler does not have a parent command configured in the scheduler policy. This allows the parent of the scheduler to be removed from the scheduler policy without having to remove all of the queue group overrides. If the parent scheduler does not exist, causing the configured scheduler to be fostered on an egress port scheduler, then the override weights are ignored.

Introduced 16.0.R1

Platforms All


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### **cir-weight** *number*

| | |
|---|---|
| Synopsis | CIR that overrides the parent |
| Context | **configure** port *port* ethernet access ingress queue-group *reference* scheduler-policy overrides scheduler *named-item* parent cir-weight *number* |
| Tree | cir-weight |
| Range | 0 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **weight** *number*

| | |
|---|---|
| Synopsis | PIR that overrides the parent |
| Context | **configure** port *port* ethernet access ingress queue-group *reference* scheduler-policy overrides scheduler *named-item* parent weight *number* |
| Tree | weight |
| Range | 0 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rate**

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** port *port* ethernet access ingress queue-group *reference* scheduler-policy overrides scheduler *named-item* rate |
| Tree | rate |
| Description | Commands in this context override specific attributes of the specified scheduler rate. The actual operating rate of the scheduler is limited by bandwidth constraints other than its maximum rate. The scheduler's parent scheduler may not have the available bandwidth to meet the scheduler's needs. The bandwidth available to the parent scheduler could be allocated to other child schedulers or the child queues on the parent scheduler may be based on a higher priority. The children of the scheduler may not need the maximum rate available to the scheduler due to an insufficient offered load or limits to their own maximum rates. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **cir** *(number | keyword)*

| | |
|---|---|
| Synopsis | CIR for the scheduler |
| Context | **configure** port *port* ethernet access ingress queue-group *reference* scheduler-policy overrides scheduler *named-item* rate cir *(number \| keyword)* |
| Tree | cir |
| Description | This command specifies the CIR. When a parent is associated with the scheduler, this command provides the amount of bandwidth to be considered during the parent scheduler's within-cir distribution phase. When the **rate** command is executed, a valid PIR setting must be explicitly defined before specifying the CIR. If the CIR is set to **max**, the CIR rate is set to infinity.<br><br>The **sum** keyword specifies that the CIR be used as the summed CIR values of the children schedulers, policers, or queues. |
| Range | 0 to 6400000000 |
| Units | kilobps |
| Options | sum, max |
| Introduced | 16.0.R1 |
| Platforms | All |

### **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | PIR for the scheduler |
| Context | **configure** port *port* ethernet access ingress queue-group *reference* scheduler-policy overrides scheduler *named-item* rate pir *(number \| keyword)* |
| Tree | pir |
| Description | This command specifies the PIR. When the **rate** command is executed, a valid PIR setting must be explicitly defined. Any other value results in an error without modifying the current PIR rate. |
| Range | 1 to 6400000000 |
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | All |

### **policy-name** *reference*

| | |
|---|---|
| Synopsis | Scheduler policy name |


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| | |
|---|---|
| Context | **configure** port *port* ethernet access ingress queue-group *reference* scheduler-policy policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos scheduler-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **accounting-policy** *reference*

| | |
|---|---|
| Synopsis | Accounting policy for the Ethernet port |
| Context | **configure** port *port* ethernet accounting-policy *reference* |
| Tree | accounting-policy |
| Reference | **configure** log accounting-policy *number* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **autonegotiate** *keyword*

| | |
|---|---|
| Synopsis | Speed and duplex autonegotiation on the Ethernet port |
| Context | **configure** port *port* ethernet autonegotiate *keyword* |
| Tree | autonegotiate |
| Description | This command enables speed and duplex autonegotiation on Fast Ethernet ports and enables far-end fault indicator support on Gb ports. When autonegotiation is enabled on a port, the link attempts to automatically negotiate the link **speed** and **duplex** commands. If autonegotiation is enabled, the configured **duplex** and **speed** commands are ignored.<br><br>When autonegotiation is disabled on a port, the port does not attempt to autonegotiate and will only operate at the **speed** and **duplex** command settings configured for the port. Note that disabling autonegotiation on Gb ports is not allowed as the IEEE 802.3 specification for Gb Ethernet requires autonegotiation be enabled for far end fault indication.<br><br>It is required for autonegotiation to be limited for ports in a LAG to guarantee a specific port speed. |
| Options | true, false, limited |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **collect-stats** *boolean*

| | |
|---|---|
| Synopsis | Collect accounting and statistical data |
| Context | **configure** port *port* ethernet collect-stats *boolean* |
| Tree | collect-stats |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **crc-monitor**

| | |
|---|---|
| Synopsis | Enter the **crc-monitor** context |
| Context | **configure** port *port* ethernet crc-monitor |
| Tree | crc-monitor |
| Description | Commands in this context configure Ethernet Cyclic Redundancy Check (CRC) monitoring. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **signal-degrade**

| | |
|---|---|
| Synopsis | Enter the **signal-degrade** context |
| Context | **configure** port *port* ethernet crc-monitor signal-degrade |
| Tree | signal-degrade |
| Description | Commands in this context specify the error rate at which to declare the Signal Degrade (SD) condition on an Ethernet interface. The value represents M*10E-N, which is the ratio of errored frames over the total frames received over W seconds of the sliding window. The CRC errors on the interface are sampled once per second. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **multiplier** *number*

| | |
|---|---|
| Synopsis | SD multiplier |
| Context | **configure** port *port* ethernet crc-monitor signal-degrade multiplier *number* |
| Tree | multiplier |


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| | |
|---|---|
| Range | 1 to 9 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **threshold** *number*

| | |
|---|---|
| Synopsis | SD threshold |
| Context | **configure** port *port* ethernet crc-monitor signal-degrade threshold *number* |
| Tree | threshold |
| Range | 1 to 9 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **signal-failure**

| | |
|---|---|
| Synopsis | Enter the **signal-failure** context |
| Context | **configure** port *port* ethernet crc-monitor signal-failure |
| Tree | signal-failure |
| Description | Commands in this context specify the error rate at which to declare the Signal Fail (SF) condition on an Ethernet interface. The value represents M*10E-N errored frames over total frames received over W seconds of the sliding window. The CRC errors on the interface are sampled once per second. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **multiplier** *number*

| | |
|---|---|
| Synopsis | SF multiplier |
| Context | **configure** port *port* ethernet crc-monitor signal-failure multiplier *number* |
| Tree | multiplier |
| Range | 1 to 9 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **threshold** *number*

| | |
|---|---|
| Synopsis | SF threshold |
| Context | **configure** port *port* ethernet crc-monitor signal-failure threshold *number* |
| Tree | threshold |
| Range | 1 to 9 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **window-size** *number*

| | |
|---|---|
| Synopsis | Sliding window size over which errors are measured |
| Context | **configure** port *port* ethernet crc-monitor window-size *number* |
| Tree | window-size |
| Description | This command specifies the sliding window size over which the Ethernet frames are sampled to detect SF or SD conditions. The command is used jointly with the **signal-failure** and the **signal-degrade** commands to configure the sliding window size. |
| Range | 5 to 60 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **dampening**

| | |
|---|---|
| Synopsis | Enter the **dampening** context |
| Context | **configure** port *port* ethernet dampening |
| Tree | dampening |
| Description | Commands in this context configure Exponential Port Dampening (EPD) for the Ethernet port. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of exponential port dampening |


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| | |
|---|---|
| Context | **configure** port *port* ethernet dampening admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **half-life** *number*

| | |
|---|---|
| Synopsis | Half-life decay time |
| Context | **configure** port *port* ethernet dampening half-life *number* |
| Tree | half-life |
| Description | This command specifies the time that must pass before penalties decay to one-half the initial amount. The half-life and maximum suppression time values must be set at the same time and the ratio of the maximum suppression time and half-life must be less than or equal to 49 and greater than or equal to one. |
| Range | 1 to 2000 |
| Units | seconds |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **max-suppress-time** *number*

| | |
|---|---|
| Synopsis | Maximum suppression time |
| Context | **configure** port *port* ethernet dampening max-suppress-time *number* |
| Tree | max-suppress-time |
| Description | This command specifies the maximum suppression time, which is the time it can take after the physical link comes up before the worst case accumulated penalties have decayed to the reuse threshold. The maximum penalty is derived from the maximum suppression time, half life, and reuse threshold, using the following equation:<br>maximum penalty = (reuse threshold) 2 expo:(maximum suppression time/half life)<br>The half life and maximum suppression time values must be set at the same time and the ratio of the maximum suppression time and half life must be less than or equal to 49 and greater than or equal to one. |
| Range | 1 to 43200 |
| Units | seconds |


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| | |
|---|---|
| Default | 20 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **reuse-threshold** *number*

| | |
|---|---|
| Synopsis | Threshold which port-up state is no longer suppressed |
| Context | **configure** port *port* ethernet dampening reuse-threshold *number* |
| Tree | reuse-threshold |
| Description | This command specifies the threshold at which the port-up state is no longer suppressed, after the port has been in a suppressed state and the accumulated penalties decay drops below this threshold. The reuse threshold value must be less than the suppress threshold value. |
| Range | 1 to 20000 |
| Units | penalties |
| Default | 1000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **suppress-threshold** *number*

| | |
|---|---|
| Synopsis | Threshold at which the port-up state is suppressed |
| Context | **configure** port *port* ethernet dampening suppress-threshold *number* |
| Tree | suppress-threshold |
| Description | This command specifies the threshold at which the port-up state is suppressed until the accumulated penalties drop below the reuse threshold. The reuse threshold value must be less than the suppress threshold value. |
| Range | 1 to 20000 |
| Units | penalties |
| Default | 2000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **discard-rx-pause-frames** *boolean*

| | |
|---|---|
| Synopsis | Discard received pause frames |


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| | |
|---|---|
| Context | **configure** port *port* ethernet discard-rx-pause-frames *boolean* |
| Tree | discard-rx-pause-frames |
| Description | When configured to **true**, the router discards received pause frames. Pause frames are used for local link flow control.<br>When configured to **false**, pause frames are processed upon reception and the transmit side of the receiving port pauses in its transmissions. |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | All |

## **dot1q-etype** *etype*

| | |
|---|---|
| Synopsis | Ethertype expected if port encapsulation type is dot1q |
| Context | **configure** port *port* ethernet dot1q-etype *etype* |
| Tree | dot1q-etype |
| Description | This command specifies the Ethertype expected when the port encapsulation type is dot1q. Dot1q encapsulation is supported only on Ethernet interfaces. |
| Default | 33024 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **dot1x**

| | |
|---|---|
| Synopsis | Enter the **dot1x** context |
| Context | **configure** port *port* ethernet dot1x |
| Tree | dot1x |
| Introduced | 16.0.R1 |
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of dot1x packet extraction to CPM |
| Context | **configure** port *port* ethernet dot1x admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |


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| | |
|---|---|
| Introduced | 21.10.R1 |
| Platforms | All |

## macsec

| | |
|---|---|
| Synopsis | Enter the **macsec** context |
| Context | **configure** port *port* ethernet dot1x macsec |
| Tree | macsec |
| Description | Commands in this context configure Media Access Control Security (MACsec) under the port. |
| Introduced | 16.0.R1 |
| Platforms | All |

## exclude-mac-policy *reference*

| | |
|---|---|
| Synopsis | MAC policy excluded from MACsec encryption |
| Context | **configure** port *port* ethernet dot1x macsec exclude-mac-policy *reference* |
| Tree | exclude-mac-policy |
| Reference | **configure** macsec mac-policy *number* |
| Introduced | 16.0.R5 |
| Platforms | All |

## exclude-protocol

| | |
|---|---|
| Synopsis | Enter the **exclude-protocol** context |
| Context | **configure** port *port* ethernet dot1x macsec exclude-protocol |
| Tree | exclude-protocol |
| Introduced | 16.0.R1 |
| Platforms | All |

## cdp *boolean*

| | |
|---|---|
| Synopsis | Disable MACsec for all packets on the link for CDP |
| Context | **configure** port *port* ethernet dot1x macsec exclude-protocol cdp *boolean* |
| Tree | cdp |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **eapol-start** *boolean*

| | |
|---|---|
| Synopsis | Disable MACsec for all packets on the link for EAPOL |
| Context | **configure** port *port* ethernet dot1x macsec exclude-protocol eapol-start *boolean* |
| Tree | eapol-start |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **efm-oam** *boolean*

| | |
|---|---|
| Synopsis | Disable MACsec for all packets on the link for EFM-OAM |
| Context | **configure** port *port* ethernet dot1x macsec exclude-protocol efm-oam *boolean* |
| Tree | efm-oam |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **eth-cfm** *boolean*

| | |
|---|---|
| Synopsis | Disable MACsec for all packets on the link for ETH-CFM |
| Context | **configure** port *port* ethernet dot1x macsec exclude-protocol eth-cfm *boolean* |
| Tree | eth-cfm |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lacp** *boolean*

| | |
|---|---|
| Synopsis | Disable MACsec for all packets on the link for LACP |
| Context | **configure** port *port* ethernet dot1x macsec exclude-protocol lacp *boolean* |


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| | |
|---|---|
| Tree | lacp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lldp** *boolean*

| | |
|---|---|
| Synopsis | Disable MACsec for all packets on the link for LLDP |
| Context | **configure** port *port* ethernet dot1x macsec exclude-protocol lldp *boolean* |
| Tree | lldp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ptp** *boolean*

| | |
|---|---|
| Synopsis | Disable MACsec for all packets on the link for PTP |
| Context | **configure** port *port* ethernet dot1x macsec exclude-protocol ptp *boolean* |
| Tree | ptp |
| Default | false |
| Introduced | 19.5.R1 |
| Platforms | All |

### **ubfd** *boolean*

| | |
|---|---|
| Synopsis | Disable MACsec for all packets on the link for uBFD |
| Context | **configure** port *port* ethernet dot1x macsec exclude-protocol ubfd *boolean* |
| Tree | ubfd |
| Default | false |
| Introduced | 19.5.R1 |
| Platforms | All |

### **rx-must-be-encrypted** *boolean*

| | |
|---|---|
| Synopsis | Drop all port traffic that is not MACsec-secured |


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| | |
|---|---|
| Context | **configure** port *port* ethernet dot1x macsec rx-must-be-encrypted *boolean* |
| Tree | rx-must-be-encrypted |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sub-port** [sub-port-id] *number*

| | |
|---|---|
| Synopsis | Enter the **sub-port** list instance |
| Context | **configure** port *port* ethernet dot1x macsec sub-port *number* |
| Tree | sub-port |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**sub-port-id**] *number*

| | |
|---|---|
| Synopsis | Sub-port ID |
| Context | **configure** port *port* ethernet dot1x macsec sub-port *number* |
| Tree | sub-port |
| Range | 1 to 1023 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of MACsec on the port |
| Context | **configure** port *port* ethernet dot1x macsec sub-port *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **ca-name** *reference*

| | |
|---|---|
| Synopsis | Connectivity association linked to the MACsec sub-port |
| Context | **configure** port *port* ethernet dot1x macsec sub-port *number* ca-name *reference* |
| Tree | ca-name |
| Reference | **configure** macsec connectivity-association *string* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **eapol-destination-address** *mac-address*

| | |
|---|---|
| Synopsis | EAPOL destination MAC address |
| Context | **configure** port *port* ethernet dot1x macsec sub-port *number* eapol-destination-address *mac-address* |
| Tree | eapol-destination-address |
| Introduced | 16.0.R1 |
| Platforms | All |

### **encap-match**

| | |
|---|---|
| Synopsis | Enter the **encap-match** context |
| Context | **configure** port *port* ethernet dot1x macsec sub-port *number* encap-match |
| Tree | encap-match |
| Introduced | 19.5.R1 |
| Platforms | All |

### **all-match** *boolean*

| | |
|---|---|
| Synopsis | Match and encrypt all traffic patterns |
| Context | **configure** port *port* ethernet dot1x macsec sub-port *number* encap-match all-match *boolean* |
| Tree | all-match |
| Default | true |
| Notes | The following elements are part of a choice: **all-match**, **double-tag**, **single-tag**, or **untagged**. |
| Introduced | 19.5.R1 |


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| | |
|---|---|
| Platforms | All |

### **double-tag** *double-vlan-encap*

| | |
|---|---|
| Synopsis | QinQ double tag traffic pattern to match |
| Context | **configure** port *port* ethernet dot1x macsec sub-port *number* encap-match double-tag *double-vlan-encap* |
| Tree | double-tag |
| String length | 1 to 11 |
| Notes | The following elements are part of a choice: **all-match**, **double-tag**, **single-tag**, or **untagged**. |
| Introduced | 19.5.R1 |
| Platforms | All |

### **single-tag** *single-vlan-encap*

| | |
|---|---|
| Synopsis | Dot1q single tag traffic pattern to match |
| Context | **configure** port *port* ethernet dot1x macsec sub-port *number* encap-match single-tag *single-vlan-encap* |
| Tree | single-tag |
| String length | 1 to 11 |
| Notes | The following elements are part of a choice: **all-match**, **double-tag**, **single-tag**, or **untagged**. |
| Introduced | 19.5.R1 |
| Platforms | All |

### **untagged** *boolean*

| | |
|---|---|
| Synopsis | Match and encrypt untagged traffic only |
| Context | **configure** port *port* ethernet dot1x macsec sub-port *number* encap-match untagged *boolean* |
| Tree | untagged |
| Notes | The following elements are part of a choice: **all-match**, **double-tag**, **single-tag**, or **untagged**. |
| Introduced | 19.5.R1 |
| Platforms | All |


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### **max-peers** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum number of peers supported on the port |
| Context | **configure** port *port* ethernet dot1x macsec sub-port *number* max-peers *number* |
| Tree | max-peers |
| Range | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **max-authentication-requests** *number*

| | |
|---|---|
| Synopsis | Maximum number of RADIUS retries |
| Context | **configure** port *port* ethernet dot1x max-authentication-requests *number* |
| Tree | max-authentication-requests |
| Range | 1 to 10 |
| Default | 2 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **per-host-authentication**

| | |
|---|---|
| Synopsis | Enter the **per-host-authentication** context |
| Context | **configure** port *port* ethernet dot1x per-host-authentication |
| Tree | per-host-authentication |
| Introduced | 20.7.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of per-host authentication |
| Context | **configure** port *port* ethernet dot1x per-host-authentication admin-state *keyword* |
| Tree | admin-state |


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| | |
|---|---|
| Options | enable, disable |
| Default | disable |
| Introduced | 21.2.R1 |
| Platforms | All |

### allowed-source-macs

| | |
|---|---|
| Synopsis | Enter the **allowed-source-macs** context |
| Context | **configure** port *port* ethernet dot1x per-host-authentication allowed-source-macs |
| Tree | allowed-source-macs |
| Introduced | 20.7.R1 |
| Platforms | All |

### **mac-address** [mac] *mac-address*

| | |
|---|---|
| Synopsis | Add a list entry for **mac-address** |
| Context | **configure** port *port* ethernet dot1x per-host-authentication allowed-source-macs mac-address *mac-address* |
| Tree | mac-address |
| Introduced | 20.7.R1 |
| Platforms | All |

### [**mac**] *mac-address*

| | |
|---|---|
| Synopsis | Source MAC address of a host selected for authentication |
| Context | **configure** port *port* ethernet dot1x per-host-authentication allowed-source-macs mac-address *mac-address* |
| Tree | mac-address |
| Notes | This element is part of a list key. |
| Introduced | 20.7.R1 |
| Platforms | All |

### **authenticator-init** *boolean*

| | |
|---|---|
| Synopsis | Initiate per-host authentication |
| Context | **configure** port *port* ethernet dot1x per-host-authentication authenticator-init *boolean* |


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| | |
|---|---|
| Tree | authenticator-init |
| Default | true |
| Introduced | 21.2.R1 |
| Platforms | All |

### **port-control** *keyword*

| | |
|---|---|
| Synopsis | 802.1x authentication mode |
| Context | **configure** port *port* ethernet dot1x port-control *keyword* |
| Tree | port-control |
| Options | force-unauthorized, auto, force-authorized |
| Default | force-authorized |
| Introduced | 16.0.R1 |
| Platforms | All |

### **quiet-period** *number*

| | |
|---|---|
| Synopsis | Time between two sessions when no EAPOL frames are sent |
| Context | **configure** port *port* ethernet dot1x quiet-period *number* |
| Tree | quiet-period |
| Range | 1 to 3600 |
| Units | seconds |
| Default | 60 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **radius-policy** *reference*

| | |
|---|---|
| Synopsis | RADIUS policy used for 802.1x authentication |
| Context | **configure** port *port* ethernet dot1x radius-policy *reference* |
| Tree | radius-policy |
| Reference | **configure** system security dot1x radius-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **radius-server-policy** *reference*

| | |
|---|---|
| Synopsis | RADIUS server policy name |
| Context | **configure** port *port* ethernet dot1x radius-server-policy *reference* |
| Tree | radius-server-policy |
| Reference | **configure** aaa radius server-policy *named-item* |
| Notes | The following elements are part of a choice: **radius-server-policy** or (**radius-server-policy-acct** and **radius-server-policy-auth**). |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **radius-server-policy-acct** *reference*

| | |
|---|---|
| Synopsis | RADIUS server policy name for accounting |
| Context | **configure** port *port* ethernet dot1x radius-server-policy-acct *reference* |
| Tree | radius-server-policy-acct |
| Reference | **configure** aaa radius server-policy *named-item* |
| Notes | The following elements are part of a choice: **radius-server-policy** or (**radius-server-policy-acct** and **radius-server-policy-auth**). |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **radius-server-policy-auth** *reference*

| | |
|---|---|
| Synopsis | RADIUS server policy name for authentication |
| Context | **configure** port *port* ethernet dot1x radius-server-policy-auth *reference* |
| Tree | radius-server-policy-auth |
| Reference | **configure** aaa radius server-policy *named-item* |
| Notes | The following elements are part of a choice: **radius-server-policy** or (**radius-server-policy-acct** and **radius-server-policy-auth**). |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### re-authentication

| | |
|---|---|
| Synopsis | Enable the **re-authentication** context |
| Context | **configure** port *port* ethernet dot1x re-authentication |
| Tree | re-authentication |
| Introduced | 16.0.R1 |
| Platforms | All |

### period *number*

| | |
|---|---|
| Synopsis | Delay before re-authentication is performed |
| Context | **configure** port *port* ethernet dot1x re-authentication period *number* |
| Tree | period |
| Range | 1 to 9000 |
| Units | seconds |
| Default | 3600 |
| Introduced | 16.0.R1 |
| Platforms | All |

### server-timeout *number*

| | |
|---|---|
| Synopsis | Wait time for a response from the RADIUS server |
| Context | **configure** port *port* ethernet dot1x server-timeout *number* |
| Tree | server-timeout |
| Range | 1 to 300 |
| Units | seconds |
| Default | 30 |
| Introduced | 16.0.R1 |
| Platforms | All |

### supplicant-timeout *number*

| | |
|---|---|
| Synopsis | Wait time for a response to EAPOL messages |
| Context | **configure** port *port* ethernet dot1x supplicant-timeout *number* |
| Tree | supplicant-timeout |


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| | |
|---|---|
| Range | 1 to 300 |
| Units | seconds |
| Default | 30 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **transmit-period** *number*

| | |
|---|---|
| Synopsis | Time after which a new EAPOL request message is sent |
| Context | **configure** port *port* ethernet dot1x transmit-period *number* |
| Tree | transmit-period |
| Range | 1 to 3600 |
| Units | seconds |
| Default | 30 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **tunnel-dot1q** *boolean*

| | |
|---|---|
| Synopsis | Enable dot1x tunneling for 802.1q tagged packets |
| Context | **configure** port *port* ethernet dot1x tunnel-dot1q *boolean* |
| Tree | tunnel-dot1q |
| Default | true |
| Introduced | 21.2.R1 |
| Platforms | All |

### **tunnel-qinq** *boolean*

| | |
|---|---|
| Synopsis | Enable dot1x tunneling for QinQ tagged packets |
| Context | **configure** port *port* ethernet dot1x tunnel-qinq *boolean* |
| Tree | tunnel-qinq |
| Default | true |
| Introduced | 21.2.R1 |
| Platforms | All |


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### **tunneling** *boolean*

| | |
|---|---|
| Synopsis | Allow tunneling of untagged 802.1x frames |
| Context | **configure** port *port* ethernet dot1x tunneling *boolean* |
| Tree | tunneling |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **down-on-internal-error**

| | |
|---|---|
| Synopsis | Enable the **down-on-internal-error** context |
| Context | **configure** port *port* ethernet down-on-internal-error |
| Tree | down-on-internal-error |
| Introduced | 16.0.R1 |
| Platforms | All |

### **tx-laser** *keyword*

| | |
|---|---|
| Synopsis | Remote laser state on internal MAC transmit error |
| Context | **configure** port *port* ethernet down-on-internal-error tx-laser *keyword* |
| Tree | tx-laser |
| Options | off, on |
| Default | on |
| Introduced | 16.0.R1 |
| Platforms | All |

### **down-when-looped**

| | |
|---|---|
| Synopsis | Enter the **down-when-looped** context |
| Context | **configure** port *port* ethernet down-when-looped |
| Tree | down-when-looped |
| Description | Commands in this context configure Ethernet loop detection. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of Ethernet loop detection |
| Context | **configure** port *port* ethernet down-when-looped admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **keep-alive** *number*

| | |
|---|---|
| Synopsis | Time interval between keep-alive PDUs |
| Context | **configure** port *port* ethernet down-when-looped keep-alive *number* |
| Tree | keep-alive |
| Range | 1 to 120 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **retry-timeout** *number*

| | |
|---|---|
| Synopsis | Wait time before re-enabling port after loop detection |
| Context | **configure** port *port* ethernet down-when-looped retry-timeout *number* |
| Tree | retry-timeout |
| Range | 0 \| 10 to 160 |
| Units | seconds |
| Default | 120 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **use-broadcast-address** *boolean*

| | |
|---|---|
| Synopsis | Use broadcast MAC address for destination MAC address |


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| | |
|---|---|
| Context | **configure** port *port* ethernet down-when-looped use-broadcast-address *boolean* |
| Tree | use-broadcast-address |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **duplex** *keyword*

| | |
|---|---|
| Synopsis | Duplex type for the fast Ethernet port |
| Context | **configure** port *port* ethernet duplex *keyword* |
| Tree | duplex |
| Description | This command configures the duplex of a Fast Ethernet port when autonegotiation is disabled.<br>This command setting is ignored if autonegotiation is enabled for the port. |
| Options | full, half |
| Introduced | 16.0.R1 |
| Platforms | All |

## **efm-oam**

| | |
|---|---|
| Synopsis | Enter the **efm-oam** context |
| Context | **configure** port *port* ethernet efm-oam |
| Tree | efm-oam |
| Introduced | 16.0.R1 |
| Platforms | All |

## **accept-remote-loopback** *boolean*

| | |
|---|---|
| Synopsis | Enable reactions to loopback control OAMPDUs from peers |
| Context | **configure** port *port* ethernet efm-oam accept-remote-loopback *boolean* |
| Tree | accept-remote-loopback |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the EFM OAM operation |
| Context | **configure** port *port* ethernet efm-oam admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **discovery**

| | |
|---|---|
| Synopsis | Enter the **discovery** context |
| Context | **configure** port *port* ethernet efm-oam discovery |
| Tree | discovery |
| Introduced | 16.0.R1 |
| Platforms | All |

### **advertise-capabilities**

| | |
|---|---|
| Synopsis | Enter the **advertise-capabilities** context |
| Context | **configure** port *port* ethernet efm-oam discovery advertise-capabilities |
| Tree | advertise-capabilities |
| Description | Commands in this context specify settings that enable the advertisement of specific capabilities. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **link-monitoring** *boolean*

| | |
|---|---|
| Synopsis | Advertise link monitoring capabilities to peer |
| Context | **configure** port *port* ethernet efm-oam discovery advertise-capabilities link-monitoring *boolean* |
| Tree | link-monitoring |
| Description | When configured to **true**, the link monitoring capability is advertised to the peer through the EFM-OAM protocol. |


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When configured to **false**, the router suppresses the advertisement of capabilities to a remote peer.

Default true

Introduced 16.0.R1

Platforms All

## **dying-gasp-tx-on-reset** *boolean*

Synopsis Enable generation of the Information OAMPDU off-cycle

Context **configure** port *port* ethernet efm-oam dying-gasp-tx-on-reset *boolean*

Tree dying-gasp-tx-on-reset

Description When configured to **true**, this command enables the generation of the Information OAMPDU off-cycle when the soft reset notification is received by the EFM application.

The local port state remains under the control of the soft reset application and does not change based on the EFM function. If the port is operationally up, then the local node will continue to consider the port as available for service data and forwarding. If the upstream node requires a notification to route around the local node undergoing the soft reset, then a notification must be sent to those nodes. This is a disruptive function.

When both the **grace-tx** and **dying-gasp-tx-on-reset** commands are active on the same port, the **grace-tx** command takes precedence when a soft reset is invoked if the peer vendor OUI being received is 00:16:4D or the configured **grace-vendor-oui** value.

When configured to **false**, the generation of the Information OAMPDU off-cycle is disabled.

Default true

Introduced 16.0.R1

Platforms All

## **grace-tx** *boolean*

Synopsis Enable the sending of Grace TLV for EFM-OAM

Context **configure** port *port* ethernet efm-oam grace-tx *boolean*

Tree grace-tx

Description When configured to **true**, the system sends the Nokia Vendor specific Grace TLV in the information PDU after an ISSU or a soft reset. The Grace TLV informs a remote peer to ignore the negotiated interval and multiplier and instead use the new timeout interval.

By default, the command is disabled at the system level and enabled at the port level. Both the system and port level must be enabled to support grace on a specific port. When configured to **true**, the EFM-OAM protocol does not enter a non-operational state when both nodes acknowledge the grace function. This feature minimizes


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service interruption by giving the restarting router time to become operationally and administratively up within the grace period.

The peer receiving the Grace TLV must be able to parse and process the vendor-specific messaging. Do not configure grace if the Nokia Vendor Specific Grace TLV is not supported on the remote peer.

When configured to **false**, the Nokia Vendor Specific Grace TLV is not sent.

| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **grace-vendor-oui** *string*

| | |
|---|---|
| Synopsis | Peer vendor OUI to support grace function |
| Context | **configure** port *port* ethernet efm-oam grace-vendor-oui *string* |
| Tree | grace-vendor-oui |
| Default | 00:16:4D |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hold-time** *number*

| | |
|---|---|
| Synopsis | Wait time before protocol returns to operational state |
| Context | **configure** port *port* ethernet efm-oam hold-time *number* |
| Tree | hold-time |
| Range | 1 to 50 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ignore-efm-state** *boolean*

| | |
|---|---|
| Synopsis | Suppress port state changes for EFM-OAM faults |
| Context | **configure** port *port* ethernet efm-oam ignore-efm-state *boolean* |
| Tree | ignore-efm-state |
| Description | When configured to **true**, the ETH-OAM protocol does not impact the state of the port when there is a failure in the protocol state machine (discovery, configuration, timeout, loops, and so on). There is only a protocol warning message on the port. |


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When configured to **false**, the port state is affected by any existing EFM-OAM protocol fault condition.

| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## link-monitoring

| | |
|---|---|
| Synopsis | Enter the **link-monitoring** context |
| Context | **configure** port *port* ethernet efm-oam link-monitoring |
| Tree | link-monitoring |
| Introduced | 16.0.R4 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of link monitoring on the port |
| Context | **configure** port *port* ethernet efm-oam link-monitoring admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R4 |
| Platforms | All |

## errored-frame

| | |
|---|---|
| Synopsis | Enter the **errored-frame** context |
| Context | **configure** port *port* ethernet efm-oam link-monitoring errored-frame |
| Tree | errored-frame |
| Introduced | 16.0.R4 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of link monitoring on the port |


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| | |
|---|---|
| Context | **configure** port *port* ethernet efm-oam link-monitoring errored-frame admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R4 |
| Platforms | All |

### **event-notification** *boolean*

| | |
|---|---|
| Synopsis | Transmit Event Notification OAMPDU with link event TLV |
| Context | **configure** port *port* ethernet efm-oam link-monitoring errored-frame event-notification *boolean* |
| Tree | event-notification |
| Default | true |
| Introduced | 16.0.R4 |
| Platforms | All |

### **sd-threshold** *number*

| | |
|---|---|
| Synopsis | SD threshold |
| Context | **configure** port *port* ethernet efm-oam link-monitoring errored-frame sd-threshold *number* |
| Tree | sd-threshold |
| Range | 1 to 1000000 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **sf-threshold** *number*

| | |
|---|---|
| Synopsis | SF threshold |
| Context | **configure** port *port* ethernet efm-oam link-monitoring errored-frame sf-threshold *number* |
| Tree | sf-threshold |
| Range | 1 to 1000000 |
| Default | 1 |
| Introduced | 16.0.R4 |


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| | |
|---|---|
| Platforms | All |

### **window** *number*

| | |
|---|---|
| Synopsis | Window size |
| Context | **configure** port *port* ethernet efm-oam link-monitoring errored-frame window *number* |
| Tree | window |
| Range | 10 to 600 |
| Units | deciseconds |
| Default | 10 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **errored-frame-period**

| | |
|---|---|
| Synopsis | Enter the **errored-frame-period** context |
| Context | **configure** port *port* ethernet efm-oam link-monitoring errored-frame-period |
| Tree | errored-frame-period |
| Introduced | 16.0.R4 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of link monitoring on the port |
| Context | **configure** port *port* ethernet efm-oam link-monitoring errored-frame-period admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R4 |
| Platforms | All |

### **event-notification** *boolean*

| | |
|---|---|
| Synopsis | Transmit Event Notification OAMPDU with link event TLV |


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| | |
|---|---|
| Context | **configure** port *port* ethernet efm-oam link-monitoring errored-frame-period event-notification *boolean* |
| Tree | event-notification |
| Default | true |
| Introduced | 16.0.R4 |
| Platforms | All |

### **sd-threshold** *number*

| | |
|---|---|
| Synopsis | SD threshold |
| Context | **configure** port *port* ethernet efm-oam link-monitoring errored-frame-period sd-threshold *number* |
| Tree | sd-threshold |
| Range | 1 to 1000000 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **sf-threshold** *number*

| | |
|---|---|
| Synopsis | SF threshold |
| Context | **configure** port *port* ethernet efm-oam link-monitoring errored-frame-period sf-threshold *number* |
| Tree | sf-threshold |
| Range | 1 to 1000000 |
| Default | 1 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **window** *number*

| | |
|---|---|
| Synopsis | Window size |
| Context | **configure** port *port* ethernet efm-oam link-monitoring errored-frame-period window *number* |
| Tree | window |
| Range | 1 to 4294967295 |
| Units | packets |


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| | |
|---|---|
| Default | 1488095 |
| Introduced | 16.0.R4 |
| Platforms | All |

## errored-frame-seconds

| | |
|---|---|
| Synopsis | Enter the **errored-frame-seconds** context |
| Context | **configure** port *port* ethernet efm-oam link-monitoring errored-frame-seconds |
| Tree | errored-frame-seconds |
| Introduced | 16.0.R4 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of link monitoring on the port |
| Context | **configure** port *port* ethernet efm-oam link-monitoring errored-frame-seconds admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R4 |
| Platforms | All |

## event-notification *boolean*

| | |
|---|---|
| Synopsis | Transmit Event Notification OAMPDU with link event TLV |
| Context | **configure** port *port* ethernet efm-oam link-monitoring errored-frame-seconds event-notification *boolean* |
| Tree | event-notification |
| Default | true |
| Introduced | 16.0.R4 |
| Platforms | All |

## sd-threshold *number*

| | |
|---|---|
| Synopsis | SD threshold |


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| | |
|---|---|
| Context | **configure** port *port* ethernet efm-oam link-monitoring errored-frame-seconds sd-threshold *number* |
| Tree | sd-threshold |
| Range | 1 to 900 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **sf-threshold** *number*

| | |
|---|---|
| Synopsis | SF threshold |
| Context | **configure** port *port* ethernet efm-oam link-monitoring errored-frame-seconds sf-threshold *number* |
| Tree | sf-threshold |
| Range | 1 to 900 |
| Default | 1 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **window** *number*

| | |
|---|---|
| Synopsis | Window size |
| Context | **configure** port *port* ethernet efm-oam link-monitoring errored-frame-seconds window *number* |
| Tree | window |
| Range | 100 to 9000 |
| Units | deciseconds |
| Default | 600 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **errored-symbols**

| | |
|---|---|
| Synopsis | Enter the **errored-symbols** context |
| Context | **configure** port *port* ethernet efm-oam link-monitoring errored-symbols |
| Tree | errored-symbols |
| Introduced | 16.0.R4 |


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| | |
|---|---|
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of link monitoring on the port |
| Context | **configure** port *port* ethernet efm-oam link-monitoring errored-symbols admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R4 |
| Platforms | All |

### **event-notification** *boolean*

| | |
|---|---|
| Synopsis | Transmit Event Notification OAMPDU with link event TLV |
| Context | **configure** port *port* ethernet efm-oam link-monitoring errored-symbols event-notification *boolean* |
| Tree | event-notification |
| Default | true |
| Introduced | 16.0.R4 |
| Platforms | All |

### **sd-threshold** *number*

| | |
|---|---|
| Synopsis | SD threshold |
| Context | **configure** port *port* ethernet efm-oam link-monitoring errored-symbols sd-threshold *number* |
| Tree | sd-threshold |
| Range | 1 to 1000000 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **sf-threshold** *number*

| | |
|---|---|
| Synopsis | SF threshold |


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| | |
|---|---|
| Context | **configure** port *port* ethernet efm-oam link-monitoring errored-symbols sf-threshold *number* |
| Tree | sf-threshold |
| Range | 1 to 1000000 |
| Default | 1 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **window** *number*

| | |
|---|---|
| Synopsis | Window size |
| Context | **configure** port *port* ethernet efm-oam link-monitoring errored-symbols window *number* |
| Tree | window |
| Range | 10 to 600 |
| Units | deciseconds |
| Default | 10 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **local-sf-action**

| | |
|---|---|
| Synopsis | Enter the **local-sf-action** context |
| Context | **configure** port *port* ethernet efm-oam link-monitoring local-sf-action |
| Tree | local-sf-action |
| Introduced | 16.0.R4 |
| Platforms | All |

### **event-notification-burst** *number*

| | |
|---|---|
| Synopsis | Number of OAMPDUs to send when SF threshold is reached |
| Context | **configure** port *port* ethernet efm-oam link-monitoring local-sf-action event-notification-burst *number* |
| Tree | event-notification-burst |
| Range | 1 to 5 |
| Units | packets |
| Default | 1 |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | All |

## info-notification

| | |
|---|---|
| Synopsis | Enter the **info-notification** context |
| Context | **configure** port *port* ethernet efm-oam link-monitoring local-sf-action info-notification |
| Tree | info-notification |
| Introduced | 16.0.R4 |
| Platforms | All |

## critical-event *boolean*

| | |
|---|---|
| Synopsis | Set critical event flag when SF threshold is reached |
| Context | **configure** port *port* ethernet efm-oam link-monitoring local-sf-action info-notification critical-event *boolean* |
| Tree | critical-event |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

## dying-gasp *boolean*

| | |
|---|---|
| Synopsis | Set dying gasp flag when SF threshold is reached |
| Context | **configure** port *port* ethernet efm-oam link-monitoring local-sf-action info-notification dying-gasp *boolean* |
| Tree | dying-gasp |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

## local-port-action *keyword*

| | |
|---|---|
| Synopsis | Local port action when SF threshold is reached |
| Context | **configure** port *port* ethernet efm-oam link-monitoring local-sf-action local-port-action *keyword* |


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| | |
|---|---|
| Tree | local-port-action |
| Options | log-only, port-out-of-service |
| Default | port-out-of-service |
| Introduced | 16.0.R4 |
| Platforms | All |

### **mode** *keyword*

| | |
|---|---|
| Synopsis | Mode of OAM operation for the Ethernet port |
| Context | **configure** port *port* ethernet efm-oam mode *keyword* |
| Tree | mode |
| Options | passive, active |
| Default | active |
| Introduced | 16.0.R1 |
| Platforms | All |

### **multiplier** *number*

| | |
|---|---|
| Synopsis | Multiplier for the transmit interval of OAMPDUs |
| Context | **configure** port *port* ethernet efm-oam multiplier *number* |
| Tree | multiplier |
| Range | 2 to 5 |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **peer-rdi-rx**

| | |
|---|---|
| Synopsis | Enter the **peer-rdi-rx** context |
| Context | **configure** port *port* ethernet efm-oam peer-rdi-rx |
| Tree | peer-rdi-rx |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **critical-event** *keyword*

| | |
|---|---|
| Synopsis | Action taken upon receipt of critical event flag |
| Context | **configure** port *port* ethernet efm-oam peer-rdi-rx critical-event *keyword* |
| Tree | critical-event |
| Options | log-only, port-out-of-service |
| Default | port-out-of-service |
| Introduced | 16.0.R1 |
| Platforms | All |

### **dying-gasp** *keyword*

| | |
|---|---|
| Synopsis | Action taken upon receipt of dying gasp flag |
| Context | **configure** port *port* ethernet efm-oam peer-rdi-rx dying-gasp *keyword* |
| Tree | dying-gasp |
| Options | log-only, port-out-of-service |
| Default | port-out-of-service |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event-notification** *keyword*

| | |
|---|---|
| Synopsis | Action taken upon receipt of event TLVs |
| Context | **configure** port *port* ethernet efm-oam peer-rdi-rx event-notification *keyword* |
| Tree | event-notification |
| Options | log-only, port-out-of-service |
| Default | log-only |
| Introduced | 16.0.R1 |
| Platforms | All |

### **link-fault** *keyword*

| | |
|---|---|
| Synopsis | Action taken upon receipt of link fault flag |
| Context | **configure** port *port* ethernet efm-oam peer-rdi-rx link-fault *keyword* |
| Tree | link-fault |


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| | |
|---|---|
| Options | log-only, port-out-of-service |
| Default | port-out-of-service |
| Introduced | 16.0.R1 |
| Platforms | All |

### **transmit-interval** *number*

| | |
|---|---|
| Synopsis | Transmit interval of OAMPDUs |
| Context | **configure** port *port* ethernet efm-oam transmit-interval *number* |
| Tree | transmit-interval |
| Range | 1 to 600 |
| Units | deciseconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **trigger-fault** *keyword*

| | |
|---|---|
| Synopsis | Flag setting in the information OAMPDU |
| Context | **configure** port *port* ethernet efm-oam trigger-fault *keyword* |
| Tree | trigger-fault |
| Options | dying-gasp, critical-event |
| Introduced | 16.0.R1 |
| Platforms | All |

### **tunneling** *boolean*

| | |
|---|---|
| Synopsis | Enable EFM-OAM PDU tunneling |
| Context | **configure** port *port* ethernet efm-oam tunneling *boolean* |
| Tree | tunneling |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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## egress

| | |
|---|---|
| Synopsis | Enter the **egress** context |
| Context | **configure** port *port* ethernet egress |
| Tree | egress |
| Introduced | 16.0.R1 |
| Platforms | All |

## eth-bn-rate-changes *boolean*

| | |
|---|---|
| Synopsis | Allow rate changes in ETH-BN messages on port-based MEP |
| Context | **configure** port *port* ethernet egress eth-bn-rate-changes *boolean* |
| Tree | eth-bn-rate-changes |
| Description | When configured to **true**, this command allows rate changes received in ETH-BN messages on a port-based MEP to update the egress rate used on the port.<br>This command is not supported for all MDA types.<br>When configured to **false**, rate changes in ETH-BN messages are denied. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## hs-port-pool-policy *reference*

| | |
|---|---|
| Synopsis | HS port pool policy |
| Context | **configure** port *port* ethernet egress hs-port-pool-policy *reference* |
| Tree | hs-port-pool-policy |
| Reference | **configure** qos hs-port-pool-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

## hs-scheduler-policy

| | |
|---|---|
| Synopsis | Enter the **hs-scheduler-policy** context |
| Context | **configure** port *port* ethernet egress hs-scheduler-policy |
| Tree | hs-scheduler-policy |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### overrides

| | |
|---|---|
| Synopsis | Enable the **overrides** context |
| Context | **configure** port *port* ethernet egress hs-scheduler-policy overrides |
| Tree | overrides |
| Introduced | 19.10.R1 |
| Platforms | 7750 SR-7/12/12e |

### **group** [group-id] *number*

| | |
|---|---|
| Synopsis | Enter the **group** list instance |
| Context | **configure** port *port* ethernet egress hs-scheduler-policy overrides group *number* |
| Tree | group |
| Introduced | 19.10.R1 |
| Platforms | 7750 SR-7/12/12e |

### [**group-id**] *number*

| | |
|---|---|
| Synopsis | Group ID |
| Context | **configure** port *port* ethernet egress hs-scheduler-policy overrides group *number* |
| Tree | group |
| Range | 1 |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | 7750 SR-7/12/12e |

### **rate** *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum rate |
| Context | **configure** port *port* ethernet egress hs-scheduler-policy overrides group *number* rate *(number | keyword)* |
| Tree | rate |


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| | |
|---|---|
| Range | 1 to 100000 |
| Units | megabps |
| Options | max |
| Introduced | 19.10.R1 |
| Platforms | 7750 SR-7/12/12e |

### **max-rate** *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum frame-based bandwidth limit |
| Context | **configure** port *port* ethernet egress hs-scheduler-policy overrides max-rate *(number | keyword)* |
| Tree | max-rate |
| Range | 1 to 100000 |
| Units | megabps |
| Options | max |
| Introduced | 19.10.R1 |
| Platforms | 7750 SR-7/12/12e |

### **scheduling-class** [class-number] *number*

| | |
|---|---|
| Synopsis | Enter the **scheduling-class** list instance |
| Context | **configure** port *port* ethernet egress hs-scheduler-policy overrides scheduling-class *number* |
| Tree | scheduling-class |
| Introduced | 19.10.R1 |
| Platforms | 7750 SR-7/12/12e |

### [**class-number**] *number*

| | |
|---|---|
| Synopsis | Scheduling class value |
| Context | **configure** port *port* ethernet egress hs-scheduler-policy overrides scheduling-class *number* |
| Tree | scheduling-class |
| Range | 1 to 6 |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |


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| | |
|---|---|
| Platforms | 7750 SR-7/12/12e |

### **rate** *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum frame-based bandwidth limit |
| Context | **configure** port *port* ethernet egress hs-scheduler-policy overrides scheduling-class *number* rate *(number | keyword)* |
| Tree | rate |
| Range | 1 to 100000 |
| Units | megabps |
| Options | max |
| Introduced | 19.10.R1 |
| Platforms | 7750 SR-7/12/12e |

### **weight** *number*

| | |
|---|---|
| Synopsis | Weight of the scheduling class within the group |
| Context | **configure** port *port* ethernet egress hs-scheduler-policy overrides scheduling-class *number* weight *number* |
| Tree | weight |
| Range | 1 to 127 |
| Introduced | 19.10.R1 |
| Platforms | 7750 SR-7/12/12e |

### **policy-name** *reference*

| | |
|---|---|
| Synopsis | HS scheduler policy name |
| Context | **configure** port *port* ethernet egress hs-scheduler-policy policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos hs-scheduler-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **hs-secondary-shaper** [secondary-shaper-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **hs-secondary-shaper** list instance |


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| | |
|---|---|
| Context | **configure** port *port* ethernet egress hs-secondary-shaper *named-item* |
| Tree | hs-secondary-shaper |
| Introduced | 19.10.R1 |
| Platforms | 7750 SR-7/12/12e |

### [**secondary-shaper-name**] *named-item*

| | |
|---|---|
| Synopsis | Secondary shaper name |
| Context | **configure** port *port* ethernet egress hs-secondary-shaper *named-item* |
| Tree | hs-secondary-shaper |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | 7750 SR-7/12/12e |

### **aggregate**

| | |
|---|---|
| Synopsis | Enter the **aggregate** context |
| Context | **configure** port *port* ethernet egress hs-secondary-shaper *named-item* aggregate |
| Tree | aggregate |
| Introduced | 19.10.R1 |
| Platforms | 7750 SR-7/12/12e |

### **low-burst-max-class** *number*

| | |
|---|---|
| Synopsis | Highest scheduling class mapped to the low burst limit |
| Context | **configure** port *port* ethernet egress hs-secondary-shaper *named-item* aggregate low-burst-max-class *number* |
| Tree | low-burst-max-class |
| Range | 1 to 6 |
| Default | 6 |
| Introduced | 19.10.R1 |
| Platforms | 7750 SR-7/12/12e |


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### **rate** *(number | keyword)*

| | |
|---|---|
| Synopsis | Rate allowed for the HS secondary shaper aggregate |
| Context | **configure** port *port* ethernet egress hs-secondary-shaper *named-item* aggregate rate *(number | keyword)* |
| Tree | rate |
| Range | 1 to 100000000 |
| Units | kilobps |
| Options | max |
| Default | max |
| Introduced | 19.10.R1 |
| Platforms | 7750 SR-7/12/12e |

### **class** [class-number] *number*

| | |
|---|---|
| Synopsis | Enter the **class** list instance |
| Context | **configure** port *port* ethernet egress hs-secondary-shaper *named-item* class *number* |
| Tree | class |
| Introduced | 19.10.R1 |
| Platforms | 7750 SR-7/12/12e |

### [**class-number**] *number*

| | |
|---|---|
| Synopsis | HS secondary shaper class ID |
| Context | **configure** port *port* ethernet egress hs-secondary-shaper *named-item* class *number* |
| Tree | class |
| Range | 1 to 6 |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | 7750 SR-7/12/12e |

### **rate** *(number | keyword)*

| | |
|---|---|
| Synopsis | Rate allowed for the HS secondary shaper class |
| Context | **configure** port *port* ethernet egress hs-secondary-shaper *named-item* class *number* rate *(number | keyword)* |


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| | |
|---|---|
| Tree | rate |
| Range | 1 to 100000000 |
| Units | kilobps |
| Options | max |
| Default | max |
| Introduced | 19.10.R1 |
| Platforms | 7750 SR-7/12/12e |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** port *port* ethernet egress hs-secondary-shaper *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 19.10.R1 |
| Platforms | 7750 SR-7/12/12e |

### **hw-agg-shaper-scheduler**

| | |
|---|---|
| Synopsis | Enter the **hw-agg-shaper-scheduler** context |
| Context | **configure** port *port* ethernet egress hw-agg-shaper-scheduler |
| Tree | hw-agg-shaper-scheduler |
| Introduced | 22.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### **monitor** *boolean*

| | |
|---|---|
| Synopsis | Allow monitoring of the HW aggregate shaper scheduler |
| Context | **configure** port *port* ethernet egress hw-agg-shaper-scheduler monitor *boolean* |
| Tree | monitor |
| Default | false |
| Introduced | 22.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |


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### **policy-name** *reference*

| | |
|---|---|
| Synopsis | Name of HW aggregate shaper scheduler policy |
| Context | **configure** port *port* ethernet egress hw-agg-shaper-scheduler policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos hw-agg-shaper-scheduler-policy *named-item-64* |
| Introduced | 22.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### **monitor-port-scheduler** *boolean*

| | |
|---|---|
| Synopsis | Enable monitoring of egress scheduler |
| Context | **configure** port *port* ethernet egress monitor-port-scheduler *boolean* |
| Tree | monitor-port-scheduler |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **port-scheduler-policy**

| | |
|---|---|
| Synopsis | Enter the **port-scheduler-policy** context |
| Context | **configure** port *port* ethernet egress port-scheduler-policy |
| Tree | port-scheduler-policy |
| Introduced | 16.0.R1 |
| Platforms | All |

### **overrides**

| | |
|---|---|
| Synopsis | Enable the **overrides** context |
| Context | **configure** port *port* ethernet egress port-scheduler-policy overrides |
| Tree | overrides |
| Description | Commands in this context configure egress scheduler overrides. |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **level** [priority-level] *number*

| | |
|---|---|
| Synopsis | Enter the **level** list instance |
| Context | **configure** port *port* ethernet egress port-scheduler-policy overrides level *number* |
| Tree | level |
| Introduced | 16.0.R4 |
| Platforms | All |

### [**priority-level**] *number*

| | |
|---|---|
| Synopsis | Port priority level to be overridden |
| Context | **configure** port *port* ethernet egress port-scheduler-policy overrides level *number* |
| Tree | level |
| Range | 1 to 8 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **percent-rate**

| | |
|---|---|
| Synopsis | Enter the **percent-rate** context |
| Context | **configure** port *port* ethernet egress port-scheduler-policy overrides level *number* percent-rate |
| Tree | percent-rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **cir** *decimal-number*

| | |
|---|---|
| Synopsis | CIR for the port scheduler policy |
| Context | **configure** port *port* ethernet egress port-scheduler-policy overrides level *number* percent-rate cir *decimal-number* |
| Tree | cir |
| Range | 0.00 to 100.00 |


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| | |
|---|---|
| Units | percent |
| Introduced | 16.0.R4 |
| Platforms | All |

### **pir** *decimal-number*

| | |
|---|---|
| Synopsis | PIR for the the port scheduler policy |
| Context | **configure** port *port* ethernet egress port-scheduler-policy overrides level *number* percent-rate pir *decimal-number* |
| Tree | pir |
| Range | 0.01 to 100.00 |
| Units | percent |
| Introduced | 16.0.R4 |
| Platforms | All |

### **rate**

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** port *port* ethernet egress port-scheduler-policy overrides level *number* rate |
| Tree | rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **cir** *(number | keyword)*

| | |
|---|---|
| Synopsis | CIR |
| Context | **configure** port *port* ethernet egress port-scheduler-policy overrides level *number* rate cir *(number | keyword)* |
| Tree | cir |
| Range | 0 to 6400000000 |
| Units | kilobps |
| Options | sum, max |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | PIR |
| Context | **configure** port *port* ethernet egress port-scheduler-policy overrides level *number* rate pir *(number \| keyword)* |
| Tree | pir |
| Range | 1 to 6400000000 |
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R4 |
| Platforms | All |

### **max-rate**

| | |
|---|---|
| Synopsis | Enter the **max-rate** context |
| Context | **configure** port *port* ethernet egress port-scheduler-policy overrides max-rate |
| Tree | max-rate |
| Description | Commands in this context override the **max-rate** command found in the port scheduler policy associated with the port. When a maximum rate is defined at the port or channel level, the port scheduler's policy **max-rate** command is ignored. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **percent-rate** *decimal-number*

| | |
|---|---|
| Synopsis | PIR rate |
| Context | **configure** port *port* ethernet egress port-scheduler-policy overrides max-rate percent-rate *decimal-number* |
| Tree | percent-rate |
| Range | 0.01 to 100 |
| Units | percent |
| Default | 100 |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **rate** *(number | keyword)*

| | |
|---|---|
| Synopsis | PIR rate |
| Context | **configure** port *port* ethernet egress port-scheduler-policy overrides max-rate rate *(number | keyword)* |
| Tree | rate |
| Range | 1 to 6400000000 |
| Units | kilobps |
| Options | max |
| Default | max |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **policy-name** *reference*

| | |
|---|---|
| Synopsis | Egress scheduler policy name |
| Context | **configure** port *port* ethernet egress port-scheduler-policy policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos port-scheduler-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rate** *number*

| | |
|---|---|
| Synopsis | Rate of egress traffic |
| Context | **configure** port *port* ethernet egress rate *number* |
| Tree | rate |
| Description | This command configures the rate of traffic leaving the network. An event log is generated each time the egress rate is modified unless the port is part of a LAG.<br>This command is not supported for all MDA types. |
| Max. range | -2147483648 to 2147483647 |
| Units | kilobps |
| Introduced | 16.0.R1 |
| Platforms | All |


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### elmi

| | |
|---|---|
| Synopsis | Enter the **elmi** context |
| Context | **configure** port *port* ethernet elmi |
| Tree | elmi |
| Introduced | 16.0.R4 |
| Platforms | All |

### mode *keyword*

| | |
|---|---|
| Synopsis | Ethernet LMI mode |
| Context | **configure** port *port* ethernet elmi mode *keyword* |
| Tree | mode |
| Options | uni-n |
| Introduced | 16.0.R4 |
| Platforms | All |

### n393 *number*

| | |
|---|---|
| Synopsis | Monitored count of consecutive errors |
| Context | **configure** port *port* ethernet elmi n393 *number* |
| Tree | n393 |
| Range | 2 to 10 |
| Default | 4 |
| Introduced | 16.0.R4 |
| Platforms | All |

### t391 *number*

| | |
|---|---|
| Synopsis | Polling timer for UNI-C |
| Context | **configure** port *port* ethernet elmi t391 *number* |
| Tree | t391 |
| Range | 5 to 30 |
| Units | seconds |
| Default | 10 |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | All |

### **t392** *number*

| | |
|---|---|
| Synopsis | Polling verification timer for UNI-N |
| Context | **configure** port *port* ethernet elmi t392 *number* |
| Tree | t392 |
| Range | 5 to 30 |
| Units | seconds |
| Default | 15 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **encap-type** *keyword*

| | |
|---|---|
| Synopsis | Encapsulation method for the Ethernet port |
| Context | **configure** port *port* ethernet encap-type *keyword* |
| Tree | encap-type |
| Options | null, dot1q, qinq |
| Introduced | 16.0.R1 |
| Platforms | All |

### **eth-cfm**

| | |
|---|---|
| Synopsis | Enter the **eth-cfm** context |
| Context | **configure** port *port* ethernet eth-cfm |
| Tree | eth-cfm |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **mep** md-admin-name *reference* ma-admin-name *reference* mep-id *number*

| | |
|---|---|
| Synopsis | Enter the **mep** list instance |
| Context | **configure** port *port* ethernet eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |


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| | |
|---|---|
| Tree | mep |
| Description | Commands in this context provision an 802.1ag maintenance endpoint (MEP).<br>Port-based MEPs and LAG-based MEPs are mutually exclusive. If a LAG member port includes a MEP, the configuration of a MEP on the LAG fails. If a LAG includes the configuration of a MEP, the configuration of MEPs on the LAG member ports fails. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **md-admin-name** *reference*

| | |
|---|---|
| Synopsis | Maintenance Domain (MD) name |
| Context | **configure** port *port* ethernet eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |
| Tree | mep |
| Reference | **configure** eth-cfm domain *admin-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **ma-admin-name** *reference*

| | |
|---|---|
| Synopsis | Maintenance Association (MA) name |
| Context | **configure** port *port* ethernet eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |
| Tree | mep |
| Reference | **configure** eth-cfm domain *admin-name* association *admin-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **mep-id** *number*

| | |
|---|---|
| Synopsis | Maintenance Endpoint (MEP) ID |
| Context | **configure** port *port* ethernet eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |
| Tree | mep |


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| | |
|---|---|
| Range | 1 to 8191 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the MEP |
| Context | **configure** port *port* ethernet eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **ais**

| | |
|---|---|
| Synopsis | Enable the **ais** context |
| Context | **configure** port *port* ethernet eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ais |
| Tree | ais |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **client-meg-level** *number*

| | |
|---|---|
| Synopsis | Client MEG level for AIS message generation |
| Context | **configure** port *port* ethernet eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ais client-meg-level *number* |
| Tree | client-meg-level |
| Range | 1 to 7 |
| Max. instances | 7 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **interface-support** *boolean*

| | |
|---|---|
| Synopsis | Enable generation of AIS PDUs based on endpoint state |
| Context | **configure** port *port* ethernet eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ais interface-support *boolean* |
| Tree | interface-support |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **interval** *number*

| | |
|---|---|
| Synopsis | Transmission interval for AIS messages |
| Context | **configure** port *port* ethernet eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ais interval *number* |
| Tree | interval |
| Range | 1 \| 60 |
| Units | seconds |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **low-priority-defect** *keyword*

| | |
|---|---|
| Synopsis | Lowest priority defect allowed to generate fault alarm |
| Context | **configure** port *port* ethernet eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ais low-priority-defect *keyword* |
| Tree | low-priority-defect |
| Options | all-def, mac-rem-err-xcon |
| Default | all-def |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **priority** *number*

| | |
|---|---|
| Synopsis | Priority of the AIS messages generated by the node |


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| | |
|---|---|
| Context | **configure** port *port* ethernet eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ais priority *number* |
| Tree | priority |
| Range | 0 to 7 |
| Default | 7 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## alarm-notification

| | |
|---|---|
| Synopsis | Enter the **alarm-notification** context |
| Context | **configure** port *port* ethernet eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* alarm-notification |
| Tree | alarm-notification |
| Description | Commands in this context configure the Fault Notification Generator (FNG) time values to raise an alarm or reset the CCM defect alarm.<br>Use these timers for network management processes. The timers are not tied into delaying the notification to the fault management system on the network element and do not affect fault propagation mechanisms. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## fng-alarm-time *number*

| | |
|---|---|
| Synopsis | Time that must expire before an FNG alarm is raised |
| Context | **configure** port *port* ethernet eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* alarm-notification fng-alarm-time *number* |
| Tree | fng-alarm-time |
| Range | 250 \| 500 \| 1000 |
| Units | centiseconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## fng-reset-time *number*

| | |
|---|---|
| Synopsis | Time that must expire before an FNG alarm is reset |


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| | |
|---|---|
| Context | **configure** port *port* ethernet eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* alarm-notification fng-reset-time *number* |
| Tree | fng-reset-time |
| Range | 250 \| 500 \| 1000 |
| Units | centiseconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ccm** *boolean*

| | |
|---|---|
| Synopsis | Generate CCM messages |
| Context | **configure** port *port* ethernet eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ccm *boolean* |
| Tree | ccm |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ccm-ltm-priority** *number*

| | |
|---|---|
| Synopsis | Priority of CCM and LTM messages transmitted by the MEP |
| Context | **configure** port *port* ethernet eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ccm-ltm-priority *number* |
| Tree | ccm-ltm-priority |
| Range | 0 to 7 |
| Default | 7 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ccm-padding-size** *number*

| | |
|---|---|
| Synopsis | Number of octets of padding to insert in CCM packets |
| Context | **configure** port *port* ethernet eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ccm-padding-size *number* |
| Tree | ccm-padding-size |
| Description | This command sets the byte size of the optional Data TLV to be included in the ETH-CC PDU. |


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This command increases the size of the ETH-CC PDU by the configured value. The base size of the ETH-CC PDU, including the Interface Status TLV and Port Status TLV, is 83 bytes not including the Layer 2 encapsulation. CCM padding is not supported when the CCM interval (configured through **configure eth-cfm domain association ccm-interval)** is less than 1 second.

| | |
|---|---|
| Range | 3 to 1500 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **ccm-tlv-ignore** *keyword*

| | |
|---|---|
| Synopsis | TLV to ignore on reception |
| Context | **configure** port *port* ethernet eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ccm-tlv-ignore *keyword* |
| Tree | ccm-tlv-ignore |
| Description | This command configures the receiving MEP to ignore the specified TLVs in the CCM PDU. The ignored TLVs are reported as absent and have no impact on the MEP state machine.<br>When unconfigured, the MEP processes all the recognized TLVs. |
| Options | interface-status, port-status |
| Max. instances | 2 |
| Introduced | 16.0.R6 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **collect-lmm-stats** *boolean*

| | |
|---|---|
| Synopsis | Collect statistics for loss measurement message tests |
| Context | **configure** port *port* ethernet eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* collect-lmm-stats *boolean* |
| Tree | collect-lmm-stats |
| Description | When configured to **true**, the router instantiates the statistical counter to transmit and receive packets for the LAG facility MEP bindings.<br>The **show eth-cfm collect-lmm-stats** command displays entities that have been enabled to collect transit and receive counters.<br>When configured to **false**, the router does not instantiate the counter and the LMM PDU associated with the MEP does not populate the counters in the packet. |
| Default | false |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## csf

| | |
|---|---|
| Synopsis | Enable the **csf** context |
| Context | **configure** port *port* ethernet eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* csf |
| Tree | csf |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## multiplier *decimal-number*

| | |
|---|---|
| Synopsis | Multiplication factor used to clear the CSF condition |
| Context | **configure** port *port* ethernet eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* csf multiplier *decimal-number* |
| Tree | multiplier |
| Range | 0.0 \| 2.0 to 30.0 |
| Default | 3.5 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## description *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** port *port* ethernet eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## eth-bn

| | |
|---|---|
| Synopsis | Enter the **eth-bn** context |
| Context | **configure** port *port* ethernet eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-bn |


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| | |
|---|---|
| Tree | eth-bn |
| Description | Commands in this context configure Ethernet Bandwidth Notification (ETH-BN) message handling. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **receive** *boolean*

| | |
|---|---|
| Synopsis | Enable the reception and processing of ETH-BN messages |
| Context | **configure** port *port* ethernet eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-bn receive *boolean* |
| Tree | receive |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **rx-update-pacing** *number*

| | |
|---|---|
| Synopsis | Pace of messages to and from ETH-CFM to QoS subsystems |
| Context | **configure** port *port* ethernet eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-bn rx-update-pacing *number* |
| Tree | rx-update-pacing |
| Range | 1 to 600 |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **eth-test**

| | |
|---|---|
| Synopsis | Enable the **eth-test** context |
| Context | **configure** port *port* ethernet eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test |
| Tree | eth-test |
| Description | Commands in this context configure information used by the Ethernet Test (ETH-TST) packet. The commands must be configured on both the sender and the receiver nodes. The test packets are used with the **oam eth-cfm eth-test** command. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **bit-error-threshold** *number*

| | |
|---|---|
| Synopsis | Lowest priority defect allowed to generate fault alarm |
| Context | **configure** port *port* ethernet eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test bit-error-threshold *number* |
| Tree | bit-error-threshold |
| Range | 0 to 11840 |
| Units | bit errors |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **test-pattern**

| | |
|---|---|
| Synopsis | Enter the **test-pattern** context |
| Context | **configure** port *port* ethernet eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test test-pattern |
| Tree | test-pattern |
| Description | Commands in this context specify the test pattern for the ETH-TST frames. The pattern does not have to be the same on the sender and the receiver. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **crc-tlv** *boolean*

| | |
|---|---|
| Synopsis | Generate a CRC checksum |
| Context | **configure** port *port* ethernet eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test test-pattern crc-tlv *boolean* |
| Tree | crc-tlv |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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## **pattern** *keyword*

| | |
|---|---|
| Synopsis | Test pattern for Ethernet Test frames |
| Context | **configure** port *port* ethernet eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test test-pattern pattern *keyword* |
| Tree | pattern |
| Description | This command specifies the test pattern of the Ethernet Test (ETH-TST) frames. This does not have to be configured the same on the sender and the receiver. |
| Options | all-zeros, all-ones |
| Default | all-zeros |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **facility-fault** *boolean*

| | |
|---|---|
| Synopsis | Allow the facility MEP to generate a network action |
| Context | **configure** port *port* ethernet eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* facility-fault *boolean* |
| Tree | facility-fault |
| Description | When configured to **true**, the system facility MEP responds to a fault with a network-actionable function instead of just reporting the defect condition.<br>When configured to **false**, the system monitors transmissions and reports fault conditions. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **grace**

| | |
|---|---|
| Synopsis | Enter the **grace** context |
| Context | **configure** port *port* ethernet eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace |
| Tree | grace |
| Description | Commands in this context configure the Nokia ETH-CFM Grace function and the ITU-T Y.1731 Ethernet Expected Default (ETH-ED) function. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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## eth-ed

| | |
|---|---|
| Synopsis | Enter the **eth-ed** context |
| Context | **configure** port *port* ethernet eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed |
| Tree | eth-ed |
| Description | Commands in this context configure the ITU-T Y.1731 ETH-ED function. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## max-rx-defect-window *number*

| | |
|---|---|
| Synopsis | Maximum received ETH-ED expected defect window duration |
| Context | **configure** port *port* ethernet eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed max-rx-defect-window *number* |
| Tree | max-rx-defect-window |
| Range | 1 to 86400 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## priority *number*

| | |
|---|---|
| Synopsis | Transmission priority for ETH-ED PDUs |
| Context | **configure** port *port* ethernet eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed priority *number* |
| Tree | priority |
| Range | 0 to 7 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## rx-eth-ed *boolean*

| | |
|---|---|
| Synopsis | Receive and process ETH-ED ITU-T Y.1731 PDUs on the MEP |
| Context | **configure** port *port* ethernet eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed rx-eth-ed *boolean* |


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| | |
|---|---|
| Tree | rx-eth-ed |
| Description | This command enables the reception and processing of the ITU-T Y.1731 ETH-ED PDU on the MEP. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **tx-eth-ed** *boolean*

| | |
|---|---|
| Synopsis | Transmit ETH-ED PDUs from the MEP |
| Context | **configure** port *port* ethernet eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed tx-eth-ed *boolean* |
| Tree | tx-eth-ed |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **eth-vsm-grace**

| | |
|---|---|
| Synopsis | Enter the **eth-vsm-grace** context |
| Context | **configure** port *port* ethernet eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-vsm-grace |
| Tree | eth-vsm-grace |
| Description | Commands in this context configure the Nokia ETH-CFM Grace function. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **rx-eth-vsm-grace** *boolean*

| | |
|---|---|
| Synopsis | Receive and process Nokia ETH-CFM Grace PDU on the MEP |
| Context | **configure** port *port* ethernet eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-vsm-grace rx-eth-vsm-grace *boolean* |
| Tree | rx-eth-vsm-grace |
| Description | When configured to **true**, the router enables the Nokia Grace function, which is a vendor-specific PDU that informs MEP peers that the local node may be entering a period of expected defect.<br>When configured to **false**, the router disables the Nokia Grace function. |


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| | |
|---|---|
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **tx-eth-vsm-grace** *boolean*

| | |
|---|---|
| Synopsis | Transmit ETH-ED PDUs from the MEP |
| Context | **configure** port *port* ethernet eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-vsm-grace tx-eth-vsm-grace *boolean* |
| Tree | tx-eth-vsm-grace |
| Description | When configured to **true**, the router can transmit the Nokia ETH-CFM Grace PDU from the MEP when a system soft reset notification is received for one or more cards.<br>The Nokia Grace function is a vendor-specific PDU that informs MEP peers that the local node may be entering a period of expected defect.<br>The operator must configure the **configure system eth-cfm grace** command to instruct the system that the node is capable of transmitting expected-defect windows to peers. The system can only transmit one form of ETH-CFM grace (Nokia ETH-CFM Grace or ITU-T Y.1731 ETH-ED).<br>When configured to **false**, the router disables the transmission of the Nokia ETH-CFM Grace PDU from the MEP. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **low-priority-defect** *keyword*

| | |
|---|---|
| Synopsis | Lowest priority defect allowed to generate fault alarm |
| Context | **configure** port *port* ethernet eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* low-priority-defect *keyword* |
| Tree | low-priority-defect |
| Options | all-def, mac-rem-err-xcon, rem-err-xcon, err-xcon, xcon, no-xcon |
| Default | mac-rem-err-xcon |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **mac-address** *mac-unicast-address-no-zero*

| | |
|---|---|
| Synopsis | MAC address of the MEP |


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| | |
|---|---|
| Context | **configure** port *port* ethernet eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* mac-address *mac-unicast-address-no-zero* |
| Tree | mac-address |
| Description | This command specifies the MAC address of the MEP.<br>When unconfigured, the MAC address of the port (if the MEP is on a SAP) or the MAC address of a bridge (if the MEP is on a spoke) is used. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **one-way-delay-threshold** *number*

| | |
|---|---|
| Synopsis | Threshold time limit for the one-way delay test |
| Context | **configure** port *port* ethernet eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* one-way-delay-threshold *number* |
| Tree | one-way-delay-threshold |
| Range | 0 to 600 |
| Units | seconds |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **vlan** *(number | keyword)*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Outer VLAN ID of the tunnel |
| Context | **configure** port *port* ethernet eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* vlan *(number \| keyword)* |
| Tree | vlan |
| Range | 1 to 4094 |
| Options | none |
| Default | none |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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## hold-time

| | |
|---|---|
| Synopsis | Enter the **hold-time** context |
| Context | **configure** port *port* ethernet hold-time |
| Tree | hold-time |
| Introduced | 16.0.R1 |
| Platforms | All |

## down *number*

| | |
|---|---|
| Synopsis | Delay after interface goes from up state to down state |
| Context | **configure** port *port* ethernet hold-time down *number* |
| Tree | down |
| Description | This command specifies the delay to notify the upper layers after an interface transitions from an up state to a down state.<br>When an interface transitions from an up state to a down state, it is immediately advertised to the rest of the system if the down interval is zero, but if the down interval is greater than zero, interface down transitions are not advertised to upper layers until the down interval has expired. |
| Range | 1 to 3600000 |
| Introduced | 16.0.R1 |
| Platforms | All |

## units *keyword*

| | |
|---|---|
| Synopsis | Hold time units |
| Context | **configure** port *port* ethernet hold-time units *keyword* |
| Tree | units |
| Options | seconds, centiseconds |
| Default | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

## up *number*

| | |
|---|---|
| Synopsis | Delay after interface goes from down state to up state |


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| | |
|---|---|
| Context | **configure** port *port* ethernet hold-time up *number* |
| Tree | up |
| Description | This command specifies the delay to notify the upper layers after an interface transitions from a down state to an up state.<br>When an interface transitions from a down state to an up state, it is immediately advertised as up to the rest of the system if the up interval is zero, but if the up interval is greater than zero, up transitions are not advertised until the up interval has expired. |
| Range | 1 to 3600000 |
| Introduced | 16.0.R1 |
| Platforms | All |

## ingress

| | |
|---|---|
| Synopsis | Enter the **ingress** context |
| Context | **configure** port *port* ethernet ingress |
| Tree | ingress |
| Introduced | 16.0.R1 |
| Platforms | All |

## rate *number*

| | |
|---|---|
| Synopsis | Maximum ingress bandwidth |
| Context | **configure** port *port* ethernet ingress rate *number* |
| Tree | rate |
| Max. range | -2147483648 to 2147483647 |
| Units | megabps |
| Introduced | 16.0.R1 |
| Platforms | All |

## lacp-tunnel *boolean*

| | |
|---|---|
| Synopsis | Enable LACP packet tunneling for the Ethernet port |
| Context | **configure** port *port* ethernet lacp-tunnel *boolean* |
| Tree | lacp-tunnel |
| Default | false |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## lldp

| | |
|---|---|
| Synopsis | Enter the **lldp** context |
| Context | **configure** port *port* ethernet lldp |
| Tree | lldp |
| Description | Commands in this context configure the Link Layer Discovery Protocol (LLDP) on the port. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **dest-mac** [mac-type] *keyword*

| | |
|---|---|
| Synopsis | Enter the **dest-mac** list instance |
| Context | **configure** port *port* ethernet lldp dest-mac *keyword* |
| Tree | dest-mac |
| Description | Commands in this context configure destination MAC address commands. |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**mac-type**] *keyword*

| | |
|---|---|
| Synopsis | Destination MAC address type |
| Context | **configure** port *port* ethernet lldp dest-mac *keyword* |
| Tree | dest-mac |
| Options | nearest-bridge – Use the nearest bridge<br>nearest-non-tpmr – Use nearest non-Two-Port MAC Relay (TPMR)<br>nearest-customer – Use the nearest customer |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **notification** *boolean*

| | |
|---|---|
| Synopsis | Enable LLDP notifications |


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| | |
|---|---|
| Context | **configure** port *port* ethernet lldp dest-mac *keyword* notification *boolean* |
| Tree | notification |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **port-id-subtype** *keyword*

| | |
|---|---|
| Synopsis | Port ID TLV encoding method for transmission to peer |
| Context | **configure** port *port* ethernet lldp dest-mac *keyword* port-id-subtype *keyword* |
| Tree | port-id-subtype |
| Options | tx-if-alias, tx-if-name, tx-local |
| Default | tx-local |
| Introduced | 16.0.R1 |
| Platforms | All |

### **receive** *boolean*

| | |
|---|---|
| Synopsis | Enable LLDP agent to receive but not transmit frames |
| Context | **configure** port *port* ethernet lldp dest-mac *keyword* receive *boolean* |
| Tree | receive |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **transmit** *boolean*

| | |
|---|---|
| Synopsis | Enable the LLDP agent to transmit frames |
| Context | **configure** port *port* ethernet lldp dest-mac *keyword* transmit *boolean* |
| Tree | transmit |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **tunnel-nearest-bridge** *boolean*

| | |
|---|---|
| Synopsis | Allow received LLDP packets to be tunneled |
| Context | **configure** port *port* ethernet lldp dest-mac *keyword* tunnel-nearest-bridge *boolean* |
| Tree | tunnel-nearest-bridge |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **tx-mgmt-address** [mgmt-address-system-type] *keyword*

| | |
|---|---|
| Synopsis | Enter the **tx-mgmt-address** list instance |
| Context | **configure** port *port* ethernet lldp dest-mac *keyword* tx-mgmt-address *keyword* |
| Tree | tx-mgmt-address |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**mgmt-address-system-type**] *keyword*

| | |
|---|---|
| Synopsis | Management address to transmit |
| Context | **configure** port *port* ethernet lldp dest-mac *keyword* tx-mgmt-address *keyword* |
| Tree | tx-mgmt-address |
| Options | oob, system, system-ipv6, oob-ipv6 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of transmitting management address |
| Context | **configure** port *port* ethernet lldp dest-mac *keyword* tx-mgmt-address *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### tx-tlvs

| | |
|---|---|
| Synopsis | Enter the **tx-tlvs** context |
| Context | **configure** port *port* ethernet lldp dest-mac *keyword* tx-tlvs |
| Tree | tx-tlvs |
| Introduced | 16.0.R1 |
| Platforms | All |

### port-desc *boolean*

| | |
|---|---|
| Synopsis | Transmit port description TLVs |
| Context | **configure** port *port* ethernet lldp dest-mac *keyword* tx-tlvs port-desc *boolean* |
| Tree | port-desc |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### sys-cap *boolean*

| | |
|---|---|
| Synopsis | Transmit system capabilities TLVs |
| Context | **configure** port *port* ethernet lldp dest-mac *keyword* tx-tlvs sys-cap *boolean* |
| Tree | sys-cap |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### sys-desc *boolean*

| | |
|---|---|
| Synopsis | Transmit system description TLVs |
| Context | **configure** port *port* ethernet lldp dest-mac *keyword* tx-tlvs sys-desc *boolean* |
| Tree | sys-desc |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **sys-name** *boolean*

| | |
|---|---|
| Synopsis | Transmit system name TLVs |
| Context | **configure** port *port* ethernet lldp dest-mac *keyword* tx-tlvs sys-name *boolean* |
| Tree | sys-name |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **load-balancing-algorithm** *keyword*

| | |
|---|---|
| Synopsis | Load balancing algorithm for the Ethernet port |
| Context | **configure** port *port* ethernet load-balancing-algorithm *keyword* |
| Tree | load-balancing-algorithm |
| Options | default, include-l4, exclude-l4 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mac-address** *mac-address*

| | |
|---|---|
| Synopsis | MAC address of the Ethernet port |
| Context | **configure** port *port* ethernet mac-address *mac-address* |
| Tree | mac-address |
| Description | This command specifies the MAC address of the Ethernet port. Allowed values are any non-broadcast, non-multicast MAC, and non-IEEE reserved MAC addresses.<br>The default value indicates that an operation MAC address is to be assigned from the chassis MAC address pool. |
| Default | 00:00:00:00:00:00 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **min-frame-length** *number*

| | |
|---|---|
| Synopsis | Minimum transmitted frame length |
| Context | **configure** port *port* ethernet min-frame-length *number* |
| Tree | min-frame-length |
| Description | This command configures the minimum transmitted frame length.<br>The option 72 is only supported on FP4 and newer generations of XMA, MDA-e-XP, and MDA-s. |
| Range | 64 \| 68 \| 72 |
| Units | bytes |
| Default | 64 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mode** *keyword*

| | |
|---|---|
| Synopsis | Operation mode for the Ethernet port |
| Context | **configure** port *port* ethernet mode *keyword* |
| Tree | mode |
| Options | access, network, hybrid |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mtu** *number*

| | |
|---|---|
| Synopsis | Maximum payload MTU size for the Ethernet port |
| Context | **configure** port *port* ethernet mtu *number* |
| Tree | mtu |
| Description | This command configures the maximum payload MTU size for the Ethernet port. This command indirectly defines the largest physical packet the port can transmit or the far-end Ethernet port can receive. Packets that cannot be fragmented at egress and exceed the MTU size are discarded.<br>The MTU size includes the destination MAC address, source MAC address, the Ethertype or length field, and the complete Ethernet payload. This value does not include the preamble, start of frame delimiter, or the trailing CRC. |
| Range | 512 to 9800 |
| Units | bytes |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## network

| | |
|---|---|
| Synopsis | Enter the **network** context |
| Context | **configure** port *port* ethernet network |
| Tree | network |
| Introduced | 16.0.R1 |
| Platforms | All |

## accounting-policy *reference*

| | |
|---|---|
| Synopsis | Accounting policy that applies to the network port |
| Context | **configure** port *port* ethernet network accounting-policy *reference* |
| Tree | accounting-policy |
| Reference | **configure** log accounting-policy *number* |
| Introduced | 16.0.R1 |
| Platforms | All |

## collect-stats *boolean*

| | |
|---|---|
| Synopsis | Collect accounting and statistical data |
| Context | **configure** port *port* ethernet network collect-stats *boolean* |
| Tree | collect-stats |
| Description | When configured to **true**, this command enables the collection of accounting and statistical data for the network interface. When applying accounting policies, by default the data is collected in the appropriate records and written to the designated billing file.<br><br>When configured to **false**, the statistics are still accumulated by the XCM or IOM cards. However, the CPU does not obtain the results and write them to the billing file. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### egress

| | |
|---|---|
| Synopsis | Enter the **egress** context |
| Context | **configure** port *port* ethernet network egress |
| Tree | egress |
| Introduced | 16.0.R1 |
| Platforms | All |

### port-queues

| | |
|---|---|
| Synopsis | Enter the **port-queues** context |
| Context | **configure** port *port* ethernet network egress port-queues |
| Tree | port-queues |
| Introduced | 20.10.R1 |
| Platforms | All |

### overrides

| | |
|---|---|
| Synopsis | Enter the **overrides** context |
| Context | **configure** port *port* ethernet network egress port-queues overrides |
| Tree | overrides |
| Description | Commands in this context configure Ethernet network egress port queue override parameters. |
| Introduced | 20.10.R1 |
| Platforms | All |

### queue [queue-id] *number*

| | |
|---|---|
| Synopsis | Enter the **queue** list instance |
| Context | **configure** port *port* ethernet network egress port-queues overrides queue *number* |
| Tree | queue |
| Description | Commands in this context configure an Ethernet network queue. |
| Introduced | 20.10.R1 |
| Platforms | All |


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### [**queue-id**] *number*

| | |
|---|---|
| Synopsis | Queue ID |
| Context | **configure** port *port* ethernet network egress port-queues overrides queue *number* |
| Tree | queue |
| Range | 1 to 16 |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | All |

### monitor-queue-depth

| | |
|---|---|
| Synopsis | Enable the **monitor-queue-depth** context |
| Context | **configure** port *port* ethernet network egress port-queues overrides queue *number* monitor-queue-depth |
| Tree | monitor-queue-depth |
| Description | Commands in this context configure queue depth monitoring for the specified queue. |
| Introduced | 20.10.R1 |
| Platforms | All |

### fast-polling *boolean*

| | |
|---|---|
| Synopsis | Enable fast polling of the queue depth |
| Context | **configure** port *port* ethernet network egress port-queues overrides queue *number* monitor-queue-depth fast-polling *boolean* |
| Tree | fast-polling |
| Description | When configured to **true**, this command enables fast polling of the queue depth. Faster polling allows a more accurate view of the actual depth.<br>When configured to **false**, fast queue polling is not enabled. |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | All |

### violation-threshold *decimal-number*

| | |
|---|---|
| Synopsis | Threshold for queue depth before violation is raised |


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| | |
|---|---|
| Context | **configure** port *port* ethernet network egress port-queues overrides queue *number* monitor-queue-depth violation-threshold *decimal-number* |
| Tree | violation-threshold |
| Description | This command specifies threshold for the queue MBS. When the queue depth exceeds the threshold value, a violation is registered. |
| Range | 0.01 to 99.99 |
| Introduced | 20.10.R1 |
| Platforms | All |

### **queue-group** [queue-group-name] *reference* instance-id *number*

| | |
|---|---|
| Synopsis | Enter the **queue-group** list instance |
| Context | **configure** port *port* ethernet network egress queue-group *reference* instance-id *number* |
| Tree | queue-group |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**queue-group-name**] *reference*

| | |
|---|---|
| Synopsis | Queue group name |
| Context | **configure** port *port* ethernet network egress queue-group *reference* instance-id *number* |
| Tree | queue-group |
| Reference | **configure** qos queue-group-templates egress queue-group *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **instance-id** *number*

| | |
|---|---|
| Synopsis | Instance ID for the egress queue group |
| Context | **configure** port *port* ethernet network egress queue-group *reference* instance-id *number* |
| Tree | queue-group |
| Range | 1 to 65535 |
| MD-CLI default | 1 |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **accounting-policy** *reference*

| | |
|---|---|
| Synopsis | Accounting policy for the Ethernet port |
| Context | **configure** port *port* ethernet network egress queue-group *reference* instance-id *number* accounting-policy *reference* |
| Tree | accounting-policy |
| Reference | **configure** log accounting-policy *number* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **aggregate-rate**

| | |
|---|---|
| Synopsis | Enter the **aggregate-rate** context |
| Context | **configure** port *port* ethernet network egress queue-group *reference* instance-id *number* aggregate-rate |
| Tree | aggregate-rate |
| Introduced | 16.0.R1 |
| Platforms | All |

## **adaptation-rule** *keyword*

| | |
|---|---|
| Synopsis | Adaptation rule when an aggregate shaper is used |
| Context | **configure** port *port* ethernet network egress queue-group *reference* instance-id *number* aggregate-rate adaptation-rule *keyword* |
| Tree | adaptation-rule |
| Description | This command configures the adaptation rule for the PIR value of the queue-group aggregate rate. This rule determines which configured value is adapted to **oper-agg-rate** based on hardware capabilities. |
| Options | max, min, closest |
| Default | closest |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |


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### **burst-limit** *(number | keyword)*

| | |
|---|---|
| Synopsis | Burst limit of the queue group aggregate rate |
| Context | **configure** port *port* ethernet network egress queue-group *reference* instance-id *number* aggregate-rate burst-limit *(number \| keyword)* |
| Tree | burst-limit |
| Description | This command defines an explicit shaping burst size for a queue. The configured size defines the shaping leaky bucket threshold level that indicates the maximum burst over the queue shaping rate.<br>This command is supported under the SAP ingress and SAP egress QoS policy queues. The command is also supported under the ingress and egress queue-group-templates queues. |
| Range | 1 to 14000000 |
| Units | bytes |
| Options | auto |
| Default | auto |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### **limit-unused-bandwidth** *boolean*

| | |
|---|---|
| Synopsis | Control unused bandwidth |
| Context | **configure** port *port* ethernet network egress queue-group *reference* instance-id *number* aggregate-rate limit-unused-bandwidth *boolean* |
| Tree | limit-unused-bandwidth |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **queue-frame-based-accounting** *boolean*

| | |
|---|---|
| Synopsis | Enable frame-based accounting on policers and queues |
| Context | **configure** port *port* ethernet network egress queue-group *reference* instance-id *number* aggregate-rate queue-frame-based-accounting *boolean* |
| Tree | queue-frame-based-accounting |
| Default | false |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **rate** *(number | keyword)*

| | |
|---|---|
| Synopsis | Aggregate rate for all queues |
| Context | **configure** port *port* ethernet network egress queue-group *reference* instance-id *number* aggregate-rate rate *(number | keyword)* |
| Tree | rate |
| Range | 1 to 3200000000 |
| Units | kilobps |
| Options | max |
| Default | max |
| Introduced | 16.0.R1 |
| Platforms | All |

### **collect-stats** *boolean*

| | |
|---|---|
| Synopsis | Collect accounting and statistical data |
| Context | **configure** port *port* ethernet network egress queue-group *reference* instance-id *number* collect-stats *boolean* |
| Tree | collect-stats |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** port *port* ethernet network egress queue-group *reference* instance-id *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **hs-turbo** *boolean*

| | |
|---|---|
| Synopsis | Enable HS turbo queues for higher throughput |
| Context | **configure** port *port* ethernet network egress queue-group *reference* instance-id *number* hs-turbo *boolean* |
| Tree | hs-turbo |
| Description | When configured to **true**, this command enables HS turbo queues that allow the corresponding HSQ queue group queues to achieve a higher throughput.<br>This command is not applicable to 10G ports and is ignored when it is configured under a queue group instance on a 10G port.<br>When configured to **false**, HS turbo queues are disabled. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **policer-control-policy** *reference*

| | |
|---|---|
| Synopsis | Policer control policy for the QoS egress queue group |
| Context | **configure** port *port* ethernet network egress queue-group *reference* instance-id *number* policer-control-policy *reference* |
| Tree | policer-control-policy |
| Reference | **configure** qos policer-control-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **queue-overrides**

| | |
|---|---|
| Synopsis | Enter the **queue-overrides** context |
| Context | **configure** port *port* ethernet network egress queue-group *reference* instance-id *number* queue-overrides |
| Tree | queue-overrides |
| Description | Commands in this context define queue command overrides for each queue within the queue group. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **queue** [queue-id] *reference*

| | |
|---|---|
| Synopsis | Enter the **queue** list instance |
| Context | **configure** port *port* ethernet network egress queue-group *reference* instance-id *number* queue-overrides queue *reference* |
| Tree | queue |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**queue-id**] *reference*

| | |
|---|---|
| Synopsis | Queue ID |
| Context | **configure** port *port* ethernet network egress queue-group *reference* instance-id *number* queue-overrides queue *reference* |
| Tree | queue |
| Reference | **configure** qos queue-group-templates egress queue-group *named-item* queue *number* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **adaptation-rule**

| | |
|---|---|
| Synopsis | Enter the **adaptation-rule** context |
| Context | **configure** port *port* ethernet network egress queue-group *reference* instance-id *number* queue-overrides queue *reference* adaptation-rule |
| Tree | adaptation-rule |
| Description | Commands in this context specify the method used by the system to derive the operational CIR and PIR settings when the queue is provisioned in hardware. For the CIR and PIR commands individually, the system attempts to find the best operational rate depending on the defined constraint.<br><br>Commands in this context are ignored for egress HSQ queue group queues that are attached to an HS WRR group within an associated HS attachment policy. In this case, the configuration of the adaptation rule is performed under the **hs-wrr-group** command within the egress queue group template. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **cir** *keyword*

| | |
|---|---|
| Synopsis | Constraint used when deriving the operational CIR value |
| Context | **configure** port *port* ethernet network egress queue-group *reference* instance-id *number* queue-overrides queue *reference* adaptation-rule cir *keyword* |
| Tree | cir |
| Options | max, min, closest |
| Introduced | 16.0.R1 |
| Platforms | All |

### **pir** *keyword*

| | |
|---|---|
| Synopsis | Constraint used when deriving the operational PIR value |
| Context | **configure** port *port* ethernet network egress queue-group *reference* instance-id *number* queue-overrides queue *reference* adaptation-rule pir *keyword* |
| Tree | pir |
| Options | max, min, closest |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | CBS for the template queue |
| Context | **configure** port *port* ethernet network egress queue-group *reference* instance-id *number* queue-overrides queue *reference* cbs *(number | keyword)* |
| Tree | cbs |
| Range | 0 to 1048576 |
| Units | kilobytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | All |

### **drop-tail**

| | |
|---|---|
| Synopsis | Enter the **drop-tail** context |


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| | |
|---|---|
| Context | **configure** port *port* ethernet network egress queue-group *reference* instance-id *number* queue-overrides queue *reference* drop-tail |
| Tree | drop-tail |
| Description | Commands in this context configure queue drop tail commands. |
| Introduced | 16.0.R1 |
| Platforms | All |

## low

| | |
|---|---|
| Synopsis | Enter the **low** context |
| Context | **configure** port *port* ethernet network egress queue-group *reference* instance-id *number* queue-overrides queue *reference* drop-tail low |
| Tree | low |
| Description | Commands in this context configure the queue low drop tail commands. The low drop tail defines the queue depth beyond which the out-of-profile packets are not accepted into the queue and discarded. |
| Introduced | 16.0.R1 |
| Platforms | All |

## percent-reduction-from-mbs *(number | keyword)*

| | |
|---|---|
| Synopsis | Percentage reduction from the MBS for a queue drop tail |
| Context | **configure** port *port* ethernet network egress queue-group *reference* instance-id *number* queue-overrides queue *reference* drop-tail low percent-reduction-from-mbs *(number \| keyword)* |
| Tree | percent-reduction-from-mbs |
| Description | This command overrides the low queue drop tail as a percentage reduction from the MBS of the queue. For example, if a queue has an MBS of 600 kbytes and this percentage is configured to be 30% for the low drop tail, the low drop tail is set to 420 kbytes and the out-of-profile packets are not accepted into the queue if its depth is greater than this value, and is therefore discarded. |
| Range | 0 to 100 |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **mbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | MBS for the template queue |
| Context | **configure** port *port* ethernet network egress queue-group *reference* instance-id *number* queue-overrides queue *reference* mbs *(number \| keyword)* |
| Tree | mbs |
| Range | 0 to 1073741824 |
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | All |

### **monitor-queue-depth**

| | |
|---|---|
| Synopsis | Enable the **monitor-queue-depth** context |
| Context | **configure** port *port* ethernet network egress queue-group *reference* instance-id *number* queue-overrides queue *reference* monitor-queue-depth |
| Tree | monitor-queue-depth |
| Description | Commands in this context configure queue depth monitoring for the specified queue. |
| Introduced | 20.10.R1 |
| Platforms | All |

### **fast-polling** *boolean*

| | |
|---|---|
| Synopsis | Enable fast polling of the queue depth |
| Context | **configure** port *port* ethernet network egress queue-group *reference* instance-id *number* queue-overrides queue *reference* monitor-queue-depth fast-polling *boolean* |
| Tree | fast-polling |
| Description | When configured to **true**, this command enables fast polling of the queue depth. Faster polling allows a more accurate view of the actual depth.<br>When configured to **false**, fast queue polling is not enabled. |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | All |


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### **violation-threshold** *decimal-number*

| | |
|---|---|
| Synopsis | Threshold for queue depth before violation is raised |
| Context | **configure** port *port* ethernet network egress queue-group *reference* instance-id *number* queue-overrides queue *reference* monitor-queue-depth violation-threshold *decimal-number* |
| Tree | violation-threshold |
| Description | This command specifies threshold for the queue MBS. When the queue depth exceeds the threshold value, a violation is registered. |
| Range | 0.01 to 99.99 |
| Introduced | 20.10.R1 |
| Platforms | All |

### **percent-rate**

| | |
|---|---|
| Synopsis | Enter the **percent-rate** context |
| Context | **configure** port *port* ethernet network egress queue-group *reference* instance-id *number* queue-overrides queue *reference* percent-rate |
| Tree | percent-rate |
| Description | Commands in this context specify percent rates.<br>This command is ignored for egress HSQ queue group queues, which are attached to an HS WRR group within an associated HS attachment policy. In this case, the configuration of the percent rate is performed under the **hs-wrr-group** command within the egress queue group template. |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cir** *decimal-number*

| | |
|---|---|
| Synopsis | CIR for the queue |
| Context | **configure** port *port* ethernet network egress queue-group *reference* instance-id *number* queue-overrides queue *reference* percent-rate cir *decimal-number* |
| Tree | cir |
| Range | 0.00 to 100.00 |
| Units | percent |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## **pir** *decimal-number*

| | |
|---|---|
| Synopsis | PIR for the queue |
| Context | **configure** port *port* ethernet network egress queue-group *reference* instance-id *number* queue-overrides queue *reference* percent-rate pir *decimal-number* |
| Tree | pir |
| Range | 0.01 to 100.00 |
| Units | percent |
| Introduced | 16.0.R1 |
| Platforms | All |

## **rate**

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** port *port* ethernet network egress queue-group *reference* instance-id *number* queue-overrides queue *reference* rate |
| Tree | rate |
| Description | Commands in this context specify the administrative PIR and CIR for the queue. Defining a PIR does not necessarily guarantee that the queue can transmit at the intended rate. The actual rate sustained by the queue can be limited by oversubscription factors or available egress bandwidth.<br>This command can be executed at anytime, altering the PIR and CIR rates for all queues created through the association of the SAP egress QoS policy with the queue ID.<br>This command is ignored for egress HSQ queue group queues, which are attached to an HS WRR group within an associated HS attachment policy. In this case, the configuration of the rate is performed under the **hs-wrr-group** command within the egress queue group template. |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **cir** *(number | keyword)*

| | |
|---|---|
| Synopsis | CIR for the queue |


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| | |
|---|---|
| Context | **configure** port *port* ethernet network egress queue-group *reference* instance-id *number* queue-overrides queue *reference* rate cir *(number \| keyword)* |
| Tree | cir |
| Description | This command specifies the administrative CIR used by the queue. When the **rate** command is executed, a CIR setting is optional. Fractional values are not allowed and must be given as a positive integer.<br>The CIR defines the rate at which the system prioritizes the queue over other queues competing for the same bandwidth. In-profile then out-of-profile packets are preferentially queued by the system at egress and at subsequent next hop nodes where the packet can traverse. To be properly handled throughout the network, the packets must be marked accordingly for profiling at each hop.<br>The CIR can be used by the queue's parent **cir-level** and **cir-weight** commands to define the amount of bandwidth considered to be committed for the child queue during bandwidth allocation by the parent scheduler. |
| Range | 0 to 2000000000 |
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | All |

### **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | PIR for the queue |
| Context | **configure** port *port* ethernet network egress queue-group *reference* instance-id *number* queue-overrides queue *reference* rate pir *(number \| keyword)* |
| Tree | pir |
| Description | This command specifies the administrative PIR used by the queue. When the **rate** command is executed, a valid PIR setting must be explicitly defined. Fractional values are not allowed and must be given as a positive integer. The actual PIR rate is dependent on the queue's **adaptation-rule** commands and the actual hardware where the queue is provisioned.<br>The PIR defines the maximum rate that the queue can transmit packets out an egress interface (for SAP egress queues). Defining a PIR does not necessarily guarantee that the queue can transmit at the intended rate. The actual rate sustained by the queue can be limited by oversubscription factors or available egress bandwidth. |
| Range | 1 to 2000000000 |
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | All |


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## scheduler-policy

| | |
|---|---|
| Synopsis | Enter the **scheduler-policy** context |
| Context | **configure** port *port* ethernet network egress queue-group *reference* instance-id *number* scheduler-policy |
| Tree | scheduler-policy |
| Introduced | 16.0.R1 |
| Platforms | All |

## policy-name *reference*

| | |
|---|---|
| Synopsis | Scheduler policy for the QoS egress queue group |
| Context | **configure** port *port* ethernet network egress queue-group *reference* instance-id *number* scheduler-policy policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos scheduler-policy *named-item* |
| Introduced | 22.2.R1 |
| Platforms | All |

## queue-policy *reference*

| | |
|---|---|
| Synopsis | Network queue policy |
| Context | **configure** port *port* ethernet network egress queue-policy *reference* |
| Tree | queue-policy |
| Reference | **configure** qos network-queue *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

## pbb-etype *etype*

| | |
|---|---|
| Synopsis | Ethertype for PBB encapsulation |
| Context | **configure** port *port* ethernet pbb-etype *etype* |
| Tree | pbb-etype |
| Default | 35047 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## **ptp-asymmetry** *number*

| | |
|---|---|
| Synopsis | PTP asymmetry delay on the Ethernet port |
| Context | **configure** port *port* ethernet ptp-asymmetry *number* |
| Tree | ptp-asymmetry |
| Description | This command configures the PTP asymmetry delay on the Ethernet port. This command is used to correct known asymmetry as part of time of day or phase recovery using PTP packets on both local and downstream PTP clocks. |
| Max. range | -2147483648 to 2147483647 |
| Units | nanoseconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **ptp-timestamping**

| | |
|---|---|
| Synopsis | Enable the **ptp-timestamping** context |
| Context | **configure** port *port* ethernet ptp-timestamping |
| Tree | ptp-timestamping |
| Description | Commands in this context configure port-based filtering for the ingress 1588 timestamping of PTP messages to match multiple PTP flows. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of PTP timestamping |
| Context | **configure** port *port* ethernet ptp-timestamping admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |


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### **ipv4-address** *ipv4-address*

| | |
|---|---|
| Synopsis | IPv4 destination address for PTP messages into port |
| Context | **configure** port *port* ethernet ptp-timestamping ipv4-address *ipv4-address* |
| Tree | ipv4-address |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### **ipv6-address** *ipv6-address*

| | |
|---|---|
| Synopsis | IPv6 destination address for PTP messages into port |
| Context | **configure** port *port* ethernet ptp-timestamping ipv6-address *ipv6-address* |
| Tree | ipv6-address |
| Description | (No long description needed.) |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### **qinq-etype** *etype*

| | |
|---|---|
| Synopsis | Ethertype for QinQ encapsulation |
| Context | **configure** port *port* ethernet qinq-etype *etype* |
| Tree | qinq-etype |
| Default | 33024 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **report-alarm**

| | |
|---|---|
| Synopsis | Enter the **report-alarm** context |
| Context | **configure** port *port* ethernet report-alarm |
| Tree | report-alarm |
| Description | Commands in this context specify the settings for alarm generation and alarm clear notifications for the port.<br>**Note:** For some DWDM transceivers, if the **configure port dwdm coherent rx-los-reaction squelch** command is disabled, the signal-fail and no-am-lock alarm conditions are not reported when the media side of the transceiver has an RX LOS condition. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **alignment-marker-not-locked** *boolean*

| | |
|---|---|
| Synopsis | Report 40G/100G PCS Alignment Marker Loss of Lock |
| Context | **configure** port *port* ethernet report-alarm alignment-marker-not-locked *boolean* |
| Tree | alignment-marker-not-locked |
| Description | When configured to **true**, Alignment Marker Loss of Lock alarms are reported for this port. |
| Introduced | 16.0.R2 |
| Platforms | All |

### **block-not-locked** *boolean*

| | |
|---|---|
| Synopsis | Report 40G/100G PCS Lanes Not Block Locked |
| Context | **configure** port *port* ethernet report-alarm block-not-locked *boolean* |
| Tree | block-not-locked |
| Introduced | 16.0.R2 |
| Platforms | All |

### **duplicate-lane** *boolean*

| | |
|---|---|
| Synopsis | Report 40G/100G PCS Duplicate Lane Marker alarm |
| Context | **configure** port *port* ethernet report-alarm duplicate-lane *boolean* |
| Tree | duplicate-lane |
| Introduced | 16.0.R1 |
| Platforms | All |

### **frame-not-locked** *boolean*

| | |
|---|---|
| Synopsis | Report "not locked on the Ethernet framing sequence" |
| Context | **configure** port *port* ethernet report-alarm frame-not-locked *boolean* |
| Tree | frame-not-locked |
| Introduced | 16.0.R2 |


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| | |
|---|---|
| Platforms | All |

### **high-ber** *boolean*

| | |
|---|---|
| Synopsis | Report High Bit Error Rate |
| Context | **configure** port *port* ethernet report-alarm high-ber *boolean* |
| Tree | high-ber |
| Introduced | 16.0.R1 |
| Platforms | All |

### **local** *boolean*

| | |
|---|---|
| Synopsis | Report local faults |
| Context | **configure** port *port* ethernet report-alarm local *boolean* |
| Tree | local |
| Introduced | 16.0.R1 |
| Platforms | All |

### **remote** *boolean*

| | |
|---|---|
| Synopsis | Report remote faults |
| Context | **configure** port *port* ethernet report-alarm remote *boolean* |
| Tree | remote |
| Introduced | 16.0.R1 |
| Platforms | All |

### **signal-fail** *boolean*

| | |
|---|---|
| Synopsis | Report Ethernet signal lost alarm |
| Context | **configure** port *port* ethernet report-alarm signal-fail *boolean* |
| Tree | signal-fail |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **rs-fec-mode** *keyword*

| | |
|---|---|
| Synopsis | RS-FEC mode on the Ethernet port |
| Context | **configure** port *port* ethernet rs-fec-mode *keyword* |
| Tree | rs-fec-mode |
| Description | This command specifies the RS-FEC (Reed-Solomon Forward Error Correction) mode on the Ethernet port.<br>See "Forward Error Correction" in the *7450 ESS, 7750 SR, 7950 XRS, and VSR Interface Configuration Guide* for more information about FEC settings. |
| Options | cl91-514-528, cl74, cl108 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **single-fiber** *boolean*

| | |
|---|---|
| Synopsis | Enable packet gathering from a single fiber port |
| Context | **configure** port *port* ethernet single-fiber *boolean* |
| Tree | single-fiber |
| Description | When configured to **true**, this command enables packet gathering and redirection of IP packets from a single fiber (Rx) port of the Ethernet or SONET/SDH interface and redistributes packets to other interfaces through static routes or policy-based forwarding. Traffic is no longer transmitted out of the port.<br>When configured to **false**, packet gathering is disabled. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **speed** *number*

| | |
|---|---|
| Synopsis | Ethernet port speed |
| Context | **configure** port *port* ethernet speed *number* |
| Tree | speed |
| Description | This command configures the port speed for ports that support multiple speeds. This applies to the following:<br>• Fast Ethernet when autonegotiation is not enabled<br>• 10/100/1000 Mb/s Ethernet when autonegotiation is not enabled<br>• 10/1G ports supporting 10G SFP+ or 1G SFP |


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- 40/100G ports supporting QSFP28s on non connector-based MDAs

If autonegotiation is enabled for the port, this command setting is ignored. Speed cannot be configured for ports that are part of a LAG.

| | |
|---|---|
| Range | 10 \| 100 \| 1000 \| 10000 \| 25000 \| 40000 \| 50000 \| 100000 |
| Units | megabps |
| Introduced | 16.0.R1 |
| Platforms | All |

## ssm

| | |
|---|---|
| Synopsis | Enter the **ssm** context |
| Context | **configure** port *port* ethernet ssm |
| Tree | ssm |
| Description | Commands in this context configure the Ethernet Synchronization Messaging Channel (ESMC) for the Ethernet port. The ESMC carries the Synchronization Status Message (SSM) code representing the quality level of the source of the frequency of the central clock of the node. |
| Introduced | 16.0.R1 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the ESMC for the Ethernet port |
| Context | **configure** port *port* ethernet ssm admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

## code-type *keyword*

| | |
|---|---|
| Synopsis | Encoding of synchronization status messages |
| Context | **configure** port *port* ethernet ssm code-type *keyword* |
| Tree | code-type |
| Options | sonet, sdh |


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| | |
|---|---|
| Default | sdh |
| Introduced | 16.0.R1 |
| Platforms | All |

### **esmc-tunnel** *boolean*

| | |
|---|---|
| Synopsis | Tunnel ESMC frames in Epipe or VPLS services |
| Context | **configure** port *port* ethernet ssm esmc-tunnel *boolean* |
| Tree | esmc-tunnel |
| Description | When configured to **true**, ESMC frames that are received into the Ethernet port can be tunneled in an Epipe or VPLS service. This is not recommended because it breaks the concepts inherent in Synchronous Ethernet, however it is required for compliance to MEF 6.1.1 EPL Option 2.<br>When configured to **false**, ESMC frames are extracted upon reception by the port and are not tunneled through the service. |
| Default | false |
| Introduced | 20.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **tx-dus** *boolean*

| | |
|---|---|
| Synopsis | Force QL value transmitted be set to QL-DNU or QL-DUS |
| Context | **configure** port *port* ethernet ssm tx-dus *boolean* |
| Tree | tx-dus |
| Introduced | 16.0.R1 |
| Platforms | All |

### **symbol-monitor**

| | |
|---|---|
| Synopsis | Enter the **symbol-monitor** context |
| Context | **configure** port *port* ethernet symbol-monitor |
| Tree | symbol-monitor |
| Description | Commands in this context configure Ethernet symbol monitoring. Support for symbol monitoring is hardware dependent. An error message indicating that the port setting cannot be modified is presented when attempting to enable the feature or configure the individual commands on unsupported hardware. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of symbol monitoring on the port |
| Context | **configure** port *port* ethernet symbol-monitor admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **signal-degrade**

| | |
|---|---|
| Synopsis | Enter the **signal-degrade** context |
| Context | **configure** port *port* ethernet symbol-monitor signal-degrade |
| Tree | signal-degrade |
| Description | Commands in this context specify the error rate at which to declare the SD condition on an Ethernet interface. The value represents M*10E-N, which is the ratio of errored frames over the total frames received over the sliding window interval. The symbol errors on the interface are sampled once per second. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **multiplier** *number*

| | |
|---|---|
| Synopsis | SD multiplier used to scale the symbol error ratio |
| Context | **configure** port *port* ethernet symbol-monitor signal-degrade multiplier *number* |
| Tree | multiplier |
| Range | 1 to 9 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **threshold** *number*

| | |
|---|---|
| Synopsis | SD threshold for symbol errors |
| Context | **configure** port *port* ethernet symbol-monitor signal-degrade threshold *number* |
| Tree | threshold |
| Range | 1 to 9 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **signal-failure**

| | |
|---|---|
| Synopsis | Enter the **signal-failure** context |
| Context | **configure** port *port* ethernet symbol-monitor signal-failure |
| Tree | signal-failure |
| Description | Commands in this context specify the error rate at which to declare the SF condition on an Ethernet interface. The value represents M*10E-N, which is the ratio of errored frames over the total frames received over the sliding window interval. The symbol errors on the interface are sampled once per second. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **multiplier** *number*

| | |
|---|---|
| Synopsis | SF multiplier used to scale the symbol error ratio |
| Context | **configure** port *port* ethernet symbol-monitor signal-failure multiplier *number* |
| Tree | multiplier |
| Range | 1 to 9 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **threshold** *number*

| | |
|---|---|
| Synopsis | SF threshold for symbol errors |
| Context | **configure** port *port* ethernet symbol-monitor signal-failure threshold *number* |
| Tree | threshold |


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| | |
|---|---|
| Range | 1 to 9 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **window-size** *number*

| | |
|---|---|
| Synopsis | Sliding window size over which errors are measured |
| Context | **configure** port *port* ethernet symbol-monitor window-size *number* |
| Tree | window-size |
| Description | This command specifies the sliding window size over which the symbols are sampled to detect SF or SD conditions. |
| Range | 5 to 60 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **tx-pause-frames** *boolean*

| | |
|---|---|
| Synopsis | Transmit PAUSE frames based on received traffic rate |
| Context | **configure** port *port* ethernet tx-pause-frames *boolean* |
| Tree | tx-pause-frames |
| Description | When configured to **true**, the system sends PAUSE frames, when required, based on the rate of the received traffic.<br>When configured to **false**, the system disables the transmission of PAUSE frames.<br>This command is only supported for FP4- or FP5-based ports on the 7750 SR and 7950 XRS.<br>This command is not supported for ports configured as satellite host, ESA host, or PXC. |
| Default | true |
| Introduced | 24.7.R1 |
| Platforms | All |

### **util-stats-interval** *number*

| | |
|---|---|
| Synopsis | Interval to calculate utilization statistics |
| Context | **configure** port *port* ethernet util-stats-interval *number* |


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| | |
|---|---|
| Tree | util-stats-interval |
| Description | This command configures the interval used to calculate the utilization statistics.<br>Port utilization statistics are only available for physical Ethernet ports on a host system. These statistics are not available for the following:<br>• Ethernet ports on an Ethernet satellite<br>• Ethernet ports on a VSR<br>• PXC ports<br>• vsm-cca-xp ports |
| Range | 30 to 600 |
| Units | seconds |
| Default | 300 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **xgig** *keyword*

| | |
|---|---|
| Synopsis | Ethernet port mode |
| Context | **configure** port *port* ethernet xgig *keyword* |
| Tree | xgig |
| Description | This command configures a 10 Gb/s interface to be in LAN or WAN mode.<br>When configuring the port to be in WAN mode, certain SONET/SDH commands can be changed to reflect the SONET/SDH requirements for the port. When configuring the port to be in LAN mode, all SONET/SDH commands are pre-determined and not configurable. |
| Options | lan, wan |
| Introduced | 16.0.R1 |
| Platforms | All |

## **gnss**

| | |
|---|---|
| Synopsis | Enter the **gnss** context |
| Context | **configure** port *port* gnss |
| Tree | gnss |
| Description | Commands in this context configure GNSS port attributes. |
| Introduced | 22.10.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se, 7750 SR-2se |


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## **antenna-cable-delay** *number*

| | |
|---|---|
| Synopsis | Signal delay resulting from GNSS antenna cable length |
| Context | **configure** port *port* gnss antenna-cable-delay *number* |
| Tree | antenna-cable-delay |
| Description | This command configures the expected signal delay resulting from the length of the GNSS antenna cable.<br>**Note**: 7750 SR FP5 GNSS platforms support a value range of 0 to 1000. |
| Range | 0 to 32767 |
| Units | nanoseconds |
| Default | 0 |
| Introduced | 22.10.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se, 7750 SR-2se |

## **constellation**

| | |
|---|---|
| Synopsis | Enter the **constellation** context |
| Context | **configure** port *port* gnss constellation |
| Tree | constellation |
| Description | Commands in this context configure the GNSS systems that are used by the GNSS receiver. |
| Introduced | 22.10.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se, 7750 SR-2se |

## **galileo** *boolean*

| | |
|---|---|
| Synopsis | Enable GNSS receiver to use GALILEO constellation type |
| Context | **configure** port *port* gnss constellation galileo *boolean* |
| Tree | galileo |
| Description | When configured to **true**, this command enables the use of the European Galileo GNSS system. |
| Default | false |
| Introduced | 22.10.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se, 7750 SR-2se |


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### **glonass** *boolean*

| | |
|---|---|
| Synopsis | Enable GNSS receiver to use GLONASS constellation type |
| Context | **configure** port *port* gnss constellation glonass *boolean* |
| Tree | glonass |
| Description | When configured to **true**, the system enables the use of the Russian GLONASS GNSS system.<br>**Note**: The **glonass** command is currently not supported. |
| Default | false |
| Introduced | 22.10.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se, 7750 SR-2se |

### **gps** *boolean*

| | |
|---|---|
| Synopsis | Enable GNSS receiver to use GPS constellation type |
| Context | **configure** port *port* gnss constellation gps *boolean* |
| Tree | gps |
| Description | When configured to **true**, this command enables the use of the American GPS GNSS system.<br>When configured to **false**, this command disables the use of the American GPS GNSS system. |
| Default | true |
| Introduced | 22.10.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se, 7750 SR-2se |

### **elevation-mask-angle** *number*

| | |
|---|---|
| Synopsis | Minimum elevation mask angle |
| Context | **configure** port *port* gnss elevation-mask-angle *number* |
| Tree | elevation-mask-angle |
| Description | This command configures the elevation mask angle, which provides a method of filtering satellites used by the system.<br>Satellites with low elevation may provide degraded accuracy because of the long signal path through the atmosphere. Signals from satellites below the configured minimum satellite elevation are not used.<br>Nokia does not recommend configuring an elevation mask angle below 10. |
| Range | 0 to 89 |


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| | |
|---|---|
| Units | degrees angle |
| Default | 10 |
| Introduced | 22.10.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se, 7750 SR-2se |

## hybrid-buffer-allocation

| | |
|---|---|
| Synopsis | Enter the **hybrid-buffer-allocation** context |
| Context | **configure** port *port* hybrid-buffer-allocation |
| Tree | hybrid-buffer-allocation |
| Introduced | 16.0.R1 |
| Platforms | All |

## egress-weight

| | |
|---|---|
| Synopsis | Enter the **egress-weight** context |
| Context | **configure** port *port* hybrid-buffer-allocation egress-weight |
| Tree | egress-weight |
| Introduced | 16.0.R1 |
| Platforms | All |

## access *number*

| | |
|---|---|
| Synopsis | Access weight for the hybrid port |
| Context | **configure** port *port* hybrid-buffer-allocation egress-weight access *number* |
| Tree | access |
| Range | 0 to 100 |
| Default | 50 |
| Introduced | 16.0.R1 |
| Platforms | All |

## network *number*

| | |
|---|---|
| Synopsis | Access weight for the hybrid port |
| Context | **configure** port *port* hybrid-buffer-allocation egress-weight network *number* |


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| | |
|---|---|
| Tree | network |
| Range | 0 to 100 |
| Default | 50 |
| Introduced | 16.0.R1 |
| Platforms | All |

### ingress-weight

| | |
|---|---|
| Synopsis | Enter the **ingress-weight** context |
| Context | **configure** port *port* hybrid-buffer-allocation ingress-weight |
| Tree | ingress-weight |
| Introduced | 16.0.R1 |
| Platforms | All |

### access *number*

| | |
|---|---|
| Synopsis | Access weight for the hybrid port |
| Context | **configure** port *port* hybrid-buffer-allocation ingress-weight access *number* |
| Tree | access |
| Range | 0 to 100 |
| Default | 50 |
| Introduced | 16.0.R1 |
| Platforms | All |

### network *number*

| | |
|---|---|
| Synopsis | Access weight for the hybrid port |
| Context | **configure** port *port* hybrid-buffer-allocation ingress-weight network *number* |
| Tree | network |
| Range | 0 to 100 |
| Default | 50 |
| Introduced | 16.0.R1 |
| Platforms | All |


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## modify-buffer-allocation

| | |
|---|---|
| Synopsis | Enter the **modify-buffer-allocation** context |
| Context | **configure** port *port* modify-buffer-allocation |
| Tree | modify-buffer-allocation |
| Description | Commands in this context to configure ingress and egress percentage of rate commands. These commands only apply to physical ports (for example, it does not work on APS or similar logical ports). The percentage of rate commands are used to define a percentage value that affects the amount of buffers used by ingress and egress port managed buffer space. |
| Introduced | 16.0.R1 |
| Platforms | All |

## percentage-of-rate

| | |
|---|---|
| Synopsis | Enter the **percentage-of-rate** context |
| Context | **configure** port *port* modify-buffer-allocation percentage-of-rate |
| Tree | percentage-of-rate |
| Description | Commands in this context increase or decrease the active bandwidth associated with the egress or ingress port that affects the amount of egress or ingress buffer space managed by the port. Changing a ports active bandwidth using the commands in this context are an effective means of artificially lowering the buffers managed by one egress or ingress port and giving them to the other egress or ingress ports on the same MDA. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **egress** *number*

| | |
|---|---|
| Synopsis | Egress rate percentage |
| Context | **configure** port *port* modify-buffer-allocation percentage-of-rate egress *number* |
| Tree | egress |
| Range | 1 to 1000 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **ingress** *number*

| | |
|---|---|
| Synopsis | Ingress rate percentage |
| Context | **configure** port *port* modify-buffer-allocation percentage-of-rate ingress *number* |
| Tree | ingress |
| Range | 1 to 1000 |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **monitor-agg-egress-queue-stats** *boolean*

| | |
|---|---|
| Synopsis | Monitor aggregate queue statistics |
| Context | **configure** port *port* monitor-agg-egress-queue-stats *boolean* |
| Tree | monitor-agg-egress-queue-stats |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **monitor-oper-group** *reference*

| | |
|---|---|
| Synopsis | Operational group to monitor |
| Context | **configure** port *port* monitor-oper-group *reference* |
| Tree | monitor-oper-group |
| Description | This command configures the operational group to monitor the operational group state. The state of the operational group affects the state of this port. When the operational group is inactive, the state of the port goes down and powers off the port to signal to the CE that the connected port is not available. |
| Reference | **configure** service oper-group *named-item* |
| Introduced | 22.7.R1 |
| Platforms | All |

### **network**

| | |
|---|---|
| Synopsis | Enter the **network** context |
| Context | **configure** port *port* network |


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| | |
|---|---|
| Tree | network |
| Introduced | 16.0.R1 |
| Platforms | All |

## egress

| | |
|---|---|
| Synopsis | Enter the **egress** context |
| Context | **configure** port *port* network egress |
| Tree | egress |
| Introduced | 16.0.R1 |
| Platforms | All |

## pool [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **pool** list instance |
| Context | **configure** port *port* network egress pool *named-item* |
| Tree | pool |
| Introduced | 16.0.R1 |
| Platforms | All |

## [name] *named-item*

| | |
|---|---|
| Synopsis | Pool name |
| Context | **configure** port *port* network egress pool *named-item* |
| Tree | pool |
| String length | 1 to 32 |
| MD-CLI default | default |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## amber-alarm-threshold *number*

| | |
|---|---|
| Synopsis | Threshold for the amber alarm on oversubscription |


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| | |
|---|---|
| Context | **configure** port *port* network egress pool *named-item* amber-alarm-threshold *number* |
| Tree | amber-alarm-threshold |
| Range | 1 to 1000 |
| Units | percent |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## monitor-pool-depth

| | |
|---|---|
| Synopsis | Enter the **monitor-pool-depth** context |
| Context | **configure** port *port* network egress pool *named-item* monitor-pool-depth |
| Tree | monitor-pool-depth |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of pool-depth monitoring |
| Context | **configure** port *port* network egress pool *named-item* monitor-pool-depth admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## alarm-thresholds

| | |
|---|---|
| Synopsis | Enter the **alarm-thresholds** context |
| Context | **configure** port *port* network egress pool *named-item* monitor-pool-depth alarm-thresholds |
| Tree | alarm-thresholds |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **reserved-pool-in-use** *decimal-number*

| | |
|---|---|
| Synopsis | Alarm threshold for reserved buffer pool usage |
| Context | **configure** port *port* network egress pool *named-item* monitor-pool-depth alarm-thresholds reserved-pool-in-use *decimal-number* |
| Tree | reserved-pool-in-use |
| Description | This command configures the reserved pool in-use threshold. A tmnxResvPoolUse ThreshExcd trap is generated when the reserved pool usage exceeds this threshold percentage. When the usage returns below the threshold percentage, the tmnxResvPool UseThreshNotExcd trap is generated. |
| Range | 0.00 to 100.00 |
| Units | centipercent |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **shared-pool-in-use** *decimal-number*

| | |
|---|---|
| Synopsis | Alarm threshold for shared of buffer pool usage |
| Context | **configure** port *port* network egress pool *named-item* monitor-pool-depth alarm-thresholds shared-pool-in-use *decimal-number* |
| Tree | shared-pool-in-use |
| Description | This command configures the shared pool in-use threshold. A tmnxSharedPoolUse ThreshExcd trap is generated when the shared pool usage exceeds this threshold percentage. When the usage returns below the threshold percentage, the tmnxShared PoolUseThreshNotExcd trap is generated. |
| Range | 0.00 to 100.00 |
| Units | centipercent |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **total-pool-in-use** *decimal-number*

| | |
|---|---|
| Synopsis | Alarm threshold for usage of total buffer pool |
| Context | **configure** port *port* network egress pool *named-item* monitor-pool-depth alarm-thresholds total-pool-in-use *decimal-number* |
| Tree | total-pool-in-use |
| Description | This command configures the total pool in-use threshold. A tmnxTotalPoolUseThresh Excd trap is generated when the total pool usage exceeds this threshold percentage. |


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When the usage returns below the threshold percentage, the tmnxTotalPoolUseThresh NotExcd trap is generated.

| | |
|---|---|
| Range | 0.00 to 100.00 |
| Units | centipercent |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **red-alarm-threshold** *number*

| | |
|---|---|
| Synopsis | Threshold for the red alarm on oversubscription |
| Context | **configure** port *port* network egress pool *named-item* red-alarm-threshold *number* |
| Tree | red-alarm-threshold |
| Range | 1 to 1000 |
| Units | percent |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **resv-cbs**

| | |
|---|---|
| Synopsis | Enter the **resv-cbs** context |
| Context | **configure** port *port* network egress pool *named-item* resv-cbs |
| Tree | resv-cbs |
| Introduced | 16.0.R1 |
| Platforms | All |

### **amber-alarm-action**

| | |
|---|---|
| Synopsis | Enter the **amber-alarm-action** context |
| Context | **configure** port *port* network egress pool *named-item* resv-cbs amber-alarm-action |
| Tree | amber-alarm-action |
| Introduced | 16.0.R1 |
| Platforms | All |

### **max** *number*

| | |
|---|---|
| Synopsis | Maximum percentage for reserved CBS of the pool |


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| | |
|---|---|
| Context | **configure** port *port* network egress pool *named-item* resv-cbs amber-alarm-action max *number* |
| Tree | max |
| Description | This command specifies the maximum percentage for the reserved CBS of the pool. The maximum reserved CBS must not be less than the value of the reserved CBS.<br>To enable adaptive CBS sizing the **max**, **step**, and **cbs** commands must be configured. The **cbs** command must also be configured to a percentage other than the default value.<br>When unconfigured, CBS adaptive sizing is not enabled. |
| Range | 1 to 100 |
| Units | percent |
| Introduced | 16.0.R1 |
| Platforms | All |

### **step** *number*

| | |
|---|---|
| Synopsis | Step-size percentage for reserved CBS of the pool |
| Context | **configure** port *port* network egress pool *named-item* resv-cbs amber-alarm-action step *number* |
| Tree | step |
| Description | This command specifies the step-size percentage for the reserved CBS of the pool.<br>To enable adaptive CBS sizing the **max**, **step**, and **cbs** commands must be configured. The **cbs** command must also be configured to a percentage other than the default value.<br>When unconfigured, CBS adaptive sizing is not enabled. |
| Range | 1 to 100 |
| Units | percent |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | Percentage of the pool buffer space reserved for CBS |
| Context | **configure** port *port* network egress pool *named-item* resv-cbs cbs *(number | keyword)* |
| Tree | cbs |
| Range | 0 to 100 |
| Units | percent |


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| | |
|---|---|
| Options | auto |
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | All |

### **slope-policy** *reference*

| | |
|---|---|
| Synopsis | Policy for the RED slope and TAF values |
| Context | **configure** port *port* network egress pool *named-item* slope-policy *reference* |
| Tree | slope-policy |
| Reference | **configure** qos slope-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **oper-group** *reference*

| | |
|---|---|
| Synopsis | Operational group ID |
| Context | **configure** port *port* oper-group *reference* |
| Tree | oper-group |
| Reference | **configure** service oper-group *named-item* |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **otu**

| | |
|---|---|
| Synopsis | Enable the **otu** context |
| Context | **configure** port *port* otu |
| Tree | otu |
| Introduced | 16.0.R1 |
| Platforms | All |

### **async-mapping** *boolean*

| | |
|---|---|
| Synopsis | Allow asynchoronous mapping of the payload inside OTU |
| Context | **configure** port *port* otu async-mapping *boolean* |


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| | |
|---|---|
| Tree | async-mapping |
| Introduced | 16.0.R1 |
| Platforms | All |

### **fec** *keyword*

| | |
|---|---|
| Synopsis | Forwarding Error Correction (FEC) encapsulation on port |
| Context | **configure** port *port* otu fec *keyword* |
| Tree | fec |
| Options | none, g709, enhanced |
| Introduced | 16.0.R1 |
| Platforms | All |

### fine-granularity-ber

| | |
|---|---|
| Synopsis | Enter the **fine-granularity-ber** context |
| Context | **configure** port *port* otu fine-granularity-ber |
| Tree | fine-granularity-ber |
| Introduced | 16.0.R1 |
| Platforms | All |

### signal-degrade

| | |
|---|---|
| Synopsis | Enter the **signal-degrade** context |
| Context | **configure** port *port* otu fine-granularity-ber signal-degrade |
| Tree | signal-degrade |
| Introduced | 16.0.R1 |
| Platforms | All |

### clear

| | |
|---|---|
| Synopsis | Enter the **clear** context |
| Context | **configure** port *port* otu fine-granularity-ber signal-degrade clear |
| Tree | clear |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **multiplier** *number*

| | |
|---|---|
| Synopsis | Multiplier of the SD clear threshold |
| Context | **configure** port *port* otu fine-granularity-ber signal-degrade clear multiplier *number* |
| Tree | multiplier |
| Range | 10 to 99 |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **threshold** *number*

| | |
|---|---|
| Synopsis | SD clear threshold |
| Context | **configure** port *port* otu fine-granularity-ber signal-degrade clear threshold *number* |
| Tree | threshold |
| Range | 3 to 10 |
| Default | 8 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **raise**

| | |
|---|---|
| Synopsis | Enter the **raise** context |
| Context | **configure** port *port* otu fine-granularity-ber signal-degrade raise |
| Tree | raise |
| Introduced | 16.0.R1 |
| Platforms | All |

### **multiplier** *number*

| | |
|---|---|
| Synopsis | Multiplier of the SD raise threshold |
| Context | **configure** port *port* otu fine-granularity-ber signal-degrade raise multiplier *number* |
| Tree | multiplier |


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| | |
|---|---|
| Range | 10 to 99 |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **threshold** *number*

| | |
|---|---|
| Synopsis | SD raise threshold |
| Context | **configure** port *port* otu fine-granularity-ber signal-degrade raise threshold *number* |
| Tree | threshold |
| Range | 3 to 9 |
| Default | 7 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **signal-failure**

| | |
|---|---|
| Synopsis | Enter the **signal-failure** context |
| Context | **configure** port *port* otu fine-granularity-ber signal-failure |
| Tree | signal-failure |
| Introduced | 16.0.R1 |
| Platforms | All |

### **clear**

| | |
|---|---|
| Synopsis | Enter the **clear** context |
| Context | **configure** port *port* otu fine-granularity-ber signal-failure clear |
| Tree | clear |
| Introduced | 16.0.R1 |
| Platforms | All |

### **multiplier** *number*

| | |
|---|---|
| Synopsis | Threshold for the Multiplier of SD clear |
| Context | **configure** port *port* otu fine-granularity-ber signal-failure clear multiplier *number* |


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| | |
|---|---|
| Tree | multiplier |
| Range | 10 to 99 |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **threshold** *number*

| | |
|---|---|
| Synopsis | Threshold for the Multiplier of SD clear |
| Context | **configure** port *port* otu fine-granularity-ber signal-failure clear threshold *number* |
| Tree | threshold |
| Range | 3 to 9 |
| Default | 6 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **raise**

| | |
|---|---|
| Synopsis | Enter the **raise** context |
| Context | **configure** port *port* otu fine-granularity-ber signal-failure raise |
| Tree | raise |
| Introduced | 16.0.R1 |
| Platforms | All |

### **multiplier** *number*

| | |
|---|---|
| Synopsis | SF raise threshold |
| Context | **configure** port *port* otu fine-granularity-ber signal-failure raise multiplier *number* |
| Tree | multiplier |
| Range | 10 to 99 |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **threshold** *number*

| | |
|---|---|
| Synopsis | SF raise threshold |
| Context | **configure** port *port* otu fine-granularity-ber signal-failure raise threshold *number* |
| Tree | threshold |
| Range | 3 to 8 |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **otu2-lan-data-rate** *keyword*

| | |
|---|---|
| Synopsis | Data rate for 10GE LAN OTU2 on the port |
| Context | **configure** port *port* otu otu2-lan-data-rate *keyword* |
| Tree | otu2-lan-data-rate |
| Units | gigabps |
| Options | 11.049, 11.096 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **path-monitoring**

| | |
|---|---|
| Synopsis | Enter the **path-monitoring** context |
| Context | **configure** port *port* otu path-monitoring |
| Tree | path-monitoring |
| Introduced | 16.0.R4 |
| Platforms | All |

### **trail-trace-identifier**

| | |
|---|---|
| Synopsis | Enter the **trail-trace-identifier** context |
| Context | **configure** port *port* otu path-monitoring trail-trace-identifier |
| Tree | trail-trace-identifier |
| Introduced | 16.0.R4 |
| Platforms | All |


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### expected

| | |
|---|---|
| Synopsis | Enter the **expected** context |
| Context | **configure** port *port* otu path-monitoring trail-trace-identifier expected |
| Tree | expected |
| Introduced | 16.0.R4 |
| Platforms | All |

### auto-generated

| | |
|---|---|
| Synopsis | Use the system generated TTI |
| Context | **configure** port *port* otu path-monitoring trail-trace-identifier expected auto-generated |
| Tree | auto-generated |
| Notes | The following elements are part of a choice: **auto-generated**, **bytes**, or **string**. |
| Introduced | 16.0.R4 |
| Platforms | All |

### bytes *string*

| | |
|---|---|
| Synopsis | TTI as a sequence of bytes |
| Context | **configure** port *port* otu path-monitoring trail-trace-identifier expected bytes *string* |
| Tree | bytes |
| String length | 0 to 192 |
| Notes | The following elements are part of a choice: **auto-generated**, **bytes**, or **string**. |
| Introduced | 16.0.R4 |
| Platforms | All |

### string *string*

| | |
|---|---|
| Synopsis | TTI as a sequence of printable ASCII |
| Context | **configure** port *port* otu path-monitoring trail-trace-identifier expected string *string* |
| Tree | string |
| String length | 0 to 64 |
| Notes | The following elements are part of a choice: **auto-generated**, **bytes**, or **string**. |
| Introduced | 16.0.R4 |


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| | |
|---|---|
| Platforms | All |

### **mismatch-reaction** *keyword*

| | |
|---|---|
| Synopsis | Reaction to a mismatched TTI |
| Context | **configure** port *port* otu path-monitoring trail-trace-identifier mismatch-reaction *keyword* |
| Tree | mismatch-reaction |
| Options | squelch-rx |
| Introduced | 16.0.R4 |
| Platforms | All |

### **transmit**

| | |
|---|---|
| Synopsis | Enter the **transmit** context |
| Context | **configure** port *port* otu path-monitoring trail-trace-identifier transmit |
| Tree | transmit |
| Introduced | 16.0.R4 |
| Platforms | All |

### **auto-generated**

| | |
|---|---|
| Synopsis | Use the system generated TTI |
| Context | **configure** port *port* otu path-monitoring trail-trace-identifier transmit auto-generated |
| Tree | auto-generated |
| Notes | The following elements are part of a choice: **auto-generated**, **bytes**, or **string**. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **bytes** *string*

| | |
|---|---|
| Synopsis | TTI as a sequence of bytes |
| Context | **configure** port *port* otu path-monitoring trail-trace-identifier transmit bytes *string* |
| Tree | bytes |
| String length | 0 to 192 |
| Notes | The following elements are part of a choice: **auto-generated**, **bytes**, or **string**. |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | All |

### **string** *string*

| | |
|---|---|
| Synopsis | TTI as a sequence of printable ASCII |
| Context | **configure** port *port* otu path-monitoring trail-trace-identifier transmit string *string* |
| Tree | string |
| String length | 0 to 64 |
| Notes | The following elements are part of a choice: **auto-generated**, **bytes**, or **string**. |
| Introduced | 16.0.R4 |
| Platforms | All |

### payload-structure-identifier

| | |
|---|---|
| Synopsis | Enter the **payload-structure-identifier** context |
| Context | **configure** port *port* otu payload-structure-identifier |
| Tree | payload-structure-identifier |
| Introduced | 16.0.R4 |
| Platforms | All |

### payload

| | |
|---|---|
| Synopsis | Enter the **payload** context |
| Context | **configure** port *port* otu payload-structure-identifier payload |
| Tree | payload |
| Introduced | 16.0.R4 |
| Platforms | All |

### **expected** *keyword*

| | |
|---|---|
| Synopsis | Expected received payload type of the PSI |
| Context | **configure** port *port* otu payload-structure-identifier payload expected *keyword* |
| Tree | expected |
| Options | auto, experimental, asynchronous-cbr, bit-synchronous-cbr, atm, gfp, vcat, gmp, bit-stream-octet, bit-stream-non-octet, odu-mux, reserved-80, reserved-81, reserved-82, |


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| | |
|---|---|
| | reserved-83, reserved-84, reserved-85, reserved-86, reserved-87, reserved-88, reserved-89, reserved-8a, reserved-8b, reserved-8c, reserved-8d, reserved-8e, reserved-8f, null-test, prbs-test |
| Default | auto |
| Introduced | 16.0.R4 |
| Platforms | All |

## **mismatch-reaction** *keyword*

| | |
|---|---|
| Synopsis | Reaction to a mismatched payload |
| Context | **configure** port *port* otu payload-structure-identifier payload mismatch-reaction *keyword* |
| Tree | mismatch-reaction |
| Options | squelch-rx |
| Introduced | 16.0.R4 |
| Platforms | All |

## **transmit** *keyword*

| | |
|---|---|
| Synopsis | Transmit payload type |
| Context | **configure** port *port* otu payload-structure-identifier payload transmit *keyword* |
| Tree | transmit |
| Options | auto, experimental, asynchronous-cbr, bit-synchronous-cbr, atm, gfp, vcat, gmp, bit-stream-octet, bit-stream-non-octet, odu-mux, reserved-80, reserved-81, reserved-82, reserved-83, reserved-84, reserved-85, reserved-86, reserved-87, reserved-88, reserved-89, reserved-8a, reserved-8b, reserved-8c, reserved-8d, reserved-8e, reserved-8f, null-test, prbs-test |
| Default | auto |
| Introduced | 16.0.R4 |
| Platforms | All |

## **report-alarm**

| | |
|---|---|
| Synopsis | Enter the **report-alarm** context |
| Context | **configure** port *port* otu report-alarm |
| Tree | report-alarm |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **fec-fail** *boolean*

| | |
|---|---|
| Synopsis | Report FEC mode mismatch alarm |
| Context | **configure** port *port* otu report-alarm fec-fail *boolean* |
| Tree | fec-fail |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **fec-sd** *boolean*

| | |
|---|---|
| Synopsis | Report Signal Degrade alarm |
| Context | **configure** port *port* otu report-alarm fec-sd *boolean* |
| Tree | fec-sd |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **fec-sf** *boolean*

| | |
|---|---|
| Synopsis | Report Signal Fail alarm |
| Context | **configure** port *port* otu report-alarm fec-sf *boolean* |
| Tree | fec-sf |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **fec-uncorr** *boolean*

| | |
|---|---|
| Synopsis | Report one or more Uncorrectable FEC errors alarm |
| Context | **configure** port *port* otu report-alarm fec-uncorr *boolean* |
| Tree | fec-uncorr |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **loc** *boolean*

| | |
|---|---|
| Synopsis | Report OTU alarm for loss of clock |
| Context | **configure** port *port* otu report-alarm loc *boolean* |
| Tree | loc |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lof** *boolean*

| | |
|---|---|
| Synopsis | Report alarm for the loss of OTU framing |
| Context | **configure** port *port* otu report-alarm lof *boolean* |
| Tree | lof |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lom** *boolean*

| | |
|---|---|
| Synopsis | Report alarm for the loss of multi-frame |
| Context | **configure** port *port* otu report-alarm lom *boolean* |
| Tree | lom |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **los** *boolean*

| | |
|---|---|
| Synopsis | Report alarm for the loss of signal transitions on data |
| Context | **configure** port *port* otu report-alarm los *boolean* |
| Tree | los |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **odu-ais** *boolean*

| | |
|---|---|
| Synopsis | Report ODU Alarm Indication Signal alarm |
| Context | **configure** port *port* otu report-alarm odu-ais *boolean* |
| Tree | odu-ais |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **odu-bdi** *boolean*

| | |
|---|---|
| Synopsis | Report PM Backward Defect Indication alarm |
| Context | **configure** port *port* otu report-alarm odu-bdi *boolean* |
| Tree | odu-bdi |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **odu-lck** *boolean*

| | |
|---|---|
| Synopsis | Report ODU Locked alarm |
| Context | **configure** port *port* otu report-alarm odu-lck *boolean* |
| Tree | odu-lck |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **odu-oci** *boolean*

| | |
|---|---|
| Synopsis | Report ODU Open Connection Indication alarm |
| Context | **configure** port *port* otu report-alarm odu-oci *boolean* |
| Tree | odu-oci |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **odu-tim** *boolean*

| | |
|---|---|
| Synopsis | Report PM Trace ID Mismatch alarm |
| Context | **configure** port *port* otu report-alarm odu-tim *boolean* |
| Tree | odu-tim |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **opu-plm** *boolean*

| | |
|---|---|
| Synopsis | Report PSI Payload Type Mismatch alarm |
| Context | **configure** port *port* otu report-alarm opu-plm *boolean* |
| Tree | opu-plm |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **otu-ais** *boolean*

| | |
|---|---|
| Synopsis | Report OTU Alarm Indication Signal alarm |
| Context | **configure** port *port* otu report-alarm otu-ais *boolean* |
| Tree | otu-ais |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **otu-bdi** *boolean*

| | |
|---|---|
| Synopsis | Report SM Backward Defect Indication alarm |
| Context | **configure** port *port* otu report-alarm otu-bdi *boolean* |
| Tree | otu-bdi |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **otu-ber-sd** *boolean*

| | |
|---|---|
| Synopsis | Report SM Signal Degrade alarm |
| Context | **configure** port *port* otu report-alarm otu-ber-sd *boolean* |
| Tree | otu-ber-sd |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **otu-ber-sf** *boolean*

| | |
|---|---|
| Synopsis | Report SM Signal Fail alarm |
| Context | **configure** port *port* otu report-alarm otu-ber-sf *boolean* |
| Tree | otu-ber-sf |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **otu-biae** *boolean*

| | |
|---|---|
| Synopsis | Report SM Backward Incoming Alignment Error alarm |
| Context | **configure** port *port* otu report-alarm otu-biae *boolean* |
| Tree | otu-biae |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **otu-iae** *boolean*

| | |
|---|---|
| Synopsis | Report SM Incoming Alignment Error alarm |
| Context | **configure** port *port* otu report-alarm otu-iae *boolean* |
| Tree | otu-iae |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **otu-tim** *boolean*

| | |
|---|---|
| Synopsis | Report SM Trace ID Mismatch alarm |
| Context | **configure** port *port* otu report-alarm otu-tim *boolean* |
| Tree | otu-tim |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sd-threshold** *number*

| | |
|---|---|
| Synopsis | Error rate at which to declare signal degrade condition |
| Context | **configure** port *port* otu sd-threshold *number* |
| Tree | sd-threshold |
| Range | 5 to 9 |
| Default | 7 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **section-monitoring**

| | |
|---|---|
| Synopsis | Enter the **section-monitoring** context |
| Context | **configure** port *port* otu section-monitoring |
| Tree | section-monitoring |
| Introduced | 16.0.R4 |
| Platforms | All |

### **trail-trace-identifier**

| | |
|---|---|
| Synopsis | Enter the **trail-trace-identifier** context |
| Context | **configure** port *port* otu section-monitoring trail-trace-identifier |
| Tree | trail-trace-identifier |
| Introduced | 16.0.R4 |
| Platforms | All |


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### expected

| | |
|---|---|
| Synopsis | Enter the **expected** context |
| Context | **configure** port *port* otu section-monitoring trail-trace-identifier expected |
| Tree | expected |
| Introduced | 16.0.R4 |
| Platforms | All |

### auto-generated

| | |
|---|---|
| Synopsis | Use the system generated TTI |
| Context | **configure** port *port* otu section-monitoring trail-trace-identifier expected auto-generated |
| Tree | auto-generated |
| Notes | The following elements are part of a choice: **auto-generated**, **bytes**, or **string**. |
| Introduced | 16.0.R4 |
| Platforms | All |

### bytes *string*

| | |
|---|---|
| Synopsis | TTI as a sequence of bytes |
| Context | **configure** port *port* otu section-monitoring trail-trace-identifier expected bytes *string* |
| Tree | bytes |
| String length | 0 to 192 |
| Notes | The following elements are part of a choice: **auto-generated**, **bytes**, or **string**. |
| Introduced | 16.0.R4 |
| Platforms | All |

### string *string*

| | |
|---|---|
| Synopsis | TTI as a sequence of printable ASCII |
| Context | **configure** port *port* otu section-monitoring trail-trace-identifier expected string *string* |
| Tree | string |
| String length | 0 to 64 |
| Notes | The following elements are part of a choice: **auto-generated**, **bytes**, or **string**. |
| Introduced | 16.0.R4 |


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| | |
|---|---|
| Platforms | All |

### **mismatch-reaction** *keyword*

| | |
|---|---|
| Synopsis | Reaction to a mismatched TTI |
| Context | **configure** port *port* otu section-monitoring trail-trace-identifier mismatch-reaction *keyword* |
| Tree | mismatch-reaction |
| Options | squelch-rx |
| Introduced | 16.0.R4 |
| Platforms | All |

### **transmit**

| | |
|---|---|
| Synopsis | Enter the **transmit** context |
| Context | **configure** port *port* otu section-monitoring trail-trace-identifier transmit |
| Tree | transmit |
| Introduced | 16.0.R4 |
| Platforms | All |

### **auto-generated**

| | |
|---|---|
| Synopsis | Use the system generated TTI |
| Context | **configure** port *port* otu section-monitoring trail-trace-identifier transmit auto-generated |
| Tree | auto-generated |
| Notes | The following elements are part of a choice: **auto-generated**, **bytes**, or **string**. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **bytes** *string*

| | |
|---|---|
| Synopsis | TTI as a sequence of bytes |
| Context | **configure** port *port* otu section-monitoring trail-trace-identifier transmit bytes *string* |
| Tree | bytes |
| String length | 0 to 192 |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **auto-generated**, **bytes**, or **string**. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **string** *string*

| | |
|---|---|
| Synopsis | TTI as a sequence of printable ASCII |
| Context | **configure** port *port* otu section-monitoring trail-trace-identifier transmit string *string* |
| Tree | string |
| String length | 0 to 64 |
| Notes | The following elements are part of a choice: **auto-generated**, **bytes**, or **string**. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **sf-sd-method** *keyword*

| | |
|---|---|
| Synopsis | Method used to determine the SF and SD alarms |
| Context | **configure** port *port* otu sf-sd-method *keyword* |
| Tree | sf-sd-method |
| Options | fec, bip8 |
| Default | fec |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sf-threshold** *number*

| | |
|---|---|
| Synopsis | Error rate at which to declare signal fail condition |
| Context | **configure** port *port* otu sf-threshold *number* |
| Tree | sf-threshold |
| Range | 3 to 6 |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | All |


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## sonet-sdh

| | |
|---|---|
| Synopsis | Enter the **sonet-sdh** context |
| Context | **configure** port *port* sonet-sdh |
| Tree | sonet-sdh |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## clock-source *keyword*

| | |
|---|---|
| Synopsis | Clock used for transmitted data |
| Context | **configure** port *port* sonet-sdh clock-source *keyword* |
| Tree | clock-source |
| Options | loop-timed, node-timed |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## framing *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | SONET or SDH framing |
| Context | **configure** port *port* sonet-sdh framing *keyword* |
| Tree | framing |
| Options | sonet, sdh |
| Default | sonet |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## group [group-index] *sdh-group-index*

| | |
|---|---|
| Synopsis | Enter the **group** list instance |
| Context | **configure** port *port* sonet-sdh group *sdh-group-index* |
| Tree | group |


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| | |
|---|---|
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### [**group-index**] *sdh-group-index*

| | |
|---|---|
| Synopsis | Components making up the specified SONET/SDH path |
| Context | **configure** port *port* sonet-sdh group *sdh-group-index* |
| Tree | group |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **payload** *keyword*

| | |
|---|---|
| Synopsis | SONET/SDH group payload |
| Context | **configure** port *port* sonet-sdh group *sdh-group-index* payload *keyword* |
| Tree | payload |
| Options | vt15, vt2, tu3 |
| Default | tu3 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **hold-time**

| | |
|---|---|
| Synopsis | Enter the **hold-time** context |
| Context | **configure** port *port* sonet-sdh hold-time |
| Tree | hold-time |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **down** *number*

| | |
|---|---|
| Synopsis | Hold timer for link down event dampening |
| Context | **configure** port *port* sonet-sdh hold-time down *number* |
| Tree | down |


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| | |
|---|---|
| Range | 0 to 100 |
| Units | deciseconds |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **up** *number*

| | |
|---|---|
| Synopsis | Hold timer for link up event dampening |
| Context | **configure** port *port* sonet-sdh hold-time up *number* |
| Tree | up |
| Range | 0 to 100 |
| Units | deciseconds |
| Default | 5 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **loopback** *keyword*

| | |
|---|---|
| Synopsis | Loopback to activate on SONET port |
| Context | **configure** port *port* sonet-sdh loopback *keyword* |
| Tree | loopback |
| Options | line, internal |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **path** [path-index] *sonet-path-index*

| | |
|---|---|
| Synopsis | Enter the **path** list instance |
| Context | **configure** port *port* sonet-sdh path *sonet-path-index* |
| Tree | path |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### [**path-index**] *sonet-path-index*

| | |
|---|---|
| Synopsis | SONET/SDH path index |
| Context | **configure** port *port* sonet-sdh path *sonet-path-index* |
| Tree | path |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the SONET/SDH path |
| Context | **configure** port *port* sonet-sdh path *sonet-path-index* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **crc** *number*

| | |
|---|---|
| Synopsis | Cyclic redundancy check |
| Context | **configure** port *port* sonet-sdh path *sonet-path-index* crc *number* |
| Tree | crc |
| Range | 16 \| 32 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **description** *long-description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** port *port* sonet-sdh path *sonet-path-index* description *long-description* |
| Tree | description |
| String length | 1 to 160 |
| Introduced | 20.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## egress

| | |
|---|---|
| Synopsis | Enter the **egress** context |
| Context | **configure** port *port* sonet-sdh path *sonet-path-index* egress |
| Tree | egress |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## port-scheduler-policy

| | |
|---|---|
| Synopsis | Enter the **port-scheduler-policy** context |
| Context | **configure** port *port* sonet-sdh path *sonet-path-index* egress port-scheduler-policy |
| Tree | port-scheduler-policy |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## overrides

| | |
|---|---|
| Synopsis | Enable the **overrides** context |
| Context | **configure** port *port* sonet-sdh path *sonet-path-index* egress port-scheduler-policy overrides |
| Tree | overrides |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **level** [priority-level] *number*

| | |
|---|---|
| Synopsis | Enter the **level** list instance |
| Context | **configure** port *port* sonet-sdh path *sonet-path-index* egress port-scheduler-policy overrides level *number* |
| Tree | level |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### [**priority-level**] *number*

| | |
|---|---|
| Synopsis | Port priority levels override |
| Context | **configure** port *port* sonet-sdh path *sonet-path-index* egress port-scheduler-policy overrides level *number* |
| Tree | level |
| Range | 1 to 8 |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **percent-rate**

| | |
|---|---|
| Synopsis | Enter the **percent-rate** context |
| Context | **configure** port *port* sonet-sdh path *sonet-path-index* egress port-scheduler-policy overrides level *number* percent-rate |
| Tree | percent-rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **cir** *decimal-number*

| | |
|---|---|
| Synopsis | CIR for the priority level |
| Context | **configure** port *port* sonet-sdh path *sonet-path-index* egress port-scheduler-policy overrides level *number* percent-rate cir *decimal-number* |
| Tree | cir |
| Range | 0 to 100 |
| Units | percent |
| Default | 100 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **pir** *decimal-number*

| | |
|---|---|
| Synopsis | PIR for the priority level |


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| | |
|---|---|
| Context | **configure** port *port* sonet-sdh path *sonet-path-index* egress port-scheduler-policy overrides level *number* percent-rate pir *decimal-number* |
| Tree | pir |
| Range | 0.01 to 100 |
| Units | percent |
| Default | 100 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## rate

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** port *port* sonet-sdh path *sonet-path-index* egress port-scheduler-policy overrides level *number* rate |
| Tree | rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## cir *(number | keyword)*

| | |
|---|---|
| Synopsis | CIR for the priority level |
| Context | **configure** port *port* sonet-sdh path *sonet-path-index* egress port-scheduler-policy overrides level *number* rate cir *(number | keyword)* |
| Tree | cir |
| Range | 0 to 3200000000 |
| Units | kilobps |
| Options | sum, max |
| Default | max |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## pir *(number | keyword)*

| | |
|---|---|
| Synopsis | PIR for the priority level |


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| | |
|---|---|
| Context | **configure** port *port* sonet-sdh path *sonet-path-index* egress port-scheduler-policy overrides level *number* rate pir *(number* \| *keyword)* |
| Tree | pir |
| Range | 1 to 3200000000 |
| Units | kilobps |
| Options | max |
| Default | max |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## max-rate

| | |
|---|---|
| Synopsis | Enter the **max-rate** context |
| Context | **configure** port *port* sonet-sdh path *sonet-path-index* egress port-scheduler-policy overrides max-rate |
| Tree | max-rate |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## percent-rate *decimal-number*

| | |
|---|---|
| Synopsis | PIR |
| Context | **configure** port *port* sonet-sdh path *sonet-path-index* egress port-scheduler-policy overrides max-rate percent-rate *decimal-number* |
| Tree | percent-rate |
| Range | 0.01 to 100 |
| Units | percent |
| Default | 100 |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## rate *(number* | *keyword)*

| | |
|---|---|
| Synopsis | PIR |


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| | |
|---|---|
| Context | **configure** port *port* sonet-sdh path *sonet-path-index* egress port-scheduler-policy overrides max-rate rate *(number \| keyword)* |
| Tree | rate |
| Range | 1 to 3200000000 |
| Units | kilobps |
| Options | max |
| Default | max |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **policy-name** *reference*

| | |
|---|---|
| Synopsis | Port egress scheduler policy name |
| Context | **configure** port *port* sonet-sdh path *sonet-path-index* egress port-scheduler-policy policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos port-scheduler-policy *named-item* |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **load-balancing-algorithm** *keyword*

| | |
|---|---|
| Synopsis | Load balancing algorithm |
| Context | **configure** port *port* sonet-sdh path *sonet-path-index* load-balancing-algorithm *keyword* |
| Tree | load-balancing-algorithm |
| Options | default, include-l4, exclude-l4 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **mac-address** *mac-address*

| | |
|---|---|
| Synopsis | MAC address for the SONET/SDH path |
| Context | **configure** port *port* sonet-sdh path *sonet-path-index* mac-address *mac-address* |
| Tree | mac-address |


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| | |
|---|---|
| Default | 00:00:00:00:00:00 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **mode** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Operation port mode for the SONET/SDH path |
| Context | **configure** port *port* sonet-sdh path *sonet-path-index* mode *keyword* |
| Tree | mode |
| Options | access, network |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **mtu** *number*

| | |
|---|---|
| Synopsis | Maximum payload MTU size |
| Context | **configure** port *port* sonet-sdh path *sonet-path-index* mtu *number* |
| Tree | mtu |
| Range | 512 to 9208 |
| Units | bytes |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **network**

| | |
|---|---|
| Synopsis | Enter the **network** context |
| Context | **configure** port *port* sonet-sdh path *sonet-path-index* network |
| Tree | network |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **accounting-policy** *reference*

| | |
|---|---|
| Synopsis | Accounting policy |
| Context | **configure** port *port* sonet-sdh path *sonet-path-index* network accounting-policy *reference* |
| Tree | accounting-policy |
| Reference | **configure** log accounting-policy *number* |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **collect-stats** *boolean*

| | |
|---|---|
| Synopsis | Collect accounting and statistical data |
| Context | **configure** port *port* sonet-sdh path *sonet-path-index* network collect-stats *boolean* |
| Tree | collect-stats |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **queue-policy** *reference*

| | |
|---|---|
| Synopsis | Queue policy on the SONET/SDH network path |
| Context | **configure** port *port* sonet-sdh path *sonet-path-index* network queue-policy *reference* |
| Tree | queue-policy |
| Reference | **configure** qos network-queue *named-item* |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **payload** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | SONET/SDH path payload |
| Context | **configure** port *port* sonet-sdh path *sonet-path-index* payload *keyword* |


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| | |
|---|---|
| Tree | payload |
| Options | sts3, tug3, vt15, vt2, ds3, e3, ds1, e1 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## report-alarm

| | |
|---|---|
| Synopsis | Enter the **report-alarm** context |
| Context | **configure** port *port* sonet-sdh path *sonet-path-index* report-alarm |
| Tree | report-alarm |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## pais *boolean*

| | |
|---|---|
| Synopsis | Report path alarm indication signal errors |
| Context | **configure** port *port* sonet-sdh path *sonet-path-index* report-alarm pais *boolean* |
| Tree | pais |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## plcd *boolean*

| | |
|---|---|
| Synopsis | Report path loss of code group delineation errors |
| Context | **configure** port *port* sonet-sdh path *sonet-path-index* report-alarm plcd *boolean* |
| Tree | plcd |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## plop *boolean*

| | |
|---|---|
| Synopsis | Report path loss of pointer errors as a trap |
| Context | **configure** port *port* sonet-sdh path *sonet-path-index* report-alarm plop *boolean* |


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| | |
|---|---|
| Tree | plop |
| Default | true |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **pplm** *boolean*

| | |
|---|---|
| Synopsis | Report a path payload mismatch trap |
| Context | **configure** port *port* sonet-sdh path *sonet-path-index* report-alarm pplm *boolean* |
| Tree | pplm |
| Default | true |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **prdi** *boolean*

| | |
|---|---|
| Synopsis | Report path remote defect indication errors |
| Context | **configure** port *port* sonet-sdh path *sonet-path-index* report-alarm prdi *boolean* |
| Tree | prdi |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **prei** *boolean*

| | |
|---|---|
| Synopsis | Report a path error condition as a result of b3 error |
| Context | **configure** port *port* sonet-sdh path *sonet-path-index* report-alarm prei *boolean* |
| Tree | prei |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **puneq** *boolean*

| | |
|---|---|
| Synopsis | Report path unequipped errors |


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| | |
|---|---|
| Context | **configure** port *port* sonet-sdh path *sonet-path-index* report-alarm puneq *boolean* |
| Tree | puneq |
| Default | true |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **scramble** *boolean*

| | |
|---|---|
| Synopsis | Enable SONET/SDH payload scrambling |
| Context | **configure** port *port* sonet-sdh path *sonet-path-index* scramble *boolean* |
| Tree | scramble |
| Description | When configured to **true**, the SONET/SDH frame carries randomized patterns of 1s and 0s, which prevents continuous strings of all 1s or all 0s. This meets the needs of physical layer protocols that rely on sufficient transitions between 1s and 0s to maintain clocking.<br>When configured to **false**, the strings of all 1s or all 0s are continuous. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **signal-label** *string*

| | |
|---|---|
| Synopsis | C2 byte value that communicates the payload type |
| Context | **configure** port *port* sonet-sdh path *sonet-path-index* signal-label *string* |
| Tree | signal-label |
| String length | 1 to 4 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **trace-string** *(keyword | string)*

| | |
|---|---|
| Synopsis | J1 path-trace string that identifies the circuit |
| Context | **configure** port *port* sonet-sdh path *sonet-path-index* trace-string *(keyword | string)* |
| Tree | trace-string |
| String length | 0 to 62 |
| Options | zeros |
| Introduced | 20.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## report-alarm

| | |
|---|---|
| Synopsis | Enter the **report-alarm** context |
| Context | **configure** port *port* sonet-sdh report-alarm |
| Tree | report-alarm |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## lais *boolean*

| | |
|---|---|
| Synopsis | Report Line Indication Signal Errors alarm |
| Context | **configure** port *port* sonet-sdh report-alarm lais *boolean* |
| Tree | lais |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## lb2er-sd *boolean*

| | |
|---|---|
| Synopsis | Report line and section alarms for SONET/SDH ports |
| Context | **configure** port *port* sonet-sdh report-alarm lb2er-sd *boolean* |
| Tree | lb2er-sd |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## lb2er-sf *boolean*

| | |
|---|---|
| Synopsis | Report alarm line signal failure BER errors |
| Context | **configure** port *port* sonet-sdh report-alarm lb2er-sf *boolean* |
| Tree | lb2er-sf |
| Default | true |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **loc** *boolean*

| | |
|---|---|
| Synopsis | Report alarm for a loss of clock |
| Context | **configure** port *port* sonet-sdh report-alarm loc *boolean* |
| Tree | loc |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **lrdi** *boolean*

| | |
|---|---|
| Synopsis | Report Line Remote Defect Indication Errors alarm |
| Context | **configure** port *port* sonet-sdh report-alarm lrdi *boolean* |
| Tree | lrdi |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **lrei** *boolean*

| | |
|---|---|
| Synopsis | Report alarm for a line error condition |
| Context | **configure** port *port* sonet-sdh report-alarm lrei *boolean* |
| Tree | lrei |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **slof** *boolean*

| | |
|---|---|
| Synopsis | Report alarm for section loss of frame errors |
| Context | **configure** port *port* sonet-sdh report-alarm slof *boolean* |
| Tree | slof |
| Default | true |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **slos** *boolean*

| | |
|---|---|
| Synopsis | Report alarm for section loss of signal error on send |
| Context | **configure** port *port* sonet-sdh report-alarm slos *boolean* |
| Tree | slos |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ss1f** *boolean*

| | |
|---|---|
| Synopsis | Report alarm for section synchronization failure |
| Context | **configure** port *port* sonet-sdh report-alarm ss1f *boolean* |
| Tree | ss1f |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **sd-threshold** *number*

| | |
|---|---|
| Synopsis | Threshold for line signal failure BER |
| Context | **configure** port *port* sonet-sdh sd-threshold *number* |
| Tree | sd-threshold |
| Range | 3 to 9 |
| Default | 6 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **section-trace**

| | |
|---|---|
| Synopsis | Enter the **section-trace** context |
| Context | **configure** port *port* sonet-sdh section-trace |


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| | |
|---|---|
| Tree | section-trace |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **byte** *string*

| | |
|---|---|
| Synopsis | Section trace bytes in the SONET section header |
| Context | **configure** port *port* sonet-sdh section-trace byte *string* |
| Tree | byte |
| String length | 1 to 4 |
| Default | 1 |
| Notes | The following elements are part of a choice: **byte**, **increment-z0**, or **string**. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **increment-z0**

| | |
|---|---|
| Synopsis | Configure incrementing STM ID instead of a static value |
| Context | **configure** port *port* sonet-sdh section-trace increment-z0 |
| Tree | increment-z0 |
| Notes | The following elements are part of a choice: **byte**, **increment-z0**, or **string**. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **string** *string*

| | |
|---|---|
| Synopsis | Text string that identifies the section |
| Context | **configure** port *port* sonet-sdh section-trace string *string* |
| Tree | string |
| String length | 0 to 16 |
| Notes | The following elements are part of a choice: **byte**, **increment-z0**, or **string**. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **sf-threshold** *number*

| | |
|---|---|
| Synopsis | Threshold for line signal failure BER |
| Context | **configure** port *port* sonet-sdh sf-threshold *number* |
| Tree | sf-threshold |
| Range | 3 to 6 |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **single-fiber** *boolean*

| | |
|---|---|
| Synopsis | Allow packet gathering and redirection from single port |
| Context | **configure** port *port* sonet-sdh single-fiber *boolean* |
| Tree | single-fiber |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **speed** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | SONET/SDH port speed |
| Context | **configure** port *port* sonet-sdh speed *keyword* |
| Tree | speed |
| Options | oc3, oc12, oc48, oc192, oc768, oc1 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **suppress-low-order-alarms** *boolean*

| | |
|---|---|
| Synopsis | Suppress low order alarms |
| Context | **configure** port *port* sonet-sdh suppress-low-order-alarms *boolean* |


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| | |
|---|---|
| Tree | suppress-low-order-alarms |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **tx-dus** *boolean*

| | |
|---|---|
| Synopsis | Force the QL value to be set to QL-DUS/QL-DNU |
| Context | **configure** port *port* sonet-sdh tx-dus *boolean* |
| Tree | tx-dus |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **tdm**

| | |
|---|---|
| Synopsis | Enter the **tdm** context |
| Context | **configure** port *port* tdm |
| Tree | tdm |
| Introduced | 19.5.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **buildout** *keyword*

| | |
|---|---|
| Synopsis | Line buildout for physical DS1/DS3 ports |
| Context | **configure** port *port* tdm buildout *keyword* |
| Tree | buildout |
| Options | short, long |
| Default | short |
| Introduced | 19.5.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **ds1** [ds1-index] *tdm-ds1-index*

| | |
|---|---|
| Synopsis | Enter the **ds1** list instance |


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| | |
|---|---|
| Context | **configure** port *port* tdm ds1 *tdm-ds1-index* |
| Tree | ds1 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## [**ds1-index**] *tdm-ds1-index*

| | |
|---|---|
| Synopsis | DS-1 channel ID |
| Context | **configure** port *port* tdm ds1 *tdm-ds1-index* |
| Tree | ds1 |
| MD-CLI default | physical |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the DS1 channel |
| Context | **configure** port *port* tdm ds1 *tdm-ds1-index* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## **ber-threshold**

| | |
|---|---|
| Synopsis | Enter the **ber-threshold** context |
| Context | **configure** port *port* tdm ds1 *tdm-ds1-index* ber-threshold |
| Tree | ber-threshold |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |


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### **signal-degrade** *number*

| | |
|---|---|
| Synopsis | BER signal degredation threshold |
| Context | **configure** port *port* tdm ds1 *tdm-ds1-index* ber-threshold signal-degrade *number* |
| Tree | signal-degrade |
| Range | 1 \| 5 \| 10 \| 50 \| 100 |
| Default | 5 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **signal-failure** *number*

| | |
|---|---|
| Synopsis | BER signal failure threshold |
| Context | **configure** port *port* tdm ds1 *tdm-ds1-index* ber-threshold signal-failure *number* |
| Tree | signal-failure |
| Range | 1 \| 5 \| 10 \| 50 \| 100 |
| Default | 50 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **channel-group** [ds0-index] *number*

| | |
|---|---|
| Synopsis | Enter the **channel-group** list instance |
| Context | **configure** port *port* tdm ds1 *tdm-ds1-index* channel-group *number* |
| Tree | channel-group |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### [**ds0-index**] *number*

| | |
|---|---|
| Synopsis | Channel group ID |
| Context | **configure** port *port* tdm ds1 *tdm-ds1-index* channel-group *number* |
| Tree | channel-group |
| Range | 1 to 24 |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the DS1 channel group |
| Context | **configure** port *port* tdm ds1 *tdm-ds1-index* channel-group *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **description** *long-description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** port *port* tdm ds1 *tdm-ds1-index* channel-group *number* description *long-description* |
| Tree | description |
| String length | 1 to 160 |
| Default | DS0GRP |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **egress**

| | |
|---|---|
| Synopsis | Enter the **egress** context |
| Context | **configure** port *port* tdm ds1 *tdm-ds1-index* channel-group *number* egress |
| Tree | egress |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **port-scheduler-policy**

| | |
|---|---|
| Synopsis | Enter the **port-scheduler-policy** context |


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| | |
|---|---|
| Context | **configure** port *port* tdm ds1 *tdm-ds1-index* channel-group *number* egress port-scheduler-policy |
| Tree | port-scheduler-policy |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## overrides

| | |
|---|---|
| Synopsis | Enable the **overrides** context |
| Context | **configure** port *port* tdm ds1 *tdm-ds1-index* channel-group *number* egress port-scheduler-policy overrides |
| Tree | overrides |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## **level** [priority-level] *number*

| | |
|---|---|
| Synopsis | Enter the **level** list instance |
| Context | **configure** port *port* tdm ds1 *tdm-ds1-index* channel-group *number* egress port-scheduler-policy overrides level *number* |
| Tree | level |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## [**priority-level**] *number*

| | |
|---|---|
| Synopsis | Port priority levels override |
| Context | **configure** port *port* tdm ds1 *tdm-ds1-index* channel-group *number* egress port-scheduler-policy overrides level *number* |
| Tree | level |
| Range | 1 to 8 |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |


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## percent-rate

| | |
|---|---|
| Synopsis | Enter the **percent-rate** context |
| Context | **configure** port *port* tdm ds1 *tdm-ds1-index* channel-group *number* egress port-scheduler-policy overrides level *number* percent-rate |
| Tree | percent-rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## **cir** *decimal-number*

| | |
|---|---|
| Synopsis | CIR for the priority level |
| Context | **configure** port *port* tdm ds1 *tdm-ds1-index* channel-group *number* egress port-scheduler-policy overrides level *number* percent-rate cir *decimal-number* |
| Tree | cir |
| Range | 0 to 100 |
| Units | percent |
| Default | 100 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## **pir** *decimal-number*

| | |
|---|---|
| Synopsis | PIR for the priority level |
| Context | **configure** port *port* tdm ds1 *tdm-ds1-index* channel-group *number* egress port-scheduler-policy overrides level *number* percent-rate pir *decimal-number* |
| Tree | pir |
| Range | 0.01 to 100 |
| Units | percent |
| Default | 100 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |


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### rate

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** port *port* tdm ds1 *tdm-ds1-index* channel-group *number* egress port-scheduler-policy overrides level *number* rate |
| Tree | rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### cir *(number | keyword)*

| | |
|---|---|
| Synopsis | CIR for the priority level |
| Context | **configure** port *port* tdm ds1 *tdm-ds1-index* channel-group *number* egress port-scheduler-policy overrides level *number* rate cir *(number | keyword)* |
| Tree | cir |
| Range | 0 to 3200000000 |
| Units | kilobps |
| Options | sum, max |
| Default | max |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### pir *(number | keyword)*

| | |
|---|---|
| Synopsis | PIR for the priority level |
| Context | **configure** port *port* tdm ds1 *tdm-ds1-index* channel-group *number* egress port-scheduler-policy overrides level *number* rate pir *(number | keyword)* |
| Tree | pir |
| Range | 1 to 3200000000 |
| Units | kilobps |
| Options | max |
| Default | max |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |


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### max-rate

| | |
|---|---|
| Synopsis | Enter the **max-rate** context |
| Context | **configure** port *port* tdm ds1 *tdm-ds1-index* channel-group *number* egress port-scheduler-policy overrides max-rate |
| Tree | max-rate |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### percent-rate *decimal-number*

| | |
|---|---|
| Synopsis | PIR |
| Context | **configure** port *port* tdm ds1 *tdm-ds1-index* channel-group *number* egress port-scheduler-policy overrides max-rate percent-rate *decimal-number* |
| Tree | percent-rate |
| Range | 0.01 to 100 |
| Units | percent |
| Default | 100 |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### rate *(number | keyword)*

| | |
|---|---|
| Synopsis | PIR |
| Context | **configure** port *port* tdm ds1 *tdm-ds1-index* channel-group *number* egress port-scheduler-policy overrides max-rate rate *(number | keyword)* |
| Tree | rate |
| Range | 1 to 3200000000 |
| Units | kilobps |
| Options | max |
| Default | max |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |


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## **policy-name** *reference*

| | |
|---|---|
| Synopsis | Port egress scheduler policy name |
| Context | **configure** port *port* tdm ds1 *tdm-ds1-index* channel-group *number* egress port-scheduler-policy policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos port-scheduler-policy *named-item* |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## **encap-type** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Encapsulation method |
| Context | **configure** port *port* tdm ds1 *tdm-ds1-index* channel-group *number* encap-type *keyword* |
| Tree | encap-type |
| Options | cem |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## **idle-payload-fill**

| | |
|---|---|
| Synopsis | Enter the **idle-payload-fill** context |
| Context | **configure** port *port* tdm ds1 *tdm-ds1-index* channel-group *number* idle-payload-fill |
| Tree | idle-payload-fill |
| Description | Commands in this context configure the data pattern to be transmitted when the circuit emulation service is not operational or temporarily experiences under-run conditions.<br>This command is only valid for CESoPSN and CESoPSN CAS circuit emulation services. It is blocked with a warning for unstructured (SATOP) circuit emulation services. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |


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### all-ones

| | |
|---|---|
| Synopsis | Transmit 8-bit value to be 11111111 |
| Context | **configure** port *port* tdm ds1 *tdm-ds1-index* channel-group *number* idle-payload-fill all-ones |
| Tree | all-ones |
| Notes | The following elements are part of a choice: **all-ones** or **pattern**. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### pattern *number*

| | |
|---|---|
| Synopsis | User-defined pattern to be transmitted |
| Context | **configure** port *port* tdm ds1 *tdm-ds1-index* channel-group *number* idle-payload-fill pattern *number* |
| Tree | pattern |
| Range | 0 to 255 |
| Notes | The following elements are part of a choice: **all-ones** or **pattern**. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### idle-signal-fill

| | |
|---|---|
| Synopsis | Enter the **idle-signal-fill** context |
| Context | **configure** port *port* tdm ds1 *tdm-ds1-index* channel-group *number* idle-signal-fill |
| Tree | idle-signal-fill |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### all-ones

| | |
|---|---|
| Synopsis | Transmit 8-bit value as 11111111 |
| Context | **configure** port *port* tdm ds1 *tdm-ds1-index* channel-group *number* idle-signal-fill all-ones |
| Tree | all-ones |
| Notes | The following elements are part of a choice: **all-ones** or **pattern**. |


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| | |
|---|---|
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **pattern** *number*

| | |
|---|---|
| Synopsis | User-defined pattern to be transmitted |
| Context | **configure** port *port* tdm ds1 *tdm-ds1-index* channel-group *number* idle-signal-fill pattern *number* |
| Tree | pattern |
| Range | 0 to 15 |
| Notes | The following elements are part of a choice: **all-ones** or **pattern**. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **load-balancing-algorithm** *keyword*

| | |
|---|---|
| Synopsis | Load balancing algorithm to be used on the port |
| Context | **configure** port *port* tdm ds1 *tdm-ds1-index* channel-group *number* load-balancing-algorithm *keyword* |
| Tree | load-balancing-algorithm |
| Options | default, include-l4, exclude-l4 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **mac-address** *mac-address*

| | |
|---|---|
| Synopsis | MAC address for the port |
| Context | **configure** port *port* tdm ds1 *tdm-ds1-index* channel-group *number* mac-address *mac-address* |
| Tree | mac-address |
| Default | 00:00:00:00:00:00 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |


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## **mode** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Operation mode for the TDM channel group |
| Context | **configure** port *port* tdm ds1 *tdm-ds1-index* channel-group *number* mode *keyword* |
| Tree | mode |
| Options | access, network |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## **mtu** *number*

| | |
|---|---|
| Synopsis | Maximum payload MTU size for the port |
| Context | **configure** port *port* tdm ds1 *tdm-ds1-index* channel-group *number* mtu *number* |
| Tree | mtu |
| Range | 512 to 9208 |
| Units | bytes |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## **network**

| | |
|---|---|
| Synopsis | Enter the **network** context |
| Context | **configure** port *port* tdm ds1 *tdm-ds1-index* channel-group *number* network |
| Tree | network |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## **accounting-policy** *reference*

| | |
|---|---|
| Synopsis | Accounting policy |
| Context | **configure** port *port* tdm ds1 *tdm-ds1-index* channel-group *number* network accounting-policy *reference* |


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| | |
|---|---|
| Tree | accounting-policy |
| Reference | **configure** log accounting-policy *number* |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **collect-stats** *boolean*

| | |
|---|---|
| Synopsis | Collect accounting and statistical data |
| Context | **configure** port *port* tdm ds1 *tdm-ds1-index* channel-group *number* network collect-stats *boolean* |
| Tree | collect-stats |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **queue-policy** *reference*

| | |
|---|---|
| Synopsis | Queue policy on the TDM DS0 network channel group |
| Context | **configure** port *port* tdm ds1 *tdm-ds1-index* channel-group *number* network queue-policy *reference* |
| Tree | queue-policy |
| Reference | **configure** qos network-queue *named-item* |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **speed** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Speed of the DS0 channels in the channel group |
| Context | **configure** port *port* tdm ds1 *tdm-ds1-index* channel-group *number* speed *number* |
| Tree | speed |
| Range | 56 \| 64 |
| Default | 64 |


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| | |
|---|---|
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## **timeslot** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Timeslot for the channel group |
| Context | **configure** port *port* tdm ds1 *tdm-ds1-index* channel-group *number* timeslot *number* |
| Tree | timeslot |
| Range | 1 to 24 |
| Max. instances | 24 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## **clock-source** *keyword*

| | |
|---|---|
| Synopsis | Clock source for data transmission |
| Context | **configure** port *port* tdm ds1 *tdm-ds1-index* clock-source *keyword* |
| Tree | clock-source |
| Description | This command specifies the clock source to use for the link transmit timing. The options are to use the locally recovered clock from the line's receive data stream, the node central reference, or an adaptively recovered clock using the received packets. |
| Options | loop-timed, node-timed, adaptive, differential |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## **framing** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Framing for the DS1 channel |
| Context | **configure** port *port* tdm ds1 *tdm-ds1-index* framing *keyword* |


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| | |
|---|---|
| Tree | framing |
| Options | extended-super-frame, super-frame, ds1-unframed |
| Default | extended-super-frame |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **loopback** *keyword*

| | |
|---|---|
| Synopsis | Loopback mode for the port |
| Context | **configure** port *port* tdm ds1 *tdm-ds1-index* loopback *keyword* |
| Tree | loopback |
| Options | line, internal, fdl-ansi, fdl-bellcore, payload-ansi, inband-ansi, inband-bellcore |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **remote-loop-respond** *boolean*

| | |
|---|---|
| Synopsis | Respond to requests for remote loopbacks |
| Context | **configure** port *port* tdm ds1 *tdm-ds1-index* remote-loop-respond *boolean* |
| Tree | remote-loop-respond |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **report-alarm**

| | |
|---|---|
| Synopsis | Enter the **report-alarm** context |
| Context | **configure** port *port* tdm ds1 *tdm-ds1-index* report-alarm |
| Tree | report-alarm |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **ais** *boolean*

| | |
|---|---|
| Synopsis | Report alarm indication signal errors |


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| | |
|---|---|
| Context | **configure** port *port* tdm ds1 *tdm-ds1-index* report-alarm ais *boolean* |
| Tree | ais |
| Default | true |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **ber-sd** *boolean*

| | |
|---|---|
| Synopsis | Report the BER that specifies signal degradation |
| Context | **configure** port *port* tdm ds1 *tdm-ds1-index* report-alarm ber-sd *boolean* |
| Tree | ber-sd |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **ber-sf** *boolean*

| | |
|---|---|
| Synopsis | Report the BER that species signal failure |
| Context | **configure** port *port* tdm ds1 *tdm-ds1-index* report-alarm ber-sf *boolean* |
| Tree | ber-sf |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **looped** *boolean*

| | |
|---|---|
| Synopsis | Report looped packet errors |
| Context | **configure** port *port* tdm ds1 *tdm-ds1-index* report-alarm looped *boolean* |
| Tree | looped |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |


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### **los** *boolean*

| | |
|---|---|
| Synopsis | Report loss of signal errors |
| Context | **configure** port *port* tdm ds1 *tdm-ds1-index* report-alarm los *boolean* |
| Tree | los |
| Default | true |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **oof** *boolean*

| | |
|---|---|
| Synopsis | Report out-of-frame errors |
| Context | **configure** port *port* tdm ds1 *tdm-ds1-index* report-alarm oof *boolean* |
| Tree | oof |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **rai** *boolean*

| | |
|---|---|
| Synopsis | Report resource availability indicator events |
| Context | **configure** port *port* tdm ds1 *tdm-ds1-index* report-alarm rai *boolean* |
| Tree | rai |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **signal-mode** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Signal mode on the channel |
| Context | **configure** port *port* tdm ds1 *tdm-ds1-index* signal-mode *keyword* |
| Tree | signal-mode |


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| | |
|---|---|
| Description | This command configures the signal mode on the channel.<br>When enabled, it uses routing information to direct the payload of voice or data to its destination. |
| Options | channel-associated-signaling |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **ds3** [ds3-index] *tdm-ds3-index*

| | |
|---|---|
| Synopsis | Enter the **ds3** list instance |
| Context | **configure** port *port* tdm ds3 *tdm-ds3-index* |
| Tree | ds3 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### [**ds3-index**] *tdm-ds3-index*

| | |
|---|---|
| Synopsis | TDM DS3 index |
| Context | **configure** port *port* tdm ds3 *tdm-ds3-index* |
| Tree | ds3 |
| MD-CLI default | physical |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the DS3 port |
| Context | **configure** port *port* tdm ds3 *tdm-ds3-index* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |


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## **channelized** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Channelization of the DS3 |
| Context | **configure** port *port* tdm ds3 *tdm-ds3-index* channelized *keyword* |
| Tree | channelized |
| Options | ds1, e1 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## **clock-source** *keyword*

| | |
|---|---|
| Synopsis | Clock for data transmission |
| Context | **configure** port *port* tdm ds3 *tdm-ds3-index* clock-source *keyword* |
| Tree | clock-source |
| Options | loop-timed, node-timed |
| Default | node-timed |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## **crc** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Precision of the cyclic redundancy check (CRC) |
| Context | **configure** port *port* tdm ds3 *tdm-ds3-index* crc *number* |
| Tree | crc |
| Range | 16 \| 32 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |


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### **description** *long-description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** port *port* tdm ds3 *tdm-ds3-index* description *long-description* |
| Tree | description |
| String length | 1 to 160 |
| Default | DS3 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **egress**

| | |
|---|---|
| Synopsis | Enter the **egress** context |
| Context | **configure** port *port* tdm ds3 *tdm-ds3-index* egress |
| Tree | egress |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **port-scheduler-policy**

| | |
|---|---|
| Synopsis | Enter the **port-scheduler-policy** context |
| Context | **configure** port *port* tdm ds3 *tdm-ds3-index* egress port-scheduler-policy |
| Tree | port-scheduler-policy |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **overrides**

| | |
|---|---|
| Synopsis | Enable the **overrides** context |
| Context | **configure** port *port* tdm ds3 *tdm-ds3-index* egress port-scheduler-policy overrides |
| Tree | overrides |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |


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### **level** [priority-level] *number*

| | |
|---|---|
| Synopsis | Enter the **level** list instance |
| Context | **configure** port *port* tdm ds3 *tdm-ds3-index* egress port-scheduler-policy overrides level *number* |
| Tree | level |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### [**priority-level**] *number*

| | |
|---|---|
| Synopsis | Port priority levels override |
| Context | **configure** port *port* tdm ds3 *tdm-ds3-index* egress port-scheduler-policy overrides level *number* |
| Tree | level |
| Range | 1 to 8 |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **percent-rate**

| | |
|---|---|
| Synopsis | Enter the **percent-rate** context |
| Context | **configure** port *port* tdm ds3 *tdm-ds3-index* egress port-scheduler-policy overrides level *number* percent-rate |
| Tree | percent-rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **cir** *decimal-number*

| | |
|---|---|
| Synopsis | CIR for the priority level |
| Context | **configure** port *port* tdm ds3 *tdm-ds3-index* egress port-scheduler-policy overrides level *number* percent-rate cir *decimal-number* |
| Tree | cir |


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| | |
|---|---|
| Range | 0 to 100 |
| Units | percent |
| Default | 100 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **pir** *decimal-number*

| | |
|---|---|
| Synopsis | PIR for the priority level |
| Context | **configure** port *port* tdm ds3 *tdm-ds3-index* egress port-scheduler-policy overrides level *number* percent-rate pir *decimal-number* |
| Tree | pir |
| Range | 0.01 to 100 |
| Units | percent |
| Default | 100 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **rate**

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** port *port* tdm ds3 *tdm-ds3-index* egress port-scheduler-policy overrides level *number* rate |
| Tree | rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **cir** *(number | keyword)*

| | |
|---|---|
| Synopsis | CIR for the priority level |
| Context | **configure** port *port* tdm ds3 *tdm-ds3-index* egress port-scheduler-policy overrides level *number* rate cir *(number | keyword)* |
| Tree | cir |
| Range | 0 to 3200000000 |
| Units | kilobps |


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| | |
|---|---|
| Options | sum, max |
| Default | max |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | PIR for the priority level |
| Context | **configure** port *port* tdm ds3 *tdm-ds3-index* egress port-scheduler-policy overrides level *number* rate pir *(number | keyword)* |
| Tree | pir |
| Range | 1 to 3200000000 |
| Units | kilobps |
| Options | max |
| Default | max |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **max-rate**

| | |
|---|---|
| Synopsis | Enter the **max-rate** context |
| Context | **configure** port *port* tdm ds3 *tdm-ds3-index* egress port-scheduler-policy overrides max-rate |
| Tree | max-rate |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **percent-rate** *decimal-number*

| | |
|---|---|
| Synopsis | PIR |
| Context | **configure** port *port* tdm ds3 *tdm-ds3-index* egress port-scheduler-policy overrides max-rate percent-rate *decimal-number* |
| Tree | percent-rate |
| Range | 0.01 to 100 |
| Units | percent |
| Default | 100 |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **rate** *(number | keyword)*

| | |
|---|---|
| Synopsis | PIR |
| Context | **configure** port *port* tdm ds3 *tdm-ds3-index* egress port-scheduler-policy overrides max-rate rate *(number \| keyword)* |
| Tree | rate |
| Range | 1 to 3200000000 |
| Units | kilobps |
| Options | max |
| Default | max |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **policy-name** *reference*

| | |
|---|---|
| Synopsis | Port egress scheduler policy name |
| Context | **configure** port *port* tdm ds3 *tdm-ds3-index* egress port-scheduler-policy policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos port-scheduler-policy *named-item* |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **encap-type** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Encapsulation method |
| Context | **configure** port *port* tdm ds3 *tdm-ds3-index* encap-type *keyword* |


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| | |
|---|---|
| Tree | encap-type |
| Options | cem |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **feac-loop-respond** *boolean*

| | |
|---|---|
| Synopsis | Enable DS-3 interface to respond to remote loop signals |
| Context | **configure** port *port* tdm ds3 *tdm-ds3-index* feac-loop-respond *boolean* |
| Tree | feac-loop-respond |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **framing** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Framing for the DS3 channel |
| Context | **configure** port *port* tdm ds3 *tdm-ds3-index* framing *keyword* |
| Tree | framing |
| Options | c-bit, m23, ds3-unframed |
| Default | c-bit |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **idle-cycle-flag** *keyword*

| | |
|---|---|
| Synopsis | Value transmitted during idle cycles |
| Context | **configure** port *port* tdm ds3 *tdm-ds3-index* idle-cycle-flag *keyword* |
| Tree | idle-cycle-flag |
| Options | flags, ones |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |


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### **load-balancing-algorithm** *keyword*

| | |
|---|---|
| Synopsis | Load balancing algorithm to be used on the port |
| Context | **configure** port *port* tdm ds3 *tdm-ds3-index* load-balancing-algorithm *keyword* |
| Tree | load-balancing-algorithm |
| Options | default, include-l4, exclude-l4 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **loopback** *keyword*

| | |
|---|---|
| Synopsis | Loopback mode on the channel |
| Context | **configure** port *port* tdm ds3 *tdm-ds3-index* loopback *keyword* |
| Tree | loopback |
| Options | line, internal, remote |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **mac-address** *mac-address*

| | |
|---|---|
| Synopsis | MAC address for the port |
| Context | **configure** port *port* tdm ds3 *tdm-ds3-index* mac-address *mac-address* |
| Tree | mac-address |
| Default | 00:00:00:00:00:00 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **maintenance-data-link**

| | |
|---|---|
| Synopsis | Enter the **maintenance-data-link** context |
| Context | **configure** port *port* tdm ds3 *tdm-ds3-index* maintenance-data-link |
| Tree | maintenance-data-link |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |


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### **equipment-id-code** *string*

| | |
|---|---|
| Synopsis | Equipment ID Code (EIC) of the MDL |
| Context | **configure** port *port* tdm ds3 *tdm-ds3-index* maintenance-data-link equipment-id-code *string* |
| Tree | equipment-id-code |
| String length | 0 to 10 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **facility-id-code** *string*

| | |
|---|---|
| Synopsis | Facility ID Code sent in the MDL Path message |
| Context | **configure** port *port* tdm ds3 *tdm-ds3-index* maintenance-data-link facility-id-code *string* |
| Tree | facility-id-code |
| String length | 0 to 38 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **frame-id-code** *string*

| | |
|---|---|
| Synopsis | Frame ID Code (FIC) of the MDL |
| Context | **configure** port *port* tdm ds3 *tdm-ds3-index* maintenance-data-link frame-id-code *string* |
| Tree | frame-id-code |
| String length | 0 to 10 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **generator-string** *string*

| | |
|---|---|
| Synopsis | Generator number string sent in MDL test signal message |
| Context | **configure** port *port* tdm ds3 *tdm-ds3-index* maintenance-data-link generator-string *string* |
| Tree | generator-string |
| String length | 0 to 38 |
| Introduced | 20.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **location-id-code** *string*

| | |
|---|---|
| Synopsis | Location ID Code (LIC) of the MDL |
| Context | **configure** port *port* tdm ds3 *tdm-ds3-index* maintenance-data-link location-id-code *string* |
| Tree | location-id-code |
| String length | 0 to 11 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **port-string** *string*

| | |
|---|---|
| Synopsis | Port number string sent in the MDL idle signal message |
| Context | **configure** port *port* tdm ds3 *tdm-ds3-index* maintenance-data-link port-string *string* |
| Tree | port-string |
| String length | 0 to 38 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **transmit-message-type**

| | |
|---|---|
| Synopsis | Enter the **transmit-message-type** context |
| Context | **configure** port *port* tdm ds3 *tdm-ds3-index* maintenance-data-link transmit-message-type |
| Tree | transmit-message-type |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **idle-signal** *boolean*

| | |
|---|---|
| Synopsis | Enable transmission of MDL idle signal messages |
| Context | **configure** port *port* tdm ds3 *tdm-ds3-index* maintenance-data-link transmit-message-type idle-signal *boolean* |
| Tree | idle-signal |


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| | |
|---|---|
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **path** *boolean*

| | |
|---|---|
| Synopsis | Enabletransmission of MDL path messages |
| Context | **configure** port *port* tdm ds3 *tdm-ds3-index* maintenance-data-link transmit-message-type path *boolean* |
| Tree | path |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **test-signal** *boolean*

| | |
|---|---|
| Synopsis | Enable transmission of MDL test signal messages |
| Context | **configure** port *port* tdm ds3 *tdm-ds3-index* maintenance-data-link transmit-message-type test-signal *boolean* |
| Tree | test-signal |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **unit-id-code** *string*

| | |
|---|---|
| Synopsis | Unit ID Code (UIC) of the MDL |
| Context | **configure** port *port* tdm ds3 *tdm-ds3-index* maintenance-data-link unit-id-code *string* |
| Tree | unit-id-code |
| String length | 0 to 6 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |


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## **mode** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Operation mode |
| Context | **configure** port *port* tdm ds3 *tdm-ds3-index* mode *keyword* |
| Tree | mode |
| Options | access, network |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## **mtu** *number*

| | |
|---|---|
| Synopsis | Maximum payload MTU size for the port |
| Context | **configure** port *port* tdm ds3 *tdm-ds3-index* mtu *number* |
| Tree | mtu |
| Range | 512 to 9208 |
| Units | bytes |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## **network**

| | |
|---|---|
| Synopsis | Enter the **network** context |
| Context | **configure** port *port* tdm ds3 *tdm-ds3-index* network |
| Tree | network |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## **accounting-policy** *reference*

| | |
|---|---|
| Synopsis | Accounting policy |
| Context | **configure** port *port* tdm ds3 *tdm-ds3-index* network accounting-policy *reference* |
| Tree | accounting-policy |


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| | |
|---|---|
| Reference | **configure** log accounting-policy *number* |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **collect-stats** *boolean*

| | |
|---|---|
| Synopsis | Collect accounting and statistical data |
| Context | **configure** port *port* tdm ds3 *tdm-ds3-index* network collect-stats *boolean* |
| Tree | collect-stats |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **queue-policy** *reference*

| | |
|---|---|
| Synopsis | Queue policy on the TDM DS3 network channel |
| Context | **configure** port *port* tdm ds3 *tdm-ds3-index* network queue-policy *reference* |
| Tree | queue-policy |
| Reference | **configure** qos network-queue *named-item* |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **report-alarm**

| | |
|---|---|
| Synopsis | Enter the **report-alarm** context |
| Context | **configure** port *port* tdm ds3 *tdm-ds3-index* report-alarm |
| Tree | report-alarm |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **ais** *boolean*

| | |
|---|---|
| Synopsis | Report alarm indication signal errors |
| Context | **configure** port *port* tdm ds3 *tdm-ds3-index* report-alarm ais *boolean* |
| Tree | ais |


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| | |
|---|---|
| Default | true |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **looped** *boolean*

| | |
|---|---|
| Synopsis | Report looped packet errors |
| Context | **configure** port *port* tdm ds3 *tdm-ds3-index* report-alarm looped *boolean* |
| Tree | looped |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **los** *boolean*

| | |
|---|---|
| Synopsis | Report loss of signal errors |
| Context | **configure** port *port* tdm ds3 *tdm-ds3-index* report-alarm los *boolean* |
| Tree | los |
| Default | true |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **oof** *boolean*

| | |
|---|---|
| Synopsis | Report out-of-frame errors |
| Context | **configure** port *port* tdm ds3 *tdm-ds3-index* report-alarm oof *boolean* |
| Tree | oof |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **rai** *boolean*

| | |
|---|---|
| Synopsis | Report resource availability indicator events |
| Context | **configure** port *port* tdm ds3 *tdm-ds3-index* report-alarm rai *boolean* |


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| | |
|---|---|
| Tree | rai |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## **scramble** *boolean*

| | |
|---|---|
| Synopsis | Enable TDM DS3 payload scrambling |
| Context | **configure** port *port* tdm ds3 *tdm-ds3-index* scramble *boolean* |
| Tree | scramble |
| Description | When configured to **true**, the TDM DS3 frame carries randomized patterns of 1s and 0s, which prevents continuous strings of all 1s or all 0s. This meets the needs of physical layer protocols that rely on sufficient transitions between 1s and 0s to maintain clocking.<br>When configured to **false**, the strings of all 1s or all 0s are continuous. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## **subrate**

| | |
|---|---|
| Synopsis | Enter the **subrate** context |
| Context | **configure** port *port* tdm ds3 *tdm-ds3-index* subrate |
| Tree | subrate |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## **csu-mode** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Channel Service Unit (CSU) compatibility mode |
| Context | **configure** port *port* tdm ds3 *tdm-ds3-index* subrate csu-mode *keyword* |
| Tree | csu-mode |
| Options | digital-link, larscom |
| Introduced | 20.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **rate-step** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Subrate for the associated DS3 |
| Context | **configure** port *port* tdm ds3 *tdm-ds3-index* subrate rate-step *number* |
| Tree | rate-step |
| Range | 0 to 147 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **e1** [e1-index] *tdm-e1-index*

| | |
|---|---|
| Synopsis | Enter the **e1** list instance |
| Context | **configure** port *port* tdm e1 *tdm-e1-index* |
| Tree | e1 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### [**e1-index**] *tdm-e1-index*

| | |
|---|---|
| Synopsis | E-1 channel |
| Context | **configure** port *port* tdm e1 *tdm-e1-index* |
| Tree | e1 |
| MD-CLI default | physical |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the E1 channel |
| Context | **configure** port *port* tdm e1 *tdm-e1-index* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **ber-threshold**

| | |
|---|---|
| Synopsis | Enter the **ber-threshold** context |
| Context | **configure** port *port* tdm e1 *tdm-e1-index* ber-threshold |
| Tree | ber-threshold |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **signal-degrade** *number*

| | |
|---|---|
| Synopsis | BER signal degredation threshold |
| Context | **configure** port *port* tdm e1 *tdm-e1-index* ber-threshold signal-degrade *number* |
| Tree | signal-degrade |
| Range | 1 \| 5 \| 10 \| 50 \| 100 |
| Default | 5 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **signal-failure** *number*

| | |
|---|---|
| Synopsis | BER signal failure threshold |
| Context | **configure** port *port* tdm e1 *tdm-e1-index* ber-threshold signal-failure *number* |
| Tree | signal-failure |
| Range | 1 \| 5 \| 10 \| 50 \| 100 |
| Default | 50 |


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| | |
|---|---|
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **channel-group** [ds0-index] *number*

| | |
|---|---|
| Synopsis | Enter the **channel-group** list instance |
| Context | **configure** port *port* tdm e1 *tdm-e1-index* channel-group *number* |
| Tree | channel-group |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### [**ds0-index**] *number*

| | |
|---|---|
| Synopsis | DS0 channel group in a channelized DS1 or E1 circuit |
| Context | **configure** port *port* tdm e1 *tdm-e1-index* channel-group *number* |
| Tree | channel-group |
| Range | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the E1 channel group |
| Context | **configure** port *port* tdm e1 *tdm-e1-index* channel-group *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **description** *long-description*

| | |
|---|---|
| Synopsis | Text description |


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| | |
|---|---|
| Context | **configure** port *port* tdm e1 *tdm-e1-index* channel-group *number* description *long-description* |
| Tree | description |
| String length | 1 to 160 |
| Default | DS0GRP |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## egress

| | |
|---|---|
| Synopsis | Enter the **egress** context |
| Context | **configure** port *port* tdm e1 *tdm-e1-index* channel-group *number* egress |
| Tree | egress |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## port-scheduler-policy

| | |
|---|---|
| Synopsis | Enter the **port-scheduler-policy** context |
| Context | **configure** port *port* tdm e1 *tdm-e1-index* channel-group *number* egress port-scheduler-policy |
| Tree | port-scheduler-policy |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## overrides

| | |
|---|---|
| Synopsis | Enable the **overrides** context |
| Context | **configure** port *port* tdm e1 *tdm-e1-index* channel-group *number* egress port-scheduler-policy overrides |
| Tree | overrides |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |


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### **level** [priority-level] *number*

| | |
|---|---|
| Synopsis | Enter the **level** list instance |
| Context | **configure** port *port* tdm e1 *tdm-e1-index* channel-group *number* egress port-scheduler-policy overrides level *number* |
| Tree | level |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### [**priority-level**] *number*

| | |
|---|---|
| Synopsis | Port priority levels override |
| Context | **configure** port *port* tdm e1 *tdm-e1-index* channel-group *number* egress port-scheduler-policy overrides level *number* |
| Tree | level |
| Range | 1 to 8 |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **percent-rate**

| | |
|---|---|
| Synopsis | Enter the **percent-rate** context |
| Context | **configure** port *port* tdm e1 *tdm-e1-index* channel-group *number* egress port-scheduler-policy overrides level *number* percent-rate |
| Tree | percent-rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **cir** *decimal-number*

| | |
|---|---|
| Synopsis | CIR for the priority level |
| Context | **configure** port *port* tdm e1 *tdm-e1-index* channel-group *number* egress port-scheduler-policy overrides level *number* percent-rate cir *decimal-number* |
| Tree | cir |


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| | |
|---|---|
| Range | 0 to 100 |
| Units | percent |
| Default | 100 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **pir** *decimal-number*

| | |
|---|---|
| Synopsis | PIR for the priority level |
| Context | **configure** port *port* tdm e1 *tdm-e1-index* channel-group *number* egress port-scheduler-policy overrides level *number* percent-rate pir *decimal-number* |
| Tree | pir |
| Range | 0.01 to 100 |
| Units | percent |
| Default | 100 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **rate**

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** port *port* tdm e1 *tdm-e1-index* channel-group *number* egress port-scheduler-policy overrides level *number* rate |
| Tree | rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **cir** *(number | keyword)*

| | |
|---|---|
| Synopsis | CIR for the priority level |
| Context | **configure** port *port* tdm e1 *tdm-e1-index* channel-group *number* egress port-scheduler-policy overrides level *number* rate cir *(number | keyword)* |
| Tree | cir |
| Range | 0 to 3200000000 |
| Units | kilobps |


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| | |
|---|---|
| Options | sum, max |
| Default | max |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | PIR for the priority level |
| Context | **configure** port *port* tdm e1 *tdm-e1-index* channel-group *number* egress port-scheduler-policy overrides level *number* rate pir *(number | keyword)* |
| Tree | pir |
| Range | 1 to 3200000000 |
| Units | kilobps |
| Options | max |
| Default | max |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **max-rate**

| | |
|---|---|
| Synopsis | Enter the **max-rate** context |
| Context | **configure** port *port* tdm e1 *tdm-e1-index* channel-group *number* egress port-scheduler-policy overrides max-rate |
| Tree | max-rate |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **percent-rate** *decimal-number*

| | |
|---|---|
| Synopsis | PIR |
| Context | **configure** port *port* tdm e1 *tdm-e1-index* channel-group *number* egress port-scheduler-policy overrides max-rate percent-rate *decimal-number* |
| Tree | percent-rate |
| Range | 0.01 to 100 |
| Units | percent |
| Default | 100 |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **rate** *(number | keyword)*

| | |
|---|---|
| Synopsis | PIR |
| Context | **configure** port *port* tdm e1 *tdm-e1-index* channel-group *number* egress port-scheduler-policy overrides max-rate rate *(number \| keyword)* |
| Tree | rate |
| Range | 1 to 3200000000 |
| Units | kilobps |
| Options | max |
| Default | max |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **policy-name** *reference*

| | |
|---|---|
| Synopsis | Port egress scheduler policy name |
| Context | **configure** port *port* tdm e1 *tdm-e1-index* channel-group *number* egress port-scheduler-policy policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos port-scheduler-policy *named-item* |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **encap-type** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Encapsulation method used on a port, path, or channel |
| Context | **configure** port *port* tdm e1 *tdm-e1-index* channel-group *number* encap-type *keyword* |


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| | |
|---|---|
| Tree | encap-type |
| Options | cem |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## idle-payload-fill

| | |
|---|---|
| Synopsis | Enter the **idle-payload-fill** context |
| Context | **configure** port *port* tdm e1 *tdm-e1-index* channel-group *number* idle-payload-fill |
| Tree | idle-payload-fill |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## all-ones

| | |
|---|---|
| Synopsis | Transmit 8-bit value to be 11111111 |
| Context | **configure** port *port* tdm e1 *tdm-e1-index* channel-group *number* idle-payload-fill all-ones |
| Tree | all-ones |
| Notes | The following elements are part of a choice: **all-ones** or **pattern**. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## pattern *number*

| | |
|---|---|
| Synopsis | User-defined pattern to be transmitted |
| Context | **configure** port *port* tdm e1 *tdm-e1-index* channel-group *number* idle-payload-fill pattern *number* |
| Tree | pattern |
| Range | 0 to 255 |
| Notes | The following elements are part of a choice: **all-ones** or **pattern**. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |


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## idle-signal-fill

| | |
|---|---|
| Synopsis | Enter the **idle-signal-fill** context |
| Context | **configure** port *port* tdm e1 *tdm-e1-index* channel-group *number* idle-signal-fill |
| Tree | idle-signal-fill |
| Description | Commands in this context configure the signaling pattern to be transmitted when the circuit emulation service is not operational or temporarily experiences under-run conditions.<br>This command is only valid for CESoPSN-CAS circuit emulation services. It is blocked with a warning for unstructured (SATOP) and basic CESoPSN circuit emulation services. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## all-ones

| | |
|---|---|
| Synopsis | Transmit 8-bit value as 11111111 |
| Context | **configure** port *port* tdm e1 *tdm-e1-index* channel-group *number* idle-signal-fill all-ones |
| Tree | all-ones |
| Notes | The following elements are part of a choice: **all-ones** or **pattern**. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## pattern *number*

| | |
|---|---|
| Synopsis | User-defined pattern to be transmitted |
| Context | **configure** port *port* tdm e1 *tdm-e1-index* channel-group *number* idle-signal-fill pattern *number* |
| Tree | pattern |
| Range | 0 to 15 |
| Notes | The following elements are part of a choice: **all-ones** or **pattern**. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## load-balancing-algorithm *keyword*

| | |
|---|---|
| Synopsis | Load balancing algorithm to be used on this port |


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| | |
|---|---|
| Context | **configure** port *port* tdm e1 *tdm-e1-index* channel-group *number* load-balancing-algorithm *keyword* |
| Tree | load-balancing-algorithm |
| Options | default, include-l4, exclude-l4 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## **mac-address** *mac-address*

| | |
|---|---|
| Synopsis | MAC address for the port |
| Context | **configure** port *port* tdm e1 *tdm-e1-index* channel-group *number* mac-address *mac-address* |
| Tree | mac-address |
| Default | 00:00:00:00:00:00 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## **mode** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Operation mode |
| Context | **configure** port *port* tdm e1 *tdm-e1-index* channel-group *number* mode *keyword* |
| Tree | mode |
| Options | access, network |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## **mtu** *number*

| | |
|---|---|
| Synopsis | Maximum payload MTU |
| Context | **configure** port *port* tdm e1 *tdm-e1-index* channel-group *number* mtu *number* |
| Tree | mtu |
| Range | 512 to 9208 |


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| | |
|---|---|
| Units | bytes |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## network

| | |
|---|---|
| Synopsis | Enter the **network** context |
| Context | **configure** port *port* tdm e1 *tdm-e1-index* channel-group *number* network |
| Tree | network |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## accounting-policy *reference*

| | |
|---|---|
| Synopsis | Accounting policy |
| Context | **configure** port *port* tdm e1 *tdm-e1-index* channel-group *number* network accounting-policy *reference* |
| Tree | accounting-policy |
| Reference | **configure** log accounting-policy *number* |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## collect-stats *boolean*

| | |
|---|---|
| Synopsis | Collect accounting and statistical data |
| Context | **configure** port *port* tdm e1 *tdm-e1-index* channel-group *number* network collect-stats *boolean* |
| Tree | collect-stats |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## queue-policy *reference*

| | |
|---|---|
| Synopsis | Network queue policy on TDM E0 network channel group |


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| | |
|---|---|
| Context | **configure** port *port* tdm e1 *tdm-e1-index* channel-group *number* network queue-policy *reference* |
| Tree | queue-policy |
| Reference | **configure** qos network-queue *named-item* |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## **speed** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Speed of the E0 channels in this channel group |
| Context | **configure** port *port* tdm e1 *tdm-e1-index* channel-group *number* speed *number* |
| Tree | speed |
| Range | 56 \| 64 |
| Default | 64 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## **timeslot** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Timeslot list for the channel group |
| Context | **configure** port *port* tdm e1 *tdm-e1-index* channel-group *number* timeslot *number* |
| Tree | timeslot |
| Description | This command configures the list of timeslots to be used in a channel group.<br>For the list of DS-0 timeslots to be used in the DS-1 or E1 channel-group, the timeslots are defaulted as defined by the encapsulation type. ATM channel groups do not allow timeslots to change. |
| Range | 1 to 32 |
| Max. instances | 32 |
| Introduced | 20.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## **clock-source** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Clock source for data transmission |
| Context | **configure** port *port* tdm e1 *tdm-e1-index* clock-source *keyword* |
| Tree | clock-source |
| Description | This command specifies the clock source to use for the link transmit timing. The options are to use the locally recovered clock from the line's receive data stream, the node central reference, or an adaptively recovered clock using the received packets. |
| Options | loop-timed, node-timed, adaptive, differential |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## **framing** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Framing on the E1 channel |
| Context | **configure** port *port* tdm e1 *tdm-e1-index* framing *keyword* |
| Tree | framing |
| Description | This command specifies the E1 framing to use with the associated channel. |
| Options | no-crc-g704, g704, e1-unframed |
| Default | g704 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## **loopback** *keyword*

| | |
|---|---|
| Synopsis | Loopback mode |
| Context | **configure** port *port* tdm e1 *tdm-e1-index* loopback *keyword* |


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| | |
|---|---|
| Tree | loopback |
| Options | line, internal |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## national-bits

| | |
|---|---|
| Synopsis | Enter the **national-bits** context |
| Context | **configure** port *port* tdm e1 *tdm-e1-index* national-bits |
| Tree | national-bits |
| Description | Commands in this context configure the national use bits. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## sa4 *boolean*

| | |
|---|---|
| Synopsis | Enable bit Sa4 |
| Context | **configure** port *port* tdm e1 *tdm-e1-index* national-bits sa4 *boolean* |
| Tree | sa4 |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## sa5 *boolean*

| | |
|---|---|
| Synopsis | Enable bit Sa5 |
| Context | **configure** port *port* tdm e1 *tdm-e1-index* national-bits sa5 *boolean* |
| Tree | sa5 |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## sa6 *boolean*

| | |
|---|---|
| Synopsis | Enable bit Sa6 |


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| | |
|---|---|
| Context | **configure** port *port* tdm e1 *tdm-e1-index* national-bits sa6 *boolean* |
| Tree | sa6 |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **sa7** *boolean*

| | |
|---|---|
| Synopsis | Enable bit Sa7 |
| Context | **configure** port *port* tdm e1 *tdm-e1-index* national-bits sa7 *boolean* |
| Tree | sa7 |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **sa8** *boolean*

| | |
|---|---|
| Synopsis | Enable bit Sa8 |
| Context | **configure** port *port* tdm e1 *tdm-e1-index* national-bits sa8 *boolean* |
| Tree | sa8 |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **report-alarm**

| | |
|---|---|
| Synopsis | Enter the **report-alarm** context |
| Context | **configure** port *port* tdm e1 *tdm-e1-index* report-alarm |
| Tree | report-alarm |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **ais** *boolean*

| | |
|---|---|
| Synopsis | Report alarm indication signal errors |


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| | |
|---|---|
| Context | **configure** port *port* tdm e1 *tdm-e1-index* report-alarm ais *boolean* |
| Tree | ais |
| Default | true |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **ber-sd** *boolean*

| | |
|---|---|
| Synopsis | Enable logging of BER signal degradation alarms |
| Context | **configure** port *port* tdm e1 *tdm-e1-index* report-alarm ber-sd *boolean* |
| Tree | ber-sd |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **ber-sf** *boolean*

| | |
|---|---|
| Synopsis | Enable logging of BER signal failure alarms |
| Context | **configure** port *port* tdm e1 *tdm-e1-index* report-alarm ber-sf *boolean* |
| Tree | ber-sf |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **looped** *boolean*

| | |
|---|---|
| Synopsis | Report looped packet errors |
| Context | **configure** port *port* tdm e1 *tdm-e1-index* report-alarm looped *boolean* |
| Tree | looped |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |


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### **los** *boolean*

| | |
|---|---|
| Synopsis | Report loss of signal errors |
| Context | **configure** port *port* tdm e1 *tdm-e1-index* report-alarm los *boolean* |
| Tree | los |
| Default | true |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **oof** *boolean*

| | |
|---|---|
| Synopsis | Report out-of-frame errors |
| Context | **configure** port *port* tdm e1 *tdm-e1-index* report-alarm oof *boolean* |
| Tree | oof |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **rai** *boolean*

| | |
|---|---|
| Synopsis | Report resource availability indicator events |
| Context | **configure** port *port* tdm e1 *tdm-e1-index* report-alarm rai *boolean* |
| Tree | rai |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **signal-mode** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Signal mode on the channel |
| Context | **configure** port *port* tdm e1 *tdm-e1-index* signal-mode *keyword* |
| Tree | signal-mode |


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| | |
|---|---|
| Description | This command configures the signal mode on the channel.<br>When enabled, it uses routing information to direct the payload of voice or data to its destination. |
| Options | channel-associated-signaling |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **e3** [e3-index] *tdm-e3-index*

| | |
|---|---|
| Synopsis | Enter the **e3** list instance |
| Context | **configure** port *port* tdm e3 *tdm-e3-index* |
| Tree | e3 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### [**e3-index**] *tdm-e3-index*

| | |
|---|---|
| Synopsis | Components making up the SONET/SDH Path |
| Context | **configure** port *port* tdm e3 *tdm-e3-index* |
| Tree | e3 |
| MD-CLI default | physical |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the E3 channel |
| Context | **configure** port *port* tdm e3 *tdm-e3-index* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |


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### **clock-source** *keyword*

| | |
|---|---|
| Synopsis | Clock for data transmission |
| Context | **configure** port *port* tdm e3 *tdm-e3-index* clock-source *keyword* |
| Tree | clock-source |
| Options | loop-timed, node-timed |
| Default | node-timed |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **crc** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Precision of the CRC |
| Context | **configure** port *port* tdm e3 *tdm-e3-index* crc *number* |
| Tree | crc |
| Range | 16 \| 32 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **description** *long-description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** port *port* tdm e3 *tdm-e3-index* description *long-description* |
| Tree | description |
| String length | 1 to 160 |
| Default | E3 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **egress**

| | |
|---|---|
| Synopsis | Enter the **egress** context |


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| | |
|---|---|
| Context | **configure** port *port* tdm e3 *tdm-e3-index* egress |
| Tree | egress |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## port-scheduler-policy

| | |
|---|---|
| Synopsis | Enter the **port-scheduler-policy** context |
| Context | **configure** port *port* tdm e3 *tdm-e3-index* egress port-scheduler-policy |
| Tree | port-scheduler-policy |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## overrides

| | |
|---|---|
| Synopsis | Enable the **overrides** context |
| Context | **configure** port *port* tdm e3 *tdm-e3-index* egress port-scheduler-policy overrides |
| Tree | overrides |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## **level** [priority-level] *number*

| | |
|---|---|
| Synopsis | Enter the **level** list instance |
| Context | **configure** port *port* tdm e3 *tdm-e3-index* egress port-scheduler-policy overrides level *number* |
| Tree | level |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## [**priority-level**] *number*

| | |
|---|---|
| Synopsis | Port priority levels override |
| Context | **configure** port *port* tdm e3 *tdm-e3-index* egress port-scheduler-policy overrides level *number* |
| Tree | level |


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| | |
|---|---|
| Range | 1 to 8 |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## percent-rate

| | |
|---|---|
| Synopsis | Enter the **percent-rate** context |
| Context | **configure** port *port* tdm e3 *tdm-e3-index* egress port-scheduler-policy overrides level *number* percent-rate |
| Tree | percent-rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## **cir** *decimal-number*

| | |
|---|---|
| Synopsis | CIR for the priority level |
| Context | **configure** port *port* tdm e3 *tdm-e3-index* egress port-scheduler-policy overrides level *number* percent-rate cir *decimal-number* |
| Tree | cir |
| Range | 0 to 100 |
| Units | percent |
| Default | 100 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## **pir** *decimal-number*

| | |
|---|---|
| Synopsis | PIR for the priority level |
| Context | **configure** port *port* tdm e3 *tdm-e3-index* egress port-scheduler-policy overrides level *number* percent-rate pir *decimal-number* |
| Tree | pir |
| Range | 0.01 to 100 |
| Units | percent |
| Default | 100 |


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| | |
|---|---|
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## rate

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** port *port* tdm e3 *tdm-e3-index* egress port-scheduler-policy overrides level *number* rate |
| Tree | rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## **cir** *(number | keyword)*

| | |
|---|---|
| Synopsis | CIR for the priority level |
| Context | **configure** port *port* tdm e3 *tdm-e3-index* egress port-scheduler-policy overrides level *number* rate cir *(number | keyword)* |
| Tree | cir |
| Range | 0 to 3200000000 |
| Units | kilobps |
| Options | sum, max |
| Default | max |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | PIR for the priority level |
| Context | **configure** port *port* tdm e3 *tdm-e3-index* egress port-scheduler-policy overrides level *number* rate pir *(number | keyword)* |
| Tree | pir |
| Range | 1 to 3200000000 |
| Units | kilobps |
| Options | max |
| Default | max |


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| | |
|---|---|
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### max-rate

| | |
|---|---|
| Synopsis | Enter the **max-rate** context |
| Context | **configure** port *port* tdm e3 *tdm-e3-index* egress port-scheduler-policy overrides max-rate |
| Tree | max-rate |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### percent-rate *decimal-number*

| | |
|---|---|
| Synopsis | PIR |
| Context | **configure** port *port* tdm e3 *tdm-e3-index* egress port-scheduler-policy overrides max-rate percent-rate *decimal-number* |
| Tree | percent-rate |
| Range | 0.01 to 100 |
| Units | percent |
| Default | 100 |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### rate *(number | keyword)*

| | |
|---|---|
| Synopsis | PIR |
| Context | **configure** port *port* tdm e3 *tdm-e3-index* egress port-scheduler-policy overrides max-rate rate *(number \| keyword)* |
| Tree | rate |
| Range | 1 to 3200000000 |
| Units | kilobps |
| Options | max |
| Default | max |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |


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| | |
|---|---|
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## **policy-name** *reference*

| | |
|---|---|
| Synopsis | Port egress scheduler policy name |
| Context | **configure** port *port* tdm e3 *tdm-e3-index* egress port-scheduler-policy policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos port-scheduler-policy *named-item* |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## **encap-type** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Encapsulation method used on a port, path, or channel |
| Context | **configure** port *port* tdm e3 *tdm-e3-index* encap-type *keyword* |
| Tree | encap-type |
| Options | cem |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## **framing** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Framing for the E3 channel |
| Context | **configure** port *port* tdm e3 *tdm-e3-index* framing *keyword* |
| Tree | framing |
| Options | g751, g832, e3-unframed |
| Default | g751 |


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| | |
|---|---|
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **idle-cycle-flag** *keyword*

| | |
|---|---|
| Synopsis | Value transmitted by channel group during idle cycle |
| Context | **configure** port *port* tdm e3 *tdm-e3-index* idle-cycle-flag *keyword* |
| Tree | idle-cycle-flag |
| Options | flags, ones |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **load-balancing-algorithm** *keyword*

| | |
|---|---|
| Synopsis | Load balancing algorithm to be used on this port |
| Context | **configure** port *port* tdm e3 *tdm-e3-index* load-balancing-algorithm *keyword* |
| Tree | load-balancing-algorithm |
| Options | default, include-l4, exclude-l4 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **loopback** *keyword*

| | |
|---|---|
| Synopsis | Loopback mode |
| Context | **configure** port *port* tdm e3 *tdm-e3-index* loopback *keyword* |
| Tree | loopback |
| Options | line, internal |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **mac-address** *mac-address*

| | |
|---|---|
| Synopsis | MAC address for the port |
| Context | **configure** port *port* tdm e3 *tdm-e3-index* mac-address *mac-address* |
| Tree | mac-address |


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| | |
|---|---|
| Default | 00:00:00:00:00:00 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## **mode** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Operation mode |
| Context | **configure** port *port* tdm e3 *tdm-e3-index* mode *keyword* |
| Tree | mode |
| Options | access, network |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## **mtu** *number*

| | |
|---|---|
| Synopsis | Maximum payload MTU size |
| Context | **configure** port *port* tdm e3 *tdm-e3-index* mtu *number* |
| Tree | mtu |
| Range | 512 to 9208 |
| Units | bytes |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

## **network**

| | |
|---|---|
| Synopsis | Enter the **network** context |
| Context | **configure** port *port* tdm e3 *tdm-e3-index* network |
| Tree | network |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |


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### **accounting-policy** *reference*

| | |
|---|---|
| Synopsis | Accounting policy |
| Context | **configure** port *port* tdm e3 *tdm-e3-index* network accounting-policy *reference* |
| Tree | accounting-policy |
| Reference | **configure** log accounting-policy *number* |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **collect-stats** *boolean*

| | |
|---|---|
| Synopsis | Collect accounting and statistical data |
| Context | **configure** port *port* tdm e3 *tdm-e3-index* network collect-stats *boolean* |
| Tree | collect-stats |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **queue-policy** *reference*

| | |
|---|---|
| Synopsis | Queue policy on the TDM E3 network channel |
| Context | **configure** port *port* tdm e3 *tdm-e3-index* network queue-policy *reference* |
| Tree | queue-policy |
| Reference | **configure** qos network-queue *named-item* |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **report-alarm**

| | |
|---|---|
| Synopsis | Enter the **report-alarm** context |
| Context | **configure** port *port* tdm e3 *tdm-e3-index* report-alarm |
| Tree | report-alarm |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |


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### **ais** *boolean*

| | |
|---|---|
| Synopsis | Report alarm indication signal errors |
| Context | **configure** port *port* tdm e3 *tdm-e3-index* report-alarm ais *boolean* |
| Tree | ais |
| Default | true |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **looped** *boolean*

| | |
|---|---|
| Synopsis | Report looped packet errors |
| Context | **configure** port *port* tdm e3 *tdm-e3-index* report-alarm looped *boolean* |
| Tree | looped |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **los** *boolean*

| | |
|---|---|
| Synopsis | Report loss of signal errors |
| Context | **configure** port *port* tdm e3 *tdm-e3-index* report-alarm los *boolean* |
| Tree | los |
| Default | true |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **oof** *boolean*

| | |
|---|---|
| Synopsis | Report out-of-frame errors |
| Context | **configure** port *port* tdm e3 *tdm-e3-index* report-alarm oof *boolean* |
| Tree | oof |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |


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### **rai** *boolean*

| | |
|---|---|
| Synopsis | Report resource availability indicator events |
| Context | **configure** port *port* tdm e3 *tdm-e3-index* report-alarm rai *boolean* |
| Tree | rai |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **scramble** *boolean*

| | |
|---|---|
| Synopsis | Enable TDM E3 payload scrambling |
| Context | **configure** port *port* tdm e3 *tdm-e3-index* scramble *boolean* |
| Tree | scramble |
| Description | When configured to **true**, the TDM E3 frame carries randomized patterns of 1s and 0s, which prevents continuous strings of all 1s or all 0s. This meets the needs of physical layer protocols that rely on sufficient transitions between 1s and 0s to maintain clocking.<br>When configured to **false**, the strings of all 1s or all 0s are continuous. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **hold-time**

| | |
|---|---|
| Synopsis | Enter the **hold-time** context |
| Context | **configure** port *port* tdm hold-time |
| Tree | hold-time |
| Introduced | 19.5.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **down** *number*

| | |
|---|---|
| Synopsis | Hold timer for link down event dampening |
| Context | **configure** port *port* tdm hold-time down *number* |
| Tree | down |
| Range | 0 to 100 |
| Default | 5 |


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| | |
|---|---|
| Introduced | 19.5.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **up** *number*

| | |
|---|---|
| Synopsis | Hold timer for link up event dampening |
| Context | **configure** port *port* tdm hold-time up *number* |
| Tree | up |
| Range | 1 to 100 |
| Introduced | 19.5.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **transceiver**

| | |
|---|---|
| Synopsis | Enter the **transceiver** context |
| Context | **configure** port *port* transceiver |
| Tree | transceiver |
| Introduced | 16.0.R4 |
| Platforms | All |

### **digital-coherent-optics** *boolean*

| | |
|---|---|
| Synopsis | Enable digital coherent optics module for transceiver |
| Context | **configure** port *port* transceiver digital-coherent-optics *boolean* |
| Tree | digital-coherent-optics |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **optical-line-system**

| | |
|---|---|
| Synopsis | Enable the **optical-line-system** context |
| Context | **configure** port *port* transceiver optical-line-system |
| Tree | optical-line-system |


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| | |
|---|---|
| Description | Commands in this context configure the QSFP-LS pluggable optical line system, used in conjunction with 400G ZR/ZR+ coherent pluggable modules. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **egress-amplifier-gain** *decimal-number*

| | |
|---|---|
| Synopsis | Gain for the egress amplifier |
| Context | **configure** port *port* transceiver optical-line-system egress-amplifier-gain *decimal-number* |
| Tree | egress-amplifier-gain |
| Range | 0.00 to 25.00 |
| Units | decibels |
| Default | 25.00 |
| Introduced | 23.10.R1 |
| Platforms | All |


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## 4.33 port-policy commands

```
configure
   –  port-policy named-item
      –  apply-groups reference
      –  apply-groups-exclude reference
      –  description description
      –  egress-port-scheduler-policy reference
```


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## 4.33.1 port-policy command descriptions

### **port-policy** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **port-policy** list instance |
| Context | **configure** port-policy *named-item* |
| Tree | port-policy |
| Max. instances | 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | Port policy name |
| Context | **configure** port-policy *named-item* |
| Tree | port-policy |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** port-policy *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **egress-port-scheduler-policy** *reference*

| | |
|---|---|
| Synopsis | Policy for egress port scheduler |
| Context | **configure** port-policy *named-item* egress-port-scheduler-policy *reference* |


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| | |
|---|---|
| Tree | egress-port-scheduler-policy |
| Reference | **configure** qos port-scheduler-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## 4.34 port-xc commands

```
configure
   -  port-xc
      -  apply-groups reference
      -  apply-groups-exclude reference
      -  pxc number
         -  admin-state keyword
         -  apply-groups reference
         -  apply-groups-exclude reference
         -  description description
         -  port-id reference
```


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## 4.34.1 port-xc command descriptions

### port-xc

| | |
|---|---|
| Synopsis | Enter the **port-xc** context |
| Context | **configure** port-xc |
| Tree | port-xc |
| Description | Commands in this context configure port cross-connect (PXC) functionality. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **pxc** [pxc-id] *number*

| | |
|---|---|
| Synopsis | Enter the **pxc** list instance |
| Context | **configure** port-xc pxc *number* |
| Tree | pxc |
| Description | Commands in this context configure port cross-connect (PXC) information. |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**pxc-id**] *number*

| | |
|---|---|
| Synopsis | PXC ID |
| Context | **configure** port-xc pxc *number* |
| Tree | pxc |
| Range | 1 to 256 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the PXC |
| Context | **configure** port-xc pxc *number* admin-state *keyword* |


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| | |
|---|---|
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** port-xc pxc *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **port-id** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | PXC port ID |
| Context | **configure** port-xc pxc *number* port-id *reference* |
| Tree | port-id |
| Reference | **configure** port *port* |
| Introduced | 16.0.R1 |
| Platforms | All |


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## 4.35 pw-port commands

```
configure
   –  pw-port number
      –  apply-groups reference
      –  apply-groups-exclude reference
      –  description very-long-description
      –  dotlq-etype etype
      –  encap-type keyword
      –  epipe reference
         –  admin-state keyword
         –  apply-groups reference
         –  apply-groups-exclude reference
         –  down-on-peer-tldp-pw-status-faults boolean
         –  egress
            –  shaper
               –  intermediate-destination-id named-item
               –  virtual-port named-item
         –  fpe-id reference
         –  monitor-oper-group reference
         –  oper-up-on-mh-standby boolean
      –  oper-group reference
      –  qinq-etype etype
      –  sdp reference
         –  admin-state keyword
         –  adv-service-mtu number
         –  apply-groups reference
         –  apply-groups-exclude reference
         –  control-word boolean
         –  egress
            –  shaper
               –  intermediate-destination-id named-item
               –  pw-sap-secondary-shaper named-item
               –  virtual-port named-item
            –  vc-label number
         –  entropy-label boolean
         –  ingress
            –  vc-label number
         –  monitor-oper-group reference
         –  vc-id number
         –  vc-type keyword
         –  vlan-vc-tag number
```


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## 4.35.1 pw-port command descriptions

### **pw-port** [pw-port-id] *number*

| | |
|---|---|
| Synopsis | Enter the **pw-port** list instance |
| Context | **configure** pw-port *number* |
| Tree | pw-port |
| Introduced | 16.0.R4 |
| Platforms | All |

### [**pw-port-id**] *number*

| | |
|---|---|
| Synopsis | Pseudowire port ID |
| Context | **configure** pw-port *number* |
| Tree | pw-port |
| Range | 1 to 32767 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **description** *very-long-description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** pw-port *number* description *very-long-description* |
| Tree | description |
| String length | 1 to 255 |
| Default | PW Port |
| Introduced | 16.0.R4 |
| Platforms | All |

### **dot1q-etype** *etype*

| | |
|---|---|
| Synopsis | Dot1q Ethertype on the PW port |
| Context | **configure** pw-port *number* dot1q-etype *etype* |
| Tree | dot1q-etype |


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| | |
|---|---|
| Default | 33024 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **encap-type** *keyword*

| | |
|---|---|
| Synopsis | Encap type of the pseudo-wire port |
| Context | **configure** pw-port *number* encap-type *keyword* |
| Tree | encap-type |
| Options | dot1q, qinq |
| Default | dot1q |
| Introduced | 16.0.R4 |
| Platforms | All |

### **epipe** [service-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **epipe** list instance |
| Context | **configure** pw-port *number* epipe *reference* |
| Tree | epipe |
| Max. instances | 1 |
| Notes | The following elements are part of a choice: **epipe** or **sdp**. |
| Introduced | 16.0.R4 |
| Platforms | All |

### [**service-name**] *reference*

| | |
|---|---|
| Synopsis | Administrative service name |
| Context | **configure** pw-port *number* epipe *reference* |
| Tree | epipe |
| Reference | **configure** service epipe *service-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the pseudowire port |
| Context | **configure** pw-port *number* epipe *reference* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R4 |
| Platforms | All |

### **down-on-peer-tldp-pw-status-faults** *boolean*

| | |
|---|---|
| Synopsis | Force PW port to go down for certain PW status bits |
| Context | **configure** pw-port *number* epipe *reference* down-on-peer-tldp-pw-status-faults *boolean* |
| Tree | down-on-peer-tldp-pw-status-faults |
| Description | When configured to **true**, the router causes the PW port configured on an Epipe to go locally operationally down if any of the following status bits are received on a mate spoke SDP across an FPE:<br>• 0x00000001 - Pseudowire Not Forwarding<br>• 0x00000002 - Local Attachment Circuit (ingress) Receive Fault<br>• 0x00000004 - Local Attachment Circuit (egress) Transmit Fault<br>• 0x00000008 - Local PSN-facing PW (ingress) Receive Fault<br>• 0x00000010 - Local PSN-facing PW (egress) Transmit Fault<br>When configured to **false**, the mate PW status fault bits are not taken into account in the operational state of the PW port. |
| Default | false |
| Introduced | 22.2.R1 |
| Platforms | All |

### **egress**

| | |
|---|---|
| Synopsis | Enter the **egress** context |
| Context | **configure** pw-port *number* epipe *reference* egress |
| Tree | egress |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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## shaper

| | |
|---|---|
| Synopsis | Enter the **shaper** context |
| Context | **configure** pw-port *number* epipe *reference* egress shaper |
| Tree | shaper |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## intermediate-destination-id *named-item*

| | |
|---|---|
| Synopsis | Intermediate destination ID for ESM PW SAPs |
| Context | **configure** pw-port *number* epipe *reference* egress shaper intermediate-destination-id *named-item* |
| Tree | intermediate-destination-id |
| String length | 1 to 32 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## virtual-port *named-item*

| | |
|---|---|
| Synopsis | Virtual port name of the egress shaper |
| Context | **configure** pw-port *number* epipe *reference* egress shaper virtual-port *named-item* |
| Tree | virtual-port |
| String length | 1 to 32 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## fpe-id *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Forwarding Path Extension ID |
| Context | **configure** pw-port *number* epipe *reference* fpe-id *reference* |
| Tree | fpe-id |


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| | |
|---|---|
| Reference | **configure** fwd-path-ext fpe *number* |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **monitor-oper-group** *reference*

| | |
|---|---|
| Synopsis | Name of the operational group to monitor |
| Context | **configure** pw-port *number* epipe *reference* monitor-oper-group *reference* |
| Tree | monitor-oper-group |
| Reference | **configure** service oper-group *named-item* |
| Introduced | 16.0.R4 |
| Platforms | All |

## **oper-up-on-mh-standby** *boolean*

| | |
|---|---|
| Synopsis | Sets PW port to operationally up on MH standby |
| Context | **configure** pw-port *number* epipe *reference* oper-up-on-mh-standby *boolean* |
| Tree | oper-up-on-mh-standby |
| Description | When configured to **true,** this command allows the PW port to remain operationally up on the non-DF PE and all the PW SAPs contained in the PW port.<br>The PW port status shows operationally up status with a flag MH Standby.<br>When configured to **false**, this command causes the PW port to remain operationally down on the non-DF PE and all the PW SAPs contained in the PW port. |
| Default | false |
| Introduced | 22.2.R1 |
| Platforms | All |

## **oper-group** *reference*

| | |
|---|---|
| Synopsis | Operational group ID |
| Context | **configure** pw-port *number* oper-group *reference* |
| Tree | oper-group |
| Reference | **configure** service oper-group *named-item* |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **qinq-etype** *etype*

| | |
|---|---|
| Synopsis | QinQ Ethertype encapsulation on the PW port |
| Context | **configure** pw-port *number* qinq-etype *etype* |
| Tree | qinq-etype |
| Default | 33024 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **sdp** [sdp-id] *reference*

| | |
|---|---|
| Synopsis | Enter the **sdp** list instance |
| Context | **configure** pw-port *number* sdp *reference* |
| Tree | sdp |
| Max. instances | 1 |
| Notes | The following elements are part of a choice: **epipe** or **sdp**. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### [**sdp-id**] *reference*

| | |
|---|---|
| Synopsis | SDP ID |
| Context | **configure** pw-port *number* sdp *reference* |
| Tree | sdp |
| Reference | **configure** service sdp *number* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the pseudowire port |
| Context | **configure** pw-port *number* sdp *reference* admin-state *keyword* |
| Tree | admin-state |


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| | |
|---|---|
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **adv-service-mtu** *number*

| | |
|---|---|
| Synopsis | Service MTU size to be used |
| Context | **configure** pw-port *number* sdp *reference* adv-service-mtu *number* |
| Tree | adv-service-mtu |
| Range | 0 to 9782 |
| Units | bytes |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **control-word** *boolean*

| | |
|---|---|
| Synopsis | Allow control word bit setting in the label message |
| Context | **configure** pw-port *number* sdp *reference* control-word *boolean* |
| Tree | control-word |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **egress**

| | |
|---|---|
| Synopsis | Enter the **egress** context |
| Context | **configure** pw-port *number* sdp *reference* egress |
| Tree | egress |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **shaper**

| | |
|---|---|
| Synopsis | Enter the **shaper** context |


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| | |
|---|---|
| Context | **configure** pw-port *number* sdp *reference* egress shaper |
| Tree | shaper |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **intermediate-destination-id** *named-item*

| | |
|---|---|
| Synopsis | Intermediate destination ID applicable to ESM PW SAPs |
| Context | **configure** pw-port *number* sdp *reference* egress shaper intermediate-destination-id *named-item* |
| Tree | intermediate-destination-id |
| String length | 1 to 32 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **pw-sap-secondary-shaper** *named-item*

| | |
|---|---|
| Synopsis | Secondary shaper applicable to PW SAPs |
| Context | **configure** pw-port *number* sdp *reference* egress shaper pw-sap-secondary-shaper *named-item* |
| Tree | pw-sap-secondary-shaper |
| String length | 1 to 32 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **virtual-port** *named-item*

| | |
|---|---|
| Synopsis | Virtual port applicable to all PW SAPs |
| Context | **configure** pw-port *number* sdp *reference* egress shaper virtual-port *named-item* |
| Tree | virtual-port |
| String length | 1 to 32 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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## **vc-label** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Egress VC label representing the PW port |
| Context | **configure** pw-port *number* sdp *reference* egress vc-label *number* |
| Tree | vc-label |
| Range | 16 to 1048575 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **entropy-label** *boolean*

| | |
|---|---|
| Synopsis | Enable entropy level insertion on the PW port |
| Context | **configure** pw-port *number* sdp *reference* entropy-label *boolean* |
| Tree | entropy-label |
| Description | When configured to **true**, the entropy label and ELI are inserted in packets for which at least one LSP in the stack for the far-end of the tunnel used by the service has advertised entropy label capability.<br>• For RSVP or SR-TE tunnels, the **entropy-label** command must be set to **true** under the **configure router mpls** or **configure router mpls lsp** context.<br>• For SR-ISIS, SR-OSPF, or SR-TE tunnels, the **override-tunnel-elc** command must be set to **true** under the **configure router isis entropy-label** or **configure router ospf entropy-label** context.<br>• For LDP tunnels, the **entropy-label-capability** command must be set to **true** under the **configure router ldp** context.<br>When configured to **false**, entropy label insertion on the PW port is not allowed.<br>The entropy label is only applicable to PW ports bound to a static port; it is not applicable to ports using an FPE. |
| Default | false |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **ingress**

| | |
|---|---|
| Synopsis | Enter the **ingress** context |


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| | |
|---|---|
| Context | **configure** pw-port *number* sdp *reference* ingress |
| Tree | ingress |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **vc-label** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Ingress VC label representing the PW-port |
| Context | **configure** pw-port *number* sdp *reference* ingress vc-label *number* |
| Tree | vc-label |
| Range | 1 to 1048575 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **monitor-oper-group** *reference*

| | |
|---|---|
| Synopsis | Name of the operational group to monitor |
| Context | **configure** pw-port *number* sdp *reference* monitor-oper-group *reference* |
| Tree | monitor-oper-group |
| Reference | **configure** service oper-group *named-item* |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **vc-id** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Virtual Circuit ID signaled to the peer |
| Context | **configure** pw-port *number* sdp *reference* vc-id *number* |
| Tree | vc-id |
| Range | 1 to 4294967295 |


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| | |
|---|---|
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **vc-type** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Forwarding mode for the PW-port |
| Context | **configure** pw-port *number* sdp *reference* vc-type *keyword* |
| Tree | vc-type |
| Options | ether, vlan |
| Default | ether |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **vlan-vc-tag** *number*

| | |
|---|---|
| Synopsis | VLAN VC tag |
| Context | **configure** pw-port *number* sdp *reference* vlan-vc-tag *number* |
| Tree | vlan-vc-tag |
| Range | 0 to 4094 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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## 4.36 python commands

```
configure
   –  python
      –  apply-groups reference
      –  apply-groups-exclude reference
      –  python-policy named-item
         –  apply-groups reference
         –  apply-groups-exclude reference
         –  cache
            –  admin-state keyword
            –  apply-groups reference
            –  apply-groups-exclude reference
            –  entry-size number
            –  max-entries number
            –  max-entry-lifetime number
            –  mcs-peer
               –  apply-groups reference
               –  apply-groups-exclude reference
               –  ip-address reference
               –  sync-tag named-item
            –  minimum-lifetimes
               –  high-availability number
               –  multi-chassis-redundancy number
               –  persistence number
            –  persistence boolean
         –  description description
         –  dhcp keyword direction keyword
            –  apply-groups reference
            –  apply-groups-exclude reference
            –  script reference
         –  dhcp6 keyword direction keyword
            –  apply-groups reference
            –  apply-groups-exclude reference
            –  script reference
         –  diameter keyword direction keyword
            –  apply-groups reference
            –  apply-groups-exclude reference
            –  script reference
         –  gtpv1-c keyword direction keyword
            –  apply-groups reference
            –  apply-groups-exclude reference
            –  script reference
         –  gtpv2-c keyword direction keyword
            –  apply-groups reference
            –  apply-groups-exclude reference
            –  script reference
         –  nat-group reference
         –  pfcp keyword direction keyword
            –  apply-groups reference
            –  apply-groups-exclude reference
            –  script reference
         –  pppoe keyword direction keyword
            –  apply-groups reference
            –  apply-groups-exclude reference
            –  script reference
         –  radius keyword direction keyword
            –  apply-groups reference
            –  apply-groups-exclude reference
            –  script reference
         –  syslog
```


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configure python python-policy syslog apply-groups

```
            –  apply-groups reference
            –  apply-groups-exclude reference
            –  script reference
         –  wlan-gw-group reference
      –  python-script named-item
         –  action-on-fail keyword
         –  admin-state keyword
         –  apply-groups reference
         –  apply-groups-exclude reference
         –  description description
         –  protection
            –  hmac-sha256 encrypted-leaf
         –  run-as-user named-item
         –  urls url
         –  version keyword
```


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## 4.36.1 python command descriptions

### python

| | |
|---|---|
| Synopsis | Enter the **python** context |
| Context | **configure** python |
| Tree | python |
| Introduced | 16.0.R1 |
| Platforms | All |

### **python-policy** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **python-policy** list instance |
| Context | **configure** python python-policy *named-item* |
| Tree | python-policy |
| Max. instances | 64 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | Python policy name |
| Context | **configure** python python-policy *named-item* |
| Tree | python-policy |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### cache

| | |
|---|---|
| Synopsis | Enable the **cache** context |
| Context | **configure** python python-policy *named-item* cache |
| Tree | cache |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the Python cache |
| Context | **configure** python python-policy *named-item* cache admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **entry-size** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum data structure size for Python cache entry |
| Context | **configure** python python-policy *named-item* cache entry-size *number* |
| Tree | entry-size |
| Range | 32 to 2048 |
| Units | bytes |
| Default | 256 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **max-entries** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum number of Python cache entries to be stored |
| Context | **configure** python python-policy *named-item* cache max-entries *number* |
| Tree | max-entries |


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| | |
|---|---|
| Range | 1 to 1000000 |
| Default | 128000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **max-entry-lifetime** *number*

| | |
|---|---|
| Synopsis | Maximum lifetime for each Python cache entry |
| Context | **configure** python python-policy *named-item* cache max-entry-lifetime *number* |
| Tree | max-entry-lifetime |
| Range | 1 to 604800 |
| Units | seconds |
| Default | 86400 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mcs-peer**

| | |
|---|---|
| Synopsis | Enable the **mcs-peer** context |
| Context | **configure** python python-policy *named-item* cache mcs-peer |
| Tree | mcs-peer |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ip-address** *reference*

| | |
|---|---|
| Synopsis | IP address of the MCS peer |
| Context | **configure** python python-policy *named-item* cache mcs-peer ip-address *reference* |
| Tree | ip-address |
| Reference | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **sync-tag** *named-item*

| | |
|---|---|
| Synopsis | Tag to synchronize the cached entries in the policy |
| Context | **configure** python python-policy *named-item* cache mcs-peer sync-tag *named-item* |
| Tree | sync-tag |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **minimum-lifetimes**

| | |
|---|---|
| Synopsis | Enter the **minimum-lifetimes** context |
| Context | **configure** python python-policy *named-item* cache minimum-lifetimes |
| Tree | minimum-lifetimes |
| Introduced | 16.0.R1 |
| Platforms | All |

### **high-availability** *number*

| | |
|---|---|
| Synopsis | Minimum lifetime of a cache entry to be synced with CPM |
| Context | **configure** python python-policy *named-item* cache minimum-lifetimes high-availability *number* |
| Tree | high-availability |
| Range | 1 to 600 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **multi-chassis-redundancy** *number*

| | |
|---|---|
| Synopsis | Minimum lifetime for synchronization with the MCS peer |
| Context | **configure** python python-policy *named-item* cache minimum-lifetimes multi-chassis-redundancy *number* |
| Tree | multi-chassis-redundancy |
| Range | 1 to 600 |


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| | |
|---|---|
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **persistence** *number*

| | |
|---|---|
| Synopsis | Minimum lifetime for cache entry to be made persistent |
| Context | **configure** python python-policy *named-item* cache minimum-lifetimes persistence *number* |
| Tree | persistence |
| Range | 1 to 1800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **persistence** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Allow persistence for cached entries |
| Context | **configure** python python-policy *named-item* cache persistence *boolean* |
| Tree | persistence |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** python python-policy *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **dhcp** [message-type] *keyword* direction *keyword*

| | |
|---|---|
| Synopsis | Enter the **dhcp** list instance |
| Context | **configure** python python-policy *named-item* dhcp *keyword* direction *keyword* |
| Tree | dhcp |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**message-type**] *keyword*

| | |
|---|---|
| Synopsis | DHCP message type |
| Context | **configure** python python-policy *named-item* dhcp *keyword* direction *keyword* |
| Tree | dhcp |
| Options | discover, offer, request, decline, ack, nak, release, inform, force-renew, lease-query, lease-unassigned, lease-unknown, lease-active |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **direction** *keyword*

| | |
|---|---|
| Synopsis | Event that is either incoming or outgoing |
| Context | **configure** python python-policy *named-item* dhcp *keyword* direction *keyword* |
| Tree | dhcp |
| Options | ingress, egress |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **script** *reference*

| | |
|---|---|
| Synopsis | Python script to handle the message |
| Context | **configure** python python-policy *named-item* dhcp *keyword* direction *keyword* script *reference* |
| Tree | script |


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| | |
|---|---|
| Reference | **configure** python python-script *named-item* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **dhcp6** [message-type] *keyword* direction *keyword*

| | |
|---|---|
| Synopsis | Enter the **dhcp6** list instance |
| Context | **configure** python python-policy *named-item* dhcp6 *keyword* direction *keyword* |
| Tree | dhcp6 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**message-type**] *keyword*

| | |
|---|---|
| Synopsis | DHCPv6 message type |
| Context | **configure** python python-policy *named-item* dhcp6 *keyword* direction *keyword* |
| Tree | dhcp6 |
| Options | solicit, advertise, request, confirm, renew, rebind, reply, release, decline, reconfigure, info-request, relay-forward, relay-reply |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **direction** *keyword*

| | |
|---|---|
| Synopsis | Event that is either incoming or outgoing |
| Context | **configure** python python-policy *named-item* dhcp6 *keyword* direction *keyword* |
| Tree | dhcp6 |
| Options | ingress, egress |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **script** *reference*

| | |
|---|---|
| Synopsis | Python script to handle the message |
| Context | **configure** python python-policy *named-item* dhcp6 *keyword* direction *keyword* script *reference* |
| Tree | script |
| Reference | **configure** python python-script *named-item* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **diameter** [message-type] *keyword* direction *keyword*

| | |
|---|---|
| Synopsis | Enter the **diameter** list instance |
| Context | **configure** python python-policy *named-item* diameter *keyword* direction *keyword* |
| Tree | diameter |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**message-type**] *keyword*

| | |
|---|---|
| Synopsis | Diameter message type |
| Context | **configure** python python-policy *named-item* diameter *keyword* direction *keyword* |
| Tree | diameter |
| Options | ccr, cca, rar, raa, cer, cea, dwr, dwa, dpr, dpa, asr, asa, aar, aaa |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **direction** *keyword*

| | |
|---|---|
| Synopsis | Event that is either incoming or outgoing |
| Context | **configure** python python-policy *named-item* diameter *keyword* direction *keyword* |
| Tree | diameter |
| Options | ingress, egress |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **script** *reference*

| | |
|---|---|
| Synopsis | Python script to handle the message |
| Context | **configure** python python-policy *named-item* diameter *keyword* direction *keyword* script *reference* |
| Tree | script |
| Reference | **configure** python python-script *named-item* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **gtpv1-c** [message-type] *keyword* direction *keyword*

| | |
|---|---|
| Synopsis | Enter the **gtpv1-c** list instance |
| Context | **configure** python python-policy *named-item* gtpv1-c *keyword* direction *keyword* |
| Tree | gtpv1-c |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**message-type**] *keyword*

| | |
|---|---|
| Synopsis | GTPv1-C message type |
| Context | **configure** python python-policy *named-item* gtpv1-c *keyword* direction *keyword* |
| Tree | gtpv1-c |
| Options | echo-request, echo-response, version-not-supported, create-pdp-context-request, create-pdp-context-response, delete-pdp-context-request, delete-pdp-context-response, error-indication, end-marker |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **direction** *keyword*

| | |
|---|---|
| Synopsis | Event that is either incoming or outgoing |
| Context | **configure** python python-policy *named-item* gtpv1-c *keyword* direction *keyword* |
| Tree | gtpv1-c |
| Options | ingress, egress |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **script** *reference*

| | |
|---|---|
| Synopsis | Python script to handle the message |
| Context | **configure** python python-policy *named-item* gtpv1-c *keyword* direction *keyword* script *reference* |
| Tree | script |
| Reference | **configure** python python-script *named-item* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **gtpv2-c** [message-type] *keyword* direction *keyword*

| | |
|---|---|
| Synopsis | Enter the **gtpv2-c** list instance |
| Context | **configure** python python-policy *named-item* gtpv2-c *keyword* direction *keyword* |
| Tree | gtpv2-c |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**message-type**] *keyword*

| | |
|---|---|
| Synopsis | GTPv2-C message type |
| Context | **configure** python python-policy *named-item* gtpv2-c *keyword* direction *keyword* |
| Tree | gtpv2-c |


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| | |
|---|---|
| Options | echo-request, echo-response, version-not-supported, create-session-request, create-session-response, modify-bearer-request, modify-bearer-response, delete-session-request, delete-session-response, delete-bearer-request, delete-bearer-response, release-access-bearers-request, release-access-bearers-response, downlink-data-notification, downlink-data-notification-ack, change-notification-request, change-notification-response, stop-paging-indication |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **direction** *keyword*

| | |
|---|---|
| Synopsis | Event that is either incoming or outgoing |
| Context | **configure** python python-policy *named-item* gtpv2-c *keyword* direction *keyword* |
| Tree | gtpv2-c |
| Options | ingress, egress |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **script** *reference*

| | |
|---|---|
| Synopsis | Python script to handle the message |
| Context | **configure** python python-policy *named-item* gtpv2-c *keyword* direction *keyword* script *reference* |
| Tree | script |
| Reference | **configure** python python-script *named-item* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **nat-group** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.


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| | |
|---|---|
| Synopsis | NAT ISA group for this Python policy |
| Context | **configure** python python-policy *named-item* nat-group *reference* |
| Tree | nat-group |
| Reference | **configure** isa nat-group *number* |
| Notes | The following elements are part of a choice: **nat-group** or **wlan-gw-group**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

## **pfcp** [message-type] *keyword* direction *keyword*

| | |
|---|---|
| Synopsis | Enter the **pfcp** list instance |
| Context | **configure** python python-policy *named-item* pfcp *keyword* direction *keyword* |
| Tree | pfcp |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## [**message-type**] *keyword*

| | |
|---|---|
| Synopsis | Message type applied to the script |
| Context | **configure** python python-policy *named-item* pfcp *keyword* direction *keyword* |
| Tree | pfcp |
| Options | heartbeat-request, heartbeat-response, association-setup-request, association-setup-response, association-update-request, association-update-response, association-release-request, association-release-response, node-report-request, node-report-response, session-estab-request, session-estab-response, session-mod-request, session-mod-response, session-del-request, session-del-response, session-report-request, session-report-response |
| Notes | This element is part of a list key. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **direction** *keyword*

| | |
|---|---|
| Synopsis | Event that is either incoming or outgoing |
| Context | **configure** python python-policy *named-item* pfcp *keyword* direction *keyword* |
| Tree | pfcp |


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| | |
|---|---|
| Options | ingress, egress |
| Notes | This element is part of a list key. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **script** *reference*

| | |
|---|---|
| Synopsis | Python script to handle the message |
| Context | **configure** python python-policy *named-item* pfcp *keyword* direction *keyword* script *reference* |
| Tree | script |
| Reference | **configure** python python-script *named-item* |
| Notes | This element is mandatory. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **pppoe** [message-type] *keyword* direction *keyword*

| | |
|---|---|
| Synopsis | Enter the **pppoe** list instance |
| Context | **configure** python python-policy *named-item* pppoe *keyword* direction *keyword* |
| Tree | pppoe |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**message-type**] *keyword*

| | |
|---|---|
| Synopsis | PPPoE message type |
| Context | **configure** python python-policy *named-item* pppoe *keyword* direction *keyword* |
| Tree | pppoe |
| Options | session-lcp, session-pap, session-chap, session-ipcp, session-ip6cp, pado, padi, padr, pads, padt |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **direction** *keyword*

| | |
|---|---|
| Synopsis | Event that is either incoming or outgoing |
| Context | **configure** python python-policy *named-item* pppoe *keyword* direction *keyword* |
| Tree | pppoe |
| Options | ingress, egress |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **script** *reference*

| | |
|---|---|
| Synopsis | Python script to handle the message |
| Context | **configure** python python-policy *named-item* pppoe *keyword* direction *keyword* script *reference* |
| Tree | script |
| Reference | **configure** python python-script *named-item* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **radius** [message-type] *keyword* direction *keyword*

| | |
|---|---|
| Synopsis | Enter the **radius** list instance |
| Context | **configure** python python-policy *named-item* radius *keyword* direction *keyword* |
| Tree | radius |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**message-type**] *keyword*

| | |
|---|---|
| Synopsis | RADIUS message type |
| Context | **configure** python python-policy *named-item* radius *keyword* direction *keyword* |
| Tree | radius |


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| | |
|---|---|
| Options | access-request, access-accept, access-reject, accounting-request, accounting-response, access-challenge, disconnect-request, change-of-authorization-request |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **direction** *keyword*

| | |
|---|---|
| Synopsis | Event that is either incoming or outgoing |
| Context | **configure** python python-policy *named-item* radius *keyword* direction *keyword* |
| Tree | radius |
| Options | ingress, egress |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **script** *reference*

| | |
|---|---|
| Synopsis | Python script to handle the message |
| Context | **configure** python python-policy *named-item* radius *keyword* direction *keyword* script *reference* |
| Tree | script |
| Reference | **configure** python python-script *named-item* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **syslog**

| | |
|---|---|
| Synopsis | Enable the **syslog** context |
| Context | **configure** python python-policy *named-item* syslog |
| Tree | syslog |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **script** *reference*

| | |
|---|---|
| Synopsis | Python script name for outgoing syslog messages |
| Context | **configure** python python-policy *named-item* syslog script *reference* |
| Tree | script |
| Reference | **configure** python python-script *named-item* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **wlan-gw-group** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | WLAN ISA group for this Python policy |
| Context | **configure** python python-policy *named-item* wlan-gw-group *reference* |
| Tree | wlan-gw-group |
| Reference | **configure** isa wlan-gw-group *number* |
| Notes | The following elements are part of a choice: **nat-group** or **wlan-gw-group**. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s |

### **python-script** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **python-script** list instance |
| Context | **configure** python python-script *named-item* |
| Tree | python-script |
| Max. instances | 256 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**name**] *named-item*

| | |
|---|---|
| Synopsis | Python script policy name |
| Context | **configure** python python-script *named-item* |
| Tree | python-script |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **action-on-fail** *keyword*

| | |
|---|---|
| Synopsis | Action taken when the Python execution fails |
| Context | **configure** python python-script *named-item* action-on-fail *keyword* |
| Tree | action-on-fail |
| Options | passthrough, drop |
| Default | drop |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the Python script |
| Context | **configure** python python-script *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** python python-script *named-item* description *description* |
| Tree | description |


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| | |
|---|---|
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

## protection

| | |
|---|---|
| Synopsis | Enter the **protection** context |
| Context | **configure** python python-script *named-item* protection |
| Tree | protection |
| Introduced | 16.0.R1 |
| Platforms | All |

## hmac-sha256 *encrypted-leaf*

| | |
|---|---|
| Synopsis | Hash value to include as first line in Python script |
| Context | **configure** python python-script *named-item* protection hmac-sha256 *encrypted-leaf* |
| Tree | hmac-sha256 |
| String length | 1 to 199 |
| Introduced | 16.0.R1 |
| Platforms | All |

## run-as-user *named-item*

| | |
|---|---|
| Synopsis | User authenticated for scripts |
| Context | **configure** python python-script *named-item* run-as-user *named-item* |
| Tree | run-as-user |
| Description | This command configures a user that is different from the current user of the session. Script authentication, authorization, accounting, and any activity within the script, is run as the specified user.<br>If this command is not configured, the current user of the session is used. |
| String length | 1 to 32 |
| Introduced | 22.10.R1 |
| Platforms | All |


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### **urls** *url*

| | |
|---|---|
| Synopsis | Script location in URL format |
| Context | **configure** python python-script *named-item* urls *url* |
| Tree | urls |
| String length | 1 to 180 |
| Max. instances | 3 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **version** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Python version the script is written for |
| Context | **configure** python python-script *named-item* version *keyword* |
| Tree | version |
| Options | python2, python3 |
| Default | python2 |
| Introduced | 21.2.R1 |
| Platforms | All |


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## 4.37 qos commands

```
configure
   –  qos
      –  adv-config-policy named-item
         –  apply-groups reference
         –  apply-groups-exclude reference
         –  child-control
            –  bandwidth-distribution
               –  above-offered-allowance
                  –  delta-consumed-agg-rate
                     –  percent decimal-number
                  –  delta-consumed-higher-tier-rate
                     –  percent decimal-number
                  –  unconsumed-agg-rate
                     –  percent decimal-number
                  –  unconsumed-higher-tier-rate
                     –  percent decimal-number
               –  above-offered-cap
                  –  percent decimal-number
                  –  rate (number | keyword)
               –  enqueue-on-pir-zero boolean
               –  granularity
                  –  percent decimal-number
                  –  rate number
               –  internal-scheduler-weight-mode keyword
               –  limit-pir-zero-drain boolean
               –  lub-init-min-pir boolean
            –  offered-measurement
               –  add
                  –  active-min-only boolean
                  –  min-only boolean
                  –  percent decimal-number
                  –  rate number
               –  avg-frame-overhead-mode keyword
               –  fast-start boolean
               –  fast-stop boolean
               –  granularity
                  –  percent decimal-number
                  –  rate number
               –  hold-time
                  –  active-min-only boolean
                  –  high-rate number
               –  max-decrement
                  –  percent decimal-number
                  –  rate number
               –  sample-interval number
               –  time-average-factor
                  –  dec-only boolean
                  –  weighting-factor number
         –  description description
      –  apply-groups reference
      –  apply-groups-exclude reference
      –  fp-resource-policy fp-resource-policy-name
         –  aggregate-shapers
            –  auto-creation boolean
            –  hw-agg-shapers
               –  queue-groups boolean
               –  saps boolean
               –  subscribers boolean
            –  queue-sets
```


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configure qos fp-resource-policy aggregate-shapers queue-sets default-size

```
                - default-size
                  - queue-groups (number | keyword)
                  - saps (number | keyword)
                  - subscribers (number | keyword)
                - size number
                  - allocation-weight number
                  - apply-groups reference
                  - apply-groups-exclude reference
              - reserved-non-shaper-queues number
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - ports
              - hqos-mode keyword
            - queues
              - ingress-percent-of-total decimal-number
        - hs-attachment-policy named-item
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - low-burst-max-class number
            - queue number
              - apply-groups reference
              - apply-groups-exclude reference
              - sched-class number
              - unattached
              - wrr-group number
            - wrr-group number
              - apply-groups reference
              - apply-groups-exclude reference
              - sched-class number
              - unattached
        - hs-pool-policy named-item
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - mid-tier
              - mid-pool number
                - allocation-percent decimal-number
                - apply-groups reference
                - apply-groups-exclude reference
                - parent-root-pool
                  - none
                  - pool-id reference
                - port-bw-oversubscription-factor number
                - slope-policy reference
            - root-tier
              - root-pool number
                - allocation-weight number
                - apply-groups reference
                - apply-groups-exclude reference
                - slope-policy reference
            - system-reserve decimal-number
        - hs-port-pool-policy named-item
            - alt-port-class-pools
              - class-pool number
                - allocation
                  - explicit-percent decimal-number
                  - port-bw-weight number
                - apply-groups reference
                - apply-groups-exclude reference
                - parent-mid-pool
                  - none
                  - pool-id number
```


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configure qos hs-port-pool-policy alt-port-class-pools class-pool slope-policy

```
            - slope-policy reference
        - apply-groups reference
        - apply-groups-exclude reference
        - description description
        - std-port-class-pools
            - class-pool number
                - allocation
                    - explicit-percent decimal-number
                    - port-bw-weight number
                - apply-groups reference
                - apply-groups-exclude reference
                - parent-mid-pool
                    - none
                    - pool-id number
                - slope-policy reference
    - hs-scheduler-policy named-item
        - apply-groups reference
        - apply-groups-exclude reference
        - description description
        - group number
            - apply-groups reference
            - apply-groups-exclude reference
            - rate (number | keyword)
        - max-rate (number | keyword)
        - scheduling-class number
            - apply-groups reference
            - apply-groups-exclude reference
            - group
                - group-id number
                - weight number
            - rate (number | keyword)
    - hw-agg-shaper-scheduler-policy named-item-64
        - apply-groups reference
        - apply-groups-exclude reference
        - congestion-threshold number
        - description description
        - group named-item
        - max-percent-rate decimal-number
        - max-rate (number | keyword)
        - monitor-threshold number
        - sched-class number
            - apply-groups reference
            - apply-groups-exclude reference
            - group reference
            - weight number
    - match-list
        - ip-prefix-list named-item
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - prefix ipv4-prefix
        - ipv6-prefix-list named-item
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - prefix ipv6-prefix
        - port-list named-item
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - port number
            - range number end number
    - md-auto-id
        - qos-policy-id-range
```


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```
            - apply-groups reference
            - apply-groups-exclude reference
            - end number
            - start number
      - network network-policy-name
         - apply-groups reference
         - apply-groups-exclude reference
         - description description
         - egress
            - dscp keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - fc keyword
               - profile keyword
            - fc keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - de-mark
                  - force number
               - dot1p-in-profile number
               - dot1p-out-profile number
               - dscp-in-profile keyword
               - dscp-out-profile keyword
               - lsp-exp-in-profile number
               - lsp-exp-out-profile number
               - port-redirect-group
                  - policer number
                  - queue number
            - ip-criteria
               - entry number
                  - action
                     - fc keyword
                     - port-redirect-group
                        - policer number
                        - queue number
                     - profile keyword
                     - type keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - description description
                  - match
                     - dscp keyword
                     - dst-ip
                        - address (ipv4-prefix-with-host-bits | ipv4-address)
                        - ip-prefix-list reference
                        - mask ipv4-address
                     - dst-port
                        - eq number
                        - gt number
                        - lt number
                        - port-list reference
                        - range
                           - end number
                           - start number
                     - fragment keyword
                     - icmp-type number
                     - protocol (number | keyword)
                     - src-ip
                        - address (ipv4-prefix-with-host-bits | ipv4-address)
                        - ip-prefix-list reference
                        - mask ipv4-address
                     - src-port
                        - eq number
                        - gt number
```


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configure qos network egress ip-criteria entry match src-port lt

```
                        – lt number
                        – port-list reference
                        – range
                           – end number
                           – start number
            – ipv6-criteria
               – entry number
                  – action
                     – fc keyword
                     – port-redirect-group
                        – policer number
                        – queue number
                     – profile keyword
                     – type keyword
                  – apply-groups reference
                  – apply-groups-exclude reference
                  – description description
                  – match
                     – dscp keyword
                     – dst-ip
                        – address (ipv6-prefix-with-host-bits | ipv6-address)
                        – ipv6-prefix-list reference
                        – mask ipv6-address
                     – dst-port
                        – eq number
                        – gt number
                        – lt number
                        – port-list reference
                        – range
                           – end number
                           – start number
                     – fragment keyword
                     – icmp-type number
                     – next-header (number | keyword)
                     – src-ip
                        – address (ipv6-prefix-with-host-bits | ipv6-address)
                        – ipv6-prefix-list reference
                        – mask ipv6-address
                     – src-port
                        – eq number
                        – gt number
                        – lt number
                        – port-list reference
                        – range
                           – end number
                           – start number
            – prec number
               – apply-groups reference
               – apply-groups-exclude reference
               – fc keyword
               – profile keyword
            – remark-trusted
               – force-egress-marking boolean
         – ingress
            – default-action
               – fc keyword
               – profile keyword
            – dot1p number
               – apply-groups reference
               – apply-groups-exclude reference
               – fc keyword
               – profile keyword
            – dscp keyword
               – apply-groups reference
```


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```
            - apply-groups-exclude reference
            - fc keyword
            - profile keyword
         - fc keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - fp-redirect-group
               - broadcast-policer number
               - multicast-policer number
               - policer number
               - unknown-policer number
         - ip-criteria
            - entry number
               - action
                  - fc keyword
                  - profile keyword
                  - type keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - description description
               - match
                  - dscp keyword
                  - dst-ip
                     - address (ipv4-prefix-with-host-bits | ipv4-address)
                     - ip-prefix-list reference
                     - mask ipv4-address
                  - dst-port
                     - eq number
                     - gt number
                     - lt number
                     - port-list reference
                     - range
                        - end number
                        - start number
                  - fragment keyword
                  - protocol (number | keyword)
                  - src-ip
                     - address (ipv4-prefix-with-host-bits | ipv4-address)
                     - ip-prefix-list reference
                     - mask ipv4-address
                  - src-port
                     - eq number
                     - gt number
                     - lt number
                     - port-list reference
                     - range
                        - end number
                        - start number
         - ipv6-criteria
            - entry number
               - action
                  - fc keyword
                  - profile keyword
                  - type keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - description description
               - match
                  - dscp keyword
                  - dst-ip
                     - address (ipv6-prefix-with-host-bits | ipv6-address)
                     - ipv6-prefix-list reference
                     - mask ipv6-address
                  - dst-port
```


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configure qos network ingress ipv6-criteria entry match dst-port eq

```
                        - eq number
                        - gt number
                        - lt number
                        - port-list reference
                        - range
                          - end number
                          - start number
                    - fragment keyword
                    - next-header (number | keyword)
                    - src-ip
                        - address (ipv6-prefix-with-host-bits | ipv6-address)
                        - ipv6-prefix-list reference
                        - mask ipv6-address
                    - src-port
                        - eq number
                        - gt number
                        - lt number
                        - port-list reference
                        - range
                          - end number
                          - start number
            - ler-use-dscp boolean
            - lsp-exp number
                - apply-groups reference
                - apply-groups-exclude reference
                - fc keyword
                - profile keyword
        - policy-id number
        - scope keyword
    - network-queue named-item
        - apply-groups reference
        - apply-groups-exclude reference
        - description description
        - fc keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - multicast-queue reference
            - queue reference
        - hs-attachment-policy reference
        - hs-wrr-group number
            - adaptation-rule
                - pir keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - hs-class-weight number
            - rate number
        - queue number
            - adaptation-rule
                - cir keyword
                - fir keyword
                - pir keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - avg-frame-overhead decimal-number
            - cbs decimal-number
            - drop-tail
                - low
                  - percent-reduction-from-mbs (number | keyword)
            - hs-alt-port-class-pool boolean
            - hs-class-weight number
            - hs-mbs decimal-number
            - hs-wred-queue
                - policy reference
            - hs-wrr-weight number
```


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configure qos network-queue queue mbs

```
            - mbs decimal-number
            - multipoint boolean
            - port-parent
               - cir-level number
               - cir-weight number
               - level number
               - weight number
            - queue-type keyword
            - rate
               - cir number
               - fir number
               - pir number
      - policer-control-policy named-item
         - apply-groups reference
         - apply-groups-exclude reference
         - description description
         - root
            - max-percent-rate decimal-number
            - max-rate (number | keyword)
            - priority-mbs-thresholds
               - min-thresh-separation (number | keyword)
               - priority number
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - fixed-mbs boolean
                  - mbs-contribution (number | keyword)
            - profile-preferred boolean
         - tier number
            - apply-groups reference
            - apply-groups-exclude reference
            - arbiter named-item
               - apply-groups reference
               - apply-groups-exclude reference
               - arbiter-parent
                  - arbiter-name named-item
                  - level number
                  - weight number
               - description description
               - percent-rate decimal-number
               - rate (number | keyword)
               - reference-rate keyword
      - port-scheduler-policy named-item
         - apply-groups reference
         - apply-groups-exclude reference
         - description description
         - dist-lag-rate-shared boolean
         - group named-item
            - apply-groups reference
            - apply-groups-exclude reference
            - monitor-threshold number
            - percent-rate
               - cir decimal-number
               - pir decimal-number
            - rate
               - cir (number | keyword)
               - pir (number | keyword)
         - hqos-algorithm keyword
         - level number
            - apply-groups reference
            - apply-groups-exclude reference
            - group reference
            - monitor-threshold number
            - percent-rate
               - cir decimal-number
```


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configure qos port-scheduler-policy level percent-rate pir

```
                - pir decimal-number
            - rate
                - cir (number | keyword)
                - pir (number | keyword)
            - weight number
        - max-percent-rate decimal-number
        - max-rate (number | keyword)
        - monitor-threshold number
        - orphan-overrides
            - cir-level number
            - cir-weight number
            - level number
            - weight number
    - post-policer-mapping named-item
        - apply-groups reference
        - apply-groups-exclude reference
        - description description
        - fc keyword profile keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - maps-to
                - fc keyword
                - profile keyword
    - queue-group-redirect-list named-item
        - apply-groups reference
        - apply-groups-exclude reference
        - match number
            - apply-groups reference
            - apply-groups-exclude reference
            - instance number
        - type keyword
    - queue-group-templates
        - apply-groups reference
        - apply-groups-exclude reference
        - egress
            - apply-groups reference
            - apply-groups-exclude reference
            - queue-group named-item
                - apply-groups reference
                - apply-groups-exclude reference
                - description description-or-empty
                - fc keyword
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - queue
                        - none
                        - queue-id reference
                - hs-attachment-policy reference
                - hs-wrr-group number
                    - adaptation-rule
                        - pir keyword
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - hs-class-weight number
                    - percent-rate decimal-number
                    - rate (number | keyword)
                - hw-agg-shaper-queues
                    - queue-set-size (number | keyword)
                - policer number
                    - adaptation-rule
                        - cir keyword
                        - pir keyword
                    - adv-config-policy reference
                    - apply-groups reference
```


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configure qos queue-group-templates egress queue-group policer apply-groups-exclude

```
                  - apply-groups-exclude reference
                  - arbiter-parent
                     - arbiter-name named-item
                     - level number
                     - weight number
                  - cbs (number | keyword)
                  - description description
                  - exceed-pir boolean
                  - high-prio-only (number | keyword)
                  - mbs (number | keyword)
                  - packet-byte-offset number
                  - percent-rate
                     - cir decimal-number
                     - pir decimal-number
                     - reference-rate keyword
                  - profile-capped boolean
                  - rate
                     - cir (number | keyword)
                     - pir (number | keyword)
                  - stat-mode keyword
               - queue number
                  - adaptation-rule
                     - cir keyword
                     - pir keyword
                  - adv-config-policy reference
                  - agg-shaper-weight number
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - burst-limit (number | keyword)
                  - cbs (number | keyword)
                  - drop-tail
                     - exceed
                        - percent-reduction-from-mbs (number | keyword)
                     - high
                        - percent-reduction-from-mbs (number | keyword)
                     - highplus
                        - percent-reduction-from-mbs (number | keyword)
                     - low
                        - percent-reduction-from-mbs (number | keyword)
                  - dynamic-mbs boolean
                  - fir-burst-limit (number | keyword)
                  - hs-alt-port-class-pool boolean
                  - hs-class-weight number
                  - hs-wred-queue
                     - policy reference
                  - hs-wrr-weight number
                  - mbs (number | keyword)
                  - packet-byte-offset number
                  - percent-rate
                     - cir decimal-number
                     - pir decimal-number
                     - reference-rate keyword
                  - port-parent
                     - cir-level number
                     - cir-weight number
                     - level number
                     - weight number
                  - queue-delay number
                  - queue-type keyword
                  - rate
                     - cir (number | keyword)
                     - pir (number | keyword)
                  - sched-class (number | keyword)
                  - scheduler-parent
```


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configure qos queue-group-templates egress queue-group queue scheduler-parent cir-level

```
                    - cir-level number
                    - cir-weight number
                    - level number
                    - scheduler-name named-item
                    - weight number
                  - wred-queue
                    - mode keyword
                    - policy reference
                    - usage keyword
              - queues-hqos-manageable boolean
              - sched-class-elevation
                  - sched-class number
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - weight number
        - ingress
              - apply-groups reference
              - apply-groups-exclude reference
              - queue-group named-item
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - description description
                  - policer number
                    - adaptation-rule
                      - cir keyword
                      - pir keyword
                    - adv-config-policy reference
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - arbiter-parent
                      - arbiter-name named-item
                      - level number
                      - weight number
                    - cbs (number | keyword)
                    - description description
                    - high-prio-only (number | keyword)
                    - mbs (number | keyword)
                    - packet-byte-offset number
                    - percent-rate
                      - cir decimal-number
                      - pir decimal-number
                    - profile-capped boolean
                    - rate
                      - cir (number | keyword)
                      - pir (number | keyword)
                    - stat-mode keyword
                  - queue number
                    - adaptation-rule
                      - cir keyword
                      - fir keyword
                      - pir keyword
                    - adv-config-policy reference
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - burst-limit (number | keyword)
                    - cbs (number | keyword)
                    - cir-non-profiling boolean
                    - drop-tail
                      - low
                        - percent-reduction-from-mbs (number | keyword)
                    - mbs (number | keyword)
                    - multipoint boolean
                    - packet-byte-offset number
                    - percent-rate
```


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configure qos queue-group-templates ingress queue-group queue percent-rate cir

```
                    - cir decimal-number
                    - fir decimal-number
                    - pir decimal-number
                    - police
                    - reference-rate keyword
                 - queue-mode keyword
                 - queue-type keyword
                 - rate
                    - cir (number | keyword)
                    - fir (number | keyword)
                    - pir (number | keyword)
                    - police
                 - scheduler-parent
                    - cir-level number
                    - cir-weight number
                    - level number
                    - scheduler-name named-item
                    - weight number
     - sap-egress qos-policy-name
        - apply-groups reference
        - apply-groups-exclude reference
        - description description
        - dot1p number
           - apply-groups reference
           - apply-groups-exclude reference
           - fc keyword
           - profile keyword
        - dscp keyword
           - apply-groups reference
           - apply-groups-exclude reference
           - fc keyword
           - profile keyword
        - ethernet-ctag boolean
        - fc keyword
           - apply-groups reference
           - apply-groups-exclude reference
           - de-mark
              - force number
           - de-mark-inner
              - force number
           - de-mark-outer
              - force number
           - dot1p
              - exceed-profile number
              - in-profile number
              - out-profile number
           - dot1p-inner
              - exceed-profile number
              - in-profile number
              - out-profile number
           - dot1p-outer
              - exceed-profile number
              - in-profile number
              - out-profile number
           - dscp
              - exceed-profile keyword
              - in-profile keyword
              - out-profile keyword
           - policer reference
           - port-redirect-group-queue
              - queue number
           - prec
              - exceed-profile number
              - in-profile number
```


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configure qos sap-egress fc prec out-profile

```
            - out-profile number
         - queue reference
         - queue-group-queue
            - instance number
            - queue reference
            - queue-group-name reference
      - hs-attachment-policy reference
      - hs-wrr-group number
         - adaptation-rule
            - pir keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - hs-class-weight number
         - percent-rate decimal-number
         - rate (number | keyword)
      - hw-agg-shaper-queues
         - queue-set-size (number | keyword)
      - ip-criteria
         - entry number
            - action
               - fc keyword
               - policer reference
               - port-redirect-group-queue boolean
               - profile keyword
               - queue number
               - type keyword
               - use-fc-mapped-queue boolean
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - match
               - dscp keyword
               - dst-ip
                  - address (ipv4-prefix-with-host-bits | ipv4-address)
                  - ip-prefix-list reference
                  - mask ipv4-address
               - dst-port
                  - eq number
                  - gt number
                  - lt number
                  - range
                     - end number
                     - start number
               - fragment keyword
               - protocol (number | keyword)
               - src-ip
                  - address (ipv4-prefix-with-host-bits | ipv4-address)
                  - ip-prefix-list reference
                  - mask ipv4-address
               - src-port
                  - eq number
                  - gt number
                  - lt number
                  - range
                     - end number
                     - start number
      - ipv6-criteria
         - entry number
            - action
               - fc keyword
               - policer reference
               - port-redirect-group-queue boolean
               - profile keyword
               - queue number
```


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configure qos sap-egress ipv6-criteria entry action type

```
                  - type keyword
                  - use-fc-mapped-queue boolean
               - apply-groups reference
               - apply-groups-exclude reference
               - description description
               - match
                  - dscp keyword
                  - dst-ip
                     - address (ipv6-prefix-with-host-bits | ipv6-address)
                     - ipv6-prefix-list reference
                     - mask ipv6-address
                  - dst-port
                     - eq number
                     - gt number
                     - lt number
                     - range
                        - end number
                        - start number
                  - next-header (number | keyword)
                  - src-ip
                     - address (ipv6-prefix-with-host-bits | ipv6-address)
                     - ipv6-prefix-list reference
                     - mask ipv6-address
                  - src-port
                     - eq number
                     - gt number
                     - lt number
                     - range
                        - end number
                        - start number
         - parent-location keyword
         - policer number
            - adaptation-rule
               - cir keyword
               - pir keyword
            - adv-config-policy reference
            - apply-groups reference
            - apply-groups-exclude reference
            - arbiter-parent
               - arbiter-name named-item
               - level number
               - weight number
            - cbs (number | keyword)
            - description description
            - dscp-prec-remarking boolean
            - exceed-pir boolean
            - high-prio-only (number | keyword)
            - mbs (number | keyword)
            - packet-byte-offset number
            - percent-rate
               - cir decimal-number
               - pir decimal-number
               - reference-rate keyword
            - port-parent
               - cir-level number
               - cir-weight number
               - level number
               - weight number
            - profile-capped boolean
            - profile-out-preserve boolean
            - rate
               - cir (number | keyword)
               - pir (number | keyword)
            - scheduler-parent
```


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configure qos sap-egress policer scheduler-parent cir-level

```
                - cir-level number
                - cir-weight number
                - level number
                - scheduler-name named-item
                - weight number
            - stat-mode keyword
        - policers-hqos-manageable boolean
        - policy-id number
        - post-policer-mapping reference
        - prec number
            - apply-groups reference
            - apply-groups-exclude reference
            - fc keyword
            - profile keyword
        - queue number
            - adaptation-rule
                - cir keyword
                - pir keyword
            - adv-config-policy reference
            - agg-shaper-weight number
            - apply-groups reference
            - apply-groups-exclude reference
            - avg-frame-overhead decimal-number
            - burst-limit (number | keyword)
            - burst-limit-delay-time number
            - cbs (number | keyword)
            - cbs-delay-percent decimal-number
            - cbs-delay-time number
            - drop-tail
                - exceed
                    - percent-reduction-from-mbs (number | keyword)
                - high
                    - percent-reduction-from-mbs (number | keyword)
                - highplus
                    - percent-reduction-from-mbs (number | keyword)
                - low
                    - percent-reduction-from-mbs (number | keyword)
            - fir-burst-limit (number | keyword)
            - hs-alt-port-class-pool boolean
            - hs-class-weight number
            - hs-wred-queue
                - policy reference
            - hs-wrr-weight number
            - maximum-data-transmission (number | keyword)
            - mbs (number | keyword)
            - mbs-delay-percent decimal-number
            - mbs-delay-time number
            - packet-byte-offset number
            - percent-rate
                - cir decimal-number
                - pir decimal-number
                - reference-rate keyword
            - port-parent
                - cir-level number
                - cir-weight number
                - level number
                - weight number
            - queue-type keyword
            - rate
                - cir (number | keyword)
                - pir (number | keyword)
            - sched-class (number | keyword)
            - scheduler-parent
                - cir-level number
```


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configure qos sap-egress queue scheduler-parent cir-weight

```
                - cir-weight number
                - level number
                - scheduler-name named-item
                - weight number
            - wred-queue
                - mode keyword
                - policy reference
                - usage keyword
        - sched-class-elevation
            - sched-class number
                - apply-groups reference
                - apply-groups-exclude reference
                - weight number
        - scope keyword
        - subscriber-mgmt
            - dynamic-policer
                - arbiter-parent
                    - arbiter-name named-item
                    - level number
                    - weight number
                - cbs (number | keyword)
                - mbs (number | keyword)
                - packet-byte-offset number
                - policer-id-range
                    - end number
                    - start number
                - stat-mode keyword
            - dynamic-queue
                - cbs (number | keyword)
                - mbs (number | keyword)
                - packet-byte-offset number
                - port-parent
                    - cir-level number
                    - cir-weight number
                    - level number
                    - weight number
                - queue-id-range
                    - end number
                    - start number
                - scheduler-parent
                    - cir-level number
                    - cir-weight number
                    - level number
                    - scheduler-name named-item
                    - weight number
            - pcc-rule-entry
                - range
                    - end number
                    - start number
        - use-policer-result-marking-dot1p-inner boolean
    - sap-ingress qos-policy-name
        - apply-groups reference
        - apply-groups-exclude reference
        - default-fc sap-ingress-fc-name
        - default-priority keyword
        - description description
        - dot1p number
            - apply-groups reference
            - apply-groups-exclude reference
            - fc sap-ingress-fc-name
            - priority keyword
        - dscp keyword
            - apply-groups reference
            - apply-groups-exclude reference
```


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```
            - fc sap-ingress-fc-name
            - priority keyword
         - fc sap-ingress-fc-name
            - apply-groups reference
            - apply-groups-exclude reference
            - broadcast-policer number
            - broadcast-queue reference
            - broadcast-queue-group-queue
               - queue reference
               - queue-group-name reference
            - de-1-out-profile boolean
            - egress-fc keyword
            - fp-redirect-group-broadcast-policer
            - fp-redirect-group-multicast-policer
            - fp-redirect-group-policer
            - fp-redirect-group-unknown-policer
            - in-remark
               - dscp keyword
               - prec number
            - multicast-policer number
            - multicast-queue reference
            - multicast-queue-group-queue
               - queue reference
               - queue-group-name reference
            - out-remark
               - dscp keyword
               - prec number
            - policer number
            - profile keyword
            - queue reference
            - queue-group-queue
               - queue reference
               - queue-group-name reference
            - unknown-policer number
            - unknown-queue reference
            - unknown-queue-group-queue
               - queue reference
               - queue-group-name reference
         - ip-criteria
            - entry number
               - action
                  - fc sap-ingress-fc-name
                  - policer reference
                  - priority keyword
                  - type keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - description description
               - match
                  - dscp keyword
                  - dst-ip
                     - address (ipv4-prefix-with-host-bits | ipv4-address)
                     - ip-prefix-list reference
                     - mask ipv4-address
                  - dst-port
                     - eq number
                     - gt number
                     - lt number
                     - range
                        - end number
                        - start number
                  - fragment keyword
                  - protocol (number | keyword)
                  - src-ip
```


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configure qos sap-ingress ip-criteria entry match src-ip address

```
                    - address (ipv4-prefix-with-host-bits | ipv4-address)
                    - ip-prefix-list reference
                    - mask ipv4-address
                 - src-port
                    - eq number
                    - gt number
                    - lt number
                    - range
                       - end number
                       - start number
                 - vxlan-vni
                    - eq number
                    - range
                       - end number
                       - start number
              - tag number
           - type keyword
        - ipv6-criteria
           - entry number
              - action
                 - fc sap-ingress-fc-name
                 - policer reference
                 - priority keyword
                 - type keyword
              - apply-groups reference
              - apply-groups-exclude reference
              - description description
              - match
                 - dscp keyword
                 - dst-ip
                    - address (ipv6-prefix-with-host-bits | ipv6-address)
                    - ipv6-prefix-list reference
                    - mask ipv6-address
                 - dst-port
                    - eq number
                    - gt number
                    - lt number
                    - range
                       - end number
                       - start number
                 - fragment keyword
                 - next-header (number | keyword)
                 - src-ip
                    - address (ipv6-prefix-with-host-bits | ipv6-address)
                    - ipv6-prefix-list reference
                    - mask ipv6-address
                 - src-port
                    - eq number
                    - gt number
                    - lt number
                    - range
                       - end number
                       - start number
                 - vxlan-vni
                    - eq number
                    - range
                       - end number
                       - start number
              - tag number
           - type keyword
        - lsp-exp number
           - apply-groups reference
           - apply-groups-exclude reference
           - fc sap-ingress-fc-name
```


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configure qos sap-ingress lsp-exp priority

```
            - priority keyword
         - mac-criteria
            - entry number
               - action
                  - fc sap-ingress-fc-name
                  - policer reference
                  - priority keyword
                  - type keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - description description
               - match
                  - dot1p
                     - mask number
                     - priority number
                  - dst-mac
                     - address mac-address
                     - mask mac-address
                  - etype etype-value
                  - frame-type keyword
                  - inner-tag
                     - mask number
                     - vlan number
                  - llc-dsap
                     - dsap number
                     - mask number
                  - llc-ssap
                     - mask number
                     - ssap number
                  - outer-tag
                     - mask number
                     - vlan number
                  - snap-oui keyword
                  - snap-pid number
                  - src-mac
                     - address mac-address
                     - mask mac-address
            - type keyword
         - policer number
            - adaptation-rule
               - cir keyword
               - pir keyword
            - adv-config-policy reference
            - apply-groups reference
            - apply-groups-exclude reference
            - arbiter-parent
               - arbiter-name named-item
               - level number
               - weight number
            - cbs (number | keyword)
            - description description
            - high-prio-only (number | keyword)
            - mbs (number | keyword)
            - packet-byte-offset number
            - percent-rate
               - cir decimal-number
               - pir decimal-number
               - reference-rate keyword
            - profile-capped boolean
            - rate
               - cir (number | keyword)
               - pir (number | keyword)
            - scheduler-parent
               - cir-level number
```


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configure qos sap-ingress policer scheduler-parent cir-weight

```
                - cir-weight number
                - level number
                - scheduler-name named-item
                - weight number
            - stat-mode keyword
        - policers-hqos-manageable boolean
        - policy-id number
        - prec number
            - apply-groups reference
            - apply-groups-exclude reference
            - fc sap-ingress-fc-name
            - priority keyword
        - queue number
            - adaptation-rule
                - cir keyword
                - fir keyword
                - pir keyword
            - adv-config-policy reference
            - apply-groups reference
            - apply-groups-exclude reference
            - burst-limit (number | keyword)
            - cbs (number | keyword)
            - cir-non-profiling boolean
            - drop-tail
                - low
                    - percent-reduction-from-mbs (number | keyword)
            - mbs (number | keyword)
            - multipoint boolean
            - packet-byte-offset number
            - percent-rate
                - cir decimal-number
                - fir decimal-number
                - pir decimal-number
                - police
                - reference-rate keyword
            - queue-mode keyword
            - queue-type keyword
            - rate
                - cir (number | keyword)
                - fir (number | keyword)
                - pir (number | keyword)
                - police
            - scheduler-parent
                - cir-level number
                - cir-weight number
                - level number
                - scheduler-name named-item
                - weight number
        - scope keyword
        - subscriber-mgmt
            - dynamic-policer
                - arbiter-parent
                    - arbiter-name named-item
                    - level number
                    - weight number
                - cbs (number | keyword)
                - mbs (number | keyword)
                - packet-byte-offset number
                - policer-id-range
                    - end number
                    - start number
                - stat-mode keyword
            - pcc-rule-entry
                - range
```


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configure qos sap-ingress subscriber-mgmt pcc-rule-entry range end

```
                  - end number
                  - start number
      - scheduler-policy named-item
         - apply-groups reference
         - apply-groups-exclude reference
         - description description
         - frame-based-accounting boolean
         - tier number
            - apply-groups reference
            - apply-groups-exclude reference
            - parent-location keyword
            - scheduler named-item
               - apply-groups reference
               - apply-groups-exclude reference
               - description description
               - limit-unused-bandwidth boolean
               - percent-rate
                  - cir (keyword | decimal-number)
                  - pir decimal-number
                  - reference-rate keyword
               - port-parent
                  - cir-level number
                  - cir-weight number
                  - level number
                  - weight number
               - rate
                  - cir (number | keyword)
                  - pir (number | keyword)
               - scheduler-parent
                  - cir-level number
                  - cir-weight number
                  - level number
                  - scheduler-name named-item
                  - weight number
      - shared-queue named-item
         - apply-groups reference
         - apply-groups-exclude reference
         - description description-or-empty
         - fc keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - broadcast-queue number
            - multicast-queue number
            - queue number
            - unknown-queue number
         - queue number
            - apply-groups reference
            - apply-groups-exclude reference
            - cbs number
            - drop-tail
               - low
                  - percent-reduction-from-mbs (number | keyword)
            - mbs number
            - multipoint boolean
            - queue-type keyword
            - rate
               - cir number
               - fir number
               - pir number
      - slope-policy named-item
         - apply-groups reference
         - apply-groups-exclude reference
         - description description
         - exceed-slope
```


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```
            -  admin-state keyword
            -  max-avg number
            -  max-prob number
            -  start-avg number
         -  high-slope
            -  admin-state keyword
            -  max-avg number
            -  max-prob number
            -  start-avg number
         -  highplus-slope
            -  admin-state keyword
            -  max-avg number
            -  max-prob number
            -  start-avg number
         -  low-slope
            -  admin-state keyword
            -  max-avg number
            -  max-prob number
            -  start-avg number
         -  time-average-factor number
```


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## 4.37.1 qos command descriptions

### qos

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** qos |
| Tree | qos |
| Introduced | 16.0.R1 |
| Platforms | All |

### **adv-config-policy** [adv-config-policy-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **adv-config-policy** list instance |
| Context | **configure** qos adv-config-policy *named-item* |
| Tree | adv-config-policy |
| Max. instances | 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**adv-config-policy-name**] *named-item*

| | |
|---|---|
| Synopsis | Advanced QoS policy name |
| Context | **configure** qos adv-config-policy *named-item* |
| Tree | adv-config-policy |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### child-control

| | |
|---|---|
| Synopsis | Enter the **child-control** context |
| Context | **configure** qos adv-config-policy *named-item* child-control |
| Tree | child-control |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## bandwidth-distribution

| | |
|---|---|
| Synopsis | Enter the **bandwidth-distribution** context |
| Context | **configure** qos adv-config-policy *named-item* child-control bandwidth-distribution |
| Tree | bandwidth-distribution |
| Introduced | 16.0.R1 |
| Platforms | All |

## above-offered-allowance

| | |
|---|---|
| Synopsis | Enter the **above-offered-allowance** context |
| Context | **configure** qos adv-config-policy *named-item* child-control bandwidth-distribution above-offered-allowance |
| Tree | above-offered-allowance |
| Description | Commands in this context control the child's above offered allowance bandwidth.<br>The configuration is only applicable when the port scheduler is configured to use the **above-offered-allowance-control** algorithm (specified via the **configure qos port-scheduler-policy hqos-algorithm** command). |
| Introduced | 19.10.R2 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## delta-consumed-agg-rate

| | |
|---|---|
| Synopsis | Enter the **delta-consumed-agg-rate** context |
| Context | **configure** qos adv-config-policy *named-item* child-control bandwidth-distribution above-offered-allowance delta-consumed-agg-rate |
| Tree | delta-consumed-agg-rate |
| Introduced | 19.10.R2 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **percent** *decimal-number*

| | |
|---|---|
| Synopsis | Percentage of the delta consumed aggregate rate |


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| | |
|---|---|
| Context | **configure** qos adv-config-policy *named-item* child-control bandwidth-distribution above-offered-allowance delta-consumed-agg-rate percent *decimal-number* |
| Tree | percent |
| Description | This command configures the percentage of the delta (from the beginning to the end of the current H-QoS below CIR or above CIR pass) of the aggregate rate consumed by other members that can be given to a queue at the end of an H-QoS below CIR pass and above CIR pass.<br>This command is only applicable when the port scheduler is configured to use the **above-offered-allowance-control** algorithm; otherwise it is ignored. |
| Range | 0.00 to 100.00 |
| Default | 20.00 |
| Introduced | 19.10.R2 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## delta-consumed-higher-tier-rate

| | |
|---|---|
| Synopsis | Enter the **delta-consumed-higher-tier-rate** context |
| Context | **configure** qos adv-config-policy *named-item* child-control bandwidth-distribution above-offered-allowance delta-consumed-higher-tier-rate |
| Tree | delta-consumed-higher-tier-rate |
| Introduced | 19.10.R2 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **percent** *decimal-number*

| | |
|---|---|
| Synopsis | Percentage of the delta consumed higher-tier rate |
| Context | **configure** qos adv-config-policy *named-item* child-control bandwidth-distribution above-offered-allowance delta-consumed-higher-tier-rate percent *decimal-number* |
| Tree | percent |
| Description | This command configures the percentage of the delta (from the beginning to the end of the current H-QoS below CIR or above CIR pass) of the higher-tier rate consumed by its other members that can be given to a queue at the end of an H-QoS below CIR pass and above CIR pass. Higher tier refers to the Vport aggregate rate and port scheduler level, group, and maximum rates.<br>This command is only applicable when the port scheduler is configured to use the **above-offered-allowance-control** algorithm; otherwise it is ignored. |
| Range | 0.00 to 100.00 |
| Default | 5.00 |
| Introduced | 19.10.R2 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## unconsumed-agg-rate

| | |
|---|---|
| Synopsis | Enter the **unconsumed-agg-rate** context |
| Context | **configure** qos adv-config-policy *named-item* child-control bandwidth-distribution above-offered-allowance unconsumed-agg-rate |
| Tree | unconsumed-agg-rate |
| Introduced | 19.10.R2 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## percent *decimal-number*

| | |
|---|---|
| Synopsis | Percentage of the unconsumed aggregate rate |
| Context | **configure** qos adv-config-policy *named-item* child-control bandwidth-distribution above-offered-allowance unconsumed-agg-rate percent *decimal-number* |
| Tree | percent |
| Description | This command configures the percentage of the unconsumed aggregate rate that can be given to a queue at the end of an H-QoS below CIR pass and above CIR pass.<br>This command is only applicable when the port scheduler is configured to use the **above-offered-allowance-control** algorithm; otherwise it is ignored. |
| Range | 0.00 to 100.00 |
| Default | 100.00 |
| Introduced | 19.10.R2 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## unconsumed-higher-tier-rate

| | |
|---|---|
| Synopsis | Enter the **unconsumed-higher-tier-rate** context |
| Context | **configure** qos adv-config-policy *named-item* child-control bandwidth-distribution above-offered-allowance unconsumed-higher-tier-rate |
| Tree | unconsumed-higher-tier-rate |
| Introduced | 19.10.R2 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **percent** *decimal-number*

| | |
|---|---|
| Synopsis | Percentage of the unconsumed higher-tier rate |
| Context | **configure** qos adv-config-policy *named-item* child-control bandwidth-distribution above-offered-allowance unconsumed-higher-tier-rate percent *decimal-number* |
| Tree | percent |
| Description | This command configures the percentage of the unconsumed higher tier rate that can be given to a queue at the end of an H-QoS below CIR pass and above CIR pass. Higher tier refers to the Vport aggregate rate and port scheduler level, group, and maximum rates.<br>This command is only applicable when the port scheduler is configured to use the **above-offered-allowance-control** algorithm; otherwise it is ignored. |
| Range | 0.00 to 100.00 |
| Default | 100.00 |
| Introduced | 19.10.R2 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **above-offered-cap**

| | |
|---|---|
| Synopsis | Enter the **above-offered-cap** context |
| Context | **configure** qos adv-config-policy *named-item* child-control bandwidth-distribution above-offered-cap |
| Tree | above-offered-cap |
| Introduced | 16.0.R1 |
| Platforms | All |

### **percent** *decimal-number*

| | |
|---|---|
| Synopsis | Percentage of PIR used as the fair share increase limit |
| Context | **configure** qos adv-config-policy *named-item* child-control bandwidth-distribution above-offered-cap percent *decimal-number* |
| Tree | percent |
| Range | 0.00 to 100.00 |
| Notes | The following elements are part of a choice: **percent** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **rate** *(number | keyword)*

| | |
|---|---|
| Synopsis | Explicit rate as the fair share increase limit |
| Context | **configure** qos adv-config-policy *named-item* child-control bandwidth-distribution above-offered-cap rate *(number \| keyword)* |
| Tree | rate |
| Range | 0 to 100000000 |
| Options | max |
| Notes | The following elements are part of a choice: **percent** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **enqueue-on-pir-zero** *boolean*

| | |
|---|---|
| Synopsis | Queue packets when bandwidth distribution set to zero |
| Context | **configure** qos adv-config-policy *named-item* child-control bandwidth-distribution enqueue-on-pir-zero *boolean* |
| Tree | enqueue-on-pir-zero |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **granularity**

| | |
|---|---|
| Synopsis | Enter the **granularity** context |
| Context | **configure** qos adv-config-policy *named-item* child-control bandwidth-distribution granularity |
| Tree | granularity |
| Introduced | 16.0.R1 |
| Platforms | All |

### **percent** *decimal-number*

| | |
|---|---|
| Synopsis | Rounding percentage value for administrative PIR |
| Context | **configure** qos adv-config-policy *named-item* child-control bandwidth-distribution granularity percent *decimal-number* |


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| | |
|---|---|
| Tree | percent |
| Range | 0.00 to 100.00 |
| Notes | The following elements are part of a choice: **percent** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rate** *number*

| | |
|---|---|
| Synopsis | Rounding rate step value |
| Context | **configure** qos adv-config-policy *named-item* child-control bandwidth-distribution granularity rate *number* |
| Tree | rate |
| Range | 0 to 100000000 |
| Notes | The following elements are part of a choice: **percent** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **internal-scheduler-weight-mode** *keyword*

| | |
|---|---|
| Synopsis | Weight mode applied to this advanced QoS policy |
| Context | **configure** qos adv-config-policy *named-item* child-control bandwidth-distribution internal-scheduler-weight-mode *keyword* |
| Tree | internal-scheduler-weight-mode |
| Options | auto, force-equal, offered-load, capped-offered-load |
| Introduced | 16.0.R1 |
| Platforms | All |

### **limit-pir-zero-drain** *boolean*

| | |
|---|---|
| Synopsis | Throttle draining when operational PIR set to zero |
| Context | **configure** qos adv-config-policy *named-item* child-control bandwidth-distribution limit-pir-zero-drain *boolean* |
| Tree | limit-pir-zero-drain |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **lub-init-min-pir** *boolean*

| | |
|---|---|
| Synopsis | Apply minimal PIR for new queues when LUB is enabled |
| Context | **configure** qos adv-config-policy *named-item* child-control bandwidth-distribution lub-init-min-pir *boolean* |
| Tree | lub-init-min-pir |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **offered-measurement**

| | |
|---|---|
| Synopsis | Enter the **offered-measurement** context |
| Context | **configure** qos adv-config-policy *named-item* child-control offered-measurement |
| Tree | offered-measurement |
| Introduced | 16.0.R1 |
| Platforms | All |

### **add**

| | |
|---|---|
| Synopsis | Enter the **add** context |
| Context | **configure** qos adv-config-policy *named-item* child-control offered-measurement add |
| Tree | add |
| Introduced | 16.0.R1 |
| Platforms | All |

### **active-min-only** *boolean*

| | |
|---|---|
| Synopsis | Use minimum offered rate for active queues or policers |
| Context | **configure** qos adv-config-policy *named-item* child-control offered-measurement add active-min-only *boolean* |
| Tree | active-min-only |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **min-only** *boolean*

| | |
|---|---|
| Synopsis | Use increase in operational PIR as minimum offered rate |
| Context | **configure** qos adv-config-policy *named-item* child-control offered-measurement add min-only *boolean* |
| Tree | min-only |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **percent** *decimal-number*

| | |
|---|---|
| Synopsis | Percentage of child PIR to add to offered rate |
| Context | **configure** qos adv-config-policy *named-item* child-control offered-measurement add percent *decimal-number* |
| Tree | percent |
| Range | 0.00 to 100.00 |
| Notes | The following elements are part of a choice: **percent** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rate** *number*

| | |
|---|---|
| Synopsis | Rate value to add to child's offered rate |
| Context | **configure** qos adv-config-policy *named-item* child-control offered-measurement add rate *number* |
| Tree | rate |
| Range | 0 to 100000000 |
| Notes | The following elements are part of a choice: **percent** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **avg-frame-overhead-mode** *keyword*

| | |
|---|---|
| Synopsis | Method of average frame overhead calculation |


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| | |
|---|---|
| Context | **configure** qos adv-config-policy *named-item* child-control offered-measurement avg-frame-overhead-mode *keyword* |
| Tree | avg-frame-overhead-mode |
| Description | This command configures the calculation method for the average frame overhead. The average frame overhead represents the additional bytes associated with the physical medium (wire) and it facilitates more precise rate calculations based on the actual medium characteristics.<br><br>This command is exclusively applicable to Ethernet ports. On Ethernet, the wire overhead typically amounts to 20 bytes. These 20 bytes are comprised of 7 bytes for the preamble, 1 byte for the Start of Frame Delimiter (SFD), and 12 bytes for the Inter-Packet Gap (IPG). When used in conjunction with the **avg-frame-overhead** command that is configured directly under a queue, this command allows you to enable, disable, or customize this overhead. To activate this command, you must apply the associated advanced configuration policy to a specific queue.<br><br>auto - Automatically calculate average frame overhead. This setting impacts rate calculations on port schedulers (whether on a port or within a Vport) and aggregate rate limits for subscribers and Vports where rate calculations are based on wire rates.<br><br>from-queue - Manually configure average frame overhead under the queue under the queue level using the **avg-frame-overhead** command where the overhead value is specified in percentages of an average frame size. The default value for the **avg-frame-overhead** command (overhead is 0), the rate calculations throughout the H-QoS hierarchy are based on Layer 2 packets (Layer 2 rates). |
| Options | auto – Automatically calculate average frame overhead<br>from-queue – Manually configure average frame overhead |
| Default | auto |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **fast-start** *boolean*

| | |
|---|---|
| Synopsis | Allow fast detection of initial bandwidth |
| Context | **configure** qos adv-config-policy *named-item* child-control offered-measurement fast-start *boolean* |
| Tree | fast-start |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **fast-stop** *boolean*

| | |
|---|---|
| Synopsis | Allow fast detection of lack of offered rate |


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| | |
|---|---|
| Context | **configure** qos adv-config-policy *named-item* child-control offered-measurement fast-stop *boolean* |
| Tree | fast-stop |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## granularity

| | |
|---|---|
| Synopsis | Enter the **granularity** context |
| Context | **configure** qos adv-config-policy *named-item* child-control offered-measurement granularity |
| Tree | granularity |
| Introduced | 16.0.R1 |
| Platforms | All |

## **percent** *decimal-number*

| | |
|---|---|
| Synopsis | Percentage of PIR used as threshold sensitivity to offered rate change |
| Context | **configure** qos adv-config-policy *named-item* child-control offered-measurement granularity percent *decimal-number* |
| Tree | percent |
| Range | 0.00 to 100.00 |
| Notes | The following elements are part of a choice: **percent** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **rate** *number*

| | |
|---|---|
| Synopsis | Rate as child's offered rate change sensitivity value |
| Context | **configure** qos adv-config-policy *named-item* child-control offered-measurement granularity rate *number* |
| Tree | rate |
| Range | 0 to 100000000 |
| Notes | The following elements are part of a choice: **percent** or **rate**. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## hold-time

| | |
|---|---|
| Synopsis | Enter the **hold-time** context |
| Context | **configure** qos adv-config-policy *named-item* child-control offered-measurement hold-time |
| Tree | hold-time |
| Introduced | 16.0.R1 |
| Platforms | All |

## active-min-only *boolean*

| | |
|---|---|
| Synopsis | Use minimum offered rate for active queues or policers |
| Context | **configure** qos adv-config-policy *named-item* child-control offered-measurement hold-time active-min-only *boolean* |
| Tree | active-min-only |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## high-rate *number*

| | |
|---|---|
| Synopsis | Time to maintain current offered rate |
| Context | **configure** qos adv-config-policy *named-item* child-control offered-measurement hold-time high-rate *number* |
| Tree | high-rate |
| Range | 0 to 60 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

## max-decrement

| | |
|---|---|
| Synopsis | Enter the **max-decrement** context |
| Context | **configure** qos adv-config-policy *named-item* child-control offered-measurement max-decrement |


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| | |
|---|---|
| Tree | max-decrement |
| Introduced | 16.0.R1 |
| Platforms | All |

### **percent** *decimal-number*

| | |
|---|---|
| Synopsis | percentage as decrement limit to offered rate change |
| Context | **configure** qos adv-config-policy *named-item* child-control offered-measurement max-decrement percent *decimal-number* |
| Tree | percent |
| Range | 0.00 to 100.00 |
| Notes | The following elements are part of a choice: **percent** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rate** *number*

| | |
|---|---|
| Synopsis | Value to use as decrement limit to offered rate change |
| Context | **configure** qos adv-config-policy *named-item* child-control offered-measurement max-decrement rate *number* |
| Tree | rate |
| Range | 0 to 100000000 |
| Notes | The following elements are part of a choice: **percent** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sample-interval** *number*

**WARNING:**
This element is deprecated and will be removed in a future release.

| | |
|---|---|
| Synopsis | Interval for sampling the child's offered rate |
| Context | **configure** qos adv-config-policy *named-item* child-control offered-measurement sample-interval *number* |
| Tree | sample-interval |
| Range | 1 to 8 |


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| | |
|---|---|
| Default | 1 |
| Introduced | 16.0.R1 |
| Deprecated | 24.10.R1 |
| Platforms | All |

### time-average-factor

| | |
|---|---|
| Synopsis | Enter the **time-average-factor** context |
| Context | **configure** qos adv-config-policy *named-item* child-control offered-measurement time-average-factor |
| Tree | time-average-factor |
| Introduced | 16.0.R1 |
| Platforms | All |

### dec-only *boolean*

| | |
|---|---|
| Synopsis | Apply time adjustment when the offered rate decreases |
| Context | **configure** qos adv-config-policy *named-item* child-control offered-measurement time-average-factor dec-only *boolean* |
| Tree | dec-only |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### weighting-factor *number*

| | |
|---|---|
| Synopsis | New offered rate with a sample of the previous offered rate |
| Context | **configure** qos adv-config-policy *named-item* child-control offered-measurement time-average-factor weighting-factor *number* |
| Tree | weighting-factor |
| Range | 0 to 64 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** qos adv-config-policy *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **fp-resource-policy** [fp-resource-policy-name] *fp-resource-policy-name*

| | |
|---|---|
| Synopsis | Enter the **fp-resource-policy** list instance |
| Context | **configure** qos fp-resource-policy *fp-resource-policy-name* |
| Tree | fp-resource-policy |
| Max. instances | 15 |
| Introduced | 20.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### [**fp-resource-policy-name**] *fp-resource-policy-name*

| | |
|---|---|
| Synopsis | FP resource policy name |
| Context | **configure** qos fp-resource-policy *fp-resource-policy-name* |
| Tree | fp-resource-policy |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 20.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### **aggregate-shapers**

| | |
|---|---|
| Synopsis | Enter the **aggregate-shapers** context |
| Context | **configure** qos fp-resource-policy *fp-resource-policy-name* aggregate-shapers |
| Tree | aggregate-shapers |
| Introduced | 21.7.R1 |


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| | |
|---|---|
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

## **auto-creation** *boolean*

**WARNING:**
Modifying this element resets the associated cards/XIOMs/MDAs for the new value to take effect. On the 7750 SR-1, the configuration must be saved and the router must be rebooted for the new value to take effect.

| | |
|---|---|
| Synopsis | Enables auto-creation of hardware aggregate shapers |
| Context | **configure** qos fp-resource-policy *fp-resource-policy-name* aggregate-shapers auto-creation *boolean* |
| Tree | auto-creation |
| Description | When configured to **true**, enables the auto-creation of hardware aggregate shapers on the specified FP. After enabling, the corresponding FP is rebooted. |
| Default | false |
| Introduced | 21.7.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

## **hw-agg-shapers**

| | |
|---|---|
| Synopsis | Enter the **hw-agg-shapers** context |
| Context | **configure** qos fp-resource-policy *fp-resource-policy-name* aggregate-shapers hw-agg-shapers |
| Tree | hw-agg-shapers |
| Introduced | 21.7.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

## **queue-groups** *boolean*

**WARNING:**
Modifying this element resets the associated cards/XIOMs/MDAs for the new value to take effect. On the 7750 SR-1, the configuration must be saved and the router must be rebooted for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable hardware aggregate shapers for queue-groups |
| Context | **configure** qos fp-resource-policy *fp-resource-policy-name* aggregate-shapers hw-agg-shapers queue-groups *boolean* |
| Tree | queue-groups |


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| | |
|---|---|
| Default | false |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### **saps** *boolean*

**WARNING:**
Modifying this element resets the associated cards/XIOMs/MDAs for the new value to take effect. On the 7750 SR-1, the configuration must be saved and the router must be rebooted for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable hardware aggregate shapers for SAPs |
| Context | **configure** qos fp-resource-policy *fp-resource-policy-name* aggregate-shapers hw-agg-shapers saps *boolean* |
| Tree | saps |
| Default | false |
| Introduced | 22.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### **subscribers** *boolean*

**WARNING:**
Modifying this element resets the associated cards/XIOMs/MDAs for the new value to take effect. On the 7750 SR-1, the configuration must be saved and the router must be rebooted for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable hardware aggregate shapers for subscribers |
| Context | **configure** qos fp-resource-policy *fp-resource-policy-name* aggregate-shapers hw-agg-shapers subscribers *boolean* |
| Tree | subscribers |
| Default | false |
| Introduced | 21.7.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### **queue-sets**

| | |
|---|---|
| Synopsis | Enter the **queue-sets** context |


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| | |
|---|---|
| Context | **configure** qos fp-resource-policy *fp-resource-policy-name* aggregate-shapers queue-sets |
| Tree | queue-sets |
| Introduced | 22.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

## default-size

| | |
|---|---|
| Synopsis | Enter the **default-size** context |
| Context | **configure** qos fp-resource-policy *fp-resource-policy-name* aggregate-shapers queue-sets default-size |
| Tree | default-size |
| Description | Commands in this context configure the default queue-set size for individual object types. |
| Introduced | 22.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

## queue-groups *(number | keyword)*

| | |
|---|---|
| Synopsis | Default size of queue-groups |
| Context | **configure** qos fp-resource-policy *fp-resource-policy-name* aggregate-shapers queue-sets default-size queue-groups *(number | keyword)* |
| Tree | queue-groups |
| Range | 2 to 8 |
| Options | non-shaper-queues |
| Default | 8 |
| Introduced | 22.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

## saps *(number | keyword)*

| | |
|---|---|
| Synopsis | Default queue-set size for SAPs |
| Context | **configure** qos fp-resource-policy *fp-resource-policy-name* aggregate-shapers queue-sets default-size saps *(number | keyword)* |
| Tree | saps |
| Description | This command configures the default queue-set size for SAPs. |


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When the **non-shaper-queues** keyword is configured, SAPs do not use hardware aggregate shapers on FPs where the specified FP resource policy is applied.

| | |
|---|---|
| Range | 2 to 8 |
| Options | non-shaper-queues |
| Default | 8 |
| Introduced | 22.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### **subscribers** *(number | keyword)*

| | |
|---|---|
| Synopsis | Default queue-set size for subscribers |
| Context | **configure** qos fp-resource-policy *fp-resource-policy-name* aggregate-shapers queue-sets default-size subscribers *(number | keyword)* |
| Tree | subscribers |
| Description | This command configures the default queue-set size for subscribers.<br>When the **non-shaper-queues** keyword is configured, SAPs do not use hardware aggregate shapers on FPs where the specified FP resource policy is applied. |
| Range | 2 to 8 |
| Options | non-shaper-queues |
| Default | 8 |
| Introduced | 22.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### **size** [qset-size] *number*

| | |
|---|---|
| Synopsis | Enter the **size** list instance |
| Context | **configure** qos fp-resource-policy *fp-resource-policy-name* aggregate-shapers queue-sets size *number* |
| Tree | size |
| Description | Commands in this context configure parameters for the specified queue-set size. |
| Introduced | 22.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### [**qset-size**] *number*

| | |
|---|---|
| Synopsis | Size of the queue-sets |


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| | |
|---|---|
| Context | **configure** qos fp-resource-policy *fp-resource-policy-name* aggregate-shapers queue-sets size *number* |
| Tree | size |
| Range | 2 to 8 |
| Notes | This element is part of a list key. |
| Introduced | 22.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

## **allocation-weight** *number*

| | |
|---|---|
| Synopsis | Allocation weight of the queue-set size |
| Context | **configure** qos fp-resource-policy *fp-resource-policy-name* aggregate-shapers queue-sets size *number* allocation-weight *number* |
| Tree | allocation-weight |
| Description | This command configures the allocation weight for the specified queue-set size. The available queue-sets are distributed based on the allocation weight among different queue-set sizes. |
| Range | 0 to 100 |
| Introduced | 22.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

## **reserved-non-shaper-queues** *number*

| | |
|---|---|
| Synopsis | Number of queues reserved for non-shaper queues |
| Context | **configure** qos fp-resource-policy *fp-resource-policy-name* aggregate-shapers reserved-non-shaper-queues *number* |
| Tree | reserved-non-shaper-queues |
| Description | This command configures the number of egress queues that will not be used by hardware aggregate shapers. |
| Range | 2048 to 262144 |
| Default | 8192 |
| Introduced | 22.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |


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| | |
|---|---|
| Context | **configure** qos fp-resource-policy *fp-resource-policy-name* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 20.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## ports

| | |
|---|---|
| Synopsis | Enter the **ports** context |
| Context | **configure** qos fp-resource-policy *fp-resource-policy-name* ports |
| Tree | ports |
| Introduced | 21.7.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

## hqos-mode *keyword*

**WARNING:**
Modifying this element resets the associated cards/XIOMs/MDAs for the new value to take effect. On the 7750 SR-1, the configuration must be saved and the router must be rebooted for the new value to take effect.

| | |
|---|---|
| Synopsis | Default HQOS mode of the port |
| Context | **configure** qos fp-resource-policy *fp-resource-policy-name* ports hqos-mode *keyword* |
| Tree | hqos-mode |
| Options | port-scheduler, hw-agg-shaping |
| Default | port-scheduler |
| Introduced | 21.7.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

## queues

| | |
|---|---|
| Synopsis | Enter the **queues** context |
| Context | **configure** qos fp-resource-policy *fp-resource-policy-name* queues |
| Tree | queues |
| Introduced | 20.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |


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## **ingress-percent-of-total** *decimal-number*

**WARNING:**
Modifying this element resets the associated cards/XIOMs/MDAs for the new value to take effect. On the 7750 SR-1, the configuration must be saved and the router must be rebooted for the new value to take effect.

| | |
|---|---|
| Synopsis | Percentage of total ingress queues allocated |
| Context | **configure** qos fp-resource-policy *fp-resource-policy-name* queues ingress-percent-of-total *decimal-number* |
| Tree | ingress-percent-of-total |
| Description | This command configures the percentage of the total number of queues on the FP on which the policy is applied that are allocated to ingress, with the remainder allocated to egress. The ingress and egress buffer pool sizes are not affected by the queue allocation.<br><br>The allocation is performed in sets of 8192 queues, with a minimum of 8192 queues at ingress and 8192 queues at egress. If the percentage configured results in the queue allocation not being a multiple of 8192, the number of queues at ingress is rounded down to the next 8192 boundary, and consequently the number of queues at egress is rounded up to the next 8192 boundary, both while respecting the minimum at ingress and egress.<br><br>If the FP resource policy is applied to any FP and the updated allocation is not achievable with the current ingress or egress queue consumption on any of the related FPs, the command fails.<br><br>The configuration of this command (which includes removing the configuration) causes the router to immediately reset the associated cards, XIOMs and MDAs on all FPs on which the FP resource policy is applied, except on the 7750 SR-1, where the configuration must be saved and the router rebooted, immediately after committing the configuration transaction. |
| Range | 4.00 to 97.00 |
| Introduced | 20.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## **hs-attachment-policy** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **hs-attachment-policy** list instance |
| Context | **configure** qos hs-attachment-policy *named-item* |
| Tree | hs-attachment-policy |
| Max. instances | 31 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7750 SR-7/12/12e |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | HS attachment policy name |
| Context | **configure** qos hs-attachment-policy *named-item* |
| Tree | hs-attachment-policy |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** qos hs-attachment-policy *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **low-burst-max-class** *number*

| | |
|---|---|
| Synopsis | Low priority burst threshold |
| Context | **configure** qos hs-attachment-policy *named-item* low-burst-max-class *number* |
| Tree | low-burst-max-class |
| Range | 1 to 6 |
| Default | 6 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **queue** [queue-id] *number*

| | |
|---|---|
| Synopsis | Enter the **queue** list instance |
| Context | **configure** qos hs-attachment-policy *named-item* queue *number* |


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| | |
|---|---|
| Tree | queue |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### [**queue-id**] *number*

| | |
|---|---|
| Synopsis | Queue identifier for the HS attachment policy |
| Context | **configure** qos hs-attachment-policy *named-item* queue *number* |
| Tree | queue |
| Range | 1 to 8 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **sched-class** *number*

| | |
|---|---|
| Synopsis | Scheduling class associated with the queue |
| Context | **configure** qos hs-attachment-policy *named-item* queue *number* sched-class *number* |
| Tree | sched-class |
| Range | 1 to 6 |
| Notes | The following elements are part of a choice: **sched-class**, **unattached**, or **wrr-group**. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **unattached**

| | |
|---|---|
| Synopsis | Do not attach queue to scheduling class or WRR group |
| Context | **configure** qos hs-attachment-policy *named-item* queue *number* unattached |
| Tree | unattached |
| Notes | The following elements are part of a choice: **sched-class**, **unattached**, or **wrr-group**. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |


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### **wrr-group** *number*

| | |
|---|---|
| Synopsis | WRR group attached to the queue |
| Context | **configure** qos hs-attachment-policy *named-item* queue *number* wrr-group *number* |
| Tree | wrr-group |
| Range | 1 to 2 |
| Notes | The following elements are part of a choice: **sched-class**, **unattached**, or **wrr-group**. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **wrr-group** [wrr-group-id] *number*

| | |
|---|---|
| Synopsis | Enter the **wrr-group** list instance |
| Context | **configure** qos hs-attachment-policy *named-item* wrr-group *number* |
| Tree | wrr-group |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### [**wrr-group-id**] *number*

| | |
|---|---|
| Synopsis | WRR group ID for the HS attachment policy |
| Context | **configure** qos hs-attachment-policy *named-item* wrr-group *number* |
| Tree | wrr-group |
| Range | 1 to 2 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **sched-class** *number*

| | |
|---|---|
| Synopsis | Scheduling class associated with the WRR group |
| Context | **configure** qos hs-attachment-policy *named-item* wrr-group *number* sched-class *number* |
| Tree | sched-class |
| Range | 1 to 6 |
| Notes | The following elements are part of a choice: **sched-class** or **unattached**. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### unattached

| | |
|---|---|
| Synopsis | Do not attach group ID to scheduling class or WRR group |
| Context | **configure** qos hs-attachment-policy *named-item* wrr-group *number* unattached |
| Tree | unattached |
| Notes | The following elements are part of a choice: **sched-class** or **unattached**. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **hs-pool-policy** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **hs-pool-policy** list instance |
| Context | **configure** qos hs-pool-policy *named-item* |
| Tree | hs-pool-policy |
| Max. instances | 63 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | HS pool policy name |
| Context | **configure** qos hs-pool-policy *named-item* |
| Tree | hs-pool-policy |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |


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| | |
|---|---|
| Context | **configure** qos hs-pool-policy *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### mid-tier

| | |
|---|---|
| Synopsis | Enter the **mid-tier** context |
| Context | **configure** qos hs-pool-policy *named-item* mid-tier |
| Tree | mid-tier |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### mid-pool [mid-pool-id] *number*

| | |
|---|---|
| Synopsis | Enter the **mid-pool** list instance |
| Context | **configure** qos hs-pool-policy *named-item* mid-tier mid-pool *number* |
| Tree | mid-pool |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### [mid-pool-id] *number*

| | |
|---|---|
| Synopsis | Mid-pool identifier for the HS pool policy |
| Context | **configure** qos hs-pool-policy *named-item* mid-tier mid-pool *number* |
| Tree | mid-pool |
| Range | 1 to 16 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### allocation-percent *decimal-number*

| | |
|---|---|
| Synopsis | Root pool size to derive the mid-pool size |


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| | |
|---|---|
| Context | **configure** qos hs-pool-policy *named-item* mid-tier mid-pool *number* allocation-percent *decimal-number* |
| Tree | allocation-percent |
| Range | 0.01 to 100.00 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

## parent-root-pool

| | |
|---|---|
| Synopsis | Enter the **parent-root-pool** context |
| Context | **configure** qos hs-pool-policy *named-item* mid-tier mid-pool *number* parent-root-pool |
| Tree | parent-root-pool |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

## none

| | |
|---|---|
| Synopsis | Assign no buffers to the mid-tier pool |
| Context | **configure** qos hs-pool-policy *named-item* mid-tier mid-pool *number* parent-root-pool none |
| Tree | none |
| Notes | The following elements are part of a choice: **none** or **pool-id**. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

## pool-id *reference*

| | |
|---|---|
| Synopsis | Parent root pool to which the mid-pool is associated |
| Context | **configure** qos hs-pool-policy *named-item* mid-tier mid-pool *number* parent-root-pool pool-id *reference* |
| Tree | pool-id |
| Reference | **configure** qos hs-pool-policy *named-item* root-tier root-pool *number* |
| Notes | The following elements are part of a choice: **none** or **pool-id**. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |


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## port-bw-oversubscription-factor *number*

| | |
|---|---|
| Synopsis | Over subscription factor for port-class pool sizes |
| Context | **configure** qos hs-pool-policy *named-item* mid-tier mid-pool *number* port-bw-oversubscription-factor *number* |
| Tree | port-bw-oversubscription-factor |
| Description | This command modifies the size of the mid-pool when calculating the port-class pool sizes based on port bandwidth ratios. The over subscription factor for a mid-pool can be modified at any time, causing the corresponding port-class pool dynamic sizes to be recalculated. A similar behavior can be obtained by increasing the mid-pool's allocation-percent of its parent root-pool. However, the major difference in using this command is that it provides larger port-class pools without allowing the mid-pool to use a higher number of buffers in the root pool. |
| Range | 1 to 10 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

## slope-policy *reference*

| | |
|---|---|
| Synopsis | Slope policy to define high, low, and exceed slopes |
| Context | **configure** qos hs-pool-policy *named-item* mid-tier mid-pool *number* slope-policy *reference* |
| Tree | slope-policy |
| Reference | **configure** qos slope-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

## root-tier

| | |
|---|---|
| Synopsis | Enter the **root-tier** context |
| Context | **configure** qos hs-pool-policy *named-item* root-tier |
| Tree | root-tier |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |


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### **root-pool** [root-pool-id] *number*

| | |
|---|---|
| Synopsis | Enter the **root-pool** list instance |
| Context | **configure** qos hs-pool-policy *named-item* root-tier root-pool *number* |
| Tree | root-pool |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### [**root-pool-id**] *number*

| | |
|---|---|
| Synopsis | Root pool identifier for the HS pool policy |
| Context | **configure** qos hs-pool-policy *named-item* root-tier root-pool *number* |
| Tree | root-pool |
| Range | 1 to 16 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **allocation-weight** *number*

| | |
|---|---|
| Synopsis | Root pool allocation weight used to calculate pool size |
| Context | **configure** qos hs-pool-policy *named-item* root-tier root-pool *number* allocation-weight *number* |
| Tree | allocation-weight |
| Description | This command specifies the weight that is applied to the root pool and is divided by the sum of all root pool weights to derive the pool's buffer allocation factor. The amount of buffers remaining after the system-reserve percentage is applied is multiplied by the buffer allocation factor to derive the pool size.<br>A root pool with an allocation weight set to “0” is considered inactive and is not allocated buffers.<br>When a root pool’s allocation weight is modified, all root pools, mid-tier pools, and port class pool sizes are reevaluated and modified when necessary. |
| Range | 0 to 100 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |


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### **slope-policy** *reference*

| | |
|---|---|
| Synopsis | Slope policy to define high, low, and exceed slopes |
| Context | **configure** qos hs-pool-policy *named-item* root-tier root-pool *number* slope-policy *reference* |
| Tree | slope-policy |
| Reference | **configure** qos slope-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **system-reserve** *decimal-number*

| | |
|---|---|
| Synopsis | Percentage of buffers reserved for internal system use |
| Context | **configure** qos hs-pool-policy *named-item* system-reserve *decimal-number* |
| Tree | system-reserve |
| Range | 1.00 to 30.00 |
| Default | 5.00 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **hs-port-pool-policy** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **hs-port-pool-policy** list instance |
| Context | **configure** qos hs-port-pool-policy *named-item* |
| Tree | hs-port-pool-policy |
| Max. instances | 2047 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | HS port pool policy name |
| Context | **configure** qos hs-port-pool-policy *named-item* |
| Tree | hs-port-pool-policy |
| String length | 1 to 32 |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

## alt-port-class-pools

| | |
|---|---|
| Synopsis | Enter the **alt-port-class-pools** context |
| Context | **configure** qos hs-port-pool-policy *named-item* alt-port-class-pools |
| Tree | alt-port-class-pools |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

## **class-pool** [alt-class-pool-id] *number*

| | |
|---|---|
| Synopsis | Enter the **class-pool** list instance |
| Context | **configure** qos hs-port-pool-policy *named-item* alt-port-class-pools class-pool *number* |
| Tree | class-pool |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

## [**alt-class-pool-id**] *number*

| | |
|---|---|
| Synopsis | Class pool ID |
| Context | **configure** qos hs-port-pool-policy *named-item* alt-port-class-pools class-pool *number* |
| Tree | class-pool |
| Range | 1 to 6 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

## allocation

| | |
|---|---|
| Synopsis | Enter the **allocation** context |
| Context | **configure** qos hs-port-pool-policy *named-item* alt-port-class-pools class-pool *number* allocation |


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| | |
|---|---|
| Tree | allocation |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

## **explicit-percent** *decimal-number*

| | |
|---|---|
| Synopsis | Percentage of parent pool to be allocated |
| Context | **configure** qos hs-port-pool-policy *named-item* alt-port-class-pools class-pool *number* allocation explicit-percent *decimal-number* |
| Tree | explicit-percent |
| Range | 0.01 to 100.00 |
| Notes | The following elements are part of a choice: **explicit-percent** or **port-bw-weight**. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

## **port-bw-weight** *number*

| | |
|---|---|
| Synopsis | Port bandwidth weight to be allocated |
| Context | **configure** qos hs-port-pool-policy *named-item* alt-port-class-pools class-pool *number* allocation port-bw-weight *number* |
| Tree | port-bw-weight |
| Range | 1 to 100 |
| Default | 1 |
| Notes | The following elements are part of a choice: **explicit-percent** or **port-bw-weight**. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

## **parent-mid-pool**

| | |
|---|---|
| Synopsis | Enter the **parent-mid-pool** context |
| Context | **configure** qos hs-port-pool-policy *named-item* alt-port-class-pools class-pool *number* parent-mid-pool |
| Tree | parent-mid-pool |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |


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### none

| | |
|---|---|
| Synopsis | Deactivate the port-class pool; pool size is zero |
| Context | **configure** qos hs-port-pool-policy *named-item* alt-port-class-pools class-pool *number* parent-mid-pool none |
| Tree | none |
| Notes | The following elements are part of a choice: **none** or **pool-id**. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### pool-id *number*

| | |
|---|---|
| Synopsis | Mid-pool ID associated with the port-class pool |
| Context | **configure** qos hs-port-pool-policy *named-item* alt-port-class-pools class-pool *number* parent-mid-pool pool-id *number* |
| Tree | pool-id |
| Range | 1 to 16 |
| Notes | The following elements are part of a choice: **none** or **pool-id**. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### slope-policy *reference*

| | |
|---|---|
| Synopsis | Slope policy to define high, low, and exceed slopes |
| Context | **configure** qos hs-port-pool-policy *named-item* alt-port-class-pools class-pool *number* slope-policy *reference* |
| Tree | slope-policy |
| Reference | **configure** qos slope-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### description *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** qos hs-port-pool-policy *named-item* description *description* |
| Tree | description |


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| | |
|---|---|
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

## std-port-class-pools

| | |
|---|---|
| Synopsis | Enter the **std-port-class-pools** context |
| Context | **configure** qos hs-port-pool-policy *named-item* std-port-class-pools |
| Tree | std-port-class-pools |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

## **class-pool** [std-class-pool-id] *number*

| | |
|---|---|
| Synopsis | Enter the **class-pool** list instance |
| Context | **configure** qos hs-port-pool-policy *named-item* std-port-class-pools class-pool *number* |
| Tree | class-pool |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

## [**std-class-pool-id**] *number*

| | |
|---|---|
| Synopsis | Class pool ID |
| Context | **configure** qos hs-port-pool-policy *named-item* std-port-class-pools class-pool *number* |
| Tree | class-pool |
| Range | 1 to 6 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

## allocation

| | |
|---|---|
| Synopsis | Enter the **allocation** context |
| Context | **configure** qos hs-port-pool-policy *named-item* std-port-class-pools class-pool *number* allocation |


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| | |
|---|---|
| Tree | allocation |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

## **explicit-percent** *decimal-number*

| | |
|---|---|
| Synopsis | Percentage of parent pool to be allocated |
| Context | **configure** qos hs-port-pool-policy *named-item* std-port-class-pools class-pool *number* allocation explicit-percent *decimal-number* |
| Tree | explicit-percent |
| Range | 0.01 to 100.00 |
| Notes | The following elements are part of a choice: **explicit-percent** or **port-bw-weight**. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

## **port-bw-weight** *number*

| | |
|---|---|
| Synopsis | Port bandwidth weight to be allocated |
| Context | **configure** qos hs-port-pool-policy *named-item* std-port-class-pools class-pool *number* allocation port-bw-weight *number* |
| Tree | port-bw-weight |
| Range | 1 to 100 |
| Default | 1 |
| Notes | The following elements are part of a choice: **explicit-percent** or **port-bw-weight**. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

## **parent-mid-pool**

| | |
|---|---|
| Synopsis | Enter the **parent-mid-pool** context |
| Context | **configure** qos hs-port-pool-policy *named-item* std-port-class-pools class-pool *number* parent-mid-pool |
| Tree | parent-mid-pool |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |


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### none

| | |
|---|---|
| Synopsis | Deactivate the port-class pool; pool size is zero |
| Context | **configure** qos hs-port-pool-policy *named-item* std-port-class-pools class-pool *number* parent-mid-pool none |
| Tree | none |
| Notes | The following elements are part of a choice: **none** or **pool-id**. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### pool-id *number*

| | |
|---|---|
| Synopsis | Mid-pool ID associated with the port-class pool |
| Context | **configure** qos hs-port-pool-policy *named-item* std-port-class-pools class-pool *number* parent-mid-pool pool-id *number* |
| Tree | pool-id |
| Range | 1 to 16 |
| Notes | The following elements are part of a choice: **none** or **pool-id**. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### slope-policy *reference*

| | |
|---|---|
| Synopsis | Slope policy to define high, low, and exceed slopes |
| Context | **configure** qos hs-port-pool-policy *named-item* std-port-class-pools class-pool *number* slope-policy *reference* |
| Tree | slope-policy |
| Reference | **configure** qos slope-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### hs-scheduler-policy [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **hs-scheduler-policy** list instance |
| Context | **configure** qos hs-scheduler-policy *named-item* |
| Tree | hs-scheduler-policy |


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| | |
|---|---|
| Max. instances | 127 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | HS scheduler policy name |
| Context | **configure** qos hs-scheduler-policy *named-item* |
| Tree | hs-scheduler-policy |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** qos hs-scheduler-policy *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **group** [group-id] *number*

| | |
|---|---|
| Synopsis | Enter the **group** list instance |
| Context | **configure** qos hs-scheduler-policy *named-item* group *number* |
| Tree | group |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### [**group-id**] *number*

| | |
|---|---|
| Synopsis | Group ID for the HS scheduler policy |


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| | |
|---|---|
| Context | **configure** qos hs-scheduler-policy *named-item* group *number* |
| Tree | group |
| Range | 1 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **rate** *(number | keyword)*

| | |
|---|---|
| Synopsis | Group maximum rate |
| Context | **configure** qos hs-scheduler-policy *named-item* group *number* rate *(number | keyword)* |
| Tree | rate |
| Range | 1 to 100000 |
| Units | megabps |
| Options | max |
| Default | max |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **max-rate** *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum frame-based bandwidth limit for the policy |
| Context | **configure** qos hs-scheduler-policy *named-item* max-rate *(number | keyword)* |
| Tree | max-rate |
| Range | 1 to 100000 |
| Options | max |
| Default | max |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **scheduling-class** [class-id] *number*

| | |
|---|---|
| Synopsis | Enter the **scheduling-class** list instance |
| Context | **configure** qos hs-scheduler-policy *named-item* scheduling-class *number* |
| Tree | scheduling-class |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### [**class-id**] *number*

| | |
|---|---|
| Synopsis | Scheduling class for the HS scheduler policy |
| Context | **configure** qos hs-scheduler-policy *named-item* scheduling-class *number* |
| Tree | scheduling-class |
| Range | 1 to 6 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **group**

| | |
|---|---|
| Synopsis | Enable the **group** context |
| Context | **configure** qos hs-scheduler-policy *named-item* scheduling-class *number* group |
| Tree | group |
| Notes | The following elements are part of a choice: **group** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **group-id** *number*

| | |
|---|---|
| Synopsis | Associated group associated with this scheduling class |
| Context | **configure** qos hs-scheduler-policy *named-item* scheduling-class *number* group group-id *number* |
| Tree | group-id |
| Range | 1 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |


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### **weight** *number*

| | |
|---|---|
| Synopsis | Weight associated with this scheduling class |
| Context | **configure** qos hs-scheduler-policy *named-item* scheduling-class *number* group weight *number* |
| Tree | weight |
| Range | 1 to 127 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **rate** *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum frame-based bandwidth limit |
| Context | **configure** qos hs-scheduler-policy *named-item* scheduling-class *number* rate *(number | keyword)* |
| Tree | rate |
| Range | 1 to 100000 |
| Units | kilobps |
| Options | max |
| Default | max |
| Notes | The following elements are part of a choice: **group** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **hw-agg-shaper-scheduler-policy** [name] *named-item-64*

| | |
|---|---|
| Synopsis | Enter the **hw-agg-shaper-scheduler-policy** list instance |
| Context | **configure** qos hw-agg-shaper-scheduler-policy *named-item-64* |
| Tree | hw-agg-shaper-scheduler-policy |
| Description | Commands in this context configure the attributes of a hardware aggregate shaper scheduler policy. |
| Max. instances | 127 |
| Introduced | 21.7.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |


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### [**name**] *named-item-64*

| | |
|---|---|
| Synopsis | Name of the hardware aggregate shaper scheduler policy |
| Context | **configure** qos hw-agg-shaper-scheduler-policy *named-item-64* |
| Tree | hw-agg-shaper-scheduler-policy |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 21.7.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### **congestion-threshold** *number*

| | |
|---|---|
| Synopsis | Congestion threshold of the scheduler |
| Context | **configure** qos hw-agg-shaper-scheduler-policy *named-item-64* congestion-threshold *number* |
| Tree | congestion-threshold |
| Description | This command configures the congestion threshold for the hardware aggregate shaper scheduler policy, which, if exceeded, triggers the hardware aggregate scheduler algorithm. The value is expressed as a percentage of the scheduler rate. |
| Range | 0 to 100 |
| Default | 90 |
| Introduced | 21.7.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** qos hw-agg-shaper-scheduler-policy *named-item-64* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 21.7.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### **group** [group-name] *named-item*

| | |
|---|---|
| Synopsis | Add a list entry for **group** |


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| | |
|---|---|
| Context | **configure** qos hw-agg-shaper-scheduler-policy *named-item-64* group *named-item* |
| Tree | group |
| Max. instances | 6 |
| Introduced | 21.7.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### [**group-name**] *named-item*

| | |
|---|---|
| Synopsis | Name of the HW aggregate shaper scheduler policy group |
| Context | **configure** qos hw-agg-shaper-scheduler-policy *named-item-64* group *named-item* |
| Tree | group |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 21.7.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### **max-percent-rate** *decimal-number*

| | |
|---|---|
| Synopsis | Maximum frame-based bandwidth percentage |
| Context | **configure** qos hw-agg-shaper-scheduler-policy *named-item-64* max-percent-rate *decimal-number* |
| Tree | max-percent-rate |
| Description | This command configures the rate of the hardware aggregate shaper scheduler expressed as a percentage of the port rate. |
| Range | 0.01 to 100.00 |
| Notes | The following elements are part of a choice: **max-percent-rate** or **max-rate**. |
| Introduced | 21.7.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### **max-rate** *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum frame-based bandwidth limit |
| Context | **configure** qos hw-agg-shaper-scheduler-policy *named-item-64* max-rate *(number | keyword)* |
| Tree | max-rate |


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| | |
|---|---|
| Range | 1 to 6400000000 |
| Units | kilobps |
| Options | max |
| Default | max |
| Notes | The following elements are part of a choice: **max-percent-rate** or **max-rate**. |
| Introduced | 21.7.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### **monitor-threshold** *number*

| | |
|---|---|
| Synopsis | Monitor threshold for the scheduler |
| Context | **configure** qos hw-agg-shaper-scheduler-policy *named-item-64* monitor-threshold *number* |
| Tree | monitor-threshold |
| Description | This command configures the monitor threshold for the hardware aggregate shaper scheduler policy, which is used for egress scheduler monitoring. The value is expressed as a percentage of the scheduler rate, which is considered as a limit for determining congestion. |
| Range | 0 to 100 |
| Default | 0 |
| Introduced | 21.7.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### **sched-class** [class-id] *number*

| | |
|---|---|
| Synopsis | Enter the **sched-class** list instance |
| Context | **configure** qos hw-agg-shaper-scheduler-policy *named-item-64* sched-class *number* |
| Tree | sched-class |
| Introduced | 21.7.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### [**class-id**] *number*

| | |
|---|---|
| Synopsis | Scheduling class ID for the scheduler policy |
| Context | **configure** qos hw-agg-shaper-scheduler-policy *named-item-64* sched-class *number* |
| Tree | sched-class |


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| | |
|---|---|
| Range | 1 to 6 |
| Notes | This element is part of a list key. |
| Introduced | 21.7.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

## **group** *reference*

| | |
|---|---|
| Synopsis | Group associated with the scheduling class |
| Context | **configure** qos hw-agg-shaper-scheduler-policy *named-item-64* sched-class *number* group *reference* |
| Tree | group |
| Description | This command assigns the specified scheduling class to a group within a hardware aggregate shaper scheduler policy. |
| Reference | **configure** qos hw-agg-shaper-scheduler-policy *named-item-64* group *named-item* |
| Introduced | 21.7.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

## **weight** *number*

| | |
|---|---|
| Synopsis | Weight associated with the scheduling class |
| Context | **configure** qos hw-agg-shaper-scheduler-policy *named-item-64* sched-class *number* weight *number* |
| Tree | weight |
| Description | This command configures the weight for a scheduling class within the specified group. |
| Range | 1 to 8 |
| Default | 1 |
| Introduced | 21.7.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

## **match-list**

| | |
|---|---|
| Synopsis | Enter the **match-list** context |
| Context | **configure** qos match-list |
| Tree | match-list |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **ip-prefix-list** [prefix-list-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **ip-prefix-list** list instance |
| Context | **configure** qos match-list ip-prefix-list *named-item* |
| Tree | ip-prefix-list |
| Max. instances | 512 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**prefix-list-name**] *named-item*

| | |
|---|---|
| Synopsis | IP prefix list name |
| Context | **configure** qos match-list ip-prefix-list *named-item* |
| Tree | ip-prefix-list |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R3 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** qos match-list ip-prefix-list *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **prefix** [ip-prefix] *ipv4-prefix*

| | |
|---|---|
| Synopsis | Add a list entry for **prefix** |
| Context | **configure** qos match-list ip-prefix-list *named-item* prefix *ipv4-prefix* |


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| | |
|---|---|
| Tree | prefix |
| Max. instances | 256 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ip-prefix**] *ipv4-prefix*

| | |
|---|---|
| Synopsis | IPv4 address prefix |
| Context | **configure** qos match-list ip-prefix-list *named-item* prefix *ipv4-prefix* |
| Tree | prefix |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R3 |
| Platforms | All |

### **ipv6-prefix-list** [prefix-list-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **ipv6-prefix-list** list instance |
| Context | **configure** qos match-list ipv6-prefix-list *named-item* |
| Tree | ipv6-prefix-list |
| Max. instances | 128 |
| Introduced | 16.0.R4 |
| Platforms | All |

### [**prefix-list-name**] *named-item*

| | |
|---|---|
| Synopsis | IP prefix list name |
| Context | **configure** qos match-list ipv6-prefix-list *named-item* |
| Tree | ipv6-prefix-list |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** qos match-list ipv6-prefix-list *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **prefix** [ipv6-prefix] *ipv6-prefix*

| | |
|---|---|
| Synopsis | Add a list entry for **prefix** |
| Context | **configure** qos match-list ipv6-prefix-list *named-item* prefix *ipv6-prefix* |
| Tree | prefix |
| Max. instances | 128 |
| Introduced | 16.0.R4 |
| Platforms | All |

### [**ipv6-prefix**] *ipv6-prefix*

| | |
|---|---|
| Synopsis | Ipv6 address prefix |
| Context | **configure** qos match-list ipv6-prefix-list *named-item* prefix *ipv6-prefix* |
| Tree | prefix |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **port-list** [port-list-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **port-list** list instance |
| Context | **configure** qos match-list port-list *named-item* |
| Tree | port-list |
| Max. instances | 16 |
| Introduced | 20.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### [**port-list-name**] *named-item*

| | |
|---|---|
| Synopsis | Port list name |
| Context | **configure** qos match-list port-list *named-item* |
| Tree | port-list |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** qos match-list port-list *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **port** [value] *number*

| | |
|---|---|
| Synopsis | Add a list entry for **port** |
| Context | **configure** qos match-list port-list *named-item* port *number* |
| Tree | port |
| Description | Commands in this context specify ports for a port match list. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### [**value**] *number*

| | |
|---|---|
| Synopsis | Port number |
| Context | **configure** qos match-list port-list *named-item* port *number* |
| Tree | port |


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| | |
|---|---|
| Range | 0 to 65535 |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **range** [start] *number* end *number*

| | |
|---|---|
| Synopsis | Add a list entry for **range** |
| Context | **configure** qos match-list port-list *named-item* range *number* end *number* |
| Tree | range |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### [**start**] *number*

| | |
|---|---|
| Synopsis | Lower bound for the port range |
| Context | **configure** qos match-list port-list *named-item* range *number* end *number* |
| Tree | range |
| Range | 0 to 65534 |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **end** *number*

| | |
|---|---|
| Synopsis | Upper bound for the port range |
| Context | **configure** qos match-list port-list *named-item* range *number* end *number* |
| Tree | range |
| Range | 1 to 65535 |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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## md-auto-id

| | |
|---|---|
| Synopsis | Enter the **md-auto-id** context |
| Context | **configure** qos md-auto-id |
| Tree | md-auto-id |
| Introduced | 16.0.R1 |
| Platforms | All |

## qos-policy-id-range

| | |
|---|---|
| Synopsis | Enable the **qos-policy-id-range** context |
| Context | **configure** qos md-auto-id qos-policy-id-range |
| Tree | qos-policy-id-range |
| Introduced | 16.0.R1 |
| Platforms | All |

## **end** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Upper bound of the ID range |
| Context | **configure** qos md-auto-id qos-policy-id-range end *number* |
| Tree | end |
| Range | 2 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **start** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Lower bound of the ID range |


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| | |
|---|---|
| Context | **configure** qos md-auto-id qos-policy-id-range start *number* |
| Tree | start |
| Range | 2 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **network** [network-policy-name] *network-policy-name*

| | |
|---|---|
| Synopsis | Enter the **network** list instance |
| Context | **configure** qos network *network-policy-name* |
| Tree | network |
| Max. instances | 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**network-policy-name**] *network-policy-name*

| | |
|---|---|
| Synopsis | QoS network policy name |
| Context | **configure** qos network *network-policy-name* |
| Tree | network |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** qos network *network-policy-name* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### egress

| | |
|---|---|
| Synopsis | Enter the **egress** context |
| Context | **configure** qos network *network-policy-name* egress |
| Tree | egress |
| Introduced | 16.0.R1 |
| Platforms | All |

### **dscp** [dscp-name] *keyword*

| | |
|---|---|
| Synopsis | Enter the **dscp** list instance |
| Context | **configure** qos network *network-policy-name* egress dscp *keyword* |
| Tree | dscp |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**dscp-name**] *keyword*

| | |
|---|---|
| Synopsis | DSCP name to perform reclassification actions |
| Context | **configure** qos network *network-policy-name* egress dscp *keyword* |
| Tree | dscp |
| Options | be, cp1, cp2, cp3, cp4, cp5, cp6, cp7, cs1, cp9, af11, cp11, af12, cp13, af13, cp15, cs2, cp17, af21, cp19, af22, cp21, af23, cp23, cs3, cp25, af31, cp27, af32, cp29, af33, cp31, cs4, cp33, af41, cp35, af42, cp37, af43, cp39, cs5, cp41, cp42, cp43, cp44, cp45, ef, cp47, nc1, cp49, cp50, cp51, cp52, cp53, cp54, cp55, nc2, cp57, cp58, cp59, cp60, cp61, cp62, cp63 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **fc** *keyword*

| | |
|---|---|
| Synopsis | Forwarding class |
| Context | **configure** qos network *network-policy-name* egress dscp *keyword* fc *keyword* |
| Tree | fc |
| Options | be – Best effort<br>l2 – Low 2 (best effort) |


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| | |
|---|---|
| | af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority)<br>ef – Expedited forwarding (high priority)<br>h1 – High 1 (high priority)<br>nc – Network control (high priority) |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **profile** *keyword*

| | |
|---|---|
| Synopsis | Default profile to use for the ingressing traffic |
| Context | **configure** qos network *network-policy-name* egress dscp *keyword* profile *keyword* |
| Tree | profile |
| Options | in, out, exceed, inplus |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **fc** [fc-name] *keyword*

| | |
|---|---|
| Synopsis | Enter the **fc** list instance |
| Context | **configure** qos network *network-policy-name* egress fc *keyword* |
| Tree | fc |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**fc-name**] *keyword*

| | |
|---|---|
| Synopsis | Forwarding class name |
| Context | **configure** qos network *network-policy-name* egress fc *keyword* |
| Tree | fc |
| Options | be – Best effort<br>l2 – Low 2 (best effort)<br>af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority) |


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| | |
|---|---|
| | ef – Expedited forwarding (high priority)<br>h1 – High 1 (high priority)<br>nc – Network control (high priority) |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## de-mark

| | |
|---|---|
| Synopsis | Enable the **de-mark** context |
| Context | **configure** qos network *network-policy-name* egress fc *keyword* de-mark |
| Tree | de-mark |
| Introduced | 16.0.R1 |
| Platforms | All |

## force *number*

| | |
|---|---|
| Synopsis | DE value |
| Context | **configure** qos network *network-policy-name* egress fc *keyword* de-mark force *number* |
| Tree | force |
| Range | 0 to 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

## dot1p-in-profile *number*

| | |
|---|---|
| Synopsis | Dot1p marking for in-profile marking |
| Context | **configure** qos network *network-policy-name* egress fc *keyword* dot1p-in-profile *number* |
| Tree | dot1p-in-profile |
| Range | 0 to 7 |
| Introduced | 16.0.R1 |
| Platforms | All |

## dot1p-out-profile *number*

| | |
|---|---|
| Synopsis | Dot1p marking for out-of-profile marking |


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| | |
|---|---|
| Context | **configure** qos network *network-policy-name* egress fc *keyword* dot1p-out-profile *number* |
| Tree | dot1p-out-profile |
| Range | 0 to 7 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **dscp-in-profile** *keyword*

| | |
|---|---|
| Synopsis | DSCP marking for in-profile marking |
| Context | **configure** qos network *network-policy-name* egress fc *keyword* dscp-in-profile *keyword* |
| Tree | dscp-in-profile |
| Options | be, cp1, cp2, cp3, cp4, cp5, cp6, cp7, cs1, cp9, af11, cp11, af12, cp13, af13, cp15, cs2, cp17, af21, cp19, af22, cp21, af23, cp23, cs3, cp25, af31, cp27, af32, cp29, af33, cp31, cs4, cp33, af41, cp35, af42, cp37, af43, cp39, cs5, cp41, cp42, cp43, cp44, cp45, ef, cp47, nc1, cp49, cp50, cp51, cp52, cp53, cp54, cp55, nc2, cp57, cp58, cp59, cp60, cp61, cp62, cp63 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **dscp-out-profile** *keyword*

| | |
|---|---|
| Synopsis | DSCP marking for out-of-profile marking |
| Context | **configure** qos network *network-policy-name* egress fc *keyword* dscp-out-profile *keyword* |
| Tree | dscp-out-profile |
| Options | be, cp1, cp2, cp3, cp4, cp5, cp6, cp7, cs1, cp9, af11, cp11, af12, cp13, af13, cp15, cs2, cp17, af21, cp19, af22, cp21, af23, cp23, cs3, cp25, af31, cp27, af32, cp29, af33, cp31, cs4, cp33, af41, cp35, af42, cp37, af43, cp39, cs5, cp41, cp42, cp43, cp44, cp45, ef, cp47, nc1, cp49, cp50, cp51, cp52, cp53, cp54, cp55, nc2, cp57, cp58, cp59, cp60, cp61, cp62, cp63 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **lsp-exp-in-profile** *number*

| | |
|---|---|
| Synopsis | LSP-EXP marking for in-profile marking |
| Context | **configure** qos network *network-policy-name* egress fc *keyword* lsp-exp-in-profile *number* |


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| | |
|---|---|
| Tree | lsp-exp-in-profile |
| Range | 0 to 7 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lsp-exp-out-profile** *number*

| | |
|---|---|
| Synopsis | LSP-EXP marking for out-of-profile marking |
| Context | **configure** qos network *network-policy-name* egress fc *keyword* lsp-exp-out-profile *number* |
| Tree | lsp-exp-out-profile |
| Range | 0 to 7 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **port-redirect-group**

| | |
|---|---|
| Synopsis | Enter the **port-redirect-group** context |
| Context | **configure** qos network *network-policy-name* egress fc *keyword* port-redirect-group |
| Tree | port-redirect-group |
| Introduced | 16.0.R1 |
| Platforms | All |

### **policer** *number*

| | |
|---|---|
| Synopsis | Policer to be used |
| Context | **configure** qos network *network-policy-name* egress fc *keyword* port-redirect-group policer *number* |
| Tree | policer |
| Range | 1 to 16 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **queue** *number*

| | |
|---|---|
| Synopsis | Queue to be used |


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| | |
|---|---|
| Context | **configure** qos network *network-policy-name* egress fc *keyword* port-redirect-group queue *number* |
| Tree | queue |
| Range | 1 to 8 |
| Introduced | 16.0.R1 |
| Platforms | All |

## ip-criteria

| | |
|---|---|
| Synopsis | Enter the **ip-criteria** context |
| Context | **configure** qos network *network-policy-name* egress ip-criteria |
| Tree | ip-criteria |
| Introduced | 16.0.R1 |
| Platforms | All |

## **entry** [entry-id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** qos network *network-policy-name* egress ip-criteria entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**entry-id**] *number*

| | |
|---|---|
| Synopsis | Entry ID for match criterion and corresponding action |
| Context | **configure** qos network *network-policy-name* egress ip-criteria entry *number* |
| Tree | entry |
| Description | This command uniquely identifies a match criterion and the corresponding action.<br>Nokia recommends that multiple entries be given entry IDs in staggered increments. This allows users to insert a new entry in an existing policy without requiring renumbering all of the existing entries. |
| Range | 1 to 65535 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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## action

| | |
|---|---|
| Synopsis | Enter the **action** context |
| Context | **configure** qos network *network-policy-name* egress ip-criteria entry *number* action |
| Tree | action |
| Introduced | 16.0.R1 |
| Platforms | All |

## fc *keyword*

| | |
|---|---|
| Synopsis | Forwarding class |
| Context | **configure** qos network *network-policy-name* egress ip-criteria entry *number* action fc *keyword* |
| Tree | fc |
| Options | be – Best effort<br>l2 – Low 2 (best effort)<br>af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority)<br>ef – Expedited forwarding (high priority)<br>h1 – High 1 (high priority)<br>nc – Network control (high priority) |
| Introduced | 16.0.R1 |
| Platforms | All |

## port-redirect-group

| | |
|---|---|
| Synopsis | Enter the **port-redirect-group** context |
| Context | **configure** qos network *network-policy-name* egress ip-criteria entry *number* action port-redirect-group |
| Tree | port-redirect-group |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## policer *number*

| | |
|---|---|
| Synopsis | Policer ID to be used for the matched traffic |


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| | |
|---|---|
| Context | **configure** qos network *network-policy-name* egress ip-criteria entry *number* action port-redirect-group policer *number* |
| Tree | policer |
| Range | 1 to 16 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **queue** *number*

| | |
|---|---|
| Synopsis | Queue to be used for post-policed traffic |
| Context | **configure** qos network *network-policy-name* egress ip-criteria entry *number* action port-redirect-group queue *number* |
| Tree | queue |
| Range | 1 to 8 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **profile** *keyword*

| | |
|---|---|
| Synopsis | Profile reclassification action |
| Context | **configure** qos network *network-policy-name* egress ip-criteria entry *number* action profile *keyword* |
| Tree | profile |
| Options | in, out, exceed, inplus |
| Introduced | 16.0.R1 |
| Platforms | All |

### **type** *keyword*

| | |
|---|---|
| Synopsis | Action for criteria entry |
| Context | **configure** qos network *network-policy-name* egress ip-criteria entry *number* action type *keyword* |
| Tree | type |
| Options | ignore-match, accept |
| Default | ignore-match |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** qos network *network-policy-name* egress ip-criteria entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **match**

| | |
|---|---|
| Synopsis | Enter the **match** context |
| Context | **configure** qos network *network-policy-name* egress ip-criteria entry *number* match |
| Tree | match |
| Introduced | 16.0.R1 |
| Platforms | All |

### **dscp** *keyword*

| | |
|---|---|
| Synopsis | DSCP value to match in the packet |
| Context | **configure** qos network *network-policy-name* egress ip-criteria entry *number* match dscp *keyword* |
| Tree | dscp |
| Options | be, cp1, cp2, cp3, cp4, cp5, cp6, cp7, cs1, cp9, af11, cp11, af12, cp13, af13, cp15, cs2, cp17, af21, cp19, af22, cp21, af23, cp23, cs3, cp25, af31, cp27, af32, cp29, af33, cp31, cs4, cp33, af41, cp35, af42, cp37, af43, cp39, cs5, cp41, cp42, cp43, cp44, cp45, ef, cp47, nc1, cp49, cp50, cp51, cp52, cp53, cp54, cp55, nc2, cp57, cp58, cp59, cp60, cp61, cp62, cp63 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **dst-ip**

| | |
|---|---|
| Synopsis | Enter the **dst-ip** context |


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| | |
|---|---|
| Context | **configure** qos network *network-policy-name* egress ip-criteria entry *number* match dst-ip |
| Tree | dst-ip |
| Introduced | 16.0.R1 |
| Platforms | All |

## **address** *(ipv4-prefix-with-host-bits | ipv4-address)*

| | |
|---|---|
| Synopsis | Destination IPv4 address to match |
| Context | **configure** qos network *network-policy-name* egress ip-criteria entry *number* match dst-ip address *(ipv4-prefix-with-host-bits | ipv4-address)* |
| Tree | address |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ip-prefix-list**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **ip-prefix-list** *reference*

| | |
|---|---|
| Synopsis | IP prefix list as the match criterion |
| Context | **configure** qos network *network-policy-name* egress ip-criteria entry *number* match dst-ip ip-prefix-list *reference* |
| Tree | ip-prefix-list |
| Description | This command specifies an IP prefix list used as a match criterion for an IP address. |
| Reference | **configure** qos match-list ip-prefix-list *named-item* |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ip-prefix-list**. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **mask** *ipv4-address*

| | |
|---|---|
| Synopsis | Subnet mask |
| Context | **configure** qos network *network-policy-name* egress ip-criteria entry *number* match dst-ip mask *ipv4-address* |
| Tree | mask |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ip-prefix-list**. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## dst-port

| | |
|---|---|
| Synopsis | Enter the **dst-port** context |
| Context | **configure** qos network *network-policy-name* egress ip-criteria entry *number* match dst-port |
| Tree | dst-port |
| Introduced | 16.0.R1 |
| Platforms | All |

## eq *number*

| | |
|---|---|
| Synopsis | Value 'equal to' assigned as match condition |
| Context | **configure** qos network *network-policy-name* egress ip-criteria entry *number* match dst-port eq *number* |
| Tree | eq |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## gt *number*

| | |
|---|---|
| Synopsis | Value 'greater than' assigned as match condition |
| Context | **configure** qos network *network-policy-name* egress ip-criteria entry *number* match dst-port gt *number* |
| Tree | gt |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## lt *number*

| | |
|---|---|
| Synopsis | Value 'less than' assigned as match condition |


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| | |
|---|---|
| Context | **configure** qos network *network-policy-name* egress ip-criteria entry *number* match dst-port lt *number* |
| Tree | lt |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **port-list** *reference*

| | |
|---|---|
| Synopsis | Name of the port list as the match criterion |
| Context | **configure** qos network *network-policy-name* egress ip-criteria entry *number* match dst-port port-list *reference* |
| Tree | port-list |
| Reference | **configure** qos match-list port-list *named-item* |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **range**

| | |
|---|---|
| Synopsis | Enter the **range** context |
| Context | **configure** qos network *network-policy-name* egress ip-criteria entry *number* match dst-port range |
| Tree | range |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of port range to match |
| Context | **configure** qos network *network-policy-name* egress ip-criteria entry *number* match dst-port range end *number* |
| Tree | end |
| Range | 0 to 65535 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of port range to match |
| Context | **configure** qos network *network-policy-name* egress ip-criteria entry *number* match dst-port range start *number* |
| Tree | start |
| Range | 0 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **fragment** *keyword*

| | |
|---|---|
| Synopsis | Fragmentation state as the match criterion |
| Context | **configure** qos network *network-policy-name* egress ip-criteria entry *number* match fragment *keyword* |
| Tree | fragment |
| Description | This command configures fragmented or non-fragmented IP packets as a network QoS policy match criterion.<br>When unconfigured, all packets match regardless of whether they are fragmented. |
| Options | false, true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **icmp-type** *number*

| | |
|---|---|
| Synopsis | ICMP type in the ICMP header of IPv4 packet to match |
| Context | **configure** qos network *network-policy-name* egress ip-criteria entry *number* match icmp-type *number* |
| Tree | icmp-type |
| Description | This command configures matching on the ICMP type field in the ICMP header of an IPv4 packet as a network QoS match criterion.<br>An entry containing Layer 4 non-zero match criteria does not match non-initial (second, third, and so on) fragments of a fragmented packet because only the first fragment contains the Layer 4 information. Similarly, an entry containing a match criteria of zero |


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may not match non-initial fragments when the Layer 4 header is not present in a packet fragment and other match criteria are also met.

| | |
|---|---|
| Range | 0 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **protocol** *(number | keyword)*

| | |
|---|---|
| Synopsis | IP protocol to match |
| Context | **configure** qos network *network-policy-name* egress ip-criteria entry *number* match protocol *(number | keyword)* |
| Tree | protocol |
| Range | 0 to 255 |
| Options | tcp-udp, icmp, igmp, ip, tcp, egp, igp, udp, rdp, ipv6, ipv6-route, ipv6-frag, idrp, rsvp, gre, ipv6-icmp, ipv6-no-nxt, ipv6-opts, iso-ip, eigrp, ospf-igp, ether-ip, encap, pnni, pim, vrrp, l2tp, stp, ptp, isis, crtp, crudp, sctp |
| Introduced | 16.0.R1 |
| Platforms | All |

## **src-ip**

| | |
|---|---|
| Synopsis | Enter the **src-ip** context |
| Context | **configure** qos network *network-policy-name* egress ip-criteria entry *number* match src-ip |
| Tree | src-ip |
| Introduced | 16.0.R1 |
| Platforms | All |

## **address** *(ipv4-prefix-with-host-bits | ipv4-address)*

| | |
|---|---|
| Synopsis | Source IPv4 address to match |
| Context | **configure** qos network *network-policy-name* egress ip-criteria entry *number* match src-ip address *(ipv4-prefix-with-host-bits | ipv4-address)* |
| Tree | address |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ip-prefix-list**. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **ip-prefix-list** *reference*

| | |
|---|---|
| Synopsis | IP prefix list as the match criterion |
| Context | **configure** qos network *network-policy-name* egress ip-criteria entry *number* match src-ip ip-prefix-list *reference* |
| Tree | ip-prefix-list |
| Description | This command specifies an IP prefix list used as a match criterion for an IP address. |
| Reference | **configure** qos match-list ip-prefix-list *named-item* |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ip-prefix-list**. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **mask** *ipv4-address*

| | |
|---|---|
| Synopsis | Subnet mask |
| Context | **configure** qos network *network-policy-name* egress ip-criteria entry *number* match src-ip mask *ipv4-address* |
| Tree | mask |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ip-prefix-list**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **src-port**

| | |
|---|---|
| Synopsis | Enter the **src-port** context |
| Context | **configure** qos network *network-policy-name* egress ip-criteria entry *number* match src-port |
| Tree | src-port |
| Introduced | 16.0.R1 |
| Platforms | All |

### **eq** *number*

| | |
|---|---|
| Synopsis | Value 'equal to' assigned as match condition |
| Context | **configure** qos network *network-policy-name* egress ip-criteria entry *number* match src-port eq *number* |


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| | |
|---|---|
| Tree | eq |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **gt** *number*

| | |
|---|---|
| Synopsis | Value 'greater than' assigned as match condition |
| Context | **configure** qos network *network-policy-name* egress ip-criteria entry *number* match src-port gt *number* |
| Tree | gt |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lt** *number*

| | |
|---|---|
| Synopsis | Value 'less than' assigned as match condition |
| Context | **configure** qos network *network-policy-name* egress ip-criteria entry *number* match src-port lt *number* |
| Tree | lt |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **port-list** *reference*

| | |
|---|---|
| Synopsis | Name of the port list as the match criterion |
| Context | **configure** qos network *network-policy-name* egress ip-criteria entry *number* match src-port port-list *reference* |
| Tree | port-list |
| Reference | **configure** qos match-list port-list *named-item* |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## range

| | |
|---|---|
| Synopsis | Enter the **range** context |
| Context | **configure** qos network *network-policy-name* egress ip-criteria entry *number* match src-port range |
| Tree | range |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## end *number*

| | |
|---|---|
| Synopsis | Upper bound of port range to match |
| Context | **configure** qos network *network-policy-name* egress ip-criteria entry *number* match src-port range end *number* |
| Tree | end |
| Range | 0 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

## start *number*

| | |
|---|---|
| Synopsis | Lower bound of port range to match |
| Context | **configure** qos network *network-policy-name* egress ip-criteria entry *number* match src-port range start *number* |
| Tree | start |
| Range | 0 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |


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## ipv6-criteria

| | |
|---|---|
| Synopsis | Enter the **ipv6-criteria** context |
| Context | **configure** qos network *network-policy-name* egress ipv6-criteria |
| Tree | ipv6-criteria |
| Introduced | 16.0.R1 |
| Platforms | All |

## **entry** [entry-id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** qos network *network-policy-name* egress ipv6-criteria entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**entry-id**] *number*

| | |
|---|---|
| Synopsis | Entry ID for match criterion and corresponding action |
| Context | **configure** qos network *network-policy-name* egress ipv6-criteria entry *number* |
| Tree | entry |
| Description | This command uniquely identifies a match criterion and the corresponding action.<br>Nokia recommends that multiple entries be given entry IDs in staggered increments. This allows users to insert a new entry in an existing policy without requiring renumbering all of the existing entries. |
| Range | 1 to 65535 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## action

| | |
|---|---|
| Synopsis | Enter the **action** context |
| Context | **configure** qos network *network-policy-name* egress ipv6-criteria entry *number* action |
| Tree | action |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## **fc** *keyword*

| | |
|---|---|
| Synopsis | Forwarding class |
| Context | **configure** qos network *network-policy-name* egress ipv6-criteria entry *number* action fc *keyword* |
| Tree | fc |
| Options | be – Best effort<br>l2 – Low 2 (best effort)<br>af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority)<br>ef – Expedited forwarding (high priority)<br>h1 – High 1 (high priority)<br>nc – Network control (high priority) |
| Introduced | 16.0.R1 |
| Platforms | All |

## **port-redirect-group**

| | |
|---|---|
| Synopsis | Enter the **port-redirect-group** context |
| Context | **configure** qos network *network-policy-name* egress ipv6-criteria entry *number* action port-redirect-group |
| Tree | port-redirect-group |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## **policer** *number*

| | |
|---|---|
| Synopsis | Policer ID to be used for the matched traffic |
| Context | **configure** qos network *network-policy-name* egress ipv6-criteria entry *number* action port-redirect-group policer *number* |
| Tree | policer |
| Range | 1 to 16 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |


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### **queue** *number*

| | |
|---|---|
| Synopsis | Queue to be used for post-policed traffic |
| Context | **configure** qos network *network-policy-name* egress ipv6-criteria entry *number* action port-redirect-group queue *number* |
| Tree | queue |
| Range | 1 to 8 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **profile** *keyword*

| | |
|---|---|
| Synopsis | Profile reclassification action |
| Context | **configure** qos network *network-policy-name* egress ipv6-criteria entry *number* action profile *keyword* |
| Tree | profile |
| Options | in, out, exceed, inplus |
| Introduced | 16.0.R1 |
| Platforms | All |

### **type** *keyword*

| | |
|---|---|
| Synopsis | Action for criteria entry |
| Context | **configure** qos network *network-policy-name* egress ipv6-criteria entry *number* action type *keyword* |
| Tree | type |
| Options | ignore-match, accept |
| Default | ignore-match |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** qos network *network-policy-name* egress ipv6-criteria entry *number* description *description* |


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| | |
|---|---|
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

## match

| | |
|---|---|
| Synopsis | Enter the **match** context |
| Context | **configure** qos network *network-policy-name* egress ipv6-criteria entry *number* match |
| Tree | match |
| Introduced | 16.0.R1 |
| Platforms | All |

## dscp *keyword*

| | |
|---|---|
| Synopsis | DSCP value to match in the packet |
| Context | **configure** qos network *network-policy-name* egress ipv6-criteria entry *number* match dscp *keyword* |
| Tree | dscp |
| Options | be, cp1, cp2, cp3, cp4, cp5, cp6, cp7, cs1, cp9, af11, cp11, af12, cp13, af13, cp15, cs2, cp17, af21, cp19, af22, cp21, af23, cp23, cs3, cp25, af31, cp27, af32, cp29, af33, cp31, cs4, cp33, af41, cp35, af42, cp37, af43, cp39, cs5, cp41, cp42, cp43, cp44, cp45, ef, cp47, nc1, cp49, cp50, cp51, cp52, cp53, cp54, cp55, nc2, cp57, cp58, cp59, cp60, cp61, cp62, cp63 |
| Introduced | 16.0.R1 |
| Platforms | All |

## dst-ip

| | |
|---|---|
| Synopsis | Enter the **dst-ip** context |
| Context | **configure** qos network *network-policy-name* egress ipv6-criteria entry *number* match dst-ip |
| Tree | dst-ip |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **address** *(ipv6-prefix-with-host-bits | ipv6-address)*

| | |
|---|---|
| Synopsis | Destination IPv6 address to match |
| Context | **configure** qos network *network-policy-name* egress ipv6-criteria entry *number* match dst-ip address *(ipv6-prefix-with-host-bits | ipv6-address)* |
| Tree | address |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ipv6-prefix-list**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv6-prefix-list** *reference*

| | |
|---|---|
| Synopsis | IPv6 prefix list as the match criterion |
| Context | **configure** qos network *network-policy-name* egress ipv6-criteria entry *number* match dst-ip ipv6-prefix-list *reference* |
| Tree | ipv6-prefix-list |
| Description | This command specifies an IPv6 prefix list used as a match criterion for an IP address. |
| Reference | **configure** qos match-list ipv6-prefix-list *named-item* |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ipv6-prefix-list**. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **mask** *ipv6-address*

| | |
|---|---|
| Synopsis | Address mask |
| Context | **configure** qos network *network-policy-name* egress ipv6-criteria entry *number* match dst-ip mask *ipv6-address* |
| Tree | mask |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ipv6-prefix-list**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **dst-port**

| | |
|---|---|
| Synopsis | Enter the **dst-port** context |


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| | |
|---|---|
| Context | **configure** qos network *network-policy-name* egress ipv6-criteria entry *number* match dst-port |
| Tree | dst-port |
| Introduced | 16.0.R1 |
| Platforms | All |

## **eq** *number*

| | |
|---|---|
| Synopsis | Value 'equal to' assigned as match condition |
| Context | **configure** qos network *network-policy-name* egress ipv6-criteria entry *number* match dst-port eq *number* |
| Tree | eq |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **gt** *number*

| | |
|---|---|
| Synopsis | Value 'greater than' assigned as match condition |
| Context | **configure** qos network *network-policy-name* egress ipv6-criteria entry *number* match dst-port gt *number* |
| Tree | gt |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **lt** *number*

| | |
|---|---|
| Synopsis | Value 'less than' assigned as match condition |
| Context | **configure** qos network *network-policy-name* egress ipv6-criteria entry *number* match dst-port lt *number* |
| Tree | lt |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## **port-list** *reference*

| | |
|---|---|
| Synopsis | Name of the port list as the match criterion |
| Context | **configure** qos network *network-policy-name* egress ipv6-criteria entry *number* match dst-port port-list *reference* |
| Tree | port-list |
| Reference | **configure** qos match-list port-list *named-item* |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **range**

| | |
|---|---|
| Synopsis | Enter the **range** context |
| Context | **configure** qos network *network-policy-name* egress ipv6-criteria entry *number* match dst-port range |
| Tree | range |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of port range to match |
| Context | **configure** qos network *network-policy-name* egress ipv6-criteria entry *number* match dst-port range end *number* |
| Tree | end |
| Range | 0 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of port range to match |
| Context | **configure** qos network *network-policy-name* egress ipv6-criteria entry *number* match dst-port range start *number* |
| Tree | start |
| Range | 0 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **fragment** *keyword*

| | |
|---|---|
| Synopsis | Fragmentation state as the match criterion |
| Context | **configure** qos network *network-policy-name* egress ipv6-criteria entry *number* match fragment *keyword* |
| Tree | fragment |
| Description | This command configures fragmented or non-fragmented IPv6 packets as a network QoS policy match criterion.<br>When unconfigured, all packets match regardless of whether they are fragmented. |
| Options | false, true, first-only, non-first-only |
| Introduced | 16.0.R1 |
| Platforms | All |

### **icmp-type** *number*

| | |
|---|---|
| Synopsis | ICMPv6 type in ICMPv6 header of IPv6 packet to match |
| Context | **configure** qos network *network-policy-name* egress ipv6-criteria entry *number* match icmp-type *number* |
| Tree | icmp-type |
| Description | This command configures matching on the ICMPv6 type field in the ICMPv6 header of an IPv6 packet as a network QoS match criterion.<br>An entry containing Layer 4 non-zero match criteria does not match non-initial (second, third, and so on) fragments of a fragmented packet because only the first fragment contains the Layer 4 information. Similarly, an entry containing a match criteria of zero may not match non-initial fragments when the Layer 4 header is not present in a packet fragment and other match criteria are also met. |
| Range | 0 to 255 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **next-header** *(number | keyword)*

| | |
|---|---|
| Synopsis | IP protocol to match |
| Context | **configure** qos network *network-policy-name* egress ipv6-criteria entry *number* match next-header *(number | keyword)* |
| Tree | next-header |
| Range | 0 to 255 |
| Options | tcp-udp, icmp, igmp, ip, tcp, egp, igp, udp, rdp, ipv6, ipv6-route, ipv6-frag, idrp, rsvp, gre, ipv6-icmp, ipv6-no-nxt, ipv6-opts, iso-ip, eigrp, ospf-igp, ether-ip, encap, pnni, pim, vrrp, l2tp, stp, ptp, isis, crtp, crudp, sctp |
| Introduced | 16.0.R1 |
| Platforms | All |

### **src-ip**

| | |
|---|---|
| Synopsis | Enter the **src-ip** context |
| Context | **configure** qos network *network-policy-name* egress ipv6-criteria entry *number* match src-ip |
| Tree | src-ip |
| Introduced | 16.0.R1 |
| Platforms | All |

### **address** *(ipv6-prefix-with-host-bits | ipv6-address)*

| | |
|---|---|
| Synopsis | Source IPv6 address to match |
| Context | **configure** qos network *network-policy-name* egress ipv6-criteria entry *number* match src-ip address *(ipv6-prefix-with-host-bits | ipv6-address)* |
| Tree | address |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ipv6-prefix-list**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv6-prefix-list** *reference*

| | |
|---|---|
| Synopsis | IPv6 prefix list as the match criterion |


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| | |
|---|---|
| Context | **configure** qos network *network-policy-name* egress ipv6-criteria entry *number* match src-ip ipv6-prefix-list *reference* |
| Tree | ipv6-prefix-list |
| Description | This command specifies an IPv6 prefix list used as a match criterion for an IP address. |
| Reference | **configure** qos match-list ipv6-prefix-list *named-item* |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ipv6-prefix-list**. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **mask** *ipv6-address*

| | |
|---|---|
| Synopsis | Address mask |
| Context | **configure** qos network *network-policy-name* egress ipv6-criteria entry *number* match src-ip mask *ipv6-address* |
| Tree | mask |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ipv6-prefix-list**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **src-port**

| | |
|---|---|
| Synopsis | Enter the **src-port** context |
| Context | **configure** qos network *network-policy-name* egress ipv6-criteria entry *number* match src-port |
| Tree | src-port |
| Introduced | 16.0.R1 |
| Platforms | All |

## **eq** *number*

| | |
|---|---|
| Synopsis | Value 'equal to' assigned as match condition |
| Context | **configure** qos network *network-policy-name* egress ipv6-criteria entry *number* match src-port eq *number* |
| Tree | eq |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **gt** *number*

| | |
|---|---|
| Synopsis | Value 'greater than' assigned as match condition |
| Context | **configure** qos network *network-policy-name* egress ipv6-criteria entry *number* match src-port gt *number* |
| Tree | gt |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lt** *number*

| | |
|---|---|
| Synopsis | Value 'less than' assigned as match condition |
| Context | **configure** qos network *network-policy-name* egress ipv6-criteria entry *number* match src-port lt *number* |
| Tree | lt |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **port-list** *reference*

| | |
|---|---|
| Synopsis | Name of the port list as the match criterion |
| Context | **configure** qos network *network-policy-name* egress ipv6-criteria entry *number* match src-port port-list *reference* |
| Tree | port-list |
| Reference | **configure** qos match-list port-list *named-item* |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### range

| | |
|---|---|
| Synopsis | Enter the **range** context |
| Context | **configure** qos network *network-policy-name* egress ipv6-criteria entry *number* match src-port range |
| Tree | range |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### end *number*

| | |
|---|---|
| Synopsis | Upper bound of port range to match |
| Context | **configure** qos network *network-policy-name* egress ipv6-criteria entry *number* match src-port range end *number* |
| Tree | end |
| Range | 0 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

### start *number*

| | |
|---|---|
| Synopsis | Lower bound of port range to match |
| Context | **configure** qos network *network-policy-name* egress ipv6-criteria entry *number* match src-port range start *number* |
| Tree | start |
| Range | 0 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

### prec [prec-value] *number*

| | |
|---|---|
| Synopsis | Enter the **prec** list instance |
| Context | **configure** qos network *network-policy-name* egress prec *number* |
| Tree | prec |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### [**prec-value**] *number*

| | |
|---|---|
| Synopsis | Precedence value for which mapping is performed |
| Context | **configure** qos network *network-policy-name* egress prec *number* |
| Tree | prec |
| Range | 0 to 7 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **fc** *keyword*

| | |
|---|---|
| Synopsis | Forwarding class |
| Context | **configure** qos network *network-policy-name* egress prec *number* fc *keyword* |
| Tree | fc |
| Options | be – Best effort<br>l2 – Low 2 (best effort)<br>af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority)<br>ef – Expedited forwarding (high priority)<br>h1 – High 1 (high priority)<br>nc – Network control (high priority) |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **profile** *keyword*

| | |
|---|---|
| Synopsis | Default profile to use for the ingressing traffic |
| Context | **configure** qos network *network-policy-name* egress prec *number* profile *keyword* |
| Tree | profile |
| Options | in, out, exceed, inplus |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## remark-trusted

| | |
|---|---|
| Synopsis | Enable the **remark-trusted** context |
| Context | **configure** qos network *network-policy-name* egress remark-trusted |
| Tree | remark-trusted |
| Introduced | 16.0.R1 |
| Platforms | All |

## force-egress-marking *boolean*

| | |
|---|---|
| Synopsis | Remark DSCP bits in the internal IP header |
| Context | **configure** qos network *network-policy-name* egress remark-trusted force-egress-marking *boolean* |
| Tree | force-egress-marking |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## ingress

| | |
|---|---|
| Synopsis | Enter the **ingress** context |
| Context | **configure** qos network *network-policy-name* ingress |
| Tree | ingress |
| Introduced | 16.0.R1 |
| Platforms | All |

## default-action

| | |
|---|---|
| Synopsis | Enter the **default-action** context |
| Context | **configure** qos network *network-policy-name* ingress default-action |
| Tree | default-action |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **fc** *keyword*

| | |
|---|---|
| Synopsis | Forwarding class used when classifying ingress traffic |
| Context | **configure** qos network *network-policy-name* ingress default-action fc *keyword* |
| Tree | fc |
| Options | be – Best effort<br>l2 – Low 2 (best effort)<br>af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority)<br>ef – Expedited forwarding (high priority)<br>h1 – High 1 (high priority)<br>nc – Network control (high priority) |
| Default | be |
| Introduced | 16.0.R1 |
| Platforms | All |

### **profile** *keyword*

| | |
|---|---|
| Synopsis | Default profile for the ingressing traffic |
| Context | **configure** qos network *network-policy-name* ingress default-action profile *keyword* |
| Tree | profile |
| Options | in, out, exceed, inplus |
| Default | out |
| Introduced | 16.0.R1 |
| Platforms | All |

### **dot1p** [dot1p-value] *number*

| | |
|---|---|
| Synopsis | Enter the **dot1p** list instance |
| Context | **configure** qos network *network-policy-name* ingress dot1p *number* |
| Tree | dot1p |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**dot1p-value**] *number*

| | |
|---|---|
| Synopsis | Dot1p value to match in the packet |
| Context | **configure** qos network *network-policy-name* ingress dot1p *number* |
| Tree | dot1p |
| Range | 0 to 7 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **fc** *keyword*

| | |
|---|---|
| Synopsis | Forwarding class |
| Context | **configure** qos network *network-policy-name* ingress dot1p *number* fc *keyword* |
| Tree | fc |
| Options | be – Best effort<br>l2 – Low 2 (best effort)<br>af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority)<br>ef – Expedited forwarding (high priority)<br>h1 – High 1 (high priority)<br>nc – Network control (high priority) |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **profile** *keyword*

| | |
|---|---|
| Synopsis | Default profile to be used for the ingressing traffic |
| Context | **configure** qos network *network-policy-name* ingress dot1p *number* profile *keyword* |
| Tree | profile |
| Options | in, out, de, exceed, inplus |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **dscp** [dscp-name] *keyword*

| | |
|---|---|
| Synopsis | Enter the **dscp** list instance |
| Context | **configure** qos network *network-policy-name* ingress dscp *keyword* |
| Tree | dscp |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**dscp-name**] *keyword*

| | |
|---|---|
| Synopsis | DSCP associated with the forwarding class |
| Context | **configure** qos network *network-policy-name* ingress dscp *keyword* |
| Tree | dscp |
| Options | be, cp1, cp2, cp3, cp4, cp5, cp6, cp7, cs1, cp9, af11, cp11, af12, cp13, af13, cp15, cs2, cp17, af21, cp19, af22, cp21, af23, cp23, cs3, cp25, af31, cp27, af32, cp29, af33, cp31, cs4, cp33, af41, cp35, af42, cp37, af43, cp39, cs5, cp41, cp42, cp43, cp44, cp45, ef, cp47, nc1, cp49, cp50, cp51, cp52, cp53, cp54, cp55, nc2, cp57, cp58, cp59, cp60, cp61, cp62, cp63 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **fc** *keyword*

| | |
|---|---|
| Synopsis | Forwarding class |
| Context | **configure** qos network *network-policy-name* ingress dscp *keyword* fc *keyword* |
| Tree | fc |
| Options | be – Best effort<br>l2 – Low 2 (best effort)<br>af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority)<br>ef – Expedited forwarding (high priority)<br>h1 – High 1 (high priority)<br>nc – Network control (high priority) |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **profile** *keyword*

| | |
|---|---|
| Synopsis | Default profile to use for the ingressing traffic |
| Context | **configure** qos network *network-policy-name* ingress dscp *keyword* profile *keyword* |
| Tree | profile |
| Options | in, out, exceed, inplus |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **fc** [fc-name] *keyword*

| | |
|---|---|
| Synopsis | Enter the **fc** list instance |
| Context | **configure** qos network *network-policy-name* ingress fc *keyword* |
| Tree | fc |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### [**fc-name**] *keyword*

| | |
|---|---|
| Synopsis | Forwarding class name |
| Context | **configure** qos network *network-policy-name* ingress fc *keyword* |
| Tree | fc |
| Options | be – Best effort<br>l2 – Low 2 (best effort)<br>af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority)<br>ef – Expedited forwarding (high priority)<br>h1 – High 1 (high priority)<br>nc – Network control (high priority) |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |


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## fp-redirect-group

| | |
|---|---|
| Synopsis | Enter the **fp-redirect-group** context |
| Context | **configure** qos network *network-policy-name* ingress fc *keyword* fp-redirect-group |
| Tree | fp-redirect-group |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## broadcast-policer *number*

| | |
|---|---|
| Synopsis | Policer to be used for broadcast traffic |
| Context | **configure** qos network *network-policy-name* ingress fc *keyword* fp-redirect-group broadcast-policer *number* |
| Tree | broadcast-policer |
| Range | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## multicast-policer *number*

| | |
|---|---|
| Synopsis | Policer to be used for multicast traffic |
| Context | **configure** qos network *network-policy-name* ingress fc *keyword* fp-redirect-group multicast-policer *number* |
| Tree | multicast-policer |
| Range | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## policer *number*

| | |
|---|---|
| Synopsis | Policer to be used for unicast traffic |
| Context | **configure** qos network *network-policy-name* ingress fc *keyword* fp-redirect-group policer *number* |
| Tree | policer |
| Range | 1 to 32 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **unknown-policer** *number*

| | |
|---|---|
| Synopsis | Policer to be used for unknown traffic |
| Context | **configure** qos network *network-policy-name* ingress fc *keyword* fp-redirect-group unknown-policer *number* |
| Tree | unknown-policer |
| Range | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **ip-criteria**

| | |
|---|---|
| Synopsis | Enter the **ip-criteria** context |
| Context | **configure** qos network *network-policy-name* ingress ip-criteria |
| Tree | ip-criteria |
| Introduced | 16.0.R1 |
| Platforms | All |

### **entry** [entry-id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** qos network *network-policy-name* ingress ip-criteria entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**entry-id**] *number*

| | |
|---|---|
| Synopsis | Network Ingress IP Criteria Entry Index |
| Context | **configure** qos network *network-policy-name* ingress ip-criteria entry *number* |
| Tree | entry |
| Range | 1 to 65535 |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## action

| | |
|---|---|
| Synopsis | Enter the **action** context |
| Context | **configure** qos network *network-policy-name* ingress ip-criteria entry *number* action |
| Tree | action |
| Introduced | 16.0.R1 |
| Platforms | All |

## fc *keyword*

| | |
|---|---|
| Synopsis | Forwarding class |
| Context | **configure** qos network *network-policy-name* ingress ip-criteria entry *number* action fc *keyword* |
| Tree | fc |
| Options | be – Best effort<br>l2 – Low 2 (best effort)<br>af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority)<br>ef – Expedited forwarding (high priority)<br>h1 – High 1 (high priority)<br>nc – Network control (high priority) |
| Introduced | 16.0.R1 |
| Platforms | All |

## profile *keyword*

| | |
|---|---|
| Synopsis | Default profile for the matching traffic |
| Context | **configure** qos network *network-policy-name* ingress ip-criteria entry *number* action profile *keyword* |
| Tree | profile |
| Options | in, out, exceed, inplus |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **type** *keyword*

| | |
|---|---|
| Synopsis | Action for criteria entry |
| Context | **configure** qos network *network-policy-name* ingress ip-criteria entry *number* action type *keyword* |
| Tree | type |
| Options | ignore-match, accept |
| Default | ignore-match |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** qos network *network-policy-name* ingress ip-criteria entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **match**

| | |
|---|---|
| Synopsis | Enter the **match** context |
| Context | **configure** qos network *network-policy-name* ingress ip-criteria entry *number* match |
| Tree | match |
| Introduced | 16.0.R1 |
| Platforms | All |

### **dscp** *keyword*

| | |
|---|---|
| Synopsis | DSCP to be used as network QoS policy match criterion |
| Context | **configure** qos network *network-policy-name* ingress ip-criteria entry *number* match dscp *keyword* |
| Tree | dscp |


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| | |
|---|---|
| Options | be, cp1, cp2, cp3, cp4, cp5, cp6, cp7, cs1, cp9, af11, cp11, af12, cp13, af13, cp15, cs2, cp17, af21, cp19, af22, cp21, af23, cp23, cs3, cp25, af31, cp27, af32, cp29, af33, cp31, cs4, cp33, af41, cp35, af42, cp37, af43, cp39, cs5, cp41, cp42, cp43, cp44, cp45, ef, cp47, nc1, cp49, cp50, cp51, cp52, cp53, cp54, cp55, nc2, cp57, cp58, cp59, cp60, cp61, cp62, cp63 |
| Introduced | 16.0.R1 |
| Platforms | All |

## dst-ip

| | |
|---|---|
| Synopsis | Enter the **dst-ip** context |
| Context | **configure** qos network *network-policy-name* ingress ip-criteria entry *number* match dst-ip |
| Tree | dst-ip |
| Introduced | 16.0.R1 |
| Platforms | All |

## address *(ipv4-prefix-with-host-bits | ipv4-address)*

| | |
|---|---|
| Synopsis | Destination IPv4 address for network QoS policy match |
| Context | **configure** qos network *network-policy-name* ingress ip-criteria entry *number* match dst-ip address *(ipv4-prefix-with-host-bits | ipv4-address)* |
| Tree | address |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ip-prefix-list**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## ip-prefix-list *reference*

| | |
|---|---|
| Synopsis | IPv4 prefix list containing IPv4 prefixes to match |
| Context | **configure** qos network *network-policy-name* ingress ip-criteria entry *number* match dst-ip ip-prefix-list *reference* |
| Tree | ip-prefix-list |
| Reference | **configure** qos match-list ip-prefix-list *named-item* |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ip-prefix-list**. |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **mask** *ipv4-address*

| | |
|---|---|
| Synopsis | IP address to match with source IP of the packet |
| Context | **configure** qos network *network-policy-name* ingress ip-criteria entry *number* match dst-ip mask *ipv4-address* |
| Tree | mask |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ip-prefix-list**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **dst-port**

| | |
|---|---|
| Synopsis | Enter the **dst-port** context |
| Context | **configure** qos network *network-policy-name* ingress ip-criteria entry *number* match dst-port |
| Tree | dst-port |
| Introduced | 16.0.R1 |
| Platforms | All |

### **eq** *number*

| | |
|---|---|
| Synopsis | Exact destination port as the match criterion |
| Context | **configure** qos network *network-policy-name* ingress ip-criteria entry *number* match dst-port eq *number* |
| Tree | eq |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **gt** *number*

| | |
|---|---|
| Synopsis | Greater than destination port value as match criterion |
| Context | **configure** qos network *network-policy-name* ingress ip-criteria entry *number* match dst-port gt *number* |
| Tree | gt |


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| | |
|---|---|
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lt** *number*

| | |
|---|---|
| Synopsis | Less than destination port value as the match criterion |
| Context | **configure** qos network *network-policy-name* ingress ip-criteria entry *number* match dst-port lt *number* |
| Tree | lt |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **port-list** *reference*

| | |
|---|---|
| Synopsis | Port list used as match criterion |
| Context | **configure** qos network *network-policy-name* ingress ip-criteria entry *number* match dst-port port-list *reference* |
| Tree | port-list |
| Description | This command assigns a port list to a matching criteria entry in the network QoS policy. Each entry can use only a single port list. Port lists and prefix lists are mutually exclusive. |
| Reference | **configure** qos match-list port-list *named-item* |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **range**

| | |
|---|---|
| Synopsis | Enter the **range** context |
| Context | **configure** qos network *network-policy-name* ingress ip-criteria entry *number* match dst-port range |
| Tree | range |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of port range to match |
| Context | **configure** qos network *network-policy-name* ingress ip-criteria entry *number* match dst-port range end *number* |
| Tree | end |
| Range | 0 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of port range to match |
| Context | **configure** qos network *network-policy-name* ingress ip-criteria entry *number* match dst-port range start *number* |
| Tree | start |
| Range | 0 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **fragment** *keyword*

| | |
|---|---|
| Synopsis | Fragmentation state as the match criterion |
| Context | **configure** qos network *network-policy-name* ingress ip-criteria entry *number* match fragment *keyword* |
| Tree | fragment |
| Options | false, true |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **protocol** *(number | keyword)*

| | |
|---|---|
| Synopsis | IP protocol to match |
| Context | **configure** qos network *network-policy-name* ingress ip-criteria entry *number* match protocol *(number | keyword)* |
| Tree | protocol |
| Range | 0 to 255 |
| Options | tcp-udp, icmp, igmp, ip, tcp, egp, igp, udp, rdp, ipv6, ipv6-route, ipv6-frag, idrp, rsvp, gre, ipv6-icmp, ipv6-no-nxt, ipv6-opts, iso-ip, eigrp, ospf-igp, ether-ip, encap, pnni, pim, vrrp, l2tp, stp, ptp, isis, crtp, crudp, sctp |
| Introduced | 16.0.R1 |
| Platforms | All |

### **src-ip**

| | |
|---|---|
| Synopsis | Enter the **src-ip** context |
| Context | **configure** qos network *network-policy-name* ingress ip-criteria entry *number* match src-ip |
| Tree | src-ip |
| Introduced | 16.0.R1 |
| Platforms | All |

### **address** *(ipv4-prefix-with-host-bits | ipv4-address)*

| | |
|---|---|
| Synopsis | Source IPv4 address for network QoS policy match |
| Context | **configure** qos network *network-policy-name* ingress ip-criteria entry *number* match src-ip address *(ipv4-prefix-with-host-bits | ipv4-address)* |
| Tree | address |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ip-prefix-list**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ip-prefix-list** *reference*

| | |
|---|---|
| Synopsis | IPv4 prefix list containing IPv4 prefixes to match |
| Context | **configure** qos network *network-policy-name* ingress ip-criteria entry *number* match src-ip ip-prefix-list *reference* |


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| | |
|---|---|
| Tree | ip-prefix-list |
| Reference | **configure** qos match-list ip-prefix-list *named-item* |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ip-prefix-list**. |
| Introduced | 16.0.R4 |
| Platforms | All |

## **mask** *ipv4-address*

| | |
|---|---|
| Synopsis | IP address to match with source IP of the packet |
| Context | **configure** qos network *network-policy-name* ingress ip-criteria entry *number* match src-ip mask *ipv4-address* |
| Tree | mask |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ip-prefix-list**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **src-port**

| | |
|---|---|
| Synopsis | Enter the **src-port** context |
| Context | **configure** qos network *network-policy-name* ingress ip-criteria entry *number* match src-port |
| Tree | src-port |
| Introduced | 16.0.R1 |
| Platforms | All |

## **eq** *number*

| | |
|---|---|
| Synopsis | Exact source port as the match criterion |
| Context | **configure** qos network *network-policy-name* ingress ip-criteria entry *number* match src-port eq *number* |
| Tree | eq |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **gt** *number*

| | |
|---|---|
| Synopsis | Greater than source port value as match criterion |
| Context | **configure** qos network *network-policy-name* ingress ip-criteria entry *number* match src-port gt *number* |
| Tree | gt |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lt** *number*

| | |
|---|---|
| Synopsis | Less than destination port value as the match criterion |
| Context | **configure** qos network *network-policy-name* ingress ip-criteria entry *number* match src-port lt *number* |
| Tree | lt |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **port-list** *reference*

| | |
|---|---|
| Synopsis | Port list used as match criterion |
| Context | **configure** qos network *network-policy-name* ingress ip-criteria entry *number* match src-port port-list *reference* |
| Tree | port-list |
| Description | This command assigns a port list to a matching criteria entry in the network QoS policy. Each entry can use only a single port list. Port lists and prefix lists are mutually exclusive. |
| Reference | **configure** qos match-list port-list *named-item* |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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## range

| | |
|---|---|
| Synopsis | Enter the **range** context |
| Context | **configure** qos network *network-policy-name* ingress ip-criteria entry *number* match src-port range |
| Tree | range |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## end *number*

| | |
|---|---|
| Synopsis | Upper bound of port range to match |
| Context | **configure** qos network *network-policy-name* ingress ip-criteria entry *number* match src-port range end *number* |
| Tree | end |
| Range | 0 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

## start *number*

| | |
|---|---|
| Synopsis | Lower bound of port range to match |
| Context | **configure** qos network *network-policy-name* ingress ip-criteria entry *number* match src-port range start *number* |
| Tree | start |
| Range | 0 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

## ipv6-criteria

| | |
|---|---|
| Synopsis | Enter the **ipv6-criteria** context |
| Context | **configure** qos network *network-policy-name* ingress ipv6-criteria |
| Tree | ipv6-criteria |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **entry** [entry-id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** qos network *network-policy-name* ingress ipv6-criteria entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**entry-id**] *number*

| | |
|---|---|
| Synopsis | Network Ingress IPv6 Criteria Entry Index |
| Context | **configure** qos network *network-policy-name* ingress ipv6-criteria entry *number* |
| Tree | entry |
| Range | 1 to 65535 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **action**

| | |
|---|---|
| Synopsis | Enter the **action** context |
| Context | **configure** qos network *network-policy-name* ingress ipv6-criteria entry *number* action |
| Tree | action |
| Introduced | 16.0.R1 |
| Platforms | All |

### **fc** *keyword*

| | |
|---|---|
| Synopsis | Forwarding class |
| Context | **configure** qos network *network-policy-name* ingress ipv6-criteria entry *number* action fc *keyword* |
| Tree | fc |
| Options | be – Best effort<br>l2 – Low 2 (best effort) |


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af – Assured forwarding (assured)
l1 – Low 1 (assured)
h2 – High 2 (high priority)
ef – Expedited forwarding (high priority)
h1 – High 1 (high priority)
nc – Network control (high priority)

Introduced 16.0.R1

Platforms All

## **profile** *keyword*

Synopsis Default profile for the matching traffic

Context **configure** qos network *network-policy-name* ingress ipv6-criteria entry *number* action profile *keyword*

Tree profile

Options in, out, exceed, inplus

Introduced 16.0.R1

Platforms All

## **type** *keyword*

Synopsis Action for criteria entry

Context **configure** qos network *network-policy-name* ingress ipv6-criteria entry *number* action type *keyword*

Tree type

Options ignore-match, accept

Default ignore-match

Introduced 16.0.R1

Platforms All

## **description** *description*

Synopsis Text description

Context **configure** qos network *network-policy-name* ingress ipv6-criteria entry *number* description *description*

Tree description

String length 1 to 80

Introduced 16.0.R1


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| | |
|---|---|
| Platforms | All |

## match

| | |
|---|---|
| Synopsis | Enter the **match** context |
| Context | **configure** qos network *network-policy-name* ingress ipv6-criteria entry *number* match |
| Tree | match |
| Introduced | 16.0.R1 |
| Platforms | All |

## dscp *keyword*

| | |
|---|---|
| Synopsis | DSCP value to match in the packet |
| Context | **configure** qos network *network-policy-name* ingress ipv6-criteria entry *number* match dscp *keyword* |
| Tree | dscp |
| Options | be, cp1, cp2, cp3, cp4, cp5, cp6, cp7, cs1, cp9, af11, cp11, af12, cp13, af13, cp15, cs2, cp17, af21, cp19, af22, cp21, af23, cp23, cs3, cp25, af31, cp27, af32, cp29, af33, cp31, cs4, cp33, af41, cp35, af42, cp37, af43, cp39, cs5, cp41, cp42, cp43, cp44, cp45, ef, cp47, nc1, cp49, cp50, cp51, cp52, cp53, cp54, cp55, nc2, cp57, cp58, cp59, cp60, cp61, cp62, cp63 |
| Introduced | 16.0.R1 |
| Platforms | All |

## dst-ip

| | |
|---|---|
| Synopsis | Enter the **dst-ip** context |
| Context | **configure** qos network *network-policy-name* ingress ipv6-criteria entry *number* match dst-ip |
| Tree | dst-ip |
| Introduced | 16.0.R1 |
| Platforms | All |

## address *(ipv6-prefix-with-host-bits | ipv6-address)*

| | |
|---|---|
| Synopsis | Destination IPv6 address for network QoS policy match |
| Context | **configure** qos network *network-policy-name* ingress ipv6-criteria entry *number* match dst-ip address *(ipv6-prefix-with-host-bits | ipv6-address)* |


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| | |
|---|---|
| Tree | address |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ipv6-prefix-list**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv6-prefix-list** *reference*

| | |
|---|---|
| Synopsis | IPv6 prefix list containing IPv6 prefixes to match |
| Context | **configure** qos network *network-policy-name* ingress ipv6-criteria entry *number* match dst-ip ipv6-prefix-list *reference* |
| Tree | ipv6-prefix-list |
| Reference | **configure** qos match-list ipv6-prefix-list *named-item* |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ipv6-prefix-list**. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **mask** *ipv6-address*

| | |
|---|---|
| Synopsis | IP address to match with source IP of the packet |
| Context | **configure** qos network *network-policy-name* ingress ipv6-criteria entry *number* match dst-ip mask *ipv6-address* |
| Tree | mask |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ipv6-prefix-list**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **dst-port**

| | |
|---|---|
| Synopsis | Enter the **dst-port** context |
| Context | **configure** qos network *network-policy-name* ingress ipv6-criteria entry *number* match dst-port |
| Tree | dst-port |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **eq** *number*

| | |
|---|---|
| Synopsis | Exact destination port as the match criterion |
| Context | **configure** qos network *network-policy-name* ingress ipv6-criteria entry *number* match dst-port eq *number* |
| Tree | eq |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **gt** *number*

| | |
|---|---|
| Synopsis | Greater than destination port value as match criterion |
| Context | **configure** qos network *network-policy-name* ingress ipv6-criteria entry *number* match dst-port gt *number* |
| Tree | gt |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lt** *number*

| | |
|---|---|
| Synopsis | Less than destination port value as the match criterion |
| Context | **configure** qos network *network-policy-name* ingress ipv6-criteria entry *number* match dst-port lt *number* |
| Tree | lt |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **port-list** *reference*

| | |
|---|---|
| Synopsis | Port list used as match criterion |


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| | |
|---|---|
| Context | **configure** qos network *network-policy-name* ingress ipv6-criteria entry *number* match dst-port port-list *reference* |
| Tree | port-list |
| Description | This command assigns a port list to a matching criteria entry in the network QoS policy. Each entry can use only a single port list. Port lists and prefix lists are mutually exclusive. |
| Reference | **configure** qos match-list port-list *named-item* |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## range

| | |
|---|---|
| Synopsis | Enter the **range** context |
| Context | **configure** qos network *network-policy-name* ingress ipv6-criteria entry *number* match dst-port range |
| Tree | range |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## end *number*

| | |
|---|---|
| Synopsis | Upper bound of port range to match |
| Context | **configure** qos network *network-policy-name* ingress ipv6-criteria entry *number* match dst-port range end *number* |
| Tree | end |
| Range | 0 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

## start *number*

| | |
|---|---|
| Synopsis | Lower bound of port range to match |
| Context | **configure** qos network *network-policy-name* ingress ipv6-criteria entry *number* match dst-port range start *number* |


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| | |
|---|---|
| Tree | start |
| Range | 0 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **fragment** *keyword*

| | |
|---|---|
| Synopsis | Fragmentation state as the match criterion |
| Context | **configure** qos network *network-policy-name* ingress ipv6-criteria entry *number* match fragment *keyword* |
| Tree | fragment |
| Options | false, true, first-only, non-first-only |
| Introduced | 16.0.R1 |
| Platforms | All |

### **next-header** *(number | keyword)*

| | |
|---|---|
| Synopsis | IP protocol to match |
| Context | **configure** qos network *network-policy-name* ingress ipv6-criteria entry *number* match next-header *(number | keyword)* |
| Tree | next-header |
| Range | 0 to 255 |
| Options | tcp-udp, icmp, igmp, ip, tcp, egp, igp, udp, rdp, ipv6, ipv6-route, ipv6-frag, idrp, rsvp, gre, ipv6-icmp, ipv6-no-nxt, ipv6-opts, iso-ip, eigrp, ospf-igp, ether-ip, encap, pnni, pim, vrrp, l2tp, stp, ptp, isis, crtp, crudp, sctp |
| Introduced | 16.0.R1 |
| Platforms | All |

### **src-ip**

| | |
|---|---|
| Synopsis | Enter the **src-ip** context |
| Context | **configure** qos network *network-policy-name* ingress ipv6-criteria entry *number* match src-ip |
| Tree | src-ip |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **address** *(ipv6-prefix-with-host-bits | ipv6-address)*

| | |
|---|---|
| Synopsis | Source IPv6 address for network QoS policy match |
| Context | **configure** qos network *network-policy-name* ingress ipv6-criteria entry *number* match src-ip address *(ipv6-prefix-with-host-bits | ipv6-address)* |
| Tree | address |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ipv6-prefix-list**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv6-prefix-list** *reference*

| | |
|---|---|
| Synopsis | IPv6 prefix list containing IPv6 prefixes to match |
| Context | **configure** qos network *network-policy-name* ingress ipv6-criteria entry *number* match src-ip ipv6-prefix-list *reference* |
| Tree | ipv6-prefix-list |
| Reference | **configure** qos match-list ipv6-prefix-list *named-item* |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ipv6-prefix-list**. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **mask** *ipv6-address*

| | |
|---|---|
| Synopsis | IP address to match with source IP of the packet |
| Context | **configure** qos network *network-policy-name* ingress ipv6-criteria entry *number* match src-ip mask *ipv6-address* |
| Tree | mask |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ipv6-prefix-list**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **src-port**

| | |
|---|---|
| Synopsis | Enter the **src-port** context |
| Context | **configure** qos network *network-policy-name* ingress ipv6-criteria entry *number* match src-port |


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| | |
|---|---|
| Tree | src-port |
| Introduced | 16.0.R1 |
| Platforms | All |

### **eq** *number*

| | |
|---|---|
| Synopsis | Exact source port as the match criterion |
| Context | **configure** qos network *network-policy-name* ingress ipv6-criteria entry *number* match src-port eq *number* |
| Tree | eq |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **gt** *number*

| | |
|---|---|
| Synopsis | Greater than source port value as match criterion |
| Context | **configure** qos network *network-policy-name* ingress ipv6-criteria entry *number* match src-port gt *number* |
| Tree | gt |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lt** *number*

| | |
|---|---|
| Synopsis | Less than destination port value as the match criterion |
| Context | **configure** qos network *network-policy-name* ingress ipv6-criteria entry *number* match src-port lt *number* |
| Tree | lt |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## **port-list** *reference*

| | |
|---|---|
| Synopsis | Port list used as match criterion |
| Context | **configure** qos network *network-policy-name* ingress ipv6-criteria entry *number* match src-port port-list *reference* |
| Tree | port-list |
| Description | This command assigns a port list to a matching criteria entry in the network QoS policy. Each entry can use only a single port list. Port lists and prefix lists are mutually exclusive. |
| Reference | **configure** qos match-list port-list *named-item* |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **range**

| | |
|---|---|
| Synopsis | Enter the **range** context |
| Context | **configure** qos network *network-policy-name* ingress ipv6-criteria entry *number* match src-port range |
| Tree | range |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of port range to match |
| Context | **configure** qos network *network-policy-name* ingress ipv6-criteria entry *number* match src-port range end *number* |
| Tree | end |
| Range | 0 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of port range to match |
| Context | **configure** qos network *network-policy-name* ingress ipv6-criteria entry *number* match src-port range start *number* |
| Tree | start |
| Range | 0 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ler-use-dscp** *boolean*

| | |
|---|---|
| Synopsis | Honor the DSCP markings instead of the LSP-EXP bits |
| Context | **configure** qos network *network-policy-name* ingress ler-use-dscp *boolean* |
| Tree | ler-use-dscp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lsp-exp** [lsp-exp-value] *number*

| | |
|---|---|
| Synopsis | Enter the **lsp-exp** list instance |
| Context | **configure** qos network *network-policy-name* ingress lsp-exp *number* |
| Tree | lsp-exp |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**lsp-exp-value**] *number*

| | |
|---|---|
| Synopsis | LSP EXP value to associate with the forwarding class |
| Context | **configure** qos network *network-policy-name* ingress lsp-exp *number* |
| Tree | lsp-exp |
| Range | 0 to 7 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## **fc** *keyword*

| | |
|---|---|
| Synopsis | Forwarding class |
| Context | **configure** qos network *network-policy-name* ingress lsp-exp *number* fc *keyword* |
| Tree | fc |
| Options | be – Best effort<br>l2 – Low 2 (best effort)<br>af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority)<br>ef – Expedited forwarding (high priority)<br>h1 – High 1 (high priority)<br>nc – Network control (high priority) |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **profile** *keyword*

| | |
|---|---|
| Synopsis | Default profile to use for the ingressing traffic |
| Context | **configure** qos network *network-policy-name* ingress lsp-exp *number* profile *keyword* |
| Tree | profile |
| Options | in, out, exceed, inplus |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **policy-id** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | QoS network policy ID |
| Context | **configure** qos network *network-policy-name* policy-id *number* |
| Tree | policy-id |


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| | |
|---|---|
| Description | This command specifies the QoS network policy ID and uniquely identifies the policy on the router.<br><br>Network **policy-id 1** exists as the default policy that is applied to all network interfaces by default. The network policy-id 1 cannot be modified or deleted. It defines the default DSCP-to-FC mapping and MPLS EXP-to-FC mapping for the ingress. For the egress, it defines forwarding classes that represent individual queues and the packet marking criteria.<br><br>Network **policy-id 1** exists as the default policy that is applied to all network ports by default. This default policy cannot be modified or deleted. It defines the default DSCP-to-FC mapping and default unicast meters for ingress IP traffic. For the egress, it defines the forwarding class to dot1p and DSCP values and the packet marking criteria.<br><br>If a new network policy is created (for instance, **policy-id 3**), only the default action and egress forwarding class parameters are identical to the default policy. A new network policy does not contain the default DSCP-to-FC and MPLS-EXP-to-FC mapping for network QoS policy of type **ip-interface** or the DSCP-to-FC mapping (for network QoS policy of type **port**). The default network policy can be copied to create a new network policy that includes the default ingress DSCP-to-FC and MPLS EXP-to-FC mapping (as appropriate). |
| Range | 1 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **scope** *keyword*

| | |
|---|---|
| Synopsis | Scope of the policy |
| Context | **configure** qos network *network-policy-name* scope *keyword* |
| Tree | scope |
| Options | exclusive, template |
| Default | template |
| Introduced | 16.0.R1 |
| Platforms | All |

## **network-queue** [network-queue-policy] *named-item*

| | |
|---|---|
| Synopsis | Enter the **network-queue** list instance |
| Context | **configure** qos network-queue *named-item* |
| Tree | network-queue |
| Max. instances | 255 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### [**network-queue-policy**] *named-item*

| | |
|---|---|
| Synopsis | Name for network queue policy |
| Context | **configure** qos network-queue *named-item* |
| Tree | network-queue |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** qos network-queue *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **fc** [fc-name] *keyword*

| | |
|---|---|
| Synopsis | Enter the **fc** list instance |
| Context | **configure** qos network-queue *named-item* fc *keyword* |
| Tree | fc |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**fc-name**] *keyword*

| | |
|---|---|
| Synopsis | Forwarding class name |
| Context | **configure** qos network-queue *named-item* fc *keyword* |
| Tree | fc |
| Options | be – Best effort<br>l2 – Low 2 (best effort) |


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af – Assured forwarding (assured)
l1 – Low 1 (assured)
h2 – High 2 (high priority)
ef – Expedited forwarding (high priority)
h1 – High 1 (high priority)
nc – Network control (high priority)

| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **multicast-queue** *reference*

| | |
|---|---|
| Synopsis | Multicast queue for packets in this forwarding class |
| Context | **configure** qos network-queue *named-item* fc *keyword* multicast-queue *reference* |
| Tree | multicast-queue |
| Reference | **configure** qos network-queue *named-item* queue *number* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **queue** *reference*

| | |
|---|---|
| Synopsis | Queue for packets in this forwarding class |
| Context | **configure** qos network-queue *named-item* fc *keyword* queue *reference* |
| Tree | queue |
| Reference | **configure** qos network-queue *named-item* queue *number* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hs-attachment-policy** *reference*

| | |
|---|---|
| Synopsis | HS attachment policy applied |
| Context | **configure** qos network-queue *named-item* hs-attachment-policy *reference* |
| Tree | hs-attachment-policy |
| Reference | **configure** qos hs-attachment-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |


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### **hs-wrr-group** [group-id] *number*

| | |
|---|---|
| Synopsis | Enter the **hs-wrr-group** list instance |
| Context | **configure** qos network-queue *named-item* hs-wrr-group *number* |
| Tree | hs-wrr-group |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### [**group-id**] *number*

| | |
|---|---|
| Synopsis | HS WRR group identifier |
| Context | **configure** qos network-queue *named-item* hs-wrr-group *number* |
| Tree | hs-wrr-group |
| Range | 1 to 2 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **adaptation-rule**

| | |
|---|---|
| Synopsis | Enter the **adaptation-rule** context |
| Context | **configure** qos network-queue *named-item* hs-wrr-group *number* adaptation-rule |
| Tree | adaptation-rule |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **pir** *keyword*

| | |
|---|---|
| Synopsis | Constraint used when deriving the operational PIR value |
| Context | **configure** qos network-queue *named-item* hs-wrr-group *number* adaptation-rule pir *keyword* |
| Tree | pir |
| Options | max, min, closest |
| Default | closest |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7750 SR-7/12/12e |

### **hs-class-weight** *number*

| | |
|---|---|
| Synopsis | Weight of scheduling class |
| Context | **configure** qos network-queue *named-item* hs-wrr-group *number* hs-class-weight *number* |
| Tree | hs-class-weight |
| Range | 1 \| 2 \| 4 \| 8 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **rate** *number*

| | |
|---|---|
| Synopsis | PIR rate |
| Context | **configure** qos network-queue *named-item* hs-wrr-group *number* rate *number* |
| Tree | rate |
| Range | 1 to 100 |
| Units | kilobps |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **queue** [queue-id] *number*

| | |
|---|---|
| Synopsis | Enter the **queue** list instance |
| Context | **configure** qos network-queue *named-item* queue *number* |
| Tree | queue |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**queue-id**] *number*

| | |
|---|---|
| Synopsis | Queue identifier |
| Context | **configure** qos network-queue *named-item* queue *number* |


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| | |
|---|---|
| Tree | queue |
| Range | 1 to 16 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## adaptation-rule

| | |
|---|---|
| Synopsis | Enter the **adaptation-rule** context |
| Context | **configure** qos network-queue *named-item* queue *number* adaptation-rule |
| Tree | adaptation-rule |
| Introduced | 16.0.R1 |
| Platforms | All |

## cir *keyword*

| | |
|---|---|
| Synopsis | Constraint used when deriving the operational CIR value |
| Context | **configure** qos network-queue *named-item* queue *number* adaptation-rule cir *keyword* |
| Tree | cir |
| Options | max, min, closest |
| Default | closest |
| Introduced | 16.0.R1 |
| Platforms | All |

## fir *keyword*

| | |
|---|---|
| Synopsis | Constraint used when deriving the operational FIR value |
| Context | **configure** qos network-queue *named-item* queue *number* adaptation-rule fir *keyword* |
| Tree | fir |
| Options | max, min, closest |
| Default | closest |
| Introduced | 16.0.R2 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |


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### **pir** *keyword*

| | |
|---|---|
| Synopsis | Constraint used when deriving the operational PIR value |
| Context | **configure** qos network-queue *named-item* queue *number* adaptation-rule pir *keyword* |
| Tree | pir |
| Options | max, min, closest |
| Default | closest |
| Introduced | 16.0.R1 |
| Platforms | All |

### **avg-frame-overhead** *decimal-number*

| | |
|---|---|
| Synopsis | Average packet-to-frame encapsulation overhead |
| Context | **configure** qos network-queue *named-item* queue *number* avg-frame-overhead *decimal-number* |
| Tree | avg-frame-overhead |
| Description | This command configures the average frame overhead, expressed as a percentage, at which the offered load expands on the physical medium (wire) at egress. This is important for accurate "on-the-wire" rate calculations at various levels of H-QoS that do not inherently account for the physical medium characteristics. For example, without considering this overhead, a port scheduler in H-QoS might inaccurately estimate the available bandwidth on the wire, potentially leading to congestion issues and unexpected packet loss.<br><br>The rates impacted by the average frame overhead encompass the rates set on port-schedulers and aggregate rate limits for subscribers and Vports. This impact is evident in the configured values, which represent on-the-wire rates. Queue configured rates, however, remain unaffected by this adjustment and continue to reflect Layer 2 rates.<br><br>Configure the average frame overhead in networks with physical mediums that have constant sizes of transmission units (packets or cells) or in scenarios where the average packet size is known.<br><br>The average frame overhead only affects rate and weight calculations and does not impact collected statistics for accounting purposes.<br><br>For Ethernet ports, the effect of this command depends on the setting of the **avg-frame-overhead-mode** command in advanced QoS configuration policy associated with the queue. If the **avg-frame-overhead-mode** is set to **auto**, the packet encapsulation overhead calculation is based on a fixed 20 bytes (7 bytes for preamble, 1 byte for start of frame delimiter and 12 bytes for Inter-Frame Gap (IFG)) that Ethernet medium adds to every packet during transmission. In other words, the configured rates for port scheduler and aggregate rate limits for subscribers and Vports represent on-the-wire rates. |
| Range | 0.00 to 100.00 |


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| | |
|---|---|
| Default | 0.00 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cbs** *decimal-number*

| | |
|---|---|
| Synopsis | Reserved buffer space for the queue |
| Context | **configure** qos network-queue *named-item* queue *number* cbs *decimal-number* |
| Tree | cbs |
| Range | 0.00 to 100.00 |
| Units | centipercent |
| Introduced | 16.0.R1 |
| Platforms | All |

### **drop-tail**

| | |
|---|---|
| Synopsis | Enter the **drop-tail** context |
| Context | **configure** qos network-queue *named-item* queue *number* drop-tail |
| Tree | drop-tail |
| Introduced | 16.0.R1 |
| Platforms | All |

### **low**

| | |
|---|---|
| Synopsis | Enter the **low** context |
| Context | **configure** qos network-queue *named-item* queue *number* drop-tail low |
| Tree | low |
| Introduced | 16.0.R1 |
| Platforms | All |

### **percent-reduction-from-mbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | Low drop-tail percent from MBS that is reduced |
| Context | **configure** qos network-queue *named-item* queue *number* drop-tail low percent-reduction-from-mbs *(number | keyword)* |
| Tree | percent-reduction-from-mbs |


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| | |
|---|---|
| Range | 0 to 100 |
| Options | auto |
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hs-alt-port-class-pool** *boolean*

| | |
|---|---|
| Synopsis | Use HS alternate class port pool buffer for traffic |
| Context | **configure** qos network-queue *named-item* queue *number* hs-alt-port-class-pool *boolean* |
| Tree | hs-alt-port-class-pool |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **hs-class-weight** *number*

| | |
|---|---|
| Synopsis | Scheduling class weight |
| Context | **configure** qos network-queue *named-item* queue *number* hs-class-weight *number* |
| Tree | hs-class-weight |
| Range | 1 \| 2 \| 4 \| 8 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **hs-mbs** *decimal-number*

| | |
|---|---|
| Synopsis | Percentage of buffer space allowed for the HS queue |
| Context | **configure** qos network-queue *named-item* queue *number* hs-mbs *decimal-number* |
| Tree | hs-mbs |
| Range | 0.00 to 100.00 |
| Default | 100.00 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |


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### hs-wred-queue

| | |
|---|---|
| Synopsis | Enter the **hs-wred-queue** context |
| Context | **configure** qos network-queue *named-item* queue *number* hs-wred-queue |
| Tree | hs-wred-queue |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### policy *reference*

| | |
|---|---|
| Synopsis | Slope policy name |
| Context | **configure** qos network-queue *named-item* queue *number* hs-wred-queue policy *reference* |
| Tree | policy |
| Reference | **configure** qos slope-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### hs-wrr-weight *number*

| | |
|---|---|
| Synopsis | WRR weight with which queue parents into the scheduler |
| Context | **configure** qos network-queue *named-item* queue *number* hs-wrr-weight *number* |
| Tree | hs-wrr-weight |
| Range | 1 to 127 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### mbs *decimal-number*

| | |
|---|---|
| Synopsis | Percentage of buffer space allowed for the queue |
| Context | **configure** qos network-queue *named-item* queue *number* mbs *decimal-number* |
| Tree | mbs |
| Range | 0.00 to 100.00 |
| Units | centipercent |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## **multipoint** *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Apply as a multicast queue |
| Context | **configure** qos network-queue *named-item* queue *number* multipoint *boolean* |
| Tree | multipoint |
| Introduced | 16.0.R1 |
| Platforms | All |

## **port-parent**

| | |
|---|---|
| Synopsis | Enable the **port-parent** context |
| Context | **configure** qos network-queue *named-item* queue *number* port-parent |
| Tree | port-parent |
| Introduced | 16.0.R1 |
| Platforms | All |

## **cir-level** *number*

| | |
|---|---|
| Synopsis | Port priority to receive bandwidth for within-CIR pass |
| Context | **configure** qos network-queue *named-item* queue *number* port-parent cir-level *number* |
| Tree | cir-level |
| Range | 0 to 8 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **cir-weight** *number*

| | |
|---|---|
| Synopsis | Weight to receive bandwidth at the within-CIR level |


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| | |
|---|---|
| Context | **configure** qos network-queue *named-item* queue *number* port-parent cir-weight *number* |
| Tree | cir-weight |
| Range | 0 to 100 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **level** *number*

| | |
|---|---|
| Synopsis | Port priority level for above-CIR behavior |
| Context | **configure** qos network-queue *named-item* queue *number* port-parent level *number* |
| Tree | level |
| Range | 1 to 8 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **weight** *number*

| | |
|---|---|
| Synopsis | Weight used at the within-CIR port priority level |
| Context | **configure** qos network-queue *named-item* queue *number* port-parent weight *number* |
| Tree | weight |
| Range | 0 to 100 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **queue-type** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Priority that this queue receives from the hardware level schedulers |
| Context | **configure** qos network-queue *named-item* queue *number* queue-type *keyword* |
| Tree | queue-type |


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| | |
|---|---|
| Options | expedited, auto-expedited, best-effort |
| Default | auto-expedited |
| Introduced | 16.0.R1 |
| Platforms | All |

### rate

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** qos network-queue *named-item* queue *number* rate |
| Tree | rate |
| Introduced | 16.0.R1 |
| Platforms | All |

### cir *number*

| | |
|---|---|
| Synopsis | CIR percentage rate |
| Context | **configure** qos network-queue *named-item* queue *number* rate cir *number* |
| Tree | cir |
| Range | 0 to 100 |
| Units | percent |
| Introduced | 16.0.R1 |
| Platforms | All |

### fir *number*

| | |
|---|---|
| Synopsis | FIR percentage |
| Context | **configure** qos network-queue *named-item* queue *number* rate fir *number* |
| Tree | fir |
| Description | This command defines an additional percentage at which the system prioritizes the queue over other queues competing for the same bandwidth above that used by the CIR percentage. |
| Range | 0 to 100 |
| Units | percent |
| Default | 0 |
| Introduced | 16.0.R2 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### **pir** *number*

| | |
|---|---|
| Synopsis | PIR percentage rate |
| Context | **configure** qos network-queue *named-item* queue *number* rate pir *number* |
| Tree | pir |
| Range | 1 to 100 |
| Units | percent |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **policer-control-policy** [policer-control-policy-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **policer-control-policy** list instance |
| Context | **configure** qos policer-control-policy *named-item* |
| Tree | policer-control-policy |
| Max. instances | 2047 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### [**policer-control-policy-name**] *named-item*

| | |
|---|---|
| Synopsis | Policer control policy name |
| Context | **configure** qos policer-control-policy *named-item* |
| Tree | policer-control-policy |
| Description | This command specifies the policer control policy name. Each policer control policy must be created with a unique policy name. |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |


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### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** qos policer-control-policy *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **root**

| | |
|---|---|
| Synopsis | Enter the **root** context |
| Context | **configure** qos policer-control-policy *named-item* root |
| Tree | root |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **max-percent-rate** *decimal-number*

| | |
|---|---|
| Synopsis | Maximum rate of the arbiter |
| Context | **configure** qos policer-control-policy *named-item* root max-percent-rate *decimal-number* |
| Tree | max-percent-rate |
| Range | 0.01 to 100.00 |
| Notes | The following elements are part of a choice: **max-percent-rate** or **max-rate**. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **max-rate** *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum frame-based bandwidth limit of the arbiter |
| Context | **configure** qos policer-control-policy *named-item* root max-rate *(number | keyword)* |
| Tree | max-rate |
| Range | 1 to 6400000000 |
| Options | max |
| Default | max |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **max-percent-rate** or **max-rate**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## priority-mbs-thresholds

| | |
|---|---|
| Synopsis | Enter the **priority-mbs-thresholds** context |
| Context | **configure** qos policer-control-policy *named-item* root priority-mbs-thresholds |
| Tree | priority-mbs-thresholds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## min-thresh-separation *(number | keyword)*

| | |
|---|---|
| Synopsis | Minimum separation between policer discard thresholds |
| Context | **configure** qos policer-control-policy *named-item* root priority-mbs-thresholds min-thresh-separation *(number | keyword)* |
| Tree | min-thresh-separation |
| Range | 0 to 16777216 |
| Units | bytes |
| Options | auto |
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## priority [priority-level] *number*

| | |
|---|---|
| Synopsis | Enter the **priority** list instance |
| Context | **configure** qos policer-control-policy *named-item* root priority-mbs-thresholds priority *number* |
| Tree | priority |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |


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### [**priority-level**] *number*

| | |
|---|---|
| Synopsis | Priority level |
| Context | **configure** qos policer-control-policy *named-item* root priority-mbs-thresholds priority *number* |
| Tree | priority |
| Range | 1 to 8 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **fixed-mbs** *boolean*

| | |
|---|---|
| Synopsis | Consider cumulative buffer space to be fixed |
| Context | **configure** qos policer-control-policy *named-item* root priority-mbs-thresholds priority *number* fixed-mbs *boolean* |
| Tree | fixed-mbs |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **mbs-contribution** *(number | keyword)*

| | |
|---|---|
| Synopsis | Minimum amount of cumulative buffer space |
| Context | **configure** qos policer-control-policy *named-item* root priority-mbs-thresholds priority *number* mbs-contribution *(number | keyword)* |
| Tree | mbs-contribution |
| Range | 0 to 16777216 |
| Units | bytes |
| Options | auto |
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |


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### **profile-preferred** *boolean*

| | |
|---|---|
| Synopsis | Provide a preference to consume PIR bucket tokens |
| Context | **configure** qos policer-control-policy *named-item* root profile-preferred *boolean* |
| Tree | profile-preferred |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **tier** [tier-id] *number*

| | |
|---|---|
| Synopsis | Enter the **tier** list instance |
| Context | **configure** qos policer-control-policy *named-item* tier *number* |
| Tree | tier |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### [**tier-id**] *number*

| | |
|---|---|
| Synopsis | Tier for policer control policer arbiter |
| Context | **configure** qos policer-control-policy *named-item* tier *number* |
| Tree | tier |
| Range | 1 to 2 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **arbiter** [arbiter-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **arbiter** list instance |
| Context | **configure** qos policer-control-policy *named-item* tier *number* arbiter *named-item* |
| Tree | arbiter |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |


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### [**arbiter-name**] *named-item*

| | |
|---|---|
| Synopsis | Arbiter name |
| Context | **configure** qos policer-control-policy *named-item* tier *number* arbiter *named-item* |
| Tree | arbiter |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **arbiter-parent**

| | |
|---|---|
| Synopsis | Enter the **arbiter-parent** context |
| Context | **configure** qos policer-control-policy *named-item* tier *number* arbiter *named-item* arbiter-parent |
| Tree | arbiter-parent |
| Introduced | 16.0.R3 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **arbiter-name** *named-item*

| | |
|---|---|
| Synopsis | Arbiter name |
| Context | **configure** qos policer-control-policy *named-item* tier *number* arbiter *named-item* arbiter-parent arbiter-name *named-item* |
| Tree | arbiter-name |
| Description | This command specifies the arbiter name. In tier 1, the arbiter name is not allowed and only the system reversed name "root" is accepted. The specified arbiter name must exist within the policer control policy at tier 1 or the parent command fails. When a tiered arbiter is acting as a parent for another tiered arbiter, the parent arbiter cannot be removed from the policy. The child arbiter receives all bandwidth directly from its parent arbiter (that receives bandwidth from the root arbiter). |
| String length | 1 to 32 |
| Introduced | 16.0.R3 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |


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### **level** *number*

| | |
|---|---|
| Synopsis | Level the child arbiter uses on its parent |
| Context | **configure** qos policer-control-policy *named-item* tier *number* arbiter *named-item* arbiter-parent level *number* |
| Tree | level |
| Range | 1 to 8 |
| Default | 1 |
| Introduced | 16.0.R3 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **weight** *number*

| | |
|---|---|
| Synopsis | Weight attribute at parent level applied to children |
| Context | **configure** qos policer-control-policy *named-item* tier *number* arbiter *named-item* arbiter-parent weight *number* |
| Tree | weight |
| Description | This command defines how multiple children at the same parent strict level compete when insufficient bandwidth exists on the parent for that level. Each child's weight is divided by the sum of the active children's weights and the result is multiplied by the available bandwidth. If a child cannot receive its entire weighted fair share of bandwidth due to a defined child rate limit, the remainder of its bandwidth is distributed between the other children based on their weights. |
| Range | 1 to 100 |
| Default | 1 |
| Introduced | 16.0.R3 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** qos policer-control-policy *named-item* tier *number* arbiter *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |


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### **percent-rate** *decimal-number*

| | |
|---|---|
| Synopsis | Maximum rate of the arbiter |
| Context | **configure** qos policer-control-policy *named-item* tier *number* arbiter *named-item* percent-rate *decimal-number* |
| Tree | percent-rate |
| Range | 0.01 to 100.00 |
| Notes | The following elements are part of a choice: (**percent-rate** and **reference-rate**) or **rate**. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **rate** *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum frame-based bandwidth limit |
| Context | **configure** qos policer-control-policy *named-item* tier *number* arbiter *named-item* rate *(number | keyword)* |
| Tree | rate |
| Range | 1 to 6400000000 |
| Options | max |
| Default | max |
| Notes | The following elements are part of a choice: (**percent-rate** and **reference-rate**) or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **reference-rate** *keyword*

| | |
|---|---|
| Synopsis | Reference rate |
| Context | **configure** qos policer-control-policy *named-item* tier *number* arbiter *named-item* reference-rate *keyword* |
| Tree | reference-rate |
| Options | local-limit, reference-port-limit |
| Default | local-limit |
| Notes | The following elements are part of a choice: (**percent-rate** and **reference-rate**) or **rate**. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |


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### **port-scheduler-policy** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **port-scheduler-policy** list instance |
| Context | **configure** qos port-scheduler-policy *named-item* |
| Tree | port-scheduler-policy |
| Max. instances | 1023 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | Port scheduler policy name |
| Context | **configure** qos port-scheduler-policy *named-item* |
| Tree | port-scheduler-policy |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** qos port-scheduler-policy *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **dist-lag-rate-shared** *boolean*

| | |
|---|---|
| Synopsis | Share rates when port is part of LAG in distribute mode |
| Context | **configure** qos port-scheduler-policy *named-item* dist-lag-rate-shared *boolean* |
| Tree | dist-lag-rate-shared |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **group** [group-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **group** list instance |
| Context | **configure** qos port-scheduler-policy *named-item* group *named-item* |
| Tree | group |
| Max. instances | 8 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**group-name**] *named-item*

| | |
|---|---|
| Synopsis | Weighted scheduler group name |
| Context | **configure** qos port-scheduler-policy *named-item* group *named-item* |
| Tree | group |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **monitor-threshold** *number*

| | |
|---|---|
| Synopsis | Congestion monitoring threshold |
| Context | **configure** qos port-scheduler-policy *named-item* group *named-item* monitor-threshold *number* |
| Tree | monitor-threshold |
| Description | This command defines the congestion monitoring threshold for the desired monitoring entity under the port scheduler for per aggregate port scheduler rate, per individual level, and per group that is aggregating multiple levels.<br><br>The congestion threshold is specified as a percentage of the configured PIR for the entity for which congestion monitoring is desired. For example, if the configured PIR for level 1 is 100000 kb/s, and the monitoring threshold is set to 90%, an event where the offered rate is greater than 90,000 kb/s is recorded. This event is shown as part of the cumulative count of congestion threshold exceeds since the last clearing of the counters. |


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| | |
|---|---|
| Range | 0 to 100 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### percent-rate

| | |
|---|---|
| Synopsis | Enter the **percent-rate** context |
| Context | **configure** qos port-scheduler-policy *named-item* group *named-item* percent-rate |
| Tree | percent-rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cir** *decimal-number*

| | |
|---|---|
| Synopsis | Administrative CIR percent |
| Context | **configure** qos port-scheduler-policy *named-item* group *named-item* percent-rate cir *decimal-number* |
| Tree | cir |
| Range | 0.00 to 100.00 |
| Default | 100.00 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **pir** *decimal-number*

| | |
|---|---|
| Synopsis | Administrative PIR percent |
| Context | **configure** qos port-scheduler-policy *named-item* group *named-item* percent-rate pir *decimal-number* |
| Tree | pir |
| Range | 0.01 to 100.00 |
| Introduced | 16.0.R1 |
| Platforms | All |


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## rate

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** qos port-scheduler-policy *named-item* group *named-item* rate |
| Tree | rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## cir *(number | keyword)*

| | |
|---|---|
| Synopsis | Administrative CIR |
| Context | **configure** qos port-scheduler-policy *named-item* group *named-item* rate cir *(number \| keyword)* |
| Tree | cir |
| Range | 0 to 6400000000 |
| Units | kilobps |
| Options | max |
| Default | max |
| Introduced | 16.0.R1 |
| Platforms | All |

## pir *(number | keyword)*

| | |
|---|---|
| Synopsis | Administrative PIR |
| Context | **configure** qos port-scheduler-policy *named-item* group *named-item* rate pir *(number \| keyword)* |
| Tree | pir |
| Range | 1 to 6400000000 |
| Units | kilobps |
| Options | max |
| Default | max |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **hqos-algorithm** *keyword*

| | |
|---|---|
| Synopsis | Port scheduler H-QoS algorithm |
| Context | **configure** qos port-scheduler-policy *named-item* hqos-algorithm *keyword* |
| Tree | hqos-algorithm |
| Description | This command configures the port scheduler H-QoS algorithm used to calculate the operational rates for the children connected to the port scheduler. |
| Options | default, above-offered-allowance-control |
| Default | default |
| Introduced | 19.10.R2 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **level** [level-id] *number*

| | |
|---|---|
| Synopsis | Enter the **level** list instance |
| Context | **configure** qos port-scheduler-policy *named-item* level *number* |
| Tree | level |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**level-id**] *number*

| | |
|---|---|
| Synopsis | Priority level this port scheduler policy |
| Context | **configure** qos port-scheduler-policy *named-item* level *number* |
| Tree | level |
| Range | 1 to 8 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **group** *reference*

| | |
|---|---|
| Synopsis | Associated group |
| Context | **configure** qos port-scheduler-policy *named-item* level *number* group *reference* |
| Tree | group |


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| | |
|---|---|
| Reference | **configure** qos port-scheduler-policy *named-item* group *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **monitor-threshold** *number*

| | |
|---|---|
| Synopsis | Monitoring threshold of the configured rate |
| Context | **configure** qos port-scheduler-policy *named-item* level *number* monitor-threshold *number* |
| Tree | monitor-threshold |
| Description | This command specifies the configured rate as a percentage. If the offered rate exceeds the configured threshold, a counter monitoring the threshold is increased. |
| Range | 0 to 100 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **percent-rate**

| | |
|---|---|
| Synopsis | Enter the **percent-rate** context |
| Context | **configure** qos port-scheduler-policy *named-item* level *number* percent-rate |
| Tree | percent-rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **cir** *decimal-number*

| | |
|---|---|
| Synopsis | Administrative CIR percent |
| Context | **configure** qos port-scheduler-policy *named-item* level *number* percent-rate cir *decimal-number* |
| Tree | cir |
| Range | 0.00 to 100.00 |
| Default | 100.00 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **pir** *decimal-number*

| | |
|---|---|
| Synopsis | Administrative PIR percent |
| Context | **configure** qos port-scheduler-policy *named-item* level *number* percent-rate pir *decimal-number* |
| Tree | pir |
| Range | 0.01 to 100.00 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rate**

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** qos port-scheduler-policy *named-item* level *number* rate |
| Tree | rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cir** *(number | keyword)*

| | |
|---|---|
| Synopsis | Administrative CIR |
| Context | **configure** qos port-scheduler-policy *named-item* level *number* rate cir *(number | keyword)* |
| Tree | cir |
| Range | 0 to 6400000000 |
| Units | kilobps |
| Options | max |
| Default | max |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | Administrative PIR |
| Context | **configure** qos port-scheduler-policy *named-item* level *number* rate pir *(number \| keyword)* |
| Tree | pir |
| Range | 1 to 6400000000 |
| Units | kilobps |
| Options | max |
| Default | max |
| Introduced | 16.0.R1 |
| Platforms | All |

### **weight** *number*

| | |
|---|---|
| Synopsis | Weight of the level in the weighted scheduler group |
| Context | **configure** qos port-scheduler-policy *named-item* level *number* weight *number* |
| Tree | weight |
| Range | 1 to 100 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **max-percent-rate** *decimal-number*

| | |
|---|---|
| Synopsis | Maximum frame-based bandwidth limit |
| Context | **configure** qos port-scheduler-policy *named-item* max-percent-rate *decimal-number* |
| Tree | max-percent-rate |
| Range | 0.01 to 100.00 |
| Notes | The following elements are part of a choice: **max-percent-rate** or **max-rate**. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **max-rate** *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum frame-based bandwidth limit |
| Context | **configure** qos port-scheduler-policy *named-item* max-rate *(number \| keyword)* |
| Tree | max-rate |
| Range | 1 to 6400000000 |
| Options | max |
| Default | max |
| Notes | The following elements are part of a choice: **max-percent-rate** or **max-rate**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **monitor-threshold** *number*

| | |
|---|---|
| Synopsis | Congestion monitoring threshold |
| Context | **configure** qos port-scheduler-policy *named-item* monitor-threshold *number* |
| Tree | monitor-threshold |
| Description | This command defines the congestion monitoring threshold for the desired monitoring entity under the port-scheduler for per aggregate port scheduler rate, per individual level, and per group that is aggregating multiple levels.<br>The congestion threshold is specified as a percentage of the configured PIR rate for the entity for which congestion monitoring is desired. For example, if the configured PIR rate for level 1 is 1000,000 kb/s, and the monitoring threshold is set to 90%, an event where the offered rate is >90,000 kb/s is recorded. This event is shown as part of the cumulative count of congestion threshold exceeds since the last clearing of the counters. |
| Range | 0 to 100 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **orphan-overrides**

| | |
|---|---|
| Synopsis | Enter the **orphan-overrides** context |
| Context | **configure** qos port-scheduler-policy *named-item* orphan-overrides |
| Tree | orphan-overrides |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## **cir-level** *number*

| | |
|---|---|
| Synopsis | Port priority level for within-CIR orphan behavior |
| Context | **configure** qos port-scheduler-policy *named-item* orphan-overrides cir-level *number* |
| Tree | cir-level |
| Description | This command defines the port priority that the orphan queues and schedulers use to receive bandwidth for their within-CIR offered-load. If the **cir-weight** command is set to the default value, the orphan queues and schedulers do not receive bandwidth during the port scheduler's within-CIR pass and this command setting is ignored. |
| Range | 0 to 8 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **cir-weight** *number*

| | |
|---|---|
| Synopsis | Weight to use in the within-CIR port priority level |
| Context | **configure** qos port-scheduler-policy *named-item* orphan-overrides cir-weight *number* |
| Tree | cir-weight |
| Description | This command defines the weight the orphan queues and schedulers will use in the within-CIR port priority level. When this command is set to the default value, the orphan queues and schedulers do not receive bandwidth during the port scheduler's within-CIR pass and the **cir-level** command is ignored. |
| Range | 0 to 100 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **level** *number*

| | |
|---|---|
| Synopsis | Port priority level for above-CIR orphan behavior |
| Context | **configure** qos port-scheduler-policy *named-item* orphan-overrides level *number* |
| Tree | level |
| Range | 1 to 8 |
| Default | 1 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **weight** *number*

| | |
|---|---|
| Synopsis | Weight to use in the above-CIR port priority level |
| Context | **configure** qos port-scheduler-policy *named-item* orphan-overrides weight *number* |
| Tree | weight |
| Range | 0 to 100 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **post-policer-mapping** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **post-policer-mapping** list instance |
| Context | **configure** qos post-policer-mapping *named-item* |
| Tree | post-policer-mapping |
| Max. instances | 7 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | Post-policer mapping policy name |
| Context | **configure** qos post-policer-mapping *named-item* |
| Tree | post-policer-mapping |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |


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### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** qos post-policer-mapping *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **fc** [fc-name] *keyword* profile *keyword*

| | |
|---|---|
| Synopsis | Enter the **fc** list instance |
| Context | **configure** qos post-policer-mapping *named-item* fc *keyword* profile *keyword* |
| Tree | fc |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### [**fc-name**] *keyword*

| | |
|---|---|
| Synopsis | Forwarding class remapping |
| Context | **configure** qos post-policer-mapping *named-item* fc *keyword* profile *keyword* |
| Tree | fc |
| Options | be – Best effort<br>l2 – Low 2 (best effort)<br>af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority)<br>ef – Expedited forwarding (high priority)<br>h1 – High 1 (high priority)<br>nc – Network control (high priority) |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **profile** *keyword*

| | |
|---|---|
| Synopsis | Egress packet profile remapping |


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| | |
|---|---|
| Context | **configure** qos post-policer-mapping *named-item* fc *keyword* profile *keyword* |
| Tree | fc |
| Options | in, out, exceed, inplus |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## maps-to

| | |
|---|---|
| Synopsis | Enter the **maps-to** context |
| Context | **configure** qos post-policer-mapping *named-item* fc *keyword* profile *keyword* maps-to |
| Tree | maps-to |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## **fc** *keyword*

| | |
|---|---|
| Synopsis | Forwarding class remapping |
| Context | **configure** qos post-policer-mapping *named-item* fc *keyword* profile *keyword* maps-to fc *keyword* |
| Tree | fc |
| Options | be – Best effort<br>l2 – Low 2 (best effort)<br>af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority)<br>ef – Expedited forwarding (high priority)<br>h1 – High 1 (high priority)<br>nc – Network control (high priority) |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## **profile** *keyword*

| | |
|---|---|
| Synopsis | Egress packet profile remapping |
| Context | **configure** qos post-policer-mapping *named-item* fc *keyword* profile *keyword* maps-to profile *keyword* |
| Tree | profile |


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| | |
|---|---|
| Options | in, out, exceed, inplus |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **queue-group-redirect-list** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **queue-group-redirect-list** list instance |
| Context | **configure** qos queue-group-redirect-list *named-item* |
| Tree | queue-group-redirect-list |
| Max. instances | 2047 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | Queue group redirect list name |
| Context | **configure** qos queue-group-redirect-list *named-item* |
| Tree | queue-group-redirect-list |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **match** [field-value] *number*

| | |
|---|---|
| Synopsis | Enter the **match** list instance |
| Context | **configure** qos queue-group-redirect-list *named-item* match *number* |
| Tree | match |
| Max. instances | 16 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**field-value**] *number*

| | |
|---|---|
| Synopsis | Field value in the ingress or egress packet to match |
| Context | **configure** qos queue-group-redirect-list *named-item* match *number* |
| Tree | match |
| Description | This command specifies the value of the field in the ingress or egress packet. When there is a match, the packet is redirected to the specified queue group instance. The field must be a valid VXLAN VNI. |
| Range | 1 to 16777215 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **instance** *number*

| | |
|---|---|
| Synopsis | Queue group instance for traffic redirection |
| Context | **configure** qos queue-group-redirect-list *named-item* match *number* instance *number* |
| Tree | instance |
| Range | 1 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **type** *keyword*

| | |
|---|---|
| Synopsis | Type for queue-group redirect list |
| Context | **configure** qos queue-group-redirect-list *named-item* type *keyword* |
| Tree | type |
| Options | vxlan-vni |
| Default | vxlan-vni |
| Introduced | 16.0.R1 |
| Platforms | All |


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## queue-group-templates

| | |
|---|---|
| Synopsis | Enter the **queue-group-templates** context |
| Context | **configure** qos queue-group-templates |
| Tree | queue-group-templates |
| Introduced | 16.0.R1 |
| Platforms | All |

## egress

| | |
|---|---|
| Synopsis | Enter the **egress** context |
| Context | **configure** qos queue-group-templates egress |
| Tree | egress |
| Introduced | 16.0.R1 |
| Platforms | All |

## queue-group [egress-queue-group-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **queue-group** list instance |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* |
| Tree | queue-group |
| Introduced | 16.0.R1 |
| Platforms | All |

## [egress-queue-group-name] *named-item*

| | |
|---|---|
| Synopsis | Egress queue group template name |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* |
| Tree | queue-group |
| Description | This command specifies the name of the egress queue group template. Each ingress queue group template must be uniquely named within the system. Multiple ingress queue group templates may not share the same name. An ingress and egress queue group template may share the same name. |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **description** *description-or-empty*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* description *description-or-empty* |
| Tree | description |
| String length | 0 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **fc** [fc-name] *keyword*

| | |
|---|---|
| Synopsis | Enter the **fc** list instance |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* fc *keyword* |
| Tree | fc |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### [**fc-name**] *keyword*

| | |
|---|---|
| Synopsis | Forwarding class name |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* fc *keyword* |
| Tree | fc |
| Options | be – Best effort<br>l2 – Low 2 (best effort)<br>af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority)<br>ef – Expedited forwarding (high priority)<br>h1 – High 1 (high priority)<br>nc – Network control (high priority) |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |


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### queue

| | |
|---|---|
| Synopsis | Enter the **queue** context |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* fc *keyword* queue |
| Tree | queue |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### none

| | |
|---|---|
| Synopsis | No mid-pool is associated with this parent-pool |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* fc *keyword* queue none |
| Tree | none |
| Notes | The following elements are part of a choice: **none** or **queue-id**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### queue-id *reference*

| | |
|---|---|
| Synopsis | Queue defined in forwarding class mapping |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* fc *keyword* queue queue-id *reference* |
| Tree | queue-id |
| Reference | **configure** qos queue-group-templates egress queue-group *named-item* queue *number* |
| Notes | The following elements are part of a choice: **none** or **queue-id**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### hs-attachment-policy *reference*

| | |
|---|---|
| Synopsis | HS attachment policy applied |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* hs-attachment-policy *reference* |
| Tree | hs-attachment-policy |


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| | |
|---|---|
| Reference | **configure** qos hs-attachment-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

## **hs-wrr-group** [group-id] *number*

| | |
|---|---|
| Synopsis | Enter the **hs-wrr-group** list instance |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* hs-wrr-group *number* |
| Tree | hs-wrr-group |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

## [**group-id**] *number*

| | |
|---|---|
| Synopsis | HS WRR group identifier |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* hs-wrr-group *number* |
| Tree | hs-wrr-group |
| Range | 1 to 2 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

## **adaptation-rule**

| | |
|---|---|
| Synopsis | Enter the **adaptation-rule** context |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* hs-wrr-group *number* adaptation-rule |
| Tree | adaptation-rule |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

## **pir** *keyword*

| | |
|---|---|
| Synopsis | Constraint used when deriving the operational PIR value |


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| | |
|---|---|
| Context | **configure** qos queue-group-templates egress queue-group *named-item* hs-wrr-group *number* adaptation-rule pir *keyword* |
| Tree | pir |
| Options | max, min, closest |
| Default | closest |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **hs-class-weight** *number*

| | |
|---|---|
| Synopsis | Weight of scheduling class |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* hs-wrr-group *number* hs-class-weight *number* |
| Tree | hs-class-weight |
| Range | 1 \| 2 \| 4 \| 8 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **percent-rate** *decimal-number*

| | |
|---|---|
| Synopsis | Administrative PIR percent |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* hs-wrr-group *number* percent-rate *decimal-number* |
| Tree | percent-rate |
| Range | 0.01 to 100.00 |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **rate** *(number | keyword)*

| | |
|---|---|
| Synopsis | Administrative PIR |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* hs-wrr-group *number* rate *(number \| keyword)* |
| Tree | rate |


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| | |
|---|---|
| Range | 1 to 2000000000 |
| Units | kilobps |
| Options | max |
| Default | max |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### hw-agg-shaper-queues

| | |
|---|---|
| Synopsis | Enter the **hw-agg-shaper-queues** context |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* hw-agg-shaper-queues |
| Tree | hw-agg-shaper-queues |
| Description | Commands in this context configure the queue resources from which to draw for a given object (for example, queue groups). |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### queue-set-size *(number | keyword)*

| | |
|---|---|
| Synopsis | Queue-set size override for the FP resource policy |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* hw-agg-shaper-queues queue-set-size *(number \| keyword)* |
| Tree | queue-set-size |
| Description | This command configures the queue-set size or non-shaper-queue to use for this queue-group template. |
| Range | 2 to 8 |
| Options | non-shaper-queues |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### policer [policer-id] *number*

| | |
|---|---|
| Synopsis | Enter the **policer** list instance |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* policer *number* |


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| | |
|---|---|
| Tree | policer |
| Description | Commands in this context configure a QoS egress queue-group policer. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### [**policer-id**] *number*

| | |
|---|---|
| Synopsis | Egress queue-group policer ID |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* policer *number* |
| Tree | policer |
| Description | This command specifies the queue-group policer that will either be created or edited within the queue group template. For VSR, the queue group template may only have up to eight policers (numbered 1 through 8). |
| Range | 1 to 16 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **adaptation-rule**

| | |
|---|---|
| Synopsis | Enter the **adaptation-rule** context |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* policer *number* adaptation-rule |
| Tree | adaptation-rule |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **cir** *keyword*

| | |
|---|---|
| Synopsis | Constraint used when deriving the operational CIR value |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* policer *number* adaptation-rule cir *keyword* |
| Tree | cir |
| Options | max, min, closest |
| Default | closest |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## **pir** *keyword*

| | |
|---|---|
| Synopsis | Constraint used when deriving the operational PIR value |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* policer *number* adaptation-rule pir *keyword* |
| Tree | pir |
| Options | max, min, closest |
| Default | closest |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## **adv-config-policy** *reference*

| | |
|---|---|
| Synopsis | Advanced QoS policy name |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* policer *number* adv-config-policy *reference* |
| Tree | adv-config-policy |
| Reference | **configure** qos adv-config-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## **arbiter-parent**

| | |
|---|---|
| Synopsis | Enter the **arbiter-parent** context |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* policer *number* arbiter-parent |
| Tree | arbiter-parent |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## **arbiter-name** *named-item*

| | |
|---|---|
| Synopsis | Arbiter name |


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| | |
|---|---|
| Context | **configure** qos queue-group-templates egress queue-group *named-item* policer *number* arbiter-parent arbiter-name *named-item* |
| Tree | arbiter-name |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **level** *number*

| | |
|---|---|
| Synopsis | Priority level |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* policer *number* arbiter-parent level *number* |
| Tree | level |
| Range | 1 to 8 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **weight** *number*

| | |
|---|---|
| Synopsis | Weight in the priority level |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* policer *number* arbiter-parent weight *number* |
| Tree | weight |
| Range | 1 to 100 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **cbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | Exceed threshold of the CIR leaky bucket of the policer |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* policer *number* cbs *(number | keyword)* |
| Tree | cbs |
| Range | 0 to 268435456 |


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| | |
|---|---|
| Units | bytes |
| Options | auto |
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* policer *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **exceed-pir** *boolean*

| | |
|---|---|
| Synopsis | Forward packets exceeding the PIR as exceed-profile |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* policer *number* exceed-pir *boolean* |
| Tree | exceed-pir |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **high-prio-only** *(number | keyword)*

| | |
|---|---|
| Synopsis | Percentage of MBS reserved for high priority traffic |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* policer *number* high-prio-only *(number | keyword)* |
| Tree | high-prio-only |
| Range | 0 to 100 |
| Options | auto |
| Default | auto |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **mbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum buffer size for the template queue |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* policer *number* mbs *(number | keyword)* |
| Tree | mbs |
| Range | 0 to 268435456 |
| Units | bytes |
| Options | auto |
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **packet-byte-offset** *number*

| | |
|---|---|
| Synopsis | Packet size modification for policing information |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* policer *number* packet-byte-offset *number* |
| Tree | packet-byte-offset |
| Range | -64 to 31 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **percent-rate**

| | |
|---|---|
| Synopsis | Enter the **percent-rate** context |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* policer *number* percent-rate |
| Tree | percent-rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |


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### **cir** *decimal-number*

| | |
|---|---|
| Synopsis | Administrative CIR |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* policer *number* percent-rate cir *decimal-number* |
| Tree | cir |
| Range | 0.00 to 100.00 |
| Default | 0.00 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **pir** *decimal-number*

| | |
|---|---|
| Synopsis | Administrative PIR |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* policer *number* percent-rate pir *decimal-number* |
| Tree | pir |
| Range | 0.01 to 100.00 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **reference-rate** *keyword*

| | |
|---|---|
| Synopsis | Reference rate |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* policer *number* percent-rate reference-rate *keyword* |
| Tree | reference-rate |
| Options | local-limit, reference-port-limit |
| Default | local-limit |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **profile-capped** *boolean*

| | |
|---|---|
| Synopsis | Enforce a limit on the profile |


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| | |
|---|---|
| Context | **configure** qos queue-group-templates egress queue-group *named-item* policer *number* profile-capped *boolean* |
| Tree | profile-capped |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## rate

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* policer *number* rate |
| Tree | rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## cir *(number | keyword)*

| | |
|---|---|
| Synopsis | Administrative CIR |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* policer *number* rate cir *(number | keyword)* |
| Tree | cir |
| Range | 0 to 2000000000 |
| Units | kilobps |
| Options | max |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## pir *(number | keyword)*

| | |
|---|---|
| Synopsis | Administrative PIR |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* policer *number* rate pir *(number | keyword)* |
| Tree | pir |


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| | |
|---|---|
| Range | 1 to 2000000000 |
| Units | kilobps |
| Options | max |
| Default | max |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **stat-mode** *keyword*

| | |
|---|---|
| Synopsis | Mode of statistics collected by the policer |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* policer *number* stat-mode *keyword* |
| Tree | stat-mode |
| Options | no-stats, minimal, offered-profile-no-cir, offered-total-cir, offered-profile-cir, offered-limited-capped-cir, offered-profile-capped-cir, offered-total-cir-exceed, offered-four-profile-no-cir, offered-total-cir-four-profile |
| Default | minimal |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **queue** [queue-id] *number*

| | |
|---|---|
| Synopsis | Enter the **queue** list instance |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* queue *number* |
| Tree | queue |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**queue-id**] *number*

| | |
|---|---|
| Synopsis | Egress Queue-Group queue identifier |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* queue *number* |
| Tree | queue |
| Range | 1 to 8 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## adaptation-rule

| | |
|---|---|
| Synopsis | Enter the **adaptation-rule** context |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* queue *number* adaptation-rule |
| Tree | adaptation-rule |
| Introduced | 16.0.R1 |
| Platforms | All |

## **cir** *keyword*

| | |
|---|---|
| Synopsis | Constraint used when deriving the operational CIR value |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* queue *number* adaptation-rule cir *keyword* |
| Tree | cir |
| Options | max, min, closest |
| Default | closest |
| Introduced | 16.0.R1 |
| Platforms | All |

## **pir** *keyword*

| | |
|---|---|
| Synopsis | Constraint used when deriving the operational PIR value |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* queue *number* adaptation-rule pir *keyword* |
| Tree | pir |
| Options | max, min, closest |
| Default | closest |
| Introduced | 16.0.R1 |
| Platforms | All |

## **adv-config-policy** *reference*

| | |
|---|---|
| Synopsis | Name of the advanced configuration policy |


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| | |
|---|---|
| Context | **configure** qos queue-group-templates egress queue-group *named-item* queue *number* adv-config-policy *reference* |
| Tree | adv-config-policy |
| Reference | **configure** qos adv-config-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **agg-shaper-weight** *number*

| | |
|---|---|
| Synopsis | Aggregate shaper weight of the queue-group queue |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* queue *number* agg-shaper-weight *number* |
| Tree | agg-shaper-weight |
| Range | 1 to 100 |
| Default | 1 |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### **burst-limit** *(number | keyword)*

| | |
|---|---|
| Synopsis | Explicit shaping burst size of a queue |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* queue *number* burst-limit *(number | keyword)* |
| Tree | burst-limit |
| Range | 1 to 14000000 |
| Units | bytes |
| Options | auto |
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | Reserved buffer space for the queue |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* queue *number* cbs *(number | keyword)* |


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| | |
|---|---|
| Tree | cbs |
| Range | 0 to 1048576 |
| Units | kilobytes |
| Options | auto |
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | All |

## drop-tail

| | |
|---|---|
| Synopsis | Enter the **drop-tail** context |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* queue *number* drop-tail |
| Tree | drop-tail |
| Introduced | 16.0.R1 |
| Platforms | All |

## exceed

| | |
|---|---|
| Synopsis | Enter the **exceed** context |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* queue *number* drop-tail exceed |
| Tree | exceed |
| Introduced | 16.0.R1 |
| Platforms | All |

## percent-reduction-from-mbs *(number | keyword)*

| | |
|---|---|
| Synopsis | Percentage reduction from the MBS for a queue drop tail |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* queue *number* drop-tail exceed percent-reduction-from-mbs *(number | keyword)* |
| Tree | percent-reduction-from-mbs |
| Range | 0 to 100 |
| Options | auto |
| Default | auto |
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| | |
|---|---|
| Platforms | All |

## high

| | |
|---|---|
| Synopsis | Enter the **high** context |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* queue *number* drop-tail high |
| Tree | high |
| Introduced | 16.0.R1 |
| Platforms | All |

## percent-reduction-from-mbs *(number | keyword)*

| | |
|---|---|
| Synopsis | Percentage reduction from the MBS for a queue drop tail |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* queue *number* drop-tail high percent-reduction-from-mbs *(number \| keyword)* |
| Tree | percent-reduction-from-mbs |
| Range | 0 to 100 |
| Options | auto |
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | All |

## highplus

| | |
|---|---|
| Synopsis | Enter the **highplus** context |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* queue *number* drop-tail highplus |
| Tree | highplus |
| Introduced | 16.0.R1 |
| Platforms | All |

## percent-reduction-from-mbs *(number | keyword)*

| | |
|---|---|
| Synopsis | Percentage reduction from the MBS for a queue drop tail |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* queue *number* drop-tail highplus percent-reduction-from-mbs *(number \| keyword)* |


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| | |
|---|---|
| Tree | percent-reduction-from-mbs |
| Range | 0 to 100 |
| Options | auto |
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | All |

### low

| | |
|---|---|
| Synopsis | Enter the **low** context |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* queue *number* drop-tail low |
| Tree | low |
| Introduced | 16.0.R1 |
| Platforms | All |

### percent-reduction-from-mbs *(number | keyword)*

| | |
|---|---|
| Synopsis | Low drop-tail percent from MBS that is reduced |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* queue *number* drop-tail low percent-reduction-from-mbs *(number | keyword)* |
| Tree | percent-reduction-from-mbs |
| Range | 0 to 100 |
| Options | auto |
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | All |

### dynamic-mbs *boolean*

| | |
|---|---|
| Synopsis | Allow MBS size modification to maintain maximum latency |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* queue *number* dynamic-mbs *boolean* |
| Tree | dynamic-mbs |
| Default | false |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **fir-burst-limit** *(number | keyword)*

| | |
|---|---|
| Synopsis | Burst limit for the FIR |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* queue *number* fir-burst-limit *(number \| keyword)* |
| Tree | fir-burst-limit |
| Description | This command configures a burst limit for the FIR of the specified queue. If the **auto** option is configured, the FIR burst limit is based on the PIR. In this case, it is recommended to use the explicit PIR value in the queue configuration. |
| Range | 1 to 102400 |
| Units | bytes |
| Options | auto |
| Default | auto |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### **hs-alt-port-class-pool** *boolean*

| | |
|---|---|
| Synopsis | Use HS alternate class port pool buffer for traffic |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* queue *number* hs-alt-port-class-pool *boolean* |
| Tree | hs-alt-port-class-pool |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **hs-class-weight** *number*

| | |
|---|---|
| Synopsis | Scheduling class weight |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* queue *number* hs-class-weight *number* |
| Tree | hs-class-weight |
| Range | 1 \| 2 \| 4 \| 8 |
| Default | 1 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### hs-wred-queue

| | |
|---|---|
| Synopsis | Enter the **hs-wred-queue** context |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* queue *number* hs-wred-queue |
| Tree | hs-wred-queue |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### policy *reference*

| | |
|---|---|
| Synopsis | Slope policy name |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* queue *number* hs-wred-queue policy *reference* |
| Tree | policy |
| Reference | **configure** qos slope-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### hs-wrr-weight *number*

| | |
|---|---|
| Synopsis | WRR weight with which queue parents into the scheduler |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* queue *number* hs-wrr-weight *number* |
| Tree | hs-wrr-weight |
| Range | 1 to 127 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### mbs *(number | keyword)*

| | |
|---|---|
| Synopsis | Buffer space allowed for the queue |


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| | |
|---|---|
| Context | **configure** qos queue-group-templates egress queue-group *named-item* queue *number* mbs *(number \| keyword)* |
| Tree | mbs |
| Range | 0 to 1073741824 |
| Units | bytes |
| Options | auto |
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | All |

## **packet-byte-offset** *number*

| | |
|---|---|
| Synopsis | Packet byte offset for addition of policing information |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* queue *number* packet-byte-offset *number* |
| Tree | packet-byte-offset |
| Range | -64 to 31 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **percent-rate**

| | |
|---|---|
| Synopsis | Enter the **percent-rate** context |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* queue *number* percent-rate |
| Tree | percent-rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **cir** *decimal-number*

| | |
|---|---|
| Synopsis | Administrative CIR percent |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* queue *number* percent-rate cir *decimal-number* |


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| | |
|---|---|
| Tree | cir |
| Range | 0.00 to 100.00 |
| Default | 0.00 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **pir** *decimal-number*

| | |
|---|---|
| Synopsis | Administrative PIR percent |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* queue *number* percent-rate pir *decimal-number* |
| Tree | pir |
| Range | 0.01 to 100.00 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **reference-rate** *keyword*

| | |
|---|---|
| Synopsis | Reference rate |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* queue *number* percent-rate reference-rate *keyword* |
| Tree | reference-rate |
| Options | port-limit, local-limit, reference-port-limit |
| Default | port-limit |
| Introduced | 20.10.R1 |
| Platforms | All |

### **port-parent**

| | |
|---|---|
| Synopsis | Enable the **port-parent** context |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* queue *number* port-parent |
| Tree | port-parent |
| Notes | The following elements are part of a choice: **port-parent** or **scheduler-parent**. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **cir-level** *number*

| | |
|---|---|
| Synopsis | Port priority to receive bandwidth for within-CIR pass |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* queue *number* port-parent cir-level *number* |
| Tree | cir-level |
| Range | 0 to 8 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cir-weight** *number*

| | |
|---|---|
| Synopsis | Weight used at the within-CIR port priority level |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* queue *number* port-parent cir-weight *number* |
| Tree | cir-weight |
| Range | 0 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **level** *number*

| | |
|---|---|
| Synopsis | Port priority for bandwidth for above-CIR offered load |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* queue *number* port-parent level *number* |
| Tree | level |
| Range | 1 to 8 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **weight** *number*

| | |
|---|---|
| Synopsis | Weight used at above-CIR port priority level |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* queue *number* port-parent weight *number* |
| Tree | weight |


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| | |
|---|---|
| Range | 0 to 100 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **queue-delay** *number*

| | |
|---|---|
| Synopsis | Target queue delay for forwarding packets through queue |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* queue *number* queue-delay *number* |
| Tree | queue-delay |
| Range | 1 to 5000 |
| Units | milliseconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **queue-type** *keyword*

| | |
|---|---|
| Synopsis | Method used to service queue from hardware perspective |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* queue *number* queue-type *keyword* |
| Tree | queue-type |
| Options | expedited, best-effort |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rate**

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* queue *number* rate |
| Tree | rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **cir** *(number | keyword)*

| | |
|---|---|
| Synopsis | Administrative CIR |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* queue *number* rate cir *(number \| keyword)* |
| Tree | cir |
| Range | 0 to 2000000000 |
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | All |

### **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | Administrative PIR |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* queue *number* rate pir *(number \| keyword)* |
| Tree | pir |
| Range | 1 to 2000000000 |
| Units | kilobps |
| Options | max |
| Default | max |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sched-class** *(number | keyword)*

| | |
|---|---|
| Synopsis | Scheduling class for the queue-group queue |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* queue *number* sched-class *(number \| keyword)* |
| Tree | sched-class |
| Description | This command configures a scheduling class for the specified queue. If the **auto** option is configured, the system automatically performs the scheduling class mapping. |
| Range | 1 to 6 |
| Options | auto |
| Default | auto |


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| | |
|---|---|
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

## scheduler-parent

| | |
|---|---|
| Synopsis | Enable the **scheduler-parent** context |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* queue *number* scheduler-parent |
| Tree | scheduler-parent |
| Notes | The following elements are part of a choice: **port-parent** or **scheduler-parent**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## cir-level *number*

| | |
|---|---|
| Synopsis | Level of priority while feeding to the parent |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* queue *number* scheduler-parent cir-level *number* |
| Tree | cir-level |
| Range | 0 to 8 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

## cir-weight *number*

| | |
|---|---|
| Synopsis | Weight used at the within-CIR port priority level |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* queue *number* scheduler-parent cir-weight *number* |
| Tree | cir-weight |
| Range | 0 to 100 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **level** *number*

| | |
|---|---|
| Synopsis | Level of priority while feeding to the parent |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* queue *number* scheduler-parent level *number* |
| Tree | level |
| Range | 1 to 8 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **scheduler-name** *named-item*

| | |
|---|---|
| Synopsis | Parent scheduler name |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* queue *number* scheduler-parent scheduler-name *named-item* |
| Tree | scheduler-name |
| Description | This command associates a scheduler name to a queue. The scheduler name must have previously been defined within an existing scheduler policy and exist on each SAP the queue is created on. There are no checks performed to ensure that the scheduler name exists within an existing scheduler policy. Until the scheduler name exists on the egress SAP, the queue operates in an orphaned state. |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **weight** *number*

| | |
|---|---|
| Synopsis | Weight used by the scheduler for feeding the queue |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* queue *number* scheduler-parent weight *number* |
| Tree | weight |
| Range | 0 to 100 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |


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## wred-queue

| | |
|---|---|
| Synopsis | Enter the **wred-queue** context |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* queue *number* wred-queue |
| Tree | wred-queue |
| Introduced | 16.0.R1 |
| Platforms | All |

## mode *keyword*

| | |
|---|---|
| Synopsis | Pool association to allow queue-specific WRED slopes |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* queue *number* wred-queue mode *keyword* |
| Tree | mode |
| Options | native, pool-per-queue |
| Introduced | 16.0.R1 |
| Platforms | All |

## policy *reference*

| | |
|---|---|
| Synopsis | Slope policy name |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* queue *number* wred-queue policy *reference* |
| Tree | policy |
| Reference | **configure** qos slope-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

## usage *keyword*

| | |
|---|---|
| Synopsis | Congestion control type |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* queue *number* wred-queue usage *keyword* |
| Tree | usage |
| Options | auto, exceed-low |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **queues-hqos-manageable** *boolean*

| | |
|---|---|
| Synopsis | Manage queues through the Hierarchical QoS process |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* queues-hqos-manageable *boolean* |
| Tree | queues-hqos-manageable |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-1s, 7750 SR-1se, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, VSR |

### **sched-class-elevation**

| | |
|---|---|
| Synopsis | Enter the **sched-class-elevation** context |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* sched-class-elevation |
| Tree | sched-class-elevation |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### **sched-class** [class-id] *number*

| | |
|---|---|
| Synopsis | Enter the **sched-class** list instance |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* sched-class-elevation sched-class *number* |
| Tree | sched-class |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### [**class-id**] *number*

| | |
|---|---|
| Synopsis | Scheduling class ID |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* sched-class-elevation sched-class *number* |


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| | |
|---|---|
| Tree | sched-class |
| Range | 1 to 6 |
| Notes | This element is part of a list key. |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### **weight** *number*

| | |
|---|---|
| Synopsis | Weight of the schedule class |
| Context | **configure** qos queue-group-templates egress queue-group *named-item* sched-class-elevation sched-class *number* weight *number* |
| Tree | weight |
| Range | 1 to 8 |
| Default | 1 |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### **ingress**

| | |
|---|---|
| Synopsis | Enter the **ingress** context |
| Context | **configure** qos queue-group-templates ingress |
| Tree | ingress |
| Introduced | 16.0.R1 |
| Platforms | All |

### **queue-group** [ingress-queue-group-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **queue-group** list instance |
| Context | **configure** qos queue-group-templates ingress queue-group *named-item* |
| Tree | queue-group |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**ingress-queue-group-name**] *named-item*

| | |
|---|---|
| Synopsis | Ingress queue group template name |
| Context | **configure** qos queue-group-templates ingress queue-group *named-item* |
| Tree | queue-group |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** qos queue-group-templates ingress queue-group *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **policer** [policer-id] *number*

| | |
|---|---|
| Synopsis | Enter the **policer** list instance |
| Context | **configure** qos queue-group-templates ingress queue-group *named-item* policer *number* |
| Tree | policer |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**policer-id**] *number*

| | |
|---|---|
| Synopsis | Ingress Queue-Group Policer identifier |
| Context | **configure** qos queue-group-templates ingress queue-group *named-item* policer *number* |
| Tree | policer |
| Range | 1 to 32 |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## adaptation-rule

| | |
|---|---|
| Synopsis | Enter the **adaptation-rule** context |
| Context | **configure** qos queue-group-templates ingress queue-group *named-item* policer *number* adaptation-rule |
| Tree | adaptation-rule |
| Introduced | 16.0.R1 |
| Platforms | All |

## **cir** *keyword*

| | |
|---|---|
| Synopsis | Constraint used when deriving the operational CIR value |
| Context | **configure** qos queue-group-templates ingress queue-group *named-item* policer *number* adaptation-rule cir *keyword* |
| Tree | cir |
| Options | max, min, closest |
| Default | closest |
| Introduced | 16.0.R1 |
| Platforms | All |

## **pir** *keyword*

| | |
|---|---|
| Synopsis | Constraint used when deriving the operational PIR value |
| Context | **configure** qos queue-group-templates ingress queue-group *named-item* policer *number* adaptation-rule pir *keyword* |
| Tree | pir |
| Options | max, min, closest |
| Default | closest |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **adv-config-policy** *reference*

| | |
|---|---|
| Synopsis | Advanced QoS policy name |
| Context | **configure** qos queue-group-templates ingress queue-group *named-item* policer *number* adv-config-policy *reference* |
| Tree | adv-config-policy |
| Reference | **configure** qos adv-config-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **arbiter-parent**

| | |
|---|---|
| Synopsis | Enter the **arbiter-parent** context |
| Context | **configure** qos queue-group-templates ingress queue-group *named-item* policer *number* arbiter-parent |
| Tree | arbiter-parent |
| Introduced | 16.0.R1 |
| Platforms | All |

### **arbiter-name** *named-item*

| | |
|---|---|
| Synopsis | Arbiter name |
| Context | **configure** qos queue-group-templates ingress queue-group *named-item* policer *number* arbiter-parent arbiter-name *named-item* |
| Tree | arbiter-name |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **level** *number*

| | |
|---|---|
| Synopsis | Level of priority while feeding to the parent |
| Context | **configure** qos queue-group-templates ingress queue-group *named-item* policer *number* arbiter-parent level *number* |
| Tree | level |
| Range | 1 to 8 |


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| | |
|---|---|
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **weight** *number*

| | |
|---|---|
| Synopsis | Weight used by the arbiter for feeding the policer |
| Context | **configure** qos queue-group-templates ingress queue-group *named-item* policer *number* arbiter-parent weight *number* |
| Tree | weight |
| Range | 1 to 100 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | Exceed threshold of the CIR leaky bucket of the policer |
| Context | **configure** qos queue-group-templates ingress queue-group *named-item* policer *number* cbs *(number \| keyword)* |
| Tree | cbs |
| Range | 0 to 268435456 |
| Units | bytes |
| Options | auto |
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** qos queue-group-templates ingress queue-group *named-item* policer *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **high-prio-only** *(number | keyword)*

| | |
|---|---|
| Synopsis | Percentage of MBS reserved for high priority traffic |
| Context | **configure** qos queue-group-templates ingress queue-group *named-item* policer *number* high-prio-only *(number \| keyword)* |
| Tree | high-prio-only |
| Range | 0 to 100 |
| Options | auto |
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum buffer size for the template queue |
| Context | **configure** qos queue-group-templates ingress queue-group *named-item* policer *number* mbs *(number \| keyword)* |
| Tree | mbs |
| Range | 0 to 268435456 |
| Units | bytes |
| Options | auto |
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | All |

### **packet-byte-offset** *number*

| | |
|---|---|
| Synopsis | Packet size modification for policing information |
| Context | **configure** qos queue-group-templates ingress queue-group *named-item* policer *number* packet-byte-offset *number* |
| Tree | packet-byte-offset |
| Range | -32 to 31 |
| Default | 0 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## percent-rate

| | |
|---|---|
| Synopsis | Enter the **percent-rate** context |
| Context | **configure** qos queue-group-templates ingress queue-group *named-item* policer *number* percent-rate |
| Tree | percent-rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 20.2.R1 |
| Platforms | All |

## **cir** *decimal-number*

| | |
|---|---|
| Synopsis | Administrative CIR |
| Context | **configure** qos queue-group-templates ingress queue-group *named-item* policer *number* percent-rate cir *decimal-number* |
| Tree | cir |
| Range | 0.00 to 100.00 |
| Default | 0.00 |
| Introduced | 20.2.R1 |
| Platforms | All |

## **pir** *decimal-number*

| | |
|---|---|
| Synopsis | Administrative PIR |
| Context | **configure** qos queue-group-templates ingress queue-group *named-item* policer *number* percent-rate pir *decimal-number* |
| Tree | pir |
| Range | 0.01 to 100.00 |
| Introduced | 20.2.R1 |
| Platforms | All |

## **profile-capped** *boolean*

| | |
|---|---|
| Synopsis | Enforce a limit on the profile |


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| | |
|---|---|
| Context | **configure** qos queue-group-templates ingress queue-group *named-item* policer *number* profile-capped *boolean* |
| Tree | profile-capped |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## rate

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** qos queue-group-templates ingress queue-group *named-item* policer *number* rate |
| Tree | rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## cir *(number | keyword)*

| | |
|---|---|
| Synopsis | Administrative CIR |
| Context | **configure** qos queue-group-templates ingress queue-group *named-item* policer *number* rate cir *(number | keyword)* |
| Tree | cir |
| Range | 0 to 2000000000 |
| Units | kilobps |
| Options | max |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

## pir *(number | keyword)*

| | |
|---|---|
| Synopsis | Administrative PIR |
| Context | **configure** qos queue-group-templates ingress queue-group *named-item* policer *number* rate pir *(number | keyword)* |
| Tree | pir |


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| | |
|---|---|
| Range | 1 to 2000000000 |
| Units | kilobps |
| Options | max |
| Default | max |
| Introduced | 16.0.R1 |
| Platforms | All |

### **stat-mode** *keyword*

| | |
|---|---|
| Synopsis | Mode of statistics collected by the policer |
| Context | **configure** qos queue-group-templates ingress queue-group *named-item* policer *number* stat-mode *keyword* |
| Tree | stat-mode |
| Options | no-stats, minimal, offered-profile-no-cir, offered-total-cir, offered-priority-no-cir, offered-profile-cir, offered-priority-cir, offered-limited-profile-cir, offered-profile-capped-cir, offered-limited-capped-cir |
| Default | minimal |
| Introduced | 16.0.R1 |
| Platforms | All |

### **queue** [queue-id] *number*

| | |
|---|---|
| Synopsis | Enter the **queue** list instance |
| Context | **configure** qos queue-group-templates ingress queue-group *named-item* queue *number* |
| Tree | queue |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**queue-id**] *number*

| | |
|---|---|
| Synopsis | Ingress Queue-Group Queue identifier |
| Context | **configure** qos queue-group-templates ingress queue-group *named-item* queue *number* |
| Tree | queue |
| Range | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## adaptation-rule

| | |
|---|---|
| Synopsis | Enter the **adaptation-rule** context |
| Context | **configure** qos queue-group-templates ingress queue-group *named-item* queue *number* adaptation-rule |
| Tree | adaptation-rule |
| Introduced | 16.0.R1 |
| Platforms | All |

## **cir** *keyword*

| | |
|---|---|
| Synopsis | Constraint for deriving operational CIR for the queue |
| Context | **configure** qos queue-group-templates ingress queue-group *named-item* queue *number* adaptation-rule cir *keyword* |
| Tree | cir |
| Options | max, min, closest |
| Default | closest |
| Introduced | 16.0.R1 |
| Platforms | All |

## **fir** *keyword*

| | |
|---|---|
| Synopsis | Constraint for deriving operational FIR for the queue |
| Context | **configure** qos queue-group-templates ingress queue-group *named-item* queue *number* adaptation-rule fir *keyword* |
| Tree | fir |
| Options | max, min, closest |
| Default | closest |
| Introduced | 16.0.R2 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## **pir** *keyword*

| | |
|---|---|
| Synopsis | Constraint for deriving operational FIR for the queue |


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| | |
|---|---|
| Context | **configure** qos queue-group-templates ingress queue-group *named-item* queue *number* adaptation-rule pir *keyword* |
| Tree | pir |
| Options | max, min, closest |
| Default | closest |
| Introduced | 16.0.R1 |
| Platforms | All |

### **adv-config-policy** *reference*

| | |
|---|---|
| Synopsis | Advanced QoS policy name |
| Context | **configure** qos queue-group-templates ingress queue-group *named-item* queue *number* adv-config-policy *reference* |
| Tree | adv-config-policy |
| Reference | **configure** qos adv-config-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **burst-limit** *(number | keyword)*

| | |
|---|---|
| Synopsis | Explicit shaping burst size of a queue |
| Context | **configure** qos queue-group-templates ingress queue-group *named-item* queue *number* burst-limit *(number | keyword)* |
| Tree | burst-limit |
| Range | 1 to 14000000 |
| Units | bytes |
| Options | auto |
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | Reserved buffer space for the queue |
| Context | **configure** qos queue-group-templates ingress queue-group *named-item* queue *number* cbs *(number | keyword)* |


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| | |
|---|---|
| Tree | cbs |
| Range | 0 to 1048576 |
| Units | kilobytes |
| Options | auto |
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | All |

## **cir-non-profiling** *boolean*

| | |
|---|---|
| Synopsis | Prevent profile modification of CIR dependent packet |
| Context | **configure** qos queue-group-templates ingress queue-group *named-item* queue *number* cir-non-profiling *boolean* |
| Tree | cir-non-profiling |
| Description | When configured to **true**, the system prevents the modification of the profile of a packet-dependent queue rate compared to its configured CIR. The CIR continues to be used to affect the scheduling priority of a queue.<br>This command is only supported on hardware that is FP4-based and later and is ignored when the related policy is applied to FP3-based hardware.<br>This command should not be configured under an ingress queue group template queue associated with a LAG which spans FP4-based and later and FP3-based hardware as the resulting operation could be different depending on which hardware type the traffic ingresses. |
| Default | false |
| Introduced | 16.0.R2 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## **drop-tail**

| | |
|---|---|
| Synopsis | Enter the **drop-tail** context |
| Context | **configure** qos queue-group-templates ingress queue-group *named-item* queue *number* drop-tail |
| Tree | drop-tail |
| Introduced | 16.0.R1 |
| Platforms | All |


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### low

| | |
|---|---|
| Synopsis | Enter the **low** context |
| Context | **configure** qos queue-group-templates ingress queue-group *named-item* queue *number* drop-tail low |
| Tree | low |
| Introduced | 16.0.R1 |
| Platforms | All |

### percent-reduction-from-mbs *(number | keyword)*

| | |
|---|---|
| Synopsis | Low drop-tail percent from MBS that is reduced |
| Context | **configure** qos queue-group-templates ingress queue-group *named-item* queue *number* drop-tail low percent-reduction-from-mbs *(number | keyword)* |
| Tree | percent-reduction-from-mbs |
| Range | 0 to 100 |
| Options | auto |
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | All |

### mbs *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum buffer space that is allowed for queue |
| Context | **configure** qos queue-group-templates ingress queue-group *named-item* queue *number* mbs *(number | keyword)* |
| Tree | mbs |
| Range | 0 to 1073741824 |
| Units | bytes |
| Options | auto |
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **multipoint** *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Create an ingress multipoint queue |
| Context | **configure** qos queue-group-templates ingress queue-group *named-item* queue *number* multipoint *boolean* |
| Tree | multipoint |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **packet-byte-offset** *number*

| | |
|---|---|
| Synopsis | Packet size modification for queue accounting |
| Context | **configure** qos queue-group-templates ingress queue-group *named-item* queue *number* packet-byte-offset *number* |
| Tree | packet-byte-offset |
| Range | -32 to 31 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **percent-rate**

| | |
|---|---|
| Synopsis | Enter the **percent-rate** context |
| Context | **configure** qos queue-group-templates ingress queue-group *named-item* queue *number* percent-rate |
| Tree | percent-rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 20.10.R1 |
| Platforms | All |


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### **cir** *decimal-number*

| | |
|---|---|
| Synopsis | Administrative CIR |
| Context | **configure** qos queue-group-templates ingress queue-group *named-item* queue *number* percent-rate cir *decimal-number* |
| Tree | cir |
| Range | 0.00 to 100.00 |
| Default | 0.00 |
| Notes | The following elements are part of a choice: (**cir** and **fir**) or **police**. |
| Introduced | 20.10.R1 |
| Platforms | All |

### **fir** *decimal-number*

| | |
|---|---|
| Synopsis | Administrative FIR |
| Context | **configure** qos queue-group-templates ingress queue-group *named-item* queue *number* percent-rate fir *decimal-number* |
| Tree | fir |
| Range | 0.00 to 100.00 |
| Default | 0.00 |
| Notes | The following elements are part of a choice: (**cir** and **fir**) or **police**. |
| Introduced | 20.10.R1 |
| Platforms | All |

### **pir** *decimal-number*

| | |
|---|---|
| Synopsis | Administrative PIR |
| Context | **configure** qos queue-group-templates ingress queue-group *named-item* queue *number* percent-rate pir *decimal-number* |
| Tree | pir |
| Range | 0.01 to 100.00 |
| Introduced | 20.10.R1 |
| Platforms | All |


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## police

| | |
|---|---|
| Synopsis | Drop out-of-profile traffic feeding into physical queue |
| Context | **configure** qos queue-group-templates ingress queue-group *named-item* queue *number* percent-rate police |
| Tree | police |
| Notes | The following elements are part of a choice: (**cir** and **fir**) or **police**. |
| Introduced | 20.10.R1 |
| Platforms | All |

## reference-rate *keyword*

| | |
|---|---|
| Synopsis | Reference rate |
| Context | **configure** qos queue-group-templates ingress queue-group *named-item* queue *number* percent-rate reference-rate *keyword* |
| Tree | reference-rate |
| Options | port-limit, local-limit, reference-port-limit |
| Default | port-limit |
| Introduced | 20.10.R1 |
| Platforms | All |

## queue-mode *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Queue operational mode for explicitly profiled packets |
| Context | **configure** qos queue-group-templates ingress queue-group *named-item* queue *number* queue-mode *keyword* |
| Tree | queue-mode |
| Options | priority, profile |
| Default | priority |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **queue-type** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Priority that this queue receives from the hardware level schedulers |
| Context | **configure** qos queue-group-templates ingress queue-group *named-item* queue *number* queue-type *keyword* |
| Tree | queue-type |
| Options | expedited, best-effort |
| Default | best-effort |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rate**

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** qos queue-group-templates ingress queue-group *named-item* queue *number* rate |
| Tree | rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cir** *(number | keyword)*

| | |
|---|---|
| Synopsis | Administrative CIR |
| Context | **configure** qos queue-group-templates ingress queue-group *named-item* queue *number* rate cir *(number | keyword)* |
| Tree | cir |
| Range | 0 to 2000000000 |
| Units | kilobps |
| Options | max |
| Default | 0 |
| Notes | The following elements are part of a choice: (**cir** and **fir**) or **police**. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **fir** *(number | keyword)*

| | |
|---|---|
| Synopsis | Administrative FIR |
| Context | **configure** qos queue-group-templates ingress queue-group *named-item* queue *number* rate fir *(number \| keyword)* |
| Tree | fir |
| Range | 0 to 2000000000 |
| Units | kilobps |
| Options | max |
| Default | 0 |
| Notes | The following elements are part of a choice: (**cir** and **fir**) or **police**. |
| Introduced | 16.0.R2 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | Administrative PIR |
| Context | **configure** qos queue-group-templates ingress queue-group *named-item* queue *number* rate pir *(number \| keyword)* |
| Tree | pir |
| Range | 1 to 2000000000 |
| Units | kilobps |
| Options | max |
| Default | max |
| Introduced | 16.0.R1 |
| Platforms | All |

### **police**

| | |
|---|---|
| Synopsis | Drop out-of-profile traffic feeding into queue instance |
| Context | **configure** qos queue-group-templates ingress queue-group *named-item* queue *number* rate police |
| Tree | police |


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| | |
|---|---|
| Notes | The following elements are part of a choice: (**cir** and **fir**) or **police**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## scheduler-parent

| | |
|---|---|
| Synopsis | Enter the **scheduler-parent** context |
| Context | **configure** qos queue-group-templates ingress queue-group *named-item* queue *number* scheduler-parent |
| Tree | scheduler-parent |
| Introduced | 16.0.R1 |
| Platforms | All |

## cir-level *number*

| | |
|---|---|
| Synopsis | Level of priority while feeding to the parent |
| Context | **configure** qos queue-group-templates ingress queue-group *named-item* queue *number* scheduler-parent cir-level *number* |
| Tree | cir-level |
| Range | 0 to 8 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

## cir-weight *number*

| | |
|---|---|
| Synopsis | Weight used at the within-CIR port priority level |
| Context | **configure** qos queue-group-templates ingress queue-group *named-item* queue *number* scheduler-parent cir-weight *number* |
| Tree | cir-weight |
| Range | 0 to 100 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **level** *number*

| | |
|---|---|
| Synopsis | Level of priority while feeding to the parent |
| Context | **configure** qos queue-group-templates ingress queue-group *named-item* queue *number* scheduler-parent level *number* |
| Tree | level |
| Range | 1 to 8 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **scheduler-name** *named-item*

| | |
|---|---|
| Synopsis | Scheduler name |
| Context | **configure** qos queue-group-templates ingress queue-group *named-item* queue *number* scheduler-parent scheduler-name *named-item* |
| Tree | scheduler-name |
| Description | This command associates a scheduler name to a queue. The scheduler name must have previously been defined within an existing scheduler policy and exist on each SAP the queue is created on. There are no checks performed to ensure that the scheduler name exists within an existing scheduler policy. Until the scheduler name exists on the egress SAP, the queue operates in an orphaned state. |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **weight** *number*

| | |
|---|---|
| Synopsis | Weight used by the scheduler for feeding the queue |
| Context | **configure** qos queue-group-templates ingress queue-group *named-item* queue *number* scheduler-parent weight *number* |
| Tree | weight |
| Range | 0 to 100 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **sap-egress** [sap-egress-policy-name] *qos-policy-name*

| | |
|---|---|
| Synopsis | Enter the **sap-egress** list instance |
| Context | **configure** qos sap-egress *qos-policy-name* |
| Tree | sap-egress |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**sap-egress-policy-name**] *qos-policy-name*

| | |
|---|---|
| Synopsis | Policy name |
| Context | **configure** qos sap-egress *qos-policy-name* |
| Tree | sap-egress |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** qos sap-egress *qos-policy-name* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **dot1p** [dot1p-value] *number*

| | |
|---|---|
| Synopsis | Enter the **dot1p** list instance |
| Context | **configure** qos sap-egress *qos-policy-name* dot1p *number* |
| Tree | dot1p |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**dot1p-value**] *number*

| | |
|---|---|
| Synopsis | Dot1p value to match in the packet |
| Context | **configure** qos sap-egress *qos-policy-name* dot1p *number* |
| Tree | dot1p |
| Range | 0 to 7 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **fc** *keyword*

| | |
|---|---|
| Synopsis | Forwarding class |
| Context | **configure** qos sap-egress *qos-policy-name* dot1p *number* fc *keyword* |
| Tree | fc |
| Options | be – Best effort<br>l2 – Low 2 (best effort)<br>af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority)<br>ef – Expedited forwarding (high priority)<br>h1 – High 1 (high priority)<br>nc – Network control (high priority) |
| Introduced | 16.0.R1 |
| Platforms | All |

### **profile** *keyword*

| | |
|---|---|
| Synopsis | Default profile for the ingressing traffic |
| Context | **configure** qos sap-egress *qos-policy-name* dot1p *number* profile *keyword* |
| Tree | profile |
| Options | in, out, de, exceed, inplus |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **dscp** [dscp-name] *keyword*

| | |
|---|---|
| Synopsis | Enter the **dscp** list instance |
| Context | **configure** qos sap-egress *qos-policy-name* dscp *keyword* |
| Tree | dscp |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**dscp-name**] *keyword*

| | |
|---|---|
| Synopsis | DSCP name to perform reclassification actions |
| Context | **configure** qos sap-egress *qos-policy-name* dscp *keyword* |
| Tree | dscp |
| Options | be, cp1, cp2, cp3, cp4, cp5, cp6, cp7, cs1, cp9, af11, cp11, af12, cp13, af13, cp15, cs2, cp17, af21, cp19, af22, cp21, af23, cp23, cs3, cp25, af31, cp27, af32, cp29, af33, cp31, cs4, cp33, af41, cp35, af42, cp37, af43, cp39, cs5, cp41, cp42, cp43, cp44, cp45, ef, cp47, nc1, cp49, cp50, cp51, cp52, cp53, cp54, cp55, nc2, cp57, cp58, cp59, cp60, cp61, cp62, cp63 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **fc** *keyword*

| | |
|---|---|
| Synopsis | Forwarding class |
| Context | **configure** qos sap-egress *qos-policy-name* dscp *keyword* fc *keyword* |
| Tree | fc |
| Options | be – Best effort<br>l2 – Low 2 (best effort)<br>af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority)<br>ef – Expedited forwarding (high priority)<br>h1 – High 1 (high priority)<br>nc – Network control (high priority) |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **profile** *keyword*

| | |
|---|---|
| Synopsis | Default profile for the ingressing traffic |
| Context | **configure** qos sap-egress *qos-policy-name* dscp *keyword* profile *keyword* |
| Tree | profile |
| Options | in, out, exceed, inplus |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ethernet-ctag** *boolean*

| | |
|---|---|
| Synopsis | Tag value for dot1p and DE (Drop-Eligible) that are used by all dot1-p entries |
| Context | **configure** qos sap-egress *qos-policy-name* ethernet-ctag *boolean* |
| Tree | ethernet-ctag |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **fc** [fc-name] *keyword*

| | |
|---|---|
| Synopsis | Enter the **fc** list instance |
| Context | **configure** qos sap-egress *qos-policy-name* fc *keyword* |
| Tree | fc |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**fc-name**] *keyword*

| | |
|---|---|
| Synopsis | Forwarding class |
| Context | **configure** qos sap-egress *qos-policy-name* fc *keyword* |
| Tree | fc |
| Options | be – Best effort<br>l2 – Low 2 (best effort)<br>af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority)<br>ef – Expedited forwarding (high priority) |


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| | |
|---|---|
| | h1 – High 1 (high priority)<br>nc – Network control (high priority) |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## de-mark

| | |
|---|---|
| Synopsis | Enable the **de-mark** context |
| Context | **configure** qos sap-egress *qos-policy-name* fc *keyword* de-mark |
| Tree | de-mark |
| Introduced | 16.0.R1 |
| Platforms | All |

## force *number*

| | |
|---|---|
| Synopsis | DE value |
| Context | **configure** qos sap-egress *qos-policy-name* fc *keyword* de-mark force *number* |
| Tree | force |
| Range | 0 to 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

## de-mark-inner

| | |
|---|---|
| Synopsis | Enable the **de-mark-inner** context |
| Context | **configure** qos sap-egress *qos-policy-name* fc *keyword* de-mark-inner |
| Tree | de-mark-inner |
| Introduced | 16.0.R1 |
| Platforms | All |

## force *number*

| | |
|---|---|
| Synopsis | DE value to set in inner VLAN tag |
| Context | **configure** qos sap-egress *qos-policy-name* fc *keyword* de-mark-inner force *number* |
| Tree | force |


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| | |
|---|---|
| Range | 0 to 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### de-mark-outer

| | |
|---|---|
| Synopsis | Enable the **de-mark-outer** context |
| Context | **configure** qos sap-egress *qos-policy-name* fc *keyword* de-mark-outer |
| Tree | de-mark-outer |
| Introduced | 16.0.R1 |
| Platforms | All |

### force *number*

| | |
|---|---|
| Synopsis | DE value to set in outer VLAN tag |
| Context | **configure** qos sap-egress *qos-policy-name* fc *keyword* de-mark-outer force *number* |
| Tree | force |
| Range | 0 to 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### dot1p

| | |
|---|---|
| Synopsis | Enter the **dot1p** context |
| Context | **configure** qos sap-egress *qos-policy-name* fc *keyword* dot1p |
| Tree | dot1p |
| Introduced | 16.0.R1 |
| Platforms | All |

### exceed-profile *number*

| | |
|---|---|
| Synopsis | Dot1p value for exceed-profile frames |
| Context | **configure** qos sap-egress *qos-policy-name* fc *keyword* dot1p exceed-profile *number* |
| Tree | exceed-profile |
| Range | 0 to 7 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **in-profile** *number*

| | |
|---|---|
| Synopsis | Dot1p value for in-profile frames |
| Context | **configure** qos sap-egress *qos-policy-name* fc *keyword* dot1p in-profile *number* |
| Tree | in-profile |
| Range | 0 to 7 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **out-profile** *number*

| | |
|---|---|
| Synopsis | Dot1p value for out-of-profile frames |
| Context | **configure** qos sap-egress *qos-policy-name* fc *keyword* dot1p out-profile *number* |
| Tree | out-profile |
| Range | 0 to 7 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **dot1p-inner**

| | |
|---|---|
| Synopsis | Enter the **dot1p-inner** context |
| Context | **configure** qos sap-egress *qos-policy-name* fc *keyword* dot1p-inner |
| Tree | dot1p-inner |
| Introduced | 16.0.R1 |
| Platforms | All |

### **exceed-profile** *number*

| | |
|---|---|
| Synopsis | Inner Dot1p value for exceed-profile frames |
| Context | **configure** qos sap-egress *qos-policy-name* fc *keyword* dot1p-inner exceed-profile *number* |
| Tree | exceed-profile |
| Range | 0 to 7 |


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| | |
|---|---|
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **in-profile** *number*

| | |
|---|---|
| Synopsis | Inner Dot1p value for in-profile frames |
| Context | **configure** qos sap-egress *qos-policy-name* fc *keyword* dot1p-inner in-profile *number* |
| Tree | in-profile |
| Range | 0 to 7 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **out-profile** *number*

| | |
|---|---|
| Synopsis | Inner Dot1p value for out-of-profile frames |
| Context | **configure** qos sap-egress *qos-policy-name* fc *keyword* dot1p-inner out-profile *number* |
| Tree | out-profile |
| Range | 0 to 7 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **dot1p-outer**

| | |
|---|---|
| Synopsis | Enter the **dot1p-outer** context |
| Context | **configure** qos sap-egress *qos-policy-name* fc *keyword* dot1p-outer |
| Tree | dot1p-outer |
| Introduced | 16.0.R1 |
| Platforms | All |

### **exceed-profile** *number*

| | |
|---|---|
| Synopsis | Outer Dot1p value for exceed-profile frames |
| Context | **configure** qos sap-egress *qos-policy-name* fc *keyword* dot1p-outer exceed-profile *number* |
| Tree | exceed-profile |
| Range | 0 to 7 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **in-profile** *number*

| | |
|---|---|
| Synopsis | Outer Dot1p value for in-profile frames |
| Context | **configure** qos sap-egress *qos-policy-name* fc *keyword* dot1p-outer in-profile *number* |
| Tree | in-profile |
| Range | 0 to 7 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **out-profile** *number*

| | |
|---|---|
| Synopsis | Outer Dot1p value for out-of-profile frames |
| Context | **configure** qos sap-egress *qos-policy-name* fc *keyword* dot1p-outer out-profile *number* |
| Tree | out-profile |
| Range | 0 to 7 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **dscp**

| | |
|---|---|
| Synopsis | Enter the **dscp** context |
| Context | **configure** qos sap-egress *qos-policy-name* fc *keyword* dscp |
| Tree | dscp |
| Notes | The following elements are part of a choice: **dscp** or **prec**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **exceed-profile** *keyword*

| | |
|---|---|
| Synopsis | DSCP name for exceed-profile frames |
| Context | **configure** qos sap-egress *qos-policy-name* fc *keyword* dscp exceed-profile *keyword* |
| Tree | exceed-profile |


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| | |
|---|---|
| Options | be, cp1, cp2, cp3, cp4, cp5, cp6, cp7, cs1, cp9, af11, cp11, af12, cp13, af13, cp15, cs2, cp17, af21, cp19, af22, cp21, af23, cp23, cs3, cp25, af31, cp27, af32, cp29, af33, cp31, cs4, cp33, af41, cp35, af42, cp37, af43, cp39, cs5, cp41, cp42, cp43, cp44, cp45, ef, cp47, nc1, cp49, cp50, cp51, cp52, cp53, cp54, cp55, nc2, cp57, cp58, cp59, cp60, cp61, cp62, cp63 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **in-profile** *keyword*

| | |
|---|---|
| Synopsis | DSCP name for in-profile frames |
| Context | **configure** qos sap-egress *qos-policy-name* fc *keyword* dscp in-profile *keyword* |
| Tree | in-profile |
| Options | be, cp1, cp2, cp3, cp4, cp5, cp6, cp7, cs1, cp9, af11, cp11, af12, cp13, af13, cp15, cs2, cp17, af21, cp19, af22, cp21, af23, cp23, cs3, cp25, af31, cp27, af32, cp29, af33, cp31, cs4, cp33, af41, cp35, af42, cp37, af43, cp39, cs5, cp41, cp42, cp43, cp44, cp45, ef, cp47, nc1, cp49, cp50, cp51, cp52, cp53, cp54, cp55, nc2, cp57, cp58, cp59, cp60, cp61, cp62, cp63 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **out-profile** *keyword*

| | |
|---|---|
| Synopsis | DSCP name for out-of-profile frames |
| Context | **configure** qos sap-egress *qos-policy-name* fc *keyword* dscp out-profile *keyword* |
| Tree | out-profile |
| Options | be, cp1, cp2, cp3, cp4, cp5, cp6, cp7, cs1, cp9, af11, cp11, af12, cp13, af13, cp15, cs2, cp17, af21, cp19, af22, cp21, af23, cp23, cs3, cp25, af31, cp27, af32, cp29, af33, cp31, cs4, cp33, af41, cp35, af42, cp37, af43, cp39, cs5, cp41, cp42, cp43, cp44, cp45, ef, cp47, nc1, cp49, cp50, cp51, cp52, cp53, cp54, cp55, nc2, cp57, cp58, cp59, cp60, cp61, cp62, cp63 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **policer** *reference*

| | |
|---|---|
| Synopsis | Policer to forward the traffic |
| Context | **configure** qos sap-egress *qos-policy-name* fc *keyword* policer *reference* |
| Tree | policer |


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| | |
|---|---|
| Reference | **configure** qos sap-egress *qos-policy-name* policer *number* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## port-redirect-group-queue

| | |
|---|---|
| Synopsis | Enable the **port-redirect-group-queue** context |
| Context | **configure** qos sap-egress *qos-policy-name* fc *keyword* port-redirect-group-queue |
| Tree | port-redirect-group-queue |
| Notes | The following elements are part of a choice: **port-redirect-group-queue**, **queue**, or **queue-group-queue**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## queue *number*

| | |
|---|---|
| Synopsis | Queue to forward the traffic |
| Context | **configure** qos sap-egress *qos-policy-name* fc *keyword* port-redirect-group-queue queue *number* |
| Tree | queue |
| Range | 1 to 8 |
| Introduced | 16.0.R1 |
| Platforms | All |

## prec

| | |
|---|---|
| Synopsis | Enter the **prec** context |
| Context | **configure** qos sap-egress *qos-policy-name* fc *keyword* prec |
| Tree | prec |
| Notes | The following elements are part of a choice: **dscp** or **prec**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## exceed-profile *number*

| | |
|---|---|
| Synopsis | Precedence for exceed-profile frames |


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| | |
|---|---|
| Context | **configure** qos sap-egress *qos-policy-name* fc *keyword* prec exceed-profile *number* |
| Tree | exceed-profile |
| Range | 0 to 7 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **in-profile** *number*

| | |
|---|---|
| Synopsis | Precedence value for in-profile frames |
| Context | **configure** qos sap-egress *qos-policy-name* fc *keyword* prec in-profile *number* |
| Tree | in-profile |
| Range | 0 to 7 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **out-profile** *number*

| | |
|---|---|
| Synopsis | Precedence value for out-of-profile frames |
| Context | **configure** qos sap-egress *qos-policy-name* fc *keyword* prec out-profile *number* |
| Tree | out-profile |
| Range | 0 to 7 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **queue** *reference*

| | |
|---|---|
| Synopsis | Queue to forward the traffic |
| Context | **configure** qos sap-egress *qos-policy-name* fc *keyword* queue *reference* |
| Tree | queue |
| Reference | **configure** qos sap-egress *qos-policy-name* queue *number* |
| Notes | The following elements are part of a choice: **port-redirect-group-queue**, **queue**, or **queue-group-queue**. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### queue-group-queue

| | |
|---|---|
| Synopsis | Enable the **queue-group-queue** context |
| Context | **configure** qos sap-egress *qos-policy-name* fc *keyword* queue-group-queue |
| Tree | queue-group-queue |
| Notes | The following elements are part of a choice: **port-redirect-group-queue**, **queue**, or **queue-group-queue**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### instance *number*

| | |
|---|---|
| Synopsis | Instance ID |
| Context | **configure** qos sap-egress *qos-policy-name* fc *keyword* queue-group-queue instance *number* |
| Tree | instance |
| Range | 1 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

### queue *reference*

| | |
|---|---|
| Synopsis | SAP egress queue ID |
| Context | **configure** qos sap-egress *qos-policy-name* fc *keyword* queue-group-queue queue *reference* |
| Tree | queue |
| Reference | **configure** qos queue-group-templates egress queue-group *named-item* queue *number* |
| Introduced | 16.0.R1 |
| Platforms | All |

### queue-group-name *reference*

| | |
|---|---|
| Synopsis | Queue group to forward traffic |
| Context | **configure** qos sap-egress *qos-policy-name* fc *keyword* queue-group-queue queue-group-name *reference* |
| Tree | queue-group-name |


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| | |
|---|---|
| Reference | **configure** qos queue-group-templates egress queue-group *named-item* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hs-attachment-policy** *reference*

| | |
|---|---|
| Synopsis | HS attachment policy applied |
| Context | **configure** qos sap-egress *qos-policy-name* hs-attachment-policy *reference* |
| Tree | hs-attachment-policy |
| Reference | **configure** qos hs-attachment-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **hs-wrr-group** [group-id] *number*

| | |
|---|---|
| Synopsis | Enter the **hs-wrr-group** list instance |
| Context | **configure** qos sap-egress *qos-policy-name* hs-wrr-group *number* |
| Tree | hs-wrr-group |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### [**group-id**] *number*

| | |
|---|---|
| Synopsis | HS WRR group identifier |
| Context | **configure** qos sap-egress *qos-policy-name* hs-wrr-group *number* |
| Tree | hs-wrr-group |
| Range | 1 to 2 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **adaptation-rule**

| | |
|---|---|
| Synopsis | Enter the **adaptation-rule** context |


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| | |
|---|---|
| Context | **configure** qos sap-egress *qos-policy-name* hs-wrr-group *number* adaptation-rule |
| Tree | adaptation-rule |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

## **pir** *keyword*

| | |
|---|---|
| Synopsis | Constraint used when deriving the operational PIR value |
| Context | **configure** qos sap-egress *qos-policy-name* hs-wrr-group *number* adaptation-rule pir *keyword* |
| Tree | pir |
| Options | max, min, closest |
| Default | closest |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

## **hs-class-weight** *number*

| | |
|---|---|
| Synopsis | Weight of scheduling class |
| Context | **configure** qos sap-egress *qos-policy-name* hs-wrr-group *number* hs-class-weight *number* |
| Tree | hs-class-weight |
| Range | 1 \| 2 \| 4 \| 8 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

## **percent-rate** *decimal-number*

| | |
|---|---|
| Synopsis | Administrative PIR percent |
| Context | **configure** qos sap-egress *qos-policy-name* hs-wrr-group *number* percent-rate *decimal-number* |
| Tree | percent-rate |
| Range | 0.01 to 100.00 |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7750 SR-7/12/12e |

### **rate** *(number | keyword)*

| | |
|---|---|
| Synopsis | Administrative PIR |
| Context | **configure** qos sap-egress *qos-policy-name* hs-wrr-group *number* rate *(number | keyword)* |
| Tree | rate |
| Range | 1 to 2000000000 |
| Units | kilobps |
| Options | max |
| Default | max |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **hw-agg-shaper-queues**

| | |
|---|---|
| Synopsis | Enter the **hw-agg-shaper-queues** context |
| Context | **configure** qos sap-egress *qos-policy-name* hw-agg-shaper-queues |
| Tree | hw-agg-shaper-queues |
| Description | Commands in this context configure the queue resources from which to draw for a given object (for example, a subscriber host or SAP). |
| Introduced | 23.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### **queue-set-size** *(number | keyword)*

| | |
|---|---|
| Synopsis | Queue resource allocation for the SAP egress policy |
| Context | **configure** qos sap-egress *qos-policy-name* hw-agg-shaper-queues queue-set-size *(number | keyword)* |
| Tree | queue-set-size |
| Description | This command configures the queue-set size or non-shaper-queue to use for this SAP egress policy. |
| Range | 2 to 8 |
| Options | non-shaper-queues |


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| | |
|---|---|
| Introduced | 23.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

## ip-criteria

| | |
|---|---|
| Synopsis | Enter the **ip-criteria** context |
| Context | **configure** qos sap-egress *qos-policy-name* ip-criteria |
| Tree | ip-criteria |
| Introduced | 16.0.R1 |
| Platforms | All |

## **entry** [entry-id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** qos sap-egress *qos-policy-name* ip-criteria entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**entry-id**] *number*

| | |
|---|---|
| Synopsis | IP Criteria Entry Index |
| Context | **configure** qos sap-egress *qos-policy-name* ip-criteria entry *number* |
| Tree | entry |
| Range | 1 to 65535 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## action

| | |
|---|---|
| Synopsis | Enter the **action** context |
| Context | **configure** qos sap-egress *qos-policy-name* ip-criteria entry *number* action |
| Tree | action |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## **fc** *keyword*

| | |
|---|---|
| Synopsis | Forwarding class |
| Context | **configure** qos sap-egress *qos-policy-name* ip-criteria entry *number* action fc *keyword* |
| Tree | fc |
| Options | be – Best effort<br>l2 – Low 2 (best effort)<br>af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority)<br>ef – Expedited forwarding (high priority)<br>h1 – High 1 (high priority)<br>nc – Network control (high priority) |
| Introduced | 16.0.R1 |
| Platforms | All |

## **policer** *reference*

| | |
|---|---|
| Synopsis | Policer identifier for the matched traffic |
| Context | **configure** qos sap-egress *qos-policy-name* ip-criteria entry *number* action policer *reference* |
| Tree | policer |
| Reference | **configure** qos sap-egress *qos-policy-name* policer *number* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## **port-redirect-group-queue** *boolean*

| | |
|---|---|
| Synopsis | Use queue specified in egress access port queue group |
| Context | **configure** qos sap-egress *qos-policy-name* ip-criteria entry *number* action port-redirect-group-queue *boolean* |
| Tree | port-redirect-group-queue |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **profile** *keyword*

| | |
|---|---|
| Synopsis | Default profile for the matching traffic |
| Context | **configure** qos sap-egress *qos-policy-name* ip-criteria entry *number* action profile *keyword* |
| Tree | profile |
| Options | in, out, exceed, inplus |
| Introduced | 16.0.R1 |
| Platforms | All |

### **queue** *number*

| | |
|---|---|
| Synopsis | Queue used for matched traffic policed by local policer |
| Context | **configure** qos sap-egress *qos-policy-name* ip-criteria entry *number* action queue *number* |
| Tree | queue |
| Range | 1 to 8 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **type** *keyword*

| | |
|---|---|
| Synopsis | Action for criteria entry |
| Context | **configure** qos sap-egress *qos-policy-name* ip-criteria entry *number* action type *keyword* |
| Tree | type |
| Options | ignore-match, accept |
| Default | ignore-match |
| Introduced | 16.0.R1 |
| Platforms | All |

### **use-fc-mapped-queue** *boolean*

| | |
|---|---|
| Synopsis | Redirect policer output to the configured queues |
| Context | **configure** qos sap-egress *qos-policy-name* ip-criteria entry *number* action use-fc-mapped-queue *boolean* |
| Tree | use-fc-mapped-queue |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** qos sap-egress *qos-policy-name* ip-criteria entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **match**

| | |
|---|---|
| Synopsis | Enter the **match** context |
| Context | **configure** qos sap-egress *qos-policy-name* ip-criteria entry *number* match |
| Tree | match |
| Introduced | 16.0.R1 |
| Platforms | All |

## **dscp** *keyword*

| | |
|---|---|
| Synopsis | DSCP value to match in the packet |
| Context | **configure** qos sap-egress *qos-policy-name* ip-criteria entry *number* match dscp *keyword* |
| Tree | dscp |
| Options | be, cp1, cp2, cp3, cp4, cp5, cp6, cp7, cs1, cp9, af11, cp11, af12, cp13, af13, cp15, cs2, cp17, af21, cp19, af22, cp21, af23, cp23, cs3, cp25, af31, cp27, af32, cp29, af33, cp31, cs4, cp33, af41, cp35, af42, cp37, af43, cp39, cs5, cp41, cp42, cp43, cp44, cp45, ef, cp47, nc1, cp49, cp50, cp51, cp52, cp53, cp54, cp55, nc2, cp57, cp58, cp59, cp60, cp61, cp62, cp63 |
| Introduced | 16.0.R1 |
| Platforms | All |


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## dst-ip

| | |
|---|---|
| Synopsis | Enter the **dst-ip** context |
| Context | **configure** qos sap-egress *qos-policy-name* ip-criteria entry *number* match dst-ip |
| Tree | dst-ip |
| Introduced | 16.0.R1 |
| Platforms | All |

## address *(ipv4-prefix-with-host-bits | ipv4-address)*

| | |
|---|---|
| Synopsis | Destination IPv4 address for SAP QoS policy match |
| Context | **configure** qos sap-egress *qos-policy-name* ip-criteria entry *number* match dst-ip address *(ipv4-prefix-with-host-bits \| ipv4-address)* |
| Tree | address |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ip-prefix-list**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## ip-prefix-list *reference*

| | |
|---|---|
| Synopsis | List of IPv4 prefixes for the match criteria |
| Context | **configure** qos sap-egress *qos-policy-name* ip-criteria entry *number* match dst-ip ip-prefix-list *reference* |
| Tree | ip-prefix-list |
| Reference | **configure** qos match-list ip-prefix-list *named-item* |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ip-prefix-list**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## mask *ipv4-address*

| | |
|---|---|
| Synopsis | IP address mask to match with source IP of the packet |
| Context | **configure** qos sap-egress *qos-policy-name* ip-criteria entry *number* match dst-ip mask *ipv4-address* |
| Tree | mask |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ip-prefix-list**. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## dst-port

| | |
|---|---|
| Synopsis | Enter the **dst-port** context |
| Context | **configure** qos sap-egress *qos-policy-name* ip-criteria entry *number* match dst-port |
| Tree | dst-port |
| Introduced | 16.0.R1 |
| Platforms | All |

## eq *number*

| | |
|---|---|
| Synopsis | Value 'equal to' as match condition |
| Context | **configure** qos sap-egress *qos-policy-name* ip-criteria entry *number* match dst-port eq *number* |
| Tree | eq |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## gt *number*

| | |
|---|---|
| Synopsis | Value 'greater than' as match condition |
| Context | **configure** qos sap-egress *qos-policy-name* ip-criteria entry *number* match dst-port gt *number* |
| Tree | gt |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## lt *number*

| | |
|---|---|
| Synopsis | Value 'less than' as match condition |


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| | |
|---|---|
| Context | **configure** qos sap-egress *qos-policy-name* ip-criteria entry *number* match dst-port lt *number* |
| Tree | lt |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## range

| | |
|---|---|
| Synopsis | Enter the **range** context |
| Context | **configure** qos sap-egress *qos-policy-name* ip-criteria entry *number* match dst-port range |
| Tree | range |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## end *number*

| | |
|---|---|
| Synopsis | Upper bound of the port range |
| Context | **configure** qos sap-egress *qos-policy-name* ip-criteria entry *number* match dst-port range end *number* |
| Tree | end |
| Range | 0 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

## start *number*

| | |
|---|---|
| Synopsis | Lower bound of the port range |
| Context | **configure** qos sap-egress *qos-policy-name* ip-criteria entry *number* match dst-port range start *number* |
| Tree | start |
| Range | 0 to 65535 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **fragment** *keyword*

| | |
|---|---|
| Synopsis | Fragmented packets as the match criterion |
| Context | **configure** qos sap-egress *qos-policy-name* ip-criteria entry *number* match fragment *keyword* |
| Tree | fragment |
| Options | false, true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **protocol** *(number | keyword)*

| | |
|---|---|
| Synopsis | IP protocol to match |
| Context | **configure** qos sap-egress *qos-policy-name* ip-criteria entry *number* match protocol *(number | keyword)* |
| Tree | protocol |
| Range | 0 to 255 |
| Options | tcp-udp, icmp, igmp, ip, tcp, egp, igp, udp, rdp, ipv6, ipv6-route, ipv6-frag, idrp, rsvp, gre, ipv6-icmp, ipv6-no-nxt, ipv6-opts, iso-ip, eigrp, ospf-igp, ether-ip, encap, pnni, pim, vrrp, l2tp, stp, ptp, isis, crtp, crudp, sctp |
| Introduced | 16.0.R1 |
| Platforms | All |

### **src-ip**

| | |
|---|---|
| Synopsis | Enter the **src-ip** context |
| Context | **configure** qos sap-egress *qos-policy-name* ip-criteria entry *number* match src-ip |
| Tree | src-ip |
| Introduced | 16.0.R1 |
| Platforms | All |

### **address** *(ipv4-prefix-with-host-bits | ipv4-address)*

| | |
|---|---|
| Synopsis | Source IPv4 address for SAP QoS policy match criterion |


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| | |
|---|---|
| Context | **configure** qos sap-egress *qos-policy-name* ip-criteria entry *number* match src-ip address *(ipv4-prefix-with-host-bits* \| *ipv4-address)* |
| Tree | address |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ip-prefix-list**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **ip-prefix-list** *reference*

| | |
|---|---|
| Synopsis | List of IPv4 prefixes for the match criteria |
| Context | **configure** qos sap-egress *qos-policy-name* ip-criteria entry *number* match src-ip ip-prefix-list *reference* |
| Tree | ip-prefix-list |
| Reference | **configure** qos match-list ip-prefix-list *named-item* |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ip-prefix-list**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **mask** *ipv4-address*

| | |
|---|---|
| Synopsis | IP address mask to match with source IP of the packet |
| Context | **configure** qos sap-egress *qos-policy-name* ip-criteria entry *number* match src-ip mask *ipv4-address* |
| Tree | mask |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ip-prefix-list**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **src-port**

| | |
|---|---|
| Synopsis | Enter the **src-port** context |
| Context | **configure** qos sap-egress *qos-policy-name* ip-criteria entry *number* match src-port |
| Tree | src-port |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **eq** *number*

| | |
|---|---|
| Synopsis | Value 'equal to' as match condition |
| Context | **configure** qos sap-egress *qos-policy-name* ip-criteria entry *number* match src-port eq *number* |
| Tree | eq |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **gt** *number*

| | |
|---|---|
| Synopsis | Value 'greater than' as match condition |
| Context | **configure** qos sap-egress *qos-policy-name* ip-criteria entry *number* match src-port gt *number* |
| Tree | gt |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lt** *number*

| | |
|---|---|
| Synopsis | Value 'less than' as match condition |
| Context | **configure** qos sap-egress *qos-policy-name* ip-criteria entry *number* match src-port lt *number* |
| Tree | lt |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **range**

| | |
|---|---|
| Synopsis | Enter the **range** context |


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| | |
|---|---|
| Context | **configure** qos sap-egress *qos-policy-name* ip-criteria entry *number* match src-port range |
| Tree | range |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the port range |
| Context | **configure** qos sap-egress *qos-policy-name* ip-criteria entry *number* match src-port range end *number* |
| Tree | end |
| Range | 0 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of the port range |
| Context | **configure** qos sap-egress *qos-policy-name* ip-criteria entry *number* match src-port range start *number* |
| Tree | start |
| Range | 0 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **ipv6-criteria**

| | |
|---|---|
| Synopsis | Enter the **ipv6-criteria** context |
| Context | **configure** qos sap-egress *qos-policy-name* ipv6-criteria |
| Tree | ipv6-criteria |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **entry** [entry-id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** qos sap-egress *qos-policy-name* ipv6-criteria entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**entry-id**] *number*

| | |
|---|---|
| Synopsis | IP Criteria Entry Index |
| Context | **configure** qos sap-egress *qos-policy-name* ipv6-criteria entry *number* |
| Tree | entry |
| Range | 1 to 65535 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **action**

| | |
|---|---|
| Synopsis | Enter the **action** context |
| Context | **configure** qos sap-egress *qos-policy-name* ipv6-criteria entry *number* action |
| Tree | action |
| Introduced | 16.0.R1 |
| Platforms | All |

### **fc** *keyword*

| | |
|---|---|
| Synopsis | Forwarding class |
| Context | **configure** qos sap-egress *qos-policy-name* ipv6-criteria entry *number* action fc *keyword* |
| Tree | fc |
| Options | be – Best effort<br>l2 – Low 2 (best effort)<br>af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority)<br>ef – Expedited forwarding (high priority) |


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| | |
|---|---|
| | h1 – High 1 (high priority)<br>nc – Network control (high priority) |
| Introduced | 16.0.R1 |
| Platforms | All |

### **policer** *reference*

| | |
|---|---|
| Synopsis | Policer identifier for the matched traffic |
| Context | **configure** qos sap-egress *qos-policy-name* ipv6-criteria entry *number* action policer *reference* |
| Tree | policer |
| Reference | **configure** qos sap-egress *qos-policy-name* policer *number* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **port-redirect-group-queue** *boolean*

| | |
|---|---|
| Synopsis | Use queue specified in egress access port queue group |
| Context | **configure** qos sap-egress *qos-policy-name* ipv6-criteria entry *number* action port-redirect-group-queue *boolean* |
| Tree | port-redirect-group-queue |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **profile** *keyword*

| | |
|---|---|
| Synopsis | Default profile for the matching traffic |
| Context | **configure** qos sap-egress *qos-policy-name* ipv6-criteria entry *number* action profile *keyword* |
| Tree | profile |
| Options | in, out, exceed, inplus |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **queue** *number*

| | |
|---|---|
| Synopsis | Queue used for matched traffic policed by local policer |
| Context | **configure** qos sap-egress *qos-policy-name* ipv6-criteria entry *number* action queue *number* |
| Tree | queue |
| Range | 1 to 8 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **type** *keyword*

| | |
|---|---|
| Synopsis | Action for criteria entry |
| Context | **configure** qos sap-egress *qos-policy-name* ipv6-criteria entry *number* action type *keyword* |
| Tree | type |
| Options | ignore-match, accept |
| Default | ignore-match |
| Introduced | 16.0.R1 |
| Platforms | All |

### **use-fc-mapped-queue** *boolean*

| | |
|---|---|
| Synopsis | Redirect policer output to the configured queues |
| Context | **configure** qos sap-egress *qos-policy-name* ipv6-criteria entry *number* action use-fc-mapped-queue *boolean* |
| Tree | use-fc-mapped-queue |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** qos sap-egress *qos-policy-name* ipv6-criteria entry *number* description *description* |


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| | |
|---|---|
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

## match

| | |
|---|---|
| Synopsis | Enter the **match** context |
| Context | **configure** qos sap-egress *qos-policy-name* ipv6-criteria entry *number* match |
| Tree | match |
| Introduced | 16.0.R1 |
| Platforms | All |

## dscp *keyword*

| | |
|---|---|
| Synopsis | DSCP value to match in the packet |
| Context | **configure** qos sap-egress *qos-policy-name* ipv6-criteria entry *number* match dscp *keyword* |
| Tree | dscp |
| Options | be, cp1, cp2, cp3, cp4, cp5, cp6, cp7, cs1, cp9, af11, cp11, af12, cp13, af13, cp15, cs2, cp17, af21, cp19, af22, cp21, af23, cp23, cs3, cp25, af31, cp27, af32, cp29, af33, cp31, cs4, cp33, af41, cp35, af42, cp37, af43, cp39, cs5, cp41, cp42, cp43, cp44, cp45, ef, cp47, nc1, cp49, cp50, cp51, cp52, cp53, cp54, cp55, nc2, cp57, cp58, cp59, cp60, cp61, cp62, cp63 |
| Introduced | 16.0.R1 |
| Platforms | All |

## dst-ip

| | |
|---|---|
| Synopsis | Enter the **dst-ip** context |
| Context | **configure** qos sap-egress *qos-policy-name* ipv6-criteria entry *number* match dst-ip |
| Tree | dst-ip |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **address** *(ipv6-prefix-with-host-bits | ipv6-address)*

| | |
|---|---|
| Synopsis | Destination IPv6 address for SAP QoS policy match |
| Context | **configure** qos sap-egress *qos-policy-name* ipv6-criteria entry *number* match dst-ip address *(ipv6-prefix-with-host-bits \| ipv6-address)* |
| Tree | address |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ipv6-prefix-list**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv6-prefix-list** *reference*

| | |
|---|---|
| Synopsis | IPv6 prefix list as match criterion for IPv6 addresses |
| Context | **configure** qos sap-egress *qos-policy-name* ipv6-criteria entry *number* match dst-ip ipv6-prefix-list *reference* |
| Tree | ipv6-prefix-list |
| Reference | **configure** qos match-list ipv6-prefix-list *named-item* |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ipv6-prefix-list**. |
| Introduced | 20.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **mask** *ipv6-address*

| | |
|---|---|
| Synopsis | IP address mask to match with destination IP of packet |
| Context | **configure** qos sap-egress *qos-policy-name* ipv6-criteria entry *number* match dst-ip mask *ipv6-address* |
| Tree | mask |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ipv6-prefix-list**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **dst-port**

| | |
|---|---|
| Synopsis | Enter the **dst-port** context |
| Context | **configure** qos sap-egress *qos-policy-name* ipv6-criteria entry *number* match dst-port |
| Tree | dst-port |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **eq** *number*

| | |
|---|---|
| Synopsis | Value 'equal to' as match condition |
| Context | **configure** qos sap-egress *qos-policy-name* ipv6-criteria entry *number* match dst-port eq *number* |
| Tree | eq |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **gt** *number*

| | |
|---|---|
| Synopsis | Value 'greater than' as match condition |
| Context | **configure** qos sap-egress *qos-policy-name* ipv6-criteria entry *number* match dst-port gt *number* |
| Tree | gt |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lt** *number*

| | |
|---|---|
| Synopsis | Value 'less than' as match condition |
| Context | **configure** qos sap-egress *qos-policy-name* ipv6-criteria entry *number* match dst-port lt *number* |
| Tree | lt |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### range

| | |
|---|---|
| Synopsis | Enter the **range** context |
| Context | **configure** qos sap-egress *qos-policy-name* ipv6-criteria entry *number* match dst-port range |
| Tree | range |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### end *number*

| | |
|---|---|
| Synopsis | Upper bound of the port range |
| Context | **configure** qos sap-egress *qos-policy-name* ipv6-criteria entry *number* match dst-port range end *number* |
| Tree | end |
| Range | 0 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

### start *number*

| | |
|---|---|
| Synopsis | Lower bound of the port range |
| Context | **configure** qos sap-egress *qos-policy-name* ipv6-criteria entry *number* match dst-port range start *number* |
| Tree | start |
| Range | 0 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

### next-header *(number | keyword)*

| | |
|---|---|
| Synopsis | IP protocol to match |
| Context | **configure** qos sap-egress *qos-policy-name* ipv6-criteria entry *number* match next-header *(number | keyword)* |
| Tree | next-header |


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| | |
|---|---|
| Range | 0 to 255 |
| Options | tcp-udp, icmp, igmp, ip, tcp, egp, igp, udp, rdp, ipv6, ipv6-route, ipv6-frag, idrp, rsvp, gre, ipv6-icmp, ipv6-no-nxt, ipv6-opts, iso-ip, eigrp, ospf-igp, ether-ip, encap, pnni, pim, vrrp, l2tp, stp, ptp, isis, crtp, crudp, sctp |
| Introduced | 16.0.R1 |
| Platforms | All |

## src-ip

| | |
|---|---|
| Synopsis | Enter the **src-ip** context |
| Context | **configure** qos sap-egress *qos-policy-name* ipv6-criteria entry *number* match src-ip |
| Tree | src-ip |
| Introduced | 16.0.R1 |
| Platforms | All |

## address *(ipv6-prefix-with-host-bits | ipv6-address)*

| | |
|---|---|
| Synopsis | Source IPv6 address for SAP QoS policy match |
| Context | **configure** qos sap-egress *qos-policy-name* ipv6-criteria entry *number* match src-ip address *(ipv6-prefix-with-host-bits | ipv6-address)* |
| Tree | address |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ipv6-prefix-list**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## ipv6-prefix-list *reference*

| | |
|---|---|
| Synopsis | IPv6 prefix list as match criterion for IPv6 addresses |
| Context | **configure** qos sap-egress *qos-policy-name* ipv6-criteria entry *number* match src-ip ipv6-prefix-list *reference* |
| Tree | ipv6-prefix-list |
| Reference | **configure** qos match-list ipv6-prefix-list *named-item* |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ipv6-prefix-list**. |
| Introduced | 20.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **mask** *ipv6-address*

| | |
|---|---|
| Synopsis | IP address mask to match with source IP of the packet |
| Context | **configure** qos sap-egress *qos-policy-name* ipv6-criteria entry *number* match src-ip mask *ipv6-address* |
| Tree | mask |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ipv6-prefix-list**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **src-port**

| | |
|---|---|
| Synopsis | Enter the **src-port** context |
| Context | **configure** qos sap-egress *qos-policy-name* ipv6-criteria entry *number* match src-port |
| Tree | src-port |
| Introduced | 16.0.R1 |
| Platforms | All |

### **eq** *number*

| | |
|---|---|
| Synopsis | Value 'equal to' as match condition |
| Context | **configure** qos sap-egress *qos-policy-name* ipv6-criteria entry *number* match src-port eq *number* |
| Tree | eq |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **gt** *number*

| | |
|---|---|
| Synopsis | Value 'greater than' as match condition |
| Context | **configure** qos sap-egress *qos-policy-name* ipv6-criteria entry *number* match src-port gt *number* |
| Tree | gt |
| Range | 0 to 65535 |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **lt** *number*

| | |
|---|---|
| Synopsis | Value 'less than' as match condition |
| Context | **configure** qos sap-egress *qos-policy-name* ipv6-criteria entry *number* match src-port lt *number* |
| Tree | lt |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **range**

| | |
|---|---|
| Synopsis | Enter the **range** context |
| Context | **configure** qos sap-egress *qos-policy-name* ipv6-criteria entry *number* match src-port range |
| Tree | range |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the port range |
| Context | **configure** qos sap-egress *qos-policy-name* ipv6-criteria entry *number* match src-port range end *number* |
| Tree | end |
| Range | 0 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of the port range |
| Context | **configure** qos sap-egress *qos-policy-name* ipv6-criteria entry *number* match src-port range start *number* |
| Tree | start |
| Range | 0 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **parent-location** *keyword*

| | |
|---|---|
| Synopsis | Location where queues look to find parent scheduler |
| Context | **configure** qos sap-egress *qos-policy-name* parent-location *keyword* |
| Tree | parent-location |
| Options | auto, sla |
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | All |

### **policer** [policer-id] *number*

| | |
|---|---|
| Synopsis | Enter the **policer** list instance |
| Context | **configure** qos sap-egress *qos-policy-name* policer *number* |
| Tree | policer |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### [**policer-id**] *number*

| | |
|---|---|
| Synopsis | SAP egress policer ID |
| Context | **configure** qos sap-egress *qos-policy-name* policer *number* |
| Tree | policer |
| Range | 1 to 63 |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## adaptation-rule

| | |
|---|---|
| Synopsis | Enter the **adaptation-rule** context |
| Context | **configure** qos sap-egress *qos-policy-name* policer *number* adaptation-rule |
| Tree | adaptation-rule |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## **cir** *keyword*

| | |
|---|---|
| Synopsis | Constraint used when deriving the operational CIR value |
| Context | **configure** qos sap-egress *qos-policy-name* policer *number* adaptation-rule cir *keyword* |
| Tree | cir |
| Options | max, min, closest |
| Default | closest |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## **pir** *keyword*

| | |
|---|---|
| Synopsis | Constraint used when deriving the operational PIR value |
| Context | **configure** qos sap-egress *qos-policy-name* policer *number* adaptation-rule pir *keyword* |
| Tree | pir |
| Options | max, min, closest |
| Default | closest |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## **adv-config-policy** *reference*

| | |
|---|---|
| Synopsis | Advanced QoS policy name |
| Context | **configure** qos sap-egress *qos-policy-name* policer *number* adv-config-policy *reference* |


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| | |
|---|---|
| Tree | adv-config-policy |
| Reference | **configure** qos adv-config-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## arbiter-parent

| | |
|---|---|
| Synopsis | Enter the **arbiter-parent** context |
| Context | **configure** qos sap-egress *qos-policy-name* policer *number* arbiter-parent |
| Tree | arbiter-parent |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## arbiter-name *named-item*

| | |
|---|---|
| Synopsis | Arbiter name |
| Context | **configure** qos sap-egress *qos-policy-name* policer *number* arbiter-parent arbiter-name *named-item* |
| Tree | arbiter-name |
| Description | This command specifies an arbiter name. The policer is intended to become a child to one of the tiered arbiters with the specified arbiter name where an instance of the policer is created. If the specified arbiter name does not exist, the policer is placed in the orphan state. |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## level *number*

| | |
|---|---|
| Synopsis | Level of priority while feeding to the parent |
| Context | **configure** qos sap-egress *qos-policy-name* policer *number* arbiter-parent level *number* |
| Tree | level |
| Range | 1 to 8 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |


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### **weight** *number*

| | |
|---|---|
| Synopsis | Weight used by the arbiter for feeding the policer |
| Context | **configure** qos sap-egress *qos-policy-name* policer *number* arbiter-parent weight *number* |
| Tree | weight |
| Range | 1 to 100 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **cbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | Exceed threshold of the CIR leaky bucket of the policer |
| Context | **configure** qos sap-egress *qos-policy-name* policer *number* cbs *(number | keyword)* |
| Tree | cbs |
| Range | 0 to 268435456 |
| Units | bytes |
| Options | auto |
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** qos sap-egress *qos-policy-name* policer *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **dscp-prec-remarking** *boolean*

| | |
|---|---|
| Synopsis | Remark DSCP/precedence based on packet profile state |


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| | |
|---|---|
| Context | **configure** qos sap-egress *qos-policy-name* policer *number* dscp-prec-remarking *boolean* |
| Tree | dscp-prec-remarking |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **exceed-pir** *boolean*

| | |
|---|---|
| Synopsis | Forward packets exceeding the PIR as exceed-profile |
| Context | **configure** qos sap-egress *qos-policy-name* policer *number* exceed-pir *boolean* |
| Tree | exceed-pir |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **high-prio-only** *(number | keyword)*

| | |
|---|---|
| Synopsis | Percentage of MBS reserved for high priority traffic |
| Context | **configure** qos sap-egress *qos-policy-name* policer *number* high-prio-only *(number | keyword)* |
| Tree | high-prio-only |
| Range | 0 to 100 |
| Options | auto |
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **mbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum burst tolerance allowed by the policer |
| Context | **configure** qos sap-egress *qos-policy-name* policer *number* mbs *(number | keyword)* |
| Tree | mbs |
| Range | 0 to 268435456 |
| Units | bytes |
| Options | auto |


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| | |
|---|---|
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **packet-byte-offset** *number*

| | |
|---|---|
| Synopsis | Packet size modification for policing information |
| Context | **configure** qos sap-egress *qos-policy-name* policer *number* packet-byte-offset *number* |
| Tree | packet-byte-offset |
| Range | -64 to 31 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **percent-rate**

| | |
|---|---|
| Synopsis | Enter the **percent-rate** context |
| Context | **configure** qos sap-egress *qos-policy-name* policer *number* percent-rate |
| Tree | percent-rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **cir** *decimal-number*

| | |
|---|---|
| Synopsis | Administrative CIR percent |
| Context | **configure** qos sap-egress *qos-policy-name* policer *number* percent-rate cir *decimal-number* |
| Tree | cir |
| Range | 0.00 to 100.00 |
| Default | 0.00 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |


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### **pir** *decimal-number*

| | |
|---|---|
| Synopsis | Administrative PIR percent |
| Context | **configure** qos sap-egress *qos-policy-name* policer *number* percent-rate pir *decimal-number* |
| Tree | pir |
| Range | 0.01 to 100.00 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **reference-rate** *keyword*

| | |
|---|---|
| Synopsis | Reference rate |
| Context | **configure** qos sap-egress *qos-policy-name* policer *number* percent-rate reference-rate *keyword* |
| Tree | reference-rate |
| Options | local-limit, reference-port-limit |
| Default | local-limit |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **port-parent**

| | |
|---|---|
| Synopsis | Enable the **port-parent** context |
| Context | **configure** qos sap-egress *qos-policy-name* policer *number* port-parent |
| Tree | port-parent |
| Notes | The following elements are part of a choice: **port-parent** or **scheduler-parent**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **cir-level** *number*

| | |
|---|---|
| Synopsis | Port priority level for within-CIR offered load |
| Context | **configure** qos sap-egress *qos-policy-name* policer *number* port-parent cir-level *number* |
| Tree | cir-level |


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| | |
|---|---|
| Description | This command defines the port priority that the policer uses to receive bandwidth for its within-CIR offered load. If this command is set to the default value, the policer does not receive bandwidth during the port schedulers with-CIR pass and the **cir-weight** command is ignored. |
| Range | 0 to 8 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## **cir-weight** *number*

| | |
|---|---|
| Synopsis | Weight to use in the within-CIR port priority level |
| Context | **configure** qos sap-egress *qos-policy-name* policer *number* port-parent cir-weight *number* |
| Tree | cir-weight |
| Description | This command defines the weight that the policer uses at the within-CIR port priority level.<br>All CIR weight values from all weighted active policers, queues, and schedulers with a common port parent are added together. Each individual active weight is then divided by the total to determine the percentage of remaining bandwidth provided to the policer, queue, or scheduler after the higher priority level children have been serviced. A weight is considered active when the applicable policer, queue, or scheduler has not reached its maximum rate and still has packets to transmit.<br>When this command is set to the default value, the policer receives bandwidth only after other children with a non-zero weight at this level have been serviced. |
| Range | 0 to 100 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## **level** *number*

| | |
|---|---|
| Synopsis | Port priority level for above-CIR behavior |
| Context | **configure** qos sap-egress *qos-policy-name* policer *number* port-parent level *number* |
| Tree | level |
| Range | 1 to 8 |
| Default | 1 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **weight** *number*

| | |
|---|---|
| Synopsis | Weight to use in the above-CIR port priority level |
| Context | **configure** qos sap-egress *qos-policy-name* policer *number* port-parent weight *number* |
| Tree | weight |
| Description | This command defines the weight that the policer uses at the above-CIR port priority level.<br>All weight values from all weighted active policers, queues, and schedulers with a common port parent are added together. Each individual active weight is then divided by the total to determine the percentage of remaining bandwidth provided to the policer, queue, or scheduler after the higher priority level children have been serviced. A weight is considered to be active when the applicable policer, queue, or scheduler has not reached its maximum rate and still has packets to transmit.<br>When this command is set to a value of 0, the policer receives bandwidth only after other children with a non-zero weight at this level. |
| Range | 0 to 100 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **profile-capped** *boolean*

| | |
|---|---|
| Synopsis | Enforce overall in-profile burst limit to CIR bucket |
| Context | **configure** qos sap-egress *qos-policy-name* policer *number* profile-capped *boolean* |
| Tree | profile-capped |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **profile-out-preserve** *boolean*

| | |
|---|---|
| Synopsis | Preserve the color of offered out-of-profile traffic |
| Context | **configure** qos sap-egress *qos-policy-name* policer *number* profile-out-preserve *boolean* |
| Tree | profile-out-preserve |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### rate

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** qos sap-egress *qos-policy-name* policer *number* rate |
| Tree | rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### cir *(number | keyword)*

| | |
|---|---|
| Synopsis | Administrative CIR |
| Context | **configure** qos sap-egress *qos-policy-name* policer *number* rate cir *(number \| keyword)* |
| Tree | cir |
| Range | 0 to 6400000000 |
| Units | kilobps |
| Options | max |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### pir *(number | keyword)*

| | |
|---|---|
| Synopsis | Administrative PIR |
| Context | **configure** qos sap-egress *qos-policy-name* policer *number* rate pir *(number \| keyword)* |
| Tree | pir |
| Range | 1 to 6400000000 |
| Units | kilobps |
| Options | max |
| Default | max |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |


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## scheduler-parent

| | |
|---|---|
| Synopsis | Enable the **scheduler-parent** context |
| Context | **configure** qos sap-egress *qos-policy-name* policer *number* scheduler-parent |
| Tree | scheduler-parent |
| Notes | The following elements are part of a choice: **port-parent** or **scheduler-parent**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## cir-level *number*

| | |
|---|---|
| Synopsis | Port priority level for within-CIR offered load |
| Context | **configure** qos sap-egress *qos-policy-name* policer *number* scheduler-parent cir-level *number* |
| Tree | cir-level |
| Description | This command defines the hierarchy priority level when compared with other policers, queues, and schedulers that the policer uses to receive bandwidth for its within-CIR offered load. If this command is set to the default value, the policer does not receive bandwidth during the schedulers within-CIR pass and the **cir-weight** command is ignored. |
| Range | 0 to 8 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## cir-weight *number*

| | |
|---|---|
| Synopsis | Weight to use in the within-CIR port priority level |
| Context | **configure** qos sap-egress *qos-policy-name* policer *number* scheduler-parent cir-weight *number* |
| Tree | cir-weight |
| Description | The command defines the relative weight of the policer in comparison with other child policers, queues, or schedulers competing for bandwidth on the parent scheduler name at the within-CIR priority level.<br><br>A weight is considered to be active when the applicable policer, queue, or scheduler has not reached its maximum rate and still has packets to transmit.<br><br>When this command is set to a value of 0, the policer receives bandwidth only after the other children with a non-zero weight at this level have been serviced. |


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| | |
|---|---|
| Range | 0 to 100 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **level** *number*

| | |
|---|---|
| Synopsis | Priority level for bandwidth on the parent scheduler |
| Context | **configure** qos sap-egress *qos-policy-name* policer *number* scheduler-parent level *number* |
| Tree | level |
| Description | This command defines the priority level when compared with other policers, queues, and schedulers when competing for bandwidth on the parent scheduler.<br>Children of the parent scheduler with a lower priority do not receive bandwidth until all children with a higher priority have either reached their maximum bandwidth or are idle. Children with the same level are serviced in relation to their relative weights. |
| Range | 1 to 8 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **scheduler-name** *named-item*

| | |
|---|---|
| Synopsis | Scheduler name |
| Context | **configure** qos sap-egress *qos-policy-name* policer *number* scheduler-parent scheduler-name *named-item* |
| Tree | scheduler-name |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **weight** *number*

| | |
|---|---|
| Synopsis | Policer weight at the above-CIR priority level |
| Context | **configure** qos sap-egress *qos-policy-name* policer *number* scheduler-parent weight *number* |


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| | |
|---|---|
| Tree | weight |
| Range | 0 to 100 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **stat-mode** *keyword*

| | |
|---|---|
| Synopsis | Mode of statistics collected by the policer |
| Context | **configure** qos sap-egress *qos-policy-name* policer *number* stat-mode *keyword* |
| Tree | stat-mode |
| Options | no-stats, minimal, offered-profile-no-cir, offered-total-cir, offered-profile-cir, offered-limited-capped-cir, offered-profile-capped-cir, offered-total-cir-exceed, offered-four-profile-no-cir, offered-total-cir-four-profile |
| Default | minimal |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **policers-hqos-manageable** *boolean*

| | |
|---|---|
| Synopsis | Manage policers through the Hierarchical QoS process |
| Context | **configure** qos sap-egress *qos-policy-name* policers-hqos-manageable *boolean* |
| Tree | policers-hqos-manageable |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-1s, 7750 SR-1se, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, VSR |

### **policy-id** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Egress SAP QoS policy ID |
| Context | **configure** qos sap-egress *qos-policy-name* policy-id *number* |
| Tree | policy-id |


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| | |
|---|---|
| Range | 1 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **post-policer-mapping** *reference*

| | |
|---|---|
| Synopsis | Post policer mapping policy applied to this policy |
| Context | **configure** qos sap-egress *qos-policy-name* post-policer-mapping *reference* |
| Tree | post-policer-mapping |
| Reference | **configure** qos post-policer-mapping *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **prec** [prec-value] *number*

| | |
|---|---|
| Synopsis | Enter the **prec** list instance |
| Context | **configure** qos sap-egress *qos-policy-name* prec *number* |
| Tree | prec |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**prec-value**] *number*

| | |
|---|---|
| Synopsis | Precedence value for which mapping is performed |
| Context | **configure** qos sap-egress *qos-policy-name* prec *number* |
| Tree | prec |
| Range | 0 to 7 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **fc** *keyword*

| | |
|---|---|
| Synopsis | Forwarding class |
| Context | **configure** qos sap-egress *qos-policy-name* prec *number* fc *keyword* |


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| | |
|---|---|
| Tree | fc |
| Options | be – Best effort<br>l2 – Low 2 (best effort)<br>af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority)<br>ef – Expedited forwarding (high priority)<br>h1 – High 1 (high priority)<br>nc – Network control (high priority) |
| Introduced | 16.0.R1 |
| Platforms | All |

### **profile** *keyword*

| | |
|---|---|
| Synopsis | Default profile for the ingressing traffic |
| Context | **configure** qos sap-egress *qos-policy-name* prec *number* profile *keyword* |
| Tree | profile |
| Options | in, out, exceed, inplus |
| Introduced | 16.0.R1 |
| Platforms | All |

### **queue** [queue-id] *number*

| | |
|---|---|
| Synopsis | Enter the **queue** list instance |
| Context | **configure** qos sap-egress *qos-policy-name* queue *number* |
| Tree | queue |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**queue-id**] *number*

| | |
|---|---|
| Synopsis | Egress Queue-Group queue identifier |
| Context | **configure** qos sap-egress *qos-policy-name* queue *number* |
| Tree | queue |
| Range | 1 to 8 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## adaptation-rule

| | |
|---|---|
| Synopsis | Enter the **adaptation-rule** context |
| Context | **configure** qos sap-egress *qos-policy-name* queue *number* adaptation-rule |
| Tree | adaptation-rule |
| Introduced | 16.0.R1 |
| Platforms | All |

## **cir** *keyword*

| | |
|---|---|
| Synopsis | Constraint used when deriving the operational CIR value |
| Context | **configure** qos sap-egress *qos-policy-name* queue *number* adaptation-rule cir *keyword* |
| Tree | cir |
| Options | max, min, closest |
| Default | closest |
| Introduced | 16.0.R1 |
| Platforms | All |

## **pir** *keyword*

| | |
|---|---|
| Synopsis | Constraint used when deriving the operational PIR value |
| Context | **configure** qos sap-egress *qos-policy-name* queue *number* adaptation-rule pir *keyword* |
| Tree | pir |
| Options | max, min, closest |
| Default | closest |
| Introduced | 16.0.R1 |
| Platforms | All |

## **adv-config-policy** *reference*

| | |
|---|---|
| Synopsis | Name of the advanced configuration policy |
| Context | **configure** qos sap-egress *qos-policy-name* queue *number* adv-config-policy *reference* |
| Tree | adv-config-policy |


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| | |
|---|---|
| Reference | **configure** qos adv-config-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **agg-shaper-weight** *number*

| | |
|---|---|
| Synopsis | Aggregate shaper weight of the sap-egress queue |
| Context | **configure** qos sap-egress *qos-policy-name* queue *number* agg-shaper-weight *number* |
| Tree | agg-shaper-weight |
| Range | 1 to 100 |
| Default | 1 |
| Introduced | 21.7.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

## **avg-frame-overhead** *decimal-number*

| | |
|---|---|
| Synopsis | Average packet-to-frame encapsulation overhead |
| Context | **configure** qos sap-egress *qos-policy-name* queue *number* avg-frame-overhead *decimal-number* |
| Tree | avg-frame-overhead |
| Description | This command configures the average frame overhead, expressed as a percentage, at which the offered load expands on the physical medium (wire) at egress. This is important for accurate "on-the-wire" rate calculations at various levels of H-QoS that do not inherently account for the physical medium characteristics. For example, without considering this overhead, a port-scheduler in H-QoS might inaccurately estimate the available bandwidth on the wire, potentially leading to congestion issues and unexpected packet loss.<br><br>The rates impacted by the average frame overhead encompass the rates set on port-schedulers and aggregate rate limits for subscribers and Vports. This impact is evident in the configured values, which represent on-the-wire (OTW) rates. Queue configured rates, however, remain unaffected by this adjustment and continue to reflect Layer 2 rates.<br><br>Configure the average frame overhead in networks with physical mediums that have constant sizes of transmission units (packets or cells) or in scenarios where the average packet size is known.<br><br>The average frame overhead only affects rate and weight calculations and does not impact collected statistics for accounting purposes.<br><br>For Ethernet ports, the effect of this command depends on the setting of the **avg-frame-overhead-mode** command in advanced QoS configuration policy associated with the queue. If the **avg-frame-overhead-mode** is set to **auto**, the packet encapsulation overhead calculation is based on a fixed 20 bytes (7 bytes for preamble, 1 byte for start |


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of frame delimiter and 12 bytes for Inter-Frame Gap) that Ethernet medium adds to every packet during transmission. In other words, the configured rates for port-scheduler and aggregate rate limits for subscribers and Vports represent OTW rates.

| | |
|---|---|
| Range | 0.00 to 100.00 |
| Default | 0.00 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **burst-limit** *(number | keyword)*

| | |
|---|---|
| Synopsis | Explicit shaping burst size of a queue |
| Context | **configure** qos sap-egress *qos-policy-name* queue *number* burst-limit *(number \| keyword)* |
| Tree | burst-limit |
| Range | 1 to 14000000 |
| Units | bytes |
| Options | auto |
| Default | auto |
| Notes | The following elements are part of a choice: **burst-limit** or **burst-limit-delay-time**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **burst-limit-delay-time** *number*

| | |
|---|---|
| Synopsis | Burst limit as a function of time delay |
| Context | **configure** qos sap-egress *qos-policy-name* queue *number* burst-limit-delay-time *number* |
| Tree | burst-limit-delay-time |
| Description | This command configures the burst time as a function of the expected delay. The system automatically translates this configuration into kilobytes based on the administrative rate of the queue parent (for example, the scheduler or aggregate-shaper). The actual operational values of CBS and MBS are shown in kilobytes, and not as a percentage of the delay. |
| Range | 0 to 1000000 |
| Units | microseconds |
| Notes | The following elements are part of a choice: **burst-limit** or **burst-limit-delay-time**. |
| Introduced | 24.7.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **cbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | Reserved buffer space for the queue |
| Context | **configure** qos sap-egress *qos-policy-name* queue *number* cbs *(number \| keyword)* |
| Tree | cbs |
| Range | 0 to 1048576 |
| Units | kilobytes |
| Options | auto |
| Default | auto |
| Notes | The following elements are part of a choice: **cbs**, **cbs-delay-percent**, or **cbs-delay-time**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cbs-delay-percent** *decimal-number*

| | |
|---|---|
| Synopsis | CBS as a portion of SAP latency budget |
| Context | **configure** qos sap-egress *qos-policy-name* queue *number* cbs-delay-percent *decimal-number* |
| Tree | cbs-delay-percent |
| Range | 0.00 to 100.00 |
| Units | percent |
| Notes | The following elements are part of a choice: **cbs**, **cbs-delay-percent**, or **cbs-delay-time**. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **cbs-delay-time** *number*

| | |
|---|---|
| Synopsis | CBS as a function of time delay |
| Context | **configure** qos sap-egress *qos-policy-name* queue *number* cbs-delay-time *number* |
| Tree | cbs-delay-time |
| Description | This command configures the CBS as a function of the expected delay. The system automatically translates this configuration into kilobytes based on the administrative rate of the queue parent (for example, the scheduler or aggregate-shaper). The actual |


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| | |
|---|---|
| | operational values of CBS and MBS are shown in kilobytes, and not as a percentage of the delay. |
| Range | 0 to 1000000 |
| Units | microseconds |
| Notes | The following elements are part of a choice: **cbs**, **cbs-delay-percent**, or **cbs-delay-time**. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## drop-tail

| | |
|---|---|
| Synopsis | Enter the **drop-tail** context |
| Context | **configure** qos sap-egress *qos-policy-name* queue *number* drop-tail |
| Tree | drop-tail |
| Introduced | 16.0.R1 |
| Platforms | All |

## exceed

| | |
|---|---|
| Synopsis | Enter the **exceed** context |
| Context | **configure** qos sap-egress *qos-policy-name* queue *number* drop-tail exceed |
| Tree | exceed |
| Introduced | 16.0.R1 |
| Platforms | All |

## percent-reduction-from-mbs *(number | keyword)*

| | |
|---|---|
| Synopsis | Percentage reduction from the MBS for a queue drop tail |
| Context | **configure** qos sap-egress *qos-policy-name* queue *number* drop-tail exceed percent-reduction-from-mbs *(number \| keyword)* |
| Tree | percent-reduction-from-mbs |
| Range | 0 to 100 |
| Options | auto |
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | All |


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### high

| | |
|---|---|
| Synopsis | Enter the **high** context |
| Context | **configure** qos sap-egress *qos-policy-name* queue *number* drop-tail high |
| Tree | high |
| Introduced | 16.0.R1 |
| Platforms | All |

### percent-reduction-from-mbs *(number | keyword)*

| | |
|---|---|
| Synopsis | Percentage reduction from the MBS for a queue drop tail |
| Context | **configure** qos sap-egress *qos-policy-name* queue *number* drop-tail high percent-reduction-from-mbs *(number | keyword)* |
| Tree | percent-reduction-from-mbs |
| Range | 0 to 100 |
| Options | auto |
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | All |

### highplus

| | |
|---|---|
| Synopsis | Enter the **highplus** context |
| Context | **configure** qos sap-egress *qos-policy-name* queue *number* drop-tail highplus |
| Tree | highplus |
| Introduced | 16.0.R1 |
| Platforms | All |

### percent-reduction-from-mbs *(number | keyword)*

| | |
|---|---|
| Synopsis | Percentage reduction from the MBS for a queue drop tail |
| Context | **configure** qos sap-egress *qos-policy-name* queue *number* drop-tail highplus percent-reduction-from-mbs *(number | keyword)* |
| Tree | percent-reduction-from-mbs |
| Range | 0 to 100 |
| Options | auto |


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| | |
|---|---|
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | All |

## low

| | |
|---|---|
| Synopsis | Enter the **low** context |
| Context | **configure** qos sap-egress *qos-policy-name* queue *number* drop-tail low |
| Tree | low |
| Introduced | 16.0.R1 |
| Platforms | All |

## percent-reduction-from-mbs *(number | keyword)*

| | |
|---|---|
| Synopsis | Low drop-tail percent from MBS that is reduced |
| Context | **configure** qos sap-egress *qos-policy-name* queue *number* drop-tail low percent-reduction-from-mbs *(number | keyword)* |
| Tree | percent-reduction-from-mbs |
| Range | 0 to 100 |
| Options | auto |
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | All |

## fir-burst-limit *(number | keyword)*

| | |
|---|---|
| Synopsis | Burst limit for FIR |
| Context | **configure** qos sap-egress *qos-policy-name* queue *number* fir-burst-limit *(number | keyword)* |
| Tree | fir-burst-limit |
| Description | This command configures a burst limit for the FIR of the specified queue. If the keyword **auto** is used, the FIR burst limit is based on the PIR. In this case, it is recommended to use the explicit PIR value in the queue configuration. |
| Range | 1 to 102400 |
| Units | bytes |
| Options | auto |


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| | |
|---|---|
| Default | auto |
| Introduced | 21.7.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### **hs-alt-port-class-pool** *boolean*

| | |
|---|---|
| Synopsis | Use HS alternate class port pool buffer for traffic |
| Context | **configure** qos sap-egress *qos-policy-name* queue *number* hs-alt-port-class-pool *boolean* |
| Tree | hs-alt-port-class-pool |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **hs-class-weight** *number*

| | |
|---|---|
| Synopsis | Scheduling class weight |
| Context | **configure** qos sap-egress *qos-policy-name* queue *number* hs-class-weight *number* |
| Tree | hs-class-weight |
| Range | 1 \| 2 \| 4 \| 8 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **hs-wred-queue**

| | |
|---|---|
| Synopsis | Enter the **hs-wred-queue** context |
| Context | **configure** qos sap-egress *qos-policy-name* queue *number* hs-wred-queue |
| Tree | hs-wred-queue |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **policy** *reference*

| | |
|---|---|
| Synopsis | Slope policy name |


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| | |
|---|---|
| Context | **configure** qos sap-egress *qos-policy-name* queue *number* hs-wred-queue policy *reference* |
| Tree | policy |
| Reference | **configure** qos slope-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

## **hs-wrr-weight** *number*

| | |
|---|---|
| Synopsis | WRR weight with which queue parents into the scheduler |
| Context | **configure** qos sap-egress *qos-policy-name* queue *number* hs-wrr-weight *number* |
| Tree | hs-wrr-weight |
| Range | 1 to 127 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

## **maximum-data-transmission** *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum data transmitted at each scheduling opportunity |
| Context | **configure** qos sap-egress *qos-policy-name* queue *number* maximum-data-transmission *(number \| keyword)* |
| Tree | maximum-data-transmission |
| Description | This command sets the maximum amount of data transmitted at a single scheduling opportunity. If the frame to be scheduled is longer than the configured amount of data, the entire frame is still transmitted.<br>This command is applicable only to FP4 and FP5 chipsets. |
| Range | 512 to 32768 |
| Units | bytes |
| Options | auto |
| Default | auto |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |


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### **mbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | Buffer space allowed for the queue |
| Context | **configure** qos sap-egress *qos-policy-name* queue *number* mbs *(number \| keyword)* |
| Tree | mbs |
| Range | 0 to 1073741824 |
| Units | bytes |
| Options | auto |
| Default | auto |
| Notes | The following elements are part of a choice: **mbs**, **mbs-delay-percent**, or **mbs-delay-time**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mbs-delay-percent** *decimal-number*

| | |
|---|---|
| Synopsis | MBS as a portion of SAP latency budget |
| Context | **configure** qos sap-egress *qos-policy-name* queue *number* mbs-delay-percent *decimal-number* |
| Tree | mbs-delay-percent |
| Range | 0.00 to 100.00 |
| Units | percent |
| Notes | The following elements are part of a choice: **mbs**, **mbs-delay-percent**, or **mbs-delay-time**. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **mbs-delay-time** *number*

| | |
|---|---|
| Synopsis | MBS as a function of time delay |
| Context | **configure** qos sap-egress *qos-policy-name* queue *number* mbs-delay-time *number* |
| Tree | mbs-delay-time |
| Description | This command configures the MBS as a function of the expected delay. The system automatically translates this configuration into kilobytes based on the administrative rate of the queue parent (for example, the scheduler or aggregate-shaper). The actual operational values of CBS and MBS are shown in kilobytes, and not as a percentage of the delay. |


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| | |
|---|---|
| Range | 0 to 1000000 |
| Units | microseconds |
| Notes | The following elements are part of a choice: **mbs**, **mbs-delay-percent**, or **mbs-delay-time**. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **packet-byte-offset** *number*

| | |
|---|---|
| Synopsis | Packet byte offset for addition of policing information |
| Context | **configure** qos sap-egress *qos-policy-name* queue *number* packet-byte-offset *number* |
| Tree | packet-byte-offset |
| Range | -64 to 32 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **percent-rate**

| | |
|---|---|
| Synopsis | Enter the **percent-rate** context |
| Context | **configure** qos sap-egress *qos-policy-name* queue *number* percent-rate |
| Tree | percent-rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cir** *decimal-number*

| | |
|---|---|
| Synopsis | Administrative CIR percent |
| Context | **configure** qos sap-egress *qos-policy-name* queue *number* percent-rate cir *decimal-number* |
| Tree | cir |
| Range | 0.00 to 100.00 |
| Default | 0.00 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **pir** *decimal-number*

| | |
|---|---|
| Synopsis | Administrative PIR percent |
| Context | **configure** qos sap-egress *qos-policy-name* queue *number* percent-rate pir *decimal-number* |
| Tree | pir |
| Range | 0.01 to 100.00 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **reference-rate** *keyword*

| | |
|---|---|
| Synopsis | Reference rate |
| Context | **configure** qos sap-egress *qos-policy-name* queue *number* percent-rate reference-rate *keyword* |
| Tree | reference-rate |
| Options | port-limit, local-limit, reference-port-limit |
| Default | port-limit |
| Introduced | 16.0.R1 |
| Platforms | All |

### **port-parent**

| | |
|---|---|
| Synopsis | Enable the **port-parent** context |
| Context | **configure** qos sap-egress *qos-policy-name* queue *number* port-parent |
| Tree | port-parent |
| Notes | The following elements are part of a choice: **port-parent** or **scheduler-parent**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cir-level** *number*

| | |
|---|---|
| Synopsis | Port priority to receive bandwidth for within-CIR pass |
| Context | **configure** qos sap-egress *qos-policy-name* queue *number* port-parent cir-level *number* |


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| | |
|---|---|
| Tree | cir-level |
| Range | 0 to 8 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cir-weight** *number*

| | |
|---|---|
| Synopsis | Weight used at the within-CIR port priority level |
| Context | **configure** qos sap-egress *qos-policy-name* queue *number* port-parent cir-weight *number* |
| Tree | cir-weight |
| Range | 0 to 100 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **level** *number*

| | |
|---|---|
| Synopsis | Port priority for bandwidth for above-CIR offered load |
| Context | **configure** qos sap-egress *qos-policy-name* queue *number* port-parent level *number* |
| Tree | level |
| Range | 1 to 8 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **weight** *number*

| | |
|---|---|
| Synopsis | Weight used at above-CIR port priority level |
| Context | **configure** qos sap-egress *qos-policy-name* queue *number* port-parent weight *number* |
| Tree | weight |
| Range | 0 to 100 |
| Default | 1 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **queue-type** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Method used to service queue from hardware perspective |
| Context | **configure** qos sap-egress *qos-policy-name* queue *number* queue-type *keyword* |
| Tree | queue-type |
| Options | expedited, auto-expedited, best-effort |
| Default | auto-expedited |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rate**

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** qos sap-egress *qos-policy-name* queue *number* rate |
| Tree | rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cir** *(number | keyword)*

| | |
|---|---|
| Synopsis | Administrative CIR |
| Context | **configure** qos sap-egress *qos-policy-name* queue *number* rate cir *(number | keyword)* |
| Tree | cir |
| Range | 0 to 6400000000 |
| Units | kilobps |
| Options | max |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | Administrative PIR |
| Context | **configure** qos sap-egress *qos-policy-name* queue *number* rate pir *(number | keyword)* |
| Tree | pir |
| Range | 1 to 6400000000 |
| Units | kilobps |
| Options | max |
| Default | max |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sched-class** *(number | keyword)*

| | |
|---|---|
| Synopsis | Scheduler class for the sap-egress queue |
| Context | **configure** qos sap-egress *qos-policy-name* queue *number* sched-class *(number | keyword)* |
| Tree | sched-class |
| Description | This command configures a scheduling class for the specified queue. If the keyword **auto** is used, the scheduling class mapping is done automatically. |
| Range | 1 to 6 |
| Options | auto |
| Default | auto |
| Introduced | 21.7.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### **scheduler-parent**

| | |
|---|---|
| Synopsis | Enable the **scheduler-parent** context |
| Context | **configure** qos sap-egress *qos-policy-name* queue *number* scheduler-parent |
| Tree | scheduler-parent |
| Notes | The following elements are part of a choice: **port-parent** or **scheduler-parent**. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **cir-level** *number*

| | |
|---|---|
| Synopsis | Level of priority while feeding to the parent |
| Context | **configure** qos sap-egress *qos-policy-name* queue *number* scheduler-parent cir-level *number* |
| Tree | cir-level |
| Range | 0 to 8 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cir-weight** *number*

| | |
|---|---|
| Synopsis | Weight used at the within-CIR port priority level |
| Context | **configure** qos sap-egress *qos-policy-name* queue *number* scheduler-parent cir-weight *number* |
| Tree | cir-weight |
| Range | 0 to 100 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **level** *number*

| | |
|---|---|
| Synopsis | Level of priority while feeding to the parent |
| Context | **configure** qos sap-egress *qos-policy-name* queue *number* scheduler-parent level *number* |
| Tree | level |
| Range | 1 to 8 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **scheduler-name** *named-item*

| | |
|---|---|
| Synopsis | Parent scheduler name |


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| | |
|---|---|
| Context | **configure** qos sap-egress *qos-policy-name* queue *number* scheduler-parent scheduler-name *named-item* |
| Tree | scheduler-name |
| Description | This command associates a scheduler name to a queue. The scheduler name must have previously been defined within an existing scheduler policy and exist on each SAP the queue is created on. There are no checks performed to ensure that the scheduler name exists within an existing scheduler policy. Until the scheduler name exists on the egress SAP, the queue operates in an orphaned state. |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **weight** *number*

| | |
|---|---|
| Synopsis | Weight used by the scheduler for feeding the queue |
| Context | **configure** qos sap-egress *qos-policy-name* queue *number* scheduler-parent weight *number* |
| Tree | weight |
| Range | 0 to 100 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **wred-queue**

| | |
|---|---|
| Synopsis | Enter the **wred-queue** context |
| Context | **configure** qos sap-egress *qos-policy-name* queue *number* wred-queue |
| Tree | wred-queue |
| Introduced | 16.0.R1 |
| Platforms | All |

## **mode** *keyword*

| | |
|---|---|
| Synopsis | Pool association to allow queue-specific WRED slopes |
| Context | **configure** qos sap-egress *qos-policy-name* queue *number* wred-queue mode *keyword* |
| Tree | mode |


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| | |
|---|---|
| Options | native, pool-per-queue |
| Introduced | 16.0.R1 |
| Platforms | All |

### **policy** *reference*

| | |
|---|---|
| Synopsis | Slope policy name |
| Context | **configure** qos sap-egress *qos-policy-name* queue *number* wred-queue policy *reference* |
| Tree | policy |
| Reference | **configure** qos slope-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **usage** *keyword*

| | |
|---|---|
| Synopsis | Congestion control type |
| Context | **configure** qos sap-egress *qos-policy-name* queue *number* wred-queue usage *keyword* |
| Tree | usage |
| Options | auto, exceed-low |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sched-class-elevation**

| | |
|---|---|
| Synopsis | Enter the **sched-class-elevation** context |
| Context | **configure** qos sap-egress *qos-policy-name* sched-class-elevation |
| Tree | sched-class-elevation |
| Introduced | 21.7.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### **sched-class** [class-id] *number*

| | |
|---|---|
| Synopsis | Enter the **sched-class** list instance |
| Context | **configure** qos sap-egress *qos-policy-name* sched-class-elevation sched-class *number* |
| Tree | sched-class |


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| | |
|---|---|
| Introduced | 21.7.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### [**class-id**] *number*

| | |
|---|---|
| Synopsis | Scheduling class ID |
| Context | **configure** qos sap-egress *qos-policy-name* sched-class-elevation sched-class *number* |
| Tree | sched-class |
| Range | 1 to 6 |
| Notes | This element is part of a list key. |
| Introduced | 21.7.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### **weight** *number*

| | |
|---|---|
| Synopsis | Weight of the schedule class |
| Context | **configure** qos sap-egress *qos-policy-name* sched-class-elevation sched-class *number* weight *number* |
| Tree | weight |
| Range | 1 to 8 |
| Default | 1 |
| Introduced | 21.7.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### **scope** *keyword*

| | |
|---|---|
| Synopsis | Scope of the policy |
| Context | **configure** qos sap-egress *qos-policy-name* scope *keyword* |
| Tree | scope |
| Options | exclusive, template |
| Default | template |
| Introduced | 16.0.R1 |
| Platforms | All |


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## subscriber-mgmt

| | |
|---|---|
| Synopsis | Enter the **subscriber-mgmt** context |
| Context | **configure** qos sap-egress *qos-policy-name* subscriber-mgmt |
| Tree | subscriber-mgmt |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## dynamic-policer

| | |
|---|---|
| Synopsis | Enter the **dynamic-policer** context |
| Context | **configure** qos sap-egress *qos-policy-name* subscriber-mgmt dynamic-policer |
| Tree | dynamic-policer |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## arbiter-parent

| | |
|---|---|
| Synopsis | Enter the **arbiter-parent** context |
| Context | **configure** qos sap-egress *qos-policy-name* subscriber-mgmt dynamic-policer arbiter-parent |
| Tree | arbiter-parent |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## arbiter-name *named-item*

| | |
|---|---|
| Synopsis | Arbiter name |
| Context | **configure** qos sap-egress *qos-policy-name* subscriber-mgmt dynamic-policer arbiter-parent arbiter-name *named-item* |
| Tree | arbiter-name |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **level** *number*

| | |
|---|---|
| Synopsis | Level of priority while feeding to the parent |
| Context | **configure** qos sap-egress *qos-policy-name* subscriber-mgmt dynamic-policer arbiter-parent level *number* |
| Tree | level |
| Range | 1 to 8 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **weight** *number*

| | |
|---|---|
| Synopsis | Weight to be used by the arbiter for feeding this policer |
| Context | **configure** qos sap-egress *qos-policy-name* subscriber-mgmt dynamic-policer arbiter-parent weight *number* |
| Tree | weight |
| Range | 1 to 100 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **cbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | Exceed threshold of the CIR leaky bucket of the policer |
| Context | **configure** qos sap-egress *qos-policy-name* subscriber-mgmt dynamic-policer cbs *(number | keyword)* |
| Tree | cbs |
| Range | 0 to 268435456 |
| Units | bytes |
| Options | auto |
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **mbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | High priority 'violate' threshold of PIR leaky bucket of this policer |
| Context | **configure** qos sap-egress *qos-policy-name* subscriber-mgmt dynamic-policer mbs *(number \| keyword)* |
| Tree | mbs |
| Range | 0 to 268435456 |
| Units | bytes |
| Options | auto |
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **packet-byte-offset** *number*

| | |
|---|---|
| Synopsis | Packet size modification for policing information |
| Context | **configure** qos sap-egress *qos-policy-name* subscriber-mgmt dynamic-policer packet-byte-offset *number* |
| Tree | packet-byte-offset |
| Range | -64 to 31 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **policer-id-range**

| | |
|---|---|
| Synopsis | Enable the **policer-id-range** context |
| Context | **configure** qos sap-egress *qos-policy-name* subscriber-mgmt dynamic-policer policer-id-range |
| Tree | policer-id-range |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the dynamic policer ID range |


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| | |
|---|---|
| Context | **configure** qos sap-egress *qos-policy-name* subscriber-mgmt dynamic-policer policer-id-range end *number* |
| Tree | end |
| Range | 1 to 63 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of the dynamic policer ID range |
| Context | **configure** qos sap-egress *qos-policy-name* subscriber-mgmt dynamic-policer policer-id-range start *number* |
| Tree | start |
| Range | 1 to 63 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **stat-mode** *keyword*

| | |
|---|---|
| Synopsis | Mode of statistics collected by the policer |
| Context | **configure** qos sap-egress *qos-policy-name* subscriber-mgmt dynamic-policer stat-mode *keyword* |
| Tree | stat-mode |
| Options | no-stats, minimal, offered-profile-no-cir, offered-total-cir, offered-profile-cir, offered-limited-capped-cir, offered-profile-capped-cir |
| Default | minimal |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **dynamic-queue**

| | |
|---|---|
| Synopsis | Enter the **dynamic-queue** context |
| Context | **configure** qos sap-egress *qos-policy-name* subscriber-mgmt dynamic-queue |
| Tree | dynamic-queue |


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| | |
|---|---|
| Description | Commands in this context configure dynamically-created queues for subscriber-management applications such as 5G FWA sessions. The configuration options in this context are the same as for static queues configured in the **configure qos sap-egress queue** context, but are automatically applied to dynamically-created queues.<br>See the *7750 SR and VSR BNG CUPS User Plane Function Guide*, "PCC rules based QoS" for more information about Dynamic QoS based on PCC rules for FWA sessions.<br>See the *7450 ESS, 7750 SR, 7950 XRS, and VSR Quality of Service Guide* for general information about configuring QoS. |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **cbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | Committed buffer space reserved for the queue |
| Context | **configure** qos sap-egress *qos-policy-name* subscriber-mgmt dynamic-queue cbs *(number \| keyword)* |
| Tree | cbs |
| Description | This command configures the committed buffer space (CBS) that is reserved for the queue. The CBS is applied to each dynamic queue and is not shared. |
| Range | 0 to 1048576 |
| Units | kilobytes |
| Options | auto |
| Default | auto |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **mbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum buffer space allowed for the queue |
| Context | **configure** qos sap-egress *qos-policy-name* subscriber-mgmt dynamic-queue mbs *(number \| keyword)* |
| Tree | mbs |
| Description | This command configures the maximum buffer space (MBS) allowed for the queue. The MBS is applied to each dynamic queue and is not shared. |
| Range | 0 to 1073741824 |
| Units | bytes |
| Options | auto |


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| | |
|---|---|
| Default | auto |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **packet-byte-offset** *number*

| | |
|---|---|
| Synopsis | Packet byte offset used to modify the input packet size |
| Context | **configure** qos sap-egress *qos-policy-name* subscriber-mgmt dynamic-queue packet-byte-offset *number* |
| Tree | packet-byte-offset |
| Description | This command configures the packet-byte offset the system uses to modify the size of the input packets. This also applies to any charging statistics. |
| Range | -64 to 31 |
| Default | 0 |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **port-parent**

| | |
|---|---|
| Synopsis | Enable the **port-parent** context |
| Context | **configure** qos sap-egress *qos-policy-name* subscriber-mgmt dynamic-queue port-parent |
| Tree | port-parent |
| Description | Commands in this context configure the queue treatment by the port parent, that governs the available bandwidth for the queue. They define how this queue contends with the other children for the parent bandwidth.<br>See the *7750 SR and VSR BNG CUPS User Plane Function Guide*, "PCC rules based QoS" for more information about Dynamic QoS based on PCC rules for FWA sessions.<br>See the *7450 ESS, 7750 SR, 7950 XRS, and VSR Quality of Service Guide* for general information about configuring QoS. |
| Notes | The following elements are part of a choice: **port-parent** or **scheduler-parent**. |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **cir-level** *number*

| | |
|---|---|
| Synopsis | Port priority for within-CIR passes |


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| | |
|---|---|
| Context | **configure** qos sap-egress *qos-policy-name* subscriber-mgmt dynamic-queue port-parent cir-level *number* |
| Tree | cir-level |
| Range | 0 to 8 |
| Default | 0 |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **cir-weight** *number*

| | |
|---|---|
| Synopsis | Weight used for the within-CIR port-priority level |
| Context | **configure** qos sap-egress *qos-policy-name* subscriber-mgmt dynamic-queue port-parent cir-weight *number* |
| Tree | cir-weight |
| Description | This command configures the weight the queue uses to receive bandwidth at the within-CIR port priority level. This also applies to any charging statistics. |
| Range | 0 to 100 |
| Default | 0 |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **level** *number*

| | |
|---|---|
| Synopsis | Port priority level for above-CIR offered load |
| Context | **configure** qos sap-egress *qos-policy-name* subscriber-mgmt dynamic-queue port-parent level *number* |
| Tree | level |
| Range | 1 to 8 |
| Default | 1 |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **weight** *number*

| | |
|---|---|
| Synopsis | Weight used for the above-CIR port-priority level |


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| | |
|---|---|
| Context | **configure** qos sap-egress *qos-policy-name* subscriber-mgmt dynamic-queue port-parent weight *number* |
| Tree | weight |
| Range | 0 to 100 |
| Default | 1 |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## queue-id-range

| | |
|---|---|
| Synopsis | Enable the **queue-id-range** context |
| Context | **configure** qos sap-egress *qos-policy-name* subscriber-mgmt dynamic-queue queue-id-range |
| Tree | queue-id-range |
| Description | Commands in this context configure the range of IDs from which dynamic queues are allocated. You cannot use these IDs for static queues within the same policy.<br>See the *7750 SR and VSR BNG CUPS User Plane Function Guide*, "PCC rules based QoS" for more information about Dynamic QoS based on PCC rules for FWA sessions.<br>See the *7450 ESS, 7750 SR, 7950 XRS, and VSR Quality of Service Guide* for general information about configuring QoS. |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the dynamic queue range |
| Context | **configure** qos sap-egress *qos-policy-name* subscriber-mgmt dynamic-queue queue-id-range end *number* |
| Tree | end |
| Range | 1 to 8 |
| Notes | This element is mandatory. |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of dynamic queue range |


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| | |
|---|---|
| Context | **configure** qos sap-egress *qos-policy-name* subscriber-mgmt dynamic-queue queue-id-range start *number* |
| Tree | start |
| Range | 1 to 8 |
| Notes | This element is mandatory. |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## scheduler-parent

| | |
|---|---|
| Synopsis | Enable the **scheduler-parent** context |
| Context | **configure** qos sap-egress *qos-policy-name* subscriber-mgmt dynamic-queue scheduler-parent |
| Tree | scheduler-parent |
| Description | Commands in this context configure the queue treatment by the parent scheduler that governs the available bandwidth for the queue. They define how this queue contends with the other children for the parent bandwidth.<br>See the *7750 SR and VSR BNG CUPS User Plane Function Guide*, "PCC rules based QoS" for more information about Dynamic QoS based on PCC rules for FWA sessions.<br>See the *7450 ESS, 7750 SR, 7950 XRS, and VSR Quality of Service Guide* for general information about configuring QoS. |
| Notes | The following elements are part of a choice: **port-parent** or **scheduler-parent**. |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## cir-level *number*

| | |
|---|---|
| Synopsis | Priority for feeding the parent for within-CIR passes |
| Context | **configure** qos sap-egress *qos-policy-name* subscriber-mgmt dynamic-queue scheduler-parent cir-level *number* |
| Tree | cir-level |
| Description | This command configures the priority level the system uses to feed to the parent for within-CIR passes. |
| Range | 0 to 8 |
| Default | 0 |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **cir-weight** *number*

| | |
|---|---|
| Synopsis | Weight used for the within-CIR port-priority level |
| Context | **configure** qos sap-egress *qos-policy-name* subscriber-mgmt dynamic-queue scheduler-parent cir-weight *number* |
| Tree | cir-weight |
| Range | 0 to 100 |
| Default | 1 |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **level** *number*

| | |
|---|---|
| Synopsis | Priority level for the above-CIR offered load |
| Context | **configure** qos sap-egress *qos-policy-name* subscriber-mgmt dynamic-queue scheduler-parent level *number* |
| Tree | level |
| Description | This command configures the priority level of the queue (as compared to other competing schedulers and queues) for the above-CIR offered load bandwidth, when feeding the parent scheduler. |
| Range | 1 to 8 |
| Default | 1 |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **scheduler-name** *named-item*

| | |
|---|---|
| Synopsis | Name of the parent scheduler |
| Context | **configure** qos sap-egress *qos-policy-name* subscriber-mgmt dynamic-queue scheduler-parent scheduler-name *named-item* |
| Tree | scheduler-name |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **weight** *number*

| | |
|---|---|
| Synopsis | Weight used for the above-CIR port priority level |
| Context | **configure** qos sap-egress *qos-policy-name* subscriber-mgmt dynamic-queue scheduler-parent weight *number* |
| Tree | weight |
| Range | 0 to 100 |
| Default | 1 |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **pcc-rule-entry**

| | |
|---|---|
| Synopsis | Enter the **pcc-rule-entry** context |
| Context | **configure** qos sap-egress *qos-policy-name* subscriber-mgmt pcc-rule-entry |
| Tree | pcc-rule-entry |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **range**

| | |
|---|---|
| Synopsis | Enable the **range** context |
| Context | **configure** qos sap-egress *qos-policy-name* subscriber-mgmt pcc-rule-entry range |
| Tree | range |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the filter and QoS policy entries range |
| Context | **configure** qos sap-egress *qos-policy-name* subscriber-mgmt pcc-rule-entry range end *number* |
| Tree | end |
| Range | 1 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of the filter and QoS policy entries range |
| Context | **configure** qos sap-egress *qos-policy-name* subscriber-mgmt pcc-rule-entry range start *number* |
| Tree | start |
| Range | 1 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **use-policer-result-marking-dot1p-inner** *boolean*

| | |
|---|---|
| Synopsis | Enable using egress policer for Dot1p inner marking |
| Context | **configure** qos sap-egress *qos-policy-name* use-policer-result-marking-dot1p-inner *boolean* |
| Tree | use-policer-result-marking-dot1p-inner |
| Description | When configured, this command enables using the egress policer profile result to mark dot1p-inner bits. |
| Default | false |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **sap-ingress** [sap-ingress-policy-name] *qos-policy-name*

| | |
|---|---|
| Synopsis | Enter the **sap-ingress** list instance |
| Context | **configure** qos sap-ingress *qos-policy-name* |
| Tree | sap-ingress |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**sap-ingress-policy-name**] *qos-policy-name*

| | |
|---|---|
| Synopsis | Policy name |


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| | |
|---|---|
| Context | **configure** qos sap-ingress *qos-policy-name* |
| Tree | sap-ingress |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **default-fc** *sap-ingress-fc-name*

| | |
|---|---|
| Synopsis | Default forwarding class for non-matching traffic |
| Context | **configure** qos sap-ingress *qos-policy-name* default-fc *sap-ingress-fc-name* |
| Tree | default-fc |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **default-priority** *keyword*

| | |
|---|---|
| Synopsis | Priority for packets received on an ingress SAP |
| Context | **configure** qos sap-ingress *qos-policy-name* default-priority *keyword* |
| Tree | default-priority |
| Options | low, high |
| Default | low |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** qos sap-ingress *qos-policy-name* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **dot1p** [dot1p-value] *number*

| | |
|---|---|
| Synopsis | Enter the **dot1p** list instance |
| Context | **configure** qos sap-ingress *qos-policy-name* dot1p *number* |
| Tree | dot1p |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**dot1p-value**] *number*

| | |
|---|---|
| Synopsis | Dot1p value to match in the packet |
| Context | **configure** qos sap-ingress *qos-policy-name* dot1p *number* |
| Tree | dot1p |
| Range | 0 to 7 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **fc** *sap-ingress-fc-name*

| | |
|---|---|
| Synopsis | Forwarding class for traffic matching specified dot1p |
| Context | **configure** qos sap-ingress *qos-policy-name* dot1p *number* fc *sap-ingress-fc-name* |
| Tree | fc |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **priority** *keyword*

| | |
|---|---|
| Synopsis | Priority for packets that match the Dot1p value |
| Context | **configure** qos sap-ingress *qos-policy-name* dot1p *number* priority *keyword* |
| Tree | priority |
| Options | low, high, auto |
| Default | auto |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **dscp** [dscp-name] *keyword*

| | |
|---|---|
| Synopsis | Enter the **dscp** list instance |
| Context | **configure** qos sap-ingress *qos-policy-name* dscp *keyword* |
| Tree | dscp |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**dscp-name**] *keyword*

| | |
|---|---|
| Synopsis | Name for the Differentiated Services Code Point (DSCP) |
| Context | **configure** qos sap-ingress *qos-policy-name* dscp *keyword* |
| Tree | dscp |
| Options | be, cp1, cp2, cp3, cp4, cp5, cp6, cp7, cs1, cp9, af11, cp11, af12, cp13, af13, cp15, cs2, cp17, af21, cp19, af22, cp21, af23, cp23, cs3, cp25, af31, cp27, af32, cp29, af33, cp31, cs4, cp33, af41, cp35, af42, cp37, af43, cp39, cs5, cp41, cp42, cp43, cp44, cp45, ef, cp47, nc1, cp49, cp50, cp51, cp52, cp53, cp54, cp55, nc2, cp57, cp58, cp59, cp60, cp61, cp62, cp63 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **fc** *sap-ingress-fc-name*

| | |
|---|---|
| Synopsis | Forwarding class for traffic matching specified DSCP |
| Context | **configure** qos sap-ingress *qos-policy-name* dscp *keyword* fc *sap-ingress-fc-name* |
| Tree | fc |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **priority** *keyword*

| | |
|---|---|
| Synopsis | Priority for the packet |


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| | |
|---|---|
| Context | **configure** qos sap-ingress *qos-policy-name* dscp *keyword* priority *keyword* |
| Tree | priority |
| Options | low, high, auto |
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | All |

### **fc** [fc-name] *sap-ingress-fc-name*

| | |
|---|---|
| Synopsis | Enter the **fc** list instance |
| Context | **configure** qos sap-ingress *qos-policy-name* fc *sap-ingress-fc-name* |
| Tree | fc |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**fc-name**] *sap-ingress-fc-name*

| | |
|---|---|
| Synopsis | Forwarding class (and optional subclass) name |
| Context | **configure** qos sap-ingress *qos-policy-name* fc *sap-ingress-fc-name* |
| Tree | fc |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **broadcast-policer** *number*

| | |
|---|---|
| Synopsis | Policer ID for multicast traffic in forwarding class |
| Context | **configure** qos sap-ingress *qos-policy-name* fc *sap-ingress-fc-name* broadcast-policer *number* |
| Tree | broadcast-policer |
| Range | 1 to 63 |
| Notes | The following elements are part of a choice: (**broadcast-policer** and **fp-redirect-group-broadcast-policer**), **broadcast-queue**, or **broadcast-queue-group-queue**. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## **broadcast-queue** *reference*

| | |
|---|---|
| Synopsis | Broadcast queue for packets in the forwarding class |
| Context | **configure** qos sap-ingress *qos-policy-name* fc *sap-ingress-fc-name* broadcast-queue *reference* |
| Tree | broadcast-queue |
| Reference | **configure** qos sap-ingress *qos-policy-name* queue *number* |
| Notes | The following elements are part of a choice: (**broadcast-policer** and **fp-redirect-group-broadcast-policer**), **broadcast-queue**, or **broadcast-queue-group-queue**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **broadcast-queue-group-queue**

| | |
|---|---|
| Synopsis | Enable the **broadcast-queue-group-queue** context |
| Context | **configure** qos sap-ingress *qos-policy-name* fc *sap-ingress-fc-name* broadcast-queue-group-queue |
| Tree | broadcast-queue-group-queue |
| Notes | The following elements are part of a choice: (**broadcast-policer** and **fp-redirect-group-broadcast-policer**), **broadcast-queue**, or **broadcast-queue-group-queue**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **queue** *reference*

| | |
|---|---|
| Synopsis | Broadcast queue for packets in the forwarding class |
| Context | **configure** qos sap-ingress *qos-policy-name* fc *sap-ingress-fc-name* broadcast-queue-group-queue queue *reference* |
| Tree | queue |
| Reference | **configure** qos queue-group-templates ingress queue-group *named-item* queue *number* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **queue-group-name** *reference*

| | |
|---|---|
| Synopsis | Queue group name to forward traffic |
| Context | **configure** qos sap-ingress *qos-policy-name* fc *sap-ingress-fc-name* broadcast-queue-group-queue queue-group-name *reference* |
| Tree | queue-group-name |
| Reference | **configure** qos queue-group-templates ingress queue-group *named-item* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **de-1-out-profile** *boolean*

| | |
|---|---|
| Synopsis | Frames with DE value to be assigned as out of profile |
| Context | **configure** qos sap-ingress *qos-policy-name* fc *sap-ingress-fc-name* de-1-out-profile *boolean* |
| Tree | de-1-out-profile |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **egress-fc** *keyword*

| | |
|---|---|
| Synopsis | Forwarding class for egress QoS processing |
| Context | **configure** qos sap-ingress *qos-policy-name* fc *sap-ingress-fc-name* egress-fc *keyword* |
| Tree | egress-fc |
| Options | be – Best effort<br>l2 – Low 2 (best effort)<br>af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority)<br>ef – Expedited forwarding (high priority)<br>h1 – High 1 (high priority)<br>nc – Network control (high priority) |
| Introduced | 16.0.R1 |
| Platforms | All |


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## fp-redirect-group-broadcast-policer

| | |
|---|---|
| Synopsis | Use policer as defined in FP queue-group for the SAP |
| Context | **configure** qos sap-ingress *qos-policy-name* fc *sap-ingress-fc-name* fp-redirect-group-broadcast-policer |
| Tree | fp-redirect-group-broadcast-policer |
| Notes | The following elements are part of a choice: (**broadcast-policer** and **fp-redirect-group-broadcast-policer**), **broadcast-queue**, or **broadcast-queue-group-queue**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## fp-redirect-group-multicast-policer

| | |
|---|---|
| Synopsis | Use policer as defined in FP queue-group for the SAP |
| Context | **configure** qos sap-ingress *qos-policy-name* fc *sap-ingress-fc-name* fp-redirect-group-multicast-policer |
| Tree | fp-redirect-group-multicast-policer |
| Notes | The following elements are part of a choice: (**fp-redirect-group-multicast-policer** and **multicast-policer**), **multicast-queue**, or **multicast-queue-group-queue**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## fp-redirect-group-policer

| | |
|---|---|
| Synopsis | Use policer as defined in FP queue-group for the SAP |
| Context | **configure** qos sap-ingress *qos-policy-name* fc *sap-ingress-fc-name* fp-redirect-group-policer |
| Tree | fp-redirect-group-policer |
| Notes | The following elements are part of a choice: (**fp-redirect-group-policer** and **policer**), **queue**, or **queue-group-queue**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## fp-redirect-group-unknown-policer

| | |
|---|---|
| Synopsis | Use policer as defined in FP queue-group for the SAP |


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| | |
|---|---|
| Context | **configure** qos sap-ingress *qos-policy-name* fc *sap-ingress-fc-name* fp-redirect-group-unknown-policer |
| Tree | fp-redirect-group-unknown-policer |
| Notes | The following elements are part of a choice: (**fp-redirect-group-unknown-policer** and **unknown-policer**), **unknown-queue**, or **unknown-queue-group-queue**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## in-remark

| | |
|---|---|
| Synopsis | Enter the **in-remark** context |
| Context | **configure** qos sap-ingress *qos-policy-name* fc *sap-ingress-fc-name* in-remark |
| Tree | in-remark |
| Introduced | 16.0.R1 |
| Platforms | All |

## dscp *keyword*

| | |
|---|---|
| Synopsis | DSCP to override DSCP bits of the matching packet |
| Context | **configure** qos sap-ingress *qos-policy-name* fc *sap-ingress-fc-name* in-remark dscp *keyword* |
| Tree | dscp |
| Options | be, cp1, cp2, cp3, cp4, cp5, cp6, cp7, cs1, cp9, af11, cp11, af12, cp13, af13, cp15, cs2, cp17, af21, cp19, af22, cp21, af23, cp23, cs3, cp25, af31, cp27, af32, cp29, af33, cp31, cs4, cp33, af41, cp35, af42, cp37, af43, cp39, cs5, cp41, cp42, cp43, cp44, cp45, ef, cp47, nc1, cp49, cp50, cp51, cp52, cp53, cp54, cp55, nc2, cp57, cp58, cp59, cp60, cp61, cp62, cp63 |
| Notes | The following elements are part of a choice: **dscp** or **prec**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## prec *number*

| | |
|---|---|
| Synopsis | Value to override precedence bits of matching packet |
| Context | **configure** qos sap-ingress *qos-policy-name* fc *sap-ingress-fc-name* in-remark prec *number* |
| Tree | prec |


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| | |
|---|---|
| Range | 0 to 7 |
| Notes | The following elements are part of a choice: **dscp** or **prec**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **multicast-policer** *number*

| | |
|---|---|
| Synopsis | Policer ID for multicast traffic in forwarding class |
| Context | **configure** qos sap-ingress *qos-policy-name* fc *sap-ingress-fc-name* multicast-policer *number* |
| Tree | multicast-policer |
| Range | 1 to 63 |
| Notes | The following elements are part of a choice: (**fp-redirect-group-multicast-policer** and **multicast-policer**), **multicast-queue**, or **multicast-queue-group-queue**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## **multicast-queue** *reference*

| | |
|---|---|
| Synopsis | Broadcast queue to assign for packets in this forwarding class |
| Context | **configure** qos sap-ingress *qos-policy-name* fc *sap-ingress-fc-name* multicast-queue *reference* |
| Tree | multicast-queue |
| Reference | **configure** qos sap-ingress *qos-policy-name* queue *number* |
| Notes | The following elements are part of a choice: (**fp-redirect-group-multicast-policer** and **multicast-policer**), **multicast-queue**, or **multicast-queue-group-queue**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **multicast-queue-group-queue**

| | |
|---|---|
| Synopsis | Enable the **multicast-queue-group-queue** context |
| Context | **configure** qos sap-ingress *qos-policy-name* fc *sap-ingress-fc-name* multicast-queue-group-queue |
| Tree | multicast-queue-group-queue |


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| | |
|---|---|
| Notes | The following elements are part of a choice: (**fp-redirect-group-multicast-policer** and **multicast-policer**), **multicast-queue**, or **multicast-queue-group-queue**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **queue** *reference*

| | |
|---|---|
| Synopsis | Broadcast queue for packets in the forwarding class |
| Context | **configure** qos sap-ingress *qos-policy-name* fc *sap-ingress-fc-name* multicast-queue-group-queue queue *reference* |
| Tree | queue |
| Reference | **configure** qos queue-group-templates ingress queue-group *named-item* queue *number* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **queue-group-name** *reference*

| | |
|---|---|
| Synopsis | Queue group name to forward traffic |
| Context | **configure** qos sap-ingress *qos-policy-name* fc *sap-ingress-fc-name* multicast-queue-group-queue queue-group-name *reference* |
| Tree | queue-group-name |
| Reference | **configure** qos queue-group-templates ingress queue-group *named-item* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **out-remark**

| | |
|---|---|
| Synopsis | Enter the **out-remark** context |
| Context | **configure** qos sap-ingress *qos-policy-name* fc *sap-ingress-fc-name* out-remark |
| Tree | out-remark |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **dscp** *keyword*

| | |
|---|---|
| Synopsis | DSCP to override DSCP bits of the matching packet |
| Context | **configure** qos sap-ingress *qos-policy-name* fc *sap-ingress-fc-name* out-remark dscp *keyword* |
| Tree | dscp |
| Options | be, cp1, cp2, cp3, cp4, cp5, cp6, cp7, cs1, cp9, af11, cp11, af12, cp13, af13, cp15, cs2, cp17, af21, cp19, af22, cp21, af23, cp23, cs3, cp25, af31, cp27, af32, cp29, af33, cp31, cs4, cp33, af41, cp35, af42, cp37, af43, cp39, cs5, cp41, cp42, cp43, cp44, cp45, ef, cp47, nc1, cp49, cp50, cp51, cp52, cp53, cp54, cp55, nc2, cp57, cp58, cp59, cp60, cp61, cp62, cp63 |
| Notes | The following elements are part of a choice: **dscp** or **prec**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **prec** *number*

| | |
|---|---|
| Synopsis | Value to override precedence bits of matching packet |
| Context | **configure** qos sap-ingress *qos-policy-name* fc *sap-ingress-fc-name* out-remark prec *number* |
| Tree | prec |
| Range | 0 to 7 |
| Notes | The following elements are part of a choice: **dscp** or **prec**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **policer** *number*

| | |
|---|---|
| Synopsis | Policer ID for unicast traffic in the forwarding class |
| Context | **configure** qos sap-ingress *qos-policy-name* fc *sap-ingress-fc-name* policer *number* |
| Tree | policer |
| Range | 1 to 63 |
| Notes | The following elements are part of a choice: (**fp-redirect-group-policer** and **policer**), **queue**, or **queue-group-queue**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |


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### **profile** *keyword*

| | |
|---|---|
| Synopsis | Packets profile associated with the forwarding class |
| Context | **configure** qos sap-ingress *qos-policy-name* fc *sap-ingress-fc-name* profile *keyword* |
| Tree | profile |
| Options | in, out, exceed, inplus |
| Introduced | 16.0.R1 |
| Platforms | All |

### **queue** *reference*

| | |
|---|---|
| Synopsis | Queue to assign for packets in this forwarding class |
| Context | **configure** qos sap-ingress *qos-policy-name* fc *sap-ingress-fc-name* queue *reference* |
| Tree | queue |
| Reference | **configure** qos sap-ingress *qos-policy-name* queue *number* |
| Notes | The following elements are part of a choice: (**fp-redirect-group-policer** and **policer**), **queue**, or **queue-group-queue**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **queue-group-queue**

| | |
|---|---|
| Synopsis | Enable the **queue-group-queue** context |
| Context | **configure** qos sap-ingress *qos-policy-name* fc *sap-ingress-fc-name* queue-group-queue |
| Tree | queue-group-queue |
| Notes | The following elements are part of a choice: (**fp-redirect-group-policer** and **policer**), **queue**, or **queue-group-queue**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **queue** *reference*

| | |
|---|---|
| Synopsis | Queue to assign for packets in this forwarding class |
| Context | **configure** qos sap-ingress *qos-policy-name* fc *sap-ingress-fc-name* queue-group-queue queue *reference* |
| Tree | queue |


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| | |
|---|---|
| Reference | **configure** qos queue-group-templates ingress queue-group *named-item* queue *number* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **queue-group-name** *reference*

| | |
|---|---|
| Synopsis | Queue group to forward traffic |
| Context | **configure** qos sap-ingress *qos-policy-name* fc *sap-ingress-fc-name* queue-group-queue queue-group-name *reference* |
| Tree | queue-group-name |
| Reference | **configure** qos queue-group-templates ingress queue-group *named-item* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **unknown-policer** *number*

| | |
|---|---|
| Synopsis | Policer ID for multicast traffic in forwarding class |
| Context | **configure** qos sap-ingress *qos-policy-name* fc *sap-ingress-fc-name* unknown-policer *number* |
| Tree | unknown-policer |
| Range | 1 to 63 |
| Notes | The following elements are part of a choice: (**fp-redirect-group-unknown-policer** and **unknown-policer**), **unknown-queue**, or **unknown-queue-group-queue**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **unknown-queue** *reference*

| | |
|---|---|
| Synopsis | Broadcast queue to assign for packets in this forwarding class |
| Context | **configure** qos sap-ingress *qos-policy-name* fc *sap-ingress-fc-name* unknown-queue *reference* |
| Tree | unknown-queue |
| Reference | **configure** qos sap-ingress *qos-policy-name* queue *number* |


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| | |
|---|---|
| Notes | The following elements are part of a choice: (**fp-redirect-group-unknown-policer** and **unknown-policer**), **unknown-queue**, or **unknown-queue-group-queue**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## unknown-queue-group-queue

| | |
|---|---|
| Synopsis | Enable the **unknown-queue-group-queue** context |
| Context | **configure** qos sap-ingress *qos-policy-name* fc *sap-ingress-fc-name* unknown-queue-group-queue |
| Tree | unknown-queue-group-queue |
| Notes | The following elements are part of a choice: (**fp-redirect-group-unknown-policer** and **unknown-policer**), **unknown-queue**, or **unknown-queue-group-queue**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## queue *reference*

| | |
|---|---|
| Synopsis | Broadcast queue for packets in the forwarding class |
| Context | **configure** qos sap-ingress *qos-policy-name* fc *sap-ingress-fc-name* unknown-queue-group-queue queue *reference* |
| Tree | queue |
| Reference | **configure** qos queue-group-templates ingress queue-group *named-item* queue *number* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## queue-group-name *reference*

| | |
|---|---|
| Synopsis | Queue group name to forward traffic |
| Context | **configure** qos sap-ingress *qos-policy-name* fc *sap-ingress-fc-name* unknown-queue-group-queue queue-group-name *reference* |
| Tree | queue-group-name |
| Reference | **configure** qos queue-group-templates ingress queue-group *named-item* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## ip-criteria

| | |
|---|---|
| Synopsis | Enter the **ip-criteria** context |
| Context | **configure** qos sap-ingress *qos-policy-name* ip-criteria |
| Tree | ip-criteria |
| Introduced | 16.0.R1 |
| Platforms | All |

## **entry** [entry-id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** qos sap-ingress *qos-policy-name* ip-criteria entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**entry-id**] *number*

| | |
|---|---|
| Synopsis | IP criteria entry to create or edit for the policy |
| Context | **configure** qos sap-ingress *qos-policy-name* ip-criteria entry *number* |
| Tree | entry |
| Range | 1 to 65535 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## action

| | |
|---|---|
| Synopsis | Enter the **action** context |
| Context | **configure** qos sap-ingress *qos-policy-name* ip-criteria entry *number* action |
| Tree | action |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **fc** *sap-ingress-fc-name*

| | |
|---|---|
| Synopsis | Forwarding class for traffic matching the criteria |
| Context | **configure** qos sap-ingress *qos-policy-name* ip-criteria entry *number* action fc *sap-ingress-fc-name* |
| Tree | fc |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **policer** *reference*

| | |
|---|---|
| Synopsis | Policer ID for traffic matching the criteria |
| Context | **configure** qos sap-ingress *qos-policy-name* ip-criteria entry *number* action policer *reference* |
| Tree | policer |
| Reference | **configure** qos sap-ingress *qos-policy-name* policer *number* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **priority** *keyword*

| | |
|---|---|
| Synopsis | Priority for the packet |
| Context | **configure** qos sap-ingress *qos-policy-name* ip-criteria entry *number* action priority *keyword* |
| Tree | priority |
| Options | low, high, auto |
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | All |

### **type** *keyword*

| | |
|---|---|
| Synopsis | Action for criteria entry |
| Context | **configure** qos sap-ingress *qos-policy-name* ip-criteria entry *number* action type *keyword* |


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| | |
|---|---|
| Tree | type |
| Options | ignore-match, accept |
| Default | ignore-match |
| Introduced | 16.0.R1 |
| Platforms | All |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** qos sap-ingress *qos-policy-name* ip-criteria entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **match**

| | |
|---|---|
| Synopsis | Enter the **match** context |
| Context | **configure** qos sap-ingress *qos-policy-name* ip-criteria entry *number* match |
| Tree | match |
| Introduced | 16.0.R1 |
| Platforms | All |

## **dscp** *keyword*

| | |
|---|---|
| Synopsis | DSCP value to match in the packet |
| Context | **configure** qos sap-ingress *qos-policy-name* ip-criteria entry *number* match dscp *keyword* |
| Tree | dscp |
| Options | be, cp1, cp2, cp3, cp4, cp5, cp6, cp7, cs1, cp9, af11, cp11, af12, cp13, af13, cp15, cs2, cp17, af21, cp19, af22, cp21, af23, cp23, cs3, cp25, af31, cp27, af32, cp29, af33, cp31, cs4, cp33, af41, cp35, af42, cp37, af43, cp39, cs5, cp41, cp42, cp43, cp44, cp45, ef, cp47, nc1, cp49, cp50, cp51, cp52, cp53, cp54, cp55, nc2, cp57, cp58, cp59, cp60, cp61, cp62, cp63 |
| Introduced | 16.0.R1 |
| Platforms | All |


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## dst-ip

| | |
|---|---|
| Synopsis | Enter the **dst-ip** context |
| Context | **configure** qos sap-ingress *qos-policy-name* ip-criteria entry *number* match dst-ip |
| Tree | dst-ip |
| Introduced | 16.0.R1 |
| Platforms | All |

## address *(ipv4-prefix-with-host-bits | ipv4-address)*

| | |
|---|---|
| Synopsis | Destination IPv4 address for SAP QoS policy match |
| Context | **configure** qos sap-ingress *qos-policy-name* ip-criteria entry *number* match dst-ip address *(ipv4-prefix-with-host-bits \| ipv4-address)* |
| Tree | address |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ip-prefix-list**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## ip-prefix-list *reference*

| | |
|---|---|
| Synopsis | IP-prefix list as match criterion |
| Context | **configure** qos sap-ingress *qos-policy-name* ip-criteria entry *number* match dst-ip ip-prefix-list *reference* |
| Tree | ip-prefix-list |
| Reference | **configure** qos match-list ip-prefix-list *named-item* |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ip-prefix-list**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## mask *ipv4-address*

| | |
|---|---|
| Synopsis | IP address to match with source IP of the packet |
| Context | **configure** qos sap-ingress *qos-policy-name* ip-criteria entry *number* match dst-ip mask *ipv4-address* |
| Tree | mask |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ip-prefix-list**. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## dst-port

| | |
|---|---|
| Synopsis | Enter the **dst-port** context |
| Context | **configure** qos sap-ingress *qos-policy-name* ip-criteria entry *number* match dst-port |
| Tree | dst-port |
| Introduced | 16.0.R1 |
| Platforms | All |

## eq *number*

| | |
|---|---|
| Synopsis | Value 'equal to' assigned as match condition |
| Context | **configure** qos sap-ingress *qos-policy-name* ip-criteria entry *number* match dst-port eq *number* |
| Tree | eq |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## gt *number*

| | |
|---|---|
| Synopsis | Value 'greater than' assigned as match condition |
| Context | **configure** qos sap-ingress *qos-policy-name* ip-criteria entry *number* match dst-port gt *number* |
| Tree | gt |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## lt *number*

| | |
|---|---|
| Synopsis | Value 'less than' assigned as match condition |


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| | |
|---|---|
| Context | **configure** qos sap-ingress *qos-policy-name* ip-criteria entry *number* match dst-port lt *number* |
| Tree | lt |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## range

| | |
|---|---|
| Synopsis | Enter the **range** context |
| Context | **configure** qos sap-ingress *qos-policy-name* ip-criteria entry *number* match dst-port range |
| Tree | range |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## end *number*

| | |
|---|---|
| Synopsis | Upper bound of the port range |
| Context | **configure** qos sap-ingress *qos-policy-name* ip-criteria entry *number* match dst-port range end *number* |
| Tree | end |
| Range | 0 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

## start *number*

| | |
|---|---|
| Synopsis | Lower bound of the port range |
| Context | **configure** qos sap-ingress *qos-policy-name* ip-criteria entry *number* match dst-port range start *number* |
| Tree | start |
| Range | 0 to 65535 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **fragment** *keyword*

| | |
|---|---|
| Synopsis | Fragmented packets as the match criterion |
| Context | **configure** qos sap-ingress *qos-policy-name* ip-criteria entry *number* match fragment *keyword* |
| Tree | fragment |
| Options | false, true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **protocol** *(number | keyword)*

| | |
|---|---|
| Synopsis | IP protocol to match |
| Context | **configure** qos sap-ingress *qos-policy-name* ip-criteria entry *number* match protocol *(number | keyword)* |
| Tree | protocol |
| Range | 0 to 255 |
| Options | tcp-udp, icmp, igmp, ip, tcp, egp, igp, udp, rdp, ipv6, ipv6-route, ipv6-frag, idrp, rsvp, gre, ipv6-icmp, ipv6-no-nxt, ipv6-opts, iso-ip, eigrp, ospf-igp, ether-ip, encap, pnni, pim, vrrp, l2tp, stp, ptp, isis, crtp, crudp, sctp |
| Introduced | 16.0.R1 |
| Platforms | All |

### **src-ip**

| | |
|---|---|
| Synopsis | Enter the **src-ip** context |
| Context | **configure** qos sap-ingress *qos-policy-name* ip-criteria entry *number* match src-ip |
| Tree | src-ip |
| Introduced | 16.0.R1 |
| Platforms | All |

### **address** *(ipv4-prefix-with-host-bits | ipv4-address)*

| | |
|---|---|
| Synopsis | Source IPv4 address for SAP QoS policy match criterion |


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| | |
|---|---|
| Context | **configure** qos sap-ingress *qos-policy-name* ip-criteria entry *number* match src-ip address *(ipv4-prefix-with-host-bits \| ipv4-address)* |
| Tree | address |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ip-prefix-list**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **ip-prefix-list** *reference*

| | |
|---|---|
| Synopsis | IP-prefix list as match criterion |
| Context | **configure** qos sap-ingress *qos-policy-name* ip-criteria entry *number* match src-ip ip-prefix-list *reference* |
| Tree | ip-prefix-list |
| Reference | **configure** qos match-list ip-prefix-list *named-item* |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ip-prefix-list**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **mask** *ipv4-address*

| | |
|---|---|
| Synopsis | IP address to match with source IP of the packet |
| Context | **configure** qos sap-ingress *qos-policy-name* ip-criteria entry *number* match src-ip mask *ipv4-address* |
| Tree | mask |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ip-prefix-list**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **src-port**

| | |
|---|---|
| Synopsis | Enter the **src-port** context |
| Context | **configure** qos sap-ingress *qos-policy-name* ip-criteria entry *number* match src-port |
| Tree | src-port |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **eq** *number*

| | |
|---|---|
| Synopsis | Value 'equal to' assigned as match condition |
| Context | **configure** qos sap-ingress *qos-policy-name* ip-criteria entry *number* match src-port eq *number* |
| Tree | eq |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **gt** *number*

| | |
|---|---|
| Synopsis | Value 'greater than' assigned as match condition |
| Context | **configure** qos sap-ingress *qos-policy-name* ip-criteria entry *number* match src-port gt *number* |
| Tree | gt |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lt** *number*

| | |
|---|---|
| Synopsis | Value 'less than' assigned as match condition |
| Context | **configure** qos sap-ingress *qos-policy-name* ip-criteria entry *number* match src-port lt *number* |
| Tree | lt |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **range**

| | |
|---|---|
| Synopsis | Enter the **range** context |


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| | |
|---|---|
| Context | **configure** qos sap-ingress *qos-policy-name* ip-criteria entry *number* match src-port range |
| Tree | range |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the port range |
| Context | **configure** qos sap-ingress *qos-policy-name* ip-criteria entry *number* match src-port range end *number* |
| Tree | end |
| Range | 0 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of the port range |
| Context | **configure** qos sap-ingress *qos-policy-name* ip-criteria entry *number* match src-port range start *number* |
| Tree | start |
| Range | 0 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **vxlan-vni**

| | |
|---|---|
| Synopsis | Enter the **vxlan-vni** context |
| Context | **configure** qos sap-ingress *qos-policy-name* ip-criteria entry *number* match vxlan-vni |
| Tree | vxlan-vni |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **eq** *number*

| | |
|---|---|
| Synopsis | Value 'equal to' assigned as match condition |
| Context | **configure** qos sap-ingress *qos-policy-name* ip-criteria entry *number* match vxlan-vni eq *number* |
| Tree | eq |
| Range | 1 to 16777215 |
| Notes | The following elements are part of a choice: **eq** or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **range**

| | |
|---|---|
| Synopsis | Enter the **range** context |
| Context | **configure** qos sap-ingress *qos-policy-name* ip-criteria entry *number* match vxlan-vni range |
| Tree | range |
| Notes | The following elements are part of a choice: **eq** or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the VNI range |
| Context | **configure** qos sap-ingress *qos-policy-name* ip-criteria entry *number* match vxlan-vni range end *number* |
| Tree | end |
| Range | 1 to 16777215 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of the VNI range |
| Context | **configure** qos sap-ingress *qos-policy-name* ip-criteria entry *number* match vxlan-vni range start *number* |


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| | |
|---|---|
| Tree | start |
| Range | 1 to 16777215 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **tag** *number*

| | |
|---|---|
| Synopsis | Tag ID associated with the criteria entry |
| Context | **configure** qos sap-ingress *qos-policy-name* ip-criteria entry *number* tag *number* |
| Tree | tag |
| Description | This command associates a tag with the criteria entry. Tag identifiers are not supported in SAP ingress QoS policies, MAC criteria statements, or in SAP egress QoS policies. |
| Range | 0 to 255 |
| Default | 0 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **type** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IPv4 criteria entry type |
| Context | **configure** qos sap-ingress *qos-policy-name* ip-criteria type *keyword* |
| Tree | type |
| Description | This command specifies the type of entries that can be configured for IPv4 match criteria. |
| Options | normal, vxlan-vni, tagged-entries |
| Default | normal |
| Introduced | 16.0.R1 |
| Platforms | All |

## **ipv6-criteria**

| | |
|---|---|
| Synopsis | Enter the **ipv6-criteria** context |


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| | |
|---|---|
| Context | **configure** qos sap-ingress *qos-policy-name* ipv6-criteria |
| Tree | ipv6-criteria |
| Introduced | 16.0.R1 |
| Platforms | All |

### **entry** [entry-id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** qos sap-ingress *qos-policy-name* ipv6-criteria entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**entry-id**] *number*

| | |
|---|---|
| Synopsis | IPv6 criteria entry to create or edit for the policy |
| Context | **configure** qos sap-ingress *qos-policy-name* ipv6-criteria entry *number* |
| Tree | entry |
| Range | 1 to 65535 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **action**

| | |
|---|---|
| Synopsis | Enter the **action** context |
| Context | **configure** qos sap-ingress *qos-policy-name* ipv6-criteria entry *number* action |
| Tree | action |
| Introduced | 16.0.R1 |
| Platforms | All |

### **fc** *sap-ingress-fc-name*

| | |
|---|---|
| Synopsis | Forwarding class for traffic matching the criteria |


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| | |
|---|---|
| Context | **configure** qos sap-ingress *qos-policy-name* ipv6-criteria entry *number* action fc *sap-ingress-fc-name* |
| Tree | fc |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **policer** *reference*

| | |
|---|---|
| Synopsis | Policer ID for traffic matching the criteria |
| Context | **configure** qos sap-ingress *qos-policy-name* ipv6-criteria entry *number* action policer *reference* |
| Tree | policer |
| Reference | **configure** qos sap-ingress *qos-policy-name* policer *number* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## **priority** *keyword*

| | |
|---|---|
| Synopsis | Priority for the packet |
| Context | **configure** qos sap-ingress *qos-policy-name* ipv6-criteria entry *number* action priority *keyword* |
| Tree | priority |
| Options | low, high, auto |
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | All |

## **type** *keyword*

| | |
|---|---|
| Synopsis | Action for criteria entry |
| Context | **configure** qos sap-ingress *qos-policy-name* ipv6-criteria entry *number* action type *keyword* |
| Tree | type |
| Options | ignore-match, accept |
| Default | ignore-match |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** qos sap-ingress *qos-policy-name* ipv6-criteria entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **match**

| | |
|---|---|
| Synopsis | Enter the **match** context |
| Context | **configure** qos sap-ingress *qos-policy-name* ipv6-criteria entry *number* match |
| Tree | match |
| Introduced | 16.0.R1 |
| Platforms | All |

## **dscp** *keyword*

| | |
|---|---|
| Synopsis | DSCP value to match in the packet |
| Context | **configure** qos sap-ingress *qos-policy-name* ipv6-criteria entry *number* match dscp *keyword* |
| Tree | dscp |
| Options | be, cp1, cp2, cp3, cp4, cp5, cp6, cp7, cs1, cp9, af11, cp11, af12, cp13, af13, cp15, cs2, cp17, af21, cp19, af22, cp21, af23, cp23, cs3, cp25, af31, cp27, af32, cp29, af33, cp31, cs4, cp33, af41, cp35, af42, cp37, af43, cp39, cs5, cp41, cp42, cp43, cp44, cp45, ef, cp47, nc1, cp49, cp50, cp51, cp52, cp53, cp54, cp55, nc2, cp57, cp58, cp59, cp60, cp61, cp62, cp63 |
| Introduced | 16.0.R1 |
| Platforms | All |


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## dst-ip

| | |
|---|---|
| Synopsis | Enter the **dst-ip** context |
| Context | **configure** qos sap-ingress *qos-policy-name* ipv6-criteria entry *number* match dst-ip |
| Tree | dst-ip |
| Introduced | 16.0.R1 |
| Platforms | All |

## address *(ipv6-prefix-with-host-bits | ipv6-address)*

| | |
|---|---|
| Synopsis | IPv6 address to match destination IP of the packet |
| Context | **configure** qos sap-ingress *qos-policy-name* ipv6-criteria entry *number* match dst-ip address *(ipv6-prefix-with-host-bits \| ipv6-address)* |
| Tree | address |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ipv6-prefix-list**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## ipv6-prefix-list *reference*

| | |
|---|---|
| Synopsis | IPv6 prefix list as match criterion for IPv6 addresses |
| Context | **configure** qos sap-ingress *qos-policy-name* ipv6-criteria entry *number* match dst-ip ipv6-prefix-list *reference* |
| Tree | ipv6-prefix-list |
| Reference | **configure** qos match-list ipv6-prefix-list *named-item* |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ipv6-prefix-list**. |
| Introduced | 20.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## mask *ipv6-address*

| | |
|---|---|
| Synopsis | IP address to match with source IP of the packet |
| Context | **configure** qos sap-ingress *qos-policy-name* ipv6-criteria entry *number* match dst-ip mask *ipv6-address* |
| Tree | mask |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ipv6-prefix-list**. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## dst-port

| | |
|---|---|
| Synopsis | Enter the **dst-port** context |
| Context | **configure** qos sap-ingress *qos-policy-name* ipv6-criteria entry *number* match dst-port |
| Tree | dst-port |
| Introduced | 16.0.R1 |
| Platforms | All |

## **eq** *number*

| | |
|---|---|
| Synopsis | Value 'equal to' assigned as match condition |
| Context | **configure** qos sap-ingress *qos-policy-name* ipv6-criteria entry *number* match dst-port eq *number* |
| Tree | eq |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **gt** *number*

| | |
|---|---|
| Synopsis | Value 'greater than' assigned as match condition |
| Context | **configure** qos sap-ingress *qos-policy-name* ipv6-criteria entry *number* match dst-port gt *number* |
| Tree | gt |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **lt** *number*

| | |
|---|---|
| Synopsis | Value 'less than' assigned as match condition |


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| | |
|---|---|
| Context | **configure** qos sap-ingress *qos-policy-name* ipv6-criteria entry *number* match dst-port lt *number* |
| Tree | lt |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## range

| | |
|---|---|
| Synopsis | Enter the **range** context |
| Context | **configure** qos sap-ingress *qos-policy-name* ipv6-criteria entry *number* match dst-port range |
| Tree | range |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## end *number*

| | |
|---|---|
| Synopsis | Upper bound of the port range |
| Context | **configure** qos sap-ingress *qos-policy-name* ipv6-criteria entry *number* match dst-port range end *number* |
| Tree | end |
| Range | 0 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

## start *number*

| | |
|---|---|
| Synopsis | Lower bound of the port range |
| Context | **configure** qos sap-ingress *qos-policy-name* ipv6-criteria entry *number* match dst-port range start *number* |
| Tree | start |
| Range | 0 to 65535 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **fragment** *keyword*

| | |
|---|---|
| Synopsis | Fragmented packets as the match criterion |
| Context | **configure** qos sap-ingress *qos-policy-name* ipv6-criteria entry *number* match fragment *keyword* |
| Tree | fragment |
| Options | false, true, first-only, non-first-only |
| Introduced | 16.0.R1 |
| Platforms | All |

### **next-header** *(number | keyword)*

| | |
|---|---|
| Synopsis | IP protocol to match |
| Context | **configure** qos sap-ingress *qos-policy-name* ipv6-criteria entry *number* match next-header *(number | keyword)* |
| Tree | next-header |
| Range | 0 to 255 |
| Options | tcp-udp, icmp, igmp, ip, tcp, egp, igp, udp, rdp, ipv6, ipv6-route, ipv6-frag, idrp, rsvp, gre, ipv6-icmp, ipv6-no-nxt, ipv6-opts, iso-ip, eigrp, ospf-igp, ether-ip, encap, pnni, pim, vrrp, l2tp, stp, ptp, isis, crtp, crudp, sctp |
| Introduced | 16.0.R1 |
| Platforms | All |

### **src-ip**

| | |
|---|---|
| Synopsis | Enter the **src-ip** context |
| Context | **configure** qos sap-ingress *qos-policy-name* ipv6-criteria entry *number* match src-ip |
| Tree | src-ip |
| Introduced | 16.0.R1 |
| Platforms | All |

### **address** *(ipv6-prefix-with-host-bits | ipv6-address)*

| | |
|---|---|
| Synopsis | IPv4 address to match |


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| | |
|---|---|
| Context | **configure** qos sap-ingress *qos-policy-name* ipv6-criteria entry *number* match src-ip address *(ipv6-prefix-with-host-bits* \| *ipv6-address)* |
| Tree | address |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ipv6-prefix-list**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **ipv6-prefix-list** *reference*

| | |
|---|---|
| Synopsis | IPv6 prefix list as match criterion for IPv6 addresses |
| Context | **configure** qos sap-ingress *qos-policy-name* ipv6-criteria entry *number* match src-ip ipv6-prefix-list *reference* |
| Tree | ipv6-prefix-list |
| Reference | **configure** qos match-list ipv6-prefix-list *named-item* |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ipv6-prefix-list**. |
| Introduced | 20.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **mask** *ipv6-address*

| | |
|---|---|
| Synopsis | IP address to match with source IP of the packet |
| Context | **configure** qos sap-ingress *qos-policy-name* ipv6-criteria entry *number* match src-ip mask *ipv6-address* |
| Tree | mask |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ipv6-prefix-list**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **src-port**

| | |
|---|---|
| Synopsis | Enter the **src-port** context |
| Context | **configure** qos sap-ingress *qos-policy-name* ipv6-criteria entry *number* match src-port |
| Tree | src-port |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **eq** *number*

| | |
|---|---|
| Synopsis | Value 'equal to' assigned as match condition |
| Context | **configure** qos sap-ingress *qos-policy-name* ipv6-criteria entry *number* match src-port eq *number* |
| Tree | eq |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **gt** *number*

| | |
|---|---|
| Synopsis | Value 'greater than' assigned as match condition |
| Context | **configure** qos sap-ingress *qos-policy-name* ipv6-criteria entry *number* match src-port gt *number* |
| Tree | gt |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lt** *number*

| | |
|---|---|
| Synopsis | Value 'less than' assigned as match condition |
| Context | **configure** qos sap-ingress *qos-policy-name* ipv6-criteria entry *number* match src-port lt *number* |
| Tree | lt |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **range**

| | |
|---|---|
| Synopsis | Enter the **range** context |


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| | |
|---|---|
| Context | **configure** qos sap-ingress *qos-policy-name* ipv6-criteria entry *number* match src-port range |
| Tree | range |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the port range |
| Context | **configure** qos sap-ingress *qos-policy-name* ipv6-criteria entry *number* match src-port range end *number* |
| Tree | end |
| Range | 0 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of the port range |
| Context | **configure** qos sap-ingress *qos-policy-name* ipv6-criteria entry *number* match src-port range start *number* |
| Tree | start |
| Range | 0 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **vxlan-vni**

| | |
|---|---|
| Synopsis | Enter the **vxlan-vni** context |
| Context | **configure** qos sap-ingress *qos-policy-name* ipv6-criteria entry *number* match vxlan-vni |
| Tree | vxlan-vni |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **eq** *number*

| | |
|---|---|
| Synopsis | Value 'equal to' assigned as match condition |
| Context | **configure** qos sap-ingress *qos-policy-name* ipv6-criteria entry *number* match vxlan-vni eq *number* |
| Tree | eq |
| Range | 1 to 16777215 |
| Notes | The following elements are part of a choice: **eq** or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **range**

| | |
|---|---|
| Synopsis | Enter the **range** context |
| Context | **configure** qos sap-ingress *qos-policy-name* ipv6-criteria entry *number* match vxlan-vni range |
| Tree | range |
| Notes | The following elements are part of a choice: **eq** or **range**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the VNI range |
| Context | **configure** qos sap-ingress *qos-policy-name* ipv6-criteria entry *number* match vxlan-vni range end *number* |
| Tree | end |
| Range | 1 to 16777215 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of the VNI range |
| Context | **configure** qos sap-ingress *qos-policy-name* ipv6-criteria entry *number* match vxlan-vni range start *number* |


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| | |
|---|---|
| Tree | start |
| Range | 1 to 16777215 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **tag** *number*

| | |
|---|---|
| Synopsis | Tag ID associated with the criteria entry |
| Context | **configure** qos sap-ingress *qos-policy-name* ipv6-criteria entry *number* tag *number* |
| Tree | tag |
| Description | This command associates a tag with the criteria entry. Tag identifiers are not supported in SAP ingress QoS policies, MAC criteria statements, or in SAP egress QoS policies. |
| Range | 0 to 255 |
| Default | 0 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **type** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IPv6 criteria entry type |
| Context | **configure** qos sap-ingress *qos-policy-name* ipv6-criteria type *keyword* |
| Tree | type |
| Description | This command specifies the type of entries that can be configured for IPv6 match criteria. |
| Options | normal, vxlan-vni, tagged-entries |
| Default | normal |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lsp-exp** [lsp-exp-value] *number*

| | |
|---|---|
| Synopsis | Enter the **lsp-exp** list instance |


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| | |
|---|---|
| Context | **configure** qos sap-ingress *qos-policy-name* lsp-exp *number* |
| Tree | lsp-exp |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**lsp-exp-value**] *number*

| | |
|---|---|
| Synopsis | LSP EXP value to match the LSP EXP rule |
| Context | **configure** qos sap-ingress *qos-policy-name* lsp-exp *number* |
| Tree | lsp-exp |
| Range | 0 to 7 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **fc** *sap-ingress-fc-name*

| | |
|---|---|
| Synopsis | Forwarding class for traffic matching the LSP EXP value |
| Context | **configure** qos sap-ingress *qos-policy-name* lsp-exp *number* fc *sap-ingress-fc-name* |
| Tree | fc |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **priority** *keyword*

| | |
|---|---|
| Synopsis | Priority for the matching traffic |
| Context | **configure** qos sap-ingress *qos-policy-name* lsp-exp *number* priority *keyword* |
| Tree | priority |
| Options | low, high, auto |
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | All |


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### mac-criteria

| | |
|---|---|
| Synopsis | Enter the **mac-criteria** context |
| Context | **configure** qos sap-ingress *qos-policy-name* mac-criteria |
| Tree | mac-criteria |
| Introduced | 16.0.R1 |
| Platforms | All |

### **entry** [entry-id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** qos sap-ingress *qos-policy-name* mac-criteria entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**entry-id**] *number*

| | |
|---|---|
| Synopsis | Entry ID |
| Context | **configure** qos sap-ingress *qos-policy-name* mac-criteria entry *number* |
| Tree | entry |
| Range | 1 to 65535 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### action

| | |
|---|---|
| Synopsis | Enter the **action** context |
| Context | **configure** qos sap-ingress *qos-policy-name* mac-criteria entry *number* action |
| Tree | action |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **fc** *sap-ingress-fc-name*

| | |
|---|---|
| Synopsis | Forwarding class for traffic matching the criteria |
| Context | **configure** qos sap-ingress *qos-policy-name* mac-criteria entry *number* action fc *sap-ingress-fc-name* |
| Tree | fc |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **policer** *reference*

| | |
|---|---|
| Synopsis | Policer ID for traffic matching the criteria |
| Context | **configure** qos sap-ingress *qos-policy-name* mac-criteria entry *number* action policer *reference* |
| Tree | policer |
| Reference | **configure** qos sap-ingress *qos-policy-name* policer *number* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **priority** *keyword*

| | |
|---|---|
| Synopsis | Priority for the packet |
| Context | **configure** qos sap-ingress *qos-policy-name* mac-criteria entry *number* action priority *keyword* |
| Tree | priority |
| Options | low, high, auto |
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | All |

### **type** *keyword*

| | |
|---|---|
| Synopsis | Action for criteria entry |
| Context | **configure** qos sap-ingress *qos-policy-name* mac-criteria entry *number* action type *keyword* |


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| | |
|---|---|
| Tree | type |
| Options | ignore-match, accept |
| Default | ignore-match |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** qos sap-ingress *qos-policy-name* mac-criteria entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **match**

| | |
|---|---|
| Synopsis | Enter the **match** context |
| Context | **configure** qos sap-ingress *qos-policy-name* mac-criteria entry *number* match |
| Tree | match |
| Introduced | 16.0.R1 |
| Platforms | All |

### **dot1p**

| | |
|---|---|
| Synopsis | Enable the **dot1p** context |
| Context | **configure** qos sap-ingress *qos-policy-name* mac-criteria entry *number* match dot1p |
| Tree | dot1p |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mask** *number*

| | |
|---|---|
| Synopsis | 3-bit mask for the 802.1p value |


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| | |
|---|---|
| Context | **configure** qos sap-ingress *qos-policy-name* mac-criteria entry *number* match dot1p mask *number* |
| Tree | mask |
| Range | 0 to 7 |
| Default | 7 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **priority** *number*

| | |
|---|---|
| Synopsis | 802.1P priority value to use as the match criterion |
| Context | **configure** qos sap-ingress *qos-policy-name* mac-criteria entry *number* match dot1p priority *number* |
| Tree | priority |
| Range | 0 to 7 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **dst-mac**

| | |
|---|---|
| Synopsis | Enable the **dst-mac** context |
| Context | **configure** qos sap-ingress *qos-policy-name* mac-criteria entry *number* match dst-mac |
| Tree | dst-mac |
| Introduced | 16.0.R1 |
| Platforms | All |

## **address** *mac-address*

| | |
|---|---|
| Synopsis | Destination MAC address as QoS policy match criterion |
| Context | **configure** qos sap-ingress *qos-policy-name* mac-criteria entry *number* match dst-mac address *mac-address* |
| Tree | address |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **mask** *mac-address*

| | |
|---|---|
| Synopsis | Mask for destination MAC address |
| Context | **configure** qos sap-ingress *qos-policy-name* mac-criteria entry *number* match dst-mac mask *mac-address* |
| Tree | mask |
| Default | ff:ff:ff:ff:ff:ff |
| Introduced | 16.0.R1 |
| Platforms | All |

### **etype** *etype-value*

| | |
|---|---|
| Synopsis | Ethernet type |
| Context | **configure** qos sap-ingress *qos-policy-name* mac-criteria entry *number* match etype *etype-value* |
| Tree | etype |
| String length | 5 to 6 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **frame-type** *keyword*

| | |
|---|---|
| Synopsis | Match MAC criteria for ingress SAP QoS policy |
| Context | **configure** qos sap-ingress *qos-policy-name* mac-criteria entry *number* match frame-type *keyword* |
| Tree | frame-type |
| Options | 802dot3, 802dot2-llc, 802dot2-snap, ethernet-ii |
| Introduced | 16.0.R1 |
| Platforms | All |

### **inner-tag**

| | |
|---|---|
| Synopsis | Enable the **inner-tag** context |
| Context | **configure** qos sap-ingress *qos-policy-name* mac-criteria entry *number* match inner-tag |
| Tree | inner-tag |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **mask** *number*

| | |
|---|---|
| Synopsis | Mask to VID of the inner VLAN tag before comparing it with the inner-tag or outer-tag value |
| Context | **configure** qos sap-ingress *qos-policy-name* mac-criteria entry *number* match inner-tag mask *number* |
| Tree | mask |
| Range | 1 to 4095 |
| Default | 4095 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **vlan** *number*

| | |
|---|---|
| Synopsis | Value to match against the VID of the second VLAN tag |
| Context | **configure** qos sap-ingress *qos-policy-name* mac-criteria entry *number* match inner-tag vlan *number* |
| Tree | vlan |
| Range | 0 to 4095 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **llc-dsap**

| | |
|---|---|
| Synopsis | Enable the **llc-dsap** context |
| Context | **configure** qos sap-ingress *qos-policy-name* mac-criteria entry *number* match llc-dsap |
| Tree | llc-dsap |
| Introduced | 16.0.R1 |
| Platforms | All |

### **dsap** *number*

| | |
|---|---|
| Synopsis | DSAP value |


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| | |
|---|---|
| Context | **configure** qos sap-ingress *qos-policy-name* mac-criteria entry *number* match llc-dsap dsap *number* |
| Tree | dsap |
| Range | 0 to 255 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **mask** *number*

| | |
|---|---|
| Synopsis | DSAP mask |
| Context | **configure** qos sap-ingress *qos-policy-name* mac-criteria entry *number* match llc-dsap mask *number* |
| Tree | mask |
| Range | 0 to 255 |
| Default | 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **llc-ssap**

| | |
|---|---|
| Synopsis | Enable the **llc-ssap** context |
| Context | **configure** qos sap-ingress *qos-policy-name* mac-criteria entry *number* match llc-ssap |
| Tree | llc-ssap |
| Introduced | 16.0.R1 |
| Platforms | All |

## **mask** *number*

| | |
|---|---|
| Synopsis | Source SAP mask |
| Context | **configure** qos sap-ingress *qos-policy-name* mac-criteria entry *number* match llc-ssap mask *number* |
| Tree | mask |
| Range | 0 to 255 |
| Default | 255 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **ssap** *number*

| | |
|---|---|
| Synopsis | SSAP value |
| Context | **configure** qos sap-ingress *qos-policy-name* mac-criteria entry *number* match llc-ssap ssap *number* |
| Tree | ssap |
| Range | 0 to 255 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **outer-tag**

| | |
|---|---|
| Synopsis | Enable the **outer-tag** context |
| Context | **configure** qos sap-ingress *qos-policy-name* mac-criteria entry *number* match outer-tag |
| Tree | outer-tag |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mask** *number*

| | |
|---|---|
| Synopsis | First tag carried transparently through the service |
| Context | **configure** qos sap-ingress *qos-policy-name* mac-criteria entry *number* match outer-tag mask *number* |
| Tree | mask |
| Range | 1 to 4095 |
| Default | 4095 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **vlan** *number*

| | |
|---|---|
| Synopsis | Match against VID of the first VLAN tag in the packet carried transparently through service |


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| | |
|---|---|
| Context | **configure** qos sap-ingress *qos-policy-name* mac-criteria entry *number* match outer-tag vlan *number* |
| Tree | vlan |
| Range | 0 to 4095 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **snap-oui** *keyword*

| | |
|---|---|
| Synopsis | Parameter snap-oui as MAC filter match criteria |
| Context | **configure** qos sap-ingress *qos-policy-name* mac-criteria entry *number* match snap-oui *keyword* |
| Tree | snap-oui |
| Options | zero, non-zero |
| Introduced | 16.0.R1 |
| Platforms | All |

## **snap-pid** *number*

| | |
|---|---|
| Synopsis | Parameter snap-pid as MAC filter match criteria |
| Context | **configure** qos sap-ingress *qos-policy-name* mac-criteria entry *number* match snap-pid *number* |
| Tree | snap-pid |
| Range | 0 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **src-mac**

| | |
|---|---|
| Synopsis | Enable the **src-mac** context |
| Context | **configure** qos sap-ingress *qos-policy-name* mac-criteria entry *number* match src-mac |
| Tree | src-mac |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **address** *mac-address*

| | |
|---|---|
| Synopsis | Source MAC address as QoS policy match criterion |
| Context | **configure** qos sap-ingress *qos-policy-name* mac-criteria entry *number* match src-mac address *mac-address* |
| Tree | address |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mask** *mac-address*

| | |
|---|---|
| Synopsis | Mask for source MAC address |
| Context | **configure** qos sap-ingress *qos-policy-name* mac-criteria entry *number* match src-mac mask *mac-address* |
| Tree | mask |
| Default | ff:ff:ff:ff:ff:ff |
| Introduced | 16.0.R1 |
| Platforms | All |

### **type** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | MAC criteria filter type |
| Context | **configure** qos sap-ingress *qos-policy-name* mac-criteria type *keyword* |
| Tree | type |
| Options | normal, vid |
| Default | normal |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **policer** [policer-id] *number*

| | |
|---|---|
| Synopsis | Enter the **policer** list instance |
| Context | **configure** qos sap-ingress *qos-policy-name* policer *number* |
| Tree | policer |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### [**policer-id**] *number*

| | |
|---|---|
| Synopsis | SAP-ingress policer identifier |
| Context | **configure** qos sap-ingress *qos-policy-name* policer *number* |
| Tree | policer |
| Range | 1 to 63 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **adaptation-rule**

| | |
|---|---|
| Synopsis | Enter the **adaptation-rule** context |
| Context | **configure** qos sap-ingress *qos-policy-name* policer *number* adaptation-rule |
| Tree | adaptation-rule |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **cir** *keyword*

| | |
|---|---|
| Synopsis | Constraint used when deriving the operational CIR value |
| Context | **configure** qos sap-ingress *qos-policy-name* policer *number* adaptation-rule cir *keyword* |
| Tree | cir |
| Options | max, min, closest |
| Default | closest |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |


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### **pir** *keyword*

| | |
|---|---|
| Synopsis | Constraint used when deriving the operational PIR value |
| Context | **configure** qos sap-ingress *qos-policy-name* policer *number* adaptation-rule pir *keyword* |
| Tree | pir |
| Options | max, min, closest |
| Default | closest |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **adv-config-policy** *reference*

| | |
|---|---|
| Synopsis | Advanced QoS policy name |
| Context | **configure** qos sap-ingress *qos-policy-name* policer *number* adv-config-policy *reference* |
| Tree | adv-config-policy |
| Reference | **configure** qos adv-config-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **arbiter-parent**

| | |
|---|---|
| Synopsis | Enter the **arbiter-parent** context |
| Context | **configure** qos sap-ingress *qos-policy-name* policer *number* arbiter-parent |
| Tree | arbiter-parent |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **arbiter-name** *named-item*

| | |
|---|---|
| Synopsis | Arbiter name |
| Context | **configure** qos sap-ingress *qos-policy-name* policer *number* arbiter-parent arbiter-name *named-item* |
| Tree | arbiter-name |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **level** *number*

| | |
|---|---|
| Synopsis | Level of priority while feeding to the parent |
| Context | **configure** qos sap-ingress *qos-policy-name* policer *number* arbiter-parent level *number* |
| Tree | level |
| Range | 1 to 8 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **weight** *number*

| | |
|---|---|
| Synopsis | Weight used by the arbiter for feeding the policer |
| Context | **configure** qos sap-ingress *qos-policy-name* policer *number* arbiter-parent weight *number* |
| Tree | weight |
| Range | 1 to 100 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **cbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | Exceed threshold of the CIR leaky bucket of the policer |
| Context | **configure** qos sap-ingress *qos-policy-name* policer *number* cbs *(number | keyword)* |
| Tree | cbs |
| Range | 0 to 268435456 |
| Units | bytes |
| Options | auto |
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |


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### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** qos sap-ingress *qos-policy-name* policer *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **high-prio-only** *(number | keyword)*

| | |
|---|---|
| Synopsis | Percentage of MBS reserved for high priority traffic |
| Context | **configure** qos sap-ingress *qos-policy-name* policer *number* high-prio-only *(number | keyword)* |
| Tree | high-prio-only |
| Range | 0 to 100 |
| Options | auto |
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **mbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | High priority violate threshold of PIR leaky bucket |
| Context | **configure** qos sap-ingress *qos-policy-name* policer *number* mbs *(number | keyword)* |
| Tree | mbs |
| Range | 0 to 268435456 |
| Units | bytes |
| Options | auto |
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |


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### **packet-byte-offset** *number*

| | |
|---|---|
| Synopsis | Packet size modification for policing information |
| Context | **configure** qos sap-ingress *qos-policy-name* policer *number* packet-byte-offset *number* |
| Tree | packet-byte-offset |
| Range | -32 to 31 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **percent-rate**

| | |
|---|---|
| Synopsis | Enter the **percent-rate** context |
| Context | **configure** qos sap-ingress *qos-policy-name* policer *number* percent-rate |
| Tree | percent-rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **cir** *decimal-number*

| | |
|---|---|
| Synopsis | Administrative CIR percent |
| Context | **configure** qos sap-ingress *qos-policy-name* policer *number* percent-rate cir *decimal-number* |
| Tree | cir |
| Range | 0.00 to 100.00 |
| Default | 0.00 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **pir** *decimal-number*

| | |
|---|---|
| Synopsis | Administrative PIR percent |
| Context | **configure** qos sap-ingress *qos-policy-name* policer *number* percent-rate pir *decimal-number* |
| Tree | pir |


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| | |
|---|---|
| Range | 0.01 to 100.00 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **reference-rate** *keyword*

| | |
|---|---|
| Synopsis | Reference rate |
| Context | **configure** qos sap-ingress *qos-policy-name* policer *number* percent-rate reference-rate *keyword* |
| Tree | reference-rate |
| Options | local-limit, reference-port-limit |
| Default | local-limit |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **profile-capped** *boolean*

| | |
|---|---|
| Synopsis | Enforce overall in-profile burst limit to CIR bucket |
| Context | **configure** qos sap-ingress *qos-policy-name* policer *number* profile-capped *boolean* |
| Tree | profile-capped |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **rate**

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** qos sap-ingress *qos-policy-name* policer *number* rate |
| Tree | rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |


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### **cir** *(number | keyword)*

| | |
|---|---|
| Synopsis | Administrative CIR |
| Context | **configure** qos sap-ingress *qos-policy-name* policer *number* rate cir *(number | keyword)* |
| Tree | cir |
| Range | 0 to 6400000000 |
| Units | kilobps |
| Options | max |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | Administrative PIR |
| Context | **configure** qos sap-ingress *qos-policy-name* policer *number* rate pir *(number | keyword)* |
| Tree | pir |
| Range | 1 to 6400000000 |
| Units | kilobps |
| Options | max |
| Default | max |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **scheduler-parent**

| | |
|---|---|
| Synopsis | Enter the **scheduler-parent** context |
| Context | **configure** qos sap-ingress *qos-policy-name* policer *number* scheduler-parent |
| Tree | scheduler-parent |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-1s, 7750 SR-1se, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s |


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### **cir-level** *number*

| | |
|---|---|
| Synopsis | Port priority level for within-CIR offered load |
| Context | **configure** qos sap-ingress *qos-policy-name* policer *number* scheduler-parent cir-level *number* |
| Tree | cir-level |
| Description | This command defines the hierarchy priority level when compared with other policers, queues, and schedulers that the policer uses to receive bandwidth for its within-CIR offered load. If this command is set to the default value, the policer does not receive bandwidth during the within-CIR pass of the scheduler and the **cir-weight** command is ignored. |
| Range | 0 to 8 |
| Default | 0 |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-1s, 7750 SR-1se, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s |

### **cir-weight** *number*

| | |
|---|---|
| Synopsis | Weight to use in the within-CIR port priority level |
| Context | **configure** qos sap-ingress *qos-policy-name* policer *number* scheduler-parent cir-weight *number* |
| Tree | cir-weight |
| Description | The command defines the relative weight of the policer in comparison with other child policers, queues, or schedulers competing for bandwidth on the parent scheduler name at the within-CIR priority level.<br>A weight is considered to be active when the applicable policer, queue, or scheduler has not reached its maximum rate and still has packets to transmit.<br>When this command is set to a value of 0, the policer receives bandwidth only after the other children with a non-zero weight at this level have been serviced. |
| Range | 0 to 100 |
| Default | 1 |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-1s, 7750 SR-1se, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s |

### **level** *number*

| | |
|---|---|
| Synopsis | Priority level for bandwidth on the parent scheduler |


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| | |
|---|---|
| Context | **configure** qos sap-ingress *qos-policy-name* policer *number* scheduler-parent level *number* |
| Tree | level |
| Description | This command defines the priority level when compared with other policers, queues, and schedulers when competing for bandwidth on the parent scheduler.<br>Children of the parent scheduler with a lower priority do not receive bandwidth until all children with a higher priority have either reached their maximum bandwidth or are idle. Children with the same level are serviced in relation to their relative weights. |
| Range | 1 to 8 |
| Default | 1 |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-1s, 7750 SR-1se, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s |

## **scheduler-name** *named-item*

| | |
|---|---|
| Synopsis | Scheduler name |
| Context | **configure** qos sap-ingress *qos-policy-name* policer *number* scheduler-parent scheduler-name *named-item* |
| Tree | scheduler-name |
| String length | 1 to 32 |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-1s, 7750 SR-1se, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s |

## **weight** *number*

| | |
|---|---|
| Synopsis | Policer weight at the above-CIR priority level |
| Context | **configure** qos sap-ingress *qos-policy-name* policer *number* scheduler-parent weight *number* |
| Tree | weight |
| Range | 0 to 100 |
| Default | 1 |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-1s, 7750 SR-1se, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s |


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### **stat-mode** *keyword*

| | |
|---|---|
| Synopsis | Mode of statistics collected by the policer |
| Context | **configure** qos sap-ingress *qos-policy-name* policer *number* stat-mode *keyword* |
| Tree | stat-mode |
| Options | no-stats, minimal, offered-profile-no-cir, offered-total-cir, offered-priority-no-cir, offered-profile-cir, offered-priority-cir, offered-limited-profile-cir, offered-profile-capped-cir, offered-limited-capped-cir, offered-profile-with-discards |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **policers-hqos-manageable** *boolean*

| | |
|---|---|
| Synopsis | Manage policers through the hierarchical QoS process |
| Context | **configure** qos sap-ingress *qos-policy-name* policers-hqos-manageable *boolean* |
| Tree | policers-hqos-manageable |
| Default | false |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-1s, 7750 SR-1se, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s |

### **policy-id** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Ingress SAP QoS policy ID |
| Context | **configure** qos sap-ingress *qos-policy-name* policy-id *number* |
| Tree | policy-id |
| Range | 1 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **prec** [prec-value] *number*

| | |
|---|---|
| Synopsis | Enter the **prec** list instance |


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| | |
|---|---|
| Context | **configure** qos sap-ingress *qos-policy-name* prec *number* |
| Tree | prec |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**prec-value**] *number*

| | |
|---|---|
| Synopsis | Precedence value for which mapping is performed |
| Context | **configure** qos sap-ingress *qos-policy-name* prec *number* |
| Tree | prec |
| Range | 0 to 7 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **fc** *sap-ingress-fc-name*

| | |
|---|---|
| Synopsis | Forwarding class for traffic matching precedence value |
| Context | **configure** qos sap-ingress *qos-policy-name* prec *number* fc *sap-ingress-fc-name* |
| Tree | fc |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **priority** *keyword*

| | |
|---|---|
| Synopsis | Priority for the matching traffic |
| Context | **configure** qos sap-ingress *qos-policy-name* prec *number* priority *keyword* |
| Tree | priority |
| Options | low, high, auto |
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **queue** [queue-id] *number*

| | |
|---|---|
| Synopsis | Enter the **queue** list instance |
| Context | **configure** qos sap-ingress *qos-policy-name* queue *number* |
| Tree | queue |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**queue-id**] *number*

| | |
|---|---|
| Synopsis | SAP-ingress policer identifier |
| Context | **configure** qos sap-ingress *qos-policy-name* queue *number* |
| Tree | queue |
| Range | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **adaptation-rule**

| | |
|---|---|
| Synopsis | Enter the **adaptation-rule** context |
| Context | **configure** qos sap-ingress *qos-policy-name* queue *number* adaptation-rule |
| Tree | adaptation-rule |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cir** *keyword*

| | |
|---|---|
| Synopsis | Constraint used when deriving the operational CIR value |
| Context | **configure** qos sap-ingress *qos-policy-name* queue *number* adaptation-rule cir *keyword* |
| Tree | cir |
| Options | max, min, closest |
| Default | closest |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **fir** *keyword*

| | |
|---|---|
| Synopsis | Constraint used when deriving the operational FIR value |
| Context | **configure** qos sap-ingress *qos-policy-name* queue *number* adaptation-rule fir *keyword* |
| Tree | fir |
| Options | max, min, closest |
| Default | closest |
| Introduced | 16.0.R2 |
| Platforms | All |

### **pir** *keyword*

| | |
|---|---|
| Synopsis | Constraint used when deriving the operational PIR value |
| Context | **configure** qos sap-ingress *qos-policy-name* queue *number* adaptation-rule pir *keyword* |
| Tree | pir |
| Options | max, min, closest |
| Default | closest |
| Introduced | 16.0.R1 |
| Platforms | All |

### **adv-config-policy** *reference*

| | |
|---|---|
| Synopsis | Advanced QoS policy name |
| Context | **configure** qos sap-ingress *qos-policy-name* queue *number* adv-config-policy *reference* |
| Tree | adv-config-policy |
| Reference | **configure** qos adv-config-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **burst-limit** *(number | keyword)*

| | |
|---|---|
| Synopsis | Explicit shaping burst size of a queue |
| Context | **configure** qos sap-ingress *qos-policy-name* queue *number* burst-limit *(number | keyword)* |
| Tree | burst-limit |


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| | |
|---|---|
| Range | 1 to 14000000 |
| Units | bytes |
| Options | auto |
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | Reserved buffer space for the queue |
| Context | **configure** qos sap-ingress *qos-policy-name* queue *number* cbs *(number \| keyword)* |
| Tree | cbs |
| Range | 0 to 1048576 |
| Units | kilobytes |
| Options | auto |
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cir-non-profiling** *boolean*

| | |
|---|---|
| Synopsis | Prevent profile modification of CIR dependent packets |
| Context | **configure** qos sap-ingress *qos-policy-name* queue *number* cir-non-profiling *boolean* |
| Tree | cir-non-profiling |
| Default | false |
| Introduced | 16.0.R2 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### **drop-tail**

| | |
|---|---|
| Synopsis | Enter the **drop-tail** context |
| Context | **configure** qos sap-ingress *qos-policy-name* queue *number* drop-tail |
| Tree | drop-tail |
| Introduced | 16.0.R1 |
| Platforms | All |


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### low

| | |
|---|---|
| Synopsis | Enter the **low** context |
| Context | **configure** qos sap-ingress *qos-policy-name* queue *number* drop-tail low |
| Tree | low |
| Introduced | 16.0.R1 |
| Platforms | All |

### percent-reduction-from-mbs *(number | keyword)*

| | |
|---|---|
| Synopsis | Low drop-tail percent from MBS that is reduced |
| Context | **configure** qos sap-ingress *qos-policy-name* queue *number* drop-tail low percent-reduction-from-mbs *(number | keyword)* |
| Tree | percent-reduction-from-mbs |
| Range | 0 to 100 |
| Options | auto |
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | All |

### mbs *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum buffer space that is allowed for queue |
| Context | **configure** qos sap-ingress *qos-policy-name* queue *number* mbs *(number | keyword)* |
| Tree | mbs |
| Range | 0 to 1073741824 |
| Units | bytes |
| Options | auto |
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **multipoint** *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Apply as a multicast queue |
| Context | **configure** qos sap-ingress *qos-policy-name* queue *number* multipoint *boolean* |
| Tree | multipoint |
| Introduced | 16.0.R1 |
| Platforms | All |

### **packet-byte-offset** *number*

| | |
|---|---|
| Synopsis | Packet size modification for queue accounting |
| Context | **configure** qos sap-ingress *qos-policy-name* queue *number* packet-byte-offset *number* |
| Tree | packet-byte-offset |
| Range | -32 to 30 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **percent-rate**

| | |
|---|---|
| Synopsis | Enter the **percent-rate** context |
| Context | **configure** qos sap-ingress *qos-policy-name* queue *number* percent-rate |
| Tree | percent-rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cir** *decimal-number*

| | |
|---|---|
| Synopsis | Administrative CIR percent |
| Context | **configure** qos sap-ingress *qos-policy-name* queue *number* percent-rate cir *decimal-number* |


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| | |
|---|---|
| Tree | cir |
| Range | 0.00 to 100.00 |
| Default | 0.00 |
| Notes | The following elements are part of a choice: (**cir** and **fir**) or **police**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **fir** *decimal-number*

| | |
|---|---|
| Synopsis | Administrative FIR percent |
| Context | **configure** qos sap-ingress *qos-policy-name* queue *number* percent-rate fir *decimal-number* |
| Tree | fir |
| Range | 0.00 to 100.00 |
| Default | 0.00 |
| Notes | The following elements are part of a choice: (**cir** and **fir**) or **police**. |
| Introduced | 16.0.R2 |
| Platforms | All |

### **pir** *decimal-number*

| | |
|---|---|
| Synopsis | Administrative PIR percent |
| Context | **configure** qos sap-ingress *qos-policy-name* queue *number* percent-rate pir *decimal-number* |
| Tree | pir |
| Range | 0.01 to 100.00 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **police**

| | |
|---|---|
| Synopsis | Drop out-of-profile traffic feeding into queue instance |
| Context | **configure** qos sap-ingress *qos-policy-name* queue *number* percent-rate police |
| Tree | police |
| Notes | The following elements are part of a choice: (**cir** and **fir**) or **police**. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **reference-rate** *keyword*

| | |
|---|---|
| Synopsis | Reference rate |
| Context | **configure** qos sap-ingress *qos-policy-name* queue *number* percent-rate reference-rate *keyword* |
| Tree | reference-rate |
| Options | port-limit, local-limit, reference-port-limit |
| Default | port-limit |
| Introduced | 16.0.R1 |
| Platforms | All |

### **queue-mode** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Operating mode for this queue |
| Context | **configure** qos sap-ingress *qos-policy-name* queue *number* queue-mode *keyword* |
| Tree | queue-mode |
| Options | priority, profile |
| Default | priority |
| Introduced | 16.0.R1 |
| Platforms | All |

### **queue-type** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Method used to service queue from hardware perspective |
| Context | **configure** qos sap-ingress *qos-policy-name* queue *number* queue-type *keyword* |
| Tree | queue-type |


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| | |
|---|---|
| Options | expedited, auto-expedited, best-effort |
| Default | auto-expedited |
| Introduced | 16.0.R1 |
| Platforms | All |

### rate

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** qos sap-ingress *qos-policy-name* queue *number* rate |
| Tree | rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### cir *(number | keyword)*

| | |
|---|---|
| Synopsis | Administrative CIR |
| Context | **configure** qos sap-ingress *qos-policy-name* queue *number* rate cir *(number \| keyword)* |
| Tree | cir |
| Range | 0 to 6400000000 |
| Units | kilobps |
| Options | max |
| Default | 0 |
| Notes | The following elements are part of a choice: (**cir** and **fir**) or **police**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### fir *(number | keyword)*

| | |
|---|---|
| Synopsis | Administrative FIR |
| Context | **configure** qos sap-ingress *qos-policy-name* queue *number* rate fir *(number \| keyword)* |
| Tree | fir |
| Range | 0 to 6400000000 |
| Units | kilobps |
| Options | max |


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| | |
|---|---|
| Default | 0 |
| Notes | The following elements are part of a choice: (**cir** and **fir**) or **police**. |
| Introduced | 16.0.R2 |
| Platforms | All |

### **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | Administrative PIR |
| Context | **configure** qos sap-ingress *qos-policy-name* queue *number* rate pir *(number | keyword)* |
| Tree | pir |
| Range | 1 to 6400000000 |
| Units | kilobps |
| Options | max |
| Default | max |
| Introduced | 16.0.R1 |
| Platforms | All |

### **police**

| | |
|---|---|
| Synopsis | Drop the traffic feeding into queue above the PIR rate |
| Context | **configure** qos sap-ingress *qos-policy-name* queue *number* rate police |
| Tree | police |
| Notes | The following elements are part of a choice: (**cir** and **fir**) or **police**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **scheduler-parent**

| | |
|---|---|
| Synopsis | Enter the **scheduler-parent** context |
| Context | **configure** qos sap-ingress *qos-policy-name* queue *number* scheduler-parent |
| Tree | scheduler-parent |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **cir-level** *number*

| | |
|---|---|
| Synopsis | Level of priority while feeding to the parent |
| Context | **configure** qos sap-ingress *qos-policy-name* queue *number* scheduler-parent cir-level *number* |
| Tree | cir-level |
| Range | 0 to 8 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cir-weight** *number*

| | |
|---|---|
| Synopsis | Weight used at the within-CIR port priority level |
| Context | **configure** qos sap-ingress *qos-policy-name* queue *number* scheduler-parent cir-weight *number* |
| Tree | cir-weight |
| Range | 0 to 100 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **level** *number*

| | |
|---|---|
| Synopsis | Level of priority while feeding to the parent |
| Context | **configure** qos sap-ingress *qos-policy-name* queue *number* scheduler-parent level *number* |
| Tree | level |
| Range | 1 to 8 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **scheduler-name** *named-item*

| | |
|---|---|
| Synopsis | Scheduler name |


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| | |
|---|---|
| Context | **configure** qos sap-ingress *qos-policy-name* queue *number* scheduler-parent scheduler-name *named-item* |
| Tree | scheduler-name |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **weight** *number*

| | |
|---|---|
| Synopsis | Relative weight of the scheduler to feed the queue |
| Context | **configure** qos sap-ingress *qos-policy-name* queue *number* scheduler-parent weight *number* |
| Tree | weight |
| Range | 0 to 100 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **scope** *keyword*

| | |
|---|---|
| Synopsis | Scope of the policy |
| Context | **configure** qos sap-ingress *qos-policy-name* scope *keyword* |
| Tree | scope |
| Options | exclusive, template |
| Default | template |
| Introduced | 16.0.R1 |
| Platforms | All |

## **subscriber-mgmt**

| | |
|---|---|
| Synopsis | Enter the **subscriber-mgmt** context |
| Context | **configure** qos sap-ingress *qos-policy-name* subscriber-mgmt |
| Tree | subscriber-mgmt |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## dynamic-policer

| | |
|---|---|
| Synopsis | Enter the **dynamic-policer** context |
| Context | **configure** qos sap-ingress *qos-policy-name* subscriber-mgmt dynamic-policer |
| Tree | dynamic-policer |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## arbiter-parent

| | |
|---|---|
| Synopsis | Enter the **arbiter-parent** context |
| Context | **configure** qos sap-ingress *qos-policy-name* subscriber-mgmt dynamic-policer arbiter-parent |
| Tree | arbiter-parent |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## arbiter-name *named-item*

| | |
|---|---|
| Synopsis | Arbiter name |
| Context | **configure** qos sap-ingress *qos-policy-name* subscriber-mgmt dynamic-policer arbiter-parent arbiter-name *named-item* |
| Tree | arbiter-name |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## level *number*

| | |
|---|---|
| Synopsis | Level of priority while feeding to the parent |
| Context | **configure** qos sap-ingress *qos-policy-name* subscriber-mgmt dynamic-policer arbiter-parent level *number* |
| Tree | level |
| Range | 1 to 8 |
| Default | 1 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **weight** *number*

| | |
|---|---|
| Synopsis | Weight used by the arbiter for feeding the policer |
| Context | **configure** qos sap-ingress *qos-policy-name* subscriber-mgmt dynamic-policer arbiter-parent weight *number* |
| Tree | weight |
| Range | 1 to 100 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **cbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | Exceed threshold of the CIR leaky bucket of the policer |
| Context | **configure** qos sap-ingress *qos-policy-name* subscriber-mgmt dynamic-policer cbs *(number | keyword)* |
| Tree | cbs |
| Range | 0 to 268435456 |
| Units | bytes |
| Options | auto |
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **mbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | High priority violate threshold of PIR leaky bucket of this policer |
| Context | **configure** qos sap-ingress *qos-policy-name* subscriber-mgmt dynamic-policer mbs *(number | keyword)* |
| Tree | mbs |
| Range | 0 to 268435456 |
| Units | bytes |
| Options | auto |
| Default | auto |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **packet-byte-offset** *number*

| | |
|---|---|
| Synopsis | Packet size modification for policing information |
| Context | **configure** qos sap-ingress *qos-policy-name* subscriber-mgmt dynamic-policer packet-byte-offset *number* |
| Tree | packet-byte-offset |
| Range | -32 to 31 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **policer-id-range**

| | |
|---|---|
| Synopsis | Enable the **policer-id-range** context |
| Context | **configure** qos sap-ingress *qos-policy-name* subscriber-mgmt dynamic-policer policer-id-range |
| Tree | policer-id-range |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the dynamic policer ID range |
| Context | **configure** qos sap-ingress *qos-policy-name* subscriber-mgmt dynamic-policer policer-id-range end *number* |
| Tree | end |
| Range | 1 to 63 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of the dynamic policer ID range |
| Context | **configure** qos sap-ingress *qos-policy-name* subscriber-mgmt dynamic-policer policer-id-range start *number* |
| Tree | start |
| Range | 1 to 63 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **stat-mode** *keyword*

| | |
|---|---|
| Synopsis | Mode of statistics collected by the policer |
| Context | **configure** qos sap-ingress *qos-policy-name* subscriber-mgmt dynamic-policer stat-mode *keyword* |
| Tree | stat-mode |
| Options | no-stats, minimal, offered-profile-no-cir, offered-total-cir, offered-priority-no-cir, offered-profile-cir, offered-priority-cir, offered-limited-profile-cir, offered-profile-capped-cir, offered-limited-capped-cir |
| Default | minimal |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **pcc-rule-entry**

| | |
|---|---|
| Synopsis | Enter the **pcc-rule-entry** context |
| Context | **configure** qos sap-ingress *qos-policy-name* subscriber-mgmt pcc-rule-entry |
| Tree | pcc-rule-entry |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **range**

| | |
|---|---|
| Synopsis | Enable the **range** context |
| Context | **configure** qos sap-ingress *qos-policy-name* subscriber-mgmt pcc-rule-entry range |


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| | |
|---|---|
| Tree | range |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the filter and QoS policy entries range |
| Context | **configure** qos sap-ingress *qos-policy-name* subscriber-mgmt pcc-rule-entry range end *number* |
| Tree | end |
| Range | 1 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of the filter and QoS policy entries range |
| Context | **configure** qos sap-ingress *qos-policy-name* subscriber-mgmt pcc-rule-entry range start *number* |
| Tree | start |
| Range | 1 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **scheduler-policy** [scheduler-policy-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **scheduler-policy** list instance |
| Context | **configure** qos scheduler-policy *named-item* |
| Tree | scheduler-policy |
| Max. instances | 2047 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**scheduler-policy-name**] *named-item*

| | |
|---|---|
| Synopsis | Scheduler policy name |
| Context | **configure** qos scheduler-policy *named-item* |
| Tree | scheduler-policy |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** qos scheduler-policy *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **frame-based-accounting** *boolean*

| | |
|---|---|
| Synopsis | Use frame-based accounting for queues and schedulers |
| Context | **configure** qos scheduler-policy *named-item* frame-based-accounting *boolean* |
| Tree | frame-based-accounting |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **tier** [tier-id] *number*

| | |
|---|---|
| Synopsis | Enter the **tier** list instance |
| Context | **configure** qos scheduler-policy *named-item* tier *number* |
| Tree | tier |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**tier-id**] *number*

| | |
|---|---|
| Synopsis | Tier for scheduler-policy scheduler |
| Context | **configure** qos scheduler-policy *named-item* tier *number* |
| Tree | tier |
| Range | 1 to 3 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **parent-location** *keyword*

| | |
|---|---|
| Synopsis | Expected location of parent schedulers |
| Context | **configure** qos scheduler-policy *named-item* tier *number* parent-location *keyword* |
| Tree | parent-location |
| Options | auto, sub, vport |
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | All |

### **scheduler** [scheduler-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **scheduler** list instance |
| Context | **configure** qos scheduler-policy *named-item* tier *number* scheduler *named-item* |
| Tree | scheduler |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**scheduler-name**] *named-item*

| | |
|---|---|
| Synopsis | Scheduler name |
| Context | **configure** qos scheduler-policy *named-item* tier *number* scheduler *named-item* |
| Tree | scheduler |
| Description | This command specifies the scheduler name which is composed of printable 7-bit ASCII characters. If the string contains special characters (#, $, spaces, and so on), the entire string must be enclosed within double quotes. Each scheduler must have a |


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unique name within the context of the scheduler policy. However, the same name can be reused in multiple scheduler policies. If the scheduler name already exists within the policy tier level, the context changes to that scheduler name for the purpose of editing the scheduler commands.

If the scheduler name exists within the policy on a different tier, an error occurs and the current context will not change. If the scheduler name does not exist in this or another tier within the scheduler policy, it is assumed that an attempt is being made to create a scheduler of that name.

If the provided scheduler name is invalid, a name syntax error occurs, the command does not execute, and the context is not change.

| | |
|---|---|
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** qos scheduler-policy *named-item* tier *number* scheduler *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **limit-unused-bandwidth** *boolean*

| | |
|---|---|
| Synopsis | Enable aggregate rate overrun protection |
| Context | **configure** qos scheduler-policy *named-item* tier *number* scheduler *named-item* limit-unused-bandwidth *boolean* |
| Tree | limit-unused-bandwidth |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **percent-rate**

| | |
|---|---|
| Synopsis | Enter the **percent-rate** context |


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| | |
|---|---|
| Context | **configure** qos scheduler-policy *named-item* tier *number* scheduler *named-item* percent-rate |
| Tree | percent-rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 20.10.R1 |
| Platforms | All |

### **cir** *(keyword | decimal-number)*

| | |
|---|---|
| Synopsis | Scheduler CIR |
| Context | **configure** qos scheduler-policy *named-item* tier *number* scheduler *named-item* percent-rate cir *(keyword | decimal-number)* |
| Tree | cir |
| Range | 0.00 to 100.00 |
| Options | sum |
| Default | sum |
| Introduced | 20.10.R1 |
| Platforms | All |

### **pir** *decimal-number*

| | |
|---|---|
| Synopsis | Scheduler PIR |
| Context | **configure** qos scheduler-policy *named-item* tier *number* scheduler *named-item* percent-rate pir *decimal-number* |
| Tree | pir |
| Range | 0.01 to 100.00 |
| Introduced | 20.10.R1 |
| Platforms | All |

### **reference-rate** *keyword*

| | |
|---|---|
| Synopsis | Reference rate |
| Context | **configure** qos scheduler-policy *named-item* tier *number* scheduler *named-item* percent-rate reference-rate *keyword* |
| Tree | reference-rate |
| Options | local-limit, reference-port-limit |


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| | |
|---|---|
| Default | reference-port-limit |
| Introduced | 20.10.R1 |
| Platforms | All |

## port-parent

| | |
|---|---|
| Synopsis | Enable the **port-parent** context |
| Context | **configure** qos scheduler-policy *named-item* tier *number* scheduler *named-item* port-parent |
| Tree | port-parent |
| Notes | The following elements are part of a choice: **port-parent** or **scheduler-parent**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## cir-level *number*

| | |
|---|---|
| Synopsis | Port priority to receive bandwidth for within-CIR pass |
| Context | **configure** qos scheduler-policy *named-item* tier *number* scheduler *named-item* port-parent cir-level *number* |
| Tree | cir-level |
| Range | 0 to 8 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

## cir-weight *number*

| | |
|---|---|
| Synopsis | Weight used at the within-CIR port priority level |
| Context | **configure** qos scheduler-policy *named-item* tier *number* scheduler *named-item* port-parent cir-weight *number* |
| Tree | cir-weight |
| Range | 0 to 100 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **level** *number*

| | |
|---|---|
| Synopsis | Port priority for bandwidth for above-CIR offered load |
| Context | **configure** qos scheduler-policy *named-item* tier *number* scheduler *named-item* port-parent level *number* |
| Tree | level |
| Range | 1 to 8 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **weight** *number*

| | |
|---|---|
| Synopsis | Weight used at the above-CIR port priority level |
| Context | **configure** qos scheduler-policy *named-item* tier *number* scheduler *named-item* port-parent weight *number* |
| Tree | weight |
| Range | 0 to 100 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rate**

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** qos scheduler-policy *named-item* tier *number* scheduler *named-item* rate |
| Tree | rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cir** *(number | keyword)*

| | |
|---|---|
| Synopsis | Administrative CIR |
| Context | **configure** qos scheduler-policy *named-item* tier *number* scheduler *named-item* rate cir *(number | keyword)* |


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| | |
|---|---|
| Tree | cir |
| Range | 0 to 6400000000 |
| Units | kilobps |
| Options | sum, max |
| Default | sum |
| Introduced | 16.0.R1 |
| Platforms | All |

### **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | Administrative PIR |
| Context | **configure** qos scheduler-policy *named-item* tier *number* scheduler *named-item* rate pir *(number | keyword)* |
| Tree | pir |
| Range | 1 to 6400000000 |
| Units | kilobps |
| Options | max |
| Default | max |
| Introduced | 16.0.R1 |
| Platforms | All |

### **scheduler-parent**

| | |
|---|---|
| Synopsis | Enable the **scheduler-parent** context |
| Context | **configure** qos scheduler-policy *named-item* tier *number* scheduler *named-item* scheduler-parent |
| Tree | scheduler-parent |
| Notes | The following elements are part of a choice: **port-parent** or **scheduler-parent**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cir-level** *number*

| | |
|---|---|
| Synopsis | Level of priority while feeding to the parent |
| Context | **configure** qos scheduler-policy *named-item* tier *number* scheduler *named-item* scheduler-parent cir-level *number* |


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| | |
|---|---|
| Tree | cir-level |
| Range | 0 to 8 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cir-weight** *number*

| | |
|---|---|
| Synopsis | Weight used at the within-CIR port priority level |
| Context | **configure** qos scheduler-policy *named-item* tier *number* scheduler *named-item* scheduler-parent cir-weight *number* |
| Tree | cir-weight |
| Range | 0 to 100 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **level** *number*

| | |
|---|---|
| Synopsis | Level of priority while feeding to the parent |
| Context | **configure** qos scheduler-policy *named-item* tier *number* scheduler *named-item* scheduler-parent level *number* |
| Tree | level |
| Range | 1 to 8 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **scheduler-name** *named-item*

| | |
|---|---|
| Synopsis | Scheduler name |
| Context | **configure** qos scheduler-policy *named-item* tier *number* scheduler *named-item* scheduler-parent scheduler-name *named-item* |
| Tree | scheduler-name |
| String length | 1 to 32 |
| Notes | This element is mandatory. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **weight** *number*

| | |
|---|---|
| Synopsis | Relative weight of the scheduler to feed the queue |
| Context | **configure** qos scheduler-policy *named-item* tier *number* scheduler *named-item* scheduler-parent weight *number* |
| Tree | weight |
| Range | 0 to 100 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **shared-queue** [shared-queue-policy-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **shared-queue** list instance |
| Context | **configure** qos shared-queue *named-item* |
| Tree | shared-queue |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**shared-queue-policy-name**] *named-item*

| | |
|---|---|
| Synopsis | Name of the default shared queue policy |
| Context | **configure** qos shared-queue *named-item* |
| Tree | shared-queue |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description-or-empty*

| | |
|---|---|
| Synopsis | Text description |


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| | |
|---|---|
| Context | **configure** qos shared-queue *named-item* description *description-or-empty* |
| Tree | description |
| String length | 0 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **fc** [fc-name] *keyword*

| | |
|---|---|
| Synopsis | Enter the **fc** list instance |
| Context | **configure** qos shared-queue *named-item* fc *keyword* |
| Tree | fc |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**fc-name**] *keyword*

| | |
|---|---|
| Synopsis | Forwarding class mapping to queue mapping |
| Context | **configure** qos shared-queue *named-item* fc *keyword* |
| Tree | fc |
| Options | be – Best effort<br>l2 – Low 2 (best effort)<br>af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority)<br>ef – Expedited forwarding (high priority)<br>h1 – High 1 (high priority)<br>nc – Network control (high priority) |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **broadcast-queue** *number*

| | |
|---|---|
| Synopsis | ID of queue to forward all broadcast traffic |
| Context | **configure** qos shared-queue *named-item* fc *keyword* broadcast-queue *number* |
| Tree | broadcast-queue |
| Range | 9 to 32 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **multicast-queue** *number*

| | |
|---|---|
| Synopsis | ID of queue to forward multicast traffic |
| Context | **configure** qos shared-queue *named-item* fc *keyword* multicast-queue *number* |
| Tree | multicast-queue |
| Range | 9 to 32 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **queue** *number*

| | |
|---|---|
| Synopsis | ID of queue to foward all traffic |
| Context | **configure** qos shared-queue *named-item* fc *keyword* queue *number* |
| Tree | queue |
| Range | 1 to 8 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **unknown-queue** *number*

| | |
|---|---|
| Synopsis | ID of queue to forward unknown unicast traffic |
| Context | **configure** qos shared-queue *named-item* fc *keyword* unknown-queue *number* |
| Tree | unknown-queue |
| Range | 9 to 32 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **queue** [queue-id] *number*

| | |
|---|---|
| Synopsis | Enter the **queue** list instance |
| Context | **configure** qos shared-queue *named-item* queue *number* |
| Tree | queue |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### [**queue-id**] *number*

| | |
|---|---|
| Synopsis | Shared queue identifier |
| Context | **configure** qos shared-queue *named-item* queue *number* |
| Tree | queue |
| Range | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cbs** *number*

| | |
|---|---|
| Synopsis | Committed burst size as a percentage of the MBS |
| Context | **configure** qos shared-queue *named-item* queue *number* cbs *number* |
| Tree | cbs |
| Range | 0 to 100 |
| Units | percent |
| Introduced | 16.0.R1 |
| Platforms | All |

### **drop-tail**

| | |
|---|---|
| Synopsis | Enter the **drop-tail** context |
| Context | **configure** qos shared-queue *named-item* queue *number* drop-tail |
| Tree | drop-tail |
| Introduced | 16.0.R1 |
| Platforms | All |

### **low**

| | |
|---|---|
| Synopsis | Enter the **low** context |
| Context | **configure** qos shared-queue *named-item* queue *number* drop-tail low |


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| | |
|---|---|
| Tree | low |
| Introduced | 16.0.R1 |
| Platforms | All |

### **percent-reduction-from-mbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | Low drop-tail percent from MBS that is reduced |
| Context | **configure** qos shared-queue *named-item* queue *number* drop-tail low percent-reduction-from-mbs *(number \| keyword)* |
| Tree | percent-reduction-from-mbs |
| Range | 0 to 100 |
| Options | auto |
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mbs** *number*

| | |
|---|---|
| Synopsis | Maximum buffers for the ingress shared queue |
| Context | **configure** qos shared-queue *named-item* queue *number* mbs *number* |
| Tree | mbs |
| Range | 0 to 100 |
| Units | percent |
| Introduced | 16.0.R1 |
| Platforms | All |

### **multipoint** *boolean*

| | |
|---|---|
| Synopsis | Apply as a multicast queue |
| Context | **configure** qos shared-queue *named-item* queue *number* multipoint *boolean* |
| Tree | multipoint |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **queue-type** *keyword*

| | |
|---|---|
| Synopsis | Method used to service queue from hardware perspective |
| Context | **configure** qos shared-queue *named-item* queue *number* queue-type *keyword* |
| Tree | queue-type |
| Options | expedited, auto-expedited, best-effort |
| Default | auto-expedited |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rate**

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** qos shared-queue *named-item* queue *number* rate |
| Tree | rate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cir** *number*

| | |
|---|---|
| Synopsis | CIR percentage rate |
| Context | **configure** qos shared-queue *named-item* queue *number* rate cir *number* |
| Tree | cir |
| Range | 0 to 100 |
| Units | percent |
| Introduced | 16.0.R1 |
| Platforms | All |

### **fir** *number*

| | |
|---|---|
| Synopsis | FIR percentage rate |
| Context | **configure** qos shared-queue *named-item* queue *number* rate fir *number* |
| Tree | fir |
| Range | 0 to 100 |
| Units | percent |


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| | |
|---|---|
| Default | 0 |
| Introduced | 16.0.R2 |
| Platforms | All |

### **pir** *number*

| | |
|---|---|
| Synopsis | PIR percentage rate |
| Context | **configure** qos shared-queue *named-item* queue *number* rate pir *number* |
| Tree | pir |
| Range | 1 to 100 |
| Units | percent |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **slope-policy** [slope-policy-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **slope-policy** list instance |
| Context | **configure** qos slope-policy *named-item* |
| Tree | slope-policy |
| Max. instances | 511 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**slope-policy-name**] *named-item*

| | |
|---|---|
| Synopsis | Slope policy name |
| Context | **configure** qos slope-policy *named-item* |
| Tree | slope-policy |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** qos slope-policy *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **exceed-slope**

| | |
|---|---|
| Synopsis | Enter the **exceed-slope** context |
| Context | **configure** qos slope-policy *named-item* exceed-slope |
| Tree | exceed-slope |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the exceed-priority RED slope |
| Context | **configure** qos slope-policy *named-item* exceed-slope admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **max-avg** *number*

| | |
|---|---|
| Synopsis | Buffer percentage after which drop probability is one |
| Context | **configure** qos slope-policy *named-item* exceed-slope max-avg *number* |
| Tree | max-avg |
| Range | 0 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **max-prob** *number*

| | |
|---|---|
| Synopsis | Drop probability to increase at exceed start-average |
| Context | **configure** qos slope-policy *named-item* exceed-slope max-prob *number* |
| Tree | max-prob |
| Range | 0 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **start-avg** *number*

| | |
|---|---|
| Synopsis | Buffer percentage after which drop probability starts to rise above zero |
| Context | **configure** qos slope-policy *named-item* exceed-slope start-avg *number* |
| Tree | start-avg |
| Range | 0 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **high-slope**

| | |
|---|---|
| Synopsis | Enter the **high-slope** context |
| Context | **configure** qos slope-policy *named-item* high-slope |
| Tree | high-slope |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the high priority RED slope |
| Context | **configure** qos slope-policy *named-item* high-slope admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **max-avg** *number*

| | |
|---|---|
| Synopsis | Buffer percentage after which drop probability is one |
| Context | **configure** qos slope-policy *named-item* high-slope max-avg *number* |
| Tree | max-avg |
| Range | 0 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **max-prob** *number*

| | |
|---|---|
| Synopsis | Drop probability to increase at high start-average |
| Context | **configure** qos slope-policy *named-item* high-slope max-prob *number* |
| Tree | max-prob |
| Range | 0 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **start-avg** *number*

| | |
|---|---|
| Synopsis | Buffer percentage after which drop probability starts to rise above zero |
| Context | **configure** qos slope-policy *named-item* high-slope start-avg *number* |
| Tree | start-avg |
| Range | 0 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **highplus-slope**

| | |
|---|---|
| Synopsis | Enter the **highplus-slope** context |
| Context | **configure** qos slope-policy *named-item* highplus-slope |
| Tree | highplus-slope |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the highplus priority RED slope |
| Context | **configure** qos slope-policy *named-item* highplus-slope admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **max-avg** *number*

| | |
|---|---|
| Synopsis | Buffer percentage after which drop probability is one |
| Context | **configure** qos slope-policy *named-item* highplus-slope max-avg *number* |
| Tree | max-avg |
| Range | 0 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **max-prob** *number*

| | |
|---|---|
| Synopsis | Drop probability increase at highplus start-average |
| Context | **configure** qos slope-policy *named-item* highplus-slope max-prob *number* |
| Tree | max-prob |
| Range | 0 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **start-avg** *number*

| | |
|---|---|
| Synopsis | Buffer percentage after which drop probability starts to rise above zero |
| Context | **configure** qos slope-policy *named-item* highplus-slope start-avg *number* |
| Tree | start-avg |
| Range | 0 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |


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## low-slope

| | |
|---|---|
| Synopsis | Enter the **low-slope** context |
| Context | **configure** qos slope-policy *named-item* low-slope |
| Tree | low-slope |
| Introduced | 16.0.R1 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the low priority RED slope |
| Context | **configure** qos slope-policy *named-item* low-slope admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Introduced | 16.0.R1 |
| Platforms | All |

## max-avg *number*

| | |
|---|---|
| Synopsis | Buffer percentage after which drop probability is one |
| Context | **configure** qos slope-policy *named-item* low-slope max-avg *number* |
| Tree | max-avg |
| Range | 0 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

## max-prob *number*

| | |
|---|---|
| Synopsis | Drop probability to increase at low start-average |
| Context | **configure** qos slope-policy *named-item* low-slope max-prob *number* |
| Tree | max-prob |
| Range | 0 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **start-avg** *number*

| | |
|---|---|
| Synopsis | Buffer percentage after which drop probability starts to rise above zero |
| Context | **configure** qos slope-policy *named-item* low-slope start-avg *number* |
| Tree | start-avg |
| Range | 0 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **time-average-factor** *number*

| | |
|---|---|
| Synopsis | Weighting factor to calculate shared buffer utilization |
| Context | **configure** qos slope-policy *named-item* time-average-factor *number* |
| Tree | time-average-factor |
| Range | 0 to 15 |
| Default | 7 |
| Introduced | 16.0.R1 |
| Platforms | All |


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## 4.38 redundancy commands

```
configure
   –  redundancy
      –  apply-groups reference
      –  apply-groups-exclude reference
      –  bgp-evpn
         –  ethernet-segment
            –  activation-timer number
            –  apply-groups reference
            –  apply-groups-exclude reference
            –  boot-timer number
      –  bgp-mh
         –  apply-groups reference
         –  apply-groups-exclude reference
         –  site
            –  activation-timer number
            –  boot-timer number
            –  min-down-timer number
      –  cert-sync boolean
      –  mgmt-ethernet
         –  revert number
      –  multi-chassis
         –  ipsec-domain number
            –  admin-state keyword
            –  apply-groups reference
            –  apply-groups-exclude reference
            –  designated-role keyword
            –  priority number
            –  revertive boolean
            –  tunnel-group reference
         –  options
            –  sub-mgmt
               –  apply-groups reference
               –  apply-groups-exclude reference
               –  dhcp-leasetime-threshold number
         –  peer (ipv4-address-no-zone | ipv6-address-no-zone)
            –  admin-state keyword
            –  apply-groups reference
            –  apply-groups-exclude reference
            –  authentication-key encrypted-leaf
            –  description description
            –  mc-endpoint
               –  admin-state keyword
               –  apply-groups reference
               –  apply-groups-exclude reference
               –  bfd boolean
               –  boot-timer number
               –  hold-on-neighbor-failure number
               –  keep-alive-interval number
               –  passive-mode boolean
               –  system-priority number
            –  mc-ipsec
               –  apply-groups reference
               –  apply-groups-exclude reference
               –  bfd-liveness boolean
               –  discovery-interval
                  –  boot number
                  –  interval-secs number
               –  domain reference
                  –  admin-state keyword
```


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configure redundancy multi-chassis peer mc-ipsec domain apply-groups

```
                  - apply-groups reference
                  - apply-groups-exclude reference
               - hold-on-neighbor-failure number
               - keep-alive-interval number
               - tunnel-group reference
                  - admin-state keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - peer-group number
                  - priority number
            - mc-lag
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - hold-on-neighbor-failure number
               - keep-alive-interval number
               - lag reference
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - lacp-key number
                  - remote-lag lag-interface
                  - source-bmac-lsb (keyword | bmac-lsb)
                  - system-id mac-address
                  - system-priority number
            - mc-ring
               - apply-groups reference
               - apply-groups-exclude reference
               - ring named-item
                  - admin-state keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - in-band-control-path
                     - debounce boolean
                     - dst-ip ipv4-unicast-address
                     - interface interface-name
                     - max-debounce-time number
                     - service-name service-name
                  - path-b
                     - apply-groups reference
                     - apply-groups-exclude reference
                     - range start number end number
                     - wildcard-saps boolean
                  - path-excl
                     - apply-groups reference
                     - apply-groups-exclude reference
                     - range start number end number
                     - wildcard-saps boolean
                  - ring-node named-item
                     - admin-state keyword
                     - apply-groups reference
                     - apply-groups-exclude reference
                     - dst-ip ipv4-unicast-address
                     - interval number
                     - service-name service-name
                     - src-ip ipv4-unicast-address
                     - src-mac (keyword | ring-node-mac-address)
                     - vlan ext-vlan-encap
                  - srrp-instance number
                  - type keyword
            - peer-name named-item
            - source-address (ipv4-address-no-zone | ipv6-address-no-zone)
            - sync
               - admin-state keyword
               - apply-groups reference
```


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```
                - apply-groups-exclude reference
                - diameter-node
                  - node reference
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - sync-tag named-item
                - igmp boolean
                - igmp-snooping boolean
                - ipsec boolean
                - l2tp boolean
                - local-dhcp-server boolean
                - mc-ring boolean
                - mld boolean
                - mld-snooping boolean
                - nat
                  - nat-group reference
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - sync-tag named-item
                - pim-snooping
                  - saps boolean
                  - spoke-sdps boolean
                - python boolean
                - srrp boolean
                - sub-host-trk boolean
                - sub-mgmt
                  - ipoe boolean
                  - pppoe boolean
                  - wlan-gw boolean
                - tags
                  - lag reference
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - range start vlan-encap end vlan-encap
                      - apply-groups reference
                      - apply-groups-exclude reference
                      - sync-tag named-item
                    - sync-tag named-item
                  - port reference
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - range start vlan-encap end vlan-encap
                      - apply-groups reference
                      - apply-groups-exclude reference
                      - sync-tag named-item
                    - sync-tag named-item
                  - pw-port reference
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - range start vlan-encap end vlan-encap
                      - apply-groups reference
                      - apply-groups-exclude reference
                      - sync-tag named-item
                    - sync-tag named-item
                  - sdp number
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - range start number end number
                      - apply-groups reference
                      - apply-groups-exclude reference
                      - sync-tag named-item
                    - sync-tag named-item
                - track-srrp number
                  - apply-groups reference
```


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configure redundancy multi-chassis peer sync track-srrp apply-groups-exclude

```
                  -  apply-groups-exclude reference
                  -  l2tp-tunnel-id-range
                     -  end number
                     -  start number
               -  transport-encryption
                  -  application keyword
                     -  apply-groups reference
                     -  apply-groups-exclude reference
                     -  keychain reference
               -  tunnel-group number
                  -  apply-groups reference
                  -  apply-groups-exclude reference
                  -  sync-tag named-item
      -  rollback-sync keyword
      -  srrp
         -  apply-groups reference
         -  apply-groups-exclude reference
         -  auto-srrp-id-range
            -  end number
            -  start number
      -  switchover-exec url
      -  synchronize keyword
```


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## 4.38.1 redundancy command descriptions

### redundancy

| | |
|---|---|
| Synopsis | Enter the **redundancy** context |
| Context | **configure** redundancy |
| Tree | redundancy |
| Introduced | 16.0.R1 |
| Platforms | All |

### bgp-evpn

| | |
|---|---|
| Synopsis | Enter the **bgp-evpn** context |
| Context | **configure** redundancy bgp-evpn |
| Tree | bgp-evpn |
| Introduced | 16.0.R1 |
| Platforms | All |

### ethernet-segment

| | |
|---|---|
| Synopsis | Enter the **ethernet-segment** context |
| Context | **configure** redundancy bgp-evpn ethernet-segment |
| Tree | ethernet-segment |
| Introduced | 16.0.R1 |
| Platforms | All |

### activation-timer *number*

| | |
|---|---|
| Synopsis | Time before Ethernet segment activated on DF-elected PE |
| Context | **configure** redundancy bgp-evpn ethernet-segment activation-timer *number* |
| Tree | activation-timer |
| Range | 0 to 100 |
| Units | seconds |
| Default | 3 |
| Introduced | 16.0.R1 |


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Platforms All

## **boot-timer** *number*

Synopsis Time before BGP EVPN multi-homing DF election algorithm

Context **configure** redundancy bgp-evpn ethernet-segment boot-timer *number*

Tree boot-timer

Description This command allows the necessary time for the control plane protocols to come up upon PE boot-up before bringing up the ESs and running the DF algorithm.

The following considerations apply to this command:

- The **boot-timer** command must provide enough time to allow the IOMs and BGP sessions to come up before exchanging ES routes and running the DF election for each EVI or ISID.
- The boot-timer is synchronized across CPMs and is relative to the system up time; it is not changed or reset upon CPM switchover.
- The boot-timer is never interrupted (the **es-activation-timer**, however, can be interrupted if there is a new event triggering the DF election).
- The boot-timer runs per EVI or ISID on the ESs in the system. If the system up time (time the system has been up since the last reboot) is less than the **boot-timer** value, the system does not run the DF election for any EVI or ISID. When the **boot-timer** value expires, the DF election runs, and if the system is elected DF for the EVI or ISID, the **es-activation-timer** is triggered.
- The system does not advertise ES routes until the boot timer expires, which guarantees that the peer ES PEs only run the DF election when the PE is ready to become the DF, if required.

Range 0 to 1800

Units seconds

Default 10

Introduced 16.0.R1

Platforms All

## **bgp-mh**

Synopsis Enter the **bgp-mh** context

Context **configure** redundancy bgp-mh

Tree bgp-mh

Introduced 16.0.R1

Platforms All


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### site

| | |
|---|---|
| Synopsis | Enter the **site** context |
| Context | **configure** redundancy bgp-mh site |
| Tree | site |
| Introduced | 16.0.R1 |
| Platforms | All |

### activation-timer *number*

| | |
|---|---|
| Synopsis | Time to wait for BGP updates from remote PEs |
| Context | **configure** redundancy bgp-mh site activation-timer *number* |
| Tree | activation-timer |
| Range | 0 to 100 |
| Units | seconds |
| Default | 2 |
| Introduced | 16.0.R1 |
| Platforms | All |

### boot-timer *number*

| | |
|---|---|
| Synopsis | Wait time after reboot to run the DF election algorithm |
| Context | **configure** redundancy bgp-mh site boot-timer *number* |
| Tree | boot-timer |
| Range | 0 to 600 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### min-down-timer *number*

| | |
|---|---|
| Synopsis | Min downtime for BGP multi-homing site after transition |
| Context | **configure** redundancy bgp-mh site min-down-timer *number* |
| Tree | min-down-timer |


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| | |
|---|---|
| Description | This command configures the BGP multi-homing site minimum down time. When this value is set and the site goes operationally down, it remains operationally down for at least the length of time configured by this timer, regardless of whether other state changes might cause the site to go operationally up. This timer is restarted every time the site transitions from operationally up to down.<br>This timer is optimized in the following circumstances:<br>• If the site goes down on the DF but there are no BGP multi-homing peers with the same site in an up state, this timer is not used.<br>• If the site goes down on the DF but there are no active BGP multi-homing peers, this timer is not used.<br>• If this timer is active and a BGP multihoming update is received from the DF indicating its site is down, this timer is immediately terminated and the BGP multihoming algorithm is triggered to determine whether this PE should become the DF. |
| Range | 1 to 100 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

## **cert-sync** *boolean*

| | |
|---|---|
| Synopsis | Automatically synchronize certificate files |
| Context | **configure** redundancy cert-sync *boolean* |
| Tree | cert-sync |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

## **mgmt-ethernet**

| | |
|---|---|
| Synopsis | Enable the **mgmt-ethernet** context |
| Context | **configure** redundancy mgmt-ethernet |
| Tree | mgmt-ethernet |
| Description | Commands in this context configure the active CPM to use the management Ethernet port of the standby CPM if the management Ethernet port on the active CPM goes down. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-2s, 7750 SR-7s, 7750 SR-14s, 7950 XRS |


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### **revert** *number*

| | |
|---|---|
| Synopsis | Time before reverting the management CPM Ethernet port |
| Context | **configure** redundancy mgmt-ethernet revert *number* |
| Tree | revert |
| Description | This command allows the administrator to control when to revert to the management Ethernet port of the primary CPM after it comes up again. |
| Range | 1 to 300 |
| Units | seconds |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-2s, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

### **multi-chassis**

| | |
|---|---|
| Synopsis | Enter the **multi-chassis** context |
| Context | **configure** redundancy multi-chassis |
| Tree | multi-chassis |
| Description | Commands in this context configure the attributes of multi-chassis redundancy. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipsec-domain** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **ipsec-domain** list instance |
| Context | **configure** redundancy multi-chassis ipsec-domain *number* |
| Tree | ipsec-domain |
| Description | Commands in this context configure an IPsec domain used for N:M IPsec redundancy. |
| Max. instances | 64 |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### [**id**] *number*

| | |
|---|---|
| Synopsis | IPsec domain ID |
| Context | **configure** redundancy multi-chassis ipsec-domain *number* |
| Tree | ipsec-domain |
| Range | 1 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the IPsec domain |
| Context | **configure** redundancy multi-chassis ipsec-domain *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **designated-role** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Designated role for the IPsec domain |
| Context | **configure** redundancy multi-chassis ipsec-domain *number* designated-role *keyword* |
| Tree | designated-role |
| Description | This command configures the designated role of the tunnel group in the IPsec domain. |
| Options | standby, active |
| Default | standby |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **priority** *number*

| | |
|---|---|
| Synopsis | Priority for the IPsec domain |
| Context | **configure** redundancy multi-chassis ipsec-domain *number* priority *number* |
| Tree | priority |
| Description | This command configures the priority for the tunnel group in the IPsec domain. The node with the higher priority is more likely to be elected as active within the domain. |
| Range | 0 to 255 |
| Default | 100 |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **revertive** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable revertive behavior for the tunnel group |
| Context | **configure** redundancy multi-chassis ipsec-domain *number* revertive *boolean* |
| Tree | revertive |
| Description | When configured to **true**, the router enables the revertive behavior of the tunnel group, which allows a router in an N:M domain to automatically take over as the active router in the domain when it becomes eligible to do so.<br>When configured to **false**, the revertive behavior of the tunnel group is disabled. |
| Default | false |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **tunnel-group** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Tunnel group ID for an IPsec domain |
| Context | **configure** redundancy multi-chassis ipsec-domain *number* tunnel-group *reference* |


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| | |
|---|---|
| Tree | tunnel-group |
| Description | This command specifies the tunnel group ID for the IPsec domain. |
| Reference | **configure** isa tunnel-group *number* |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## options

| | |
|---|---|
| Synopsis | Enter the **options** context |
| Context | **configure** redundancy multi-chassis options |
| Tree | options |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## sub-mgmt

| | |
|---|---|
| Synopsis | Enter the **sub-mgmt** context |
| Context | **configure** redundancy multi-chassis options sub-mgmt |
| Tree | sub-mgmt |
| Description | Commands in this context configure subscriber management options for multi-chassis redundancy. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## dhcp-leasetime-threshold *number*

| | |
|---|---|
| Synopsis | DHCP lease threshold to skip MCS synchronization |
| Context | **configure** redundancy multi-chassis options sub-mgmt dhcp-leasetime-threshold *number* |
| Tree | dhcp-leasetime-threshold |
| Description | This command configures the DHCP lease time threshold to skip MCS synchronization.DHCP leases for the **sub-mgmt** MCS applications are eligible to skip synchronization if the committed lease time is less than the active threshold on a multi-chassis peer. The active threshold is the minimum value of the thresholds configured on the nodes at each end of a multi-chassis peer. The threshold is inactive when it is unconfigured on at least one end of the multi-chassis peer. |
| Range | 0 to 86400 |


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| | |
|---|---|
| Units | seconds |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **peer** [ip-address] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Enter the **peer** list instance |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | peer |
| Description | This command configures the IP address of the peer in a redundant multi-chassis setup, and enters the context for further application-specific configuration options. |
| Max. instances | 20 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ip-address**] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Peer IP address |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | peer |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the MC redundancy peer |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## **authentication-key** *encrypted-leaf*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Authentication key used between the node and MC peer |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* authentication-key *encrypted-leaf* |
| Tree | authentication-key |
| String length | 1 to 54 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **mc-endpoint**

| | |
|---|---|
| Synopsis | Enable the **mc-endpoint** context |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* mc-endpoint |
| Tree | mc-endpoint |
| Introduced | 22.10.R1 |
| Platforms | All |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the MC-EP |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* mc-endpoint admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 22.10.R1 |
| Platforms | All |

### **bfd** *boolean*

| | |
|---|---|
| Synopsis | Enable BFD detection for the MC-EP peering tunnel |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* mc-endpoint bfd *boolean* |
| Tree | bfd |
| Description | When configured to **true**, the system uses Bidirectional Forwarding Detection (BFD) to control the state of the associated protocol interface, where the state of the protocol interface is tied to the state of the BFD session between the local and remote nodes.<br>The BFD settings are configured in the IP interface contexts. |
| Default | false |
| Introduced | 22.10.R1 |
| Platforms | All |

### **boot-timer** *number*

| | |
|---|---|
| Synopsis | Time to attempt connection before declaring failure |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* mc-endpoint boot-timer *number* |
| Tree | boot-timer |
| Description | This command configures the time interval to attempt connection that applies after the node reboots. This command specifies the time the multi-chassis endpoint (MC-EP) protocol takes to establish a connection before declaring a connection failure with the remote peer. When the time interval expires, all configured MC-EPs revert to single chassis behavior, activating the best local pseudowire. |
| Range | 1 to 600 |
| Units | seconds |


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| | |
|---|---|
| Default | 300 |
| Introduced | 22.10.R1 |
| Platforms | All |

### **hold-on-neighbor-failure** *number*

| | |
|---|---|
| Synopsis | Number of keepalive intervals to wait for packets |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* mc-endpoint hold-on-neighbor-failure *number* |
| Tree | hold-on-neighbor-failure |
| Description | This command configures the number of keepalive intervals that the local node waits for packets from the MC-EP peer before declaring a connection failure. When the number of intervals is reached, all configured MC-EPs revert to single chassis behavior, activating the best local pseudowire. |
| Range | 2 to 25 |
| Default | 3 |
| Introduced | 22.10.R1 |
| Platforms | All |

### **keep-alive-interval** *number*

| | |
|---|---|
| Synopsis | Interval for exchange of keepalive messages |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* mc-endpoint keep-alive-interval *number* |
| Tree | keep-alive-interval |
| Description | This command configures the interval for which keepalive messages are exchanged between two systems participating as MC-EP when BFD is not active. The fast keepalive messages are used to detect remote node failure. |
| Range | 5 to 500 |
| Default | 10 |
| Introduced | 22.10.R1 |
| Platforms | All |

### **passive-mode** *boolean*

| | |
|---|---|
| Synopsis | Enable passive mode for the MC-EP tunnel |


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| | |
|---|---|
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* mc-endpoint passive-mode *boolean* |
| Tree | passive-mode |
| Description | When configured to **true**, the system enables passive mode behavior for the MC-EP protocol. Assuming the remote pair is configured with regular MC-EP in passive mode, the MC-EP pair remains dormant until two of the pseudowires in an MC-EP are activated by the remote PEs.<br>When one pseudowire is active, the dormant MC-EP pair becomes active. The regular mechanism to select the best pseudowire between the active pair is initiated, and the system blocks the Rx and Tx directions of the other pseudowire. |
| Default | false |
| Introduced | 22.10.R1 |
| Platforms | All |

## **system-priority** *number*

| | |
|---|---|
| Synopsis | System priority of the MC-EP |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* mc-endpoint system-priority *number* |
| Tree | system-priority |
| Description | This command configures the system priority of the MC-EP. The peer configured with the lower value is selected as the master. If the system priority values are equal, the peer with the higher system ID (chassis MAC address) becomes the master. |
| Range | 0 to 255 |
| Default | 0 |
| Introduced | 22.10.R1 |
| Platforms | All |

## **mc-ipsec**

| | |
|---|---|
| Synopsis | Enable the **mc-ipsec** context |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* mc-ipsec |
| Tree | mc-ipsec |
| Description | This command enables the context to configure multi-chassis peer parameters. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **bfd-liveness** *boolean*

| | |
|---|---|
| Synopsis | Enable BFD |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* mc-ipsec bfd-liveness *boolean* |
| Tree | bfd-liveness |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **discovery-interval**

| | |
|---|---|
| Synopsis | Enter the **discovery-interval** context |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* mc-ipsec discovery-interval |
| Tree | discovery-interval |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **boot** *number*

| | |
|---|---|
| Synopsis | Maximum interval after system bootup |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* mc-ipsec discovery-interval boot *number* |
| Tree | boot |
| Range | 1 to 1800 |
| Units | seconds |
| Default | 300 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **interval-secs** *number*

| | |
|---|---|
| Synopsis | Maximum discovery interval |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* mc-ipsec discovery-interval interval-secs *number* |


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| | |
|---|---|
| Tree | interval-secs |
| Range | 1 to 1800 |
| Units | seconds |
| Default | 300 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **domain** [id] *reference*

| | |
|---|---|
| Synopsis | Enter the **domain** list instance |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* mc-ipsec domain *reference* |
| Tree | domain |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**id**] *reference*

| | |
|---|---|
| Synopsis | IPsec domain ID |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* mc-ipsec domain *reference* |
| Tree | domain |
| Reference | **configure** redundancy multi-chassis ipsec-domain *number* |
| Notes | This element is part of a list key. |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the IPsec domain |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* mc-ipsec domain *reference* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 22.5.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **hold-on-neighbor-failure** *number*

| | |
|---|---|
| Synopsis | Hold time on neighbor failure |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* mc-ipsec hold-on-neighbor-failure *number* |
| Tree | hold-on-neighbor-failure |
| Range | 2 to 25 |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **keep-alive-interval** *number*

| | |
|---|---|
| Synopsis | Keepalive interval |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* mc-ipsec keep-alive-interval *number* |
| Tree | keep-alive-interval |
| Range | 5 to 500 |
| Units | deciseconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **tunnel-group** [tunnel-group-id] *reference*

| | |
|---|---|
| Synopsis | Enter the **tunnel-group** list instance |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* mc-ipsec tunnel-group *reference* |
| Tree | tunnel-group |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### [**tunnel-group-id**] *reference*

| | |
|---|---|
| Synopsis | Tunnel group ID |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* mc-ipsec tunnel-group *reference* |
| Tree | tunnel-group |
| Reference | **configure** isa tunnel-group *number* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the peer IPsec tunnel group |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* mc-ipsec tunnel-group *reference* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **peer-group** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Peer tunnel group |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* mc-ipsec tunnel-group *reference* peer-group *number* |
| Tree | peer-group |
| Range | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **priority** *number*

| | |
|---|---|
| Synopsis | Tunnel group priority |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* mc-ipsec tunnel-group *reference* priority *number* |
| Tree | priority |
| Range | 0 to 255 |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **mc-lag**

| | |
|---|---|
| Synopsis | Enter the **mc-lag** context |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* mc-lag |
| Tree | mc-lag |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of MC-LAG |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* mc-lag admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hold-on-neighbor-failure** *number*

| | |
|---|---|
| Synopsis | Time to wait for packets before node failure assumed |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* mc-lag hold-on-neighbor-failure *number* |


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| | |
|---|---|
| Tree | hold-on-neighbor-failure |
| Range | 2 to 25 |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **keep-alive-interval** *number*

| | |
|---|---|
| Synopsis | Keepalive timer value |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* mc-lag keep-alive-interval *number* |
| Tree | keep-alive-interval |
| Range | 5 to 500 |
| Units | deciseconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lag** [lag-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **lag** list instance |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* mc-lag lag *reference* |
| Tree | lag |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**lag-name**] *reference*

| | |
|---|---|
| Synopsis | LAG name |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* mc-lag lag *reference* |
| Tree | lag |
| Reference | **configure** lag *lag-interface* |
| Notes | This element is part of a list key. |
| Introduced | 21.2.R1 |


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| | |
|---|---|
| Platforms | All |

## **lacp-key** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Key based on the remote MC-LAG |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* mc-lag lag *reference* lacp-key *number* |
| Tree | lacp-key |
| Range | 1 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **remote-lag** *lag-interface*

| | |
|---|---|
| Synopsis | LAG name |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* mc-lag lag *reference* remote-lag *lag-interface* |
| Tree | remote-lag |
| String length | 1 to 27 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **source-bmac-lsb** *(keyword | bmac-lsb)*

| | |
|---|---|
| Synopsis | MAC address value to apply to all ingress traffic |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* mc-lag lag *reference* source-bmac-lsb *(keyword \| bmac-lsb)* |
| Tree | source-bmac-lsb |
| Options | use-lacp-key |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **system-id** *mac-address*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | ID based on the remote MC-LAG |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* mc-lag lag *reference* system-id *mac-address* |
| Tree | system-id |
| Introduced | 16.0.R1 |
| Platforms | All |

## **system-priority** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Priority based on the remote MC-LAG |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* mc-lag lag *reference* system-priority *number* |
| Tree | system-priority |
| Range | 1 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **mc-ring**

| | |
|---|---|
| Synopsis | Enter the **mc-ring** context |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* mc-ring |
| Tree | mc-ring |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **ring** [sync-tag] *named-item*

| | |
|---|---|
| Synopsis | Enter the **ring** list instance |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* mc-ring ring *named-item* |
| Tree | ring |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**sync-tag**] *named-item*

| | |
|---|---|
| Synopsis | Tag for synchronizing with the multi-chassis peer |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* mc-ring ring *named-item* |
| Tree | ring |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the multi-chassis ring |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* mc-ring ring *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **in-band-control-path**

| | |
|---|---|
| Synopsis | Enter the **in-band-control-path** context |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* mc-ring ring *named-item* in-band-control-path |


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| | |
|---|---|
| Tree | in-band-control-path |
| Introduced | 16.0.R1 |
| Platforms | All |

### **debounce** *boolean*

| | |
|---|---|
| Synopsis | Enable inband control path debouncing |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* mc-ring ring *named-item* in-band-control-path debounce *boolean* |
| Tree | debounce |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **dst-ip** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IP address of the in-band control path peer |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* mc-ring ring *named-item* in-band-control-path dst-ip *ipv4-unicast-address* |
| Tree | dst-ip |
| Introduced | 16.0.R1 |
| Platforms | All |

### **interface** *interface-name*

| | |
|---|---|
| Synopsis | Interface to verify in-band control path |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* mc-ring ring *named-item* in-band-control-path interface *interface-name* |
| Tree | interface |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **max-debounce-time** *number*

| | |
|---|---|
| Synopsis | Maximum delay after a failure when debouncing is active |


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| | |
|---|---|
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* mc-ring ring *named-item* in-band-control-path max-debounce-time *number* |
| Tree | max-debounce-time |
| Range | 5 to 200 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **service-name** *service-name*

| | |
|---|---|
| Synopsis | Administrative service name |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* mc-ring ring *named-item* in-band-control-path service-name *service-name* |
| Tree | service-name |
| String length | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **path-b**

| | |
|---|---|
| Synopsis | Enter the **path-b** context |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* mc-ring ring *named-item* path-b |
| Tree | path-b |
| Introduced | 16.0.R1 |
| Platforms | All |

### **range** start *number* end *number*

| | |
|---|---|
| Synopsis | Add a list entry for **range** |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* mc-ring ring *named-item* path-b range start *number* end *number* |
| Tree | range |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of the VLAN range |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* mc-ring ring *named-item* path-b range start *number* end *number* |
| Tree | range |
| Range | 0 to 4094 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the VLAN range |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* mc-ring ring *named-item* path-b range start *number* end *number* |
| Tree | range |
| Range | 0 to 4094 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **wildcard-saps** *boolean*

| | |
|---|---|
| Synopsis | Include the SAPs starting with a wildcard **'*'** |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* mc-ring ring *named-item* path-b wildcard-saps *boolean* |
| Tree | wildcard-saps |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **path-excl**

| | |
|---|---|
| Synopsis | Enter the **path-excl** context |


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| | |
|---|---|
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* mc-ring ring *named-item* path-excl |
| Tree | path-excl |
| Introduced | 16.0.R1 |
| Platforms | All |

### **range** start *number* end *number*

| | |
|---|---|
| Synopsis | Add a list entry for **range** |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* mc-ring ring *named-item* path-excl range start *number* end *number* |
| Tree | range |
| Introduced | 16.0.R1 |
| Platforms | All |

### **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of the VLAN range |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* mc-ring ring *named-item* path-excl range start *number* end *number* |
| Tree | range |
| Range | 0 to 4094 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the VLAN range |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* mc-ring ring *named-item* path-excl range start *number* end *number* |
| Tree | range |
| Range | 0 to 4094 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **wildcard-saps** *boolean*

| | |
|---|---|
| Synopsis | Include the SAPs starting with a wildcard '*' |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* mc-ring ring *named-item* path-excl wildcard-saps *boolean* |
| Tree | wildcard-saps |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **ring-node** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **ring-node** list instance |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* mc-ring ring *named-item* ring-node *named-item* |
| Tree | ring-node |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | Name of the multi-chassis ring access node |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* mc-ring ring *named-item* ring-node *named-item* |
| Tree | ring-node |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the ring node verification |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* mc-ring ring *named-item* ring-node *named-item* admin-state *keyword* |
| Tree | admin-state |


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| | |
|---|---|
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **dst-ip** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Destination IP address for access node connection |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* mc-ring ring *named-item* ring-node *named-item* dst-ip *ipv4-unicast-address* |
| Tree | dst-ip |
| Introduced | 16.0.R1 |
| Platforms | All |

### **interval** *number*

| | |
|---|---|
| Synopsis | Connection verification interval |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* mc-ring ring *named-item* ring-node *named-item* interval *number* |
| Tree | interval |
| Range | 1 to 6000 |
| Units | minutes |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **service-name** *service-name*

| | |
|---|---|
| Synopsis | Administrative service name |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* mc-ring ring *named-item* ring-node *named-item* service-name *service-name* |
| Tree | service-name |
| String length | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **src-ip** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Source IP address for access node connection |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* mc-ring ring *named-item* ring-node *named-item* src-ip *ipv4-unicast-address* |
| Tree | src-ip |
| Introduced | 16.0.R1 |
| Platforms | All |

### **src-mac** *(keyword \| ring-node-mac-address)*

| | |
|---|---|
| Synopsis | Source MAC address for the access node connection |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* mc-ring ring *named-item* ring-node *named-item* src-mac *(keyword \| ring-node-mac-address)* |
| Tree | src-mac |
| Options | system-mac-address |
| Default | system-mac-address |
| Introduced | 16.0.R1 |
| Platforms | All |

### **vlan** *ext-vlan-encap*

| | |
|---|---|
| Synopsis | VLAN ID for access node connection |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* mc-ring ring *named-item* ring-node *named-item* vlan *ext-vlan-encap* |
| Tree | vlan |
| String length | 1 to 11 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **srrp-instance** [id] *number*

| | |
|---|---|
| Synopsis | Add a list entry for **srrp-instance** |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* mc-ring ring *named-item* srrp-instance *number* |
| Tree | srrp-instance |


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| | |
|---|---|
| Max. instances | 2 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | SRRP instance ID |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* mc-ring ring *named-item* srrp-instance *number* |
| Tree | srrp-instance |
| Range | 1 to 4294967295 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **type** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Type of the multi-chassis ring |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* mc-ring ring *named-item* type *keyword* |
| Tree | type |
| Options | layer-2, layer-3 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **peer-name** *named-item*

| | |
|---|---|
| Synopsis | Multi-chassis peer name |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* peer-name *named-item* |
| Tree | peer-name |


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| | |
|---|---|
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **source-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Source address to communicate with the MC peer |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* source-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | source-address |
| Introduced | 16.0.R1 |
| Platforms | All |

## **sync**

| | |
|---|---|
| Synopsis | Enable the **sync** context |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* sync |
| Tree | sync |
| Introduced | 16.0.R1 |
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the peer synchronization |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* sync admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |


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## diameter-node

| | |
|---|---|
| Synopsis | Enable the **diameter-node** context |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* sync diameter-node |
| Tree | diameter-node |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **node** [host-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **node** list instance |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* sync diameter-node node *reference* |
| Tree | node |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## [**host-name**] *reference*

| | |
|---|---|
| Synopsis | Origin-Host of the node |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* sync diameter-node node *reference* |
| Tree | node |
| Reference | **configure** aaa diameter node *diam-fqdn* |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **sync-tag** *named-item*

| | |
|---|---|
| Synopsis | Sync tag to be used for synchronization |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* sync diameter-node node *reference* sync-tag *named-item* |
| Tree | sync-tag |
| String length | 1 to 32 |


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| | |
|---|---|
| Notes | This element is mandatory. |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **igmp** *boolean*

| | |
|---|---|
| Synopsis | Synchronize IGMP protocol information with the MC peer |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* sync igmp *boolean* |
| Tree | igmp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **igmp-snooping** *boolean*

| | |
|---|---|
| Synopsis | Synchronize IGMP snooping information |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* sync igmp-snooping *boolean* |
| Tree | igmp-snooping |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **ipsec** *boolean*

| | |
|---|---|
| Synopsis | Synchronize IPsec information |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* sync ipsec *boolean* |
| Tree | ipsec |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **l2tp** *boolean*

| | |
|---|---|
| Synopsis | Synchronize Layer Two Tunnel Protocol (L2TP) |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* sync l2tp *boolean* |
| Tree | l2tp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **local-dhcp-server** *boolean*

| | |
|---|---|
| Synopsis | Synchronize DHCP Server information |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* sync local-dhcp-server *boolean* |
| Tree | local-dhcp-server |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mc-ring** *boolean*

| | |
|---|---|
| Synopsis | Synchronize ring information |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* sync mc-ring *boolean* |
| Tree | mc-ring |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mld** *boolean*

| | |
|---|---|
| Synopsis | Synchronize MLD protocol information |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* sync mld *boolean* |
| Tree | mld |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mld-snooping** *boolean*

| | |
|---|---|
| Synopsis | Synchronize MLD snooping information |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* sync mld-snooping *boolean* |
| Tree | mld-snooping |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **nat**

| | |
|---|---|
| Synopsis | Enable the **nat** context |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* sync nat |
| Tree | nat |
| Introduced | 20.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **nat-group** [id] *reference*

| | |
|---|---|
| Synopsis | Enter the **nat-group** list instance |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* sync nat nat-group *reference* |
| Tree | nat-group |
| Description | Commands in this context configure multi-chassis synchronization (MCS) for a NAT group. NAT group health information is exchanged between the pair of redundant NAT nodes. The system elects one of the nodes as the active node for the NAT group and the other node becomes the standby node. |
| Introduced | 20.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### [**id**] *reference*

| | |
|---|---|
| Synopsis | NAT group ID |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* sync nat nat-group *reference* |
| Tree | nat-group |
| Reference | **configure** isa nat-group *number* |
| Notes | This element is part of a list key. |
| Introduced | 20.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **sync-tag** *named-item*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | NAT group synchronization tag |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* sync nat nat-group *reference* sync-tag *named-item* |
| Tree | sync-tag |
| Description | This command configures the synchronization tag for the NAT group. The tag must match the synchronization tag for the NAT group on the peering node. |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 20.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **pim-snooping**

| | |
|---|---|
| Synopsis | Enter the **pim-snooping** context |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* sync pim-snooping |
| Tree | pim-snooping |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **saps** *boolean*

| | |
|---|---|
| Synopsis | Synchronize PIM snooping data with the multi-chassis peer on SDP endpoints |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* sync pim-snooping saps *boolean* |
| Tree | saps |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **spoke-sdps** *boolean*

| | |
|---|---|
| Synopsis | Synchronize spoke SDPs with the multi-chassis peer |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* sync pim-snooping spoke-sdps *boolean* |
| Tree | spoke-sdps |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **python** *boolean*

| | |
|---|---|
| Synopsis | Synchronize Python |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* sync python *boolean* |
| Tree | python |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **srrp** *boolean*

| | |
|---|---|
| Synopsis | Synchronize SRRP information |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* sync srrp *boolean* |
| Tree | srrp |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sub-host-trk** *boolean*

| | |
|---|---|
| Synopsis | Synchronize subscriber host tracking information |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* sync sub-host-trk *boolean* |
| Tree | sub-host-trk |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sub-mgmt**

| | |
|---|---|
| Synopsis | Enter the **sub-mgmt** context |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* sync sub-mgmt |
| Tree | sub-mgmt |
| Description | Commands in this context configure the synchronization of subscriber management information with the multi-chassis peer. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ipoe** *boolean*

| | |
|---|---|
| Synopsis | Synchronize subscriber management IPoE information |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* sync sub-mgmt ipoe *boolean* |
| Tree | ipoe |
| Description | When configured to **true**, the router synchronizes subscriber management IPoE information with the multi-chassis peer.<br>**Note:** The configuration of this command must match on both nodes. Otherwise, the subscriber management synchronization fails. |
| Default | false |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **pppoe** *boolean*

| | |
|---|---|
| Synopsis | Synchronize subscriber management PPPoE information |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* sync sub-mgmt pppoe *boolean* |
| Tree | pppoe |
| Description | When configured to **true**, the router synchronizes subscriber management PPPoE information with the multi-chassis peer.<br>**Note:** The configuration of this command must match on both nodes. Otherwise, the subscriber management synchronization fails. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **wlan-gw** *boolean*

| | |
|---|---|
| Synopsis | Synchronize state between BNGs for ESM over soft-GRE |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* sync sub-mgmt wlan-gw *boolean* |
| Tree | wlan-gw |
| Description | When configured to **true**, this command enables the synchronization of ESM state and tunnel state to an MCS peer for ESM over soft-GRE tunnels. |
| Default | false |
| Introduced | 23.10.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **tags**

| | |
|---|---|
| Synopsis | Enter the **tags** context |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* sync tags |
| Tree | tags |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **lag** [lag-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **lag** list instance |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* sync tags lag *reference* |
| Tree | lag |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**lag-name**] *reference*

| | |
|---|---|
| Synopsis | LAG name |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* sync tags lag *reference* |
| Tree | lag |
| Reference | **configure** lag *lag-interface* |
| Notes | This element is part of a list key. |
| Introduced | 21.2.R1 |
| Platforms | All |

### **range** start *vlan-encap* end *vlan-encap*

| | |
|---|---|
| Synopsis | Enter the **range** list instance |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* sync tags lag *reference* range start *vlan-encap* end *vlan-encap* |
| Tree | range |
| Introduced | 16.0.R1 |
| Platforms | All |

### **start** *vlan-encap*

| | |
|---|---|
| Synopsis | First encapsulation value |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* sync tags lag *reference* range start *vlan-encap* end *vlan-encap* |
| Tree | range |
| String length | 1 to 11 |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **end** *vlan-encap*

| | |
|---|---|
| Synopsis | Last encapsulation value |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* sync tags lag *reference* range start *vlan-encap* end *vlan-encap* |
| Tree | range |
| String length | 1 to 11 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sync-tag** *named-item*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Synchronization tag |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* sync tags lag *reference* range start *vlan-encap* end *vlan-encap* sync-tag *named-item* |
| Tree | sync-tag |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sync-tag** *named-item*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.


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| | |
|---|---|
| Synopsis | Synchronization tag |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* sync tags lag *reference* sync-tag *named-item* |
| Tree | sync-tag |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **port** [id] *reference*

| | |
|---|---|
| Synopsis | Enter the **port** list instance |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* sync tags port *reference* |
| Tree | port |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**id**] *reference*

| | |
|---|---|
| Synopsis | ID of port to be synchronized with multi-chassis peer |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* sync tags port *reference* |
| Tree | port |
| Reference | **configure** port *port* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **range** start *vlan-encap* end *vlan-encap*

| | |
|---|---|
| Synopsis | Enter the **range** list instance |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* sync tags port *reference* range start *vlan-encap* end *vlan-encap* |
| Tree | range |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **start** *vlan-encap*

| | |
|---|---|
| Synopsis | First encapsulation value |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* sync tags port *reference* range start *vlan-encap* end *vlan-encap* |
| Tree | range |
| String length | 1 to 11 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **end** *vlan-encap*

| | |
|---|---|
| Synopsis | Last encapsulation value |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* sync tags port *reference* range start *vlan-encap* end *vlan-encap* |
| Tree | range |
| String length | 1 to 11 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sync-tag** *named-item*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Synchronization tag |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* sync tags port *reference* range start *vlan-encap* end *vlan-encap* sync-tag *named-item* |
| Tree | sync-tag |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## **sync-tag** *named-item*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Synchronization tag |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* sync tags port *reference* sync-tag *named-item* |
| Tree | sync-tag |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **pw-port** [id] *reference*

| | |
|---|---|
| Synopsis | Enter the **pw-port** list instance |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* sync tags pw-port *reference* |
| Tree | pw-port |
| Introduced | 16.0.R4 |
| Platforms | All |

## [**id**] *reference*

| | |
|---|---|
| Synopsis | ID of pseudowire port to be synchronized with MC peer |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* sync tags pw-port *reference* |
| Tree | pw-port |
| Reference | **configure** pw-port *number* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **range** start *vlan-encap* end *vlan-encap*

| | |
|---|---|
| Synopsis | Enter the **range** list instance |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* sync tags pw-port *reference* range start *vlan-encap* end *vlan-encap* |
| Tree | range |
| Introduced | 16.0.R4 |
| Platforms | All |

### **start** *vlan-encap*

| | |
|---|---|
| Synopsis | First encapsulation value |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* sync tags pw-port *reference* range start *vlan-encap* end *vlan-encap* |
| Tree | range |
| String length | 1 to 11 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **end** *vlan-encap*

| | |
|---|---|
| Synopsis | Last encapsulation value |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* sync tags pw-port *reference* range start *vlan-encap* end *vlan-encap* |
| Tree | range |
| String length | 1 to 11 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **sync-tag** *named-item*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.


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| | |
|---|---|
| Synopsis | Synchronization tag |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* sync tags pw-port *reference* range start *vlan-encap* end *vlan-encap* sync-tag *named-item* |
| Tree | sync-tag |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **sync-tag** *named-item*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Synchronization tag |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* sync tags pw-port *reference* sync-tag *named-item* |
| Tree | sync-tag |
| String length | 1 to 32 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **sdp** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **sdp** list instance |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* sync tags sdp *number* |
| Tree | sdp |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ID of SDP to be synchronized with multi-chassis peer |


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| | |
|---|---|
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* sync tags sdp *number* |
| Tree | sdp |
| Range | 1 to 32767 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **range** start *number* end *number*

| | |
|---|---|
| Synopsis | Enter the **range** list instance |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* sync tags sdp *number* range start *number* end *number* |
| Tree | range |
| Introduced | 16.0.R1 |
| Platforms | All |

### **start** *number*

| | |
|---|---|
| Synopsis | First virtual circuit ID |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* sync tags sdp *number* range start *number* end *number* |
| Tree | range |
| Range | 1 to 4294967295 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **end** *number*

| | |
|---|---|
| Synopsis | Last virtual circuit ID |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* sync tags sdp *number* range start *number* end *number* |
| Tree | range |
| Range | 1 to 4294967295 |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **sync-tag** *named-item*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Synchronization tag |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* sync tags sdp *number* range start *number* end *number* sync-tag *named-item* |
| Tree | sync-tag |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sync-tag** *named-item*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Synchronization tag |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* sync tags sdp *number* sync-tag *named-item* |
| Tree | sync-tag |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **track-srrp** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **track-srrp** list instance |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* sync track-srrp *number* |
| Tree | track-srrp |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | Tracked SRRP instance ID |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* sync track-srrp *number* |
| Tree | track-srrp |
| Range | 1 to 4294967295 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **l2tp-tunnel-id-range**

| | |
|---|---|
| Synopsis | Enter the **l2tp-tunnel-id-range** context |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* sync track-srrp *number* l2tp-tunnel-id-range |
| Tree | l2tp-tunnel-id-range |
| Introduced | 16.0.R1 |
| Platforms | All |

### **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the L2TP tunnel ID range |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* sync track-srrp *number* l2tp-tunnel-id-range end *number* |
| Tree | end |
| Range | 1 to 16383 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of the L2TP tunnel ID range |


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| | |
|---|---|
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* sync track-srrp *number* l2tp-tunnel-id-range start *number* |
| Tree | start |
| Range | 1 to 16383 |
| Introduced | 16.0.R1 |
| Platforms | All |

## transport-encryption

| | |
|---|---|
| Synopsis | Enter the **transport-encryption** context |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* sync transport-encryption |
| Tree | transport-encryption |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **application** [application-id] *keyword*

| | |
|---|---|
| Synopsis | Enter the **application** list instance |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* sync transport-encryption application *keyword* |
| Tree | application |
| Description | Commands in this context configure the MCS application for transport encryption. The application-id configures an application and a keychain defines the key used for the encryption. |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## [**application-id**] *keyword*

| | |
|---|---|
| Synopsis | Application using transport encryption |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* sync transport-encryption application *keyword* |
| Tree | application |
| Description | This command configures an MCS application for the transport encryption method. |


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| | |
|---|---|
| Options | igmp, igmp-snooping, sub-mgmt-ipoe, srrp, mc-ring, mld-snooping, dhcp-server, sub-host-trk, sub-mgmt-pppoe, ipsec, mld, python, l2tp, diam-proxy, pim-snpg-sap, pim-snpg-sdp, diam-node, nat, sub-mgmt-wlan-gw |
| Notes | This element is part of a list key. |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **keychain** *reference*

| | |
|---|---|
| Synopsis | Keychain containing the authentication keys |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* sync transport-encryption application *keyword* keychain *reference* |
| Tree | keychain |
| Description | This command specifies a keychain that contains authentication keys for the application. |
| Reference | **configure** system security keychains keychain *named-item* |
| Notes | This element is mandatory. |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **tunnel-group** [tunnel-group-id] *number*

| | |
|---|---|
| Synopsis | Enter the **tunnel-group** list instance |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* sync tunnel-group *number* |
| Tree | tunnel-group |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**tunnel-group-id**] *number*

| | |
|---|---|
| Synopsis | Multi-active tunnel group ID |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* sync tunnel-group *number* |
| Tree | tunnel-group |
| Range | 1 to 64 |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **sync-tag** *named-item*

| | |
|---|---|
| Synopsis | Tag to synchronize the tunnel group with the MC peer |
| Context | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* sync tunnel-group *number* sync-tag *named-item* |
| Tree | sync-tag |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **rollback-sync** *keyword*

| | |
|---|---|
| Synopsis | Parameters for redundancy rollback synchronization |
| Context | **configure** redundancy rollback-sync *keyword* |
| Tree | rollback-sync |
| Options | rollback-single, rollback-all |
| Introduced | 16.0.R1 |
| Platforms | All |

### **srrp**

| | |
|---|---|
| Synopsis | Enter the **srrp** context |
| Context | **configure** redundancy srrp |
| Tree | srrp |
| Description | Commands in this context configure system attributes for SRRP. |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **auto-srrp-id-range**

| | |
|---|---|
| Synopsis | Enable the **auto-srrp-id-range** context |


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| | |
|---|---|
| Context | **configure** redundancy srrp auto-srrp-id-range |
| Tree | auto-srrp-id-range |
| Description | Commands in this context reserve IDs for internal SRRP objects created for inter-BNG-UP resiliency. Manually provisioned SRRP instances cannot use these reserved IDs. |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the ID range |
| Context | **configure** redundancy srrp auto-srrp-id-range end *number* |
| Tree | end |
| Range | 2 to 4294967295 |
| Default | 4294967295 |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of the ID range |
| Context | **configure** redundancy srrp auto-srrp-id-range start *number* |
| Tree | start |
| Range | 1 to 4294967294 |
| Default | 2147483648 |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **switchover-exec** *url*

| | |
|---|---|
| Synopsis | CLI script file executed after a redundancy switchover |
| Context | **configure** redundancy switchover-exec *url* |
| Tree | switchover-exec |
| Description | This command specifies the location and name of the CLI script file executed following a redundancy switchover from the previously active CPM card. A switchover can happen because of a fatal failure or by manual action. |


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The CLI script file can contain commands for environment settings, classic CLI debug configuration (excluding mirroring settings), and other commands not maintained by the configuration redundancy.

The following commands are not supported in the switchover-exec file: **clear**, **configure**, **candidate**, **oam**, **tools**, **oam**, **ping**, **traceroute**, **mstat**, **mtrace**, and **mrinfo**.

| | |
|---|---|
| String length | 1 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **synchronize** *keyword*

| | |
|---|---|
| Synopsis | Parameters for redundancy synchronization |
| Context | **configure** redundancy synchronize *keyword* |
| Tree | synchronize |
| Options | off, config, boot-env |
| Introduced | 16.0.R1 |
| Platforms | All |


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## 4.39 router commands

```
configure
   –  router named-item-64
      –  aggregates
         –  aggregate (ipv4-prefix | ipv6-prefix)
            –  aggregator
               –  address ipv4-unicast-address
               –  as-number number
            –  apply-groups reference
            –  apply-groups-exclude reference
            –  as-set boolean
            –  blackhole
               –  generate-icmp boolean
            –  community community
            –  description description
            –  discard-component-communities boolean
            –  indirect (ipv4-address-no-zone | ipv6-address-no-zone)
            –  local-preference number
            –  policy reference
            –  summary-only boolean
            –  tunnel-group number
         –  apply-groups reference
         –  apply-groups-exclude reference
      –  allow-bgp-to-igp-export boolean
      –  allow-icmp-redirect boolean
      –  allow-icmp6-redirect boolean
      –  apply-groups reference
      –  apply-groups-exclude reference
      –  autonomous-system number
      –  bfd
         –  seamless-bfd
            –  peer (ipv4-address-no-zone | ipv6-address-no-zone)
               –  apply-groups reference
               –  apply-groups-exclude reference
               –  discriminator number
      –  bgp
         –  add-paths
            –  evpn
               –  receive boolean
               –  send (number | keyword)
            –  ipv4
               –  receive boolean
               –  send (number | keyword)
            –  ipv6
               –  receive boolean
               –  send (number | keyword)
            –  label-ipv4
               –  receive boolean
               –  send (number | keyword)
            –  label-ipv6
               –  receive boolean
               –  send (number | keyword)
            –  mcast-vpn-ipv4
               –  receive boolean
               –  send number
            –  mcast-vpn-ipv6
               –  receive boolean
               –  send number
            –  mvpn-ipv4
               –  receive boolean
```


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configure router bgp add-paths mvpn-ipv4 send

```
            - send number
         - mvpn-ipv6
            - receive boolean
            - send number
         - vpn-ipv4
            - receive boolean
            - send (number | keyword)
         - vpn-ipv6
            - receive boolean
            - send (number | keyword)
      - admin-state keyword
      - advertise-external
         - ipv4 boolean
         - ipv6 boolean
         - label-ipv4 boolean
         - label-ipv6 boolean
      - advertise-inactive boolean
      - advertise-ipv6-next-hops
         - evpn boolean
         - ipv4 boolean
         - label-ipv4 boolean
         - label-ipv6 boolean
         - vpn-ipv4 boolean
         - vpn-ipv6 boolean
      - aggregator-id-zero boolean
      - apply-groups reference
      - apply-groups-exclude reference
      - asn-4-byte boolean
      - authentication-key encrypted-leaf
      - authentication-keychain reference
      - backup-path
         - ipv4 boolean
         - ipv6 boolean
         - label-ipv4 boolean
         - label-ipv6 boolean
      - best-path-selection
         - always-compare-med
            - med-value keyword
            - strict-as boolean
         - as-path-ignore
            - ipv4 boolean
            - ipv6 boolean
            - l2-vpn boolean
            - label-ipv4 boolean
            - label-ipv6 boolean
            - mcast-ipv4 boolean
            - mcast-ipv6 boolean
            - mvpn-ipv4 boolean
            - mvpn-ipv6 boolean
            - vpn-ipv4 boolean
            - vpn-ipv6 boolean
         - compare-origin-validation-state boolean
         - d-path-length-ignore boolean
         - deterministic-med boolean
         - ebgp-ibgp-equal
            - evpn boolean
            - ipv4 boolean
            - ipv6 boolean
            - label-ipv4 boolean
            - label-ipv6 boolean
            - vpn-ipv4 boolean
            - vpn-ipv6 boolean
         - ignore-nh-metric boolean
         - ignore-router-id
```


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configure router bgp best-path-selection ignore-router-id include-internal

```
                - include-internal
                  - mvpn-ipv4 boolean
                  - mvpn-ipv6 boolean
            - origin-invalid-unusable boolean
        - bfd-liveness boolean
        - bfd-strict-mode
            - advertise
                - holdtime number
            - next-hop-reachability boolean
        - bgp-tunnel-metric
            - prefer-aigp boolean
            - prefer-med boolean
            - value number
        - bgp-tunnel-preference number
        - block-prefix-sid boolean
        - client-reflect boolean
        - cluster
            - allow-local-fallback boolean
            - cluster-id ipv4-address
            - orr-location number
        - connect-retry number
        - convergence
            - family keyword
                - apply-groups reference
                - apply-groups-exclude reference
                - max-wait-to-advertise number
            - min-wait-to-advertise number
        - damp-peer-oscillations
            - error-interval number
            - idle-hold-time
                - initial-wait number
                - max-wait number
                - second-wait number
        - damping boolean
        - def-recv-evpn-encap keyword
        - default-label-preference
            - ebgp number
            - ibgp number
        - default-preference
            - ebgp number
            - ibgp number
        - description description
        - dynamic-neighbor-limit number
        - ebgp-default-reject-policy
            - export boolean
            - import boolean
        - egress-peer-engineering
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
        - enforce-first-as boolean
        - error-handling
            - legacy-mode boolean
            - update-fault-tolerance boolean
        - export
            - apply-groups reference
            - apply-groups-exclude reference
            - policy (policy-expr-string | string)
        - extended-nh-encoding
            - ipv4 boolean
            - label-ipv4 boolean
            - vpn-ipv4 boolean
        - family
            - bgp-ls boolean
```


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```
            - evpn boolean
            - flow-ipv4 boolean
            - flow-ipv6 boolean
            - flow-vpn-ipv4 boolean
            - flow-vpn-ipv6 boolean
            - ipv4 boolean
            - ipv6 boolean
            - l2-vpn boolean
            - label-ipv4 boolean
            - label-ipv6 boolean
            - mcast-ipv4 boolean
            - mcast-ipv6 boolean
            - mcast-vpn-ipv4 boolean
            - mcast-vpn-ipv6 boolean
            - mdt-safi boolean
            - ms-pw boolean
            - mvpn-ipv4 boolean
            - mvpn-ipv6 boolean
            - route-target boolean
            - sr-policy-ipv4 boolean
            - sr-policy-ipv6 boolean
            - vpn-ipv4 boolean
            - vpn-ipv6 boolean
         - fast-external-failover boolean
         - flowspec
            - validate-dest-prefix boolean
            - validate-redirect-ip boolean
         - graceful-restart
            - gr-notification boolean
            - long-lived
               - advertise-stale-to-all-neighbors boolean
               - advertised-stale-time number
               - family keyword
                  - advertised-stale-time number
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - helper-override-stale-time number
               - forwarding-bits-set keyword
               - helper-override-restart-time number
               - helper-override-stale-time number
               - without-no-export boolean
            - restart-time number
            - stale-routes-time number
         - group named-item-64
            - add-paths
               - evpn
                  - receive boolean
                  - send (number | keyword)
               - ipv4
                  - receive boolean
                  - send (number | keyword)
               - ipv6
                  - receive boolean
                  - send (number | keyword)
               - label-ipv4
                  - receive boolean
                  - send (number | keyword)
               - label-ipv6
                  - receive boolean
                  - send (number | keyword)
               - mcast-vpn-ipv4
                  - receive boolean
                  - send number
               - mcast-vpn-ipv6
```


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configure router bgp group add-paths mcast-vpn-ipv6 receive

```
                  - receive boolean
                  - send number
               - mvpn-ipv4
                  - receive boolean
                  - send number
               - mvpn-ipv6
                  - receive boolean
                  - send number
               - vpn-ipv4
                  - receive boolean
                  - send (number | keyword)
               - vpn-ipv6
                  - receive boolean
                  - send (number | keyword)
            - admin-state keyword
            - advertise-inactive boolean
            - advertise-ipv6-next-hops
               - evpn boolean
               - ipv4 boolean
               - label-ipv4 boolean
               - label-ipv6 boolean
               - vpn-ipv4 boolean
               - vpn-ipv6 boolean
            - aggregator-id-zero boolean
            - aigp boolean
            - apply-groups reference
            - apply-groups-exclude reference
            - as-override boolean
            - asn-4-byte boolean
            - authentication-key encrypted-leaf
            - authentication-keychain reference
            - bfd-liveness boolean
            - bfd-strict-mode
               - advertise
                  - holdtime number
               - next-hop-reachability boolean
            - block-prefix-sid boolean
            - capability-negotiation boolean
            - client-reflect boolean
            - cluster
               - allow-local-fallback boolean
               - cluster-id ipv4-address
               - orr-location number
            - connect-retry number
            - damp-peer-oscillations
               - error-interval number
               - idle-hold-time
                  - initial-wait number
                  - max-wait number
                  - second-wait number
            - damping boolean
            - def-recv-evpn-encap keyword
            - default-label-preference
               - ebgp number
               - ibgp number
            - default-preference
               - ebgp number
               - ibgp number
            - default-route-target boolean
            - description description
            - dynamic-neighbor
               - interface interface-name
                  - allowed-peer-as string
                  - apply-groups reference
```


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configure router bgp group dynamic-neighbor interface apply-groups-exclude

```
                  - apply-groups-exclude reference
                  - max-sessions number
               - match
                  - prefix (ipv4-prefix | ipv6-prefix)
                     - allowed-peer-as string
                     - apply-groups reference
                     - apply-groups-exclude reference
            - dynamic-neighbor-limit number
            - ebgp-default-reject-policy
               - export boolean
               - import boolean
            - egress-engineering
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
            - egress-peer-engineering-label-unicast boolean
            - enforce-first-as boolean
            - error-handling
               - update-fault-tolerance boolean
            - export
               - apply-groups reference
               - apply-groups-exclude reference
               - policy (policy-expr-string | string)
            - extended-nh-encoding
               - ipv4 boolean
               - label-ipv4 boolean
               - vpn-ipv4 boolean
            - family
               - bgp-ls boolean
               - evpn boolean
               - flow-ipv4 boolean
               - flow-ipv6 boolean
               - flow-vpn-ipv4 boolean
               - flow-vpn-ipv6 boolean
               - ipv4 boolean
               - ipv6 boolean
               - l2-vpn boolean
               - label-ipv4 boolean
               - label-ipv6 boolean
               - mcast-ipv4 boolean
               - mcast-ipv6 boolean
               - mcast-vpn-ipv4 boolean
               - mcast-vpn-ipv6 boolean
               - mdt-safi boolean
               - ms-pw boolean
               - mvpn-ipv4 boolean
               - mvpn-ipv6 boolean
               - route-target boolean
               - sr-policy-ipv4 boolean
               - sr-policy-ipv6 boolean
               - vpn-ipv4 boolean
               - vpn-ipv6 boolean
            - fast-external-failover boolean
            - graceful-restart
               - gr-notification boolean
               - long-lived
                  - advertise-stale-to-all-neighbors boolean
                  - advertised-stale-time number
                  - family keyword
                     - advertised-stale-time number
                     - apply-groups reference
                     - apply-groups-exclude reference
                     - helper-override-stale-time number
                  - forwarding-bits-set keyword
```


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configure router bgp group graceful-restart long-lived helper-override-restart-time

```
                  - helper-override-restart-time number
                  - helper-override-stale-time number
                  - without-no-export boolean
               - restart-time number
               - stale-routes-time number
            - hold-time
               - minimum-hold-time number
               - seconds number
            - import
               - apply-groups reference
               - apply-groups-exclude reference
               - policy (policy-expr-string | string)
            - initial-send-delay-zero boolean
            - keepalive number
            - label-preference number
            - link-bandwidth
               - accept-from-ebgp
                  - ipv4 boolean
                  - ipv6 boolean
                  - label-ipv4 boolean
                  - label-ipv6 boolean
                  - vpn-ipv4 boolean
                  - vpn-ipv6 boolean
               - add-to-received-ebgp
                  - ipv4 boolean
                  - ipv6 boolean
                  - label-ipv4 boolean
                  - label-ipv6 boolean
                  - vpn-ipv4 boolean
                  - vpn-ipv6 boolean
               - aggregate-used-paths
                  - ipv4 boolean
                  - ipv6 boolean
                  - label-ipv4 boolean
                  - label-ipv6 boolean
                  - vpn-ipv4 boolean
                  - vpn-ipv6 boolean
               - send-to-ebgp
                  - ipv4 boolean
                  - ipv6 boolean
                  - label-ipv4 boolean
                  - label-ipv6 boolean
                  - vpn-ipv4 boolean
                  - vpn-ipv6 boolean
            - local-address (ipv4-address-no-zone | ipv6-address-no-zone | interface-name)
            - local-as
               - as-number number
               - prepend-global-as boolean
               - private boolean
            - local-preference number
            - loop-detect keyword
            - loop-detect-threshold number
            - med-out (number | keyword)
            - min-route-advertisement number
            - monitor
               - admin-state keyword
               - all-stations boolean
               - apply-groups reference
               - apply-groups-exclude reference
               - route-monitoring
                  - post-policy boolean
                  - pre-policy boolean
               - station reference
            - multihop number
```


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```
            - multipath-eligible boolean
            - next-hop-self boolean
            - next-hop-unchanged
               - evpn boolean
               - label-ipv4 boolean
               - label-ipv6 boolean
               - vpn-ipv4 boolean
               - vpn-ipv6 boolean
            - origin-validation
               - ipv4 boolean
               - ipv6 boolean
               - label-ipv4 boolean
               - label-ipv6 boolean
            - outbound-route-filtering
               - extended-community
                  - accept-orf boolean
                  - send-orf
                     - route-target named-item
            - passive boolean
            - path-mtu-discovery boolean
            - peer-as number
            - peer-ip-tracking boolean
            - preference number
            - prefix-limit keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - hold-excess number
               - idle-timeout number
               - log-only boolean
               - maximum number
               - post-import boolean
               - threshold number
            - remove-private
               - limited boolean
               - replace boolean
               - skip-peer-as boolean
            - segment-routing-v6
               - route-advertisement
                  - drop-routes-with-srv6-tlvs boolean
                  - family keyword
                     - apply-groups reference
                     - apply-groups-exclude reference
                     - strip-srv6-tlvs boolean
            - selective-label-ipv4-install boolean
            - send-communities
               - extended boolean
               - large boolean
               - standard boolean
            - send-default
               - export-policy reference
               - ipv4 boolean
               - ipv6 boolean
            - split-horizon boolean
            - static-group boolean
            - tcp-mss (number | keyword)
            - third-party-nexthop boolean
            - ttl-security number
            - type keyword
            - vpn-apply-export boolean
            - vpn-apply-import boolean
         - hold-time
            - minimum-hold-time number
            - seconds number
         - ibgp-multipath boolean
```


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configure router bgp import

```
        - import
          - apply-groups reference
          - apply-groups-exclude reference
          - policy (policy-expr-string | string)
        - initial-send-delay-zero boolean
        - inter-as-vpn boolean
        - keepalive number
        - label-allocation
          - label-ipv6
            - explicit-null boolean
        - label-preference number
        - link-state-route-export boolean
        - link-state-route-import boolean
        - local-as
          - as-number number
          - prepend-global-as boolean
          - private boolean
        - local-preference number
        - loop-detect keyword
        - loop-detect-threshold number
        - med-out (number | keyword)
        - min-route-advertisement number
        - monitor
          - admin-state keyword
          - all-stations boolean
          - apply-groups reference
          - apply-groups-exclude reference
          - route-monitoring
            - post-policy boolean
            - pre-policy boolean
          - station reference
        - mp-bgp-keep boolean
        - multihop number
        - multipath
          - ebgp number
          - family keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - ebgp number
            - ibgp number
            - max-paths number
            - restrict keyword
            - unequal-cost boolean
          - ibgp number
          - max-paths number
          - restrict keyword
          - unequal-cost boolean
        - mvpn-vrf-import-subtype-new boolean
        - neighbor (ipv4-address-with-zone | ipv6-address-with-zone)
          - add-paths
            - evpn
              - receive boolean
              - send (number | keyword)
            - ipv4
              - receive boolean
              - send (number | keyword)
            - ipv6
              - receive boolean
              - send (number | keyword)
            - label-ipv4
              - receive boolean
              - send (number | keyword)
            - label-ipv6
              - receive boolean
```


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```
                - send (number | keyword)
            - mcast-vpn-ipv4
                - receive boolean
                - send number
            - mcast-vpn-ipv6
                - receive boolean
                - send number
            - mvpn-ipv4
                - receive boolean
                - send number
            - mvpn-ipv6
                - receive boolean
                - send number
            - vpn-ipv4
                - receive boolean
                - send (number | keyword)
            - vpn-ipv6
                - receive boolean
                - send (number | keyword)
        - admin-state keyword
        - advertise-inactive boolean
        - advertise-ipv6-next-hops
            - evpn boolean
            - ipv4 boolean
            - label-ipv4 boolean
            - label-ipv6 boolean
            - vpn-ipv4 boolean
            - vpn-ipv6 boolean
        - advertise-ldp-prefix boolean
        - aggregator-id-zero boolean
        - aigp boolean
        - apply-groups reference
        - apply-groups-exclude reference
        - as-override boolean
        - asn-4-byte boolean
        - authentication-key encrypted-leaf
        - authentication-keychain reference
        - bfd-liveness boolean
        - bfd-strict-mode
            - advertise
                - holdtime number
            - next-hop-reachability boolean
        - block-prefix-sid boolean
        - capability-negotiation boolean
        - client-reflect boolean
        - cluster
            - allow-local-fallback boolean
            - cluster-id ipv4-address
            - orr-location number
        - connect-retry number
        - damp-peer-oscillations
            - error-interval number
            - idle-hold-time
                - initial-wait number
                - max-wait number
                - second-wait number
        - damping boolean
        - def-recv-evpn-encap keyword
        - default-label-preference
            - ebgp number
            - ibgp number
        - default-preference
            - ebgp number
            - ibgp number
```


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configure router bgp neighbor default-route-target

```
            - default-route-target boolean
            - description description
            - ebgp-default-reject-policy
              - export boolean
              - import boolean
            - egress-engineering
              - admin-state keyword
              - apply-groups reference
              - apply-groups-exclude reference
            - egress-peer-engineering-label-unicast boolean
            - enforce-first-as boolean
            - error-handling
              - update-fault-tolerance boolean
            - export
              - apply-groups reference
              - apply-groups-exclude reference
              - policy (policy-expr-string | string)
            - extended-nh-encoding
              - ipv4 boolean
              - label-ipv4 boolean
              - vpn-ipv4 boolean
            - family
              - bgp-ls boolean
              - evpn boolean
              - flow-ipv4 boolean
              - flow-ipv6 boolean
              - flow-vpn-ipv4 boolean
              - flow-vpn-ipv6 boolean
              - ipv4 boolean
              - ipv6 boolean
              - l2-vpn boolean
              - label-ipv4 boolean
              - label-ipv6 boolean
              - mcast-ipv4 boolean
              - mcast-ipv6 boolean
              - mcast-vpn-ipv4 boolean
              - mcast-vpn-ipv6 boolean
              - mdt-safi boolean
              - ms-pw boolean
              - mvpn-ipv4 boolean
              - mvpn-ipv6 boolean
              - route-target boolean
              - sr-policy-ipv4 boolean
              - sr-policy-ipv6 boolean
              - vpn-ipv4 boolean
              - vpn-ipv6 boolean
            - fast-external-failover boolean
            - graceful-restart
              - gr-notification boolean
              - long-lived
                - advertise-stale-to-all-neighbors boolean
                - advertised-stale-time number
                - family keyword
                  - advertised-stale-time number
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - helper-override-stale-time number
                - forwarding-bits-set keyword
                - helper-override-restart-time number
                - helper-override-stale-time number
                - without-no-export boolean
              - restart-time number
              - stale-routes-time number
            - group reference
```


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```
            - hold-time
              - minimum-hold-time number
              - seconds number
            - import
              - apply-groups reference
              - apply-groups-exclude reference
              - policy (policy-expr-string | string)
            - initial-send-delay-zero boolean
            - keepalive number
            - l2vpn-cisco-interop boolean
            - label-preference number
            - link-bandwidth
              - accept-from-ebgp
                - ipv4 boolean
                - ipv6 boolean
                - label-ipv4 boolean
                - label-ipv6 boolean
                - vpn-ipv4 boolean
                - vpn-ipv6 boolean
              - add-to-received-ebgp
                - ipv4 boolean
                - ipv6 boolean
                - label-ipv4 boolean
                - label-ipv6 boolean
                - vpn-ipv4 boolean
                - vpn-ipv6 boolean
              - aggregate-used-paths
                - ipv4 boolean
                - ipv6 boolean
                - label-ipv4 boolean
                - label-ipv6 boolean
                - vpn-ipv4 boolean
                - vpn-ipv6 boolean
              - send-to-ebgp
                - ipv4 boolean
                - ipv6 boolean
                - label-ipv4 boolean
                - label-ipv6 boolean
                - vpn-ipv4 boolean
                - vpn-ipv6 boolean
            - local-address (ipv4-address-no-zone | ipv6-address-no-zone | interface-name)
            - local-as
              - as-number number
              - prepend-global-as boolean
              - private boolean
            - local-preference number
            - loop-detect keyword
            - loop-detect-threshold number
            - med-out (number | keyword)
            - min-route-advertisement number
            - monitor
              - admin-state keyword
              - all-stations boolean
              - apply-groups reference
              - apply-groups-exclude reference
              - route-monitoring
                - post-policy boolean
                - pre-policy boolean
              - station reference
            - multihop number
            - multipath-eligible boolean
            - next-hop-self boolean
            - next-hop-unchanged
              - evpn boolean
```


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configure router bgp neighbor next-hop-unchanged label-ipv4

```
                - label-ipv4 boolean
                - label-ipv6 boolean
                - vpn-ipv4 boolean
                - vpn-ipv6 boolean
            - origin-validation
                - ipv4 boolean
                - ipv6 boolean
                - label-ipv4 boolean
                - label-ipv6 boolean
            - outbound-route-filtering
                - extended-community
                    - accept-orf boolean
                    - send-orf
                        - route-target named-item
            - passive boolean
            - path-mtu-discovery boolean
            - peer-as number
            - peer-creation-type keyword
            - peer-ip-tracking boolean
            - preference number
            - prefix-limit keyword
                - apply-groups reference
                - apply-groups-exclude reference
                - hold-excess number
                - idle-timeout number
                - log-only boolean
                - maximum number
                - post-import boolean
                - threshold number
            - remove-private
                - limited boolean
                - replace boolean
                - skip-peer-as boolean
            - segment-routing-v6
                - route-advertisement
                    - drop-routes-with-srv6-tlvs boolean
                    - family keyword
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - strip-srv6-tlvs boolean
            - selective-label-ipv4-install boolean
            - send-communities
                - extended boolean
                - large boolean
                - standard boolean
            - send-default
                - export-policy reference
                - ipv4 boolean
                - ipv6 boolean
            - split-horizon boolean
            - tcp-mss (number | keyword)
            - third-party-nexthop boolean
            - ttl-security number
            - type keyword
            - vpn-apply-export boolean
            - vpn-apply-import boolean
        - neighbor-trust
            - evpn boolean
            - vpn-ipv4 boolean
            - vpn-ipv6 boolean
        - next-hop-resolution
            - allow-unresolved-leaking boolean
            - labeled-routes
                - allow-static boolean
```


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configure router bgp next-hop-resolution labeled-routes rr-use-route-table

```
            - rr-use-route-table boolean
            - transport-tunnel
              - family keyword
                - allow-flex-algo-fallback boolean
                - apply-groups reference
                - apply-groups-exclude reference
                - enforce-strict-tunnel-tagging boolean
                - enforce-untagged-route keyword
                - resolution keyword
                - resolution-filter
                  - bgp boolean
                  - ldp boolean
                  - mpls-fwd-policy boolean
                  - rib-api boolean
                  - rsvp boolean
                  - sr-isis boolean
                  - sr-ospf boolean
                  - sr-ospf3 boolean
                  - sr-policy boolean
                  - sr-te boolean
                  - udp boolean
            - use-bgp-routes
              - label-ipv6-explicit-null boolean
          - policy reference
          - shortcut-tunnel
            - family keyword
              - allow-flex-algo-fallback boolean
              - apply-groups reference
              - apply-groups-exclude reference
              - disallow-igp boolean
              - enforce-strict-tunnel-tagging boolean
              - enforce-untagged-route keyword
              - resolution keyword
              - resolution-filter
                - bgp boolean
                - ldp boolean
                - mpls-fwd-policy boolean
                - rib-api boolean
                - rsvp boolean
                - sr-isis boolean
                - sr-ospf boolean
                - sr-ospf3 boolean
                - sr-policy boolean
                - sr-te boolean
          - use-bgp-routes boolean
          - use-leaked-routes
            - static boolean
          - vpn-family-policy reference
          - weighted-ecmp boolean
        - optimal-route-reflection
          - location number
            - apply-groups reference
            - apply-groups-exclude reference
            - primary-ip-address ipv4-unicast-address
            - primary-ipv6-address ipv6-unicast-address
            - secondary-ip-address ipv4-unicast-address
            - secondary-ipv6-address ipv6-unicast-address
            - tertiary-ip-address ipv4-unicast-address
            - tertiary-ipv6-address ipv6-unicast-address
          - spf-wait
            - initial-wait number
            - max-wait number
            - second-wait number
        - outbound-route-filtering
```


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configure router bgp outbound-route-filtering extended-community

```
            - extended-community
               - accept-orf boolean
               - send-orf
                  - route-target named-item
         - override-tunnel-elc boolean
         - path-mtu-discovery boolean
         - peer-ip-tracking boolean
         - peer-tracking-policy reference
         - preference number
         - purge-timer number
         - rapid-update
            - evpn boolean
            - l2-vpn boolean
            - label-ipv4 boolean
            - label-ipv6 boolean
            - mcast-vpn-ipv4 boolean
            - mcast-vpn-ipv6 boolean
            - mdt-safi boolean
            - mvpn-ipv4 boolean
            - mvpn-ipv6 boolean
            - vpn-ipv4 boolean
            - vpn-ipv6 boolean
         - rapid-withdrawal boolean
         - remove-private
            - limited boolean
            - replace boolean
            - skip-peer-as boolean
         - rib-management
            - ipv4
               - leak-import
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - policy (policy-expr-string | string)
               - route-table-import
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - policy-name reference
            - ipv6
               - leak-import
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - policy (policy-expr-string | string)
               - route-table-import
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - policy-name reference
            - label-ipv4
               - leak-import
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - policy (policy-expr-string | string)
               - route-table-import
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - policy-name reference
            - label-ipv6
               - route-table-import
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - policy-name reference
         - route-table-install boolean
         - route-target-list named-item
         - router-id ipv4-address
         - rr-vpn-forwarding boolean
```


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```
        - segment-routing
          - admin-state keyword
          - apply-groups reference
          - apply-groups-exclude reference
          - prefix-sid-range
            - global
            - max-index number
            - start-label number
        - segment-routing-v6
          - family keyword
            - add-srv6-tlvs
              - locator-name reference
              - micro-segment-locator-name reference
            - apply-groups reference
            - apply-groups-exclude reference
            - ignore-received-srv6-tlvs boolean
            - resolution keyword
            - upa-trigger
              - next-hop keyword
          - source-address ipv6-unicast-address
        - selective-label-ip keyword
        - selective-label-ip-prioritization boolean
        - selective-label-ipv4-install boolean
        - send-communities
          - extended boolean
          - large boolean
          - standard boolean
        - send-default
          - export-policy reference
          - ipv4 boolean
          - ipv6 boolean
        - split-horizon boolean
        - sr-policy-import boolean
        - subconfed-vpn-forwarding boolean
        - tcp-mss number
        - third-party-nexthop boolean
        - vpn-apply-export boolean
        - vpn-apply-import boolean
    - bier
        - admin-state keyword
        - apply-groups reference
        - apply-groups-exclude reference
        - bfd-liveness keyword
        - fast-reroute boolean
        - template named-item
          - admin-state keyword
          - apply-groups reference
          - apply-groups-exclude reference
          - sub-domain number end number
            - apply-groups reference
            - apply-groups-exclude reference
            - bfr-id number
            - multi-topology keyword
            - prefix ipv4-unicast-address
    - class-forwarding boolean
    - confederation
        - confed-as-num number
        - members number
    - description description
    - dhcp-server
        - apply-groups reference
        - apply-groups-exclude reference
        - dhcpv4 named-item
          - admin-state keyword
```


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```
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - failover
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - ignore-mclt-on-takeover boolean
               - maximum-client-lead-time number
               - partner-down-delay number
               - peer reference
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - sync-tag named-item
               - startup-wait-time number
            - force-renews boolean
            - lease-hold
               - additional-scenarios
                  - internal-lease-ipsec boolean
                  - solicited-release boolean
               - time number
            - pool named-item
               - apply-groups reference
               - apply-groups-exclude reference
               - description description
               - failover
                  - admin-state keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - ignore-mclt-on-takeover boolean
                  - maximum-client-lead-time number
                  - partner-down-delay number
                  - peer reference
                     - apply-groups reference
                     - apply-groups-exclude reference
                     - sync-tag named-item
                  - startup-wait-time number
               - max-lease-time number
               - min-lease-time number
               - minimum-free
                  - absolute number
                  - event-when-depleted boolean
                  - percent number
               - nak-non-matching-subnet boolean
               - offer-time number
               - options
                  - option (number | keyword)
                     - apply-groups reference
                     - apply-groups-exclude reference
                     - ascii-string string-not-all-spaces
                     - duration number
                     - empty
                     - hex-string hex-string
                     - ipv4-address ipv4-address
                     - netbios-node-type keyword
               - subnet ipv4-unicast-prefix
                  - address-range ipv4-unicast-address end ipv4-unicast-address
                     - apply-groups reference
                     - apply-groups-exclude reference
                     - failover-control-type keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - drain boolean
                  - exclude-addresses ipv4-unicast-address end ipv4-unicast-address
```


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configure router dhcp-server dhcpv4 pool subnet maximum-declined

```
                - maximum-declined number
                - minimum-free
                  - absolute number
                  - event-when-depleted boolean
                  - percent number
                - options
                  - option (number | keyword)
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - ascii-string string-not-all-spaces
                    - duration number
                    - empty
                    - hex-string hex-string
                    - ipv4-address ipv4-address
                    - netbios-node-type keyword
        - pool-selection
          - use-gi-address
            - scope keyword
          - use-pool-from-client
            - delimiter string-not-all-spaces
        - user-db reference
        - user-identification keyword
      - dhcpv6 named-item
        - admin-state keyword
        - apply-groups reference
        - apply-groups-exclude reference
        - auto-provisioned boolean
        - defaults
          - apply-groups reference
          - apply-groups-exclude reference
          - options
            - option (number | keyword)
              - apply-groups reference
              - apply-groups-exclude reference
              - ascii-string string-not-all-spaces
              - domain-string string
              - duration number
              - empty
              - hex-string hex-string
              - ipv6-address ipv6-address
          - preferred-lifetime number
          - rebind-time number
          - renew-time number
          - valid-lifetime number
        - description description
        - failover
          - admin-state keyword
          - apply-groups reference
          - apply-groups-exclude reference
          - ignore-mclt-on-takeover boolean
          - maximum-client-lead-time number
          - partner-down-delay number
          - peer reference
            - apply-groups reference
            - apply-groups-exclude reference
            - sync-tag named-item
          - startup-wait-time number
        - ignore-rapid-commit boolean
        - interface-id-mapping boolean
        - lease-hold
          - additional-scenarios
            - internal-lease-ipsec boolean
            - solicited-release boolean
          - time number
```


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```
            - lease-query boolean
            - pool named-item
              - apply-groups reference
              - apply-groups-exclude reference
              - delegated-prefix
                - length number
                - maximum number
                - minimum number
              - description description
              - exclude-prefix ipv6-prefix
              - failover
                - admin-state keyword
                - apply-groups reference
                - apply-groups-exclude reference
                - ignore-mclt-on-takeover boolean
                - maximum-client-lead-time number
                - partner-down-delay number
                - peer reference
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - sync-tag named-item
                - startup-wait-time number
              - options
                - option (number | keyword)
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - ascii-string string-not-all-spaces
                  - domain-string string
                  - duration number
                  - empty
                  - hex-string hex-string
                  - ipv6-address ipv6-address
              - prefix ipv6-prefix
                - apply-groups reference
                - apply-groups-exclude reference
                - drain boolean
                - failover-control-type keyword
                - options
                  - option (number | keyword)
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - ascii-string string-not-all-spaces
                    - domain-string string
                    - duration number
                    - empty
                    - hex-string hex-string
                    - ipv6-address ipv6-address
                - preferred-lifetime number
                - prefix-length-threshold number
                  - absolute number
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - event-when-depleted boolean
                  - percent number
                - prefix-type
                  - pd boolean
                  - wan-host boolean
                - rebind-time number
                - renew-time number
                - valid-lifetime number
              - prefix-length-threshold number
                - apply-groups reference
                - apply-groups-exclude reference
                - event-when-depleted boolean
```


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configure router dhcp-server dhcpv6 pool prefix-length-threshold minimum-free-percent

```
                  - minimum-free-percent number
            - pool-selection
               - use-link-address
                  - scope keyword
               - use-pool-from-client
                  - delimiter string-not-all-spaces
            - server-id
               - apply-groups reference
               - apply-groups-exclude reference
               - duid-enterprise
                  - ascii-string string-not-all-spaces
                  - hex-string hex-string
               - duid-link-local
            - user-db reference
            - user-identification keyword
      - dns
         - redirect-vprn
            - service reference
               - apply-groups reference
               - apply-groups-exclude reference
               - preference number
      - ecmp number
      - entropy-label boolean
      - fib-priority keyword
      - fib-telemetry boolean
      - firewall
         - apply-groups reference
         - apply-groups-exclude reference
         - domain named-item
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - dhcpv6-server
               - name named-item
               - router-instance string
            - nat-group reference
            - prefix ipv6-unicast-prefix
               - apply-groups reference
               - apply-groups-exclude reference
               - description description
            - wlan-gw-group reference
      - flowspec
         - apply-groups reference
         - apply-groups-exclude reference
         - filter-cam-type keyword
         - ip-filter-max-size number
         - ipv6-filter-max-size number
      - gtm
         - apply-groups reference
         - apply-groups-exclude reference
         - mvpn boolean
         - provider-tunnel
            - inclusive
               - rsvp
                  - admin-state keyword
                  - lsp-template reference
            - selective
               - data-delay-interval number
               - data-threshold
                  - group-prefix (ipv4-prefix | ipv6-prefix)
                     - apply-groups reference
                     - apply-groups-exclude reference
                     - pe-threshold-add number
                     - pe-threshold-delete number
```


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configure router gtm provider-tunnel selective data-threshold group-prefix threshold

```
                    - threshold number
                - maximum-p2mp-spmsi number
                - rsvp
                    - admin-state keyword
                    - lsp-template reference
        - gtp
            - s11
                - interface reference
                    - apn-policy reference
                    - apply-groups reference
                    - apply-groups-exclude reference
                - peer-profile-map
                    - prefix (ipv4-prefix | ipv6-prefix)
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - peer-profile reference
            - upf-data-endpoint
                - apply-groups reference
                - apply-groups-exclude reference
                - fpe reference
                - interface reference
                - secondary-interface reference
            - uplink
                - apn string
                - apply-groups reference
                - apply-groups-exclude reference
                - pdn-type keyword
                - peer-profile-map
                    - prefix (ipv4-prefix | ipv6-prefix)
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - peer-profile reference
        - icmp-tunneling boolean
        - igmp
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - forwarding-group-interface forwarding-service service-name group-interface-
name reference
                - admin-state keyword
                - apply-groups reference
                - apply-groups-exclude reference
                - import-policy reference
                - maximum-number-group-sources number
                - maximum-number-groups number
                - maximum-number-sources number
                - mcac
                    - bandwidth
                        - mandatory (number | keyword)
                        - total (number | keyword)
                    - interface-policy reference
                    - policy reference
                - query-interval number
                - query-last-member-interval number
                - query-response-interval number
                - query-source-address ipv4-unicast-address
                - router-alert-check boolean
                - sub-hosts-only boolean
                - subnet-check boolean
                - version keyword
            - group-if-query-source-address ipv4-unicast-address
            - group-interface reference
                - admin-state keyword
                - apply-groups reference
```


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configure router igmp group-interface apply-groups-exclude

```
            - apply-groups-exclude reference
            - import-policy reference
            - maximum-number-group-sources number
            - maximum-number-groups number
            - maximum-number-sources number
            - mcac
              - bandwidth
                - mandatory (number | keyword)
                - total (number | keyword)
              - interface-policy reference
              - policy reference
            - query-interval number
            - query-last-member-interval number
            - query-response-interval number
            - query-source-address ipv4-unicast-address
            - router-alert-check boolean
            - sub-hosts-only boolean
            - subnet-check boolean
            - version keyword
        - interface interface-name
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - import-policy reference
            - maximum-number-group-sources number
            - maximum-number-groups number
            - maximum-number-sources number
            - mcac
              - bandwidth
                - mandatory (number | keyword)
                - total (number | keyword)
              - interface-policy reference
              - mc-constraints
                - level number
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - bandwidth number
                - number-down number
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - level number
                - use-lag-port-weight boolean
              - policy reference
            - query-interval number
            - query-last-member-interval number
            - query-response-interval number
            - redundant-mcast boolean
            - router-alert-check boolean
            - ssm-translate
              - group-range start ipv4-multicast-address end ipv4-multicast-address
                - apply-groups reference
                - apply-groups-exclude reference
                - source ipv4-unicast-address
            - static
              - group ipv4-multicast-address
                - apply-groups reference
                - apply-groups-exclude reference
                - source ipv4-unicast-address
                - starg
              - group-range start ipv4-multicast-address end ipv4-multicast-
address step ipv4-address
                - apply-groups reference
                - apply-groups-exclude reference
                - source ipv4-unicast-address
```


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configure router igmp interface static group-range starg

```
                - starg
            - subnet-check boolean
            - version keyword
        - query-interval number
        - query-last-member-interval number
        - query-response-interval number
        - robust-count number
        - ssm-translate
            - group-range start ipv4-multicast-address end ipv4-multicast-address
                - apply-groups reference
                - apply-groups-exclude reference
                - source ipv4-unicast-address
        - tunnel-interface
            - ldp-p2mp-root reference sender-address reference
                - admin-state keyword
                - apply-groups reference
                - apply-groups-exclude reference
                - static
                    - group ipv4-multicast-address
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - source ipv4-unicast-address
                        - starg
            - rsvp-p2mp-root reference
                - admin-state keyword
                - apply-groups reference
                - apply-groups-exclude reference
                - static
                    - group ipv4-multicast-address
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - source ipv4-unicast-address
                        - starg
    - interface interface-name
        - admin-state keyword
        - apply-groups reference
        - apply-groups-exclude reference
        - cflowd-parameters
            - sampling keyword
                - apply-groups reference
                - apply-groups-exclude reference
                - direction keyword
                - sample-profile (keyword | number)
                - type keyword
        - cpu-protection reference
        - description very-long-description
        - dist-cpu-protection reference
        - egress
            - filter
                - ip reference
                - ipv6 reference
        - eth-cfm
            - mep md-admin-name reference ma-admin-name reference mep-id number
                - admin-state keyword
                - alarm-notification
                    - fng-alarm-time number
                    - fng-reset-time number
                - apply-groups reference
                - apply-groups-exclude reference
                - ccm boolean
                - ccm-ltm-priority number
                - ccm-padding-size number
                - ccm-tlv-ignore keyword
                - collect-lmm-fc-stats
```


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configure router interface eth-cfm mep collect-lmm-fc-stats fc

```
                  - fc keyword
                  - fc-in-profile keyword
               - collect-lmm-stats boolean
               - description description
               - eth-test
                  - bit-error-threshold number
                  - test-pattern
                     - crc-tlv boolean
                     - pattern keyword
               - facility-fault boolean
               - grace
                  - eth-ed
                     - max-rx-defect-window number
                     - priority number
                     - rx-eth-ed boolean
                     - tx-eth-ed boolean
                  - eth-vsm-grace
                     - rx-eth-vsm-grace boolean
                     - tx-eth-vsm-grace boolean
               - lbm-svc-act-responder boolean
               - low-priority-defect keyword
               - mac-address mac-unicast-address-no-zero
               - one-way-delay-threshold number
         - external-reference
            - openconfig
               - subinterface number
         - flavor keyword
         - gre-termination boolean
         - hold-time
            - ipv4
               - down
                  - init-only boolean
                  - seconds number
               - up
                  - seconds number
            - ipv6
               - down
                  - init-only boolean
                  - seconds number
               - up
                  - seconds number
         - if-attribute
            - admin-group reference
            - delay
               - delay-selection keyword
               - dynamic
                  - lag-ip-measurement
                     - lag-ip-measurement-template reference
                  - measurement-template reference
                  - twamp-light
                     - ipv4
                        - admin-state keyword
                        - destination ipv4-unicast-address
                        - source ipv4-unicast-address
                     - ipv6
                        - admin-state keyword
                        - destination ipv6-unicast-or-linklocal-address
                        - source ipv6-unicast-or-linklocal-address
               - static number
            - srlg-group reference
         - ingress
            - destination-class-lookup boolean
            - filter
               - ip reference
```


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configure router interface ingress filter ipv6

```
                - ipv6 reference
            - policy-accounting reference
        - ingress-stats boolean
        - ip-mtu number
        - ipsec
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - ip-exception reference
            - ipsec-tunnel named-item
                - admin-state keyword
                - apply-groups reference
                - apply-groups-exclude reference
                - bfd
                    - bfd-designate boolean
                    - bfd-liveness
                        - dest-ip ipv4-unicast-address
                        - interface interface-name
                        - service-name service-name
                - clear-df-bit boolean
                - copy-traffic-class-upon-decapsulation boolean
                - description description
                - encapsulated-ip-mtu number
                - icmp-generation
                    - frag-required
                        - admin-state keyword
                        - interval number
                        - message-count number
                - icmp6-generation
                    - packet-too-big
                        - admin-state keyword
                        - interval number
                        - message-count number
                - ip-mtu number
                - key-exchange
                    - dynamic
                        - auto-establish boolean
                        - cert
                            - cert-profile reference
                            - status-verify
                                - default-result keyword
                                - primary keyword
                                - secondary keyword
                            - trust-anchor-profile reference
                        - id
                            - fqdn fully-qualified-domain-name
                            - ipv4 ipv4-unicast-address
                            - ipv6 (ipv4-address-no-zone | ipv6-address-no-zone)
                        - ike-policy reference
                        - ipsec-transform reference
                        - ppk
                            - id reference
                            - list reference
                        - pre-shared-key encrypted-leaf
                    - manual
                        - keys number direction keyword
                            - apply-groups reference
                            - apply-groups-exclude reference
                            - authentication-key hex-string
                            - encryption-key hex-string
                            - ipsec-transform reference
                            - spi number
                - local-gateway-address-override (ipv4-address-no-zone | ipv6-address-no-zone)
                - max-history-key-records
```


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configure router interface ipsec ipsec-tunnel max-history-key-records esp

```
                  - esp number
                  - ike number
               - pmtu-discovery-aging number
               - private-sap number
               - private-service service-name
               - private-tcp-mss-adjust number
               - propagate-pmtu-v4 boolean
               - propagate-pmtu-v6 boolean
               - public-tcp-mss-adjust (number | keyword)
               - remote-gateway-address (ipv4-address-no-zone | ipv6-address-no-zone)
               - replay-window number
               - security-policy
                  - id number
                  - strict-match boolean
            - ipv6-exception reference
            - public-sap number
            - tunnel-group reference
         - ipv4
            - allow-directed-broadcasts boolean
            - bfd
               - admin-state keyword
               - echo-receive number
               - multiplier number
               - receive number
               - transmit-interval number
               - type keyword
            - dhcp
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - description description
               - gi-address ipv4-unicast-address
               - option-82
                  - action keyword
                  - circuit-id
                     - ascii-tuple
                     - if-name
                     - ifindex
                     - none
                     - port-id
                     - vlan-ascii-tuple
                  - remote-id
                     - ascii-string string-not-all-spaces
                     - mac
                     - none
                  - vendor-specific-option
                     - client-mac-address boolean
                     - pool-name boolean
                     - port-id boolean
                     - service-id boolean
                     - string string-not-all-spaces
                     - system-id boolean
               - python-policy reference
               - relay-plain-bootp boolean
               - release-include-gi-address boolean
               - server ipv4-unicast-address
               - src-ip-addr keyword
               - trusted boolean
            - icmp
               - mask-reply boolean
               - param-problem
                  - admin-state keyword
                  - number number
                  - seconds number
```


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configure router interface ipv4 icmp redirects

```
            - redirects
              - admin-state keyword
              - number number
              - seconds number
            - ttl-expired
              - admin-state keyword
              - number number
              - seconds number
            - unreachables
              - admin-state keyword
              - number number
              - seconds number
        - ip-helper-address ipv4-unicast-address
        - local-dhcp-server reference
        - neighbor-discovery
            - learn-unsolicited boolean
            - limit
              - log-only boolean
              - max-entries number
              - threshold number
            - local-proxy-arp boolean
            - proactive-refresh boolean
            - proxy-arp-policy reference
            - remote-proxy-arp boolean
            - retry-timer number
            - static-neighbor ipv4-address
              - apply-groups reference
              - apply-groups-exclude reference
              - mac-address mac-address
            - static-neighbor-unnumbered
              - mac-address mac-address
            - timeout number
        - primary
            - address ipv4-unicast-address
            - apply-groups reference
            - apply-groups-exclude reference
            - broadcast keyword
            - gre-termination boolean
            - prefix-length number
            - track-srrp number
        - qos-route-lookup keyword
        - secondary ipv4-unicast-address
            - apply-groups reference
            - apply-groups-exclude reference
            - broadcast keyword
            - igp-inhibit boolean
            - prefix-length number
            - track-srrp number
        - tcp-mss number
        - unnumbered
            - ip-address ipv4-unicast-address
            - ip-int-name interface-name
            - system
        - urpf-check
            - ignore-default boolean
            - mode keyword
        - vrrp number
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - authentication-key encrypted-leaf
            - backup ipv4-unicast-address
            - bfd-liveness
              - apply-groups reference
```


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configure router interface ipv4 vrrp bfd-liveness apply-groups-exclude

```
                  - apply-groups-exclude reference
                  - dest-ip ipv4-address
                  - interface-name interface-name
                  - service-name service-name
               - init-delay number
               - mac mac-unicast-address
               - master-int-inherit boolean
               - message-interval number
               - monitor-oper-group reference
               - ntp-reply boolean
               - oper-group reference
               - owner boolean
               - passive boolean
               - ping-reply boolean
               - policy reference
               - preempt boolean
               - priority number
               - ssh-reply boolean
               - standby-forwarding boolean
               - telnet-reply boolean
               - traceroute-reply boolean
         - ipv6
            - address ipv6-address
               - apply-groups reference
               - apply-groups-exclude reference
               - duplicate-address-detection boolean
               - eui-64 boolean
               - prefix-length number
               - primary-preference number
               - track-srrp number
            - bfd
               - admin-state keyword
               - echo-receive number
               - multiplier number
               - receive number
               - transmit-interval number
               - type keyword
            - duplicate-address-detection boolean
            - forward-ipv4-packets boolean
            - icmp6
               - packet-too-big
                  - admin-state keyword
                  - number number
                  - seconds number
               - param-problem
                  - admin-state keyword
                  - number number
                  - seconds number
               - redirects
                  - admin-state keyword
                  - number number
                  - seconds number
               - time-exceeded
                  - admin-state keyword
                  - number number
                  - seconds number
               - unreachables
                  - admin-state keyword
                  - number number
                  - seconds number
            - link-local-address
               - address ipv6-address
               - duplicate-address-detection boolean
            - local-dhcp-server reference
```


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configure router interface ipv6 neighbor-discovery

```
            - neighbor-discovery
              - learn-unsolicited keyword
              - limit
                - log-only boolean
                - max-entries number
                - threshold number
              - local-proxy-nd boolean
              - proactive-refresh keyword
              - proxy-nd-policy reference
              - reachable-time number
              - secure-nd
                - admin-state keyword
                - allow-unsecured-msgs boolean
                - public-key-min-bits number
                - security-parameter number
              - stale-time number
              - static-neighbor ipv6-address
                - apply-groups reference
                - apply-groups-exclude reference
                - mac-address mac-address
            - qos-route-lookup keyword
            - tcp-mss number
            - urpf-check
              - ignore-default boolean
              - mode keyword
            - vrrp number
              - admin-state keyword
              - apply-groups reference
              - apply-groups-exclude reference
              - backup ipv6-address
              - bfd-liveness
                - apply-groups reference
                - apply-groups-exclude reference
                - dest-ip (ipv4-address-no-zone | ipv6-address-no-zone)
                - interface-name interface-name
                - service-name service-name
              - init-delay number
              - mac mac-unicast-address
              - master-int-inherit boolean
              - message-interval number
              - monitor-oper-group reference
              - ntp-reply boolean
              - oper-group reference
              - owner boolean
              - passive boolean
              - ping-reply boolean
              - policy reference
              - preempt boolean
              - priority number
              - standby-forwarding boolean
              - telnet-reply boolean
              - traceroute-reply boolean
          - lag
            - link-map-profile number
            - per-link-hash
              - class number
              - weight number
          - ldp-sync-timer
            - end-of-lib boolean
            - seconds number
          - load-balancing
            - flow-label-load-balancing boolean
            - ip-load-balancing keyword
            - lsr-load-balancing keyword
```


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configure router interface load-balancing spi-load-balancing

```
            - spi-load-balancing boolean
            - teid-load-balancing boolean
         - loopback
         - mac mac-unicast-address
         - mac-accounting boolean
         - network-domains
            - network-domain reference
         - port (port-and-encap | keyword)
         - ptp-hw-assist
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
         - qos
            - apply-groups reference
            - apply-groups-exclude reference
            - egress-instance number
            - egress-port-redirect-group reference
            - ingress-fp-redirect-group reference
            - ingress-instance number
            - network-policy reference
         - strip-label boolean
         - tos-marking-state keyword
         - untrusted
            - default-forwarding keyword
         - urpf-selected-vprns boolean
         - vas-if-type keyword
      - ipsec
         - multi-chassis-shunt-interface interface-name
            - apply-groups reference
            - apply-groups-exclude reference
            - next-hop
               - address (ipv4-address-no-zone | ipv6-address-no-zone)
         - multi-chassis-shunting-profile named-item
            - apply-groups reference
            - apply-groups-exclude reference
            - peer reference
               - apply-groups reference
               - apply-groups-exclude reference
               - multi-chassis-shunt-interface reference
         - security-policy number
            - apply-groups reference
            - apply-groups-exclude reference
            - entry number
               - apply-groups reference
               - apply-groups-exclude reference
               - local-ip
                  - address ipv4-prefix
                  - any boolean
               - local-ipv6
                  - address ipv6-prefix
                  - any boolean
               - remote-ip
                  - address ipv4-prefix
                  - any boolean
               - remote-ipv6
                  - address ipv6-prefix
                  - any boolean
      - ipv6
         - neighbor-discovery
            - reachable-time number
            - stale-time number
         - router-advertisement
            - apply-groups reference
            - apply-groups-exclude reference
```


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configure router ipv6 router-advertisement dns-options

```
            - dns-options
               - apply-groups reference
               - apply-groups-exclude reference
               - rdnss-lifetime (keyword | number)
               - server ipv6-address
            - interface interface-name
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - current-hop-limit number
               - dns-options
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - include-rdnss boolean
                  - rdnss-lifetime (number | keyword)
                  - server ipv6-address
               - managed-configuration boolean
               - max-advertisement-interval number
               - min-advertisement-interval number
               - mtu number
               - nd-router-preference keyword
               - other-stateful-configuration boolean
               - prefix ipv6-prefix
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - autonomous boolean
                  - on-link boolean
                  - preferred-lifetime (keyword | number)
                  - valid-lifetime (keyword | number)
               - reachable-time number
               - retransmit-time number
               - router-lifetime number
               - use-virtual-mac boolean
      - ipv6-te-router-id
         - interface reference
      - isa-service-chaining
         - apply-groups reference
         - apply-groups-exclude reference
         - nat-group number
         - vxlan-vtep-range
            - end (ipv4-address-no-zone | ipv6-address-no-zone)
            - start (ipv4-address-no-zone | ipv6-address-no-zone)
      - isis number
         - admin-state keyword
         - advertise-passive-only boolean
         - advertise-router-capability keyword
         - advertise-tunnel-link boolean
         - all-l1isis mac-address
         - all-l2isis mac-address
         - apply-groups reference
         - apply-groups-exclude reference
         - area-address area-address
         - authentication-check boolean
         - authentication-key encrypted-leaf
         - authentication-keychain reference
         - authentication-type keyword
         - csnp-authentication boolean
         - csnp-on-p2p boolean
         - database-export
            - bgp-ls-identifier
               - value number
            - igp-identifier number
            - reachable-ls-only boolean
         - default-route-tag number
```


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```
        - entropy-label
          - override-tunnel-elc boolean
        - export-limit
          - log-percent number
          - number number
        - export-policy reference
        - flexible-algorithms
          - admin-state keyword
          - advertise-admin-group keyword
          - flex-algo number
            - advertise reference
            - apply-groups reference
            - apply-groups-exclude reference
            - loopfree-alternate
            - micro-loop-avoidance
            - participate boolean
        - graceful-restart
          - helper-mode boolean
        - hello-authentication boolean
        - hello-padding keyword
        - ignore-attached-bit boolean
        - ignore-lsp-errors boolean
        - ignore-narrow-metric boolean
        - igp-shortcut
          - admin-state keyword
          - allow-sr-over-srte boolean
          - apply-groups reference
          - apply-groups-exclude reference
          - tunnel-next-hop
            - family keyword
              - apply-groups reference
              - apply-groups-exclude reference
              - resolution keyword
              - resolution-filter
                - rsvp boolean
                - sr-te boolean
        - iid-tlv boolean
        - import-policy reference
        - interface interface-name
          - adjacency-set reference
          - admin-state keyword
          - apply-groups reference
          - apply-groups-exclude reference
          - bfd-liveness
            - ipv4
              - include-bfd-tlv boolean
            - ipv6
              - include-bfd-tlv boolean
          - csnp-interval number
          - default-instance boolean
          - delay-normalization
            - delay-tolerance-interval number
            - minimum-delay number
          - flex-algo number
            - apply-groups reference
            - apply-groups-exclude reference
            - ipv4-node-sid
              - index number
              - label number
            - ipv6-node-sid
              - index number
              - label number
          - hello-authentication boolean
          - hello-authentication-key encrypted-leaf
```


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```
            - hello-authentication-keychain reference
            - hello-authentication-type keyword
            - hello-padding keyword
            - interface-type keyword
            - ipv4-adjacency-sid
              - label number
            - ipv4-multicast boolean
            - ipv4-node-sid
              - clear-n-flag boolean
              - index number
              - label number
            - ipv6-adjacency-sid
              - label number
            - ipv6-multicast boolean
            - ipv6-node-sid
              - clear-n-flag boolean
              - index number
              - label number
            - ipv6-unicast boolean
            - level keyword
              - apply-groups reference
              - apply-groups-exclude reference
              - hello-authentication-key encrypted-leaf
              - hello-authentication-keychain reference
              - hello-authentication-type keyword
              - hello-interval number
              - hello-multiplier number
              - hello-padding keyword
              - ipv4-multicast-metric number
              - ipv6-multicast-metric number
              - ipv6-unicast-metric number
              - metric number
              - passive boolean
              - priority number
              - sd-offset number
              - sf-offset number
            - level-capability keyword
            - load-balancing-weight number
            - loopfree-alternate
              - exclude boolean
              - policy-map
                - route-nh-template reference
            - lsp-pacing-interval number
            - mesh-group
              - blocked
              - value number
            - passive boolean
            - retransmit-interval number
            - sid-protection boolean
            - tag number
        - ipv4-multicast-routing keyword
        - ipv4-routing boolean
        - ipv6-multicast-routing keyword
        - ipv6-routing keyword
        - ldp-over-rsvp boolean
        - ldp-sync boolean
        - level keyword
            - advertise-router-capability boolean
            - apply-groups reference
            - apply-groups-exclude reference
            - authentication-key encrypted-leaf
            - authentication-keychain reference
            - authentication-type keyword
            - bier
```


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configure router isis level bier admin-state

```
            - admin-state keyword
            - template reference
         - csnp-authentication boolean
         - database-export-exclude boolean
         - default-ipv4-multicast-metric number
         - default-ipv6-multicast-metric number
         - default-ipv6-unicast-metric number
         - default-metric number
         - external-preference number
         - hello-authentication boolean
         - hello-padding keyword
         - loopfree-alternate-exclude boolean
         - lsp-mtu-size number
         - preference number
         - psnp-authentication boolean
         - wide-metrics-only boolean
      - level-capability keyword
      - link-group named-item
         - apply-groups reference
         - apply-groups-exclude reference
         - description very-long-description
         - level keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - ipv4-multicast-metric-offset number
            - ipv4-unicast-metric-offset number
            - ipv6-multicast-metric-offset number
            - ipv6-unicast-metric-offset number
            - member reference
            - oper-members number
            - revert-members number
      - loopfree-alternate
         - augment-route-table boolean
         - exclude
            - prefix-policy reference
         - multi-homed-prefix
            - preference keyword
         - remote-lfa
            - max-pq-cost number
            - node-protect
               - max-pq-nodes number
         - ti-lfa
            - max-sr-frr-labels number
            - max-srv6-frr-sids number
            - node-protect
      - lsp-lifetime number
      - lsp-minimum-remaining-lifetime number
      - lsp-mtu-size number
      - lsp-refresh
         - half-lifetime boolean
         - interval number
      - mru-mismatch-detection boolean
      - multi-topology
         - ipv4-multicast boolean
         - ipv6-multicast boolean
         - ipv6-unicast boolean
      - multicast-import
         - ipv4 boolean
         - ipv6 boolean
      - overload
         - max-metric boolean
      - overload-export-external boolean
      - overload-export-interlevel boolean
      - overload-fib-error-notify-only
```


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configure router isis overload-fib-error-notify-only retry

```
            - retry number
         - overload-include-locators boolean
         - overload-on-boot
            - max-metric boolean
            - timeout number
         - poi-tlv boolean
         - prefix-attributes-tlv boolean
         - prefix-limit
            - limit number
            - log-only boolean
            - overload-timeout (number | keyword)
            - warning-threshold number
         - prefix-unreachable
            - maximum-number-upas number
            - process-received-upa boolean
            - upa-lifetime number
            - upa-metric number
         - psnp-authentication boolean
         - reference-bandwidth number
         - rib-priority
            - high
               - prefix-list reference
               - tag number
         - router-id router-id
         - segment-routing
            - adj-sid-hold (number | keyword)
            - adjacency-set number
               - advertise boolean
               - apply-groups reference
               - apply-groups-exclude reference
               - family keyword
               - parallel boolean
               - sid
                  - label number
            - adjacency-sid
               - allocate-dual-sids boolean
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - class-forwarding boolean
            - egress-statistics
               - adj-set boolean
               - adj-sid boolean
               - node-sid boolean
            - entropy-label boolean
            - export-tunnel-table keyword
            - ingress-statistics
               - adj-set boolean
               - adj-sid boolean
               - node-sid boolean
            - mapping-server
               - admin-state keyword
               - node-sid-map number
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - clear-n-flag boolean
                  - ip-prefix ipv4-unicast-prefix
                  - level-capability keyword
                  - range number
                  - set-flags
                     - bit-s boolean
            - maximum-sid-depth
               - override-bmi number
               - override-erld number
```


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configure router isis segment-routing micro-loop-avoidance

```
            - micro-loop-avoidance
                - fib-delay number
            - multi-topology
                - mt2 boolean
            - prefix-sid-range
                - global
                - max-index number
                - start-label number
            - srlb reference
            - tunnel-mtu number
            - tunnel-table-pref number
        - segment-routing-v6
            - adj-sid-hold (number | keyword)
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - locator reference
                - apply-groups reference
                - apply-groups-exclude reference
                - level keyword
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - metric number
                - level-capability keyword
                - multi-topology
                    - mt0 boolean
                    - mt2 boolean
                - tag number
            - micro-segment-locator reference
                - apply-groups reference
                - apply-groups-exclude reference
                - level keyword
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - metric number
                - level-capability keyword
                - multi-topology
                    - mt0 boolean
                    - mt2 boolean
                - tag number
        - standard-multi-instance boolean
        - strict-adjacency-check boolean
        - summary-address (ipv4-prefix | ipv6-prefix)
            - advertise-unreachable
                - advertise-route-tag number
                - match-route-tag number
            - algorithm number
            - apply-groups reference
            - apply-groups-exclude reference
            - level-capability keyword
            - route-tag number
        - suppress-attached-bit boolean
        - system-id system-id
        - timers
            - lsp-wait
                - lsp-initial-wait number
                - lsp-max-wait number
                - lsp-second-wait number
            - spf-wait
                - spf-initial-wait number
                - spf-max-wait number
                - spf-second-wait number
        - traffic-engineering boolean
        - traffic-engineering-options
```


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configure router isis traffic-engineering-options advertise-delay

```
            - advertise-delay boolean
            - application-link-attributes
               - legacy boolean
            - ipv6 boolean
         - unicast-import
            - ipv4 boolean
            - ipv6 boolean
      - l2tp
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - avp-hiding keyword
         - challenge boolean
         - destruct-timeout number
         - ethernet-tunnel
            - reconnect-timeout (number | keyword)
         - exclude-avps
            - calling-number boolean
            - initial-rx-lcp-conf-req boolean
         - failover
            - recovery-max-session-lifetime number
            - recovery-method keyword
            - recovery-time number
            - track-srrp reference
               - apply-groups reference
               - apply-groups-exclude reference
               - peer reference
               - sync-tag named-item
         - group named-item-64
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - avp-hiding keyword
            - challenge keyword
            - description description
            - destruct-timeout number
            - ethernet-tunnel
               - reconnect-timeout (number | keyword)
            - failover
               - recovery-method keyword
               - recovery-time number
            - hello-interval (number | keyword)
            - idle-timeout (number | keyword)
            - l2tpv3
               - cookie-length (number | keyword)
               - digest-type keyword
               - nonce-length number
               - password encrypted-leaf
               - private-tcp-mss-adjust (number | keyword)
               - public-tcp-mss-adjust (number | keyword)
               - pw-cap-list
                  - ethernet boolean
                  - ethernet-vlan boolean
               - rem-router-id ipv4-address
               - track-password-change boolean
            - lac
               - df-bit keyword
            - lns
               - lns-group reference
               - load-balance-method keyword
               - mlppp
                  - admin-state keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
```


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configure router l2tp group lns mlppp endpoint

```
                  - endpoint
                     - ip (ipv4-address | keyword)
                     - mac (mac-address | keyword)
                  - interleave boolean
                  - max-fragment-delay (number | keyword)
                  - max-links number
                  - reassembly-timeout number
                  - short-sequence-numbers boolean
               - ppp
                  - authentication keyword
                  - authentication-policy named-item
                  - chap-challenge-length
                     - end number
                     - start number
                  - default-group-interface
                     - interface named-item
                     - service-name service-name
                  - ipcp-subnet-negotiation boolean
                  - keepalive
                     - interval number
                     - multiplier number
                  - lcp-force-ack-accm boolean
                  - lcp-ignore-magic-numbers boolean
                  - mtu number
                  - proxy-authentication boolean
                  - proxy-lcp boolean
                  - reject-disabled-ncp boolean
                  - user-db named-item
            - local-address ipv4-unicast-address
            - local-name host-name
            - max-retries-estab number
            - max-retries-not-estab number
            - password encrypted-leaf
            - protocol keyword
            - radius-accounting-policy reference
            - receive-window-size number
            - session-assign-method keyword
            - session-limit (number | keyword)
            - tunnel named-item
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - auto-establish boolean
               - avp-hiding keyword
               - challenge keyword
               - description description
               - destruct-timeout number
               - failover
                  - recovery-method keyword
                  - recovery-time number
               - hello-interval (number | keyword)
               - idle-timeout (number | keyword)
               - l2tpv3
                  - private-tcp-mss-adjust (number | keyword)
                  - public-tcp-mss-adjust (number | keyword)
               - lac
                  - df-bit keyword
               - lns
                  - lns-group reference
                  - load-balance-method keyword
                  - mlppp
                     - admin-state keyword
                     - apply-groups reference
                     - apply-groups-exclude reference
```


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configure router l2tp group tunnel lns mlppp endpoint

```
                    - endpoint
                      - ip (ipv4-address | keyword)
                      - mac (mac-address | keyword)
                    - interleave keyword
                    - max-fragment-delay number
                    - max-links number
                    - reassembly-timeout number
                    - short-sequence-numbers keyword
                  - ppp
                    - authentication keyword
                    - authentication-policy named-item
                    - chap-challenge-length
                      - end number
                      - start number
                    - default-group-interface
                      - interface named-item
                      - service-name service-name
                    - ipcp-subnet-negotiation keyword
                    - keepalive
                      - interval number
                      - multiplier number
                    - lcp-force-ack-accm keyword
                    - lcp-ignore-magic-numbers keyword
                    - mtu number
                    - proxy-authentication keyword
                    - proxy-lcp keyword
                    - reject-disabled-ncp keyword
                    - user-db named-item
              - local-address ipv4-unicast-address
              - local-name host-name
              - max-retries-estab number
              - max-retries-not-estab number
              - password encrypted-leaf
              - peer ipv4-unicast-address
              - preference number
              - radius-accounting-policy reference
              - receive-window-size number
              - remote-name host-name
              - session-limit (number | keyword)
        - group-session-limit number
        - hello-interval (number | keyword)
        - idle-timeout (number | keyword)
        - ignore-avps
          - sequencing-required boolean
        - l2tpv3
          - cookie-length number
          - digest-type keyword
          - nonce-length number
          - password encrypted-leaf
          - private-tcp-mss-adjust number
          - public-tcp-mss-adjust number
          - transport-type
            - ip boolean
        - lac
          - calling-number-format ascii-specification
          - cisco-nas-port
            - ethernet binary-specification
          - df-bit boolean
        - local-address ipv4-unicast-address
        - local-name host-name
        - max-retries-estab number
        - max-retries-not-estab number
        - next-attempt keyword
        - password encrypted-leaf
```


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```
        - peer-address-change-policy keyword
        - radius-accounting-policy reference
        - receive-window-size number
        - replace-result-code
          - cdn-invalid-dst boolean
          - cdn-permanent-no-facilities boolean
          - cdn-temporary-no-facilities boolean
        - rtm-debounce-time (number | keyword)
        - session-assign-method keyword
        - session-limit number
        - tunnel-selection-blacklist
          - add-tunnel-on
            - address-change-timeout boolean
            - cdn-err-code boolean
            - cdn-invalid-dst boolean
            - cdn-permanent-no-facilities boolean
            - cdn-temporary-no-facilities boolean
            - stop-ccn-err-code boolean
            - stop-ccn-other boolean
            - tx-cdn-not-established-in-time boolean
          - max-list-length (number | keyword)
          - max-time number
          - timeout-action keyword
        - tunnel-session-limit number
    - ldp
        - admin-state keyword
        - aggregate-prefix-match
          - admin-state keyword
          - prefix-exclude reference
        - apply-groups reference
        - apply-groups-exclude reference
        - class-forwarding keyword
        - consider-system-ip-in-gep boolean
        - egress-statistics
          - fec-prefix (ipv4-prefix | ipv6-prefix)
            - accounting-policy reference
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - collect-stats boolean
        - entropy-label-capability boolean
        - export-policy reference
        - export-tunnel-table reference
        - fast-reroute
          - backup-sr-tunnel boolean
        - fec-originate (ipv4-prefix | ipv6-prefix)
          - advertised-label number
          - apply-groups reference
          - apply-groups-exclude reference
          - interface named-item-or-empty
          - next-hop (ipv4-address-no-zone | ipv6-address-no-zone)
          - pop boolean
          - swap-label number
        - generate-basic-fec-only boolean
        - graceful-restart
          - helper-mode boolean
          - maximum-recovery-time number
          - neighbor-liveness-time number
        - implicit-null-label boolean
        - import-mcast-policy reference
        - import-pmsi-routes
          - mvpn boolean
          - mvpn-no-export-community boolean
        - import-policy reference
```


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```
        - import-tunnel-table reference
        - interface-parameters
          - interface reference
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - bfd-liveness
              - ipv4 boolean
              - ipv6 boolean
            - ipv4
              - admin-state keyword
              - apply-groups reference
              - apply-groups-exclude reference
              - fec-type-capability
                - p2mp-ipv4 boolean
                - p2mp-ipv6 boolean
                - prefix-ipv4 boolean
                - prefix-ipv6 boolean
              - hello
                - factor number
                - timeout number
              - keepalive
                - factor number
                - timeout number
              - local-lsr-id
                - interface-name reference
              - transport-address keyword
            - ipv6
              - admin-state keyword
              - apply-groups reference
              - apply-groups-exclude reference
              - fec-type-capability
                - p2mp-ipv4 boolean
                - p2mp-ipv6 boolean
                - prefix-ipv4 boolean
                - prefix-ipv6 boolean
              - hello
                - factor number
                - timeout number
              - keepalive
                - factor number
                - timeout number
              - local-lsr-id
                - format-32bit boolean
                - interface-name reference
              - transport-address keyword
            - load-balancing-weight number
          - ipv4
            - hello
              - factor number
              - timeout number
            - keepalive
              - factor number
              - timeout number
            - transport-address keyword
          - ipv6
            - hello
              - factor number
              - timeout number
            - keepalive
              - factor number
              - timeout number
            - transport-address keyword
        - label-withdrawal-delay number
```


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```
        - ldp-shortcut
          - ipv4 boolean
          - ipv6 boolean
        - legacy-ipv4-lsr-interop boolean
        - lsp-bfd reference
          - apply-groups reference
          - apply-groups-exclude reference
          - bfd-liveness boolean
          - bfd-template reference
          - failure-action keyword
          - lsp-ping-interval (number | keyword)
          - priority number
          - source-address (ipv4-address-no-zone | ipv6-address-no-zone)
        - max-ecmp-routes number
        - mcast-upstream-asbr-frr boolean
        - mcast-upstream-frr boolean
        - mp-mbb-time number
        - prefer-mcast-tunnel-in-tunnel boolean
        - prefer-protocol-stitching boolean
        - prefer-tunnel-in-tunnel boolean
        - resolve-root-using keyword
        - session-parameters
          - peer (ipv4-address-no-zone | ipv6-address-no-zone)
            - adv-adj-addr-only boolean
            - adv-local-lsr-id boolean
            - apply-groups reference
            - apply-groups-exclude reference
            - community policy-string
            - dod-label-distribution boolean
            - export-addresses reference
            - export-prefixes reference
            - fec-limit
              - limit number
              - log-only boolean
              - threshold number
            - fec-type-capability
              - p2mp boolean
              - prefix-ipv4 boolean
              - prefix-ipv6 boolean
            - fec129-cisco-interop boolean
            - import-prefixes reference
            - pe-id-mac-flush-interop boolean
        - shortcut-local-ttl-propagate boolean
        - shortcut-transit-ttl-propagate boolean
        - targeted-session
          - auto-rx
            - ipv4
              - admin-state keyword
              - tunneling boolean
          - auto-tx
            - ipv4
              - admin-state keyword
              - tunneling boolean
          - export-prefixes reference
          - import-prefixes reference
          - ipv4
            - hello
              - factor number
              - timeout number
            - hello-reduction
              - admin-state keyword
              - factor number
            - keepalive
              - factor number
```


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```
                - timeout number
            - ipv6
                - hello
                    - factor number
                    - timeout number
                - hello-reduction
                    - admin-state keyword
                    - factor number
                - keepalive
                    - factor number
                    - timeout number
            - peer (ipv4-address-no-zone | ipv6-address-no-zone)
                - admin-state keyword
                - apply-groups reference
                - apply-groups-exclude reference
                - bfd-liveness boolean
                - hello
                    - factor number
                    - timeout number
                - hello-reduction
                    - admin-state keyword
                    - factor number
                - keepalive
                    - factor number
                    - timeout number
                - local-lsr-id
                    - format-32bit boolean
                    - interface-name reference
                - mcast-tunneling
                    - lsp named-item-64
                - tunneling
                    - lsp named-item-64
            - peer-template named-item
                - admin-state keyword
                - adv-local-lsr-id boolean
                - apply-groups reference
                - apply-groups-exclude reference
                - bfd-liveness boolean
                - community policy-string
                - hello
                    - factor number
                    - timeout number
                - hello-reduction
                    - admin-state keyword
                    - factor number
                - keepalive
                    - factor number
                    - timeout number
                - local-lsr-id
                    - interface-name reference
                - mcast-tunneling boolean
                - tunneling boolean
            - peer-template-map reference
                - apply-groups reference
                - apply-groups-exclude reference
                - policy-map reference
            - resolve-v6-prefix-over-shortcut boolean
            - sdp-auto-targeted-session boolean
        - tcp-session-parameters
            - authentication-key encrypted-leaf
            - authentication-keychain reference
            - peer-transport (ipv4-address-no-zone | ipv6-address-no-zone)
                - apply-groups reference
                - apply-groups-exclude reference
```


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configure router ldp tcp-session-parameters peer-transport authentication-key

```
                - authentication-key encrypted-leaf
                - authentication-keychain reference
                - path-mtu-discovery boolean
                - ttl-security number
            - tunnel-down-damp-time number
            - tunnel-table-pref number
            - weighted-ecmp boolean
        - leak-export
            - leak-export-limit number
            - policy-name (policy-expr-string | string)
        - lsp-bfd
            - bfd-sessions number
            - tail-end
                - apply-groups reference
                - apply-groups-exclude reference
                - multiplier number
                - receive-interval number
                - transmit-interval number
        - mc-maximum-routes
            - log-only boolean
            - threshold number
            - value number
        - mld
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - forwarding-group-interface forwarding-service service-name group-interface-
name reference
                - admin-state keyword
                - apply-groups reference
                - apply-groups-exclude reference
                - import-policy reference
                - maximum-number-group-sources number
                - maximum-number-groups number
                - maximum-number-sources number
                - mcac
                    - bandwidth
                        - mandatory (number | keyword)
                        - total (number | keyword)
                    - interface-policy reference
                    - policy reference
                - query-interval number
                - query-last-member-interval number
                - query-response-interval number
                - query-source-address ipv6-unicast-or-linklocal-address
                - router-alert-check boolean
                - sub-hosts-only boolean
                - subnet-check boolean
                - version keyword
            - group-if-query-source-address ipv6-unicast-or-linklocal-address
            - group-interface reference
                - admin-state keyword
                - apply-groups reference
                - apply-groups-exclude reference
                - import-policy reference
                - maximum-number-group-sources number
                - maximum-number-groups number
                - maximum-number-sources number
                - mcac
                    - bandwidth
                        - mandatory (number | keyword)
                        - total (number | keyword)
                    - interface-policy reference
                    - policy reference
```


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configure router mld group-interface query-interval

```
            - query-interval number
            - query-last-member-interval number
            - query-response-interval number
            - query-source-address ipv6-unicast-or-linklocal-address
            - router-alert-check boolean
            - sub-hosts-only boolean
            - subnet-check boolean
            - version keyword
         - interface interface-name
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - import-policy reference
            - maximum-number-group-sources number
            - maximum-number-groups number
            - maximum-number-sources number
            - mcac
               - bandwidth
                  - mandatory (number | keyword)
                  - total (number | keyword)
               - interface-policy reference
               - mc-constraints
                  - level number
                     - apply-groups reference
                     - apply-groups-exclude reference
                     - bandwidth number
                  - number-down number
                     - apply-groups reference
                     - apply-groups-exclude reference
                     - level number
                  - use-lag-port-weight boolean
               - policy reference
            - query-interval number
            - query-last-member-interval number
            - query-response-interval number
            - router-alert-check boolean
            - ssm-translate
               - group-range start ipv6-multicast-address end ipv6-multicast-address
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - source ipv6-unicast-address
            - static
               - group ipv6-multicast-address
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - source ipv6-unicast-address
                  - starg
               - group-range start ipv6-multicast-address end ipv6-multicast-
address step ipv6-address
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - source ipv6-unicast-address
                  - starg
            - version keyword
         - query-interval number
         - query-last-member-interval number
         - query-response-interval number
         - robust-count number
         - ssm-translate
            - group-range start ipv6-multicast-address end ipv6-multicast-address
               - apply-groups reference
               - apply-groups-exclude reference
               - source ipv6-unicast-address
      - mpls
```


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configure router mpls admin-group-frr

```
        - admin-group-frr boolean
        - admin-state keyword
        - apply-groups reference
        - apply-groups-exclude reference
        - auto-bandwidth-multipliers
          - adjust-multiplier number
          - sample-multiplier number
        - auto-lsp reference
          - apply-groups reference
          - apply-groups-exclude reference
          - one-hop boolean
          - policy reference
        - aux-stats
          - sr boolean
        - bypass-resignal-timer number
        - class-forwarding-policy named-item
          - apply-groups reference
          - apply-groups-exclude reference
          - default-set number
          - fc keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - forwarding-set number
        - cspf-on-loose-hop boolean
        - dynamic-bypass boolean
        - entropy-label
          - rsvp-te boolean
          - sr-te boolean
        - exponential-backoff-retry boolean
        - forwarding-policies
          - admin-state keyword
          - apply-groups reference
          - apply-groups-exclude reference
          - forwarding-policy named-item-64
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - binding-label number
            - egress-statistics
              - admin-state keyword
              - apply-groups reference
              - apply-groups-exclude reference
            - endpoint (ipv4-address-no-zone | ipv6-address-no-zone)
            - ingress-statistics
              - admin-state keyword
              - apply-groups reference
              - apply-groups-exclude reference
            - metric number
            - next-hop-group number
              - admin-state keyword
              - apply-groups reference
              - apply-groups-exclude reference
              - backup-next-hop
                - apply-groups reference
                - apply-groups-exclude reference
                - next-hop (ipv4-address-no-zone | ipv6-address-no-zone)
                - pushed-labels number
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - label number
              - load-balancing-weight number
              - primary-next-hop
                - apply-groups reference
                - apply-groups-exclude reference
```


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configure router mpls forwarding-policies forwarding-policy next-hop-group primary-next-hop next-hop

```
                    – next-hop (ipv4-address-no-zone | ipv6-address-no-zone)
                    – pushed-labels number
                       – apply-groups reference
                       – apply-groups-exclude reference
                       – label number
                  – resolution-type keyword
               – preference number
               – revert-timer number
               – tunnel-table-pref number
            – reserved-label-block reference
         – frr-object boolean
         – hold-timer number
         – ingress-statistics
            – lsp sender (ipv4-address-no-zone | ipv6-address-no-zone) lsp-name named-item-64
               – accounting-policy reference
               – admin-state keyword
               – apply-groups reference
               – apply-groups-exclude reference
               – collect-stats boolean
               – stat-mode keyword
            – p2mp-template-lsp sender (ipv4-address-no-zone | ipv6-address-no-zone) rsvp-
session-name named-item-64
               – accounting-policy reference
               – admin-state keyword
               – apply-groups reference
               – apply-groups-exclude reference
               – collect-stats boolean
               – max-stats number
               – stat-mode keyword
            – p2p-template-lsp sender (ipv4-address-no-zone | ipv6-address-no-zone) rsvp-
session-name named-item-64
               – accounting-policy reference
               – admin-state keyword
               – apply-groups reference
               – apply-groups-exclude reference
               – collect-stats boolean
               – max-stats number
               – stat-mode keyword
         – interface reference
            – admin-group reference
            – admin-state keyword
            – apply-groups reference
            – apply-groups-exclude reference
            – label-map number
               – admin-state keyword
               – apply-groups reference
               – apply-groups-exclude reference
               – pop
               – swap
                  – apply-groups reference
                  – apply-groups-exclude reference
                  – next-hop ipv4-unicast-address
                  – out-label (number | keyword)
            – srlg-group reference
            – te-metric number
         – least-fill-min-thd number
         – least-fill-reoptim-thd number
         – logger-event-bundling boolean
         – lsp named-item-64
            – adaptive boolean
            – admin-state keyword
            – admin-tag reference
            – adspec boolean
            – apply-groups reference
```


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```
            - apply-groups-exclude reference
            - auto-bandwidth
              - adjust-down
                - bw number
                - percent number
              - adjust-up
                - bw number
                - percent number
              - apply-groups reference
              - apply-groups-exclude reference
              - fc keyword
                - apply-groups reference
                - apply-groups-exclude reference
                - sampling-weight number
              - max-bandwidth number
              - min-bandwidth number
              - monitor-bandwidth boolean
              - multipliers
                - adjust-multiplier number
                - sample-multiplier number
              - overflow-limit
                - bw number
                - number number
                - threshold number
              - underflow-limit
                - bw number
                - number number
                - threshold number
              - use-last-adj-bw
                - secondary-retry-limit (number | keyword)
            - bfd
              - bfd-liveness boolean
              - bfd-template reference
              - failure-action keyword
              - lsp-ping-interval (number | keyword)
              - return-path-label number
              - source-address (ipv4-address-no-zone | ipv6-address-no-zone)
              - wait-for-up-timer number
            - bgp-shortcut boolean
            - bgp-transport-tunnel boolean
            - binding-sid number
            - class-forwarding
              - forwarding-set
                - policy reference
                - set number
            - class-type number
            - egress-statistics
              - accounting-policy reference
              - admin-state keyword
              - apply-groups reference
              - apply-groups-exclude reference
              - collect-stats boolean
              - stat-mode keyword
            - entropy-label keyword
            - exclude-admin-group reference
            - exclude-node (ipv4-address-no-zone | ipv6-address-no-zone)
            - fallback-path-computation-method keyword
            - fast-reroute
              - frr-method keyword
              - hop-limit number
              - node-protect boolean
              - propagate-admin-group boolean
            - from (ipv4-address-no-zone | ipv6-address-no-zone)
            - hop-limit number
```


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```
            - igp-shortcut
              - admin-state keyword
              - allow-sr-over-srte boolean
              - lfa-type keyword
              - relative-metric number
            - include-admin-group reference
            - label-stack-reduction boolean
            - ldp-over-rsvp boolean
            - least-fill boolean
            - load-balancing-weight number
            - local-sr-protection keyword
            - lsp-self-ping keyword
            - main-ct-retry-limit number
            - max-sr-labels
              - additional-frr-labels number
              - label-stack-size number
            - metric number
            - metric-type keyword
            - override-tunnel-elc boolean
            - p2mp-id number
            - path-computation-method keyword
            - path-profile number
              - apply-groups reference
              - apply-groups-exclude reference
              - path-group number
            - pce-associations
              - diversity reference
              - policy reference
            - pce-control boolean
            - pce-report keyword
            - primary reference
              - adaptive boolean
              - admin-state keyword
              - apply-groups reference
              - apply-groups-exclude reference
              - backup-class-type number
              - bandwidth number
              - bfd
                - bfd-liveness boolean
                - bfd-template reference
                - lsp-ping-interval (number | keyword)
                - return-path-label number
                - source-address (ipv4-address-no-zone | ipv6-address-no-zone)
                - wait-for-up-timer number
              - class-type number
              - delay-metric-limit number
              - exclude-admin-group
                - group reference
              - hop-limit number
              - include-admin-group
                - group reference
              - priority
                - hold-priority number
                - setup-priority number
              - record boolean
              - record-label boolean
            - primary-p2mp-instance named-item
              - adaptive boolean
              - admin-state keyword
              - apply-groups reference
              - apply-groups-exclude reference
              - bandwidth number
              - exclude-admin-group
                - group reference
```


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configure router mpls lsp primary-p2mp-instance hop-limit

```
            - hop-limit number
            - include-admin-group
               - group reference
            - priority
               - hold-priority number
               - setup-priority number
            - record boolean
            - record-label boolean
            - s2l-path reference to (ipv4-address-no-zone | ipv6-address-no-zone)
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
         - propagate-admin-group boolean
         - retry-limit number
         - retry-timer number
         - revert-timer number
         - rsvp-resv-style keyword
         - secondary reference
            - adaptive boolean
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - bandwidth number
            - bfd
               - bfd-liveness boolean
               - bfd-template reference
               - lsp-ping-interval (number | keyword)
               - return-path-label number
               - source-address (ipv4-address-no-zone | ipv6-address-no-zone)
               - wait-for-up-timer number
            - class-type number
            - delay-metric-limit number
            - exclude-admin-group
               - group reference
            - hop-limit number
            - include-admin-group
               - group reference
            - path-preference number
            - priority
               - hold-priority number
               - setup-priority number
            - record boolean
            - record-label boolean
            - srlg boolean
            - standby boolean
         - soft-preemption boolean
         - to (ipv4-address-no-zone | ipv6-address-no-zone)
         - type keyword
         - vprn-auto-bind boolean
      - lsp-bsid-block reference
      - lsp-history
         - admin-state keyword
      - lsp-init-retry-timeout number
      - lsp-self-ping
         - interval number
         - rsvp-te boolean
         - timeout number
         - timeout-action keyword
      - lsp-template named-item
         - adaptive boolean
         - admin-state keyword
         - admin-tag reference
         - adspec boolean
         - apply-groups reference
```


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configure router mpls lsp-template apply-groups-exclude

```
            - apply-groups-exclude reference
            - auto-bandwidth
              - adjust-down
                - bw number
                - percent number
              - adjust-up
                - bw number
                - percent number
              - apply-groups reference
              - apply-groups-exclude reference
              - fc keyword
                - apply-groups reference
                - apply-groups-exclude reference
                - sampling-weight number
              - max-bandwidth number
              - min-bandwidth number
              - monitor-bandwidth boolean
              - multipliers
                - adjust-multiplier number
                - sample-multiplier number
              - overflow-limit
                - bw number
                - number number
                - threshold number
              - underflow-limit
                - bw number
                - number number
                - threshold number
            - backup-class-type number
            - bandwidth number
            - bfd
              - bfd-liveness boolean
              - bfd-template reference
              - failure-action keyword
              - lsp-ping-interval (number | keyword)
              - return-path-label number
              - source-address (ipv4-address-no-zone | ipv6-address-no-zone)
              - wait-for-up-timer number
            - bgp-shortcut boolean
            - bgp-transport-tunnel boolean
            - binding-sid boolean
            - class-forwarding
              - forwarding-set
                - policy reference
                - set number
            - class-type number
            - default-path reference
            - delay-metric-limit number
            - egress-statistics
              - accounting-policy reference
              - collect-stats boolean
              - stat-mode keyword
            - entropy-label keyword
            - exclude-admin-group reference
            - fallback-path-computation-method keyword
            - family keyword
            - fast-reroute
              - frr-method keyword
              - hop-limit number
              - node-protect boolean
              - propagate-admin-group boolean
            - from (ipv4-address-no-zone | ipv6-address-no-zone)
            - hop-limit number
            - igp-shortcut
```


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configure router mpls lsp-template igp-shortcut admin-state

```
                - admin-state keyword
                - allow-sr-over-srte boolean
                - lfa-type keyword
                - relative-metric number
            - include-admin-group reference
            - label-stack-reduction boolean
            - ldp-over-rsvp boolean
            - least-fill boolean
            - load-balancing-weight number
            - local-sr-protection keyword
            - lsp-self-ping keyword
            - main-ct-retry-limit number
            - max-sr-labels
                - additional-frr-labels number
                - label-stack-size number
            - metric number
            - metric-type keyword
            - override-tunnel-elc boolean
            - path-computation-method keyword
            - path-profile number
                - apply-groups reference
                - apply-groups-exclude reference
                - path-group number
            - pce-associations
                - diversity reference
                - policy reference
            - pce-control boolean
            - pce-report keyword
            - priority
                - hold-priority number
                - setup-priority number
            - propagate-admin-group boolean
            - record boolean
            - record-label boolean
            - retry-limit number
            - retry-timer number
            - soft-preemption boolean
            - template-id (number | keyword)
            - type keyword
            - vprn-auto-bind boolean
        - max-bypass-associations number
        - max-bypass-plr-associations number
        - mbb-prefer-current-hops boolean
        - p2mp-resignal-timer number
        - p2mp-s2l-fast-retry number
        - p2mp-ttl-propagate boolean
        - p2p-active-path-fast-retry number
        - path named-item-64
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - hop number
                - apply-groups reference
                - apply-groups-exclude reference
                - ip-address (ipv4-address-no-zone | ipv6-address-no-zone)
                - sid-label number
                - type keyword
        - pce-init-lsp
            - apply-groups reference
            - apply-groups-exclude reference
            - sr-te
                - admin-state keyword
        - pce-report
            - rsvp-te boolean
```


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configure router mpls pce-report sr-te

```
            - sr-te boolean
         - resignal-on-igp-event boolean
         - resignal-on-igp-overload boolean
         - resignal-timer number
         - retry-on-igp-overload boolean
         - secondary-fast-retry-timer number
         - shortcut-local-ttl-propagate boolean
         - shortcut-transit-ttl-propagate boolean
         - sr-te-resignal
            - resignal-on-igp-event boolean
            - resignal-on-igp-overload boolean
            - resignal-timer number
         - srlg-database
            - router-id ipv4-address
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - interface ipv4-address srlg-group reference
         - srlg-frr keyword
         - static-lsp named-item-64
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - metric number
            - push
               - apply-groups reference
               - apply-groups-exclude reference
               - next-hop ipv4-unicast-address
               - out-label (number | keyword)
            - to ipv4-unicast-address
         - static-lsp-fast-retry number
         - strict-ero-nhop-direct-resolution boolean
         - tunnel-table-pref
            - rsvp-te number
            - sr-te number
         - user-srlg-db boolean
      - mpls-labels
         - apply-groups reference
         - apply-groups-exclude reference
         - bgp-labels-hold-timer number
         - reserved-label-block named-item-64
            - apply-groups reference
            - apply-groups-exclude reference
            - end-label number
            - start-label number
         - sr-labels
            - end number
            - start number
         - static-label-range number
      - msdp
         - active-source-limit number
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - data-encapsulation boolean
         - export-policy reference
         - group named-item
            - active-source-limit number
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - export-policy reference
            - import-policy reference
            - local-address ipv4-unicast-address
```


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```
            - mode keyword
            - peer ipv4-unicast-address
               - active-source-limit number
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - authentication-key encrypted-leaf
               - default-peer boolean
               - export-policy reference
               - import-policy reference
               - local-address ipv4-unicast-address
               - receive-message-rate
                  - rate number
                  - threshold number
                  - time number
            - receive-message-rate
               - rate number
               - threshold number
               - time number
         - import-policy reference
         - local-address ipv4-unicast-address
         - peer ipv4-unicast-address
            - active-source-limit number
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - authentication-key encrypted-leaf
            - default-peer boolean
            - export-policy reference
            - import-policy reference
            - local-address ipv4-unicast-address
            - receive-message-rate
               - rate number
               - threshold number
               - time number
         - receive-message-rate
            - rate number
            - threshold number
            - time number
         - rpf-table keyword
         - source ipv4-unicast-prefix
            - active-source-limit number
            - apply-groups reference
            - apply-groups-exclude reference
         - source-active-cache-lifetime number
      - mss-adjust
         - apply-groups reference
         - apply-groups-exclude reference
         - nat-group number
         - segment-size number
      - mtrace2
         - admin-state keyword
         - udp-port number
      - multicast-info-policy reference
      - nat
         - apply-groups reference
         - apply-groups-exclude reference
         - inside
            - l2-aware
               - force-unique-ip-addresses boolean
               - subscribers ipv4-prefix-with-host-bits
            - large-scale
               - dnat-only
                  - source-prefix-list reference
```


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```
                - dual-stack-lite
                  - admin-state keyword
                  - deterministic
                    - address-map ipv6-prefix to ipv6-prefix nat-policy reference
                      - admin-state keyword
                      - apply-groups reference
                      - apply-groups-exclude reference
                      - outside-range ipv4-address
                    - prefix-map ipv6-unicast-prefix nat-policy reference
                      - admin-state keyword
                      - apply-groups reference
                      - apply-groups-exclude reference
                      - map ipv6-prefix to ipv6-prefix
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - first-outside-address ipv4-address
                  - endpoint ipv6-address
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - ip-fragmentation keyword
                    - min-first-fragment-size-rx number
                    - reassembly boolean
                    - tunnel-mtu number
                  - max-subscriber-limit number
                  - subscriber-prefix-length number
                - nat-policy reference
                - nat44
                  - destination-prefix ipv4-unicast-prefix
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - nat-policy reference
                  - deterministic
                    - address-map ipv4-address to ipv4-address nat-policy reference
                      - admin-state keyword
                      - apply-groups reference
                      - apply-groups-exclude reference
                      - outside-range ipv4-address
                    - prefix-map ipv4-unicast-prefix nat-policy reference
                      - admin-state keyword
                      - apply-groups reference
                      - apply-groups-exclude reference
                      - map ipv4-address to ipv4-address
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - first-outside-address ipv4-address
                  - max-subscriber-limit number
                  - nat-import reference
                  - source-prefix ipv4-unicast-prefix
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - nat-policy reference
                - nat64
                  - admin-state keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - drop-zero-ipv4-checksum boolean
                  - insert-ipv6-fragment-header boolean
                  - ip-fragmentation keyword
                  - ipv6-mtu number
                  - prefix ipv6-prefix
                  - subscriber-prefix-length number
                  - tos
                    - downstream
                      - use-ipv4 boolean
```


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configure router nat inside large-scale nat64 tos upstream

```
                  - upstream
                     - set-tos (keyword | number)
            - redundancy
               - peer ipv4-unicast-address
               - peer6 ipv6-unicast-address
               - steering-route ipv4-unicast-prefix
            - static-port-forwards
               - spf-nat-policy reference
            - subscriber-identification
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - attribute
                  - type keyword
                  - vendor keyword
               - description description
               - drop-unidentified-traffic boolean
               - radius-proxy-server
                  - router-instance string
                  - server named-item
            - traffic-identification
               - source-prefix-only boolean
      - map
         - map-domain reference
      - outside
         - dnat-only
            - route-limit number
         - filters
            - downstream
               - ipv4 reference
               - ipv6 reference
            - upstream
               - ipv4 reference
               - ipv6 reference
         - mtu number
         - pool named-item
            - address-pooling keyword
            - address-range ipv4-unicast-address end ipv4-unicast-address
               - apply-groups reference
               - apply-groups-exclude reference
               - description description
               - drain boolean
            - admin-state keyword
            - applications
               - agnostic boolean
               - flexible-port-allocation boolean
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - icmp-echo-reply boolean
            - l2-aware
               - default-host
                  - inside-router-instance string
                  - ip-address ipv4-unicast-address
                  - rate-limit number
               - external-assignment boolean
               - port-block-extension
                  - ports number
                  - subscriber
                     - watermarks
                        - high number
                        - low number
                  - subscriber-limit number
                  - watermarks
```


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configure router nat outside pool l2-aware port-block-extension watermarks high

```
                        - high number
                        - low number
                - large-scale
                  - default-host
                    - inside-router-instance string
                    - ip-address ipv4-unicast-address
                    - rate-limit number
                  - deterministic
                    - port-reservation number
                    - watermarks
                      - high number
                      - low number
                  - flexible-port-allocation
                    - free-port-limit
                      - icmp number
                      - tcp number
                      - udp number
                  - redundancy
                    - admin-state keyword
                    - export-route ipv4-unicast-prefix
                    - follow
                      - name named-item
                      - router-instance string
                    - monitor-route ipv4-unicast-prefix
                  - subscriber-limit number
                - mode keyword
                - nat-group reference
                - port-forwarding
                  - dynamic-block-reservation boolean
                  - range-end number
                  - range-start number
                - port-reservation
                  - port-blocks number
                  - ports number
                - type keyword
                - watermarks
                  - high number
                  - low number
                - wlan-gw-group reference
        - network-domains
          - network-domain named-item
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
        - origin-validation
          - apply-groups reference
          - apply-groups-exclude reference
          - rpki-session (ipv4-address-no-zone | ipv6-address-no-zone)
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - connect-retry number
            - description description
            - local-address (ipv4-address-no-zone | ipv6-address-no-zone)
            - port number
            - refresh-time
              - hold-time number
              - value number
            - stale-time number
          - static-entry (ipv4-prefix | ipv6-prefix) upto number origin-as number
            - apply-groups reference
            - apply-groups-exclude reference
            - valid boolean
        - ospf number
```


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```
        - admin-state keyword
        - advertise-router-capability keyword
        - advertise-tunnel-link boolean
        - apply-groups reference
        - apply-groups-exclude reference
        - area ipv4-address
          - advertise-router-capability boolean
          - apply-groups reference
          - apply-groups-exclude reference
          - area-range ipv4-unicast-prefix
            - advertise boolean
            - apply-groups reference
            - apply-groups-exclude reference
          - bier
            - admin-state keyword
            - template reference
          - blackhole-aggregate boolean
          - database-export-exclude boolean
          - export-policy reference
          - import-policy reference
          - interface interface-name
            - adjacency-set reference
            - adjacency-sid
              - label number
            - admin-state keyword
            - advertise-router-capability boolean
            - advertise-subnet boolean
            - apply-groups reference
            - apply-groups-exclude reference
            - authentication-key encrypted-leaf
            - authentication-keychain reference
            - authentication-type keyword
            - bfd-liveness
              - remain-down-on-failure boolean
              - strict boolean
              - strict-mode-holddown number
            - dead-interval number
            - delay-normalization
              - delay-tolerance-interval number
              - minimum-delay number
            - flex-algo number
              - apply-groups reference
              - apply-groups-exclude reference
              - node-sid
                - index number
                - label number
            - hello-interval number
            - interface-type keyword
            - load-balancing-weight number
            - loopfree-alternate
              - exclude boolean
              - policy-map
                - route-nh-template reference
            - lsa-filter-out keyword
            - message-digest-key number
              - apply-groups reference
              - apply-groups-exclude reference
              - md5 encrypted-leaf
            - metric number
            - mtu number
            - neighbor ipv4-unicast-address
            - node-sid
              - clear-n-flag boolean
              - index number
```


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configure router ospf area interface node-sid label

```
                  - label number
               - passive boolean
               - poll-interval number
               - priority number
               - retransmit-interval number
               - rib-priority keyword
               - sid-protection boolean
               - transit-delay number
            - loopfree-alternate-exclude boolean
            - nssa
               - area-range ipv4-unicast-prefix
                  - advertise boolean
                  - apply-groups reference
                  - apply-groups-exclude reference
               - originate-default-route
                  - adjacency-check boolean
                  - type-nssa boolean
               - redistribute-external boolean
               - summaries boolean
            - stub
               - default-metric number
               - summaries boolean
            - virtual-link ipv4-address transit-area reference
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - authentication-key encrypted-leaf
               - authentication-keychain reference
               - authentication-type keyword
               - dead-interval number
               - hello-interval number
               - message-digest-key number
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - md5 encrypted-leaf
               - retransmit-interval number
               - transit-delay number
         - asbr
            - trace-path (number | keyword)
         - compatible-rfc1583 boolean
         - database-export
            - bgp-ls-identifier
               - value number
            - igp-identifier number
            - reachable-ls-only boolean
         - entropy-label
            - override-tunnel-elc boolean
         - export-limit
            - log-percent number
            - number number
         - export-policy reference
         - external-db-overflow
            - interval number
            - limit number
         - external-preference number
         - flexible-algorithms
            - admin-state keyword
            - advertise-admin-group keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - flex-algo number
               - advertise reference
               - apply-groups reference
               - apply-groups-exclude reference
```


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configure router ospf flexible-algorithms flex-algo loopfree-alternate

```
            - loopfree-alternate
            - micro-loop-avoidance
            - participate boolean
      - graceful-restart
         - helper-mode boolean
         - strict-lsa-checking boolean
      - igp-shortcut
         - admin-state keyword
         - allow-sr-over-srte boolean
         - apply-groups reference
         - apply-groups-exclude reference
         - tunnel-next-hop
            - family keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - resolution keyword
               - resolution-filter
                  - rsvp boolean
                  - sr-te boolean
      - import-policy reference
      - ldp-over-rsvp boolean
      - ldp-sync boolean
      - loopfree-alternate
         - augment-route-table boolean
         - exclude
            - prefix-policy reference
         - multi-homed-prefix
            - preference keyword
         - remote-lfa
            - max-pq-cost number
            - node-protect
               - max-pq-nodes number
         - ti-lfa
            - max-sr-frr-labels number
            - node-protect
      - multi-instance boolean
      - multicast-import boolean
      - overload boolean
      - overload-include-ext-1 boolean
      - overload-include-ext-2 boolean
      - overload-include-stub boolean
      - overload-on-boot
         - timeout number
      - preference number
      - reference-bandwidth number
      - rib-priority
         - high
            - prefix-list reference
      - router-id router-id
      - rtr-adv-lsa-limit
         - log-only boolean
         - max-lsa-count number
         - overload-timeout (number | keyword)
         - warning-threshold number
      - segment-routing
         - adj-sid-hold (number | keyword)
         - adjacency-set number
            - advertise boolean
            - apply-groups reference
            - apply-groups-exclude reference
            - parallel boolean
            - sid
               - label number
         - adjacency-sid
```


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configure router ospf segment-routing adjacency-sid allocate-dual-sids

```
                - allocate-dual-sids boolean
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - backup-node-sid
                - index number
                - ip-prefix ipv4-unicast-prefix
                - label number
            - class-forwarding boolean
            - egress-statistics
                - adj-set boolean
                - adj-sid boolean
                - node-sid boolean
            - entropy-label boolean
            - export-tunnel-table keyword
            - ingress-statistics
                - adj-set boolean
                - adj-sid boolean
                - node-sid boolean
            - mapping-server
                - admin-state keyword
                - node-sid-map number
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - ip-prefix ipv4-prefix
                    - range number
                    - scope
                        - area reference
                        - as
            - maximum-sid-depth
                - override-bmi number
                - override-erld number
            - micro-loop-avoidance
                - fib-delay number
            - prefix-sid-range
                - global
                - max-index number
                - start-label number
            - srlb reference
            - tunnel-mtu number
            - tunnel-table-pref number
        - timers
            - incremental-spf-wait number
            - lsa-accumulate number
            - lsa-arrival number
            - lsa-generate
                - lsa-initial-wait number
                - lsa-second-wait number
                - max-lsa-wait number
            - redistribute-delay number
            - spf-wait
                - spf-initial-wait number
                - spf-max-wait number
                - spf-second-wait number
        - traffic-engineering boolean
        - traffic-engineering-options
            - advertise-delay boolean
            - sr-te keyword
        - unicast-import boolean
    - ospf3 number
        - admin-state keyword
        - advertise-router-capability keyword
        - apply-groups reference
        - apply-groups-exclude reference
```


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```
        - area ipv4-address
          - advertise-router-capability boolean
          - apply-groups reference
          - apply-groups-exclude reference
          - area-range (ipv4-prefix | ipv6-prefix)
            - advertise boolean
            - apply-groups reference
            - apply-groups-exclude reference
          - blackhole-aggregate boolean
          - database-export-exclude boolean
          - export-policy reference
          - extended-lsa keyword
          - import-policy reference
          - interface interface-name
            - admin-state keyword
            - advertise-router-capability boolean
            - apply-groups reference
            - apply-groups-exclude reference
            - authentication
              - inbound reference
              - outbound reference
            - bfd-liveness
              - remain-down-on-failure boolean
              - strict boolean
              - strict-mode-holddown number
            - dead-interval number
            - hello-interval number
            - interface-type keyword
            - load-balancing-weight number
            - loopfree-alternate
              - exclude boolean
              - policy-map
                - route-nh-template reference
            - lsa-filter-out keyword
            - metric number
            - mtu number
            - neighbor (ipv4-address-no-zone | ipv6-address-no-zone)
            - node-sid
              - clear-n-flag boolean
              - index number
              - label number
            - passive boolean
            - poll-interval number
            - priority number
            - retransmit-interval number
            - rib-priority keyword
            - sid-protection boolean
            - transit-delay number
          - key-rollover-interval number
          - loopfree-alternate-exclude boolean
          - nssa
            - area-range (ipv4-prefix | ipv6-prefix)
              - advertise boolean
              - apply-groups reference
              - apply-groups-exclude reference
            - originate-default-route
              - adjacency-check boolean
              - type-nssa boolean
            - redistribute-external boolean
            - summaries boolean
          - stub
            - default-metric number
            - summaries boolean
          - virtual-link ipv4-address transit-area reference
```


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configure router ospf3 area virtual-link admin-state

```
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - authentication
               - inbound reference
               - outbound reference
            - dead-interval number
            - hello-interval number
            - retransmit-interval number
            - transit-delay number
      - asbr
      - database-export
         - bgp-ls-identifier
            - value number
         - igp-identifier number
         - reachable-ls-only boolean
      - export-limit
         - log-percent number
         - number number
      - export-policy reference
      - extended-lsa keyword
      - external-db-overflow
         - interval number
         - limit number
      - external-preference number
      - graceful-restart
         - helper-mode boolean
         - strict-lsa-checking boolean
      - igp-shortcut
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - tunnel-next-hop
            - family keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - resolution keyword
               - resolution-filter
                  - rsvp boolean
                  - sr-te boolean
      - import-policy reference
      - ldp-sync boolean
      - loopfree-alternate
         - exclude
            - prefix-policy reference
         - remote-lfa
            - max-pq-cost number
            - node-protect
               - max-pq-nodes number
         - ti-lfa
            - max-sr-frr-labels number
            - node-protect
      - multicast-import boolean
      - overload boolean
      - overload-include-ext-1 boolean
      - overload-include-ext-2 boolean
      - overload-include-stub boolean
      - overload-on-boot
         - timeout number
      - preference number
      - reference-bandwidth number
      - rib-priority
         - high
            - prefix-list reference
```


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```
        - router-id router-id
        - rtr-adv-lsa-limit
          - log-only boolean
          - max-lsa-count number
          - overload-timeout (number | keyword)
          - warning-threshold number
        - segment-routing
          - adj-sid-hold (number | keyword)
          - adjacency-sid
            - allocate-dual-sids boolean
          - admin-state keyword
          - apply-groups reference
          - apply-groups-exclude reference
          - egress-statistics
            - adj-sid boolean
            - node-sid boolean
          - ingress-statistics
            - adj-sid boolean
            - node-sid boolean
          - prefix-sid-range
            - global
            - max-index number
            - start-label number
          - tunnel-mtu number
          - tunnel-table-pref number
        - timers
          - incremental-spf-wait number
          - lsa-accumulate number
          - lsa-arrival number
          - lsa-generate
            - lsa-initial-wait number
            - lsa-second-wait number
            - max-lsa-wait number
          - redistribute-delay number
          - spf-wait
            - spf-initial-wait number
            - spf-max-wait number
            - spf-second-wait number
        - unicast-import boolean
      - p2mp-sr-tree
        - admin-state keyword
        - apply-groups reference
        - apply-groups-exclude reference
        - bfd-liveness keyword
        - p2mp-policy named-item
          - admin-state keyword
          - apply-groups reference
          - apply-groups-exclude reference
          - candidate-path named-item
            - active-instance reference
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - path-instances number
              - apply-groups reference
              - apply-groups-exclude reference
              - instance-id number
            - preference number
          - root-address (ipv4-address-no-zone | ipv6-address-no-zone)
          - tree-id number
        - replication-segment named-item
          - admin-state keyword
          - apply-groups reference
          - apply-groups-exclude reference
```


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```
            - instance-id number
            - root-address (ipv4-address-no-zone | ipv6-address-no-zone)
            - segment-routing-mpls
               - downstream-nodes number
                  - admin-state keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - label
                     - sid-list number
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - replication-sid number
                  - next-hop-address (ipv4-address-with-zone | ipv6-address-with-zone)
                  - next-hop-interface-name interface-name
                  - protect-nexthop-id reference
               - incoming-sid number
               - sid-action keyword
            - segment-routing-v6
               - apply-groups reference
               - apply-groups-exclude reference
               - downstream-nodes number
                  - admin-state keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - replication-sid ipv6-unicast-address
               - incoming-sid
                  - locator
                     - function keyword
                     - function-value number
                     - locator-name reference
               - role keyword
            - tree-id number
         - reserved-label-block reference
      - pcep
         - apply-groups reference
         - apply-groups-exclude reference
         - pcc
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - dead-timer number
            - keepalive number
            - local-address ipv4-unicast-address
            - local-address-ipv6 ipv6-unicast-address
            - max-srte-pce-init-lsps number
            - pce-associations
               - diversity named-item
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - association-id number
                  - association-source (ipv4-address-no-zone | ipv6-address-no-zone)
                  - disjointness-reference boolean
                  - disjointness-type keyword
                  - diversity-type keyword
               - policy named-item
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - association-id number
                  - association-source (ipv4-address-no-zone | ipv6-address-no-zone)
            - peer (ipv4-address-no-zone | ipv6-address-no-zone)
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - authentication-keychain reference
```


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configure router pcep pcc peer preference

```
                - preference number
                - route-preference keyword
                - tls-client-profile reference
                - tls-wait-timer number
            - redelegation-timer number
            - report-path-constraints boolean
            - state-timer
                - timer number
                - timer-action keyword
            - unknown-message-rate number
        - pce
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - authentication-keychain reference
            - dead-timer number
            - keepalive number
            - local-address ipv4-unicast-address
            - local-address-ipv6 ipv6-unicast-address
            - tls-server-profile reference
            - tls-wait-timer number
            - unknown-message-rate number
    - pcp
        - server named-item
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - dual-stack-lite-address ipv6-unicast-address
            - fwd-inside-router string
            - interface reference
            - policy reference
    - pim
        - admin-state keyword
        - apply-groups reference
        - apply-groups-exclude reference
        - apply-to keyword
        - import
            - join-policy reference
            - register-policy reference
        - interface interface-name
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - assert-period number
            - bfd-liveness
                - ipv4 boolean
                - ipv6 boolean
            - bier-signaling-type
                - ipv4 boolean
                - ipv6 boolean
            - bsm-check-rtr-alert boolean
            - hello-interval number
            - hello-multiplier number
            - improved-assert boolean
            - instant-prune-echo boolean
            - ipv4
                - apply-groups reference
                - apply-groups-exclude reference
                - monitor-oper-group
                    - name reference
                    - operation keyword
                    - priority-delta number
                - multicast boolean
```


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```
            - ipv6
              - apply-groups reference
              - apply-groups-exclude reference
              - monitor-oper-group
                - name reference
                - operation keyword
                - priority-delta number
              - multicast boolean
            - max-groups number
            - mcac
              - bandwidth
                - mandatory (number | keyword)
                - total (number | keyword)
              - interface-policy reference
              - mc-constraints
                - admin-state keyword
                - level number
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - bandwidth number
                - number-down number
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - level number
                - use-lag-port-weight boolean
              - policy reference
            - multicast-senders keyword
            - p2mp-ldp-tree-join
              - ipv4 boolean
              - ipv6 boolean
            - priority number
            - sticky-dr
              - priority number
            - three-way-hello boolean
            - tracking-support boolean
          - ipv4
            - admin-state keyword
            - gtm
              - auto-discovery keyword
            - multicast-fast-failover boolean
            - rpf-table keyword
            - source-address
              - register-message ipv4-unicast-address
            - ssm-assert-compatible-mode boolean
            - ssm-default-range boolean
          - ipv6
            - admin-state keyword
            - multicast-fast-failover boolean
            - rpf-table keyword
            - source-address
              - register-message ipv6-unicast-address
            - ssm-default-range boolean
          - lag-usage-optimization boolean
          - mc-ecmp-balance boolean
          - mc-ecmp-balance-hold number
          - mc-ecmp-hashing
            - rebalance boolean
          - mdt-spt boolean
          - non-dr-attract-traffic boolean
          - pim-ssm-scaling boolean
          - rp
            - bootstrap
              - export reference
              - import reference
```


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```
            – ipv4
              – anycast ipv4-unicast-address rp-set-peer ipv4-unicast-address
              – auto-rp-discovery boolean
              – bsr-candidate
                – address ipv4-unicast-address
                – admin-state keyword
                – hash-mask-len number
                – priority number
              – candidate boolean
              – mapping-agent boolean
              – rp-candidate
                – address ipv4-unicast-address
                – admin-state keyword
                – group-range ipv4-multicast-prefix
                – holdtime number
                – priority number
              – static
                – address ipv4-unicast-address
                  – apply-groups reference
                  – apply-groups-exclude reference
                  – group-prefix ipv4-multicast-prefix
                  – override boolean
            – ipv6
              – anycast ipv6-unicast-address rp-set-peer ipv6-unicast-address
              – bsr-candidate
                – address ipv6-unicast-address
                – admin-state keyword
                – hash-mask-len number
                – priority number
              – embedded-rp
                – admin-state keyword
                – group-range ipv6-multicast-prefix
              – rp-candidate
                – address ipv6-unicast-address
                – admin-state keyword
                – group-range ipv6-multicast-prefix
                – holdtime number
                – priority number
              – static
                – address ipv6-unicast-address
                  – apply-groups reference
                  – apply-groups-exclude reference
                  – group-prefix ipv6-multicast-prefix
                  – override boolean
          – rpfv
            – core boolean
            – mvpn boolean
          – spt-switchover (ipv4-prefix | ipv6-prefix)
            – apply-groups reference
            – apply-groups-exclude reference
            – threshold (number | keyword)
          – ssm-groups
            – group-range (ipv4-prefix | ipv6-prefix)
      – radius
        – apply-groups reference
        – apply-groups-exclude reference
        – proxy named-item
          – admin-state keyword
          – apply-groups reference
          – apply-groups-exclude reference
          – attribute-matching
            – entry number
              – accounting-server-policy named-item
              – apply-groups reference
```


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configure router radius proxy attribute-matching entry apply-groups-exclude

```
                - apply-groups-exclude reference
                - authentication-server-policy named-item
                - prefix-string display-string
                - suffix-string display-string
            - type number
            - vendor (number | keyword)
        - cache
            - admin-state keyword
            - key
                - attribute-type number
                - packet-type keyword
                - vendor (number | keyword)
            - timeout number
            - track-accounting
                - accounting-off boolean
                - accounting-on boolean
                - interim-update boolean
                - start boolean
                - stop boolean
            - track-authentication
                - accept boolean
            - track-delete-hold-time number
        - defaults
            - accounting-server-policy named-item
            - authentication-server-policy named-item
        - description description
        - interface interface-name
        - load-balance-key
            - attribute-1
                - type number
                - vendor (number | keyword)
            - attribute-2
                - type number
                - vendor (number | keyword)
            - attribute-3
                - type number
                - vendor (number | keyword)
            - attribute-4
                - type number
                - vendor (number | keyword)
            - attribute-5
                - type number
                - vendor (number | keyword)
            - source-ip-udp
        - purpose keyword
        - python-policy reference
        - secret encrypted-leaf
        - send-accounting-response boolean
        - wlan-gw
            - address ipv4-unicast-address
            - apply-groups reference
            - apply-groups-exclude reference
            - ipv6-address ipv6-unicast-without-local-address
        - wlan-gw-group reference
    - server named-item
        - accept-coa boolean
        - acct-port number
        - address (ipv4-address-no-zone | ipv6-address-no-zone)
        - apply-groups reference
        - apply-groups-exclude reference
        - auth-port number
        - description description
        - pending-requests-limit number
        - python-policy reference
```


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```
            - secret encrypted-leaf
      - reassembly
         - apply-groups reference
         - apply-groups-exclude reference
         - nat-group number
         - to-base-network boolean
      - rib-api
         - apply-groups reference
         - apply-groups-exclude reference
         - mpls
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - label-name reference
      - rip
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - authentication-key encrypted-leaf
         - authentication-type keyword
         - bfd-liveness boolean
         - check-zero boolean
         - description description
         - export-limit
            - log-percent number
            - number number
         - export-policy reference
         - group named-item
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - authentication-key encrypted-leaf
            - authentication-type keyword
            - bfd-liveness boolean
            - check-zero boolean
            - description description
            - export-policy reference
            - import-policy reference
            - message-size number
            - metric-in number
            - metric-out number
            - neighbor interface-name
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - authentication-key encrypted-leaf
               - authentication-type keyword
               - bfd-liveness boolean
               - check-zero boolean
               - description description
               - export-policy reference
               - import-policy reference
               - message-size number
               - metric-in number
               - metric-out number
               - preference number
               - receive keyword
               - send keyword
               - split-horizon boolean
               - timers
                  - flush number
                  - timeout number
                  - update number
               - unicast-address ipv4-unicast-address
```


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```
            - preference number
            - receive keyword
            - send keyword
            - split-horizon boolean
            - timers
               - flush number
               - timeout number
               - update number
         - import-policy reference
         - message-size number
         - metric-in number
         - metric-out number
         - preference number
         - receive keyword
         - send keyword
         - split-horizon boolean
         - timers
            - flush number
            - timeout number
            - update number
      - ripng
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - bfd-liveness boolean
         - check-zero boolean
         - description description
         - export-limit
            - log-percent number
            - number number
         - export-policy reference
         - group named-item
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - bfd-liveness boolean
            - check-zero boolean
            - description description
            - export-policy reference
            - import-policy reference
            - message-size number
            - metric-in number
            - metric-out number
            - neighbor interface-name
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - bfd-liveness boolean
               - check-zero boolean
               - description description
               - export-policy reference
               - import-policy reference
               - message-size number
               - metric-in number
               - metric-out number
               - preference number
               - receive keyword
               - send keyword
               - split-horizon boolean
               - timers
                  - flush number
                  - timeout number
                  - update number
               - unicast-address ipv6-unicast-address
```


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```
            - preference number
            - receive keyword
            - send keyword
            - split-horizon boolean
            - timers
               - flush number
               - timeout number
               - update number
         - import-policy reference
         - message-size number
         - metric-in number
         - metric-out number
         - preference number
         - receive keyword
         - send keyword
         - split-horizon boolean
         - timers
            - flush number
            - timeout number
            - update number
      - router-id router-id
      - rsvp
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - authentication-over-bypass boolean
         - dbw-accounting
            - dbw-multiplier number
            - down-threshold
               - bw number
               - percent number
            - sample-interval number
            - sample-multiplier number
            - up-threshold
               - bw number
               - percent number
         - diffserv-te
            - admission-control-model keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - class-type-bw
               - ct0 number
               - ct1 number
               - ct2 number
               - ct3 number
               - ct4 number
               - ct5 number
               - ct6 number
               - ct7 number
            - fc keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - class-type number
            - te-class number
               - apply-groups reference
               - apply-groups-exclude reference
               - class-type number
               - priority number
         - entropy-label-capability boolean
         - graceful-restart
            - max-recovery number
            - max-restart number
         - graceful-shutdown boolean
         - implicit-null-label boolean
```


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configure router rsvp include-node-id-in-rro

```
        - include-node-id-in-rro boolean
        - interface reference
          - admin-state keyword
          - apply-groups reference
          - apply-groups-exclude reference
          - authentication-key encrypted-leaf
          - authentication-keychain reference
          - bfd-liveness boolean
          - class-type-bw
            - ct0 number
            - ct1 number
            - ct2 number
            - ct3 number
            - ct4 number
            - ct5 number
            - ct6 number
            - ct7 number
          - dbw-down-threshold
            - bw number
            - percent number
          - dbw-multiplier number
          - dbw-up-threshold
            - bw number
            - percent number
          - graceful-restart-helper-mode boolean
          - graceful-shutdown boolean
          - hello-interval number
          - implicit-null-label boolean
          - refresh-reduction
            - reliable-delivery boolean
          - subscription number
          - te-down-threshold
            - apply-groups reference
            - apply-groups-exclude reference
            - value number
          - te-up-threshold
            - apply-groups reference
            - apply-groups-exclude reference
            - value number
        - keep-multiplier number
        - msg-pacing
          - max-burst number
          - period number
        - p2mp-merge-point-abort-timer number
        - p2p-merge-point-abort-timer number
        - preemption-timer number
        - rapid-retransmit-time number
        - rapid-retry-limit number
        - refresh-reduction-over-bypass boolean
        - refresh-time number
        - te-down-threshold number
        - te-threshold-update
          - on-cac-failure boolean
          - update-timer number
        - te-up-threshold number
    - segment-routing
        - apply-groups reference
        - apply-groups-exclude reference
        - maintenance-policy named-item
          - admin-state keyword
          - apply-groups reference
          - apply-groups-exclude reference
          - bfd-liveness boolean
          - bfd-template reference
```


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```
            - hold-down-timer number
            - mode keyword
            - return-path-label number
            - revert-timer number
            - threshold number
        - segment-routing-v6
            - apply-groups reference
            - apply-groups-exclude reference
            - base-routing-instance
                - apply-groups reference
                - apply-groups-exclude reference
                - locator reference
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - function
                        - end number
                            - apply-groups reference
                            - apply-groups-exclude reference
                            - srh-mode keyword
                        - end-dt4
                            - value number
                        - end-dt46
                            - value number
                        - end-dt6
                            - value number
                        - end-x number
                            - apply-groups reference
                            - apply-groups-exclude reference
                            - interface-name reference
                            - protection keyword
                            - srh-mode keyword
                        - end-x-auto-allocate keyword protection keyword
                - micro-segment-locator reference
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - function
                        - ua number
                            - apply-groups reference
                            - apply-groups-exclude reference
                            - interface-name reference
                            - protection keyword
                            - srh-mode keyword
                        - ua-auto-allocate keyword protection keyword
                        - udt4
                            - value number
                        - udt46
                            - value number
                        - udt6
                            - value number
            - locator named-item-64
                - admin-state keyword
                - algorithm number
                - apply-groups reference
                - apply-groups-exclude reference
                - argument-length number
                - block-length number
                - function-length number
                - label-block reference
                - prefix
                    - ip-prefix ipv6-unicast-prefix
                - static-function
                    - label-block reference
                    - max-entries number
                - termination-fpe reference
```


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configure router segment-routing segment-routing-v6 micro-segment

```
            - micro-segment
              - apply-groups reference
              - apply-groups-exclude reference
              - argument-length number
              - block named-item-64
                - admin-state keyword
                - apply-groups reference
                - apply-groups-exclude reference
                - label-block reference
                - prefix
                  - ip-prefix ipv6-unicast-prefix
                - static-function
                  - max-entries number
                - termination-fpe reference
              - block-length number
              - global-sid-entries number
              - sid-length number
            - micro-segment-locator named-item-64
              - admin-state keyword
              - algorithm number
              - apply-groups reference
              - apply-groups-exclude reference
              - block reference
              - un
                - srh-mode keyword
                - value number
            - origination-fpe reference
            - source-address ipv6-unicast-address
          - sr-mpls
            - apply-groups reference
            - apply-groups-exclude reference
            - prefix-sids reference
              - apply-groups reference
              - apply-groups-exclude reference
              - ipv4-sid
                - index number
                - label number
              - ipv6-sid
                - index number
                - label number
              - node-sid boolean
          - sr-policies
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - egress-statistics
              - accounting-policy reference
              - admin-state keyword
              - apply-groups reference
              - apply-groups-exclude reference
              - collect-stats boolean
            - ingress-statistics
              - admin-state keyword
              - apply-groups reference
              - apply-groups-exclude reference
            - reserved-label-block reference
            - static-policy named-item-64
              - admin-state keyword
              - apply-groups reference
              - apply-groups-exclude reference
              - binding-sid number
              - color number
              - distinguisher number
              - endpoint (ipv4-address-no-zone | ipv6-address-no-zone)
```


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```
            - head-end (ipv4-address-no-zone | ipv6-address-no-zone | keyword)
            - maintenance-policy reference
            - preference number
            - segment-list number
              - admin-state keyword
              - apply-groups reference
              - apply-groups-exclude reference
              - segment number
                - apply-groups reference
                - apply-groups-exclude reference
                - behavior-and-structure
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - behavior keyword
                  - block-length number
                  - function-length number
                  - node-length number
                - mpls-label number
                - srv6-sid ipv6-address
              - weight number
            - segment-routing-v6
              - binding-sid number
                - apply-groups reference
                - apply-groups-exclude reference
                - ip-address ipv6-address
                - locator
                  - function keyword
                  - function-value number
                  - locator-name reference
                - micro-segment-locator
                  - function keyword
                  - function-value number
                  - locator-name reference
              - return-path-bfd-sid ipv6-address
            - type keyword
    - selective-fib boolean
    - sfm-overload
      - holdoff-time number
    - sgt-qos
      - dot1p
        - application keyword
          - apply-groups reference
          - apply-groups-exclude reference
          - dot1p (keyword | number)
      - dscp
        - application keyword
          - apply-groups reference
          - apply-groups-exclude reference
          - dscp (keyword | number)
        - dscp-map keyword
          - apply-groups reference
          - apply-groups-exclude reference
          - fc keyword
    - static-routes
      - apply-groups reference
      - apply-groups-exclude reference
      - hold-down
        - initial number
        - max-value number
        - multiplier number
      - route (ipv4-prefix | ipv6-prefix) route-type keyword
        - apply-groups reference
        - apply-groups-exclude reference
        - backup-tag number
```


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```
            - blackhole
              - admin-state keyword
              - apply-groups reference
              - apply-groups-exclude reference
              - community community
              - description description-allow-all-white-spaces
              - dynamic-bgp boolean
              - generate-icmp boolean
              - metric number
              - preference number
              - prefix-list
                - flag keyword
                - name reference
              - tag number
            - community community
            - indirect (ipv4-address-no-zone | ipv6-address-no-zone)
              - admin-state keyword
              - apply-groups reference
              - apply-groups-exclude reference
              - community community
              - cpe-check (ipv4-address-no-zone | ipv6-address-no-zone)
                - apply-groups reference
                - apply-groups-exclude reference
                - drop-count number
                - interval number
                - log boolean
                - padding-size number
              - description description-allow-all-white-spaces
              - destination-class number
              - metric number
              - preference number
              - prefix-list
                - flag keyword
                - name reference
              - qos
                - forwarding-class keyword
                - priority keyword
              - source-class number
              - tag number
              - tunnel-next-hop
                - disallow-igp boolean
                - flex-algo number
                - resolution keyword
                - resolution-filter
                  - ldp boolean
                  - mpls-fwd-policy boolean
                  - rib-api boolean
                  - rsvp-te
                    - lsp named-item-64
                  - sr-isis boolean
                  - sr-ospf boolean
                  - sr-ospf3 boolean
                  - sr-te
                    - lsp named-item-64
            - interface interface-name
              - admin-state keyword
              - apply-groups reference
              - apply-groups-exclude reference
              - community community
              - cpe-check (ipv4-address-no-zone | ipv6-address-no-zone)
                - apply-groups reference
                - apply-groups-exclude reference
                - drop-count number
                - interval number
```


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```
                  - log boolean
                  - padding-size number
               - description description-allow-all-white-spaces
               - destination-class number
               - load-balancing-weight number
               - metric number
               - preference number
               - prefix-list
                  - flag keyword
                  - name reference
               - qos
                  - forwarding-class keyword
                  - priority keyword
               - source-class number
               - tag number
            - ipsec-tunnel named-item
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - community community
               - description description-allow-all-white-spaces
               - metric number
               - preference number
               - tag number
            - leak-destination
               - router-instance reference
            - next-hop (ipv4-address-with-zone | ipv6-address-with-zone)
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - backup-next-hop
                  - address (ipv4-address-no-zone | ipv6-address-no-zone)
               - bfd-liveness boolean
               - community community
               - cpe-check (ipv4-address-no-zone | ipv6-address-no-zone)
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - drop-count number
                  - interval number
                  - log boolean
                  - padding-size number
               - description description-allow-all-white-spaces
               - destination-class number
               - ldp-sync boolean
               - load-balancing-weight number
               - metric number
               - preference number
               - prefix-list
                  - flag keyword
                  - name reference
               - qos
                  - forwarding-class keyword
                  - priority keyword
               - source-class number
               - tag number
               - validate-next-hop boolean
            - tag number
      - subscriber-mgmt
         - apply-groups reference
         - apply-groups-exclude reference
         - dhcpv4
            - apply-groups reference
            - apply-groups-exclude reference
            - routed-subnet-transparent-forward boolean
```


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```
      – triggered-policy boolean
      – ttl-propagate
        – apply-groups reference
        – apply-groups-exclude reference
        – label-route-local keyword
        – label-route-transit keyword
        – lsr-label-route keyword
        – sr-mpls-local keyword
        – sr-mpls-transit keyword
        – vprn-local keyword
        – vprn-transit keyword
      – tunnel-interface
        – ldp-p2mp-leaf number sender-address ipv4-unicast-address
          – apply-groups reference
          – apply-groups-exclude reference
          – description description
        – ldp-p2mp-root number sender-address ipv4-unicast-address
          – apply-groups reference
          – apply-groups-exclude reference
          – description description
        – rsvp-p2mp-leaf named-item sender-address ipv4-unicast-address
          – apply-groups reference
          – apply-groups-exclude reference
          – description description
        – rsvp-p2mp-root named-item
          – apply-groups reference
          – apply-groups-exclude reference
          – description description
      – twamp-light
        – apply-groups reference
        – apply-groups-exclude reference
        – reflector
          – admin-state keyword
          – allow-ipv6-udp-checksum-zero boolean
          – apply-groups reference
          – apply-groups-exclude reference
          – description description
          – lag-ip-measurement boolean
          – prefix (ipv4-prefix | ipv6-prefix)
            – apply-groups reference
            – apply-groups-exclude reference
            – description description
          – type keyword
          – udp-port number
      – vrgw
        – lanext
          – admin-state keyword
          – apply-groups reference
          – apply-groups-exclude reference
          – vxlan-port number
          – vxlan-vtep-range
            – end (ipv4-address-no-zone | ipv6-address-no-zone)
            – start (ipv4-address-no-zone | ipv6-address-no-zone)
          – wlan-gw-group reference
      – weighted-ecmp keyword
      – wlan-gw
        – apply-groups reference
        – apply-groups-exclude reference
        – distributed-subscriber-mgmt
          – apply-groups reference
          – apply-groups-exclude reference
          – ipv6-tcp-mss-adjust number
        – mobility-triggered-accounting
          – admin-state keyword
```


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```
            - hold-down number
            - include-counters boolean
         - xconnect
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - tunnel-source-ip ipv6-prefix
            - wlan-gw-group reference
      - wpp
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - portal named-item
            - ack-auth-retry-count number
            - address (ipv4-address-no-zone | ipv6-address-no-zone)
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - ntf-logout-retry-count number
            - port-format keyword
            - retry-interval number
            - secret encrypted-leaf
            - version number
```


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## 4.39.1 router command descriptions

### **router** [router-name] *named-item-64*

| | |
|---|---|
| Synopsis | Enter the **router** list instance |
| Context | **configure** router *named-item-64* |
| Tree | router |
| Description | Commands in this context configure a router instance that represents a virtual router in the system. At least two instances always exist in the system. The base or transport router and the management router are created when the system is initialized and cannot be deleted. |
| Max. instances | 4 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**router-name**] *named-item-64*

| | |
|---|---|
| Synopsis | Administrative router name |
| Context | **configure** router *named-item-64* |
| Tree | router |
| String length | 1 to 64 |
| MD-CLI default | Base |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R2 |
| Platforms | All |

### **aggregates**

| | |
|---|---|
| Synopsis | Enter the **aggregates** context |
| Context | **configure** router *named-item-64* aggregates |
| Tree | aggregates |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **aggregate** [ip-prefix] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Enter the **aggregate** list instance |
| Context | **configure** router *named-item-64* aggregates aggregate *(ipv4-prefix \| ipv6-prefix)* |
| Tree | aggregate |
| Description | Commands in this context add aggregate routes to the routing table when there are one or more component routes. A component route is any route installed in the forwarding table that is a more-specific match of the aggregate.<br>The use of aggregate routes can lead to smaller routing table sizes by reducing the number of routes that need to be advertised to neighbor routes. |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ip-prefix**] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Destination IP address prefix of the aggregate route |
| Context | **configure** router *named-item-64* aggregates aggregate *(ipv4-prefix \| ipv6-prefix)* |
| Tree | aggregate |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **aggregator**

| | |
|---|---|
| Synopsis | Enter the **aggregator** context |
| Context | **configure** router *named-item-64* aggregates aggregate *(ipv4-prefix \| ipv6-prefix)* aggregator |
| Tree | aggregator |
| Description | Commands in this context configure the BGP AGGREGATOR path attribute for the aggregate route. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Aggregator IP address |


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| | |
|---|---|
| Context | **configure** router *named-item-64* aggregates aggregate *(ipv4-prefix* \| *ipv6-prefix)* aggregator address *ipv4-unicast-address* |
| Tree | address |
| Introduced | 16.0.R1 |
| Platforms | All |

## **as-number** *number*

| | |
|---|---|
| Synopsis | Aggregator AS number |
| Context | **configure** router *named-item-64* aggregates aggregate *(ipv4-prefix* \| *ipv6-prefix)* aggregator as-number *number* |
| Tree | as-number |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **as-set** *boolean*

| | |
|---|---|
| Synopsis | Use AS_SET path segment type for the aggregate route |
| Context | **configure** router *named-item-64* aggregates aggregate *(ipv4-prefix* \| *ipv6-prefix)* as-set *boolean* |
| Tree | as-set |
| Description | When configured to **true**, the AS_PATH attribute of the aggregate contains an AS_SET containing all AS numbers from the contributing routes. This can increase the amount of churn due to best-path changes.<br>When configured to **false**, the AS_PATH attribute contains no AS_SET and will be originated by the ESR. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **blackhole**

| | |
|---|---|
| Synopsis | Enable the **blackhole** context |
| Context | **configure** router *named-item-64* aggregates aggregate *(ipv4-prefix* \| *ipv6-prefix)* blackhole |
| Tree | blackhole |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **blackhole** or **indirect**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **generate-icmp** *boolean*

| | |
|---|---|
| Synopsis | Send ICMP unreachable messages for aggregate routes |
| Context | **configure** router *named-item-64* aggregates aggregate *(ipv4-prefix \| ipv6-prefix)* blackhole generate-icmp *boolean* |
| Tree | generate-icmp |
| Description | When configured to **true**, ICMP unreachable messages are sent when packets match an aggregate route in the FIB with a black-hole next-hop.<br>When configured to **false**, ICMP unreachable messages are not generated. |
| Default | false |
| Introduced | 16.0.R2 |
| Platforms | All |

## **community** *community*

| | |
|---|---|
| Synopsis | Community name that is added to the aggregate route |
| Context | **configure** router *named-item-64* aggregates aggregate *(ipv4-prefix \| ipv6-prefix)* community *community* |
| Tree | community |
| Description | This command associates a BGP community with the aggregate route. The community name can be matched in route policies and is automatically added to BGP routes exported from the aggregate route. |
| String length | 1 to 72 |
| Max. instances | 12 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |


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| | |
|---|---|
| Context | **configure** router *named-item-64* aggregates aggregate *(ipv4-prefix \| ipv6-prefix)* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **discard-component-communities** *boolean*

| | |
|---|---|
| Synopsis | Advertise aggregate with aggregate route community set |
| Context | **configure** router *named-item-64* aggregates aggregate *(ipv4-prefix \| ipv6-prefix)* discard-component-communities *boolean* |
| Tree | discard-component-communities |
| Default | false |
| Introduced | 19.7.R1 |
| Platforms | All |

### **indirect** *(ipv4-address-no-zone \| ipv6-address-no-zone)*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Address of the indirect next hop |
| Context | **configure** router *named-item-64* aggregates aggregate *(ipv4-prefix \| ipv6-prefix)* indirect *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | indirect |
| Description | This command programs aggregate routes into the forwarding table with an indirect next hop. If a packet matches the aggregate route but not a contributing route, it is forwarded toward the indirect next hop rather than being discarded. |
| Notes | The following elements are part of a choice: **blackhole** or **indirect**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **local-preference** *number*

| | |
|---|---|
| Synopsis | Local preference used when aggregate route is exported |


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| | |
|---|---|
| Context | **configure** router *named-item-64* aggregates aggregate *(ipv4-prefix* \| *ipv6-prefix)* local-preference *number* |
| Tree | local-preference |
| Description | This command configures the local preference value to use when the aggregate route is exported rather than using any of the local preference values assigned for any of the contributing routes. |
| Range | 0 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **policy** *reference*

| | |
|---|---|
| Synopsis | Policy name for the aggregated route |
| Context | **configure** router *named-item-64* aggregates aggregate *(ipv4-prefix* \| *ipv6-prefix)* policy *reference* |
| Tree | policy |
| Description | This command associates an aggregate route with a policy reference. The aggregated route is activated only when there is at least one eligible active route in the sub-trees below it that is accepted by the policy evaluation. There is no evaluation into any sub-tree that starts with another active aggregate route. Eligible routes exclude host routes and LDP shortcut routes.<br>If an aggregate route has no policy, or the reference is to an empty policy, this configuration is treated as equivalent to a policy with one rule that accepts all routes. |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Introduced | 20.10.R1 |
| Platforms | All |

## **summary-only** *boolean*

| | |
|---|---|
| Synopsis | Advertise the aggregate route only |
| Context | **configure** router *named-item-64* aggregates aggregate *(ipv4-prefix* \| *ipv6-prefix)* summary-only *boolean* |
| Tree | summary-only |
| Description | When configured to **true**, the router suppresses the advertisement of more specific component routes for the aggregate.<br>When configured to **false**, the router advertises both the aggregate route and its contributing routes. |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **tunnel-group** *number*

| | |
|---|---|
| Synopsis | Tunnel group from which to associate the MC IPSec state |
| Context | **configure** router *named-item-64* aggregates aggregate *(ipv4-prefix* \| *ipv6-prefix)* tunnel-group *number* |
| Tree | tunnel-group |
| Description | This command adds the MC-IPsec state of the specific tunnel-group to the aggregate route. |
| Range | 1 to 64 |
| Introduced | 20.7.R1 |
| Platforms | All |

### **allow-bgp-to-igp-export** *boolean*

| | |
|---|---|
| Synopsis | Enable the distribution of BGP routes into the IGP |
| Context | **configure** router *named-item-64* allow-bgp-to-igp-export *boolean* |
| Tree | allow-bgp-to-igp-export |
| Description | When configured to **true**, the router can export base BGP RTM routes into the IGP routing instance within the base router. This command applies to already exported BGP prefixes and to newly received BGP prefixes. |
| Default | true |
| Introduced | 23.7.R1 |
| Platforms | All |

### **allow-icmp-redirect** *boolean*

| | |
|---|---|
| Synopsis | Allow ICMP redirects on the management interface |
| Context | **configure** router *named-item-64* allow-icmp-redirect *boolean* |
| Tree | allow-icmp-redirect |
| Description | When configured to **true**, ICMP redirect messages can be received on the management interface.<br>When configured to **false**, all received ICMP redirect messages are dropped.<br>This command cannot be configured on a non-management interface. |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **allow-icmp6-redirect** *boolean*

| | |
|---|---|
| Synopsis | Allow IPv6 ICMP redirects on the management interface |
| Context | **configure** router *named-item-64* allow-icmp6-redirect *boolean* |
| Tree | allow-icmp6-redirect |
| Description | When configured to **true**, IPv6 ICMP redirect messages can be received on the management interface.<br>When configured to **false**, all received IPv6 ICMP redirect messages are dropped.<br>This command cannot be configured on a non-management interface. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **autonomous-system** *number*

| | |
|---|---|
| Synopsis | AS number advertised to peers for this router |
| Context | **configure** router *named-item-64* autonomous-system *number* |
| Tree | autonomous-system |
| Description | This command configures the autonomous system (AS) number for the router. This value must be set before BGP can be activated.<br>If the AS number is changed on a router with an active BGP instance, the new AS number is not used until the BGP instance is restarted. |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **bfd**

| | |
|---|---|
| Synopsis | Enter the **bfd** context |
| Context | **configure** router *named-item-64* bfd |
| Tree | bfd |
| Introduced | 19.7.R1 |


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| | |
|---|---|
| Platforms | All |

## seamless-bfd

| | |
|---|---|
| Synopsis | Enter the **seamless-bfd** context |
| Context | **configure** router *named-item-64* bfd seamless-bfd |
| Tree | seamless-bfd |
| Introduced | 19.7.R1 |
| Platforms | All |

## **peer** [address] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Enter the **peer** list instance |
| Context | **configure** router *named-item-64* bfd seamless-bfd peer *(ipv4-address-no-zone | ipv6-address-no-zone)* |
| Tree | peer |
| Max. instances | 8000 |
| Introduced | 19.7.R1 |
| Platforms | All |

## [**address**] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Address of the remote node |
| Context | **configure** router *named-item-64* bfd seamless-bfd peer *(ipv4-address-no-zone | ipv6-address-no-zone)* |
| Tree | peer |
| Notes | This element is part of a list key. |
| Introduced | 19.7.R1 |
| Platforms | All |

## **discriminator** *number*

| | |
|---|---|
| Synopsis | Discriminator of the remote node |
| Context | **configure** router *named-item-64* bfd seamless-bfd peer *(ipv4-address-no-zone | ipv6-address-no-zone)* discriminator *number* |


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| | |
|---|---|
| Tree | discriminator |
| Range | 1 to 4294967295 |
| Introduced | 19.7.R1 |
| Platforms | All |

## bgp

| | |
|---|---|
| Synopsis | Enable the **bgp** context |
| Context | **configure** router *named-item-64* bgp |
| Tree | bgp |
| Introduced | 16.0.R1 |
| Platforms | All |

## add-paths

| | |
|---|---|
| Synopsis | Enable the **add-paths** context |
| Context | **configure** router *named-item-64* bgp add-paths |
| Tree | add-paths |
| Description | Commands in this context configure add-paths support for the specified address families of the BGP instance. The BGP add-paths capability allows the router to send or receive multiple paths per prefix to and from a peer. |
| Introduced | 16.0.R1 |
| Platforms | All |

## evpn

| | |
|---|---|
| Synopsis | Enter the **evpn** context |
| Context | **configure** router *named-item-64* bgp add-paths evpn |
| Tree | evpn |
| Description | Commands in this context configure the Add-Paths capability for EVPN routes. By default, Add-Paths is not enabled for EVPN routes. |
| Introduced | 21.10.R1 |
| Platforms | All |


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### **receive** *boolean*

| | |
|---|---|
| Synopsis | Receive multiple EVPN paths per prefix from a peer |
| Context | **configure** router *named-item-64* bgp add-paths evpn receive *boolean* |
| Tree | receive |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | All |

### **send** *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum number of EVPN paths to send |
| Context | **configure** router *named-item-64* bgp add-paths evpn send *(number | keyword)* |
| Tree | send |
| Range | 1 to 16 |
| Options | multipaths – Number of best multipaths for each NLRI |
| Introduced | 21.10.R1 |
| Platforms | All |

### **ipv4**

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |
| Context | **configure** router *named-item-64* bgp add-paths ipv4 |
| Tree | ipv4 |
| Description | Commands in this context configure add-paths support for the IPv4 unicast address family. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **receive** *boolean*

| | |
|---|---|
| Synopsis | Receive multiple routes per unlabeled IPv4 prefix |
| Context | **configure** router *named-item-64* bgp add-paths ipv4 receive *boolean* |
| Tree | receive |
| Description | When configured to **true**, this command allows multiple unlabeled IPv4 unicast routes per prefix to be received from a peer. |


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When configured to **false**, the ADD-PATH receive capability is not enabled.

| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **send** *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum paths per unlabeled IPv4 unicast prefix |
| Context | **configure** router *named-item-64* bgp add-paths ipv4 send *(number \| keyword)* |
| Tree | send |
| Description | This command configures the maximum number of paths per unlabeled IPv4 unicast prefix that are allowed to be advertised to ADD-PATH peers. The actual number of advertised routes may be less depending on the next-hop diversity requirement, other configuration options, route policies, or route advertisement rules.<br>When not configured, add-paths send capability is not enabled for unlabeled IPv4 unicast routes. |
| Range | 1 to 16 |
| Options | multipaths – Number of best multipaths for each NLRI |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv6**

| | |
|---|---|
| Synopsis | Enter the **ipv6** context |
| Context | **configure** router *named-item-64* bgp add-paths ipv6 |
| Tree | ipv6 |
| Description | Commands in this context configure add-paths support for the IPv6 unicast address family. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **receive** *boolean*

| | |
|---|---|
| Synopsis | Receive multiple routes per unlabeled IPv6 prefix |
| Context | **configure** router *named-item-64* bgp add-paths ipv6 receive *boolean* |
| Tree | receive |


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| | |
|---|---|
| Description | When configured to **true**, this command allows multiple unlabeled IPv6 unicast routes per prefix to be received from a peer.<br>When configured to **false**, the ADD-PATH receive capability is not enabled. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **send** *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum paths per unlabeled IPv6 unicast prefix |
| Context | **configure** router *named-item-64* bgp add-paths ipv6 send *(number \| keyword)* |
| Tree | send |
| Description | This command configures the maximum number of paths that are allowed to be advertised to add-paths peers per unlabeled IPv6 unicast prefix. The actual number of advertised routes may be less depending on the next-hop diversity requirement, other configuration options, route policies, or route advertisement rules.<br>When not configured, add-paths send capability is not enabled for unlabeled IPv6 unicast routes. |
| Range | 1 to 16 |
| Options | multipaths – Number of best multipaths for each NLRI |
| Introduced | 16.0.R1 |
| Platforms | All |

### **label-ipv4**

| | |
|---|---|
| Synopsis | Enter the **label-ipv4** context |
| Context | **configure** router *named-item-64* bgp add-paths label-ipv4 |
| Tree | label-ipv4 |
| Description | Commands in this context configure add-paths support for the labeled IPv4 unicast address family. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **receive** *boolean*

| | |
|---|---|
| Synopsis | Receive multiple labeled-unicast routes per IPv4 prefix |
| Context | **configure** router *named-item-64* bgp add-paths label-ipv4 receive *boolean* |


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| | |
|---|---|
| Tree | receive |
| Description | When configured to **true**, this command allows multiple labeled-unicast routes per IPv4 prefix to be received from a peer.<br>When configured to **false**, the ADD-PATH receive capability is not enabled. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **send** *(number | keyword)*

| | |
|---|---|
| Synopsis | Paths advertised per labeled IPv4 unicast prefix |
| Context | **configure** router *named-item-64* bgp add-paths label-ipv4 send *(number | keyword)* |
| Tree | send |
| Description | This command configures the maximum number of paths that are allowed to be advertised to add-paths peers per labeled IPv4 unicast prefix. The actual number of advertised routes may be less depending on the next-hop diversity requirement, other configuration options, route policies, or route advertisement rules.<br>When not configured, add-paths send capability is not enabled for labeled IPv4 unicast routes. |
| Range | 1 to 16 |
| Options | multipaths – Number of best multipaths for each NLRI |
| Introduced | 16.0.R1 |
| Platforms | All |

### **label-ipv6**

| | |
|---|---|
| Synopsis | Enter the **label-ipv6** context |
| Context | **configure** router *named-item-64* bgp add-paths label-ipv6 |
| Tree | label-ipv6 |
| Description | Commands in this context configure add-paths support for the labeled IPv6 unicast address family. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **receive** *boolean*

| | |
|---|---|
| Synopsis | Receive multiple labeled-unicast routes per IPv6 prefix |


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| | |
|---|---|
| Context | **configure** router *named-item-64* bgp add-paths label-ipv6 receive *boolean* |
| Tree | receive |
| Description | When configured to **true**, this command allows multiple labeled-unicast routes per IPv6 prefix to be received from a peer.<br>When configured to **false**, the ADD-PATH receive capability is not enabled. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **send** *(number | keyword)*

| | |
|---|---|
| Synopsis | Paths advertised per labeled IPv6 unicast prefix |
| Context | **configure** router *named-item-64* bgp add-paths label-ipv6 send *(number | keyword)* |
| Tree | send |
| Description | This command configures the maximum number of paths that are allowed to be advertised to add-paths peers per labeled IPv6 unicast prefix. The actual number of advertised routes may be less depending on the next-hop diversity requirement, other configuration options, route policies, or route advertisement rules.<br>When not configured, add-paths send capability is not enabled for labeled IPv6 unicast routes. |
| Range | 1 to 16 |
| Options | multipaths – Number of best multipaths for each NLRI |
| Introduced | 16.0.R1 |
| Platforms | All |

## **mcast-vpn-ipv4**

| | |
|---|---|
| Synopsis | Enter the **mcast-vpn-ipv4** context |
| Context | **configure** router *named-item-64* bgp add-paths mcast-vpn-ipv4 |
| Tree | mcast-vpn-ipv4 |
| Description | Commands in this context configure add-paths support for the multicast IPv4 VPN address family. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **receive** *boolean*

| | |
|---|---|
| Synopsis | Receive multiple multicast routes per IPv4 VPN prefix |
| Context | **configure** router *named-item-64* bgp add-paths mcast-vpn-ipv4 receive *boolean* |
| Tree | receive |
| Description | When configured to **true**, this command allows multiple multicast routes per IPv4 VPN prefix to be received from a peer.<br>When configured to **false**, the ADD-PATH receive capability is not enabled. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **send** *number*

| | |
|---|---|
| Synopsis | Maximum paths advertised per multicast IPv4 VPN prefix |
| Context | **configure** router *named-item-64* bgp add-paths mcast-vpn-ipv4 send *number* |
| Tree | send |
| Description | This command configures the maximum number of paths that are allowed to be advertised to add-paths peers per multicast IPv4 VPN prefix. The actual number of advertised routes may be less depending on the next-hop diversity requirement, other configuration options, route policies, or route advertisement rules.<br>When not configured, add-paths send capability is not enabled for multicast IPv4 VPN routes. |
| Range | 1 to 16 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mcast-vpn-ipv6**

| | |
|---|---|
| Synopsis | Enter the **mcast-vpn-ipv6** context |
| Context | **configure** router *named-item-64* bgp add-paths mcast-vpn-ipv6 |
| Tree | mcast-vpn-ipv6 |
| Description | Commands in this context configure add-paths support for the multicast IPv6 VPN address family. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **receive** *boolean*

| | |
|---|---|
| Synopsis | Receive multiple multicast routes per IPv6 VPN prefix |
| Context | **configure** router *named-item-64* bgp add-paths mcast-vpn-ipv6 receive *boolean* |
| Tree | receive |
| Description | When configured to **true**, this command allows multiple multicast routes per IPv6 VPN prefix to be received from a peer.<br>When configured to **false**, the ADD-PATH receive capability is not enabled. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **send** *number*

| | |
|---|---|
| Synopsis | Maximum paths advertised per multicast IPv6 VPN prefix |
| Context | **configure** router *named-item-64* bgp add-paths mcast-vpn-ipv6 send *number* |
| Tree | send |
| Description | This command configures the maximum number of paths that are allowed to be advertised to add-paths peers per multicast IPv6 VPN prefix. The actual number of advertised routes may be less depending on the next-hop diversity requirement, other configuration options, route policies, or route advertisement rules.<br>When not configured, add-paths send capability is not enabled for multicast IPv6 VPN routes. |
| Range | 1 to 16 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mvpn-ipv4**

| | |
|---|---|
| Synopsis | Enter the **mvpn-ipv4** context |
| Context | **configure** router *named-item-64* bgp add-paths mvpn-ipv4 |
| Tree | mvpn-ipv4 |
| Description | Commands in this context configure add-paths support for the multicast VPN IPv4 address family. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **receive** *boolean*

| | |
|---|---|
| Synopsis | Receive multiple routes per multicast VPN IPv4 NRLI |
| Context | **configure** router *named-item-64* bgp add-paths mvpn-ipv4 receive *boolean* |
| Tree | receive |
| Description | When configured to **true**, this command allows multiple routes per multicast VPN IPv4 NRLI to be received from a peer.<br>When configured to **false**, the ADD-PATH receive capability is not enabled. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **send** *number*

| | |
|---|---|
| Synopsis | Maximum paths advertised per multicast VPN IPv4 NRLI |
| Context | **configure** router *named-item-64* bgp add-paths mvpn-ipv4 send *number* |
| Tree | send |
| Description | This command configures the maximum number of paths that are allowed to be advertised to add-paths peers per multicast VPN IPv4 NRLI. The actual number of advertised routes may be less depending on the next-hop diversity requirement, other configuration options, route policies, or route advertisement rules.<br>When not configured, add-paths send capability is not enabled for multicast VPN IPv4 routes. |
| Range | 1 to 16 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mvpn-ipv6**

| | |
|---|---|
| Synopsis | Enter the **mvpn-ipv6** context |
| Context | **configure** router *named-item-64* bgp add-paths mvpn-ipv6 |
| Tree | mvpn-ipv6 |
| Description | Commands in this context configure add-paths support for the multicast VPN IPv6 address family. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **receive** *boolean*

| | |
|---|---|
| Synopsis | Receive multiple routes per multicast VPN IPv6 NRLI |
| Context | **configure** router *named-item-64* bgp add-paths mvpn-ipv6 receive *boolean* |
| Tree | receive |
| Description | When configured to **true**, this command allows multiple routes per multicast VPN IPv6 NRLI to be received from a peer.<br>When configured to **false**, the ADD-PATH receive capability is not enabled. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **send** *number*

| | |
|---|---|
| Synopsis | Maximum paths advertised per multicast VPN IPv6 NRLI |
| Context | **configure** router *named-item-64* bgp add-paths mvpn-ipv6 send *number* |
| Tree | send |
| Description | This command configures the maximum number of paths that are allowed to be advertised to add-paths peers per multicast VPN IPv6 NRLI. The actual number of advertised routes may be less depending on the next-hop diversity requirement, other configuration options, route policies, or route advertisement rules.<br>When not configured, add-paths send capability is not enabled for multicast VPN IPv6 routes. |
| Range | 1 to 16 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **vpn-ipv4**

| | |
|---|---|
| Synopsis | Enter the **vpn-ipv4** context |
| Context | **configure** router *named-item-64* bgp add-paths vpn-ipv4 |
| Tree | vpn-ipv4 |
| Description | Commands in this context configure add-paths support for the VPN-IPv4 address family. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **receive** *boolean*

| | |
|---|---|
| Synopsis | Receive multiple routes per VPN-IPv4 prefix |
| Context | **configure** router *named-item-64* bgp add-paths vpn-ipv4 receive *boolean* |
| Tree | receive |
| Description | When configured to **true**, this command allows multiple routes per VPN-IPv4 prefix to be received from a peer.<br>When configured to **false**, the ADD-PATH receive capability is not enabled. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **send** *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum paths advertised per VPN-IPv4 prefix |
| Context | **configure** router *named-item-64* bgp add-paths vpn-ipv4 send *(number | keyword)* |
| Tree | send |
| Description | This command configures the maximum number of paths that are allowed to be advertised to add-paths peers per VPN-IPv4 prefix. The actual number of advertised routes may be less depending on the next-hop diversity requirement, other configuration options, route policies, or route advertisement rules.<br>When not configured, add-paths send capability is not enabled for VPN-IPv4 routes. |
| Range | 1 to 16 |
| Options | multipaths – Number of best multipaths for each NLRI |
| Introduced | 16.0.R1 |
| Platforms | All |

### **vpn-ipv6**

| | |
|---|---|
| Synopsis | Enter the **vpn-ipv6** context |
| Context | **configure** router *named-item-64* bgp add-paths vpn-ipv6 |
| Tree | vpn-ipv6 |
| Description | Commands in this context configure add-paths support for the VPN-IPv6 address family. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **receive** *boolean*

| | |
|---|---|
| Synopsis | Receive multiple routes per VPN-IPv6 prefix |
| Context | **configure** router *named-item-64* bgp add-paths vpn-ipv6 receive *boolean* |
| Tree | receive |
| Description | When configured to **true**, this command allows multiple routes per VPN-IPv6 prefix to be received from a peer.<br>When configured to **false**, the ADD-PATH receive capability is not enabled. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **send** *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum paths advertised per VPN-IPv6 prefix |
| Context | **configure** router *named-item-64* bgp add-paths vpn-ipv6 send *(number | keyword)* |
| Tree | send |
| Description | This command configures the maximum number of paths that are allowed to be advertised to add-paths peers per VPN-IPv6 prefix. The actual number of advertised routes may be less depending on the next-hop diversity requirement, other configuration options, route policies, or route advertisement rules.<br>When not configured, add-paths send capability is not enabled for VPN-IPv6 routes. |
| Range | 1 to 16 |
| Options | multipaths – Number of best multipaths for each NLRI |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the BGP instance |
| Context | **configure** router *named-item-64* bgp admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |


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## advertise-external

| | |
|---|---|
| Synopsis | Enter the **advertise-external** context |
| Context | **configure** router *named-item-64* bgp advertise-external |
| Tree | advertise-external |
| Description | Commands in this context allow BGP to advertise its best external route to a destination for specified address families even when its best overall route is an internal route. |
| Introduced | 16.0.R1 |
| Platforms | All |

## ipv4 *boolean*

| | |
|---|---|
| Synopsis | Enable support for unlabeled unicast IPv4 routes |
| Context | **configure** router *named-item-64* bgp advertise-external ipv4 *boolean* |
| Tree | ipv4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## ipv6 *boolean*

| | |
|---|---|
| Synopsis | Enable support for unlabeled unicast IPv6 routes |
| Context | **configure** router *named-item-64* bgp advertise-external ipv6 *boolean* |
| Tree | ipv6 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## label-ipv4 *boolean*

| | |
|---|---|
| Synopsis | Enable support for labeled-unicast IPv4 routes |
| Context | **configure** router *named-item-64* bgp advertise-external label-ipv4 *boolean* |
| Tree | label-ipv4 |
| Default | false |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **label-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Enable support for labeled-unicast IPv6 routes |
| Context | **configure** router *named-item-64* bgp advertise-external label-ipv6 *boolean* |
| Tree | label-ipv6 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **advertise-inactive** *boolean*

| | |
|---|---|
| Synopsis | Advertise inactive BGP routes to peers |
| Context | **configure** router *named-item-64* bgp advertise-inactive *boolean* |
| Tree | advertise-inactive |
| Description | When configured to **true**, this command allows any inactive BGP route to be advertised, even though it is not the used route.<br>When configured to **false**, the advertisement of inactive BGP routes to other BGP peers is disabled. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **advertise-ipv6-next-hops**

| | |
|---|---|
| Synopsis | Enter the **advertise-ipv6-next-hops** context |
| Context | **configure** router *named-item-64* bgp advertise-ipv6-next-hops |
| Tree | advertise-ipv6-next-hops |
| Description | Commands in this context allow specified BGP address family routes to be advertised to IPv6 transport peers with a true IPv6 address when originated or when a configured or automatic next-hop-self action is applied.<br>This command context has no effect on routes advertised to IPv4 peers. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **evpn** *boolean*

| | |
|---|---|
| Synopsis | Advertise EVPN route with IPv6 next-hop address |
| Context | **configure** router *named-item-64* bgp advertise-ipv6-next-hops evpn *boolean* |
| Tree | evpn |
| Description | When configured to **true**, EVPN routes are advertised with IPv6 next-hop addresses to IPv6 transport peers.<br>When configured to **false**, EVPN routes are advertised with IPv4 next-hop addresses to IPv6 transport peers. |
| Default | false |
| Introduced | 19.5.R1 |
| Platforms | All |

### **ipv4** *boolean*

| | |
|---|---|
| Synopsis | Advertise IPv4 route with IPv6 next-hop address |
| Context | **configure** router *named-item-64* bgp advertise-ipv6-next-hops ipv4 *boolean* |
| Tree | ipv4 |
| Description | When configured to **true**, IPv4 routes are advertised with IPv6 next-hop addresses to IPv6 transport peers. The appropriate extended NH encoding capability must also be received from the remote peer before the route can be advertised with an IPv6 address instead of the IPv4 system address as the next hop.<br>When configured to **false**, IPv4 routes are advertised with IPv4 next-hop addresses to IPv6 transport peers. If the route matches a BGP export policy entry that tries to change the next hop to an IPv6 address and an appropriate extended NH encoding capability was not received by the remote peer, the route is handled as though it was rejected by the policy entry. |
| Default | false |
| Introduced | 19.5.R1 |
| Platforms | All |

### **label-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Advertise label IPv4 route with IPv6 next-hop address |
| Context | **configure** router *named-item-64* bgp advertise-ipv6-next-hops label-ipv4 *boolean* |
| Tree | label-ipv4 |
| Description | When configured to **true**, label IPv4 routes are advertised with IPv6 next-hop addresses to IPv6 transport peers. The appropriate extended NH encoding capability must also be |


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received from the remote peer before the route can be advertised with an IPv6 address instead of the IPv4 system address as the next hop.

When configured to **false**, label IPv4 routes are advertised with the system IPv4 address as the next hop to IPv6 transport peers. If the route matches a BGP export policy entry that tries to change the next hop to an IPv6 address and an appropriate extended NH encoding capability was not received by the remote peer, the route is handled as though it was rejected by the policy entry.

Default false

Introduced 16.0.R1

Platforms All

## **label-ipv6** *boolean*

Synopsis Advertise label IPv6 route with IPv6 next-hop address

Context **configure** router *named-item-64* bgp advertise-ipv6-next-hops label-ipv6 *boolean*

Tree label-ipv6

Description When configured to **true**, label IPv6 routes are advertised with IPv6 next-hop addresses to IPv6 transport peers.

When configured to **false**, label IPv6 routes are advertised toward IPv6 transport peers with the system IPv4 address as the BGP next hop, encoded as an IPv4-mapped IPv6 address.

Default false

Introduced 16.0.R1

Platforms All

## **vpn-ipv4** *boolean*

Synopsis Advertise VPN IPv4 route with IPv6 next-hop address

Context **configure** router *named-item-64* bgp advertise-ipv6-next-hops vpn-ipv4 *boolean*

Tree vpn-ipv4

Description When configured to **true**, VPN IPv4 routes are advertised with IPv6 next-hop addresses to IPv6 transport peers. The appropriate extended NH encoding capability must also be received from the remote peer before the route can be advertised with an IPv6 address instead of the IPv4 system address as the next hop.

When configured to **false**, VPN IPv4 routes are advertised toward IPv6 transport peers with the system IPv4 address as the BGP next hop. If the route matches a BGP export policy entry that tries to change the next hop to an IPv6 address and an appropriate extended NH encoding capability was not received by the remote peer, the route is handled as though it was rejected by the policy entry.

Default false


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **vpn-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Advertise VPN IPv6 route with IPv6 next-hop address |
| Context | **configure** router *named-item-64* bgp advertise-ipv6-next-hops vpn-ipv6 *boolean* |
| Tree | vpn-ipv6 |
| Description | When configured to **true**, VPN IPv6 routes are advertised with IPv6 next-hop addresses to IPv6 transport peers.<br>When configured to **false**, VPN IPv6 routes are advertised toward IPv6 transport peers with the system IPv4 address as the BGP next hop, encoded as an IPv4-mapped IPv6 address. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **aggregator-id-zero** *boolean*

| | |
|---|---|
| Synopsis | Set router ID in the BGP AGGREGATOR attribute to 0 |
| Context | **configure** router *named-item-64* bgp aggregator-id-zero *boolean* |
| Tree | aggregator-id-zero |
| Description | When configured to **true**, the router ID in the BGP AGGREGATOR path attribute is set to 0 when BGP aggregates routes. This prevents different routers within an AS from creating aggregate routes for the same prefix with different path attributes.<br>When configured to **false**, the AS number and router ID are added to the AGGREGATOR path attribute. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **asn-4-byte** *boolean*

| | |
|---|---|
| Synopsis | Advertise support for 4-byte ASNs |
| Context | **configure** router *named-item-64* bgp asn-4-byte *boolean* |
| Tree | asn-4-byte |
| Default | true |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## **authentication-key** *encrypted-leaf*

| | |
|---|---|
| Synopsis | BGP authentication key for all peers |
| Context | **configure** router *named-item-64* bgp authentication-key *encrypted-leaf* |
| Tree | authentication-key |
| Description | This command configures the authentication key used to protect all sessions. The stored format of the authentication key is based on the **configure system security hash-control management-interface md-cli hash-algorithm** setting. |
| String length | 1 to 370 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **authentication-keychain** *reference*

| | |
|---|---|
| Synopsis | TCP authentication keychain for the session |
| Context | **configure** router *named-item-64* bgp authentication-keychain *reference* |
| Tree | authentication-keychain |
| Description | This command associates the keychain to be used to authenticate the BGP session. The keychain allows the rollover of authentication keys during the lifetime of a session. |
| Reference | **configure** system security keychains keychain *named-item* |
| Introduced | 16.0.R3 |
| Platforms | All |

## **backup-path**

| | |
|---|---|
| Synopsis | Enter the **backup-path** context |
| Context | **configure** router *named-item-64* bgp backup-path |
| Tree | backup-path |
| Description | Commands in this context enable the use of a backup path for specified BGP-learned prefixes belonging to the base router. Multiple paths must be received for a prefix in order to take advantage of this feature. When a prefix has a backup path and its primary paths fail, the affected traffic is rapidly diverted to the backup path without waiting for control plane re-convergence to occur. When many prefixes share the same primary paths and in some cases, the same backup path, the time to divert failover traffic to the backup path is independent of the number of prefixes. |


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By default, IPv4 and IPv6 prefixes do not have a backup path installed in the IOM.

| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv4** *boolean*

| | |
|---|---|
| Synopsis | Enable support for unlabeled unicast IPv4 routes |
| Context | **configure** router *named-item-64* bgp backup-path ipv4 *boolean* |
| Tree | ipv4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv6** *boolean*

| | |
|---|---|
| Synopsis | Enable support for unlabeled unicast IPv6 routes |
| Context | **configure** router *named-item-64* bgp backup-path ipv6 *boolean* |
| Tree | ipv6 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **label-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Enable support for labeled-unicast IPv4 routes |
| Context | **configure** router *named-item-64* bgp backup-path label-ipv4 *boolean* |
| Tree | label-ipv4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **label-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Enable support for labeled-unicast IPv6 routes |
| Context | **configure** router *named-item-64* bgp backup-path label-ipv6 *boolean* |


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| | |
|---|---|
| Tree | label-ipv6 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## best-path-selection

| | |
|---|---|
| Synopsis | Enter the **best-path-selection** context |
| Context | **configure** router *named-item-64* bgp best-path-selection |
| Tree | best-path-selection |
| Introduced | 16.0.R1 |
| Platforms | All |

## always-compare-med

| | |
|---|---|
| Synopsis | Enter the **always-compare-med** context |
| Context | **configure** router *named-item-64* bgp best-path-selection always-compare-med |
| Tree | always-compare-med |
| Description | Commands in this context determine how the BGP decision process is affected by the MED path attribute. |
| Introduced | 16.0.R1 |
| Platforms | All |

## med-value *keyword*

| | |
|---|---|
| Synopsis | Action for a missing MED attribute |
| Context | **configure** router *named-item-64* bgp best-path-selection always-compare-med med-value *keyword* |
| Tree | med-value |
| Options | off, missing-med-zero, missing-med-infinity, on |
| Default | off |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **strict-as** *boolean*

| | |
|---|---|
| Synopsis | Compare MED only for routes from same neighbor AS |
| Context | **configure** router *named-item-64* bgp best-path-selection always-compare-med strict-as *boolean* |
| Tree | strict-as |
| Description | When configured to **true**, the route selection process can compare the MED path attribute between routes only if they come from the same neighbor AS.<br>When configured to **false**, the route selection process can compare the MED path attribute between routes even if they come from different neighbor ASs. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **as-path-ignore**

| | |
|---|---|
| Synopsis | Enter the **as-path-ignore** context |
| Context | **configure** router *named-item-64* bgp best-path-selection as-path-ignore |
| Tree | as-path-ignore |
| Description | Commands in this context determine whether the AS path length is considered in the selection process for routes of the specified address families. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv4** *boolean*

| | |
|---|---|
| Synopsis | Ignore AS path length for unlabeled unicast IPv4 routes |
| Context | **configure** router *named-item-64* bgp best-path-selection as-path-ignore ipv4 *boolean* |
| Tree | ipv4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv6** *boolean*

| | |
|---|---|
| Synopsis | Ignore AS path length for unlabeled unicast IPv6 routes |


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| | |
|---|---|
| Context | **configure** router *named-item-64* bgp best-path-selection as-path-ignore ipv6 *boolean* |
| Tree | ipv6 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **l2-vpn** *boolean*

| | |
|---|---|
| Synopsis | Ignore AS path length for L2-VPN routes |
| Context | **configure** router *named-item-64* bgp best-path-selection as-path-ignore l2-vpn *boolean* |
| Tree | l2-vpn |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **label-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Ignore AS path length for labeled-unicast IPv4 routes |
| Context | **configure** router *named-item-64* bgp best-path-selection as-path-ignore label-ipv4 *boolean* |
| Tree | label-ipv4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **label-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Ignore AS path length for labeled-unicast IPv6 routes |
| Context | **configure** router *named-item-64* bgp best-path-selection as-path-ignore label-ipv6 *boolean* |
| Tree | label-ipv6 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **mcast-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Ignore AS path length for IPv4 multicast routes |
| Context | **configure** router *named-item-64* bgp best-path-selection as-path-ignore mcast-ipv4 *boolean* |
| Tree | mcast-ipv4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mcast-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Ignore AS path length for IPv6 multicast routes |
| Context | **configure** router *named-item-64* bgp best-path-selection as-path-ignore mcast-ipv6 *boolean* |
| Tree | mcast-ipv6 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mvpn-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Ignore AS path length for IPv4 MVPN routes |
| Context | **configure** router *named-item-64* bgp best-path-selection as-path-ignore mvpn-ipv4 *boolean* |
| Tree | mvpn-ipv4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mvpn-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Ignore AS path length for IPv6 MVPN routes |
| Context | **configure** router *named-item-64* bgp best-path-selection as-path-ignore mvpn-ipv6 *boolean* |
| Tree | mvpn-ipv6 |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **vpn-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Ignore AS path length for VPN IPv4 (SAFI 128) routes |
| Context | **configure** router *named-item-64* bgp best-path-selection as-path-ignore vpn-ipv4 *boolean* |
| Tree | vpn-ipv4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **vpn-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Ignore AS path length for VPN IPv6 (SAFI 128) routes |
| Context | **configure** router *named-item-64* bgp best-path-selection as-path-ignore vpn-ipv6 *boolean* |
| Tree | vpn-ipv6 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **compare-origin-validation-state** *boolean*

| | |
|---|---|
| Synopsis | Compare RPKI origin validation state of usable routes |
| Context | **configure** router *named-item-64* bgp best-path-selection compare-origin-validation-state *boolean* |
| Tree | compare-origin-validation-state |
| Description | When configured to **true**, the RPKI origin validation state is compared between BGP routes, where a Valid state is preferred over a Not-Found state, and a Not-Found state is preferred over an Invalid state.<br>When configured to **false**, the RPKI origin validate state comparison is not performed as part of the BGP route selection process. |
| Default | false |
| Introduced | 16.0.R1 |


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Platforms All

## d-path-length-ignore *boolean*

Synopsis Enable D-PATH length ignore

Context **configure** router *named-item-64* bgp best-path-selection d-path-length-ignore *boolean*

Tree d-path-length-ignore

Description When configured to **true**, this command, enables the router to ignore the D-PATH domain segment length during best-path selection.

At the base router level (or VPRN BGP level for PE-CE routers), this command allows BGP to ignore the D-PATH domain segment length for best-path selection purposes. BGP ignores the D-PATH length when comparing two VPN routes or two IFL routes within the same RD. However, these VPN/IFL routes are processed in the main-BGP instance.

At the VPRN router level, this command allows the VPRN RTM to ignore the D-PATH domain segment length for best-path selection purposes (for routes in VPRN). The user can control whether the RTM considers the D-PATH length when comparing two VPN routes with different RDs.

Best-path selection for EVPN-IFF routes against other owners (for example, EVPN-IFL or IPVPN) still relies on RTM preference. When EVPN-IFF RTM preference matches the RTM preference of another BGP owner, the existing RTM selection applies and D-PATH is not considered, irrespective of the **d-path-length-ignore** configuration.

When configured to **false**, this command disables the ability to ignore the D-PATH domain segment length.

Default false

Introduced 21.10.R1

Platforms All

## deterministic-med *boolean*

Synopsis Group paths based on AS before MED attribute comparison

Context **configure** router *named-item-64* bgp best-path-selection deterministic-med *boolean*

Tree deterministic-med

Description When configured to **true**, BGP groups paths from the same AS that are equal up to the MED attribute comparison and then compares the best path from each group to select the overall best path. This process ensures that the best-path selection process is deterministic in all cases.

When configured to **false**, paths are not grouped and the overall best-path selection can depend on the order of route arrival.

Default false


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## ebgp-ibgp-equal

| | |
|---|---|
| Synopsis | Enter the **ebgp-ibgp-equal** context |
| Context | **configure** router *named-item-64* bgp best-path-selection ebgp-ibgp-equal |
| Tree | ebgp-ibgp-equal |
| Description | Commands in this context allow BGP to ignore the difference between EBGP and IBGP routes in selecting the best path and eligible multipaths (if multipath and ECMP are enabled) for the specified address families. The result is a form of EIBGP load-balancing in a multipath scenario. This behavior can be applied selectively to certain address families.<br><br>By default, the BGP decision process prefers an EBGP learned route over an IBGP learned route. |
| Introduced | 16.0.R1 |
| Platforms | All |

## evpn *boolean*

| | |
|---|---|
| Synopsis | Consider EBGP and IBGP EVPN routes equal |
| Context | **configure** router *named-item-64* bgp best-path-selection ebgp-ibgp-equal evpn *boolean* |
| Tree | evpn |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | All |

## ipv4 *boolean*

| | |
|---|---|
| Synopsis | Consider EBGP and IBGP IPv4 routes equal |
| Context | **configure** router *named-item-64* bgp best-path-selection ebgp-ibgp-equal ipv4 *boolean* |
| Tree | ipv4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **ipv6** *boolean*

| | |
|---|---|
| Synopsis | Consider EBGP and IBGP IPv6 routes equal |
| Context | **configure** router *named-item-64* bgp best-path-selection ebgp-ibgp-equal ipv6 *boolean* |
| Tree | ipv6 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **label-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Consider EBGP and IBGP label-IPv4 routes equal |
| Context | **configure** router *named-item-64* bgp best-path-selection ebgp-ibgp-equal label-ipv4 *boolean* |
| Tree | label-ipv4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **label-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Consider EBGP and IBGP label-IPv6 routes equal |
| Context | **configure** router *named-item-64* bgp best-path-selection ebgp-ibgp-equal label-ipv6 *boolean* |
| Tree | label-ipv6 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **vpn-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Consider EBGP and IBGP VPN-IPv4 routes equal |
| Context | **configure** router *named-item-64* bgp best-path-selection ebgp-ibgp-equal vpn-ipv4 *boolean* |
| Tree | vpn-ipv4 |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **vpn-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Consider EBGP and IBGP VPN-IPv6 routes equal |
| Context | **configure** router *named-item-64* bgp best-path-selection ebgp-ibgp-equal vpn-ipv6 *boolean* |
| Tree | vpn-ipv6 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ignore-nh-metric** *boolean*

| | |
|---|---|
| Synopsis | Ignore next-hop distance in best path selection |
| Context | **configure** router *named-item-64* bgp best-path-selection ignore-nh-metric *boolean* |
| Tree | ignore-nh-metric |
| Description | When configured to **true**, BGP ignores the resolved distance to the BGP next hop in its route selection process.<br>When configured to **false**, BGP factors the distance to the next hop into its decision process when it compares two BGP routes with the same NLRI learned from base router BGP peers (in the **router** context) or IP prefix learned from VPRN BGP peers (in the **vprn** context). |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ignore-router-id**

| | |
|---|---|
| Synopsis | Enable the **ignore-router-id** context |
| Context | **configure** router *named-item-64* bgp best-path-selection ignore-router-id |
| Tree | ignore-router-id |
| Description | Commands in this context determine whether the BGP selection process ignores the BGP identifier (router ID) comparison of two EBGP paths from different EBGP peers when determining the best path for the specified address families. |


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By default, BGP selects the path with the lower router ID when it compares two paths from EBGP peers.

Introduced 16.0.R1

Platforms All

## include-internal

Synopsis Enter the **include-internal** context

Context **configure** router *named-item-64* bgp best-path-selection ignore-router-id include-internal

Tree include-internal

Description Commands in this context specify the internal address families for which the router ID values are ignored, even when comparing two IBGP paths or an EBGP and an IBGP path.

Introduced 16.0.R1

Platforms All

## mvpn-ipv4 *boolean*

Synopsis Ignore the router IDs of MVPN-IPv4 routes

Context **configure** router *named-item-64* bgp best-path-selection ignore-router-id include-internal mvpn-ipv4 *boolean*

Tree mvpn-ipv4

Default false

Introduced 16.0.R1

Platforms All

## mvpn-ipv6 *boolean*

Synopsis Ignore the router IDs of MVPN-IPv6 routes

Context **configure** router *named-item-64* bgp best-path-selection ignore-router-id include-internal mvpn-ipv6 *boolean*

Tree mvpn-ipv6

Default false

Introduced 16.0.R1

Platforms All


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### **origin-invalid-unusable** *boolean*

| | |
|---|---|
| Synopsis | Deem invalid routes unusable for best-path selection |
| Context | **configure** router *named-item-64* bgp best-path-selection origin-invalid-unusable *boolean* |
| Tree | origin-invalid-unusable |
| Description | When configured to **true**, routes that have an RPKI origin validation state of Invalid are considered unusable by the best-path selection algorithm. These routes cannot be used for forwarding and cannot be advertised to BGP peers.<br>When configured to **false**, routes with an RPKI origin validation state of Invalid are compared to other usable routes for the same prefix according to the BGP decision process. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bfd-liveness** *boolean*

| | |
|---|---|
| Synopsis | Enable BFD |
| Context | **configure** router *named-item-64* bgp bfd-liveness *boolean* |
| Tree | bfd-liveness |
| Description | When configured to **true**, BFD is enabled on all BGP sessions, subject to the association of those BGP sessions with IP interfaces that have BFD configurations.<br>When configured to **false**, BFD is not enabled globally for all BGP sessions. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bfd-strict-mode**

| | |
|---|---|
| Synopsis | Enter the **bfd-strict-mode** context |
| Context | **configure** router *named-item-64* bgp bfd-strict-mode |
| Tree | bfd-strict-mode |
| Introduced | 23.7.R1 |
| Platforms | All |


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## advertise

| | |
|---|---|
| Synopsis | Enable the **advertise** context |
| Context | **configure** router *named-item-64* bgp bfd-strict-mode advertise |
| Tree | advertise |
| Description | Commands in this context configure BGP to advertise the Strict-BFD capability to peers that are within scope of this command and meet the following requirements:<br>• The inherited or configured value for the **bfd-liveness** command that applies to the peer is **true**.<br>• The interface associated with the peer has a valid BFD configuration.<br>When the preceding conditions are satisfied and two peers attempting to form a session both advertise the Strict-BFD capability, the BGP finite state machine in each router transitions the session state to established after the BFD session with the peer enters the up state.<br>When unconfigured, BGP does not advertise the Strict-BFD capability to peers. |
| Introduced | 23.7.R1 |
| Platforms | All |

## holdtime *number*

| | |
|---|---|
| Synopsis | Maximum time BGP waits for the BFD session to come up |
| Context | **configure** router *named-item-64* bgp bfd-strict-mode advertise holdtime *number* |
| Tree | holdtime |
| Description | This command configures the maximum time BGP waits for the BFD session to come up, provided that the Strict-BFD procedures apply to a session, and the negotiated BGP hold time is zero (no keepalives). If the negotiated BGP hold time is greater than zero, the advertised hold time is not considered. |
| Range | 1 to 65535 |
| Units | seconds |
| Default | 30 |
| Introduced | 23.7.R1 |
| Platforms | All |

## next-hop-reachability *boolean*

| | |
|---|---|
| Synopsis | Consider next hop unreachable if BFD session is down |
| Context | **configure** router *named-item-64* bgp bfd-strict-mode next-hop-reachability *boolean* |


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| | |
|---|---|
| Tree | next-hop-reachability |
| Description | When configured to **true**, the router considers next-hop self routes belonging to specific address families received from a peer within scope of this command as having an unresolved next hop, provided that the following requirements are met:<br>• The BFD session to the peer is in a down state.<br>• There is a valid interface BFD configuration that applies to the peer.<br>• There is a valid BFD liveness configuration that applies to the peer.<br>The unresolved state is maintained until the BFD session state changes to up or administratively down, even if there is a resolving route or tunnel that matches the BGP next-hop address.<br>Routes received from one peer with a BGP next-hop address equal to the address of another peer are not affected by the BFD session to the other peer.<br>The behavior of the router when this command is **true** does not depend on whether Strict-BFD is used, as both features are independent.<br>Configuring this command to **true** only affects routes belonging to the following address families:<br>• IPv4<br>• IPv6<br>• IPv4 VPN<br>• IPv6 VPN<br>• labeled unicast IPv4<br>• labeled unicast IPv6<br>• EVPN<br>• IPv4 multicast<br>• IPv6 multicast<br>• IPv4 VPN multicast<br>• IPv6 VPN multicast<br>When configured to **false**, the router does not consider next-hop self routes belonging to the preceding address families as having an unresolved next hop if the BFD session goes down. |
| Default | false |
| Introduced | 23.7.R1 |
| Platforms | All |

## bgp-tunnel-metric

| | |
|---|---|
| Synopsis | Enter the **bgp-tunnel-metric** context |
| Context | **configure** router *named-item-64* bgp bgp-tunnel-metric |


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| | |
|---|---|
| Tree | bgp-tunnel-metric |
| Description | Commands in this context control the tunnel table metrics associated with BGP label unicast routes. |
| Introduced | 20.5.R1 |
| Platforms | All |

## **prefer-aigp** *boolean*

| | |
|---|---|
| Synopsis | Use the AIGP attribute as tunnel metric when present |
| Context | **configure** router *named-item-64* bgp bgp-tunnel-metric prefer-aigp *boolean* |
| Tree | prefer-aigp |
| Description | When configured to **true**, the TTM metric is based on the AIGP metric if the route has the path attribute. When the BGP-LU route is selected for installation in TTM and it is not matched by a BGP import policy entry that overrides the BGP tunnel metric action, the TTM metric of the tunnel is set to the AIGP metric value of the BGP-LU route plus the resolved cost to the BGP next-hop of the route; otherwise, the metric is set to the value in the **value** setting.<br><br>When configured to **false**, the AIGP attribute is ignored for purposes to TTM metric derivation. |
| Default | false |
| Introduced | 20.5.R1 |
| Platforms | All |

## **prefer-med** *boolean*

| | |
|---|---|
| Synopsis | Use the MED attribute as tunnel metric when present |
| Context | **configure** router *named-item-64* bgp bgp-tunnel-metric prefer-med *boolean* |
| Tree | prefer-med |
| Description | When configured to **true**, the TTM metric is based on the MED metric value of the BGP-LU route. When a BGP-LU route is selected for installation in TTM and is not matched by a BGP import policy entry that overrides the BGP tunnel metric action, the TTM metric of the tunnel is set to the MED metric value of the BGP-LU route with the resolved cost to the BGP next hop of the route added to it. Otherwise, the metric is set to the value configured using the **value** command.<br><br>When configured to **false**, the MED attribute is ignored for TTM metric derivation.<br><br>**Note: prefer-aigp** takes precedence over this command if the received BGP-LU has both attributes. |
| Default | false |
| Introduced | 23.3.R1 |


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| | |
|---|---|
| Platforms | All |

## **value** *number*

| | |
|---|---|
| Synopsis | BGP tunnel metric value |
| Context | **configure** router *named-item-64* bgp bgp-tunnel-metric value *number* |
| Tree | value |
| Description | This command configures a BGP tunnel metric for label IPv4 routes that do not have their metric set by more specific means.<br>If a BGP-LU route is selected for installation in the TTM and there is no tunnel metric policy action that applies to the route, the TTM metric of the associated tunnel is set to this value if either:<br>• **prefer-aigp** is set to **false**<br>• **prefer-aigp** is set to **true** but the BGP-LU route does not have an AIGP attribute |
| Range | 0 to 4294967295 |
| Default | 1000 |
| Introduced | 20.5.R1 |
| Platforms | All |

## **bgp-tunnel-preference** *number*

| | |
|---|---|
| Synopsis | BGP tunnel table preference |
| Context | **configure** router *named-item-64* bgp bgp-tunnel-preference *number* |
| Tree | bgp-tunnel-preference |
| Description | This command configures the tunnel table preference for BGP-LU tunnel type.<br>The tunnel table preference applies to next-hop resolution of BGP routes for: EVPN, IPv4, IPv6, VPN-IPv4, VPN-IPv6, label-IPv4, and label-IPV6 in the tunnel table.<br>This feature does not apply to a VPRN, VPLS, or VLL service with explicit binding to an SDP that enabled the **mixed-lsp-mode** option. The service manager controls and fixes the tunnel preference in such an SDP. The tunnel table preference configuration does not modify the SDP behavior, nor the services that bind to it. |
| Range | 1 to 255 |
| Default | 12 |
| Introduced | 21.10.R1 |
| Platforms | All |


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### **block-prefix-sid** *boolean*

| | |
|---|---|
| Synopsis | Block the prefix SID attribute |
| Context | **configure** router *named-item-64* bgp block-prefix-sid *boolean* |
| Tree | block-prefix-sid |
| Description | When configured to **true**, all prefix SID attributes are removed from label IPv4 and label IPv6 routes when they are exchanged with EBGP and IBGP peers covered by the scope of the command. Locally-imposed prefix SID attributes are also removed.<br>When configured to **false**, all prefix SID attributes associated with label IPv4 and label IPv6 routes are propagated without restriction.<br>A change of this configuration causes the affected BGP sessions to flap. |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **client-reflect** *boolean*

| | |
|---|---|
| Synopsis | Allow client reflection of routes by route reflector |
| Context | **configure** router *named-item-64* bgp client-reflect *boolean* |
| Tree | client-reflect |
| Description | When configured to **true**, routes received from neighbors considered to be RR clients are reflected to other peers as expected.<br>When configured to **false**, routes received from neighbors considered to be RR clients are not reflected to other clients. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cluster**

| | |
|---|---|
| Synopsis | Enter the **cluster** context |
| Context | **configure** router *named-item-64* bgp cluster |
| Tree | cluster |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **allow-local-fallback** *boolean*

| | |
|---|---|
| Synopsis | Allow fallback to RR topology location for ORR |
| Context | **configure** router *named-item-64* bgp cluster allow-local-fallback *boolean* |
| Tree | allow-local-fallback |
| Description | When configured to **true**, this command allows the RR to advertise the best BGP path from its own topology location when there are no reachable routes from the client's ORR location. The ORR location must be specified before this command can be set to **true**.<br><br>When configured to **false**, no route is advertised to the clients when there are no reachable routes from the client's ORR location. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cluster-id** *ipv4-address*

| | |
|---|---|
| Synopsis | Route reflector cluster ID |
| Context | **configure** router *named-item-64* bgp cluster cluster-id *ipv4-address* |
| Tree | cluster-id |
| Description | The command specifies the cluster ID to associate with the routing instance, effectively making all IBGP peers of the routing instance RR clients. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **orr-location** *number*

| | |
|---|---|
| Synopsis | Optimal route reflection location for the cluster |
| Context | **configure** router *named-item-64* bgp cluster orr-location *number* |
| Tree | orr-location |
| Description | This command configures an ORR location ID. If a cluster ID is also specified, the clients in that cluster receive routes optimal for that specific location.<br><br>With optimal route reflection, the best path advertised to a client takes location ID into account. If the tie-break for best path (or Add-Paths) comes down to next-hop IGP cost, the IGP costs will be calculated relative to the specified location. In the SR OS implementation, the IGP costs from arbitrary ORR locations are calculated using OSPF, OSPFv3, IS-IS, or BGP-LS information in the TE DB. |
| Range | 1 to 255 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **connect-retry** *number*

| | |
|---|---|
| Synopsis | BGP connect retry timer value |
| Context | **configure** router *named-item-64* bgp connect-retry *number* |
| Tree | connect-retry |
| Description | This command configures the BGP connect retry timer. When the timer expires, BGP tries to reconnect to the configured peer. |
| Range | 1 to 65535 |
| Default | 120 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **convergence**

| | |
|---|---|
| Synopsis | Enter the **convergence** context |
| Context | **configure** router *named-item-64* bgp convergence |
| Tree | convergence |
| Description | Commands in this context configure the route convergence delay. |
| Introduced | 19.7.R1 |
| Platforms | All |

### **family** [family-type] *keyword*

| | |
|---|---|
| Synopsis | Enter the **family** list instance |
| Context | **configure** router *named-item-64* bgp convergence family *keyword* |
| Tree | family |
| Description | Commands in this context configure route convergence options for a specific BGP address family, specifically, the maximum amount of time BGP waits until it advertises the routes of the address family to its BGP peers. |
| Introduced | 19.7.R1 |
| Platforms | All |


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### [**family-type**] *keyword*

| | |
|---|---|
| Synopsis | Address family for which convergence selection applies |
| Context | **configure** router *named-item-64* bgp convergence family *keyword* |
| Tree | family |
| Options | ipv4, vpn-ipv4, ipv6, vpn-ipv6, label-ipv4, label-ipv6 |
| Notes | This element is part of a list key. |
| Introduced | 19.7.R1 |
| Platforms | All |

### **max-wait-to-advertise** *number*

| | |
|---|---|
| Synopsis | Maximum wait time before advertising routes |
| Context | **configure** router *named-item-64* bgp convergence family *keyword* max-wait-to-advertise *number* |
| Tree | max-wait-to-advertise |
| Range | 0 to 3600 |
| Default | 0 |
| Introduced | 19.7.R1 |
| Platforms | All |

### **min-wait-to-advertise** *number*

| | |
|---|---|
| Synopsis | Minimum wait time before advertising routes |
| Context | **configure** router *named-item-64* bgp convergence min-wait-to-advertise *number* |
| Tree | min-wait-to-advertise |
| Range | 0 to 3600 |
| Default | 0 |
| Introduced | 19.7.R1 |
| Platforms | All |

### **damp-peer-oscillations**

| | |
|---|---|
| Synopsis | Enable the **damp-peer-oscillations** context |
| Context | **configure** router *named-item-64* bgp damp-peer-oscillations |


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| | |
|---|---|
| Tree | damp-peer-oscillations |
| Description | Commands in this context support the DampPeerOscillations FSM behavior described in section 8.1 of RFC 4271, *A Border Gateway Protocol 4 (BGP-4)*.<br>When unconfigured, the router does not perform peer oscillation damping and immediately transitions out of the idle state after every reset. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **error-interval** *number*

| | |
|---|---|
| Synopsis | Time after a reset that the session must be error-free |
| Context | **configure** router *named-item-64* bgp damp-peer-oscillations error-interval *number* |
| Tree | error-interval |
| Description | This command sets the interval of time after a reset, during which the session must be error-free in order to reset the penalty counter and return the idle hold time to the initial wait time. |
| Range | 0 to 2048 |
| Default | 30 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **idle-hold-time**

| | |
|---|---|
| Synopsis | Enter the **idle-hold-time** context |
| Context | **configure** router *named-item-64* bgp damp-peer-oscillations idle-hold-time |
| Tree | idle-hold-time |
| Description | Commands in this context configure how long a BGP peer session remains in the idle state after some type of error causes the session to reset.<br>In the idle state, BGP does not initiate or respond to attempts to establish a new session. Repeated errors that occur in a short time period after each session reset cause longer and longer hold times in the idle state. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **initial-wait** *number*

| | |
|---|---|
| Synopsis | Time session remains in idle state after stabilization |


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| | |
|---|---|
| Context | **configure** router *named-item-64* bgp damp-peer-oscillations idle-hold-time initial-wait *number* |
| Tree | initial-wait |
| Range | 0 to 2048 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **max-wait** *number*

| | |
|---|---|
| Synopsis | Maximum session idle time after repeated instability |
| Context | **configure** router *named-item-64* bgp damp-peer-oscillations idle-hold-time max-wait *number* |
| Tree | max-wait |
| Range | 1 to 2048 |
| Default | 60 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **second-wait** *number*

| | |
|---|---|
| Synopsis | Time that doubles after each session failure |
| Context | **configure** router *named-item-64* bgp damp-peer-oscillations idle-hold-time second-wait *number* |
| Tree | second-wait |
| Description | This command defines the hold time that doubles after each repeated session failure that occurs in a short span of time. |
| Range | 1 to 2048 |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **damping** *boolean*

| | |
|---|---|
| Synopsis | Use BGP route damping to reduce route flap |
| Context | **configure** router *named-item-64* bgp damping *boolean* |


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| | |
|---|---|
| Tree | damping |
| Description | When configured to **true**, this command enables route damping to reduce the number of update messages sent between BGP peers and reduce the load on peers without affecting the route convergence time for stable routes.<br>Route damping is controlled by profiles set in route policies. If no profile is specified in the route policy, the default damping profile is used with the following parameters:<br>• Half-life: 15 minutes<br>• Max-suppress: 60 minutes<br>• Suppress-threshold: 3000<br>• Reuse-threshold: 750<br>When configured to **false**, BGP route damping for learned routes is disabled. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **def-recv-evpn-encap** *keyword*

| | |
|---|---|
| Synopsis | Default EVPN encapsulation type |
| Context | **configure** router *named-item-64* bgp def-recv-evpn-encap *keyword* |
| Tree | def-recv-evpn-encap |
| Description | This command specifies the encapsulation type that BGP uses when an EVPN route is received without the Encapsulation Extended Community. |
| Options | mpls, vxlan |
| Default | mpls |
| Introduced | 16.0.R1 |
| Platforms | All |

## **default-label-preference**

| | |
|---|---|
| Synopsis | Enter the **default-label-preference** context |
| Context | **configure** router *named-item-64* bgp default-label-preference |
| Tree | default-label-preference |
| Introduced | 19.5.R1 |
| Platforms | All |


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### **ebgp** *number*

| | |
|---|---|
| Synopsis | Default preference for EBGP |
| Context | **configure** router *named-item-64* bgp default-label-preference ebgp *number* |
| Tree | ebgp |
| Range | 0 to 255 |
| Default | 0 |
| Introduced | 19.5.R1 |
| Platforms | All |

### **ibgp** *number*

| | |
|---|---|
| Synopsis | Default preference for IBGP |
| Context | **configure** router *named-item-64* bgp default-label-preference ibgp *number* |
| Tree | ibgp |
| Range | 0 to 255 |
| Default | 0 |
| Introduced | 19.5.R1 |
| Platforms | All |

### **default-preference**

| | |
|---|---|
| Synopsis | Enter the **default-preference** context |
| Context | **configure** router *named-item-64* bgp default-preference |
| Tree | default-preference |
| Introduced | 19.5.R1 |
| Platforms | All |

### **ebgp** *number*

| | |
|---|---|
| Synopsis | Default preference for EBGP |
| Context | **configure** router *named-item-64* bgp default-preference ebgp *number* |
| Tree | ebgp |
| Range | 0 to 255 |
| Default | 0 |


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| | |
|---|---|
| Introduced | 19.5.R1 |
| Platforms | All |

### **ibgp** *number*

| | |
|---|---|
| Synopsis | Default preference for IBGP |
| Context | **configure** router *named-item-64* bgp default-preference ibgp *number* |
| Tree | ibgp |
| Range | 0 to 255 |
| Default | 0 |
| Introduced | 19.5.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** router *named-item-64* bgp description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **dynamic-neighbor-limit** *number*

| | |
|---|---|
| Synopsis | Max dynamic BGP sessions to accept from remote peers |
| Context | **configure** router *named-item-64* bgp dynamic-neighbor-limit *number* |
| Tree | dynamic-neighbor-limit |
| Description | This command configures the maximum number of dynamic BGP sessions to accept from remote peers associated with the entire BGP instance. If accepting a new dynamic session causes the instance limit to be exceeded, the new session attempt is rejected and a Notification message is sent back to the remote peer. |
| Range | 1 to 8192 |
| Introduced | 16.0.R1 |
| Platforms | All |


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## ebgp-default-reject-policy

| | |
|---|---|
| Synopsis | Enter the **ebgp-default-reject-policy** context |
| Context | **configure** router *named-item-64* bgp ebgp-default-reject-policy |
| Tree | ebgp-default-reject-policy |
| Introduced | 19.5.R1 |
| Platforms | All |

## **export** *boolean*

| | |
|---|---|
| Synopsis | Enable default reject export policy for external peers |
| Context | **configure** router *named-item-64* bgp ebgp-default-reject-policy export *boolean* |
| Tree | export |
| Default | true |
| Introduced | 19.5.R1 |
| Platforms | All |

## **import** *boolean*

| | |
|---|---|
| Synopsis | Enable default reject import policy for external peers |
| Context | **configure** router *named-item-64* bgp ebgp-default-reject-policy import *boolean* |
| Tree | import |
| Default | true |
| Introduced | 19.5.R1 |
| Platforms | All |

## egress-peer-engineering

| | |
|---|---|
| Synopsis | Enable the **egress-peer-engineering** context |
| Context | **configure** router *named-item-64* bgp egress-peer-engineering |
| Tree | egress-peer-engineering |
| Introduced | 21.7.R1 |
| Platforms | All |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of BGP egress engineering |
| Context | **configure** router *named-item-64* bgp egress-peer-engineering admin-state *keyword* |
| Tree | admin-state |
| Description | This command administratively enables or disables egress engineering for the BGP. If enabled, peer node SIDs and peer adjacency SIDs are advertised in BGP-LS. |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.7.R1 |
| Platforms | All |

### **enforce-first-as** *boolean*

| | |
|---|---|
| Synopsis | Enforce the configured peer AS value in received routes |
| Context | **configure** router *named-item-64* bgp enforce-first-as *boolean* |
| Tree | enforce-first-as |
| Description | When configured to **true** for an EBGP session, all routes received from an EBGP peer are checked to ensure that the most recent ASN in the AS_PATH attribute of each route matches the configured AS of the session. If there is not a match, the session is reset (if the **update-fault-tolerance** command in the **error-handling** context is set to **false**) or the session is left up but the route is treated as withdrawn (if **update-fault-tolerance** is set to **true**).<br>This command does not flap an established session because it applies only to routes received after the command is issued.<br>When configured to **false**, received routes are not checked for compliance with the rule. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **error-handling**

| | |
|---|---|
| Synopsis | Enter the **error-handling** context |
| Context | **configure** router *named-item-64* bgp error-handling |
| Tree | error-handling |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **legacy-mode** *boolean*

| | |
|---|---|
| Synopsis | Enable legacy-mode of BGP error handling |
| Context | **configure** router *named-item-64* bgp error-handling legacy-mode *boolean* |
| Tree | legacy-mode |
| Description | When configured to **true**, the BGP instance handles the BGP update error messages based on the configured **update-fault-tolerance** commands. If these commands are not explicitly configured, BGP error handling follows the legacy procedures described in RFC 4271, which can result in disruptive session resets.<br>When configured to **false**, the BGP instance ignores the configured **update-fault-tolerance** commands and applies the new error handling procedures described in RFC 7606 on all sessions. |
| Default | false |
| Introduced | 24.3.R1 |
| Platforms | All |

### **update-fault-tolerance** *boolean*

| | |
|---|---|
| Synopsis | Tolerate non-critical errors in UPDATE messages |
| Context | **configure** router *named-item-64* bgp error-handling update-fault-tolerance *boolean* |
| Tree | update-fault-tolerance |
| Description | When configured to **true**, non-critical errors are handled with treat-as-withdraw, attribute-discard, and other non-disruptive approaches that do not cause a session reset. Critical errors still trigger a session reset.<br>When configured to **false**, most errors trigger a session reset. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **export**

| | |
|---|---|
| Synopsis | Enable the **export** context |
| Context | **configure** router *named-item-64* bgp export |
| Tree | export |
| Description | Commands in this context specify route policies that control the handling of outbound routes transmitted to all peers. Route policies are configured in the **configure policy-options** context. |


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When no export policies are specified in this context, BGP-learned routes are advertised by default and non-BGP routes are not advertised.

Introduced 16.0.R1

Platforms All

## **policy** *(policy-expr-string | string)*

Synopsis List of export policy names

Context **configure** router *named-item-64* bgp export policy *(policy-expr-string | string)*

Tree policy

Description This command specifies route policies that control the handling of outbound routes transmitted to certain peers.

Each object in this command is either a policy logical expression or the name of a single policy. The objects are evaluated in the specified order to determine the modifications of each route and the final action to accept or reject the route.

Only one of the objects referenced by the command can be a policy logical expression consisting of policy names (enclosed in square brackets) and logical operators (AND, OR, NOT).

When no export policies are specified, BGP-learned routes are advertised by default and non-BGP routes are not advertised.

String length 1 to 255

Max. instances 15

Min. instances 1

Notes This element is ordered by the user.

Introduced 16.0.R1

Platforms All

## extended-nh-encoding

Synopsis Enter the **extended-nh-encoding** context

Context **configure** router *named-item-64* bgp extended-nh-encoding

Tree extended-nh-encoding

Description Commands in this context specify the IPv4-related address families that can receive IPv6 next hops from peers. The peers should not send such routes unless the peers receive notification of this capability. If the router receives an enabled address family route from a peer to which it did not advertise the necessary capability, the UPDATE


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| | |
|---|---|
| | message will be considered malformed. This causes either a session reset or treat-as-withdraw behavior depending on the error handling settings. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv4** *boolean*

| | |
|---|---|
| Synopsis | Advertise encoding capability for IPv4 routes |
| Context | **configure** router *named-item-64* bgp extended-nh-encoding ipv4 *boolean* |
| Tree | ipv4 |
| Default | false |
| Introduced | 19.5.R1 |
| Platforms | All |

### **label-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Advertise encoding capability for label-IPv4 routes |
| Context | **configure** router *named-item-64* bgp extended-nh-encoding label-ipv4 *boolean* |
| Tree | label-ipv4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **vpn-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Advertise encoding capability for VPN-IPv4 routes |
| Context | **configure** router *named-item-64* bgp extended-nh-encoding vpn-ipv4 *boolean* |
| Tree | vpn-ipv4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **family**

| | |
|---|---|
| Synopsis | Enter the **family** context |
| Context | **configure** router *named-item-64* bgp family |


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| | |
|---|---|
| Tree | family |
| Description | Commands in this context specify the BGP address families supported by the base router BGP sessions. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bgp-ls** *boolean*

| | |
|---|---|
| Synopsis | Advertise MP-BGP support for the BGP-LS address family |
| Context | **configure** router *named-item-64* bgp family bgp-ls *boolean* |
| Tree | bgp-ls |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **evpn** *boolean*

| | |
|---|---|
| Synopsis | Advertise MP-BGP support for the EVPN address family |
| Context | **configure** router *named-item-64* bgp family evpn *boolean* |
| Tree | evpn |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **flow-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Advertise support for the FlowSpec-IPv4 address family |
| Context | **configure** router *named-item-64* bgp family flow-ipv4 *boolean* |
| Tree | flow-ipv4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **flow-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Advertise support for the FlowSpec-IPv6 address family |
| Context | **configure** router *named-item-64* bgp family flow-ipv6 *boolean* |
| Tree | flow-ipv6 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **flow-vpn-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Advertise support for FlowSpec-VPN IPv4 address family |
| Context | **configure** router *named-item-64* bgp family flow-vpn-ipv4 *boolean* |
| Tree | flow-vpn-ipv4 |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | All |

### **flow-vpn-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Advertise support for FlowSpec-VPN IPv6 address family |
| Context | **configure** router *named-item-64* bgp family flow-vpn-ipv6 *boolean* |
| Tree | flow-vpn-ipv6 |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | All |

### **ipv4** *boolean*

| | |
|---|---|
| Synopsis | Advertise MP-BGP support for the IPv4 address family |
| Context | **configure** router *named-item-64* bgp family ipv4 *boolean* |
| Tree | ipv4 |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **ipv6** *boolean*

| | |
|---|---|
| Synopsis | Advertise MP-BGP support for the IPv6 address family |
| Context | **configure** router *named-item-64* bgp family ipv6 *boolean* |
| Tree | ipv6 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **l2-vpn** *boolean*

| | |
|---|---|
| Synopsis | Advertise MP-BGP support for the L2-VPN address family |
| Context | **configure** router *named-item-64* bgp family l2-vpn *boolean* |
| Tree | l2-vpn |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **label-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Advertise support for the label-IPv4 address family |
| Context | **configure** router *named-item-64* bgp family label-ipv4 *boolean* |
| Tree | label-ipv4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **label-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Advertise support for the label-IPv6 address family |
| Context | **configure** router *named-item-64* bgp family label-ipv6 *boolean* |
| Tree | label-ipv6 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **mcast-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Advertise support for the MCAST-IPv4 address family |
| Context | **configure** router *named-item-64* bgp family mcast-ipv4 *boolean* |
| Tree | mcast-ipv4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mcast-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Advertise support for the MCAST-IPv6 address family |
| Context | **configure** router *named-item-64* bgp family mcast-ipv6 *boolean* |
| Tree | mcast-ipv6 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mcast-vpn-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Advertise support for the IPv4 VPN MCAST address family |
| Context | **configure** router *named-item-64* bgp family mcast-vpn-ipv4 *boolean* |
| Tree | mcast-vpn-ipv4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mcast-vpn-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Advertise support for the IPv6 VPN MCAST address family |
| Context | **configure** router *named-item-64* bgp family mcast-vpn-ipv6 *boolean* |
| Tree | mcast-vpn-ipv6 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **mdt-safi** *boolean*

| | |
|---|---|
| Synopsis | Advertise MP-BGP support for MDT-SAFI address family |
| Context | **configure** router *named-item-64* bgp family mdt-safi *boolean* |
| Tree | mdt-safi |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ms-pw** *boolean*

| | |
|---|---|
| Synopsis | Advertise support for multi-segment PW address family |
| Context | **configure** router *named-item-64* bgp family ms-pw *boolean* |
| Tree | ms-pw |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mvpn-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Advertise support for the IPv4 MCAST VPN address family |
| Context | **configure** router *named-item-64* bgp family mvpn-ipv4 *boolean* |
| Tree | mvpn-ipv4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mvpn-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Advertise support for the IPv6 MCAST VPN address family |
| Context | **configure** router *named-item-64* bgp family mvpn-ipv6 *boolean* |
| Tree | mvpn-ipv6 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **route-target** *boolean*

| | |
|---|---|
| Synopsis | Advertise MP-BGP support for RT constraint routes |
| Context | **configure** router *named-item-64* bgp family route-target *boolean* |
| Tree | route-target |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sr-policy-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Advertise MP-BGP support for the SR-policy-IPv4 family |
| Context | **configure** router *named-item-64* bgp family sr-policy-ipv4 *boolean* |
| Tree | sr-policy-ipv4 |
| Description | This command allows the router to advertise the capability for AFI1/SAFI73, which corresponds to BGP routes that encode a segment routing policy to an IPv4 destination. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sr-policy-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Advertise MP-BGP support for the SR-policy-IPv6 family |
| Context | **configure** router *named-item-64* bgp family sr-policy-ipv6 *boolean* |
| Tree | sr-policy-ipv6 |
| Description | This command allows the router to advertise the capability for AFI2/SAFI73, which corresponds to BGP routes that encode a segment routing policy to an IPv6 destination. |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **vpn-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Advertise MP-BGP support for IPv4 VPN address family |
| Context | **configure** router *named-item-64* bgp family vpn-ipv4 *boolean* |


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| | |
|---|---|
| Tree | vpn-ipv4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **vpn-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Advertise MP-BGP support for IPv6 VPN address family |
| Context | **configure** router *named-item-64* bgp family vpn-ipv6 *boolean* |
| Tree | vpn-ipv6 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **fast-external-failover** *boolean*

| | |
|---|---|
| Synopsis | Drop external BGP session immediately when link fails |
| Context | **configure** router *named-item-64* bgp fast-external-failover *boolean* |
| Tree | fast-external-failover |
| Description | When configured to **true**, the router drops an external BGP session to a single-hop neighbor immediately when the local interface goes down.<br>When configured to **false**, the BGP session remains up until the hold time expires. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **flowspec**

| | |
|---|---|
| Synopsis | Enter the **flowspec** context |
| Context | **configure** router *named-item-64* bgp flowspec |
| Tree | flowspec |
| Description | Commands in this context configure BGP FlowSpec validations. |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **validate-dest-prefix** *boolean*

| | |
|---|---|
| Synopsis | Validate destination prefix in FlowSpec-IPv4/IPv6 route |
| Context | **configure** router *named-item-64* bgp flowspec validate-dest-prefix *boolean* |
| Tree | validate-dest-prefix |
| Description | When configured to **true**, the router validates received IPv4 and IPv6 FlowSpec routes that contain a destination-prefix subcomponent.<br>A FlowSpec route with a destination-prefix subcomponent is considered invalid if the following are true:<br>• the route was originated outside the local AS of the receiving BGP router<br>• the neighbor AS of the FlowSpec route does not match the neighbor AS of the best match BGP (unicast) route for the destination prefix or the neighbor AS of any longer match BGP (unicast) route for the destination prefix<br>An invalid route is retained in the BGP RIB but it is not used for filtering traffic and is not propagated to other BGP routers.<br>When configured to **false**, destination-prefix validation is disabled. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **validate-redirect-ip** *boolean*

| | |
|---|---|
| Synopsis | Validate the redirect-to-IPv4 action in FlowSpec route |
| Context | **configure** router *named-item-64* bgp flowspec validate-redirect-ip *boolean* |
| Tree | validate-redirect-ip |
| Description | When configured to **true**, the router validates the redirect-to-IPv4 action attached to FlowSpec-IPv4 routes that are received by the BGP instance.<br>A FlowSpec-IPv4 route is considered invalid and is not installed as a filter rule if it is determined to have originated from a different AS than the IP route that resolves the redirection IPv4 address. The originating AS of a FlowSpec route is identified based on its AS path.<br>When configured to **false**, the router does not perform the validation check on Flow Spec-IPv4 routes. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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## graceful-restart

| | |
|---|---|
| Synopsis | Enable the **graceful-restart** context |
| Context | **configure** router *named-item-64* bgp graceful-restart |
| Tree | graceful-restart |
| Description | Commands in this context configure BGP graceful restart helper procedures for address families included in the GR capabilities of both peers. |
| Introduced | 16.0.R1 |
| Platforms | All |

## gr-notification *boolean*

| | |
|---|---|
| Synopsis | Perform Graceful Restart procedures |
| Context | **configure** router *named-item-64* bgp graceful-restart gr-notification *boolean* |
| Tree | gr-notification |
| Description | When configured to **true**, the Graceful Restart capability sent by the router indicates support for NOTIFICATION messages. If the peer also supports this capability, the session is restarted gracefully (while preserving forwarding) if either peer sends a NOTIFICATION message due to some type of event or error.<br>When configured to **false**, NOTIFICATION messages are not supported. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## long-lived

| | |
|---|---|
| Synopsis | Enable the **long-lived** context |
| Context | **configure** router *named-item-64* bgp graceful-restart long-lived |
| Tree | long-lived |
| Description | Commands in this context configure the BGP Long-Lived Graceful-Restart (LLGR) procedures.<br>LLGR, known informally as BGP persistence, is an extension of BGP GR that allows a session to stay down for a longer period of time. During this time, learned routes are marked and re-advertised as stale but they can continue to be used as routes of last resort.<br>The LLGR handling of a session failure can be invoked immediately or it can be delayed until the end of the traditional GR restart window. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **advertise-stale-to-all-neighbors** *boolean*

| | |
|---|---|
| Synopsis | Advertise stale routes to all BGP peers |
| Context | **configure** router *named-item-64* bgp graceful-restart long-lived advertise-stale-to-all-neighbors *boolean* |
| Tree | advertise-stale-to-all-neighbors |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **advertised-stale-time** *number*

| | |
|---|---|
| Synopsis | LLGR stale routes time |
| Context | **configure** router *named-item-64* bgp graceful-restart long-lived advertised-stale-time *number* |
| Tree | advertised-stale-time |
| Range | 0 to 16777215 |
| Default | 86400 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **family** [family-type] *keyword*

| | |
|---|---|
| Synopsis | Enter the **family** list instance |
| Context | **configure** router *named-item-64* bgp graceful-restart long-lived family *keyword* |
| Tree | family |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**family-type**] *keyword*

| | |
|---|---|
| Synopsis | Family type for family-specific LLGR configuration |
| Context | **configure** router *named-item-64* bgp graceful-restart long-lived family *keyword* |
| Tree | family |


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| | |
|---|---|
| Options | ipv4, vpn-ipv4, ipv6, vpn-ipv6, l2-vpn, flow-ipv4, route-target, flow-ipv6, label-ipv4, label-ipv6, flow-vpn-ipv4, flow-vpn-ipv6 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **advertised-stale-time** *number*

| | |
|---|---|
| Synopsis | LLGR stale routes time for family override |
| Context | **configure** router *named-item-64* bgp graceful-restart long-lived family *keyword* advertised-stale-time *number* |
| Tree | advertised-stale-time |
| Range | 0 to 16777215 |
| Default | 86400 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **helper-override-stale-time** *number*

| | |
|---|---|
| Synopsis | Locally-configured stale routes override time |
| Context | **configure** router *named-item-64* bgp graceful-restart long-lived family *keyword* helper-override-stale-time *number* |
| Tree | helper-override-stale-time |
| Range | 0 to 16777215 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **forwarding-bits-set** *keyword*

| | |
|---|---|
| Synopsis | BGP LLGR forwarding-bit behavior for address family |
| Context | **configure** router *named-item-64* bgp graceful-restart long-lived forwarding-bits-set *keyword* |
| Tree | forwarding-bits-set |
| Description | This command determines the setting of the F bit in the GR and LLGR capabilities advertised by the router. When the F bit is set for an address family, it indicates that the advertising router is able to preserve forwarding state for the routes of that address family across the last restart. When the session is re-established after a restart and |


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the F bit is not set, all stale routes from the peer are immediately removed for the corresponding address family.

This command allows the F bit to be set for all address families or only for non-forwarding address families (L2-VPN, route target, flow-IPv4, and flow-IPv6).

| | |
|---|---|
| Options | none, all, non-fwd |
| Default | none |
| Introduced | 16.0.R1 |
| Platforms | All |

### **helper-override-restart-time** *number*

| | |
|---|---|
| Synopsis | Locally-configured override for restart time |
| Context | **configure** router *named-item-64* bgp graceful-restart long-lived helper-override-restart-time *number* |
| Tree | helper-override-restart-time |
| Description | This command overrides the restart time advertised by a peer (in its GR capability) with a locally-configured value. This override applies only to AFI/SAFI that were included in the GR capability of the peer. The restart-time is always zero for AFI/SAFI not included in the GR capability. This command is useful if the local router wants to force the LLGR phase to begin after a set time for all protected AFI/SAFI. |
| Range | 0 to 4095 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **helper-override-stale-time** *number*

| | |
|---|---|
| Synopsis | Locally-configured stale routes override time |
| Context | **configure** router *named-item-64* bgp graceful-restart long-lived helper-override-stale-time *number* |
| Tree | helper-override-stale-time |
| Description | This command configures a locally-imposed LLGR stale time that overrides the long-lived stale routes time that is advertised by the router in its LLGR capability.<br>This command applies to all AFI/SAFI in the advertised LLGR capability except for any AFI/SAFI with a family-specific override. |
| Range | 0 to 16777215 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **without-no-export** *boolean*

| | |
|---|---|
| Synopsis | Advertise LLGR stale routes to non-LLGR peers |
| Context | **configure** router *named-item-64* bgp graceful-restart long-lived without-no-export *boolean* |
| Tree | without-no-export |
| Description | When configured to **true**, LLGR stale routes can be advertised to any peer (EBGP or IBGP) that did not signal the LLGR capability. For IBGP and confederation-EBGP peers that did not advertise the LLGR capability, the local preference attribute in the advertised stale routes is automatically set to 0.<br><br>When configured to **false**, LLGR stale routes are not advertised to any EBGP peer that did not signal the LLGR capability. For IBGP and confederation-EBGP peers that did not advertise the LLGR capability, the local preference attribute in the advertised stale routes is automatically set to 0 and a NO_EXPORT standard community is automatically added to the routes. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **restart-time** *number*

| | |
|---|---|
| Synopsis | Restart time advertised by GR capability |
| Context | **configure** router *named-item-64* bgp graceful-restart restart-time *number* |
| Tree | restart-time |
| Range | 0 to 4095 |
| Default | 120 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **stale-routes-time** *number*

| | |
|---|---|
| Synopsis | Maximum time to maintain routes after graceful restart |
| Context | **configure** router *named-item-64* bgp graceful-restart stale-routes-time *number* |
| Tree | stale-routes-time |
| Range | 1 to 3600 |
| Default | 360 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## **group** [group-name] *named-item-64*

| | |
|---|---|
| Synopsis | Enter the **group** list instance |
| Context | **configure** router *named-item-64* bgp group *named-item-64* |
| Tree | group |
| Description | Commands in this context define BGP peer groups and their group-specific command options. The options in this context are identical to the global BGP options. Any options that are not overridden by the group-specific commands inherit the configuration settings from the BGP global level. |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**group-name**] *named-item-64*

| | |
|---|---|
| Synopsis | BGP peer group name |
| Context | **configure** router *named-item-64* bgp group *named-item-64* |
| Tree | group |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **add-paths**

| | |
|---|---|
| Synopsis | Enable the **add-paths** context |
| Context | **configure** router *named-item-64* bgp group *named-item-64* add-paths |
| Tree | add-paths |
| Description | Commands in this context allow the add-paths node to be configured for the specified families for configuration of the BGP group or neighbor. The BGP add-paths capability allows the router to send or receive multiple paths per prefix to and from a peer.<br>When unconfigured, command settings are inherited from a higher level BGP configuration. |
| Introduced | 16.0.R1 |
| Platforms | All |


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## evpn

| | |
|---|---|
| Synopsis | Enter the **evpn** context |
| Context | **configure** router *named-item-64* bgp group *named-item-64* add-paths evpn |
| Tree | evpn |
| Description | Commands in this context configure the add-paths capability for EVPN routes. By default, add-paths is not enabled for EVPN routes. |
| Introduced | 21.10.R1 |
| Platforms | All |

## receive *boolean*

| | |
|---|---|
| Synopsis | Receive multiple EVPN paths per prefix from a peer |
| Context | **configure** router *named-item-64* bgp group *named-item-64* add-paths evpn receive *boolean* |
| Tree | receive |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | All |

## send *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum paths per EVPN prefix to Add-Path peers |
| Context | **configure** router *named-item-64* bgp group *named-item-64* add-paths evpn send *(number | keyword)* |
| Tree | send |
| Range | 1 to 16 |
| Options | multipaths – Number of best multipaths for each NLRI |
| Introduced | 21.10.R1 |
| Platforms | All |

## ipv4

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |
| Context | **configure** router *named-item-64* bgp group *named-item-64* add-paths ipv4 |
| Tree | ipv4 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **receive** *boolean*

| | |
|---|---|
| Synopsis | Receive multiple labeled-unicast routes per IPv4 prefix |
| Context | **configure** router *named-item-64* bgp group *named-item-64* add-paths ipv4 receive *boolean* |
| Tree | receive |
| Description | When configured to **true**, the router can receive multiple unlabeled IPv4 unicast routes per prefix from a peer.<br>When configured to **false**, the ADD-PATH receive capability is not enabled. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **send** *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum paths per unlabeled IPv4 unicast prefix |
| Context | **configure** router *named-item-64* bgp group *named-item-64* add-paths ipv4 send *(number | keyword)* |
| Tree | send |
| Description | This command configures the maximum number of paths per unlabeled IPv4 unicast prefix that are allowed to be advertised to ADD-PATH peers. The actual number of advertised routes may be less depending on the next-hop diversity requirement, other configuration options, route policies, or route advertisement rules.<br>When not configured, ADD-PATH send capability is not enabled for unlabeled IPv4 unicast routes. |
| Range | 1 to 16 |
| Options | multipaths – Number of best multipaths for each NLRI |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv6**

| | |
|---|---|
| Synopsis | Enter the **ipv6** context |
| Context | **configure** router *named-item-64* bgp group *named-item-64* add-paths ipv6 |


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| | |
|---|---|
| Tree | ipv6 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **receive** *boolean*

| | |
|---|---|
| Synopsis | Receive multiple routes per IPv6 prefix |
| Context | **configure** router *named-item-64* bgp group *named-item-64* add-paths ipv6 receive *boolean* |
| Tree | receive |
| Description | When configured to **true**, this command allows multiple unlabeled IPv6 unicast routes per prefix to be received from a peer.<br>When configured to **false**, the ADD-PATH receive capability is not enabled. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **send** *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum paths per unlabeled IPv6 unicast prefix |
| Context | **configure** router *named-item-64* bgp group *named-item-64* add-paths ipv6 send *(number | keyword)* |
| Tree | send |
| Description | This command configures the maximum number of paths per unlabeled IPv4 unicast prefix that are allowed to be advertised to ADD-PATH peers. The actual number of advertised routes may be less depending on the next-hop diversity requirement, other configuration options, route policies, or route advertisement rules.<br>When not configured, ADD-PATH send capability is not enabled for unlabeled IPv4 unicast routes. |
| Range | 1 to 16 |
| Options | multipaths – Number of best multipaths for each NLRI |
| Introduced | 16.0.R1 |
| Platforms | All |

### **label-ipv4**

| | |
|---|---|
| Synopsis | Enter the **label-ipv4** context |


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| | |
|---|---|
| Context | **configure** router *named-item-64* bgp group *named-item-64* add-paths label-ipv4 |
| Tree | label-ipv4 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **receive** *boolean*

| | |
|---|---|
| Synopsis | Receive multiple labeled-unicast routes per IPv4 prefix |
| Context | **configure** router *named-item-64* bgp group *named-item-64* add-paths label-ipv4 receive *boolean* |
| Tree | receive |
| Description | When configured to **true**, this command allows multiple labeled-unicast routes per IPv4 prefix to be received from a peer.<br>When configured to **false**, the ADD-PATH receive capability is not enabled. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **send** *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum paths per labeled IPv4 unicast prefix |
| Context | **configure** router *named-item-64* bgp group *named-item-64* add-paths label-ipv4 send *(number \| keyword)* |
| Tree | send |
| Description | This command configures the maximum number of paths that are allowed to be advertised to add-paths peers per labeled IPv4 unicast prefix. The actual number of advertised routes may be less depending on the next-hop diversity requirement, other configuration options, route policies, or route advertisement rules.<br>When not configured, ADD-PATH send capability is not enabled for labeled IPv4 unicast routes. |
| Range | 1 to 16 |
| Options | multipaths – Number of best multipaths for each NLRI |
| Introduced | 16.0.R1 |
| Platforms | All |


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## label-ipv6

| | |
|---|---|
| Synopsis | Enter the **label-ipv6** context |
| Context | **configure** router *named-item-64* bgp group *named-item-64* add-paths label-ipv6 |
| Tree | label-ipv6 |
| Introduced | 16.0.R1 |
| Platforms | All |

## receive *boolean*

| | |
|---|---|
| Synopsis | Receive multiple labeled-unicast routes per IPv6 prefix |
| Context | **configure** router *named-item-64* bgp group *named-item-64* add-paths label-ipv6 receive *boolean* |
| Tree | receive |
| Description | When configured to **true**, this command allows multiple labeled-unicast routes per IPv6 prefix to be received from a peer.<br>When configured to **false**, the ADD-PATH receive capability is not enabled. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## send *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum paths per labeled IPv6 unicast prefix |
| Context | **configure** router *named-item-64* bgp group *named-item-64* add-paths label-ipv6 send *(number \| keyword)* |
| Tree | send |
| Description | This command configures the maximum number of paths that are allowed to be advertised to add-paths peers per labeled IPv6 unicast prefix. The actual number of advertised routes may be less depending on the next-hop diversity requirement, other configuration options, route policies, or route advertisement rules.<br>When not configured, ADD-PATH send capability is not enabled for labeled IPv6 unicast routes. |
| Range | 1 to 16 |
| Options | multipaths – Number of best multipaths for each NLRI |
| Introduced | 16.0.R1 |
| Platforms | All |


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## mcast-vpn-ipv4

| | |
|---|---|
| Synopsis | Enter the **mcast-vpn-ipv4** context |
| Context | **configure** router *named-item-64* bgp group *named-item-64* add-paths mcast-vpn-ipv4 |
| Tree | mcast-vpn-ipv4 |
| Introduced | 16.0.R1 |
| Platforms | All |

## receive *boolean*

| | |
|---|---|
| Synopsis | Receive multiple multicast routes per IPv4 VPN prefix |
| Context | **configure** router *named-item-64* bgp group *named-item-64* add-paths mcast-vpn-ipv4 receive *boolean* |
| Tree | receive |
| Description | When configured to **true**, this command allows multiple multicast routes per IPv4 VPN prefix to be received from a peer.<br>When configured to **false**, the ADD-PATH receive capability is not enabled. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## send *number*

| | |
|---|---|
| Synopsis | Maximum paths per multicast IPv4 VPN prefix |
| Context | **configure** router *named-item-64* bgp group *named-item-64* add-paths mcast-vpn-ipv4 send *number* |
| Tree | send |
| Description | This command configures the maximum number of paths that are allowed to be advertised to add-paths peers per multicast IPv4 VPN prefix. The actual number of advertised routes may be less depending on the next-hop diversity requirement, other configuration options, route policies, or route advertisement rules.<br>When not configured, ADD-PATH send capability is not enabled for multicast IPv4 VPN routes. |
| Range | 1 to 16 |
| Introduced | 16.0.R1 |
| Platforms | All |


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## mcast-vpn-ipv6

| | |
|---|---|
| Synopsis | Enter the **mcast-vpn-ipv6** context |
| Context | **configure** router *named-item-64* bgp group *named-item-64* add-paths mcast-vpn-ipv6 |
| Tree | mcast-vpn-ipv6 |
| Introduced | 16.0.R1 |
| Platforms | All |

## receive *boolean*

| | |
|---|---|
| Synopsis | Receive multiple multicast routes per IPv6 VPN prefix |
| Context | **configure** router *named-item-64* bgp group *named-item-64* add-paths mcast-vpn-ipv6 receive *boolean* |
| Tree | receive |
| Description | When configured to **true**, this command allows multiple multicast routes per IPv6 VPN prefix to be received from a peer.<br>When configured to **false**, the ADD-PATH receive capability is not enabled. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## send *number*

| | |
|---|---|
| Synopsis | Maximum paths per multicast IPv6 VPN prefix |
| Context | **configure** router *named-item-64* bgp group *named-item-64* add-paths mcast-vpn-ipv6 send *number* |
| Tree | send |
| Description | This command configures the maximum number of paths that are allowed to be advertised to add-paths peers per multicast IPv6 VPN prefix. The actual number of advertised routes may be less depending on the next-hop diversity requirement, other configuration options, route policies, or route advertisement rules.<br>When not configured, ADD-PATH send capability is not enabled for multicast IPv6 VPN routes. |
| Range | 1 to 16 |
| Introduced | 16.0.R1 |
| Platforms | All |


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## mvpn-ipv4

| | |
|---|---|
| Synopsis | Enter the **mvpn-ipv4** context |
| Context | **configure** router *named-item-64* bgp group *named-item-64* add-paths mvpn-ipv4 |
| Tree | mvpn-ipv4 |
| Introduced | 16.0.R1 |
| Platforms | All |

## receive *boolean*

| | |
|---|---|
| Synopsis | Receive multiple multicast VPN routes per IPv4 prefix |
| Context | **configure** router *named-item-64* bgp group *named-item-64* add-paths mvpn-ipv4 receive *boolean* |
| Tree | receive |
| Description | When configured to **true**, this command allows multiple multicast VPN routes per IPv4 prefix to be received from a peer.<br>When configured to **false**, the ADD-PATH receive capability is not enabled. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## send *number*

| | |
|---|---|
| Synopsis | Maximum paths per multicast VPN IPv4 prefix |
| Context | **configure** router *named-item-64* bgp group *named-item-64* add-paths mvpn-ipv4 send *number* |
| Tree | send |
| Description | This command configures the maximum number of paths that are allowed to be advertised to add-paths peers per multicast VPN IPv4 prefix. The actual number of advertised routes may be less depending on the next-hop diversity requirement, other configuration options, route policies, or route advertisement rules.<br>When not configured, ADD-PATH send capability is not enabled for multicast VPN IPv4 routes. |
| Range | 1 to 16 |
| Introduced | 16.0.R1 |
| Platforms | All |


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## mvpn-ipv6

| | |
|---|---|
| Synopsis | Enter the **mvpn-ipv6** context |
| Context | **configure** router *named-item-64* bgp group *named-item-64* add-paths mvpn-ipv6 |
| Tree | mvpn-ipv6 |
| Introduced | 16.0.R1 |
| Platforms | All |

## receive *boolean*

| | |
|---|---|
| Synopsis | Receive multiple multicast VPN routes per IPv6 prefix |
| Context | **configure** router *named-item-64* bgp group *named-item-64* add-paths mvpn-ipv6 receive *boolean* |
| Tree | receive |
| Description | When configured to **true**, this command allows multiple multicast VPN routes per IPv6 prefix to be received from a peer.<br>When configured to **false**, the ADD-PATH receive capability is not enabled. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## send *number*

| | |
|---|---|
| Synopsis | Maximum paths per multicast VPN IPv6 prefix |
| Context | **configure** router *named-item-64* bgp group *named-item-64* add-paths mvpn-ipv6 send *number* |
| Tree | send |
| Description | This command configures the maximum number of paths that are allowed to be advertised to add-paths peers per multicast VPN IPv6 prefix. The actual number of advertised routes may be less depending on the next-hop diversity requirement, other configuration options, route policies, or route advertisement rules.<br>When not configured, ADD-PATH send capability is not enabled for multicast VPN IPv6 routes. |
| Range | 1 to 16 |
| Introduced | 16.0.R1 |
| Platforms | All |


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## vpn-ipv4

| | |
|---|---|
| Synopsis | Enter the **vpn-ipv4** context |
| Context | **configure** router *named-item-64* bgp group *named-item-64* add-paths vpn-ipv4 |
| Tree | vpn-ipv4 |
| Introduced | 16.0.R1 |
| Platforms | All |

## receive *boolean*

| | |
|---|---|
| Synopsis | Receive multiple routes per VPN-IPv4 prefix |
| Context | **configure** router *named-item-64* bgp group *named-item-64* add-paths vpn-ipv4 receive *boolean* |
| Tree | receive |
| Description | When configured to **true**, this command allows multiple VPN-IPv4 routes per prefix to be received from a peer.<br>When configured to **false**, the ADD-PATH receive capability is not enabled. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## send *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum paths per VPN-IPv4 prefix |
| Context | **configure** router *named-item-64* bgp group *named-item-64* add-paths vpn-ipv4 send *(number \| keyword)* |
| Tree | send |
| Description | This command configures the maximum number of paths that are allowed to be advertised to add-paths peers per VPN-IPv4 prefix. The actual number of advertised routes may be less depending on the next-hop diversity requirement, other configuration options, route policies, or route advertisement rules.<br>When not configured, ADD-PATH send capability is not enabled for VPN-IPv4 routes. |
| Range | 1 to 16 |
| Options | multipaths – Number of best multipaths for each NLRI |
| Introduced | 16.0.R1 |
| Platforms | All |


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## vpn-ipv6

| | |
|---|---|
| Synopsis | Enter the **vpn-ipv6** context |
| Context | **configure** router *named-item-64* bgp group *named-item-64* add-paths vpn-ipv6 |
| Tree | vpn-ipv6 |
| Introduced | 16.0.R1 |
| Platforms | All |

## receive *boolean*

| | |
|---|---|
| Synopsis | Receive multiple routes per VPN-IPv6 prefix |
| Context | **configure** router *named-item-64* bgp group *named-item-64* add-paths vpn-ipv6 receive *boolean* |
| Tree | receive |
| Description | When configured to **true**, this command allows multiple VPN-IPv6 routes per prefix to be received from a peer.<br>When configured to **false**, the ADD-PATH receive capability is not enabled. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## send *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum paths per VPN-IPv6 prefix |
| Context | **configure** router *named-item-64* bgp group *named-item-64* add-paths vpn-ipv6 send *(number \| keyword)* |
| Tree | send |
| Description | This command configures the maximum number of paths that are allowed to be advertised to add-paths peers per VPN-IPv6 prefix. The actual number of advertised routes may be less depending on the next-hop diversity requirement, other configuration options, route policies, or route advertisement rules.<br>When not configured, ADD-PATH send capability is not enabled for VPN-IPv6 routes. |
| Range | 1 to 16 |
| Options | multipaths – Number of best multipaths for each NLRI |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the BGP group |
| Context | **configure** router *named-item-64* bgp group *named-item-64* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **advertise-inactive** *boolean*

| | |
|---|---|
| Synopsis | Advertise an inactive BGP route to peers |
| Context | **configure** router *named-item-64* bgp group *named-item-64* advertise-inactive *boolean* |
| Tree | advertise-inactive |
| Description | When configured to **true**, this command allows an inactive BGP route to be advertised, even though it is not the most preferred route. The effect of the command on advertised unlabeled, labeled, and multicast IPv4 and IPv6 routes depends on several factors.<br>• If the active route for the IP prefix is a BGP route, that route is advertised.<br>• If the active route is a non-BGP route and there are valid inactive BGP routes to the same destination, the best valid inactive route is advertised unless the active non-BGP route is matched and accepted by an export policy applied to the session.<br>• If the active route is a non-BGP route and there are no valid BGP routes to the same destination, no route is advertised unless the active non-BGP route is matched and accepted by an export policy applied to the session.<br>When unconfigured, the command inherits the value of the global-level setting (**true** or **false**). The command cannot be explicitly configured to **false**.<br>When this command inherits a value of **false**, the advertisement of inactive BGP routes to other BGP peers is disabled. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **advertise-ipv6-next-hops**

| | |
|---|---|
| Synopsis | Enable the **advertise-ipv6-next-hops** context |
| Context | **configure** router *named-item-64* bgp group *named-item-64* advertise-ipv6-next-hops |
| Tree | advertise-ipv6-next-hops |


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| | |
|---|---|
| Description | Commands in this context allow specified IP family routes to be advertised to IPv6 transport peers with a true IPv6 address when originated or when a configured or automatic next-hop-self action is applied.<br>When unconfigured, command settings are inherited from a higher level BGP configuration. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **evpn** *boolean*

| | |
|---|---|
| Synopsis | Advertise EVPN route with IPv6 next-hop address |
| Context | **configure** router *named-item-64* bgp group *named-item-64* advertise-ipv6-next-hops evpn *boolean* |
| Tree | evpn |
| Description | When configured to **true**, EVPN routes are advertised with IPv6 next-hop addresses to IPv6 transport peers.<br>When configured to **false**, EVPN routes are advertised with IPv4 next-hop addresses to IPv6 transport peers. |
| Default | false |
| Introduced | 19.5.R1 |
| Platforms | All |

## **ipv4** *boolean*

| | |
|---|---|
| Synopsis | Advertise IPv4 route with IPv6 next-hop address |
| Context | **configure** router *named-item-64* bgp group *named-item-64* advertise-ipv6-next-hops ipv4 *boolean* |
| Tree | ipv4 |
| Description | When configured to **true**, IPv4 routes are advertised with IPv6 next-hop addresses to IPv6 transport peers. The appropriate extended NH encoding capability must also be received from the remote peer before the route can be advertised with an IPv6 address instead of the IPv4 system address as the next hop.<br>When configured to **false**, IPv4 routes are advertised with IPv4 next-hop addresses to IPv6 transport peers. If the route matches a BGP export policy entry that tries to change the next hop to an IPv6 address and an appropriate extended NH encoding capability was not received by the remote peer, the route is handled as though it was rejected by the policy entry. |
| Default | false |
| Introduced | 19.5.R1 |


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Platforms All

### **label-ipv4** *boolean*

Synopsis Advertise label IPv4 route with IPv6 next-hop address

Context **configure** router *named-item-64* bgp group *named-item-64* advertise-ipv6-next-hops label-ipv4 *boolean*

Tree label-ipv4

Description When configured to **true**, label IPv4 routes are advertised with IPv6 next-hop addresses to IPv6 transport peers. The appropriate extended NH encoding capability must also be received from the remote peer before the route can be advertised with an IPv6 address instead of the IPv4 system address as the next hop.

When configured to **false**, label IPv4 routes are advertised with the system IPv4 address as the next hop to IPv6 transport peers. If the route matches a BGP export policy entry that tries to change the next hop to an IPv6 address and an appropriate extended NH encoding capability was not received by the remote peer, the route is handled as though it was rejected by the policy entry.

Default false

Introduced 16.0.R1

Platforms All

### **label-ipv6** *boolean*

Synopsis Advertise label IPv6 route with IPv6 next-hop address

Context **configure** router *named-item-64* bgp group *named-item-64* advertise-ipv6-next-hops label-ipv6 *boolean*

Tree label-ipv6

Description When configured to **true**, label IPv6 routes are advertised with IPv6 next-hop addresses to IPv6 transport peers.

When configured to **false**, label IPv6 routes are advertised toward IPv6 transport peers with the system IPv4 address as the BGP next hop, encoded as an IPv4-mapped IPv6 address.

Default false

Introduced 16.0.R1

Platforms All

### **vpn-ipv4** *boolean*

Synopsis Advertise VPN IPv4 route with IPv6 next-hop address


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| | |
|---|---|
| Context | **configure** router *named-item-64* bgp group *named-item-64* advertise-ipv6-next-hops vpn-ipv4 *boolean* |
| Tree | vpn-ipv4 |
| Description | When configured to **true**, VPN IPv4 routes are advertised with IPv6 next-hop addresses to IPv6 transport peers. The appropriate extended NH encoding capability must also be received from the remote peer before the route can be advertised with an IPv6 address instead of the IPv4 system address as the next hop.<br>When configured to **false**, VPN IPv4 routes are advertised toward IPv6 transport peers with the system IPv4 address as the BGP next hop. If the route matches a BGP export policy entry that tries to change the next hop to an IPv6 address and an appropriate extended NH encoding capability was not received by the remote peer, the route is handled as though it was rejected by the policy entry. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **vpn-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Advertise VPN IPv6 route with IPv6 next-hop address |
| Context | **configure** router *named-item-64* bgp group *named-item-64* advertise-ipv6-next-hops vpn-ipv6 *boolean* |
| Tree | vpn-ipv6 |
| Description | When configured to **true**, VPN IPv6 routes are advertised with IPv6 next-hop addresses to IPv6 transport peers.<br>When configured to **false**, VPN IPv6 routes are advertised toward IPv6 transport peers with the system IPv4 address as the BGP next hop, encoded as an IPv4-mapped IPv6 address. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **aggregator-id-zero** *boolean*

| | |
|---|---|
| Synopsis | Set router ID in the BGP AGGREGATOR attribute to zero |
| Context | **configure** router *named-item-64* bgp group *named-item-64* aggregator-id-zero *boolean* |
| Tree | aggregator-id-zero |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **aigp** *boolean*

| | |
|---|---|
| Synopsis | Add AIGP attribute to advertised routes |
| Context | **configure** router *named-item-64* bgp group *named-item-64* aigp *boolean* |
| Tree | aigp |
| Description | When configured to **true**, this command enables Accumulated IGP (AIGP) path attribute support with one or more BGP peers. BGP path selection among routes with an associated AIGP metric is based on the end-to-end IGP metrics of the different BGP paths, even when these BGP paths span more than one AS and IGP instance.<br>When configured to **false**, the AIGP attribute is removed from advertised routes, if present, and is ignored in received routes. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **as-override** *boolean*

| | |
|---|---|
| Synopsis | Replace the peer ASN with the local ASN in AS Path |
| Context | **configure** router *named-item-64* bgp group *named-item-64* as-override *boolean* |
| Tree | as-override |
| Description | When configured to **true**, the advertising router's local AS replaces all occurrences of the peer AS in the AS_PATH attribute.<br>This command should be used with caution, as it breaks BGP's loop detection mechanism.<br>When configured to **false**, no AS override is performed. |
| Default | false |
| Introduced | 19.7.R1 |
| Platforms | All |

### **asn-4-byte** *boolean*

| | |
|---|---|
| Synopsis | Advertise the use of 4-byte ASNs |
| Context | **configure** router *named-item-64* bgp group *named-item-64* asn-4-byte *boolean* |
| Tree | asn-4-byte |
| Description | When this command inherits a value of **true**, the use of 4-byte ASNs is supported.<br>When unconfigured, the command inherits the value of the global-level setting (**true** or **false**). The command cannot be explicitly configured to **true**. |


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When configured to **false**, this command disables the use of 4-byte ASNs.

Introduced 16.0.R1

Platforms All

## **authentication-key** *encrypted-leaf*

Synopsis BGP authentication key for peers in the group

Context **configure** router *named-item-64* bgp group *named-item-64* authentication-key *encrypted-leaf*

Tree authentication-key

Description This command configures the authentication key that must be configured on both peers. The stored format of the authentication key is based on the **configure system security hash-control management-interface md-cli hash-algorithm** setting**.**

String length 1 to 370

Introduced 16.0.R1

Platforms All

## **authentication-keychain** *reference*

Synopsis TCP authentication keychain for the session

Context **configure** router *named-item-64* bgp group *named-item-64* authentication-keychain *reference*

Tree authentication-keychain

Description This command associates the keychain to be used to authenticate the BGP session. The keychain allows the rollover of authentication keys during the lifetime of a session.

Reference **configure** system security keychains keychain *named-item*

Introduced 16.0.R3

Platforms All

## **bfd-liveness** *boolean*

Synopsis Enable BFD

Context **configure** router *named-item-64* bgp group *named-item-64* bfd-liveness *boolean*

Tree bfd-liveness

Description When configured to **true**, BFD is enabled on a given protocol interface where the state of the protocol interface is tied to the state of the BFD session between the local node and the remote node.


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When unconfigured, the command inherits the value of the global-level setting (**true** or **false**). The command cannot be explicitly configured to **false**.

When this command inherits a value of **false**, BFD is removed from the associated protocol adjacency.

Introduced 16.0.R1

Platforms All

## bfd-strict-mode

Synopsis Enter the **bfd-strict-mode** context

Context **configure** router *named-item-64* bgp group *named-item-64* bfd-strict-mode

Tree bfd-strict-mode

Introduced 23.7.R1

Platforms All

## advertise

Synopsis Enable the **advertise** context

Context **configure** router *named-item-64* bgp group *named-item-64* bfd-strict-mode advertise

Tree advertise

Description Commands in this context configure BGP to advertise the Strict-BFD capability to peers that are within scope of this command and meet the following requirements:

- The inherited or configured value for the **bfd-liveness** command that applies to the peer is **true**.
- The interface associated with the peer has a valid BFD configuration.

When the preceding conditions are satisfied and two peers attempting to form a session both advertise the Strict-BFD capability, the BGP finite state machine in each router transitions the session state to established after the BFD session with the peer enters the up state.

When unconfigured, BGP does not advertise the Strict-BFD capability to peers.

Introduced 23.7.R1

Platforms All

## holdtime *number*

Synopsis Maximum time BGP waits for the BFD session to come up

Context **configure** router *named-item-64* bgp group *named-item-64* bfd-strict-mode advertise holdtime *number*


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| | |
|---|---|
| Tree | holdtime |
| Description | This command configures the maximum time BGP waits for the BFD session to come up, provided that the Strict-BFD procedures apply to a session, and the negotiated BGP hold time is zero (no keepalives). If the negotiated BGP hold time is greater than zero, the advertised hold time is not considered. |
| Range | 1 to 65535 |
| Units | seconds |
| Default | 30 |
| Introduced | 23.7.R1 |
| Platforms | All |

## **next-hop-reachability** *boolean*

| | |
|---|---|
| Synopsis | Consider next hop unreachable if BFD session is down |
| Context | **configure** router *named-item-64* bgp group *named-item-64* bfd-strict-mode next-hop-reachability *boolean* |
| Tree | next-hop-reachability |
| Description | When configured to **true**, the router considers next-hop self routes belonging to specific address families received from a peer within scope of this command as having an unresolved next hop, provided that the following requirements are met:<br>• The BFD session to the peer is in a down state.<br>• There is a valid interface BFD configuration that applies to the peer.<br>• There is a valid BFD liveness configuration that applies to the peer.<br>The unresolved state is maintained until the BFD session state changes to up or administratively down, even if there is a resolving route or tunnel that matches the BGP next-hop address.<br>Routes received from one peer with a BGP next-hop address equal to the address of another peer are not affected by the BFD session to the other peer.<br>The behavior of the router when this command is **true** does not depend on whether Strict-BFD is used, as both features are independent.<br>Configuring this command to **true** only affects routes belonging to the following address families:<br>• IPv4<br>• IPv6<br>• IPv4 VPN<br>• IPv6 VPN<br>• labeled unicast IPv4<br>• labeled unicast IPv6<br>• EVPN |


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- IPv4 multicast
- IPv6 multicast
- IPv4 VPN multicast
- IPv6 VPN multicast

When configured to **false**, the router does not consider next-hop self routes belonging to the preceding address families as having an unresolved next hop if the BFD session goes down.

Introduced 23.7.R1

Platforms All

## **block-prefix-sid** *boolean*

Synopsis Block the prefix SID attribute

Context **configure** router *named-item-64* bgp group *named-item-64* block-prefix-sid *boolean*

Tree block-prefix-sid

Description When configured to **true**, all prefix SID attributes are removed from all routes exchanged between EBGP and IBGP peers covered by the scope of the command. Locally-imposed prefix SID attributes are also removed.

When configured to **false**, all prefix SID attributes are propagated without restriction.

A change of this configuration causes the affected BGP sessions to flap.

Default false

Introduced 19.10.R1

Platforms All

## **capability-negotiation** *boolean*

Synopsis Enable capability negotiation

Context **configure** router *named-item-64* bgp group *named-item-64* capability-negotiation *boolean*

Tree capability-negotiation

Description When configured to **true**, this command enables the exchange of capabilities.

When configured to **false** and the peering is flapped, new capabilities are not negotiated and strictly IPv4 exchanges are supported with the peer.

Default true

Introduced 16.0.R1

Platforms All


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## **client-reflect** *boolean*

| | |
|---|---|
| Synopsis | Allow cluster RR to advertise routes to its clients |
| Context | **configure** router *named-item-64* bgp group *named-item-64* client-reflect *boolean* |
| Tree | client-reflect |
| Description | When unconfigured, this command inherits the value of the global-level setting (**true** or **false**). The command cannot be explicitly configured to **true**.<br>When the command inherits a value of **true**, client reflection of routes is enabled.<br>When configured to **false**, this command disables client reflection of routes. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **cluster**

| | |
|---|---|
| Synopsis | Enter the **cluster** context |
| Context | **configure** router *named-item-64* bgp group *named-item-64* cluster |
| Tree | cluster |
| Introduced | 16.0.R1 |
| Platforms | All |

## **allow-local-fallback** *boolean*

| | |
|---|---|
| Synopsis | Allow fallback to RR topology location |
| Context | **configure** router *named-item-64* bgp group *named-item-64* cluster allow-local-fallback *boolean* |
| Tree | allow-local-fallback |
| Description | When configured to **true**, this command allows the RR to advertise the best BGP path from its own topology location when there are no reachable routes from the client's ORR location. The ORR location must be specified before this command can be set to **true**.<br>When configured to **false**, no route is advertised to the client. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **cluster-id** *ipv4-address*

| | |
|---|---|
| Synopsis | Route reflector cluster ID |
| Context | **configure** router *named-item-64* bgp group *named-item-64* cluster cluster-id *ipv4-address* |
| Tree | cluster-id |
| Introduced | 16.0.R1 |
| Platforms | All |

### **orr-location** *number*

| | |
|---|---|
| Synopsis | Optimal route reflection location for the cluster |
| Context | **configure** router *named-item-64* bgp group *named-item-64* cluster orr-location *number* |
| Tree | orr-location |
| Description | This command configures an ORR location ID. If a cluster ID is also specified, the clients in that cluster receive routes optimal for that specific location.<br><br>With optimal route reflection, the best path advertised to a client takes location ID into account. If the tie-break for best path (or Add-Paths) comes down to next-hop IGP cost, the IGP costs are calculated relative to the specified location. In the SR OS implementation, the IGP costs from arbitrary ORR locations are calculated using OSPF, OSPFv3, IS-IS, or BGP-LS information in the TE DB. |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **connect-retry** *number*

| | |
|---|---|
| Synopsis | BGP connect retry timer value |
| Context | **configure** router *named-item-64* bgp group *named-item-64* connect-retry *number* |
| Tree | connect-retry |
| Range | 1 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **damp-peer-oscillations**

| | |
|---|---|
| Synopsis | Enable the **damp-peer-oscillations** context |


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| | |
|---|---|
| Context | **configure** router *named-item-64* bgp group *named-item-64* damp-peer-oscillations |
| Tree | damp-peer-oscillations |
| Description | Commands in this context specify how long a BGP peer session remains in the idle state after an error causes the session to reset. In the idle state, BGP does not initiate or respond to attempts to establish a new session. Repeated errors that occur a short time after each session reset cause longer and longer hold times in the idle state.<br>When unconfigured, command settings are inherited from the global-level configuration. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **error-interval** *number*

| | |
|---|---|
| Synopsis | Time after a reset that the session must be error-free |
| Context | **configure** router *named-item-64* bgp group *named-item-64* damp-peer-oscillations error-interval *number* |
| Tree | error-interval |
| Description | This command sets the interval of time after a reset, during which the session must be error-free in order to reset the penalty counter and return the idle hold time to the initial wait time. |
| Range | 0 to 2048 |
| Default | 30 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **idle-hold-time**

| | |
|---|---|
| Synopsis | Enter the **idle-hold-time** context |
| Context | **configure** router *named-item-64* bgp group *named-item-64* damp-peer-oscillations idle-hold-time |
| Tree | idle-hold-time |
| Introduced | 16.0.R1 |
| Platforms | All |

## **initial-wait** *number*

| | |
|---|---|
| Synopsis | Time session remains in idle state after stabilization |


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| | |
|---|---|
| Context | **configure** router *named-item-64* bgp group *named-item-64* damp-peer-oscillations idle-hold-time initial-wait *number* |
| Tree | initial-wait |
| Range | 0 to 2048 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **max-wait** *number*

| | |
|---|---|
| Synopsis | Maximum session idle time after repeated instability |
| Context | **configure** router *named-item-64* bgp group *named-item-64* damp-peer-oscillations idle-hold-time max-wait *number* |
| Tree | max-wait |
| Range | 1 to 2048 |
| Default | 60 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **second-wait** *number*

| | |
|---|---|
| Synopsis | Time that doubles after each repeated session failure |
| Context | **configure** router *named-item-64* bgp group *named-item-64* damp-peer-oscillations idle-hold-time second-wait *number* |
| Tree | second-wait |
| Description | This command defines the hold time that doubles after each repeated session failure that occurs in a short span of time. |
| Range | 1 to 2048 |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **damping** *boolean*

| | |
|---|---|
| Synopsis | Use BGP route damping to reduce route flap |
| Context | **configure** router *named-item-64* bgp group *named-item-64* damping *boolean* |


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| | |
|---|---|
| Tree | damping |
| Introduced | 16.0.R1 |
| Platforms | All |

## **def-recv-evpn-encap** *keyword*

| | |
|---|---|
| Synopsis | Default EVPN encapsulation type |
| Context | **configure** router *named-item-64* bgp group *named-item-64* def-recv-evpn-encap *keyword* |
| Tree | def-recv-evpn-encap |
| Description | This command specifies the encapsulation type that BGP uses when an EVPN route is received without the Encapsulation Extended Community.<br>When unconfigured, the setting for this command is inherited from the BGP global-level configuration. |
| Options | mpls, vxlan |
| Introduced | 16.0.R1 |
| Platforms | All |

## **default-label-preference**

| | |
|---|---|
| Synopsis | Enter the **default-label-preference** context |
| Context | **configure** router *named-item-64* bgp group *named-item-64* default-label-preference |
| Tree | default-label-preference |
| Introduced | 19.5.R1 |
| Platforms | All |

## **ebgp** *number*

| | |
|---|---|
| Synopsis | Default preference for EBGP |
| Context | **configure** router *named-item-64* bgp group *named-item-64* default-label-preference ebgp *number* |
| Tree | ebgp |
| Range | 0 to 255 |
| Introduced | 19.5.R1 |
| Platforms | All |


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### **ibgp** *number*

| | |
|---|---|
| Synopsis | Default preference for IBGP |
| Context | **configure** router *named-item-64* bgp group *named-item-64* default-label-preference ibgp *number* |
| Tree | ibgp |
| Range | 0 to 255 |
| Introduced | 19.5.R1 |
| Platforms | All |

### **default-preference**

| | |
|---|---|
| Synopsis | Enter the **default-preference** context |
| Context | **configure** router *named-item-64* bgp group *named-item-64* default-preference |
| Tree | default-preference |
| Introduced | 19.5.R1 |
| Platforms | All |

### **ebgp** *number*

| | |
|---|---|
| Synopsis | Default preference for EBGP |
| Context | **configure** router *named-item-64* bgp group *named-item-64* default-preference ebgp *number* |
| Tree | ebgp |
| Range | 0 to 255 |
| Introduced | 19.5.R1 |
| Platforms | All |

### **ibgp** *number*

| | |
|---|---|
| Synopsis | Default preference for IBGP |
| Context | **configure** router *named-item-64* bgp group *named-item-64* default-preference ibgp *number* |
| Tree | ibgp |
| Range | 0 to 255 |
| Introduced | 19.5.R1 |


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| | |
|---|---|
| Platforms | All |

### **default-route-target** *boolean*

| | |
|---|---|
| Synopsis | Send default RTC route (zero prefix length) to peers |
| Context | **configure** router *named-item-64* bgp group *named-item-64* default-route-target *boolean* |
| Tree | default-route-target |
| Description | When configured to **true**, this command sends the default RTC route (zero prefix length) toward the selected peers.<br>When configured to **false**, a default RTC route is not sent. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** router *named-item-64* bgp group *named-item-64* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **dynamic-neighbor**

| | |
|---|---|
| Synopsis | Enter the **dynamic-neighbor** context |
| Context | **configure** router *named-item-64* bgp group *named-item-64* dynamic-neighbor |
| Tree | dynamic-neighbor |
| Description | Commands in this context configure dynamic BGP sessions for a peer group. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **interface** [interface-name] *interface-name*

| | |
|---|---|
| Synopsis | Enter the **interface** list instance |


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| | |
|---|---|
| Context | **configure** router *named-item-64* bgp group *named-item-64* dynamic-neighbor interface *interface-name* |
| Tree | interface |
| Description | Commands in this context configure an unnumbered base router network interface for dynamic neighbors.<br>If this interface connects to a network with other BGP routers, sessions with the other routers can be set up automatically without explicitly configuring them as BGP neighbors. The interface must be IPv6 enabled, but because the interface is considered unnumbered, it does not require an IPv4 address or a global-unicast IPv6 address. The sessions are set up using IPv6 link-local addresses.<br>The BGP unnumbered feature supports all address families that allow IPv6 link-local BGP next-hop addresses. This includes IPv4 with the use of RFC 8950 extensions.<br>When an interface is added to the list of dynamic-neighbor interfaces, an outgoing connection attempt is initiated toward any directly connected router on the interface that announces itself using an ICMPv6 router advertisement message. The session attempt is unsuccessful if the peer type is not EBGP, the reported AS number of the peer does not match one of the allowed values, or the maximum session limit of the interface would be exceeded. |
| Introduced | 22.10.R1 |
| Platforms | All |

## [**interface-name**] *interface-name*

| | |
|---|---|
| Synopsis | Name of the dynamic neighbor interface |
| Context | **configure** router *named-item-64* bgp group *named-item-64* dynamic-neighbor interface *interface-name* |
| Tree | interface |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 22.10.R1 |
| Platforms | All |

## **allowed-peer-as** *string*

| | |
|---|---|
| Synopsis | Allowed peer AS value or range of acceptable values |
| Context | **configure** router *named-item-64* bgp group *named-item-64* dynamic-neighbor interface *interface-name* allowed-peer-as *string* |
| Tree | allowed-peer-as |
| Description | This command specifies a singular allowed peer AS value or a range of acceptable values in the format *n1*..*n*2. |


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| | |
|---|---|
| | All values greater than or equal to *n1* and less than or equal to *n2*are acceptable. For example, if the acceptable peer AS numbers are 65001 to 65005 (range) and 62100 (singular value), configure this command to use a value of [65001..65005 62100]. |
| Max. instances | 32 |
| Notes | This element is ordered by the user. |
| Introduced | 22.10.R1 |
| Platforms | All |

## **max-sessions** *number*

| | |
|---|---|
| Synopsis | Maximum number of dynamic sessions allowed |
| Context | **configure** router *named-item-64* bgp group *named-item-64* dynamic-neighbor interface *interface-name* max-sessions *number* |
| Tree | max-sessions |
| Description | This command specifies the maximum number of dynamic sessions that are allowed to be set up on the interface as a result of accepting sessions from link-local addresses or initiating sessions by receiving IPv6 router advertisements. |
| Range | 1 to 255 |
| Default | 1 |
| Introduced | 22.10.R1 |
| Platforms | All |

## **match**

| | |
|---|---|
| Synopsis | Enter the **match** context |
| Context | **configure** router *named-item-64* bgp group *named-item-64* dynamic-neighbor match |
| Tree | match |
| Description | Commands in this context configure match conditions for the dynamic neighbors. |
| Introduced | 19.5.R1 |
| Platforms | All |

## **prefix** [ip-prefix] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Enter the **prefix** list instance |
| Context | **configure** router *named-item-64* bgp group *named-item-64* dynamic-neighbor match prefix *(ipv4-prefix | ipv6-prefix)* |


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| | |
|---|---|
| Tree | prefix |
| Introduced | 19.5.R1 |
| Platforms | All |

### [**ip-prefix**] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Dynamic peer prefix for the group |
| Context | **configure** router *named-item-64* bgp group *named-item-64* dynamic-neighbor match prefix *(ipv4-prefix | ipv6-prefix)* |
| Tree | prefix |
| Notes | This element is part of a list key. |
| Introduced | 19.5.R1 |
| Platforms | All |

### **allowed-peer-as** *string*

| | |
|---|---|
| Synopsis | Allowed peer AS value or range of acceptable values |
| Context | **configure** router *named-item-64* bgp group *named-item-64* dynamic-neighbor match prefix *(ipv4-prefix | ipv6-prefix)* allowed-peer-as *string* |
| Tree | allowed-peer-as |
| Description | This command specifies a singular allowed peer AS value or a range of acceptable values in the format *n1*..*n*2.<br>All values greater than or equal to *n1* and less than or equal to *n2*are acceptable. For example, if the acceptable peer AS numbers are 65001 to 65005 (range) and 62100 (singular value), configure this command to use a value of [65001..65005 62100]. |
| Max. instances | 32 |
| Notes | This element is ordered by the user. |
| Introduced | 19.5.R1 |
| Platforms | All |

### **dynamic-neighbor-limit** *number*

| | |
|---|---|
| Synopsis | Maximum dynamic BGP sessions to accept from remote peer |
| Context | **configure** router *named-item-64* bgp group *named-item-64* dynamic-neighbor-limit *number* |
| Tree | dynamic-neighbor-limit |


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| | |
|---|---|
| Description | This command configures the maximum number of dynamic BGP sessions that are accepted from remote peers associated with a specific peer group. If accepting a new dynamic session causes the group limit to be exceeded, the new session attempt is rejected and a Notification message is sent back to the remote peer.<br>When unconfigured, the setting is inherited from the BGP global-level configuration. |
| Range | 1 to 8192 |
| Introduced | 16.0.R1 |
| Platforms | All |

## ebgp-default-reject-policy

| | |
|---|---|
| Synopsis | Enable the **ebgp-default-reject-policy** context |
| Context | **configure** router *named-item-64* bgp group *named-item-64* ebgp-default-reject-policy |
| Tree | ebgp-default-reject-policy |
| Introduced | 19.5.R1 |
| Platforms | All |

## **export** *boolean*

| | |
|---|---|
| Synopsis | Enable default reject export policy for external peers |
| Context | **configure** router *named-item-64* bgp group *named-item-64* ebgp-default-reject-policy export *boolean* |
| Tree | export |
| Default | true |
| Introduced | 19.5.R1 |
| Platforms | All |

## **import** *boolean*

| | |
|---|---|
| Synopsis | Enable default reject import policy for external peers |
| Context | **configure** router *named-item-64* bgp group *named-item-64* ebgp-default-reject-policy import *boolean* |
| Tree | import |
| Default | true |
| Introduced | 19.5.R1 |
| Platforms | All |


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## egress-engineering

| | |
|---|---|
| Synopsis | Enable the **egress-engineering** context |
| Context | **configure** router *named-item-64* bgp group *named-item-64* egress-engineering |
| Tree | egress-engineering |
| Introduced | 21.7.R1 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of BGP egress engineering |
| Context | **configure** router *named-item-64* bgp group *named-item-64* egress-engineering admin-state *keyword* |
| Tree | admin-state |
| Description | This command administratively enables or disables egress engineering for the BGP. If enabled, peer node SIDs and peer adjacency SIDs are advertised in BGP-LS. |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.7.R1 |
| Platforms | All |

## egress-peer-engineering-label-unicast *boolean*

| | |
|---|---|
| Synopsis | Generate EPE label-unicast routes for group |
| Context | **configure** router *named-item-64* bgp group *named-item-64* egress-peer-engineering-label-unicast *boolean* |
| Tree | egress-peer-engineering-label-unicast |
| Description | When configured to **true**, BGP generates a label-unicast route for each /32 or /128 prefix that corresponds to the BGP group address in the scope of the command. These routes can be advertised to other routers to recursively resolve unlabeled BGP routes for AS external destinations. They support the Egress Peer Engineering (EPE) use case. |
| Default | false |
| Introduced | 22.2.R1 |
| Platforms | All |


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### **enforce-first-as** *boolean*

| | |
|---|---|
| Synopsis | Enforce the configured peer AS value in received routes |
| Context | **configure** router *named-item-64* bgp group *named-item-64* enforce-first-as *boolean* |
| Tree | enforce-first-as |
| Introduced | 16.0.R1 |
| Platforms | All |

### **error-handling**

| | |
|---|---|
| Synopsis | Enter the **error-handling** context |
| Context | **configure** router *named-item-64* bgp group *named-item-64* error-handling |
| Tree | error-handling |
| Introduced | 16.0.R1 |
| Platforms | All |

### **update-fault-tolerance** *boolean*

| | |
|---|---|
| Synopsis | Tolerate non-critical errors in UPDATE messages |
| Context | **configure** router *named-item-64* bgp group *named-item-64* error-handling update-fault-tolerance *boolean* |
| Tree | update-fault-tolerance |
| Description | When configured to **true**, non-critical errors are handled with treat-as-withdraw, attribute-discard, and other non-disruptive approaches that do not cause a session reset. Critical errors still trigger a session reset.<br>When unconfigured, the command inherits the value of the global-level setting (**true** or **false**). The command cannot be explicitly configured to **false**.<br>When this command inherits a value of **false**, all errors trigger a session reset. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **export**

| | |
|---|---|
| Synopsis | Enable the **export** context |
| Context | **configure** router *named-item-64* bgp group *named-item-64* export |
| Tree | export |


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| | |
|---|---|
| Description | Commands in this context specify route policies that control the handling of outbound routes transmitted to certain peers. Route policies are configured in the **configure policy-options** context.<br>When this context is unconfigured, the policy association for the group is inherited from the BGP global-level configuration. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **policy** *(policy-expr-string | string)*

| | |
|---|---|
| Synopsis | BGP export policy name |
| Context | **configure** router *named-item-64* bgp group *named-item-64* export policy *(policy-expr-string \| string)* |
| Tree | policy |
| Description | This command specifies route policies that control the handling of outbound routes transmitted to certain peers.<br>Each object in this command is either a policy logical expression or the name of a single policy. The objects are evaluated in the specified order to determine the modifications of each route and the final action to accept or reject the route.<br>Only one of the objects referenced by the command can be a policy logical expression consisting of policy names (enclosed in square brackets) and logical operators (AND, OR, NOT).<br>Policy parameters must be enclosed by at-signs (@) and may be midstring; for example, "@variable@," "start@variable@end"," @variable@end", or"start@variable@". |
| String length | 1 to 255 |
| Max. instances | 15 |
| Min. instances | 1 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

## extended-nh-encoding

| | |
|---|---|
| Synopsis | Enable the **extended-nh-encoding** context |
| Context | **configure** router *named-item-64* bgp group *named-item-64* extended-nh-encoding |
| Tree | extended-nh-encoding |


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| | |
|---|---|
| Description | Commands in this context specify the address families enabled to advertise the capability to receive label IPv4 routes, VPN IPv4 routes, or IPv6 next hops from peers. The peers should not send such routes unless notification has been received of this capability. If the router receives an enabled address family route from a peer to which it did not advertise the necessary capability, the UPDATE message will be considered malformed. This causes either a session reset or treat-as-withdraw behavior depending on the error handling settings.<br>When the context is unconfigured, command settings are inherited from the higher level BGP configuration. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv4** *boolean*

| | |
|---|---|
| Synopsis | Advertise encoding capability for IPv4 routes |
| Context | **configure** router *named-item-64* bgp group *named-item-64* extended-nh-encoding ipv4 *boolean* |
| Tree | ipv4 |
| Default | false |
| Introduced | 19.5.R1 |
| Platforms | All |

### **label-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Advertise encoding capability for label-IPv4 routes |
| Context | **configure** router *named-item-64* bgp group *named-item-64* extended-nh-encoding label-ipv4 *boolean* |
| Tree | label-ipv4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **vpn-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Advertise encoding capability for VPN-IPv4 routes |
| Context | **configure** router *named-item-64* bgp group *named-item-64* extended-nh-encoding vpn-ipv4 *boolean* |
| Tree | vpn-ipv4 |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## family

| | |
|---|---|
| Synopsis | Enable the **family** context |
| Context | **configure** router *named-item-64* bgp group *named-item-64* family |
| Tree | family |
| Introduced | 16.0.R1 |
| Platforms | All |

## bgp-ls *boolean*

| | |
|---|---|
| Synopsis | Advertise MP-BGP support for the BGP-LS address family |
| Context | **configure** router *named-item-64* bgp group *named-item-64* family bgp-ls *boolean* |
| Tree | bgp-ls |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## evpn *boolean*

| | |
|---|---|
| Synopsis | Advertise MP-BGP support for the EVPN address family |
| Context | **configure** router *named-item-64* bgp group *named-item-64* family evpn *boolean* |
| Tree | evpn |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## flow-ipv4 *boolean*

| | |
|---|---|
| Synopsis | Advertise support for the FlowSpec-IPv4 address family |
| Context | **configure** router *named-item-64* bgp group *named-item-64* family flow-ipv4 *boolean* |
| Tree | flow-ipv4 |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **flow-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Advertise support for the FlowSpec-IPv6 address family |
| Context | **configure** router *named-item-64* bgp group *named-item-64* family flow-ipv6 *boolean* |
| Tree | flow-ipv6 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **flow-vpn-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Advertise support for FlowSpec-VPN IPv4 address family |
| Context | **configure** router *named-item-64* bgp group *named-item-64* family flow-vpn-ipv4 *boolean* |
| Tree | flow-vpn-ipv4 |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | All |

### **flow-vpn-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Advertise support for FlowSpec-VPN IPv6 address family |
| Context | **configure** router *named-item-64* bgp group *named-item-64* family flow-vpn-ipv6 *boolean* |
| Tree | flow-vpn-ipv6 |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | All |

### **ipv4** *boolean*

| | |
|---|---|
| Synopsis | Add support for the IPv4 address family |
| Context | **configure** router *named-item-64* bgp group *named-item-64* family ipv4 *boolean* |


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| | |
|---|---|
| Tree | ipv4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv6** *boolean*

| | |
|---|---|
| Synopsis | Advertise MP-BGP support for the IPv6 address family |
| Context | **configure** router *named-item-64* bgp group *named-item-64* family ipv6 *boolean* |
| Tree | ipv6 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **l2-vpn** *boolean*

| | |
|---|---|
| Synopsis | Advertise MP-BGP support for the L2-VPN address family |
| Context | **configure** router *named-item-64* bgp group *named-item-64* family l2-vpn *boolean* |
| Tree | l2-vpn |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **label-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Advertise support for the label-IPv4 address family |
| Context | **configure** router *named-item-64* bgp group *named-item-64* family label-ipv4 *boolean* |
| Tree | label-ipv4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **label-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Advertise support for the label-IPv6 address family |


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| | |
|---|---|
| Context | **configure** router *named-item-64* bgp group *named-item-64* family label-ipv6 *boolean* |
| Tree | label-ipv6 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mcast-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Advertise support for the MCAST-IPv4 address family |
| Context | **configure** router *named-item-64* bgp group *named-item-64* family mcast-ipv4 *boolean* |
| Tree | mcast-ipv4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mcast-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Advertise support for the MCAST-IPv6 address family |
| Context | **configure** router *named-item-64* bgp group *named-item-64* family mcast-ipv6 *boolean* |
| Tree | mcast-ipv6 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mcast-vpn-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Advertise support for the IPv4 VPN MCAST address family |
| Context | **configure** router *named-item-64* bgp group *named-item-64* family mcast-vpn-ipv4 *boolean* |
| Tree | mcast-vpn-ipv4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **mcast-vpn-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Advertise support for the IPv6 VPN MCAST address family |
| Context | **configure** router *named-item-64* bgp group *named-item-64* family mcast-vpn-ipv6 *boolean* |
| Tree | mcast-vpn-ipv6 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mdt-safi** *boolean*

| | |
|---|---|
| Synopsis | Advertise MP-BGP support for MDT-SAFI address family |
| Context | **configure** router *named-item-64* bgp group *named-item-64* family mdt-safi *boolean* |
| Tree | mdt-safi |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ms-pw** *boolean*

| | |
|---|---|
| Synopsis | Advertise support for multi-segment PW address family |
| Context | **configure** router *named-item-64* bgp group *named-item-64* family ms-pw *boolean* |
| Tree | ms-pw |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mvpn-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Advertise support for the IPv4 MCAST VPN address family |
| Context | **configure** router *named-item-64* bgp group *named-item-64* family mvpn-ipv4 *boolean* |
| Tree | mvpn-ipv4 |
| Default | false |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **mvpn-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Advertise support for the IPv6 MCAST VPN address family |
| Context | **configure** router *named-item-64* bgp group *named-item-64* family mvpn-ipv6 *boolean* |
| Tree | mvpn-ipv6 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **route-target** *boolean*

| | |
|---|---|
| Synopsis | Advertise MP-BGP support for RT constraint routes |
| Context | **configure** router *named-item-64* bgp group *named-item-64* family route-target *boolean* |
| Tree | route-target |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sr-policy-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Advertise MP-BGP support for the SR-policy-IPv4 family |
| Context | **configure** router *named-item-64* bgp group *named-item-64* family sr-policy-ipv4 *boolean* |
| Tree | sr-policy-ipv4 |
| Description | This command allows the router to advertise the capability for AFI1/SAFI73, which corresponds to BGP routes that encode a segment routing policy to an IPv4 destination. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sr-policy-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Advertise MP-BGP support for the SR-policy-IPv6 family |
| Context | **configure** router *named-item-64* bgp group *named-item-64* family sr-policy-ipv6 *boolean* |


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| | |
|---|---|
| Tree | sr-policy-ipv6 |
| Description | This command allows the router to advertise the capability for AFI2/SAFI73, which corresponds to BGP routes that encode a segment routing policy to an IPv6 destination. |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **vpn-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Advertise MP-BGP support for IPv4 VPN address family |
| Context | **configure** router *named-item-64* bgp group *named-item-64* family vpn-ipv4 *boolean* |
| Tree | vpn-ipv4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **vpn-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Advertise MP-BGP support for IPv6 VPN address family |
| Context | **configure** router *named-item-64* bgp group *named-item-64* family vpn-ipv6 *boolean* |
| Tree | vpn-ipv6 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **fast-external-failover** *boolean*

| | |
|---|---|
| Synopsis | Drop external BGP session immediately when link fails |
| Context | **configure** router *named-item-64* bgp group *named-item-64* fast-external-failover *boolean* |
| Tree | fast-external-failover |
| Description | When this command inherits a value of **true**, the router drops an external BGP session on a single-hop route immediately when the local interface goes down.<br>When unconfigured, the command inherits the value of the global-level setting (**true** or **false**). The command cannot be explicitly configured to **true**.<br>When configured to **false**, the BGP session remains up until the hold time expires. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## graceful-restart

| | |
|---|---|
| Synopsis | Enable the **graceful-restart** context |
| Context | **configure** router *named-item-64* bgp group *named-item-64* graceful-restart |
| Tree | graceful-restart |
| Description | Commands in this context configure BGP graceful restart helper procedures for address families included in the GR capabilities of both peers.<br>When the context is unconfigured, the command settings are inherited from the BGP global-level configuration. |
| Introduced | 16.0.R1 |
| Platforms | All |

## gr-notification *boolean*

| | |
|---|---|
| Synopsis | Perform graceful restart procedures after NOTIFICATION |
| Context | **configure** router *named-item-64* bgp group *named-item-64* graceful-restart gr-notification *boolean* |
| Tree | gr-notification |
| Description | When configured to **true**, the Graceful Restart capability sent by the router indicates support for NOTIFICATION messages. If the peer also supports this capability, the session is restarted gracefully (while preserving forwarding) if either peer sends a NOTIFICATION message due to some type of event or error.<br>When configured to **false**, NOTIFICATION messages are not supported. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## long-lived

| | |
|---|---|
| Synopsis | Enable the **long-lived** context |
| Context | **configure** router *named-item-64* bgp group *named-item-64* graceful-restart long-lived |
| Tree | long-lived |
| Description | Commands in this context configure the BGP Long-Lived Graceful-Restart (LLGR) procedures. |


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LLGR, known informally as BGP persistence, is an extension of BGP GR that allows a session to stay down for a longer period of time. During this time, learned routes are marked and re-advertised as stale but they can continue to be used as routes of last resort.

The LLGR handling of a session failure can be invoked immediately or it can be delayed until the end of the traditional GR restart window.

| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **advertise-stale-to-all-neighbors** *boolean*

| | |
|---|---|
| Synopsis | Advertise stale routes to all BGP peers |
| Context | **configure** router *named-item-64* bgp group *named-item-64* graceful-restart long-lived advertise-stale-to-all-neighbors *boolean* |
| Tree | advertise-stale-to-all-neighbors |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **advertised-stale-time** *number*

| | |
|---|---|
| Synopsis | Advertised long-lived stale time for LLGR routes |
| Context | **configure** router *named-item-64* bgp group *named-item-64* graceful-restart long-lived advertised-stale-time *number* |
| Tree | advertised-stale-time |
| Range | 0 to 16777215 |
| Default | 86400 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **family** [family-type] *keyword*

| | |
|---|---|
| Synopsis | Enter the **family** list instance |
| Context | **configure** router *named-item-64* bgp group *named-item-64* graceful-restart long-lived family *keyword* |
| Tree | family |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### [**family-type**] *keyword*

| | |
|---|---|
| Synopsis | Family type for family-specific LLGR configuration |
| Context | **configure** router *named-item-64* bgp group *named-item-64* graceful-restart long-lived family *keyword* |
| Tree | family |
| Options | ipv4, vpn-ipv4, ipv6, vpn-ipv6, l2-vpn, flow-ipv4, route-target, flow-ipv6, label-ipv4, label-ipv6, flow-vpn-ipv4, flow-vpn-ipv6 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **advertised-stale-time** *number*

| | |
|---|---|
| Synopsis | LLGR stale routes time for family override |
| Context | **configure** router *named-item-64* bgp group *named-item-64* graceful-restart long-lived family *keyword* advertised-stale-time *number* |
| Tree | advertised-stale-time |
| Description | This command configures the long-lived stale routes time that is advertised by the router in its LLGR capability.<br>This command applies to all AFI/SAFI in the advertised LLGR capability with a family-specific override. |
| Range | 0 to 16777215 |
| Default | 86400 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **helper-override-stale-time** *number*

| | |
|---|---|
| Synopsis | Locally-configured stale routes override time |
| Context | **configure** router *named-item-64* bgp group *named-item-64* graceful-restart long-lived family *keyword* helper-override-stale-time *number* |
| Tree | helper-override-stale-time |


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| | |
|---|---|
| Description | This command configures a locally-imposed LLGR stale time that overrides the long-lived stale routes time that is advertised by the router in its LLGR capability. This is a family-specific override value. |
| Range | 0 to 16777216 |
| Default | 16777216 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **forwarding-bits-set** *keyword*

| | |
|---|---|
| Synopsis | BGP LLGR forwarding-bit behavior for address family |
| Context | **configure** router *named-item-64* bgp group *named-item-64* graceful-restart long-lived forwarding-bits-set *keyword* |
| Tree | forwarding-bits-set |
| Description | This command determines the setting of the F bit in the GR and LLGR capabilities advertised by the router. When the F bit is set for an address family, it indicates that the advertising router is able to preserve forwarding state for the routes of that address family across the last restart. When the session is re-established after a restart and the F bit is not set, all stale routes from the peer are immediately removed for the corresponding address family.<br>This command allows the F bit to be set for all address families or only for non-forwarding address families (L2-VPN, route target, flow-IPv4, and flow-IPv6). |
| Options | none, all, non-fwd |
| Default | none |
| Introduced | 16.0.R1 |
| Platforms | All |

## **helper-override-restart-time** *number*

| | |
|---|---|
| Synopsis | Locally-configured override for restart time |
| Context | **configure** router *named-item-64* bgp group *named-item-64* graceful-restart long-lived helper-override-restart-time *number* |
| Tree | helper-override-restart-time |
| Description | This command overrides the restart time advertised by a peer (in its GR capability) with a locally-configured value. This override applies only to AFI/SAFI that were included in the GR capability of the peer. The restart-time is always zero for AFI/SAFI not included in the GR capability. This command is useful if the local router wants to force the LLGR phase to begin after a set time for all protected AFI/SAFI. |
| Range | 0 to 4095 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **helper-override-stale-time** *number*

| | |
|---|---|
| Synopsis | Locally-configured stale routes override time |
| Context | **configure** router *named-item-64* bgp group *named-item-64* graceful-restart long-lived helper-override-stale-time *number* |
| Tree | helper-override-stale-time |
| Description | This command configures a locally-imposed LLGR stale time that overrides the long-lived stale routes time that is advertised by the router in its LLGR capability.<br>This command applies to all AFI/SAFI in the advertised LLGR capability except for any AFI/SAFI with a family-specific override. |
| Range | 0 to 16777215 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **without-no-export** *boolean*

| | |
|---|---|
| Synopsis | Advertise LLGR stale routes to non-LLGR peers |
| Context | **configure** router *named-item-64* bgp group *named-item-64* graceful-restart long-lived without-no-export *boolean* |
| Tree | without-no-export |
| Description | When configured to **true**, LLGR stale routes can be advertised to any peer (EBGP or IBGP) that did not signal the LLGR capability. For IBGP and confederation-EBGP peers that did not advertise the LLGR capability, the local preference attribute in the advertised stale routes is automatically set to 0.<br>When configured to **false**, LLGR stale routes are not advertised to any EBGP peer that did not signal the LLGR capability. For IBGP and confederation-EBGP peers that did not advertise the LLGR capability, the local preference attribute in the advertised stale routes is automatically set to 0 and a NO_EXPORT standard community is automatically added to the routes. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **restart-time** *number*

| | |
|---|---|
| Synopsis | Restart time advertised by GR capability |
| Context | **configure** router *named-item-64* bgp group *named-item-64* graceful-restart restart-time *number* |
| Tree | restart-time |
| Range | 0 to 4095 |
| Default | 300 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **stale-routes-time** *number*

| | |
|---|---|
| Synopsis | Maximum time to maintain routes after graceful restart |
| Context | **configure** router *named-item-64* bgp group *named-item-64* graceful-restart stale-routes-time *number* |
| Tree | stale-routes-time |
| Range | 1 to 3600 |
| Default | 360 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hold-time**

| | |
|---|---|
| Synopsis | Enter the **hold-time** context |
| Context | **configure** router *named-item-64* bgp group *named-item-64* hold-time |
| Tree | hold-time |
| Introduced | 16.0.R1 |
| Platforms | All |

### **minimum-hold-time** *number*

| | |
|---|---|
| Synopsis | Minimum hold time between successive messages |
| Context | **configure** router *named-item-64* bgp group *named-item-64* hold-time minimum-hold-time *number* |
| Tree | minimum-hold-time |


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| | |
|---|---|
| Description | This command specifies the minimum hold time that is accepted for the session. If a peer proposes a hold time lower than this value, the session attempt is rejected.<br>When unconfigured, the command value is inherited from the BGP global-level setting. |
| Range | 0 \| 3 to 65536 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **seconds** *number*

| | |
|---|---|
| Synopsis | Maximum time BGP waits between successive messages |
| Context | **configure** router *named-item-64* bgp group *named-item-64* hold-time seconds *number* |
| Tree | seconds |
| Description | This command configures the maximum time BGP waits between successive messages (either keepalive or update) from its peer before closing the connection.<br>Although the implementation allows setting the keepalive timer at the BGP group level times separately, the configured keepalive timer is overridden by this value under the following circumstances.<br>• If the specified hold time is less than the configured keepalive time, the operational keepalive time is set to a third of the hold-time; the configured keepalive time is not changed.<br>• If the hold time is set to zero, the operational value of the keepalive time is set to zero; the configured keepalive time is not changed. The connection with the peer is up permanently and no keepalive packets are sent to the peer.<br>When unconfigured, the command setting is inherited from the BGP global-level configuration. |
| Range | 0 \| 3 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **import**

| | |
|---|---|
| Synopsis | Enable the **import** context |
| Context | **configure** router *named-item-64* bgp group *named-item-64* import |
| Tree | import |
| Description | Commands in this context specify route policies that control the handling of inbound routes received from certain peers. Route policies are configured in the **configure policy-options** context. |


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When this context is unconfigured, the policy association for the group is inherited from the BGP global-level configuration.

Introduced 16.0.R1

Platforms All

## **policy** *(policy-expr-string | string)*

Synopsis BGP import policy name

Context **configure** router *named-item-64* bgp group *named-item-64* import policy *(policy-expr-string | string)*

Tree policy

Description This command specifies route policies that control the handling of inbound routes received from certain peers.

Each object in this command is either a policy logical expression or the name of a single policy. The objects are evaluated in the specified order to determine the modifications of each route and the final action to accept or reject the route.

Only one of the objects referenced by the command can be a policy logical expression consisting of policy names (enclosed in square brackets) and logical operators (AND, OR, NOT).

Policy parameters must be enclosed by at-signs (@) and may be midstring; for example, "@variable@," "start@variable@end"," @variable@end", or"start@variable@".

String length 1 to 255

Max. instances 15

Min. instances 1

Notes This element is ordered by the user.

Introduced 16.0.R1

Platforms All

## **initial-send-delay-zero** *boolean*

Synopsis Send BGP updates as soon as the session comes up

Context **configure** router *named-item-64* bgp group *named-item-64* initial-send-delay-zero *boolean*

Tree initial-send-delay-zero

Description When configured to **true**, BGP updates are sent as soon as the session comes up.

When unconfigured, the command inherits the value of the global-level setting (**true** or **false**). The command cannot be explicitly configured to **false**.


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When this command inherits a value of **false**, BGP waits to send UPDATE messages for the minimum route advertisement time after a session is established.

Introduced 16.0.R1

Platforms All

## **keepalive** *number*

Synopsis Time after which the BGP KEEPALIVE message is sent

Context **configure** router *named-item-64* bgp group *named-item-64* keepalive *number*

Tree keepalive

Description This command configures the BGP keepalive timer value. A keepalive message is sent every time this timer expires.

This value is generally one-third of the hold time interval configured in the **hold-time seconds** context. Although the implementation allows this keepalive value and the hold time interval to be independently set, under the following circumstances, the configured keepalive value is overridden by the hold time interval value:

- If the specified keepalive value is greater than the configured hold time, the specified keepalive value is ignored and the timer value is set to one third of the current hold time value.
- If the specified hold time interval is less than the configured keepalive value, the keepalive value is reset to one third of the specified hold time interval.
- If the hold time interval is set to zero, the configured keepalive value is ignored. This means that the connection with the peer is up permanently and no keepalive packets are sent to the peer.

When unconfigured, the command inherits the BGP global-level setting.

Range 0 to 21845

Introduced 16.0.R1

Platforms All

## **label-preference** *number*

Synopsis Route preference for routes from labeled-unicast peers

Context **configure** router *named-item-64* bgp group *named-item-64* label-preference *number*

Tree label-preference

Range 1 to 255

Introduced 16.0.R1

Platforms All


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## link-bandwidth

| | |
|---|---|
| Synopsis | Enter the **link-bandwidth** context |
| Context | **configure** router *named-item-64* bgp group *named-item-64* link-bandwidth |
| Tree | link-bandwidth |
| Description | Commands in this context specify the handling of the Link Bandwidth Extended Community attached to specific BGP routes.<br>When all used multipaths of an IP prefix correspond to BGP routes with a Link Bandwidth EC, the datapath is programmed to use weighted ECMP across the BGP next hops in proportion to the bandwidth values. |
| Introduced | 16.0.R3 |
| Platforms | All |

## accept-from-ebgp

| | |
|---|---|
| Synopsis | Enter the **accept-from-ebgp** context |
| Context | **configure** router *named-item-64* bgp group *named-item-64* link-bandwidth accept-from-ebgp |
| Tree | accept-from-ebgp |
| Introduced | 16.0.R4 |
| Platforms | All |

## ipv4 *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in IPv4 routes |
| Context | **configure** router *named-item-64* bgp group *named-item-64* link-bandwidth accept-from-ebgp ipv4 *boolean* |
| Tree | ipv4 |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

## ipv6 *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in IPv6 routes |
| Context | **configure** router *named-item-64* bgp group *named-item-64* link-bandwidth accept-from-ebgp ipv6 *boolean* |


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| | |
|---|---|
| Tree | ipv6 |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **label-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in label-IPv4 routes |
| Context | **configure** router *named-item-64* bgp group *named-item-64* link-bandwidth accept-from-ebgp label-ipv4 *boolean* |
| Tree | label-ipv4 |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **label-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in label-IPv6 routes |
| Context | **configure** router *named-item-64* bgp group *named-item-64* link-bandwidth accept-from-ebgp label-ipv6 *boolean* |
| Tree | label-ipv6 |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **vpn-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in VPN-IPv4 routes |
| Context | **configure** router *named-item-64* bgp group *named-item-64* link-bandwidth accept-from-ebgp vpn-ipv4 *boolean* |
| Tree | vpn-ipv4 |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **vpn-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in VPN-IPv6 routes |
| Context | **configure** router *named-item-64* bgp group *named-item-64* link-bandwidth accept-from-ebgp vpn-ipv6 *boolean* |
| Tree | vpn-ipv6 |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **add-to-received-ebgp**

| | |
|---|---|
| Synopsis | Enter the **add-to-received-ebgp** context |
| Context | **configure** router *named-item-64* bgp group *named-item-64* link-bandwidth add-to-received-ebgp |
| Tree | add-to-received-ebgp |
| Introduced | 16.0.R3 |
| Platforms | All |

### **ipv4** *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in IPv4 routes |
| Context | **configure** router *named-item-64* bgp group *named-item-64* link-bandwidth add-to-received-ebgp ipv4 *boolean* |
| Tree | ipv4 |
| Default | false |
| Introduced | 16.0.R3 |
| Platforms | All |

### **ipv6** *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in IPv6 routes |
| Context | **configure** router *named-item-64* bgp group *named-item-64* link-bandwidth add-to-received-ebgp ipv6 *boolean* |
| Tree | ipv6 |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R3 |
| Platforms | All |

### **label-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in label-IPv4 routes |
| Context | **configure** router *named-item-64* bgp group *named-item-64* link-bandwidth add-to-received-ebgp label-ipv4 *boolean* |
| Tree | label-ipv4 |
| Default | false |
| Introduced | 16.0.R3 |
| Platforms | All |

### **label-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in label-IPv6 routes |
| Context | **configure** router *named-item-64* bgp group *named-item-64* link-bandwidth add-to-received-ebgp label-ipv6 *boolean* |
| Tree | label-ipv6 |
| Default | false |
| Introduced | 16.0.R3 |
| Platforms | All |

### **vpn-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in VPN-IPv4 routes |
| Context | **configure** router *named-item-64* bgp group *named-item-64* link-bandwidth add-to-received-ebgp vpn-ipv4 *boolean* |
| Tree | vpn-ipv4 |
| Default | false |
| Introduced | 16.0.R3 |
| Platforms | All |

### **vpn-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in VPN-IPv6 routes |


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| | |
|---|---|
| Context | **configure** router *named-item-64* bgp group *named-item-64* link-bandwidth add-to-received-ebgp vpn-ipv6 *boolean* |
| Tree | vpn-ipv6 |
| Default | false |
| Introduced | 16.0.R3 |
| Platforms | All |

## aggregate-used-paths

| | |
|---|---|
| Synopsis | Enter the **aggregate-used-paths** context |
| Context | **configure** router *named-item-64* bgp group *named-item-64* link-bandwidth aggregate-used-paths |
| Tree | aggregate-used-paths |
| Introduced | 16.0.R4 |
| Platforms | All |

## ipv4 *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in IPv4 routes |
| Context | **configure** router *named-item-64* bgp group *named-item-64* link-bandwidth aggregate-used-paths ipv4 *boolean* |
| Tree | ipv4 |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

## ipv6 *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in IPv6 routes |
| Context | **configure** router *named-item-64* bgp group *named-item-64* link-bandwidth aggregate-used-paths ipv6 *boolean* |
| Tree | ipv6 |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **label-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in label-IPv4 routes |
| Context | **configure** router *named-item-64* bgp group *named-item-64* link-bandwidth aggregate-used-paths label-ipv4 *boolean* |
| Tree | label-ipv4 |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **label-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in label-IPv6 routes |
| Context | **configure** router *named-item-64* bgp group *named-item-64* link-bandwidth aggregate-used-paths label-ipv6 *boolean* |
| Tree | label-ipv6 |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **vpn-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in VPN-IPv4 routes |
| Context | **configure** router *named-item-64* bgp group *named-item-64* link-bandwidth aggregate-used-paths vpn-ipv4 *boolean* |
| Tree | vpn-ipv4 |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **vpn-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in VPN-IPv6 routes |
| Context | **configure** router *named-item-64* bgp group *named-item-64* link-bandwidth aggregate-used-paths vpn-ipv6 *boolean* |
| Tree | vpn-ipv6 |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

## send-to-ebgp

| | |
|---|---|
| Synopsis | Enter the **send-to-ebgp** context |
| Context | **configure** router *named-item-64* bgp group *named-item-64* link-bandwidth send-to-ebgp |
| Tree | send-to-ebgp |
| Introduced | 16.0.R4 |
| Platforms | All |

## ipv4 *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in IPv4 routes |
| Context | **configure** router *named-item-64* bgp group *named-item-64* link-bandwidth send-to-ebgp ipv4 *boolean* |
| Tree | ipv4 |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

## ipv6 *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in IPv6 routes |
| Context | **configure** router *named-item-64* bgp group *named-item-64* link-bandwidth send-to-ebgp ipv6 *boolean* |
| Tree | ipv6 |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

## label-ipv4 *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in label-IPv4 routes |


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| | |
|---|---|
| Context | **configure** router *named-item-64* bgp group *named-item-64* link-bandwidth send-to-ebgp label-ipv4 *boolean* |
| Tree | label-ipv4 |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **label-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in label-IPv6 routes |
| Context | **configure** router *named-item-64* bgp group *named-item-64* link-bandwidth send-to-ebgp label-ipv6 *boolean* |
| Tree | label-ipv6 |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **vpn-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in VPN-IPv4 routes |
| Context | **configure** router *named-item-64* bgp group *named-item-64* link-bandwidth send-to-ebgp vpn-ipv4 *boolean* |
| Tree | vpn-ipv4 |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **vpn-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in VPN-IPv6 routes |
| Context | **configure** router *named-item-64* bgp group *named-item-64* link-bandwidth send-to-ebgp vpn-ipv6 *boolean* |
| Tree | vpn-ipv6 |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **local-address** *(ipv4-address-no-zone | ipv6-address-no-zone | interface-name)*

| | |
|---|---|
| Synopsis | Local IP address used when communicating with BGP peers |
| Context | **configure** router *named-item-64* bgp group *named-item-64* local-address *(ipv4-address-no-zone \| ipv6-address-no-zone \| interface-name)* |
| Tree | local-address |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **local-as**

| | |
|---|---|
| Synopsis | Enter the **local-as** context |
| Context | **configure** router *named-item-64* bgp group *named-item-64* local-as |
| Tree | local-as |
| Introduced | 16.0.R1 |
| Platforms | All |

### **as-number** *number*

| | |
|---|---|
| Synopsis | Local (or virtual) BGP AS number |
| Context | **configure** router *named-item-64* bgp group *named-item-64* local-as as-number *number* |
| Tree | as-number |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **prepend-global-as** *boolean*

| | |
|---|---|
| Synopsis | Prepend global ASN when advertising routes to BGP peer |
| Context | **configure** router *named-item-64* bgp group *named-item-64* local-as prepend-global-as *boolean* |
| Tree | prepend-global-as |
| Description | When configured to **true**, the global ASN is added to the AS_PATH attribute in outbound routes sent to the peer.<br>When configured to **false**, the global ASN is not included in the AS_PATH attribute. |


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| | |
|---|---|
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **private** *boolean*

| | |
|---|---|
| Synopsis | Hide the local ASN in sent paths learned from peering |
| Context | **configure** router *named-item-64* bgp group *named-item-64* local-as private *boolean* |
| Tree | private |
| Description | When configured to **true**, the local AS number is only advertised to peers that use the local ASN for establishing BGP peering sessions.<br>When configured to **false**, the local ASN is advertised to all peers, including those that can use the global ASN for establishing BGP peering sessions. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **local-preference** *number*

| | |
|---|---|
| Synopsis | Default local preference if not in incoming routes |
| Context | **configure** router *named-item-64* bgp group *named-item-64* local-preference *number* |
| Tree | local-preference |
| Range | 0 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **loop-detect** *keyword*

| | |
|---|---|
| Synopsis | Strategy for loop detection in the AS path |
| Context | **configure** router *named-item-64* bgp group *named-item-64* loop-detect *keyword* |
| Tree | loop-detect |
| Options | drop-peer, ignore-loop, off, discard-route |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **loop-detect-threshold** *number*

| | |
|---|---|
| Synopsis | Threshold for the global ASN in a received AS path |
| Context | **configure** router *named-item-64* bgp group *named-item-64* loop-detect-threshold *number* |
| Tree | loop-detect-threshold |
| Range | 0 to 15 |
| Introduced | 16.0.R6 |
| Platforms | All |

### **med-out** *(number | keyword)*

| | |
|---|---|
| Synopsis | Default MED attribute value to advertise to peers |
| Context | **configure** router *named-item-64* bgp group *named-item-64* med-out *(number | keyword)* |
| Tree | med-out |
| Max. range | 0 to 4294967295 |
| Options | igp-cost |
| Introduced | 16.0.R1 |
| Platforms | All |

### **min-route-advertisement** *number*

| | |
|---|---|
| Synopsis | Minimum time before a prefix can be advertised to peer |
| Context | **configure** router *named-item-64* bgp group *named-item-64* min-route-advertisement *number* |
| Tree | min-route-advertisement |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **monitor**

| | |
|---|---|
| Synopsis | Enable the **monitor** context |
| Context | **configure** router *named-item-64* bgp group *named-item-64* monitor |
| Tree | monitor |
| Description | Commands in this context specify BMP-related configurations at the BGP group level. |


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When this context is unconfigured, the command settings are inherited from the BGP global-level configuration.

Introduced 16.0.R1

Platforms All

## **admin-state** *keyword*

Synopsis Administrative state of BMP monitoring

Context **configure** router *named-item-64* bgp group *named-item-64* monitor admin-state *keyword*

Tree admin-state

Options enable, disable

Default disable

Introduced 16.0.R1

Platforms All

## **all-stations** *boolean*

Synopsis Send BMP messages to all configured stations

Context **configure** router *named-item-64* bgp group *named-item-64* monitor all-stations *boolean*

Tree all-stations

Description When configured to **true**, this command specifies that BMP messages are to be sent to all configured BMP monitoring stations.

When configured to **false**, the command is not used to indicate the stations which can receive BMP messages. The **station** command (at the same context level) identifies the BMP stations for which BMP messages are to be sent.

Default false

Introduced 16.0.R1

Platforms All

## **route-monitoring**

Synopsis Enter the **route-monitoring** context

Context **configure** router *named-item-64* bgp group *named-item-64* monitor route-monitoring

Tree route-monitoring

Introduced 16.0.R1


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| | |
|---|---|
| Platforms | All |

### **post-policy** *boolean*

| | |
|---|---|
| Synopsis | Allow post-policy route-monitoring messages to be sent |
| Context | **configure** router *named-item-64* bgp group *named-item-64* monitor route-monitoring post-policy *boolean* |
| Tree | post-policy |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **pre-policy** *boolean*

| | |
|---|---|
| Synopsis | Allow pre-policy route-monitoring messages to be sent |
| Context | **configure** router *named-item-64* bgp group *named-item-64* monitor route-monitoring pre-policy *boolean* |
| Tree | pre-policy |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **station** [station-name] *reference*

| | |
|---|---|
| Synopsis | Add a list entry for **station** |
| Context | **configure** router *named-item-64* bgp group *named-item-64* monitor station *reference* |
| Tree | station |
| Description | This command identifies a BMP monitoring station for which BMP messages are to be sent. |
| Max. instances | 8 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**station-name**] *reference*

| | |
|---|---|
| Synopsis | BMP monitoring station |
| Context | **configure** router *named-item-64* bgp group *named-item-64* monitor station *reference* |
| Tree | station |
| Reference | **configure** bmp station *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **multihop** *number*

| | |
|---|---|
| Synopsis | TTL in IP packet headers for EBGP peers multi-hops away |
| Context | **configure** router *named-item-64* bgp group *named-item-64* multihop *number* |
| Tree | multihop |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **multipath-eligible** *boolean*

| | |
|---|---|
| Synopsis | Allow routes from group peers in multipath eligibility |
| Context | **configure** router *named-item-64* bgp group *named-item-64* multipath-eligible *boolean* |
| Tree | multipath-eligible |
| Default | false |
| Introduced | 19.5.R1 |
| Platforms | All |

### **next-hop-self** *boolean*

| | |
|---|---|
| Synopsis | Advertise routes with local address as next-hop address |
| Context | **configure** router *named-item-64* bgp group *named-item-64* next-hop-self *boolean* |
| Tree | next-hop-self |
| Default | false |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## next-hop-unchanged

| | |
|---|---|
| Synopsis | Enter the **next-hop-unchanged** context |
| Context | **configure** router *named-item-64* bgp group *named-item-64* next-hop-unchanged |
| Tree | next-hop-unchanged |
| Description | Commands in this context specify the IP address families that allow unchanged BGP next-hops when sending BGP routes to peers in the group. |
| Introduced | 16.0.R1 |
| Platforms | All |

## evpn *boolean*

| | |
|---|---|
| Synopsis | Advertise EVPN routes with unchanged BGP next hop |
| Context | **configure** router *named-item-64* bgp group *named-item-64* next-hop-unchanged evpn *boolean* |
| Tree | evpn |
| Default | false |
| Introduced | 20.2.R1 |
| Platforms | All |

## label-ipv4 *boolean*

| | |
|---|---|
| Synopsis | Advertise label-IPv4 routes with unchanged BGP next hop |
| Context | **configure** router *named-item-64* bgp group *named-item-64* next-hop-unchanged label-ipv4 *boolean* |
| Tree | label-ipv4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## label-ipv6 *boolean*

| | |
|---|---|
| Synopsis | Advertise label-IPv6 routes with unchanged BGP next hop |


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| | |
|---|---|
| Context | **configure** router *named-item-64* bgp group *named-item-64* next-hop-unchanged label-ipv6 *boolean* |
| Tree | label-ipv6 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **vpn-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Advertise VPN IPv4 routes with unchanged BGP next hop |
| Context | **configure** router *named-item-64* bgp group *named-item-64* next-hop-unchanged vpn-ipv4 *boolean* |
| Tree | vpn-ipv4 |
| Default | false |
| Introduced | 20.2.R1 |
| Platforms | All |

## **vpn-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Advertise VPN IPv6 routes with unchanged BGP next hop |
| Context | **configure** router *named-item-64* bgp group *named-item-64* next-hop-unchanged vpn-ipv6 *boolean* |
| Tree | vpn-ipv6 |
| Default | false |
| Introduced | 20.2.R1 |
| Platforms | All |

## **origin-validation**

| | |
|---|---|
| Synopsis | Enter the **origin-validation** context |
| Context | **configure** router *named-item-64* bgp group *named-item-64* origin-validation |
| Tree | origin-validation |
| Description | Commands in this context configure the marking of every inbound IPv4, IPv6, labeled IPv4, and labeled IPv6 route from the BGP peer with one of the following origin validation states:<br>•<br>Valid (0) |


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- Not-Found (1)
- Invalid (2)

The configurations apply to all types of BGP peers, but generally should be applied only to EBGP peers and groups that contain only EBGP peers.

| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv4** *boolean*

| | |
|---|---|
| Synopsis | Enable support for unlabeled unicast IPv4 routes |
| Context | **configure** router *named-item-64* bgp group *named-item-64* origin-validation ipv4 *boolean* |
| Tree | ipv4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv6** *boolean*

| | |
|---|---|
| Synopsis | Enable support for unlabeled unicast IPv6 routes |
| Context | **configure** router *named-item-64* bgp group *named-item-64* origin-validation ipv6 *boolean* |
| Tree | ipv6 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **label-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Enable support for labeled-unicast IPv4 routes |
| Context | **configure** router *named-item-64* bgp group *named-item-64* origin-validation label-ipv4 *boolean* |
| Tree | label-ipv4 |
| Default | false |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **label-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Enable support for labeled-unicast IPv6 routes |
| Context | **configure** router *named-item-64* bgp group *named-item-64* origin-validation label-ipv6 *boolean* |
| Tree | label-ipv6 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### outbound-route-filtering

| | |
|---|---|
| Synopsis | Enable the **outbound-route-filtering** context |
| Context | **configure** router *named-item-64* bgp group *named-item-64* outbound-route-filtering |
| Tree | outbound-route-filtering |
| Description | Commands in this context configure the send and receive capabilities for Outbound Route Filtering (ORF).<br>When this context is unconfigured, the group command settings are inherited from the BGP global-level configuration. |
| Introduced | 16.0.R1 |
| Platforms | All |

### extended-community

| | |
|---|---|
| Synopsis | Enable the **extended-community** context |
| Context | **configure** router *named-item-64* bgp group *named-item-64* outbound-route-filtering extended-community |
| Tree | extended-community |
| Description | Commands in this context configure the ORF send and receive capabilities based on Extended Communities.<br>When this context is unconfigured, the command settings are inherited from the global-level configuration. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **accept-orf** *boolean*

| | |
|---|---|
| Synopsis | Negotiate with peer to accept BGP ORF filters |
| Context | **configure** router *named-item-64* bgp group *named-item-64* outbound-route-filtering extended-community accept-orf *boolean* |
| Tree | accept-orf |
| Description | When configured to **true**, the receive capability in the BGP ORF is negotiated with a peer and ORF filters can be accepted from peers.<br>When unconfigured, the command inherits the value of the global-level setting (**true** or **false**). The command cannot be explicitly configured to **false**.<br>When this command inherits a value of **false**, the accept capability in the BGP ORF is removed and any existing ORF filters that are currently in place are cleared. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **send-orf**

| | |
|---|---|
| Synopsis | Enable the **send-orf** context |
| Context | **configure** router *named-item-64* bgp group *named-item-64* outbound-route-filtering extended-community send-orf |
| Tree | send-orf |
| Description | Commands in this context allow BGP to negotiate the send capability in the ORF negotiation with a peer. The send capability also causes the router to send a community filter, prefix filter, or AS path filter configured as an inbound filter on the BGP session to its peer as an ORF Action ADD.<br>When this context is unconfigured, the command settings are inherited from the BGP global-level configuration. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **route-target** [community-name] *named-item*

| | |
|---|---|
| Synopsis | Add a list entry for **route-target** |
| Context | **configure** router *named-item-64* bgp group *named-item-64* outbound-route-filtering extended-community send-orf route-target *named-item* |
| Tree | route-target |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**community-name**] *named-item*

| | |
|---|---|
| Synopsis | Route target community name |
| Context | **configure** router *named-item-64* bgp group *named-item-64* outbound-route-filtering extended-community send-orf route-target *named-item* |
| Tree | route-target |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **passive** *boolean*

| | |
|---|---|
| Synopsis | Enable passive mode for BGP communication |
| Context | **configure** router *named-item-64* bgp group *named-item-64* passive *boolean* |
| Tree | passive |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **path-mtu-discovery** *boolean*

| | |
|---|---|
| Synopsis | Enable Path MTU Discovery |
| Context | **configure** router *named-item-64* bgp group *named-item-64* path-mtu-discovery *boolean* |
| Tree | path-mtu-discovery |
| Description | When configured to **true**, Path MTU Discovery (PMTUD) is enabled for the associated TCP connections.<br><br>When set to **true**, PMTUD is activated toward an IPv4 BGP neighbor and the Don't Fragment (DF) bit is set in the IP header of all IPv4 packets sent to the peer. If any device along the path toward the peer cannot forward the packet because the IP MTU of the interface is smaller than the IP packet size, this device drops the packet and sends an ICMP or ICMPv6 error message encoding the interface MTU. When the router receives the ICMP or ICMPv6 message, it lowers the TCP maximum segment size limit from the previous value so that the IP MTU constraint can be accommodated.<br><br>When configured to **false** and there is no TCP MSS configuration that can be associated with a BGP neighbor (in either the BGP configuration or the first hop IP interface configuration), the router advertises a value of only 1024 bytes as the TCP MSS option value, limiting received TCP segments to that size. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **peer-as** *number*

| | |
|---|---|
| Synopsis | Peer AS number |
| Context | **configure** router *named-item-64* bgp group *named-item-64* peer-as *number* |
| Tree | peer-as |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **peer-ip-tracking** *boolean*

| | |
|---|---|
| Synopsis | Enable BGP peer tracking |
| Context | **configure** router *named-item-64* bgp group *named-item-64* peer-ip-tracking *boolean* |
| Tree | peer-ip-tracking |
| Description | When configured to **true**, this command enables BGP peer tracking.<br>Peer tracking should be used with caution. Peer tracking can tear a session down even if the loss of connectivity turns out to be short-lived (for example, while the IGP protocol is re-converging). Next-hop tracking, which is always enabled, handles temporary connectivity issues more effectively.<br>When unconfigured, the command inherits the value of the global-level setting (**true** or **false**). The command cannot be explicitly configured to **false**.<br>When this command inherits a value of **false**, peer tracking is disabled. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **preference** *number*

| | |
|---|---|
| Synopsis | Route preference for routes learned from all peers |
| Context | **configure** router *named-item-64* bgp group *named-item-64* preference *number* |
| Tree | preference |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **prefix-limit** [family] *keyword*

| | |
|---|---|
| Synopsis | Enter the **prefix-limit** list instance |
| Context | **configure** router *named-item-64* bgp group *named-item-64* prefix-limit *keyword* |
| Tree | prefix-limit |
| Description | Commands in this context limit the number of BGP routes per address family received from a BGP peer and define the actions when crossing the configured maximum. |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**family**] *keyword*

| | |
|---|---|
| Synopsis | Address family to which the limit applies |
| Context | **configure** router *named-item-64* bgp group *named-item-64* prefix-limit *keyword* |
| Tree | prefix-limit |
| Options | ipv4, vpn-ipv4, ipv6, mcast-ipv4, vpn-ipv6, l2-vpn, mvpn-ipv4, mdt-safi, ms-pw, flow-ipv4, route-target, mcast-vpn-ipv4, mvpn-ipv6, flow-ipv6, evpn, mcast-ipv6, label-ipv4, label-ipv6, bgp-ls, mcast-vpn-ipv6, sr-policy-ipv4, sr-policy-ipv6, flow-vpn-ipv4, flow-vpn-ipv6 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **hold-excess** *number*

| | |
|---|---|
| Synopsis | Percentage of maximum routes to install in route table |
| Context | **configure** router *named-item-64* bgp group *named-item-64* prefix-limit *keyword* hold-excess *number* |
| Tree | hold-excess |
| Description | This command specifies the percentage of maximum routes that are allowed to be installed in the route table for the configured address family. If a peer within scope of the configuration exceeds the limit, the overflow routes are held in the BGP RIB as inactive routes and are ineligible for forwarding and advertisement to other peers. If the **post-import** command is configured to **true**, only routes not rejected by import policies count toward the limit.<br><br>A BGP route in an overflow state is reconsidered for activation and reinstallation when an UPDATE message is received for the route.<br><br>This command is mutually exclusive with the **idle-timeou**t and **log-only** commands. |


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| | |
|---|---|
| Range | 1 to 100 |
| Introduced | 23.7.R1 |
| Platforms | All |

### **idle-timeout** *number*

| | |
|---|---|
| Synopsis | Time BGP peering remains idle before reconnecting |
| Context | **configure** router *named-item-64* bgp group *named-item-64* prefix-limit *keyword* idle-timeout *number* |
| Tree | idle-timeout |
| Description | This command configures the time in minutes before a BGP peer is automatically re-established after reaching the prefix limit.<br>When unconfigured, the BGP peer stays down until the operator performs a reset. This command and **log-only** cannot be configured simultaneously. |
| Range | 1 to 1024 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **log-only** *boolean*

| | |
|---|---|
| Synopsis | Send warning message at threshold instead of take-down |
| Context | **configure** router *named-item-64* bgp group *named-item-64* prefix-limit *keyword* log-only *boolean* |
| Tree | log-only |
| Description | When configured to **true**, the router disables the BGP session from being taken down upon reaching the prefix limit. Instead, only a warning message is sent when the limit is reached. A warning message is also sent when the configured threshold percentage of the limit is reached.<br>This command and **idle-timeout** cannot be configured simultaneously.<br>When configured to **false**, the router generates a log event and takes the BGP session down upon reaching the prefix limit. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **maximum** *number*

| | |
|---|---|
| Synopsis | Maximum number of routes to be learned from a peer |


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| | |
|---|---|
| Context | **configure** router *named-item-64* bgp group *named-item-64* prefix-limit *keyword* maximum *number* |
| Tree | maximum |
| Description | This command configures the maximum number of BGP routes of the specified address family that can be received from a peer before administrative action is taken.<br>When **log-only** is unconfigured, the BGP session is taken down whenever the limit of any family is exceeded even if the limits of the other family has not been exceeded. |
| Range | 1 to 4294967295 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R2 |
| Platforms | All |

## **post-import** *boolean*

| | |
|---|---|
| Synopsis | Apply limit only to routes accepted by import policies |
| Context | **configure** router *named-item-64* bgp group *named-item-64* prefix-limit *keyword* post-import *boolean* |
| Tree | post-import |
| Description | When configured to **true**, the system limits the number of routes that are accepted by import policies. Routes rejected by import policies are not counted against the configured limit.<br>When configured to **false**, the system limits the number of routes to all routes received from the peer. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **threshold** *number*

| | |
|---|---|
| Synopsis | Percentage threshold that triggers a warning message |
| Context | **configure** router *named-item-64* bgp group *named-item-64* prefix-limit *keyword* threshold *number* |
| Tree | threshold |
| Range | 1 to 100 |
| Default | 90 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### remove-private

| | |
|---|---|
| Synopsis | Enable the **remove-private** context |
| Context | **configure** router *named-item-64* bgp group *named-item-64* remove-private |
| Tree | remove-private |
| Introduced | 16.0.R1 |
| Platforms | All |

### limited *boolean*

| | |
|---|---|
| Synopsis | Remove private ASNs up to first public ASN encountered |
| Context | **configure** router *named-item-64* bgp group *named-item-64* remove-private limited *boolean* |
| Tree | limited |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### replace *boolean*

| | |
|---|---|
| Synopsis | Replace private ASN with global ASN before advertising |
| Context | **configure** router *named-item-64* bgp group *named-item-64* remove-private replace *boolean* |
| Tree | replace |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### skip-peer-as *boolean*

| | |
|---|---|
| Synopsis | Keep private ASN if it is the same as the BGP peer ASN |
| Context | **configure** router *named-item-64* bgp group *named-item-64* remove-private skip-peer-as *boolean* |
| Tree | skip-peer-as |
| Default | false |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## segment-routing-v6

| | |
|---|---|
| Synopsis | Enable the **segment-routing-v6** context |
| Context | **configure** router *named-item-64* bgp group *named-item-64* segment-routing-v6 |
| Tree | segment-routing-v6 |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## route-advertisement

| | |
|---|---|
| Synopsis | Enable the **route-advertisement** context |
| Context | **configure** router *named-item-64* bgp group *named-item-64* segment-routing-v6 route-advertisement |
| Tree | route-advertisement |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## drop-routes-with-srv6-tlvs *boolean*

| | |
|---|---|
| Synopsis | Drop BGP routes with SRv6 TLVs |
| Context | **configure** router *named-item-64* bgp group *named-item-64* segment-routing-v6 route-advertisement drop-routes-with-srv6-tlvs *boolean* |
| Tree | drop-routes-with-srv6-tlvs |
| Description | When configured to **true**, the router drops and does not advertise BGP routes (that belong to any address family) with SRv6 TLVs.<br>When configured to **false**, the router advertises BGP routes with SRv6 TLVs. |
| Default | false |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## family [family-type] *keyword*

| | |
|---|---|
| Synopsis | Enter the **family** list instance |


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| | |
|---|---|
| Context | **configure** router *named-item-64* bgp group *named-item-64* segment-routing-v6 route-advertisement family *keyword* |
| Tree | family |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### [**family-type**] *keyword*

| | |
|---|---|
| Synopsis | IP address type that SRv6 route attributes apply to |
| Context | **configure** router *named-item-64* bgp group *named-item-64* segment-routing-v6 route-advertisement family *keyword* |
| Tree | family |
| Options | ipv4, ipv6 |
| Notes | This element is part of a list key. |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **strip-srv6-tlvs** *boolean*

| | |
|---|---|
| Synopsis | Strip SRv6 TLVs from BGP routes advertised to peers |
| Context | **configure** router *named-item-64* bgp group *named-item-64* segment-routing-v6 route-advertisement family *keyword* strip-srv6-tlvs *boolean* |
| Tree | strip-srv6-tlvs |
| Description | When configured to **true**, BGP routes that belong to the address family specified using the **family** command are advertised to peers with SRv6 TLVs removed. Locally or remotely added SRv6 TLVs can be removed.<br>When configured to **false**, SRv6 TLVs are not stripped from BGP routes advertised to peers. |
| Default | false |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **selective-label-ipv4-install** *boolean*

| | |
|---|---|
| Synopsis | Enable selective download for bgp label-ipv4 routes |
| Context | **configure** router *named-item-64* bgp group *named-item-64* selective-label-ipv4-install *boolean* |


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| | |
|---|---|
| Tree | selective-label-ipv4-install |
| Introduced | 19.10.R1 |
| Platforms | All |

## send-communities

| | |
|---|---|
| Synopsis | Enter the **send-communities** context |
| Context | **configure** router *named-item-64* bgp group *named-item-64* send-communities |
| Tree | send-communities |
| Introduced | 16.0.R1 |
| Platforms | All |

## extended *boolean*

| | |
|---|---|
| Synopsis | Advertise the Extended Communities attribute to peers |
| Context | **configure** router *named-item-64* bgp group *named-item-64* send-communities extended *boolean* |
| Tree | extended |
| Description | When unconfigured, this command inherits the value of the global-level setting (**true** or **false**). The command cannot be explicitly configured to **true**.<br>When this command inherits a value of **true**, BGP extended communities are sent to peers in the Extended Communities attribute.<br>When configured to **false**, all extended communities are removed from all routes advertised to BGP peers. |
| Introduced | 16.0.R1 |
| Platforms | All |

## large *boolean*

| | |
|---|---|
| Synopsis | Advertise the Large Communities attribute to peers |
| Context | **configure** router *named-item-64* bgp group *named-item-64* send-communities large *boolean* |
| Tree | large |
| Description | When unconfigured, this command inherits the value of the global-level setting (**true** or **false**). The command cannot be explicitly configured to **true**.<br>When this command inherits a value of **true**, BGP large communities are sent to peers in the Large Communities attribute. |


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When configured to **false**, all large communities are removed from all routes advertised to BGP peers.

Introduced 16.0.R1

Platforms All

## **standard** *boolean*

Synopsis Advertise the Communities attribute to peers

Context **configure** router *named-item-64* bgp group *named-item-64* send-communities standard *boolean*

Tree standard

Description When unconfigured, this command inherits the value of the global-level setting (**true** or **false**). The command cannot be explicitly configured to **true**.

When this command inherits a value of **true**, BGP standard communities are sent to peers in the Communities attribute.

When configured to **false**, all standard communities are removed from all routes advertised to BGP peers.

Introduced 16.0.R1

Platforms All

## **send-default**

Synopsis Enable the **send-default** context

Context **configure** router *named-item-64* bgp group *named-item-64* send-default

Tree send-default

Introduced 19.7.R1

Platforms All

## **export-policy** *reference*

Synopsis Export policy name

Context **configure** router *named-item-64* bgp group *named-item-64* send-default export-policy *reference*

Tree export-policy

Reference **configure** policy-options policy-statement *named-item-64*

Introduced 19.7.R1

Platforms All


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### **ipv4** *boolean*

| | |
|---|---|
| Synopsis | Generate and advertise an IPv4 default route (0/0) |
| Context | **configure** router *named-item-64* bgp group *named-item-64* send-default ipv4 *boolean* |
| Tree | ipv4 |
| Default | false |
| Introduced | 19.7.R1 |
| Platforms | All |

### **ipv6** *boolean*

| | |
|---|---|
| Synopsis | Generate and advertise an IPv6 default route (::/0) |
| Context | **configure** router *named-item-64* bgp group *named-item-64* send-default ipv6 *boolean* |
| Tree | ipv6 |
| Default | false |
| Introduced | 19.7.R1 |
| Platforms | All |

### **split-horizon** *boolean*

| | |
|---|---|
| Synopsis | Prevent routes being reflected back to best-route peer |
| Context | **configure** router *named-item-64* bgp group *named-item-64* split-horizon *boolean* |
| Tree | split-horizon |
| Description | When configured to **true**, this command enables the use of split-horizon.<br>This command prevents routes from being reflected back to a peer that sends the best route. It applies to routes of all address families and to any type of sending peer; confed-EBGP, EBGP and IBGP.<br>Enabling the split-horizon functionality may have a detrimental impact on peer and route scaling and should only be used when absolutely necessary.<br>When unconfigured, the command inherits the value of the global-level setting (**true** or **false**). The command cannot be explicitly configured to **false**.<br>When this command inherits a value of **false**, the use of split-horizon is disabled. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **static-group** *boolean*

| | |
|---|---|
| Synopsis | Use group for static peers |
| Context | **configure** router *named-item-64* bgp group *named-item-64* static-group *boolean* |
| Tree | static-group |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **tcp-mss** *(number | keyword)*

| | |
|---|---|
| Synopsis | TCP maximum segment size override |
| Context | **configure** router *named-item-64* bgp group *named-item-64* tcp-mss *(number | keyword)* |
| Tree | tcp-mss |
| Description | This command configures an override for the TCP maximum segment size to use with a specific peer or set of peers (depending on the scope of the command).<br>The configured value controls two properties of the TCP connection as follows:<br>TCP MSS option - The router advertises the TCP MSS option value in the TCP SYN packet it sends as part of the 3-way handshake. The advertised value may be lower than the configured value, depending on the IP MTU of the first hop IP interface. The peers must abide by this value when sending TCP segments to the local router.<br>TCP maximum segment size - The actual transmitted size may be lower than the configured value, depending on the TCP MSS option value signaled by the peers, the effect of path MTU discovery, or other factors. |
| Range | 384 to 9746 |
| Options | ip-stack |
| Introduced | 21.2.R1 |
| Platforms | All |

### **third-party-nexthop** *boolean*

| | |
|---|---|
| Synopsis | Apply third-party next-hop processing to EBGP peers |
| Context | **configure** router *named-item-64* bgp group *named-item-64* third-party-nexthop *boolean* |
| Tree | third-party-nexthop |
| Description | When configured to **true**, this command enables the router to send third-party next hop to EBGP peers in the same subnet as the source peer. The address family of the transport must match the address family of the route. |


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When an IPv4 or IPv6 route is received from one EBGP peer and advertised to another EBGP peer in the same IP subnet, the BGP next hop is left unchanged.

When unconfigured, the command inherits the value of the global-level setting (**true** or **false**). The command cannot be explicitly configured to **false**.

When this command inherits a value of **false**, third-party next-hop processing is disabled and the next hop carries the IP address of the interface used to establish the TCP connection to the peer.

Introduced 16.0.R1

Platforms All

## **ttl-security** *number*

Synopsis Minimum TTL value for an incoming BGP packet

Context **configure** router *named-item-64* bgp group *named-item-64* ttl-security *number*

Tree ttl-security

Description This command configures the minimum TTL value that BGP accepst from an incoming packet. A packet with a TTL value less than the minimum configured TTL value is discarded.

Range 1 to 255

Introduced 16.0.R1

Platforms All

## **type** *keyword*

Synopsis BGP peer type

Context **configure** router *named-item-64* bgp group *named-item-64* type *keyword*

Tree type

Options no-type, internal, external

Default no-type

Introduced 16.0.R1

Platforms All

## **vpn-apply-export** *boolean*

Synopsis Apply base-instance BGP export policies to VPN routes

Context **configure** router *named-item-64* bgp group *named-item-64* vpn-apply-export *boolean*

Tree vpn-apply-export


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| | |
|---|---|
| Description | When configured to **true**, base-instance BGP export route policies are applied to VPN-IPv4/6, MVPN-IPv4/6, L2-VPN, MDT-SAFI, MCAST-VPN-IPv4, and EVPN routes.<br>When unconfigured, the command inherits the value of the global-level setting (**true** or **false**). The command cannot be explicitly configured to **false**.<br>When this command inherits a value of **false**, the export policies are not applied. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **vpn-apply-import** *boolean*

| | |
|---|---|
| Synopsis | Apply base-instance BGP import policies to VPN routes |
| Context | **configure** router *named-item-64* bgp group *named-item-64* vpn-apply-import *boolean* |
| Tree | vpn-apply-import |
| Description | When configured to **true**, base-instance BGP import route policies are applied to VPN-IPv4/6, MVPN-IPv4/6, L2-VPN, MDT-SAFI, MCAST-VPN-IPv4, and EVPN routes.<br>When unconfigured, the command inherits the value of the global-level setting (**true** or **false**). The command cannot be explicitly configured to **false**.<br>When this command inherits a value of **false**, the import policies are not applied. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **hold-time**

| | |
|---|---|
| Synopsis | Enter the **hold-time** context |
| Context | **configure** router *named-item-64* bgp hold-time |
| Tree | hold-time |
| Introduced | 16.0.R1 |
| Platforms | All |

## **minimum-hold-time** *number*

| | |
|---|---|
| Synopsis | Minimum hold time between successive messages |
| Context | **configure** router *named-item-64* bgp hold-time minimum-hold-time *number* |
| Tree | minimum-hold-time |
| Description | This command specifies the minimum hold time that is accepted for the session. If a peer proposes a hold time lower than this value, the session attempt is rejected. |


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| | |
|---|---|
| Range | 0 \| 3 to 65535 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **seconds** *number*

| | |
|---|---|
| Synopsis | Maximum time BGP waits between successive messages |
| Context | **configure** router *named-item-64* bgp hold-time seconds *number* |
| Tree | seconds |
| Description | This command configures the maximum time BGP waits between successive messages (either keepalive or update) from its peer before closing the connection.<br>Although the implementation allows setting the keepalive timer at the BGP global level times separately, the configured keepalive timer is overridden by this value under the following circumstances.<br>• If the specified hold time is less than the configured keepalive time, the operational keepalive time is set to a third of the hold-time; the configured keepalive time is not changed.<br>• If the hold time is set to zero, the operational value of the keepalive time is set to zero; the configured keepalive time is not changed. The connection with the peer is up permanently and no keepalive packets are sent to the peer. |
| Range | 0 \| 3 to 65535 |
| Default | 90 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ibgp-multipath** *boolean*

| | |
|---|---|
| Synopsis | Enable IBGP multipath load balancing |
| Context | **configure** router *named-item-64* bgp ibgp-multipath *boolean* |
| Tree | ibgp-multipath |
| Description | When configured to **true**, this command enables IBGP multipath load balancing when adding BGP routes to the route table if the route resolving the BGP next hop offers multiple next hops.<br>When configured to **false**, this command disables IBGP multipath load balancing. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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## import

| | |
|---|---|
| Synopsis | Enable the **import** context |
| Context | **configure** router *named-item-64* bgp import |
| Tree | import |
| Description | Commands in this context specify route policies that control the handling of inbound routes received from certain peers. Route policies are configured in the **configure policy-options** context.<br>When no import policies are specified in this context, BGP routes are accepted by default. |
| Introduced | 16.0.R1 |
| Platforms | All |

## policy *(policy-expr-string | string)*

| | |
|---|---|
| Synopsis | BGP import policy name |
| Context | **configure** router *named-item-64* bgp import policy *(policy-expr-string \| string)* |
| Tree | policy |
| Description | This command specifies a list of objects, where each object is either a policy logical expression or the name of a single policy. The objects are evaluated in the specified order to determine the modifications of each route and the final action to accept or reject the route.<br>Only one of the objects referenced by this command is allowed to be a policy logical expression consisting of policy names (enclosed in square brackets) and logical operators (AND, OR, NOT).<br>Policy parameters must be enclosed by at-signs (@) and may be midstring; for example, "@variable@," "start@variable@end"," @variable@end", or"start@variable@". |
| String length | 1 to 255 |
| Max. instances | 15 |
| Min. instances | 1 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **initial-send-delay-zero** *boolean*

| | |
|---|---|
| Synopsis | Send BGP updates as soon as session comes up |
| Context | **configure** router *named-item-64* bgp initial-send-delay-zero *boolean* |
| Tree | initial-send-delay-zero |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **inter-as-vpn** *boolean*

| | |
|---|---|
| Synopsis | Allow advertisement of VPN routes across AS boundaries |
| Context | **configure** router *named-item-64* bgp inter-as-vpn *boolean* |
| Tree | inter-as-vpn |
| Description | When configured to **true**, VPNs can exchange routes across AS boundaries, providing model B connectivity.<br>When configured to **false**, ASBRs are prevented from advertising VPN routes to peers in other ASs. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **keepalive** *number*

| | |
|---|---|
| Synopsis | Time after which the BGP KEEPALIVE message is sent |
| Context | **configure** router *named-item-64* bgp keepalive *number* |
| Tree | keepalive |
| Range | 0 to 21845 |
| Default | 30 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **label-allocation**

| | |
|---|---|
| Synopsis | Enter the **label-allocation** context |
| Context | **configure** router *named-item-64* bgp label-allocation |


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| | |
|---|---|
| Tree | label-allocation |
| Introduced | 20.10.R1 |
| Platforms | All |

## label-ipv6

| | |
|---|---|
| Synopsis | Enter the **label-ipv6** context |
| Context | **configure** router *named-item-64* bgp label-allocation label-ipv6 |
| Tree | label-ipv6 |
| Description | This command controls the label allocation behavior for labeled unicast IPv6 routes. The label options are **explicit-null** and **normal**. |
| Introduced | 20.10.R1 |
| Platforms | All |

## explicit-null *boolean*

| | |
|---|---|
| Synopsis | Apply advertised label and associated programming rules |
| Context | **configure** router *named-item-64* bgp label-allocation label-ipv6 explicit-null *boolean* |
| Tree | explicit-null |

Description

When configured to **true**, this command uses the advertised label and associated programming rules on this instance of BGP. The following applies:

- The router is required to act as the BGP next-hop of a label-unicast IPv6 route that it is advertising. It sets the BGP label value to IPv6 explicit null (value 2), forcing a POP behavior for received packets.
- The received label-unicast IPv6 routes never create tunnels in TTM that can be used to resolve other BGP routes (with an IPv6 next-hop).
- A received label-unicast IPv6 route can be resolved by a label-ipv4 BGP tunnel that is transported over a stacked tunnel (SR-TE LSP or LDPoRSVP LSP).

When configured to **false**, advertised label IPv6 programming rules are not used. The following applies

- When the router is required to act as the BGP next-hop of a label-unicast IPv6 route that it is advertising, it sets the BGP label value to a proper value in the dynamic label range and programs a POP or SWAP operation for that label, depending on the origin of the route and various import policy actions that could apply to the route.
- Received label-unicast IPv6 routes that have a prefix length of 128 bits are automatically installed in TTM so that they can be used to resolve other (non-labeled-unicast) BGP routes (with an IPv6 next-hop).
- A received label-unicast IPv6 route cannot be resolved by a label-ipv4 BGP tunnel that is transported over a stacked tunnel (SR-TE LSP or LDPoRSVP LSP).


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- The label-ipv6 routes used for ECMP toward an IPv6 destination cannot be a mix of routes with regular label values and routes with special (IPv6 explicit null) label values.

Changes in the value of this leaf do not cause the BGP sessions of the base router to reset.

| | |
|---|---|
| Default | true |
| Introduced | 20.10.R1 |
| Platforms | All |

## **label-preference** *number*

| | |
|---|---|
| Synopsis | Route preference for routes from labeled-unicast peers |
| Context | **configure** router *named-item-64* bgp label-preference *number* |
| Tree | label-preference |
| Range | 1 to 255 |
| Default | 170 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **link-state-route-export** *boolean*

| | |
|---|---|
| Synopsis | Allow the export of the TED NLRI database |
| Context | **configure** router *named-item-64* bgp link-state-route-export *boolean* |
| Tree | link-state-route-export |
| Description | When configured to **true**, this command allows BGP to export link-state information to BGP neighbors.<br>When configured to **false**, link-state information is not exported. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **link-state-route-import** *boolean*

| | |
|---|---|
| Synopsis | Allow the import of the TED NLRI database |
| Context | **configure** router *named-item-64* bgp link-state-route-import *boolean* |
| Tree | link-state-route-import |


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| | |
|---|---|
| Description | When configured to **true**, this command enables the import of link-state information into the BGP-LS address family for advertisement to other BGP neighbors.<br>When configured to **false**, this command disables the import of link-state information. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## local-as

| | |
|---|---|
| Synopsis | Enter the **local-as** context |
| Context | **configure** router *named-item-64* bgp local-as |
| Tree | local-as |
| Introduced | 16.0.R1 |
| Platforms | All |

## as-number *number*

| | |
|---|---|
| Synopsis | Local (or virtual) BGP AS number |
| Context | **configure** router *named-item-64* bgp local-as as-number *number* |
| Tree | as-number |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

## prepend-global-as *boolean*

| | |
|---|---|
| Synopsis | Prepend global AS when advertising routes to BGP peer |
| Context | **configure** router *named-item-64* bgp local-as prepend-global-as *boolean* |
| Tree | prepend-global-as |
| Description | When configured to **true**, the global ASN is added to the AS_PATH attribute in outbound routes sent to the peer.<br>When configured to **false**, the global ASN is hidden in paths announced to the EBGP peer. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **private** *boolean*

| | |
|---|---|
| Synopsis | Hide the local ASN in sent paths learned from peering |
| Context | **configure** router *named-item-64* bgp local-as private *boolean* |
| Tree | private |
| Description | When configured to **true**, the local ASN is hidden in paths learned from the peering.<br>When configured to **false**, the local ASN is advertised to all peers, including those that can use the global ASN for establishing BGP peering sessions. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **local-preference** *number*

| | |
|---|---|
| Synopsis | Default local preference if not in incoming routes |
| Context | **configure** router *named-item-64* bgp local-preference *number* |
| Tree | local-preference |
| Max. range | 0 to 4294967295 |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **loop-detect** *keyword*

| | |
|---|---|
| Synopsis | Strategy for loop detection in the AS path |
| Context | **configure** router *named-item-64* bgp loop-detect *keyword* |
| Tree | loop-detect |
| Options | drop-peer, ignore-loop, off, discard-route |
| Default | ignore-loop |
| Introduced | 16.0.R1 |
| Platforms | All |

### **loop-detect-threshold** *number*

| | |
|---|---|
| Synopsis | Threshold for the global ASN in a received AS path |


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| | |
|---|---|
| Context | **configure** router *named-item-64* bgp loop-detect-threshold *number* |
| Tree | loop-detect-threshold |
| Range | 0 to 15 |
| Default | 0 |
| Introduced | 16.0.R6 |
| Platforms | All |

### **med-out** *(number | keyword)*

| | |
|---|---|
| Synopsis | Default MED attribute value to advertise to peers |
| Context | **configure** router *named-item-64* bgp med-out *(number | keyword)* |
| Tree | med-out |
| Max. range | 0 to 4294967295 |
| Options | igp-cost |
| Introduced | 16.0.R1 |
| Platforms | All |

### **min-route-advertisement** *number*

| | |
|---|---|
| Synopsis | Minimum time before a prefix can be advertised to peer |
| Context | **configure** router *named-item-64* bgp min-route-advertisement *number* |
| Tree | min-route-advertisement |
| Range | 1 to 255 |
| Default | 30 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **monitor**

| | |
|---|---|
| Synopsis | Enable the **monitor** context |
| Context | **configure** router *named-item-64* bgp monitor |
| Tree | monitor |
| Description | Commands in this context specify BMP-related configurations.<br>When this context is unconfigured, the sending of BMP messages to BMP monitoring stations is disabled. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of BMP monitoring |
| Context | **configure** router *named-item-64* bgp monitor admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **all-stations** *boolean*

| | |
|---|---|
| Synopsis | Send BMP messages to all configured stations |
| Context | **configure** router *named-item-64* bgp monitor all-stations *boolean* |
| Tree | all-stations |
| Description | When configured to **true**, this command specifies that BMP messages are to be sent to all configured BMP monitoring stations.<br>When configured to **false**, the command is not used to indicate the stations which can receive BMP messages. The **station** command (at the same context level) identifies the BMP stations for which BMP messages are to be sent. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **route-monitoring**

| | |
|---|---|
| Synopsis | Enter the **route-monitoring** context |
| Context | **configure** router *named-item-64* bgp monitor route-monitoring |
| Tree | route-monitoring |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **post-policy** *boolean*

| | |
|---|---|
| Synopsis | Allow post-policy route-monitoring messages to be sent |
| Context | **configure** router *named-item-64* bgp monitor route-monitoring post-policy *boolean* |
| Tree | post-policy |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **pre-policy** *boolean*

| | |
|---|---|
| Synopsis | Allow pre-policy route-monitoring messages to be sent |
| Context | **configure** router *named-item-64* bgp monitor route-monitoring pre-policy *boolean* |
| Tree | pre-policy |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **station** [station-name] *reference*

| | |
|---|---|
| Synopsis | Add a list entry for **station** |
| Context | **configure** router *named-item-64* bgp monitor station *reference* |
| Tree | station |
| Description | This command identifies a BMP monitoring station for which BMP messages are to be sent. |
| Max. instances | 8 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**station-name**] *reference*

| | |
|---|---|
| Synopsis | BMP monitoring station |
| Context | **configure** router *named-item-64* bgp monitor station *reference* |
| Tree | station |


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| | |
|---|---|
| Reference | **configure** bmp station *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **mp-bgp-keep** *boolean*

| | |
|---|---|
| Synopsis | Keep rejected VPN-IP routes in RIB-IN |
| Context | **configure** router *named-item-64* bgp mp-bgp-keep *boolean* |
| Tree | mp-bgp-keep |
| Description | When configured to **true**, the RIB-IN retains all MP-BGP routes, including VPN routes rejected by import policies or not imported by any services. As a result, sending Route Refresh messages is not required when an import policy changes.<br>When configured to **false**, these VPN routes are deleted from the RIB-IN. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **multihop** *number*

| | |
|---|---|
| Synopsis | TTL in IP packet headers for EBGP peers multi-hops away |
| Context | **configure** router *named-item-64* bgp multihop *number* |
| Tree | multihop |
| Description | This command configures the Time to Live (TTL) value entered in the IP header of packets sent to an EBGP peer multiple hops away. This command applies only to EBGP. |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **multipath**

| | |
|---|---|
| Synopsis | Enter the **multipath** context |
| Context | **configure** router *named-item-64* bgp multipath |
| Tree | multipath |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **ebgp** *number*

| | |
|---|---|
| Synopsis | Maximum multipaths per prefix for EBGP learned routes |
| Context | **configure** router *named-item-64* bgp multipath ebgp *number* |
| Tree | ebgp |
| Range | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **family** [family-type] *keyword*

| | |
|---|---|
| Synopsis | Enter the **family** list instance |
| Context | **configure** router *named-item-64* bgp multipath family *keyword* |
| Tree | family |
| Introduced | 19.5.R1 |
| Platforms | All |

### [**family-type**] *keyword*

| | |
|---|---|
| Synopsis | Address family for which multipath selection applies |
| Context | **configure** router *named-item-64* bgp multipath family *keyword* |
| Tree | family |
| Options | ipv4, ipv6, label-ipv4, label-ipv6 |
| Notes | This element is part of a list key. |
| Introduced | 19.5.R1 |
| Platforms | All |

### **ebgp** *number*

| | |
|---|---|
| Synopsis | Maximum multipaths when best path is EBGP learned route |
| Context | **configure** router *named-item-64* bgp multipath family *keyword* ebgp *number* |
| Tree | ebgp |
| Description | This command configures the maximum number of multipaths per prefix or NLRI when the best path is an EBGP learned route. The limit configured using this command |


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overrides the limit configured in the **max-paths** command. If the best path is an EBGP learned route, and this command is set to 1, multipaths are disabled.

Range 1 to 64

Introduced 19.5.R1

Platforms All

## **ibgp** *number*

Synopsis Maximum multipaths when best path is IBGP learned route

Context **configure** router *named-item-64* bgp multipath family *keyword* ibgp *number*

Tree ibgp

Description This command configures the maximum number of multipaths per prefix or NLRI when the best path is an IBGP learned route. The limit configured using this command overrides the limit configured in the **max-paths** command. If the best path is an IBGP learned route and this command is set to 1, multipaths are disabled.

Range 1 to 64

Introduced 19.5.R1

Platforms All

## **max-paths** *number*

Synopsis Maximum number of multipaths per prefix or NLRI

Context **configure** router *named-item-64* bgp multipath family *keyword* max-paths *number*

Tree max-paths

Description This command configures the maximum number of multipaths per prefix or NLRI for the IP family option specified using the **family** command.

Consider the following when configuring this command:

- If the best path is an EBGP-learned route and the **ebgp** command is configured, the limit configured in the **ebgp** command overrides the limit configured in this command.
- If the best path is an IBGP-learned route and the **ibgp** command is configured, the limit configured in the **ibgp** command overrides the limit configured in this command.
- If the best path is an EBGP-learned route and the **ebgp** command is not configured, and this command is configured to 1, multipaths are disabled.
- If the best path is an IBGP-learned route and the **ibgp** command is not configured, and this command is configured to 1, multipaths are disabled.

Range 1 to 64

Introduced 19.5.R1


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| | |
|---|---|
| Platforms | All |

### **restrict** *keyword*

| | |
|---|---|
| Synopsis | AS path restriction for the non-best path |
| Context | **configure** router *named-item-64* bgp multipath family *keyword* restrict *keyword* |
| Tree | restrict |
| Options | same-as-path-length, same-neighbor-as, exact-as-path |
| Default | same-as-path-length |
| Introduced | 19.5.R1 |
| Platforms | All |

### **unequal-cost** *boolean*

| | |
|---|---|
| Synopsis | Ignore differences in the next-hop cost for multipath |
| Context | **configure** router *named-item-64* bgp multipath family *keyword* unequal-cost *boolean* |
| Tree | unequal-cost |
| Description | When configured to **true**, BGP ignores differences in the next-hop cost when determining eligible multipaths. |
| Default | false |
| Introduced | 19.5.R1 |
| Platforms | All |

### **ibgp** *number*

| | |
|---|---|
| Synopsis | Maximum multipaths per prefix for IBGP learned routes |
| Context | **configure** router *named-item-64* bgp multipath ibgp *number* |
| Tree | ibgp |
| Range | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **max-paths** *number*

| | |
|---|---|
| Synopsis | Maximum multipaths per prefix |


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| | |
|---|---|
| Context | **configure** router *named-item-64* bgp multipath max-paths *number* |
| Tree | max-paths |
| Range | 1 to 64 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **restrict** *keyword*

| | |
|---|---|
| Synopsis | AS path restriction for the non-best path |
| Context | **configure** router *named-item-64* bgp multipath restrict *keyword* |
| Tree | restrict |
| Options | same-as-path-length, same-neighbor-as, exact-as-path |
| Default | same-as-path-length |
| Introduced | 16.0.R1 |
| Platforms | All |

### **unequal-cost** *boolean*

| | |
|---|---|
| Synopsis | Ignore differences in the next-hop cost for multipath |
| Context | **configure** router *named-item-64* bgp multipath unequal-cost *boolean* |
| Tree | unequal-cost |
| Default | false |
| Introduced | 19.5.R1 |
| Platforms | All |

### **mvpn-vrf-import-subtype-new** *boolean*

| | |
|---|---|
| Synopsis | Encode the IANA value of 0x010b in advertised routes |
| Context | **configure** router *named-item-64* bgp mvpn-vrf-import-subtype-new *boolean* |
| Tree | mvpn-vrf-import-subtype-new |
| Description | When configured to **true**, this command encodes the value of 0x010b for the type or subtype in advertised routes.<br>When configured to **false**, BGP encodes the extended community type or subtype as 0x010a to preserve backwards compatibility. |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## **neighbor** [ip-address] *(ipv4-address-with-zone | ipv6-address-with-zone)*

| | |
|---|---|
| Synopsis | Enter the **neighbor** list instance |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* |
| Tree | neighbor |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**ip-address**] *(ipv4-address-with-zone | ipv6-address-with-zone)*

| | |
|---|---|
| Synopsis | IP address of the BGP peer router |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* |
| Tree | neighbor |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **add-paths**

| | |
|---|---|
| Synopsis | Enable the **add-paths** context |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* add-paths |
| Tree | add-paths |
| Description | Commands in this context allow the add-paths node to be configured for the specified families for configuration of the BGP group or neighbor. The BGP add-paths capability allows the router to send or receive multiple paths per prefix to and from a peer.<br>When unconfigured, command settings are inherited from a higher level BGP configuration. |
| Introduced | 16.0.R1 |
| Platforms | All |


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## evpn

| | |
|---|---|
| Synopsis | Enter the **evpn** context |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* add-paths evpn |
| Tree | evpn |
| Description | Commands in this context configure the add-paths capability for EVPN routes. By default, add-paths is not enabled for EVPN routes. |
| Introduced | 21.10.R1 |
| Platforms | All |

## receive *boolean*

| | |
|---|---|
| Synopsis | Receive multiple EVPN paths per prefix from a peer |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* add-paths evpn receive *boolean* |
| Tree | receive |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | All |

## send *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum paths per EVPN prefix to Add-Path peers |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* add-paths evpn send *(number \| keyword)* |
| Tree | send |
| Range | 1 to 16 |
| Options | multipaths – Number of best multipaths for each NLRI |
| Introduced | 21.10.R1 |
| Platforms | All |

## ipv4

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* add-paths ipv4 |


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| | |
|---|---|
| Tree | ipv4 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **receive** *boolean*

| | |
|---|---|
| Synopsis | Receive multiple labeled-unicast routes per IPv4 prefix |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* add-paths ipv4 receive *boolean* |
| Tree | receive |
| Description | When configured to **true**, the router can receive multiple unlabeled IPv4 unicast routes per prefix from a peer.<br>When configured to **false**, the ADD-PATH receive capability is not enabled. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **send** *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum paths per unlabeled IPv4 unicast prefix |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* add-paths ipv4 send *(number \| keyword)* |
| Tree | send |
| Description | This command configures the maximum number of paths per unlabeled IPv4 unicast prefix that are allowed to be advertised to ADD-PATH peers. The actual number of advertised routes may be less depending on the next-hop diversity requirement, other configuration options, route policies, or route advertisement rules.<br>When not configured, ADD-PATH send capability is not enabled for unlabeled IPv4 unicast routes. |
| Range | 1 to 16 |
| Options | multipaths – Number of best multipaths for each NLRI |
| Introduced | 16.0.R1 |
| Platforms | All |

## **ipv6**

| | |
|---|---|
| Synopsis | Enter the **ipv6** context |


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| | |
|---|---|
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* add-paths ipv6 |
| Tree | ipv6 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **receive** *boolean*

| | |
|---|---|
| Synopsis | Receive multiple routes per IPv6 prefix |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* add-paths ipv6 receive *boolean* |
| Tree | receive |
| Description | When configured to **true**, this command allows multiple unlabeled IPv6 unicast routes per prefix to be received from a peer.<br>When configured to **false**, the ADD-PATH receive capability is not enabled. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **send** *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum paths per unlabeled IPv6 unicast prefix |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* add-paths ipv6 send *(number \| keyword)* |
| Tree | send |
| Description | This command configures the maximum number of paths per unlabeled IPv4 unicast prefix that are allowed to be advertised to ADD-PATH peers. The actual number of advertised routes may be less depending on the next-hop diversity requirement, other configuration options, route policies, or route advertisement rules.<br>When not configured, ADD-PATH send capability is not enabled for unlabeled IPv4 unicast routes. |
| Range | 1 to 16 |
| Options | multipaths – Number of best multipaths for each NLRI |
| Introduced | 16.0.R1 |
| Platforms | All |


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### label-ipv4

| | |
|---|---|
| Synopsis | Enter the **label-ipv4** context |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* add-paths label-ipv4 |
| Tree | label-ipv4 |
| Introduced | 16.0.R1 |
| Platforms | All |

### receive *boolean*

| | |
|---|---|
| Synopsis | Receive multiple labeled-unicast routes per IPv4 prefix |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* add-paths label-ipv4 receive *boolean* |
| Tree | receive |
| Description | When configured to **true**, this command allows multiple labeled-unicast routes per IPv4 prefix to be received from a peer.<br>When configured to **false**, the ADD-PATH receive capability is not enabled. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### send *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum paths per labeled IPv4 unicast prefix |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* add-paths label-ipv4 send *(number \| keyword)* |
| Tree | send |
| Description | This command configures the maximum number of paths that are allowed to be advertised to add-paths peers per labeled IPv4 unicast prefix. The actual number of advertised routes may be less depending on the next-hop diversity requirement, other configuration options, route policies, or route advertisement rules.<br>When not configured, ADD-PATH send capability is not enabled for labeled IPv4 unicast routes. |
| Range | 1 to 16 |
| Options | multipaths – Number of best multipaths for each NLRI |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## label-ipv6

| | |
|---|---|
| Synopsis | Enter the **label-ipv6** context |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* add-paths label-ipv6 |
| Tree | label-ipv6 |
| Introduced | 16.0.R1 |
| Platforms | All |

## receive *boolean*

| | |
|---|---|
| Synopsis | Receive multiple labeled-unicast routes per IPv6 prefix |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* add-paths label-ipv6 receive *boolean* |
| Tree | receive |
| Description | When configured to **true**, this command allows multiple labeled-unicast routes per IPv6 prefix to be received from a peer.<br>When configured to **false**, the ADD-PATH receive capability is not enabled. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## send *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum paths per labeled IPv6 unicast prefix |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* add-paths label-ipv6 send *(number \| keyword)* |
| Tree | send |
| Description | This command configures the maximum number of paths that are allowed to be advertised to add-paths peers per labeled IPv6 unicast prefix. The actual number of advertised routes may be less depending on the next-hop diversity requirement, other configuration options, route policies, or route advertisement rules.<br>When not configured, ADD-PATH send capability is not enabled for labeled IPv6 unicast routes. |
| Range | 1 to 16 |


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| | |
|---|---|
| Options | multipaths – Number of best multipaths for each NLRI |
| Introduced | 16.0.R1 |
| Platforms | All |

## mcast-vpn-ipv4

| | |
|---|---|
| Synopsis | Enter the **mcast-vpn-ipv4** context |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* add-paths mcast-vpn-ipv4 |
| Tree | mcast-vpn-ipv4 |
| Introduced | 16.0.R1 |
| Platforms | All |

## receive *boolean*

| | |
|---|---|
| Synopsis | Receive multiple multicast routes per IPv4 VPN prefix |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* add-paths mcast-vpn-ipv4 receive *boolean* |
| Tree | receive |
| Description | When configured to **true**, this command allows multiple multicast routes per IPv4 VPN prefix to be received from a peer.<br>When configured to **false**, the ADD-PATH receive capability is not enabled. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## send *number*

| | |
|---|---|
| Synopsis | Maximum paths per multicast IPv4 VPN prefix |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* add-paths mcast-vpn-ipv4 send *number* |
| Tree | send |
| Description | This command configures the maximum number of paths that are allowed to be advertised to add-paths peers per multicast IPv4 VPN prefix. The actual number of advertised routes may be less depending on the next-hop diversity requirement, other configuration options, route policies, or route advertisement rules. |


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When not configured, ADD-PATH send capability is not enabled for multicast IPv4 VPN routes.

Range 1 to 16

Introduced 16.0.R1

Platforms All

## mcast-vpn-ipv6

Synopsis Enter the **mcast-vpn-ipv6** context

Context **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone | ipv6-address-with-zone)* add-paths mcast-vpn-ipv6

Tree mcast-vpn-ipv6

Introduced 16.0.R1

Platforms All

## **receive** *boolean*

Synopsis Receive multiple multicast routes per IPv6 VPN prefix

Context **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone | ipv6-address-with-zone)* add-paths mcast-vpn-ipv6 receive *boolean*

Tree receive

Description When configured to **true**, this command allows multiple multicast routes per IPv6 VPN prefix to be received from a peer.

When configured to **false**, the ADD-PATH receive capability is not enabled.

Default false

Introduced 16.0.R1

Platforms All

## **send** *number*

Synopsis Maximum paths per multicast IPv6 VPN prefix

Context **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone | ipv6-address-with-zone)* add-paths mcast-vpn-ipv6 send *number*

Tree send

Description This command configures the maximum number of paths that are allowed to be advertised to add-paths peers per multicast IPv6 VPN prefix. The actual number of advertised routes may be less depending on the next-hop diversity requirement, other configuration options, route policies, or route advertisement rules.


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When not configured, ADD-PATH send capability is not enabled for multicast IPv6 VPN routes.

| | |
|---|---|
| Range | 1 to 16 |
| Introduced | 16.0.R1 |
| Platforms | All |

## mvpn-ipv4

| | |
|---|---|
| Synopsis | Enter the **mvpn-ipv4** context |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* add-paths mvpn-ipv4 |
| Tree | mvpn-ipv4 |
| Introduced | 16.0.R1 |
| Platforms | All |

## receive *boolean*

| | |
|---|---|
| Synopsis | Receive multiple multicast VPN routes per IPv4 prefix |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* add-paths mvpn-ipv4 receive *boolean* |
| Tree | receive |
| Description | When configured to **true**, this command allows multiple multicast VPN routes per IPv4 prefix to be received from a peer.<br>When configured to **false**, the ADD-PATH receive capability is not enabled. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## send *number*

| | |
|---|---|
| Synopsis | Maximum paths per multicast VPN IPv4 prefix |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* add-paths mvpn-ipv4 send *number* |
| Tree | send |
| Description | This command configures the maximum number of paths that are allowed to be advertised to add-paths peers per multicast VPN IPv4 prefix. The actual number of advertised routes may be less depending on the next-hop diversity requirement, other configuration options, route policies, or route advertisement rules. |


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When not configured, ADD-PATH send capability is not enabled for multicast VPN IPv4 routes.

| | |
|---|---|
| Range | 1 to 16 |
| Introduced | 16.0.R1 |
| Platforms | All |

## mvpn-ipv6

| | |
|---|---|
| Synopsis | Enter the **mvpn-ipv6** context |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* add-paths mvpn-ipv6 |
| Tree | mvpn-ipv6 |
| Introduced | 16.0.R1 |
| Platforms | All |

## receive *boolean*

| | |
|---|---|
| Synopsis | Receive multiple multicast VPN routes per IPv6 prefix |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* add-paths mvpn-ipv6 receive *boolean* |
| Tree | receive |
| Description | When configured to **true**, this command allows multiple multicast VPN routes per IPv6 prefix to be received from a peer.<br>When configured to **false**, the ADD-PATH receive capability is not enabled. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## send *number*

| | |
|---|---|
| Synopsis | Maximum paths per multicast VPN IPv6 prefix |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* add-paths mvpn-ipv6 send *number* |
| Tree | send |
| Description | This command configures the maximum number of paths that are allowed to be advertised to add-paths peers per multicast VPN IPv6 prefix. The actual number of advertised routes may be less depending on the next-hop diversity requirement, other configuration options, route policies, or route advertisement rules. |


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When not configured, ADD-PATH send capability is not enabled for multicast VPN IPv6 routes.

| | |
|---|---|
| Range | 1 to 16 |
| Introduced | 16.0.R1 |
| Platforms | All |

### vpn-ipv4

| | |
|---|---|
| Synopsis | Enter the **vpn-ipv4** context |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* add-paths vpn-ipv4 |
| Tree | vpn-ipv4 |
| Introduced | 16.0.R1 |
| Platforms | All |

### receive *boolean*

| | |
|---|---|
| Synopsis | Receive multiple routes per VPN-IPv4 prefix |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* add-paths vpn-ipv4 receive *boolean* |
| Tree | receive |
| Description | When configured to **true**, this command allows multiple VPN-IPv4 routes per prefix to be received from a peer.<br>When configured to **false**, the ADD-PATH receive capability is not enabled. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### send *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum paths per VPN-IPv4 prefix |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* add-paths vpn-ipv4 send *(number \| keyword)* |
| Tree | send |
| Description | This command configures the maximum number of paths that are allowed to be advertised to add-paths peers per VPN-IPv4 prefix. The actual number of advertised routes may be less depending on the next-hop diversity requirement, other configuration options, route policies, or route advertisement rules. |


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When not configured, ADD-PATH send capability is not enabled for VPN-IPv4 routes.

| | |
|---|---|
| Range | 1 to 16 |
| Options | multipaths – Number of best multipaths for each NLRI |
| Introduced | 16.0.R1 |
| Platforms | All |

### vpn-ipv6

| | |
|---|---|
| Synopsis | Enter the **vpn-ipv6** context |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* add-paths vpn-ipv6 |
| Tree | vpn-ipv6 |
| Introduced | 16.0.R1 |
| Platforms | All |

### receive *boolean*

| | |
|---|---|
| Synopsis | Receive multiple routes per VPN-IPv6 prefix |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* add-paths vpn-ipv6 receive *boolean* |
| Tree | receive |
| Description | When configured to **true**, this command allows multiple VPN-IPv6 routes per prefix to be received from a peer.<br>When configured to **false**, the ADD-PATH receive capability is not enabled. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### send *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum paths per VPN-IPv6 prefix |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* add-paths vpn-ipv6 send *(number \| keyword)* |
| Tree | send |
| Description | This command configures the maximum number of paths that are allowed to be advertised to add-paths peers per VPN-IPv6 prefix. The actual number of advertised |


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routes may be less depending on the next-hop diversity requirement, other configuration options, route policies, or route advertisement rules.

When not configured, ADD-PATH send capability is not enabled for VPN-IPv6 routes.

| | |
|---|---|
| Range | 1 to 16 |
| Options | multipaths – Number of best multipaths for each NLRI |
| Introduced | 16.0.R1 |
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the BGP neighbor |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

## **advertise-inactive** *boolean*

| | |
|---|---|
| Synopsis | Advertise an inactive BGP route to peers |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* advertise-inactive *boolean* |
| Tree | advertise-inactive |

Description

When configured to **true**, this command allows an inactive BGP route to be advertised, even though it is not the most preferred route. The effect of the command on advertised unlabeled, labeled, and multicast IPv4 and IPv6 routes depends on several factors.

- If the active route for the IP prefix is a BGP route, that route is advertised.
- If the active route is a non-BGP route and there are valid inactive BGP routes to the same destination, the best valid inactive route is advertised unless the active non-BGP route is matched and accepted by an export policy applied to the session.
- If the active route is a non-BGP route and there are no valid BGP routes to the same destination, no route is advertised unless the active non-BGP route is matched and accepted by an export policy applied to the session.

When unconfigured, the command inherits the value of the global-level setting (**true** or **false**). The command cannot be explicitly configured to **false**.

When this command inherits a value of **false**, the advertisement of inactive BGP routes to other BGP peers is disabled.


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## advertise-ipv6-next-hops

| | |
|---|---|
| Synopsis | Enable the **advertise-ipv6-next-hops** context |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* advertise-ipv6-next-hops |
| Tree | advertise-ipv6-next-hops |
| Description | Commands in this context allow specified IP family routes to be advertised to IPv6 transport peers with a true IPv6 address when originated or when a configured or automatic next-hop-self action is applied.<br>When unconfigured, command settings are inherited from a higher level BGP configuration. |
| Introduced | 16.0.R1 |
| Platforms | All |

## evpn *boolean*

| | |
|---|---|
| Synopsis | Advertise EVPN route with IPv6 next-hop address |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* advertise-ipv6-next-hops evpn *boolean* |
| Tree | evpn |
| Description | When configured to **true**, EVPN routes are advertised with IPv6 next-hop addresses to IPv6 transport peers.<br>When configured to **false**, EVPN routes are advertised with IPv4 next-hop addresses to IPv6 transport peers. |
| Default | false |
| Introduced | 19.5.R1 |
| Platforms | All |

## ipv4 *boolean*

| | |
|---|---|
| Synopsis | Advertise IPv4 route with IPv6 next-hop address |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* advertise-ipv6-next-hops ipv4 *boolean* |
| Tree | ipv4 |


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Description When configured to **true**, IPv4 routes are advertised with IPv6 next-hop addresses to IPv6 transport peers. The appropriate extended NH encoding capability must also be received from the remote peer before the route can be advertised with an IPv6 address instead of the IPv4 system address as the next hop.

When configured to **false**, IPv4 routes are advertised with IPv4 next-hop addresses to IPv6 transport peers. If the route matches a BGP export policy entry that tries to change the next hop to an IPv6 address and an appropriate extended NH encoding capability was not received by the remote peer, the route is handled as though it was rejected by the policy entry.

Default false

Introduced 19.5.R1

Platforms All

## **label-ipv4** *boolean*

Synopsis Advertise label IPv4 route with IPv6 next-hop address

Context **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone | ipv6-address-with-zone)* advertise-ipv6-next-hops label-ipv4 *boolean*

Tree label-ipv4

Description When configured to **true**, label IPv4 routes are advertised with IPv6 next-hop addresses to IPv6 transport peers. The appropriate extended NH encoding capability must also be received from the remote peer before the route can be advertised with an IPv6 address instead of the IPv4 system address as the next hop.

When configured to **false**, label IPv4 routes are advertised with the system IPv4 address as the next hop to IPv6 transport peers. If the route matches a BGP export policy entry that tries to change the next hop to an IPv6 address and an appropriate extended NH encoding capability was not received by the remote peer, the route is handled as though it was rejected by the policy entry.

Default false

Introduced 16.0.R1

Platforms All

## **label-ipv6** *boolean*

Synopsis Advertise label IPv6 route with IPv6 next-hop address

Context **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone | ipv6-address-with-zone)* advertise-ipv6-next-hops label-ipv6 *boolean*

Tree label-ipv6

Description When configured to **true**, label IPv6 routes are advertised with IPv6 next-hop addresses to IPv6 transport peers.


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When configured to **false**, label IPv6 routes are advertised toward IPv6 transport peers with the system IPv4 address as the BGP next hop, encoded as an IPv4-mapped IPv6 address.

Default false

Introduced 16.0.R1

Platforms All

## **vpn-ipv4** *boolean*

Synopsis Advertise VPN IPv4 route with IPv6 next-hop address

Context **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone | ipv6-address-with-zone)* advertise-ipv6-next-hops vpn-ipv4 *boolean*

Tree vpn-ipv4

Description When configured to **true**, VPN IPv4 routes are advertised with IPv6 next-hop addresses to IPv6 transport peers. The appropriate extended NH encoding capability must also be received from the remote peer before the route can be advertised with an IPv6 address instead of the IPv4 system address as the next hop.

When configured to **false**, VPN IPv4 routes are advertised toward IPv6 transport peers with the system IPv4 address as the BGP next hop. If the route matches a BGP export policy entry that tries to change the next hop to an IPv6 address and an appropriate extended NH encoding capability was not received by the remote peer, the route is handled as though it was rejected by the policy entry.

Default false

Introduced 16.0.R1

Platforms All

## **vpn-ipv6** *boolean*

Synopsis Advertise VPN IPv6 route with IPv6 next-hop address

Context **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone | ipv6-address-with-zone)* advertise-ipv6-next-hops vpn-ipv6 *boolean*

Tree vpn-ipv6

Description When configured to **true**, VPN IPv6 routes are advertised with IPv6 next-hop addresses to IPv6 transport peers.

When configured to **false**, VPN IPv6 routes are advertised toward IPv6 transport peers with the system IPv4 address as the BGP next hop, encoded as an IPv4-mapped IPv6 address.

Default false

Introduced 16.0.R1


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| | |
|---|---|
| Platforms | All |

### **advertise-ldp-prefix** *boolean*

| | |
|---|---|
| Synopsis | Advertise active /32 LDP FEC prefixes to BGP peers |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* advertise-ldp-prefix *boolean* |
| Tree | advertise-ldp-prefix |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **aggregator-id-zero** *boolean*

| | |
|---|---|
| Synopsis | Set router ID in the BGP AGGREGATOR attribute to zero |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* aggregator-id-zero *boolean* |
| Tree | aggregator-id-zero |
| Introduced | 16.0.R1 |
| Platforms | All |

### **aigp** *boolean*

| | |
|---|---|
| Synopsis | Add AIGP attribute to advertised routes |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* aigp *boolean* |
| Tree | aigp |
| Description | When configured to **true**, this command enables Accumulated IGP (AIGP) path attribute support with one or more BGP peers. BGP path selection among routes with an associated AIGP metric is based on the end-to-end IGP metrics of the different BGP paths, even when these BGP paths span more than one AS and IGP instance.<br>When unconfigured, the command inherits the value of the group-level setting (**true** or **false**). The command cannot be explicitly configured to **false**.<br>When this command inherits a value of **false**, the AIGP attribute is removed from advertised routes, if present, and is ignored in received routes. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **as-override** *boolean*

| | |
|---|---|
| Synopsis | Replace the peer's ASN with the local ASN in AS Path |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* as-override *boolean* |
| Tree | as-override |
| Description | When configured to **true**, the advertising router's local AS replaces all occurrences of the peer AS in the AS_PATH attribute.<br>This command should be used with caution, as it breaks BGP's loop detection mechanism.<br>When unconfigured, the command inherits the value of the group-level setting (**true** or **false**). This command cannot be explicitly configured to **false**.<br>When configured to **false**, no AS override is performed. |
| Introduced | 19.7.R1 |
| Platforms | All |

### **asn-4-byte** *boolean*

| | |
|---|---|
| Synopsis | Advertise the use of 4-byte ASNs |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* asn-4-byte *boolean* |
| Tree | asn-4-byte |
| Introduced | 16.0.R1 |
| Platforms | All |

### **authentication-key** *encrypted-leaf*

| | |
|---|---|
| Synopsis | BGP authentication key |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* authentication-key *encrypted-leaf* |
| Tree | authentication-key |
| String length | 1 to 370 |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **authentication-keychain** *reference*

| | |
|---|---|
| Synopsis | TCP authentication keychain for the session |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* authentication-keychain *reference* |
| Tree | authentication-keychain |
| Description | This command associates the keychain to be used to authenticate the BGP session. The keychain allows the rollover of authentication keys during the lifetime of a session. |
| Reference | **configure** system security keychains keychain *named-item* |
| Introduced | 16.0.R3 |
| Platforms | All |

## **bfd-liveness** *boolean*

| | |
|---|---|
| Synopsis | Enable BFD |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* bfd-liveness *boolean* |
| Tree | bfd-liveness |
| Description | When configured to **true**, BFD is enabled on a given protocol interface where the state of the protocol interface is tied to the state of the BFD session between the local node and the remote node.<br>When unconfigured, the command inherits the value of the group-level setting (**true** or **false**). The command cannot be explicitly configured to **false**.<br>When this command inherits a value of **false**, BFD is removed from the associated protocol adjacency. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **bfd-strict-mode**

| | |
|---|---|
| Synopsis | Enter the **bfd-strict-mode** context |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* bfd-strict-mode |
| Tree | bfd-strict-mode |
| Introduced | 23.7.R1 |
| Platforms | All |


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## advertise

| | |
|---|---|
| Synopsis | Enable the **advertise** context |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* bfd-strict-mode advertise |
| Tree | advertise |
| Description | Commands in this context configure BGP to advertise the Strict-BFD capability to peers that are within scope of this command and meet the following requirements:<br>• The inherited or configured value for the **bfd-liveness** command that applies to the peer is **true**.<br>• The interface associated with the peer has a valid BFD configuration.<br>When the preceding conditions are satisfied and two peers attempting to form a session both advertise the Strict-BFD capability, the BGP finite state machine in each router transitions the session state to established after the BFD session with the peer enters the up state.<br>When unconfigured, BGP does not advertise the Strict-BFD capability to peers. |
| Introduced | 23.7.R1 |
| Platforms | All |

## holdtime *number*

| | |
|---|---|
| Synopsis | Maximum time BGP waits for the BFD session to come up |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* bfd-strict-mode advertise holdtime *number* |
| Tree | holdtime |
| Description | This command configures the maximum time BGP waits for the BFD session to come up, provided that the Strict-BFD procedures apply to a session, and the negotiated BGP hold time is zero (no keepalives). If the negotiated BGP hold time is greater than zero, the advertised hold time is not considered. |
| Range | 1 to 65535 |
| Units | seconds |
| Default | 30 |
| Introduced | 23.7.R1 |
| Platforms | All |

## next-hop-reachability *boolean*

| | |
|---|---|
| Synopsis | Consider next hop unreachable if BFD session is down |


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Context **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone | ipv6-address-with-zone)* bfd-strict-mode next-hop-reachability *boolean*

Tree next-hop-reachability

Description When configured to **true**, the router considers next-hop self routes belonging to specific address families received from a peer within scope of this command as having an unresolved next hop, provided that the following requirements are met:

- The BFD session to the peer is in a down state.
- There is a valid interface BFD configuration that applies to the peer.
- There is a valid BFD liveness configuration that applies to the peer.

The unresolved state is maintained until the BFD session state changes to up or administratively down, even if there is a resolving route or tunnel that matches the BGP next-hop address.

Routes received from one peer with a BGP next-hop address equal to the address of another peer are not affected by the BFD session to the other peer.The behavior of the router when this command is **true** does not depend on whether Strict-BFD is used, as both features are independent.

Configuring this command to **true** only affects routes belonging to the following address families:

- IPv4
- IPv6
- IPv4 VPN
- IPv6 VPN
- labeled unicast IPv4
- labeled unicast IPv6
- EVPN
- IPv4 multicast
- IPv6 multicast
- IPv4 VPN multicast
- IPv6 VPN multicast

When configured to **false**, the router does not consider next-hop self routes belonging to the preceding address families as having an unresolved next hop if the BFD session goes down.

Introduced 23.7.R1

Platforms All

## **block-prefix-sid** *boolean*

Synopsis Block the prefix SID attribute


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| | |
|---|---|
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* block-prefix-sid *boolean* |
| Tree | block-prefix-sid |
| Description | When configured to **true**, all prefix SID attributes are removed from all routes exchanged between EBGP and IBGP peers covered by the scope of the command. Locally-imposed prefix SID attributes are also removed.<br>When configured to **false**, all prefix SID attributes are propagated without restriction.<br>A change of this configuration causes the affected BGP sessions to flap. |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

## **capability-negotiation** *boolean*

| | |
|---|---|
| Synopsis | Enable capability negotiation |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* capability-negotiation *boolean* |
| Tree | capability-negotiation |
| Introduced | 16.0.R1 |
| Platforms | All |

## **client-reflect** *boolean*

| | |
|---|---|
| Synopsis | Allow cluster RR to advertise routes to its clients |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* client-reflect *boolean* |
| Tree | client-reflect |
| Introduced | 16.0.R1 |
| Platforms | All |

## **cluster**

| | |
|---|---|
| Synopsis | Enter the **cluster** context |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* cluster |
| Tree | cluster |
| Introduced | 16.0.R1 |


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Platforms All

### **allow-local-fallback** *boolean*

Synopsis Allow fallback to RR topology

Context **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone | ipv6-address-with-zone)* cluster allow-local-fallback *boolean*

Tree allow-local-fallback

Description When configured to **true**, this command allows the RR to advertise the best BGP path from its own topology location when there are no reachable routes from the client's ORR location. The ORR location must be specified before this command can be set to **true**.

When configured to **false**, this command no route is advertised to the client.

Default false

Introduced 16.0.R1

Platforms All

### **cluster-id** *ipv4-address*

Synopsis Route reflector cluster ID

Context **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone | ipv6-address-with-zone)* cluster cluster-id *ipv4-address*

Tree cluster-id

Introduced 16.0.R1

Platforms All

### **orr-location** *number*

Synopsis Optimal route reflection location for the cluster

Context **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone | ipv6-address-with-zone)* cluster orr-location *number*

Tree orr-location

Description This command configures an ORR location ID. If a cluster ID is also specified, the clients in that cluster receive routes optimal for that specific location.

With optimal route reflection, the best path advertised to a client takes location ID into account. If the tie-break for best path (or Add-Paths) comes down to next-hop IGP cost, the IGP costs will be calculated relative to the specified location. In the SR OS implementation, the IGP costs from arbitrary ORR locations are calculated using OSPF, OSPFv3, IS-IS, or BGP-LS information in the TE DB.


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| | |
|---|---|
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **connect-retry** *number*

| | |
|---|---|
| Synopsis | BGP connect retry timer value |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* connect-retry *number* |
| Tree | connect-retry |
| Range | 1 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **damp-peer-oscillations**

| | |
|---|---|
| Synopsis | Enable the **damp-peer-oscillations** context |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* damp-peer-oscillations |
| Tree | damp-peer-oscillations |
| Introduced | 16.0.R1 |
| Platforms | All |

### **error-interval** *number*

| | |
|---|---|
| Synopsis | Time after a reset that the session must be error-free |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* damp-peer-oscillations error-interval *number* |
| Tree | error-interval |
| Description | This command sets the interval of time after a reset, during which the session must be error-free in order to reset the penalty counter and return the idle hold time to the initial wait time. |
| Range | 0 to 2048 |
| Default | 30 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### idle-hold-time

| | |
|---|---|
| Synopsis | Enter the **idle-hold-time** context |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* damp-peer-oscillations idle-hold-time |
| Tree | idle-hold-time |
| Introduced | 16.0.R1 |
| Platforms | All |

### initial-wait *number*

| | |
|---|---|
| Synopsis | Time session remains in idle state after stabilization |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* damp-peer-oscillations idle-hold-time initial-wait *number* |
| Tree | initial-wait |
| Range | 0 to 2048 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### max-wait *number*

| | |
|---|---|
| Synopsis | Maximum session idle time after repeated instability |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* damp-peer-oscillations idle-hold-time max-wait *number* |
| Tree | max-wait |
| Range | 1 to 2048 |
| Default | 60 |
| Introduced | 16.0.R1 |
| Platforms | All |

### second-wait *number*

| | |
|---|---|
| Synopsis | Time that doubles after each repeated session failure |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* damp-peer-oscillations idle-hold-time second-wait *number* |


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| | |
|---|---|
| Tree | second-wait |
| Description | This command defines the hold time that doubles after each repeated session failure that occurs in a short span of time. |
| Range | 1 to 2048 |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **damping** *boolean*

| | |
|---|---|
| Synopsis | Use BGP route damping to reduce route flap |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* damping *boolean* |
| Tree | damping |
| Introduced | 16.0.R1 |
| Platforms | All |

## **def-recv-evpn-encap** *keyword*

| | |
|---|---|
| Synopsis | Default EVPN encapsulation type |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* def-recv-evpn-encap *keyword* |
| Tree | def-recv-evpn-encap |
| Description | This command specifies the encapsulation type that BGP uses when an EVPN route is received without the Encapsulation Extended Community.<br>When unconfigured, the setting for this command is inherited from the BGP group-level configuration. |
| Options | mpls, vxlan |
| Introduced | 16.0.R1 |
| Platforms | All |

## **default-label-preference**

| | |
|---|---|
| Synopsis | Enter the **default-label-preference** context |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* default-label-preference |
| Tree | default-label-preference |


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| | |
|---|---|
| Introduced | 19.5.R1 |
| Platforms | All |

### **ebgp** *number*

| | |
|---|---|
| Synopsis | Default preference for EBGP |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* default-label-preference ebgp *number* |
| Tree | ebgp |
| Range | 0 to 255 |
| Introduced | 19.5.R1 |
| Platforms | All |

### **ibgp** *number*

| | |
|---|---|
| Synopsis | Default preference for IBGP |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* default-label-preference ibgp *number* |
| Tree | ibgp |
| Range | 0 to 255 |
| Introduced | 19.5.R1 |
| Platforms | All |

### **default-preference**

| | |
|---|---|
| Synopsis | Enter the **default-preference** context |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* default-preference |
| Tree | default-preference |
| Introduced | 19.5.R1 |
| Platforms | All |

### **ebgp** *number*

| | |
|---|---|
| Synopsis | Default preference for EBGP |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* default-preference ebgp *number* |


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| | |
|---|---|
| Tree | ebgp |
| Range | 0 to 255 |
| Introduced | 19.5.R1 |
| Platforms | All |

### **ibgp** *number*

| | |
|---|---|
| Synopsis | Default preference for IBGP |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* default-preference ibgp *number* |
| Tree | ibgp |
| Range | 0 to 255 |
| Introduced | 19.5.R1 |
| Platforms | All |

### **default-route-target** *boolean*

| | |
|---|---|
| Synopsis | Send default RTC route (zero prefix length) to peers |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* default-route-target *boolean* |
| Tree | default-route-target |
| Description | When configured to **true**, this command sends the default RTC route (zero prefix length) toward the selected peers.<br>When unconfigured, the command inherits the value of the group-level setting (**true** or **false**). The command cannot be explicitly configured to **false**.<br>When this command inherits a value of **false**, a default RTC route is not sent. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## ebgp-default-reject-policy

| | |
|---|---|
| Synopsis | Enable the **ebgp-default-reject-policy** context |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* ebgp-default-reject-policy |
| Tree | ebgp-default-reject-policy |
| Introduced | 19.5.R1 |
| Platforms | All |

## **export** *boolean*

| | |
|---|---|
| Synopsis | Enable default reject export policy for external peers |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* ebgp-default-reject-policy export *boolean* |
| Tree | export |
| Default | true |
| Introduced | 19.5.R1 |
| Platforms | All |

## **import** *boolean*

| | |
|---|---|
| Synopsis | Enable default reject import policy for external peers |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* ebgp-default-reject-policy import *boolean* |
| Tree | import |
| Default | true |
| Introduced | 19.5.R1 |
| Platforms | All |

## egress-engineering

| | |
|---|---|
| Synopsis | Enable the **egress-engineering** context |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* egress-engineering |
| Tree | egress-engineering |


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| | |
|---|---|
| Introduced | 21.7.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of BGP egress engineering |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* egress-engineering admin-state *keyword* |
| Tree | admin-state |
| Description | This command administratively enables or disables egress engineering for the BGP. If enabled, peer node SIDs and peer adjacency SIDs are advertised in BGP-LS. |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.7.R1 |
| Platforms | All |

### **egress-peer-engineering-label-unicast** *boolean*

| | |
|---|---|
| Synopsis | Generate EPE label-unicast routes for neighbor |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* egress-peer-engineering-label-unicast *boolean* |
| Tree | egress-peer-engineering-label-unicast |
| Description | When configured to **true**, BGP generates a label-unicast route for the /32 or /128 prefix that corresponds to the BGP neighbor address. This route can be advertised to other routers to recursively resolve unlabeled BGP routes for AS external destinations. This supports the Egress Peer Engineering (EPE) use case. |
| Default | false |
| Introduced | 22.2.R1 |
| Platforms | All |

### **enforce-first-as** *boolean*

| | |
|---|---|
| Synopsis | Enforce the configured peer AS value in received routes |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* enforce-first-as *boolean* |
| Tree | enforce-first-as |
| Description | When configured to **true** for an EBGP session, all routes received from an EBGP peer are checked to ensure that the most recent ASN in the AS_PATH attribute of each route |


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matches the configured AS of the session. If there is not a match, the session is reset (if the **update-fault-tolerance** command in the **error-handling** context is set to **false**) or the session is left up but the route is treated as withdrawn (if **update-fault-tolerance** is set to **true**).

This command does not flap an established session because it applies only to routes received after the command is issued.

When unconfigured, the command inherits the value of the group-level setting (**true** or **false**). The command cannot be explicitly configured to **false**.

When this command inherits a value of **false**, received routes are not checked for compliance with the rule.

Introduced 16.0.R1

Platforms All

## error-handling

Synopsis Enter the **error-handling** context

Context **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone | ipv6-address-with-zone)* error-handling

Tree error-handling

Introduced 16.0.R1

Platforms All

## update-fault-tolerance *boolean*

Synopsis Tolerate non-critical errors in UPDATE messages

Context **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone | ipv6-address-with-zone)* error-handling update-fault-tolerance *boolean*

Tree update-fault-tolerance

Description When configured to **true**, non-critical errors are handled with treat-as-withdraw, attribute-discard, and other non-disruptive approaches that do not cause a session reset. Critical errors still trigger a session reset.

When unconfigured, the command inherits the value of the group-level setting (**true** or **false**). The command cannot be explicitly configured to **false**.

When this command inherits a value of **false**, all errors trigger a session reset.

Introduced 16.0.R1

Platforms All


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## export

| | |
|---|---|
| Synopsis | Enable the **export** context |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* export |
| Tree | export |
| Description | Commands in this context specify route policies that control the handling of outbound routes transmitted to certain peers. Route policies are configured in the **configure policy-options** context.<br>When this context is unconfigured, the policy association for the group is inherited from the BGP global-level configuration. |
| Introduced | 16.0.R1 |
| Platforms | All |

## policy *(policy-expr-string | string)*

| | |
|---|---|
| Synopsis | BGP export policy name |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* export policy *(policy-expr-string \| string)* |
| Tree | policy |
| Description | This command specifies route policies that control the handling of outbound routes transmitted to certain peers.<br>Each object in this command is either a policy logical expression or the name of a single policy. The objects are evaluated in the specified order to determine the modifications of each route and the final action to accept or reject the route.<br>Only one of the objects referenced by the command can be a policy logical expression consisting of policy names (enclosed in square brackets) and logical operators (AND, OR, NOT).<br>Policy parameters must be enclosed by at-signs (@) and may be midstring; for example, "@variable@," "start@variable@end"," @variable@end", or"start@variable@". |
| String length | 1 to 255 |
| Max. instances | 15 |
| Min. instances | 1 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |


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## extended-nh-encoding

| | |
|---|---|
| Synopsis | Enable the **extended-nh-encoding** context |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* extended-nh-encoding |
| Tree | extended-nh-encoding |
| Description | Commands in this context specify the address families enabled to advertise the capability to receive label IPv4 routes, VPN IPv4 routes, or IPv6 next hops from peers. The peers should not send such routes unless notification has been received of this capability. If the router receives an enabled address family route from a peer to which it did not advertise the necessary capability, the UPDATE message will be considered malformed. This causes either a session reset or treat-as-withdraw behavior depending on the error handling settings.<br><br>When the context is unconfigured, command settings are inherited from the higher level BGP configuration. |
| Introduced | 16.0.R1 |
| Platforms | All |

## ipv4 *boolean*

| | |
|---|---|
| Synopsis | Advertise encoding capability for IPv4 routes |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* extended-nh-encoding ipv4 *boolean* |
| Tree | ipv4 |
| Default | false |
| Introduced | 19.5.R1 |
| Platforms | All |

## label-ipv4 *boolean*

| | |
|---|---|
| Synopsis | Advertise encoding capability for label-IPv4 routes |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* extended-nh-encoding label-ipv4 *boolean* |
| Tree | label-ipv4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **vpn-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Advertise encoding capability for VPN-IPv4 routes |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* extended-nh-encoding vpn-ipv4 *boolean* |
| Tree | vpn-ipv4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **family**

| | |
|---|---|
| Synopsis | Enable the **family** context |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* family |
| Tree | family |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bgp-ls** *boolean*

| | |
|---|---|
| Synopsis | Advertise MP-BGP support for the BGP-LS address family |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* family bgp-ls *boolean* |
| Tree | bgp-ls |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **evpn** *boolean*

| | |
|---|---|
| Synopsis | Advertise MP-BGP support for the EVPN address family |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* family evpn *boolean* |
| Tree | evpn |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **flow-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Advertise support for the FlowSpec-IPv4 address family |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* family flow-ipv4 *boolean* |
| Tree | flow-ipv4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **flow-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Advertise support for the FlowSpec-IPv6 address family |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* family flow-ipv6 *boolean* |
| Tree | flow-ipv6 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **flow-vpn-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Advertise support for FlowSpec-VPN IPv4 address family |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* family flow-vpn-ipv4 *boolean* |
| Tree | flow-vpn-ipv4 |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | All |

### **flow-vpn-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Advertise support for FlowSpec-VPN IPv6 address family |


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| | |
|---|---|
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* family flow-vpn-ipv6 *boolean* |
| Tree | flow-vpn-ipv6 |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | All |

### **ipv4** *boolean*

| | |
|---|---|
| Synopsis | Add support for the IPv4 address family |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* family ipv4 *boolean* |
| Tree | ipv4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv6** *boolean*

| | |
|---|---|
| Synopsis | Advertise MP-BGP support for the IPv6 address family |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* family ipv6 *boolean* |
| Tree | ipv6 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **l2-vpn** *boolean*

| | |
|---|---|
| Synopsis | Advertise MP-BGP support for the L2-VPN address family |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* family l2-vpn *boolean* |
| Tree | l2-vpn |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **label-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Advertise support for the label-IPv4 address family |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* family label-ipv4 *boolean* |
| Tree | label-ipv4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **label-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Advertise support for the label-IPv6 address family |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* family label-ipv6 *boolean* |
| Tree | label-ipv6 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mcast-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Advertise support for the MCAST-IPv4 address family |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* family mcast-ipv4 *boolean* |
| Tree | mcast-ipv4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mcast-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Advertise support for the MCAST-IPv6 address family |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* family mcast-ipv6 *boolean* |
| Tree | mcast-ipv6 |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mcast-vpn-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Advertise support for the IPv4 VPN MCAST address family |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* family mcast-vpn-ipv4 *boolean* |
| Tree | mcast-vpn-ipv4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mcast-vpn-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Advertise support for the IPv6 VPN MCAST address family |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* family mcast-vpn-ipv6 *boolean* |
| Tree | mcast-vpn-ipv6 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mdt-safi** *boolean*

| | |
|---|---|
| Synopsis | Advertise MP-BGP support for MDT-SAFI address family |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* family mdt-safi *boolean* |
| Tree | mdt-safi |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **ms-pw** *boolean*

| | |
|---|---|
| Synopsis | Advertise support for multi-segment PW address family |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* family ms-pw *boolean* |
| Tree | ms-pw |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mvpn-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Advertise support for the IPv4 MCAST VPN address family |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* family mvpn-ipv4 *boolean* |
| Tree | mvpn-ipv4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mvpn-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Advertise support for the IPv6 MCAST VPN address family |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* family mvpn-ipv6 *boolean* |
| Tree | mvpn-ipv6 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **route-target** *boolean*

| | |
|---|---|
| Synopsis | Advertise MP-BGP support for RT constraint routes |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* family route-target *boolean* |
| Tree | route-target |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sr-policy-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Advertise MP-BGP support for the SR-policy-IPv4 family |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* family sr-policy-ipv4 *boolean* |
| Tree | sr-policy-ipv4 |
| Description | This command allows the router to advertise the capability for AFI1/SAFI73, which corresponds to BGP routes that encode a segment routing policy to an IPv4 destination. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sr-policy-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Advertise MP-BGP support for the SR-policy-IPv6 family |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* family sr-policy-ipv6 *boolean* |
| Tree | sr-policy-ipv6 |
| Description | This command allows the router to advertise the capability for AFI2/SAFI73, which corresponds to BGP routes that encode a segment routing policy to an IPv6 destination. |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **vpn-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Advertise MP-BGP support for IPv4 VPN address family |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* family vpn-ipv4 *boolean* |
| Tree | vpn-ipv4 |
| Default | false |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## **vpn-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Advertise MP-BGP support for IPv6 VPN address family |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* family vpn-ipv6 *boolean* |
| Tree | vpn-ipv6 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **fast-external-failover** *boolean*

| | |
|---|---|
| Synopsis | Drop external BGP session immediately when link fails |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* fast-external-failover *boolean* |
| Tree | fast-external-failover |
| Description | When this command inherits a value of **true**, the router drops an external BGP session on a single-hop route immediately when the local interface goes down.<br>When unconfigured, the command inherits the value of the group-level setting (**true** or **false**). The command cannot be explicitly configured to **true**.<br>When configured to **false**, the BGP session remains up until the hold time expires. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **graceful-restart**

| | |
|---|---|
| Synopsis | Enable the **graceful-restart** context |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* graceful-restart |
| Tree | graceful-restart |
| Description | Commands in this context configure BGP graceful restart helper procedures for address families included in the GR capabilities of both peers.<br>When this context is unconfigured, the command settings are inherited from the BGP group-level configuration. |
| Introduced | 16.0.R1 |


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Platforms All

## gr-notification *boolean*

Synopsis Perform graceful restart procedures after NOTIFICATION

Context **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone | ipv6-address-with-zone)* graceful-restart gr-notification *boolean*

Tree gr-notification

Description When configured to **true**, the Graceful Restart capability sent by the router indicates support for NOTIFICATION messages. If the peer also supports this capability, the session is restarted gracefully (while preserving forwarding) if either peer sends a NOTIFICATION message due to some type of event or error.

When configured to **false**, NOTIFICATION messages are not supported.

Default false

Introduced 16.0.R1

Platforms All

## long-lived

Synopsis Enable the **long-lived** context

Context **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone | ipv6-address-with-zone)* graceful-restart long-lived

Tree long-lived

Description Commands in this context configure the BGP Long-Lived Graceful-Restart (LLGR) procedures.

LLGR, known informally as BGP persistence, is an extension of BGP GR that allows a session to stay down for a longer period of time. During this time, learned routes are marked and re-advertised as stale but they can continue to be used as routes of last resort.

The LLGR handling of a session failure can be invoked immediately or it can be delayed until the end of the traditional GR restart window.

Introduced 16.0.R1

Platforms All

## advertise-stale-to-all-neighbors *boolean*

Synopsis Advertise stale routes to all BGP peers

Context **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone | ipv6-address-with-zone)* graceful-restart long-lived advertise-stale-to-all-neighbors *boolean*


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| | |
|---|---|
| Tree | advertise-stale-to-all-neighbors |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **advertised-stale-time** *number*

| | |
|---|---|
| Synopsis | Advertised long-lived stale time for LLGR routes |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* graceful-restart long-lived advertised-stale-time *number* |
| Tree | advertised-stale-time |
| Range | 0 to 16777215 |
| Default | 86400 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **family** [family-type] *keyword*

| | |
|---|---|
| Synopsis | Enter the **family** list instance |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* graceful-restart long-lived family *keyword* |
| Tree | family |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**family-type**] *keyword*

| | |
|---|---|
| Synopsis | Family type for family-specific LLGR configuration |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* graceful-restart long-lived family *keyword* |
| Tree | family |
| Options | ipv4, vpn-ipv4, ipv6, vpn-ipv6, l2-vpn, flow-ipv4, route-target, flow-ipv6, label-ipv4, label-ipv6, flow-vpn-ipv4, flow-vpn-ipv6 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **advertised-stale-time** *number*

| | |
|---|---|
| Synopsis | LLGR stale routes time for family override |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* graceful-restart long-lived family *keyword* advertised-stale-time *number* |
| Tree | advertised-stale-time |
| Description | This command configures the long-lived stale routes time that is advertised by the router in its LLGR capability.<br>This command applies to all AFI/SAFI in the advertised LLGR capability with a family-specific override. |
| Range | 0 to 16777215 |
| Default | 86400 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **helper-override-stale-time** *number*

| | |
|---|---|
| Synopsis | Locally-configured stale routes override time |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* graceful-restart long-lived family *keyword* helper-override-stale-time *number* |
| Tree | helper-override-stale-time |
| Description | This command configures a locally-imposed LLGR stale time that overrides the long-lived stale routes time that is advertised by the router in its LLGR capability. This is a family-specific override value. |
| Range | 0 to 16777216 |
| Default | 16777216 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **forwarding-bits-set** *keyword*

| | |
|---|---|
| Synopsis | BGP LLGR forwarding-bit behavior for address family |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* graceful-restart long-lived forwarding-bits-set *keyword* |
| Tree | forwarding-bits-set |
| Description | This command determines the setting of the F bit in the GR and LLGR capabilities advertised by the router. When the F bit is set for an address family, it indicates that the advertising router is able to preserve forwarding state for the routes of that address |


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family across the last restart. When the session is re-established after a restart and the F bit is not set, all stale routes from the peer are immediately removed for the corresponding address family.

This command allows the F bit to be set for all address families or only for non-forwarding address families (L2-VPN, route target, flow-IPv4, and flow-IPv6).

| | |
|---|---|
| Options | none, all, non-fwd |
| Default | none |
| Introduced | 16.0.R1 |
| Platforms | All |

### **helper-override-restart-time** *number*

| | |
|---|---|
| Synopsis | Locally-configured override for restart time |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* graceful-restart long-lived helper-override-restart-time *number* |
| Tree | helper-override-restart-time |
| Description | This command overrides the restart time advertised by a peer (in its GR capability) with a locally-configured value. This override applies only to AFI/SAFI that were included in the GR capability of the peer. The restart-time is always zero for AFI/SAFI not included in the GR capability. This command is useful if the local router wants to force the LLGR phase to begin after a set time for all protected AFI/SAFI. |
| Range | 0 to 4095 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **helper-override-stale-time** *number*

| | |
|---|---|
| Synopsis | Locally-configured stale routes override time |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* graceful-restart long-lived helper-override-stale-time *number* |
| Tree | helper-override-stale-time |
| Description | This command configures a locally-imposed LLGR stale time that overrides the long-lived stale routes time that is advertised by the router in its LLGR capability.<br>This command applies to all AFI/SAFI in the advertised LLGR capability except for any AFI/SAFI with a family-specific override. |
| Range | 0 to 16777215 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **without-no-export** *boolean*

| | |
|---|---|
| Synopsis | Advertise LLGR stale routes to non-LLGR peers |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* graceful-restart long-lived without-no-export *boolean* |
| Tree | without-no-export |
| Description | When configured to **true**, LLGR stale routes can be advertised to any peer (EBGP or IBGP) that did not signal the LLGR capability. For IBGP and confederation-EBGP peers that did not advertise the LLGR capability, the local preference attribute in the advertised stale routes is automatically set to 0.<br><br>When configured to **false**, LLGR stale routes are not advertised to any EBGP peer that did not signal the LLGR capability. For IBGP and confederation-EBGP peers that did not advertise the LLGR capability, the local preference attribute in the advertised stale routes is automatically set to 0 and a NO_EXPORT standard community is automatically added to the routes. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **restart-time** *number*

| | |
|---|---|
| Synopsis | Restart time advertised by GR capability |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* graceful-restart restart-time *number* |
| Tree | restart-time |
| Range | 0 to 4095 |
| Default | 300 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **stale-routes-time** *number*

| | |
|---|---|
| Synopsis | Maximum time to maintain routes after graceful restart |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* graceful-restart stale-routes-time *number* |
| Tree | stale-routes-time |
| Range | 1 to 3600 |
| Default | 360 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## **group** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | BGP peer group |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* group *reference* |
| Tree | group |
| Reference | **configure** router *named-item-64* bgp group *named-item-64* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **hold-time**

| | |
|---|---|
| Synopsis | Enter the **hold-time** context |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* hold-time |
| Tree | hold-time |
| Introduced | 16.0.R1 |
| Platforms | All |

## **minimum-hold-time** *number*

| | |
|---|---|
| Synopsis | Minimum time BGP waits between successive messages |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* hold-time minimum-hold-time *number* |
| Tree | minimum-hold-time |
| Range | 0 \| 3 to 65536 |
| Default | 0 |
| Introduced | 16.0.R1 |


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Platforms All

## **seconds** *number*

Synopsis Maximum hold time between successive messages

Context **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone | ipv6-address-with-zone)* hold-time seconds *number*

Tree seconds

Description The BGP hold time specifies the maximum time BGP waits between successive messages (either keepalive or update) from its peer, before closing the connection.

Even though the implementation allows setting the keepalive timer at the BGP neighbor level times separately, the configured keepalive timer is overridden by this value under the following circumstances:

- If the specified hold time is less than the configured keepalive time, then the operational keepalive time is set to a third of the hold-time; the configured keepalive time is not changed.
- If the hold time is set to zero, the operational value of the keepalive time is set to zero; the configured keepalive time is not changed. This means that the connection with the peer is up permanently and no keepalive packets are sent to the peer.

When unconfigured, the command setting is inherited from the BGP group-level configuration.

Range 0 | 3 to 65535

Introduced 16.0.R1

Platforms All

## **import**

Synopsis Enable the **import** context

Context **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone | ipv6-address-with-zone)* import

Tree import

Description Commands in this context specify route policies that control the handling of inbound routes received from certain peers. Route policies are configured in the **configure policy-options** context.

When this context is unconfigured, the policy association is inherited from the BGP group-level configuration.

Introduced 16.0.R1

Platforms All


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## **policy** *(policy-expr-string | string)*

| | |
|---|---|
| Synopsis | Names of the BGP import policies |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* import policy *(policy-expr-string \| string)* |
| Tree | policy |
| Description | This command specifies route policies that control the handling of inbound routes received from certain peers.<br>Each object in this command is either a policy logical expression or the name of a single policy. The objects are evaluated in the specified order to determine the modifications of each route and the final action to accept or reject the route.<br>Only one of the objects referenced by the command can be a policy logical expression consisting of policy names (enclosed in square brackets) and logical operators (AND, OR, NOT).<br>Policy parameters must be enclosed by at-signs (@) and may be midstring; for example, "@variable@," "start@variable@end"," @variable@end", or"start@variable@". |
| String length | 1 to 255 |
| Max. instances | 15 |
| Min. instances | 1 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **initial-send-delay-zero** *boolean*

| | |
|---|---|
| Synopsis | Send BGP updates as soon as the session comes up |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* initial-send-delay-zero *boolean* |
| Tree | initial-send-delay-zero |
| Description | When configured to **true**, BGP updates are sent as soon as the session comes up.<br>When unconfigured, the command inherits the value of the group-level setting (**true** or **false**). The command cannot be explicitly configured to **false**.<br>When this command inherits a value of **false**, BGP waits to send UPDATE messages for the minimum route advertisement time after a session is established. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **keepalive** *number*

| | |
|---|---|
| Synopsis | Time after which the BGP KEEPALIVE message is sent |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* keepalive *number* |
| Tree | keepalive |
| Range | 0 to 21845 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **l2vpn-cisco-interop** *boolean*

| | |
|---|---|
| Synopsis | Allow translation from Cisco non-compliant NLRI format |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* l2vpn-cisco-interop *boolean* |
| Tree | l2vpn-cisco-interop |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **label-preference** *number*

| | |
|---|---|
| Synopsis | Route preference for routes from labeled-unicast peers |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* label-preference *number* |
| Tree | label-preference |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **link-bandwidth**

| | |
|---|---|
| Synopsis | Enter the **link-bandwidth** context |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* link-bandwidth |
| Tree | link-bandwidth |


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| | |
|---|---|
| Introduced | 16.0.R3 |
| Platforms | All |

## accept-from-ebgp

| | |
|---|---|
| Synopsis | Enable the **accept-from-ebgp** context |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* link-bandwidth accept-from-ebgp |
| Tree | accept-from-ebgp |
| Introduced | 16.0.R4 |
| Platforms | All |

## ipv4 *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in IPv4 routes |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* link-bandwidth accept-from-ebgp ipv4 *boolean* |
| Tree | ipv4 |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

## ipv6 *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in IPv6 routes |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* link-bandwidth accept-from-ebgp ipv6 *boolean* |
| Tree | ipv6 |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

## label-ipv4 *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in label-IPv4 routes |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* link-bandwidth accept-from-ebgp label-ipv4 *boolean* |


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| | |
|---|---|
| Tree | label-ipv4 |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **label-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in label-IPv6 routes |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* link-bandwidth accept-from-ebgp label-ipv6 *boolean* |
| Tree | label-ipv6 |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **vpn-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in VPN-IPv4 routes |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* link-bandwidth accept-from-ebgp vpn-ipv4 *boolean* |
| Tree | vpn-ipv4 |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **vpn-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in VPN-IPv6 routes |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* link-bandwidth accept-from-ebgp vpn-ipv6 *boolean* |
| Tree | vpn-ipv6 |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |


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## add-to-received-ebgp

| | |
|---|---|
| Synopsis | Enable the **add-to-received-ebgp** context |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* link-bandwidth add-to-received-ebgp |
| Tree | add-to-received-ebgp |
| Introduced | 16.0.R3 |
| Platforms | All |

## ipv4 *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in IPv4 routes |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* link-bandwidth add-to-received-ebgp ipv4 *boolean* |
| Tree | ipv4 |
| Default | false |
| Introduced | 16.0.R3 |
| Platforms | All |

## ipv6 *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in IPv6 routes |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* link-bandwidth add-to-received-ebgp ipv6 *boolean* |
| Tree | ipv6 |
| Default | false |
| Introduced | 16.0.R3 |
| Platforms | All |

## label-ipv4 *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in label-IPv4 routes |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* link-bandwidth add-to-received-ebgp label-ipv4 *boolean* |
| Tree | label-ipv4 |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R3 |
| Platforms | All |

### **label-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in label-IPv6 routes |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* link-bandwidth add-to-received-ebgp label-ipv6 *boolean* |
| Tree | label-ipv6 |
| Default | false |
| Introduced | 16.0.R3 |
| Platforms | All |

### **vpn-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in VPN-IPv4 routes |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* link-bandwidth add-to-received-ebgp vpn-ipv4 *boolean* |
| Tree | vpn-ipv4 |
| Default | false |
| Introduced | 16.0.R3 |
| Platforms | All |

### **vpn-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in VPN-IPv6 routes |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* link-bandwidth add-to-received-ebgp vpn-ipv6 *boolean* |
| Tree | vpn-ipv6 |
| Default | false |
| Introduced | 16.0.R3 |
| Platforms | All |

### **aggregate-used-paths**

| | |
|---|---|
| Synopsis | Enable the **aggregate-used-paths** context |


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| | |
|---|---|
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* link-bandwidth aggregate-used-paths |
| Tree | aggregate-used-paths |
| Introduced | 16.0.R4 |
| Platforms | All |

### **ipv4** *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in IPv4 routes |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* link-bandwidth aggregate-used-paths ipv4 *boolean* |
| Tree | ipv4 |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **ipv6** *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in IPv6 routes |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* link-bandwidth aggregate-used-paths ipv6 *boolean* |
| Tree | ipv6 |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **label-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in label-IPv4 routes |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* link-bandwidth aggregate-used-paths label-ipv4 *boolean* |
| Tree | label-ipv4 |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **label-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in label-IPv6 routes |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* link-bandwidth aggregate-used-paths label-ipv6 *boolean* |
| Tree | label-ipv6 |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **vpn-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in VPN-IPv4 routes |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* link-bandwidth aggregate-used-paths vpn-ipv4 *boolean* |
| Tree | vpn-ipv4 |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **vpn-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in VPN-IPv6 routes |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* link-bandwidth aggregate-used-paths vpn-ipv6 *boolean* |
| Tree | vpn-ipv6 |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **send-to-ebgp**

| | |
|---|---|
| Synopsis | Enable the **send-to-ebgp** context |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* link-bandwidth send-to-ebgp |
| Tree | send-to-ebgp |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | All |

### **ipv4** *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in IPv4 routes |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* link-bandwidth send-to-ebgp ipv4 *boolean* |
| Tree | ipv4 |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **ipv6** *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in IPv6 routes |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* link-bandwidth send-to-ebgp ipv6 *boolean* |
| Tree | ipv6 |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **label-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in label-IPv4 routes |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* link-bandwidth send-to-ebgp label-ipv4 *boolean* |
| Tree | label-ipv4 |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **label-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in label-IPv6 routes |


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| | |
|---|---|
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* link-bandwidth send-to-ebgp label-ipv6 *boolean* |
| Tree | label-ipv6 |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **vpn-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in VPN-IPv4 routes |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* link-bandwidth send-to-ebgp vpn-ipv4 *boolean* |
| Tree | vpn-ipv4 |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **vpn-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in VPN-IPv6 routes |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* link-bandwidth send-to-ebgp vpn-ipv6 *boolean* |
| Tree | vpn-ipv6 |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **local-address** *(ipv4-address-no-zone \| ipv6-address-no-zone \| interface-name)*

| | |
|---|---|
| Synopsis | Local IP address used when communicating with BGP peers |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* local-address *(ipv4-address-no-zone \| ipv6-address-no-zone \| interface-name)* |
| Tree | local-address |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## local-as

| | |
|---|---|
| Synopsis | Enter the **local-as** context |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* local-as |
| Tree | local-as |
| Introduced | 16.0.R1 |
| Platforms | All |

## as-number *number*

| | |
|---|---|
| Synopsis | Local (or virtual) BGP AS number |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* local-as as-number *number* |
| Tree | as-number |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

## prepend-global-as *boolean*

| | |
|---|---|
| Synopsis | Prepend global ASN when advertising routes to BGP peer |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* local-as prepend-global-as *boolean* |
| Tree | prepend-global-as |
| Description | When configured to **true**, the global ASN is added to the AS_PATH attribute in outbound routes sent to the peer.<br>When configured to **false**, the global ASN is not included in the AS_PATH attribute. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **private** *boolean*

| | |
|---|---|
| Synopsis | Hide the local ASN in sent paths learned from peering |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* local-as private *boolean* |
| Tree | private |
| Description | When configured to **true**, the local AS number is only advertised to peers that use the local ASN for establishing BGP peering sessions.<br>When configured to **false**, the local ASN is advertised to all peers, including those that can use the global ASN for establishing BGP peering sessions. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **local-preference** *number*

| | |
|---|---|
| Synopsis | Default local preference if not in incoming routes |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* local-preference *number* |
| Tree | local-preference |
| Range | 0 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **loop-detect** *keyword*

| | |
|---|---|
| Synopsis | Strategy for loop detection in the AS path |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* loop-detect *keyword* |
| Tree | loop-detect |
| Options | drop-peer, ignore-loop, off, discard-route |
| Introduced | 16.0.R1 |
| Platforms | All |

### **loop-detect-threshold** *number*

| | |
|---|---|
| Synopsis | Threshold for the global ASN in a received AS path |


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| | |
|---|---|
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* loop-detect-threshold *number* |
| Tree | loop-detect-threshold |
| Range | 0 to 15 |
| Introduced | 16.0.R6 |
| Platforms | All |

## **med-out** *(number | keyword)*

| | |
|---|---|
| Synopsis | Default MED attribute value to advertise to peers |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* med-out *(number \| keyword)* |
| Tree | med-out |
| Max. range | 0 to 4294967295 |
| Options | igp-cost |
| Introduced | 16.0.R1 |
| Platforms | All |

## **min-route-advertisement** *number*

| | |
|---|---|
| Synopsis | Minimum interval between successive prefix updates |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* min-route-advertisement *number* |
| Tree | min-route-advertisement |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **monitor**

| | |
|---|---|
| Synopsis | Enable the **monitor** context |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* monitor |
| Tree | monitor |
| Description | Commands in this context specify BMP-related configurations at the BGP neighbor level. |


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When this context is unconfigured, the command settings are inherited from the BGP group-level configuration.

Introduced 16.0.R1

Platforms All

## **admin-state** *keyword*

Synopsis Administrative state of BMP monitoring

Context **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone | ipv6-address-with-zone)* monitor admin-state *keyword*

Tree admin-state

Options enable, disable

Default disable

Introduced 16.0.R1

Platforms All

## **all-stations** *boolean*

Synopsis Send BMP messages to all configured stations

Context **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone | ipv6-address-with-zone)* monitor all-stations *boolean*

Tree all-stations

Description When configured to **true**, this command specifies that BMP messages are to be sent to all configured BMP monitoring stations.

When configured to **false**, the command is not used to indicate the stations which can receive BMP messages. The **station** command (at the same context level) identifies the BMP stations for which BMP messages are to be sent.

Default false

Introduced 16.0.R1

Platforms All

## **route-monitoring**

Synopsis Enter the **route-monitoring** context

Context **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone | ipv6-address-with-zone)* monitor route-monitoring

Tree route-monitoring


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **post-policy** *boolean*

| | |
|---|---|
| Synopsis | Allow post-policy route-monitoring messages to be sent |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* monitor route-monitoring post-policy *boolean* |
| Tree | post-policy |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **pre-policy** *boolean*

| | |
|---|---|
| Synopsis | Allow pre-policy route-monitoring messages to be sent |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* monitor route-monitoring pre-policy *boolean* |
| Tree | pre-policy |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **station** [station-name] *reference*

| | |
|---|---|
| Synopsis | Add a list entry for **station** |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* monitor station *reference* |
| Tree | station |
| Description | This command configures the set of BMP monitoring stations for which BMP messages are to be sent. |
| Max. instances | 8 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**station-name**] *reference*

| | |
|---|---|
| Synopsis | BMP monitoring station |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* monitor station *reference* |
| Tree | station |
| Reference | **configure** bmp station *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **multihop** *number*

| | |
|---|---|
| Synopsis | TTL in IP packet headers for EBGP peers multi-hops away |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* multihop *number* |
| Tree | multihop |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **multipath-eligible** *boolean*

| | |
|---|---|
| Synopsis | Allow routes from this peer in multipath eligibility |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* multipath-eligible *boolean* |
| Tree | multipath-eligible |
| Introduced | 19.5.R1 |
| Platforms | All |

### **next-hop-self** *boolean*

| | |
|---|---|
| Synopsis | Advertise routes with local address as next-hop address |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* next-hop-self *boolean* |
| Tree | next-hop-self |


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Description When configured to **true**, this command configures BGP to advertise routes to members of a group using a local address of the BGP instance as the BGP next-hop address.

Note that this command is set without exception, regardless of the route source (EBGP or IBGP) or its family. When used with VPN-IPv4 and VPN-IPv6 routes, the **configure router bgp rr-vpn-forwarding** command should also be configured.

When unconfigured, the command inherits the value of the group-level setting (**true** or **false**). The command cannot be explicitly configured to **false**.

When this command inherits a value of **false**, protocol standard behavior is applied to determine whether to set **next-hop-self** in advertised routes.

Introduced 16.0.R1

Platforms All

## next-hop-unchanged

Synopsis Enable the **next-hop-unchanged** context

Context **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone | ipv6-address-with-zone)* next-hop-unchanged

Tree next-hop-unchanged

Description Commands in this context specify the IP address families where the next hop remains unchanged when sending BGP routes to peers of the neighbor.

Introduced 16.0.R1

Platforms All

## evpn *boolean*

Synopsis Advertise EVPN routes with unchanged BGP next hop

Context **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone | ipv6-address-with-zone)* next-hop-unchanged evpn *boolean*

Tree evpn

Default false

Introduced 20.2.R1

Platforms All

## label-ipv4 *boolean*

Synopsis Advertise label-IPv4 routes with unchanged BGP next hop

Context **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone | ipv6-address-with-zone)* next-hop-unchanged label-ipv4 *boolean*


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| | |
|---|---|
| Tree | label-ipv4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **label-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Advertise label-IPv6 routes with unchanged BGP next hop |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* next-hop-unchanged label-ipv6 *boolean* |
| Tree | label-ipv6 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **vpn-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Advertise VPN IPv4 routes with unchanged BGP next hop |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* next-hop-unchanged vpn-ipv4 *boolean* |
| Tree | vpn-ipv4 |
| Default | false |
| Introduced | 20.2.R1 |
| Platforms | All |

### **vpn-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Advertise VPN IPv6 routes with unchanged BGP next hop |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* next-hop-unchanged vpn-ipv6 *boolean* |
| Tree | vpn-ipv6 |
| Default | false |
| Introduced | 20.2.R1 |
| Platforms | All |


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## origin-validation

| | |
|---|---|
| Synopsis | Enable the **origin-validation** context |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* origin-validation |
| Tree | origin-validation |
| Description | Commands in this context configure the marking of every inbound IPv4, IPv6, labeled IPv4, and labeled IPv6 route from the BGP peer with one of the following origin validation states:<br>•<br>Valid (0)<br>•<br>Not-Found (1)<br>•<br>Invalid (2)<br>The configurations apply to all types of BGP peers, but generally should be applied only to EBGP peers and groups that contain only EBGP peers. |
| Introduced | 16.0.R1 |
| Platforms | All |

## ipv4 *boolean*

| | |
|---|---|
| Synopsis | Enable support for unlabeled unicast IPv4 routes |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* origin-validation ipv4 *boolean* |
| Tree | ipv4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## ipv6 *boolean*

| | |
|---|---|
| Synopsis | Enable support for unlabeled unicast IPv6 routes |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* origin-validation ipv6 *boolean* |
| Tree | ipv6 |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **label-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Enable support for labeled-unicast IPv4 routes |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* origin-validation label-ipv4 *boolean* |
| Tree | label-ipv4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **label-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Enable support for labeled-unicast IPv6 routes |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* origin-validation label-ipv6 *boolean* |
| Tree | label-ipv6 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **outbound-route-filtering**

| | |
|---|---|
| Synopsis | Enable the **outbound-route-filtering** context |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* outbound-route-filtering |
| Tree | outbound-route-filtering |
| Description | Commands in this context configure the send and receive capabilities for Outbound Route Filtering (ORF).<br>When this context is unconfigured, the command settings are inherited from the BGP group-level configuration. |
| Introduced | 16.0.R1 |
| Platforms | All |


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## extended-community

| | |
|---|---|
| Synopsis | Enable the **extended-community** context |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* outbound-route-filtering extended-community |
| Tree | extended-community |
| Description | Commands in this context configure the ORF send and receive capabilities based on Extended Communities.<br>When this context is unconfigured, the command settings are inherited from the group-level configuration. |
| Introduced | 16.0.R1 |
| Platforms | All |

## accept-orf *boolean*

| | |
|---|---|
| Synopsis | Negotiate with peer to accept BGP ORF filters |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* outbound-route-filtering extended-community accept-orf *boolean* |
| Tree | accept-orf |
| Description | When configured to **true**, the receive capability in the BGP ORF is negotiated with a peer and ORF filters can be accepted from peers.<br>When unconfigured, the command inherits the value of the group-level setting (**true** or **false**). The command cannot be explicitly configured to **false**.<br>When this command inherits a value of **false**, the accept capability in the BGP ORF is removed and any existing ORF filters that are currently in place are cleared. |
| Introduced | 16.0.R1 |
| Platforms | All |

## send-orf

| | |
|---|---|
| Synopsis | Enable the **send-orf** context |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* outbound-route-filtering extended-community send-orf |
| Tree | send-orf |
| Description | Commands in this context allow BGP to negotiate the send capability in the ORF negotiation with a peer. The send capability also causes the router to send a community filter, prefix filter, or AS path filter configured as an inbound filter on the BGP session to its peer as an ORF Action ADD. |


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When this context is unconfigured, the command settings are inherited from the BGP group-level configuration.

Introduced 16.0.R1

Platforms All

### **route-target** [community-name] *named-item*

Synopsis Add a list entry for **route-target**

Context **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone | ipv6-address-with-zone)* outbound-route-filtering extended-community send-orf route-target *named-item*

Tree route-target

Introduced 16.0.R1

Platforms All

### [**community-name**] *named-item*

Synopsis Route target community name

Context **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone | ipv6-address-with-zone)* outbound-route-filtering extended-community send-orf route-target *named-item*

Tree route-target

String length 1 to 32

Notes This element is part of a list key.

Introduced 16.0.R1

Platforms All

### **passive** *boolean*

Synopsis Use passive mode for BGP communication

Context **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone | ipv6-address-with-zone)* passive *boolean*

Tree passive

Introduced 16.0.R1

Platforms All


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### **path-mtu-discovery** *boolean*

| | |
|---|---|
| Synopsis | Enable path MTU discovery |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* path-mtu-discovery *boolean* |
| Tree | path-mtu-discovery |
| Description | When configured to **true**, Path MTU Discovery (PMTUD) is enabled for the associated TCP connections.<br><br>When set to **true**, PMTUD is activated toward an IPv4 BGP neighbor and the Don't Fragment (DF) bit is set in the IP header of all IPv4 packets sent to the peer. If any device along the path toward the peer cannot forward the packet because the IP MTU of the interface is smaller than the IP packet size, this device drops the packet and sends an ICMP or ICMPv6 error message encoding the interface MTU. When the router receives the ICMP or ICMPv6 message, it lowers the TCP maximum segment size limit from the previous value so that the IP MTU constraint can be accommodated.<br><br>When PMTUD is configured to **false** and there is no TCP MSS configuration that can be associated with a BGP neighbor (in either the BGP configuration or the first hop IP interface configuration), the router advertises a value of only 1024 bytes as the TCP MSS option value, limiting received TCP segments to that size. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **peer-as** *number*

| | |
|---|---|
| Synopsis | Peer AS number |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* peer-as *number* |
| Tree | peer-as |
| Description | This command configures the autonomous system number for the peer. The peer AS number must be configured for each configured peer.<br><br>For EBGP peers, the peer AS number configured must be different from the autonomous system number configured for this router under the global level since the peer will be in a different autonomous system than this router.<br><br>For IBGP peers, the peer AS number must be the same as the autonomous system number of this router configured under the global level. |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **peer-creation-type** *keyword*

| | |
|---|---|
| Synopsis | Peer creation type |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* peer-creation-type *keyword* |
| Tree | peer-creation-type |
| Options | static, dynamic, dynamic-if-remote, dynamic-if-local |
| Default | static |
| Introduced | 16.0.R1 |
| Platforms | All |

## **peer-ip-tracking** *boolean*

| | |
|---|---|
| Synopsis | Enable BGP peer tracking |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* peer-ip-tracking *boolean* |
| Tree | peer-ip-tracking |
| Description | When configured to **true**, this command enables BGP peer tracking.<br>Peer tracking should be used with caution. Peer tracking can tear a session down even if the loss of connectivity turns out to be short-lived (for example, while the IGP protocol is re-converging). Next-hop tracking, which is always enabled, handles temporary connectivity issues more effectively.<br>When unconfigured, the command inherits the value of the group-level setting (**true** or **false**). The command cannot be explicitly configured to **false**.<br>When this command inherits a value of **false**, peer tracking is disabled. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **preference** *number*

| | |
|---|---|
| Synopsis | Route preference for routes learned from all peers |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* preference *number* |
| Tree | preference |
| Description | This command configures the route preference for routes learned from the configured peers. |


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The lower the preference value, the higher the chance of the route being the active route. The router assigns BGP routes the highest default preference as compared to routes that are direct, static or learned via MPLS or OSPF.

When unconfigured, the command setting is inherited from the group-level configuration.

| | |
|---|---|
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **prefix-limit** [family] *keyword*

| | |
|---|---|
| Synopsis | Enter the **prefix-limit** list instance |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* prefix-limit *keyword* |
| Tree | prefix-limit |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**family**] *keyword*

| | |
|---|---|
| Synopsis | Address family to which the limit applies |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* prefix-limit *keyword* |
| Tree | prefix-limit |
| Options | ipv4, vpn-ipv4, ipv6, mcast-ipv4, vpn-ipv6, l2-vpn, mvpn-ipv4, mdt-safi, ms-pw, flow-ipv4, route-target, mcast-vpn-ipv4, mvpn-ipv6, flow-ipv6, evpn, mcast-ipv6, label-ipv4, label-ipv6, bgp-ls, mcast-vpn-ipv6, sr-policy-ipv4, sr-policy-ipv6, flow-vpn-ipv4, flow-vpn-ipv6 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **hold-excess** *number*

| | |
|---|---|
| Synopsis | Percentage of maximum routes to install in route table |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* prefix-limit *keyword* hold-excess *number* |
| Tree | hold-excess |


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| | |
|---|---|
| Description | This command specifies the percentage of maximum routes that are allowed to be installed in the route table for the configured address family. If a peer within scope of the configuration exceeds the limit, the overflow routes are held in the BGP RIB as inactive routes and are ineligible for forwarding and advertisement to other peers. If the **post-import** command is configured to **true**, only routes not rejected by import policies count toward the limit.<br>A BGP route in an overflow state is reconsidered for activation and reinstallation when an UPDATE message is received for the route.<br>This command is mutually exclusive with the **idle-timeout** and **log-only** commands. |
| Range | 1 to 100 |
| Introduced | 23.7.R1 |
| Platforms | All |

## **idle-timeout** *number*

| | |
|---|---|
| Synopsis | Time which BGP peering remains idle before reconnecting |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* prefix-limit *keyword* idle-timeout *number* |
| Tree | idle-timeout |
| Description | This command defines the idle time after an administrative take-down before BGP re-establishes a session and reconnects to a peer.<br>When unconfigured, the command inherits the value from the group-level configuration. |
| Range | 1 to 1024 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **log-only** *boolean*

| | |
|---|---|
| Synopsis | Send warning message at threshold instead of take-down |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* prefix-limit *keyword* log-only *boolean* |
| Tree | log-only |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **maximum** *number*

| | |
|---|---|
| Synopsis | Maximum number of routes to be learned from a peer |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* prefix-limit *keyword* maximum *number* |
| Tree | maximum |
| Description | This command configures the maximum number of BGP routes than can be received from a peer before administrative action is taken. |
| Range | 1 to 4294967295 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R2 |
| Platforms | All |

### **post-import** *boolean*

| | |
|---|---|
| Synopsis | Apply limit only to routes accepted by import policies |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* prefix-limit *keyword* post-import *boolean* |
| Tree | post-import |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **threshold** *number*

| | |
|---|---|
| Synopsis | Percentage threshold that triggers a warning message |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* prefix-limit *keyword* threshold *number* |
| Tree | threshold |
| Range | 1 to 100 |
| Default | 90 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### remove-private

| | |
|---|---|
| Synopsis | Enable the **remove-private** context |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* remove-private |
| Tree | remove-private |
| Introduced | 16.0.R1 |
| Platforms | All |

### limited *boolean*

| | |
|---|---|
| Synopsis | Remove private ASNs up to first public ASN encountered |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* remove-private limited *boolean* |
| Tree | limited |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### replace *boolean*

| | |
|---|---|
| Synopsis | Replace private ASN with global ASN before advertising |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* remove-private replace *boolean* |
| Tree | replace |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### skip-peer-as *boolean*

| | |
|---|---|
| Synopsis | Keep private ASN if it is the same as the BGP peer ASN |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* remove-private skip-peer-as *boolean* |
| Tree | skip-peer-as |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## segment-routing-v6

| | |
|---|---|
| Synopsis | Enable the **segment-routing-v6** context |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* segment-routing-v6 |
| Tree | segment-routing-v6 |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## route-advertisement

| | |
|---|---|
| Synopsis | Enable the **route-advertisement** context |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* segment-routing-v6 route-advertisement |
| Tree | route-advertisement |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## drop-routes-with-srv6-tlvs *boolean*

| | |
|---|---|
| Synopsis | Drop BGP routes with SRv6 TLVs |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* segment-routing-v6 route-advertisement drop-routes-with-srv6-tlvs *boolean* |
| Tree | drop-routes-with-srv6-tlvs |
| Description | When configured to **true**, the router drops and does not advertise BGP routes (that belong to any address family) with SRv6 TLVs.<br>When configured to **false**, the router advertises BGP routes with SRv6 TLVs. |
| Default | false |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |


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### **family** [family-type] *keyword*

| | |
|---|---|
| Synopsis | Enter the **family** list instance |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* segment-routing-v6 route-advertisement family *keyword* |
| Tree | family |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### [**family-type**] *keyword*

| | |
|---|---|
| Synopsis | IP address type that SRv6 route attributes apply to |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* segment-routing-v6 route-advertisement family *keyword* |
| Tree | family |
| Options | ipv4, ipv6 |
| Notes | This element is part of a list key. |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **strip-srv6-tlvs** *boolean*

| | |
|---|---|
| Synopsis | Strip SRv6 TLVs from BGP routes advertised to peers |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* segment-routing-v6 route-advertisement family *keyword* strip-srv6-tlvs *boolean* |
| Tree | strip-srv6-tlvs |
| Description | When configured to **true**, BGP routes that belong to the address family specified using the **family** command are advertised to peers with SRv6 TLVs removed. Locally or remotely added SRv6 TLVs can be removed.<br>When configured to **false**, SRv6 TLVs are not stripped from BGP routes advertised to peers. |
| Default | false |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |


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### **selective-label-ipv4-install** *boolean*

| | |
|---|---|
| Synopsis | Enable selective download for BGP label-ipv4 routes |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* selective-label-ipv4-install *boolean* |
| Tree | selective-label-ipv4-install |
| Introduced | 19.10.R1 |
| Platforms | All |

### **send-communities**

| | |
|---|---|
| Synopsis | Enter the **send-communities** context |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* send-communities |
| Tree | send-communities |
| Introduced | 16.0.R1 |
| Platforms | All |

### **extended** *boolean*

| | |
|---|---|
| Synopsis | Advertise the Extended Communities attribute to peers |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* send-communities extended *boolean* |
| Tree | extended |
| Description | When unconfigured, this command inherits the value of the group-level setting (**true** or **false**). The command cannot be explicitly configured to **true**.<br>When this command inherits a value of **true**, BGP extended communities are sent to peers in the Extended Communities attribute.<br>When configured to **false**, all extended communities are removed from all routes advertised to BGP peers. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **large** *boolean*

| | |
|---|---|
| Synopsis | Advertise the Large Communities attribute to peers |


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| | |
|---|---|
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* send-communities large *boolean* |
| Tree | large |
| Description | When unconfigured, this command inherits the value of the group-level setting (**true** or **false**). The command cannot be explicitly configured to **true**.<br>When this command inherits a value of **true**, BGP large communities are sent to peers in the Large Communities attribute.<br>When configured to **false**, all large communities are removed from all routes advertised to BGP peers. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **standard** *boolean*

| | |
|---|---|
| Synopsis | Advertise the Communities attribute to peers |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* send-communities standard *boolean* |
| Tree | standard |
| Description | When unconfigured, this command inherits the value of the group-level setting (**true** or **false**). The command cannot be explicitly configured to **true**.<br>When this command inherits a value of **true**, BGP standard communities are sent to peers in the Communities attribute.<br>When configured to **false**, all standard communities are removed from all routes advertised to BGP peers. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **send-default**

| | |
|---|---|
| Synopsis | Enable the **send-default** context |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* send-default |
| Tree | send-default |
| Introduced | 19.7.R1 |
| Platforms | All |


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### **export-policy** *reference*

| | |
|---|---|
| Synopsis | Export policy name |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* send-default export-policy *reference* |
| Tree | export-policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Introduced | 19.7.R1 |
| Platforms | All |

### **ipv4** *boolean*

| | |
|---|---|
| Synopsis | Enable IPv4 family type |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* send-default ipv4 *boolean* |
| Tree | ipv4 |
| Default | false |
| Introduced | 19.7.R1 |
| Platforms | All |

### **ipv6** *boolean*

| | |
|---|---|
| Synopsis | Enable IPv6 family type |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* send-default ipv6 *boolean* |
| Tree | ipv6 |
| Default | false |
| Introduced | 19.7.R1 |
| Platforms | All |

### **split-horizon** *boolean*

| | |
|---|---|
| Synopsis | Prevent routes being reflected back to best-route peer |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* split-horizon *boolean* |
| Tree | split-horizon |


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Description When configured to **true**, this command enables the use of split-horizon.

This command prevents routes from being reflected back to a peer that sends the best route. It applies to routes of all address families and to any type of sending peer; confed-EBGP, EBGP and IBGP.

Enabling the split-horizon functionality may have a detrimental impact on peer and route scaling and should only be used when absolutely necessary.

When unconfigured, the command inherits the value of the group-level setting (**true** or **false**). The command cannot be explicitly configured to **false**.

When this command inherits a value of **false**, the use of split-horizon is disabled.

Introduced 16.0.R1

Platforms All

## **tcp-mss** *(number | keyword)*

Synopsis TCP maximum segment size override

Context **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone | ipv6-address-with-zone)* tcp-mss *(number | keyword)*

Tree tcp-mss

Description This command configures an override for the TCP maximum segment size to use with a specific peer or set of peers (depending on the scope of the command).

The configured value controls two properties of the TCP connection as follows:

TCP MSS option - The router advertises the TCP MSS option value in the TCP SYN packet it sends as part of the 3-way handshake. The advertised value may be lower than the configured value, depending on the IP MTU of the first hop IP interface. The peers must abide by this value when sending TCP segments to the local router.

TCP maximum segment size - The actual transmitted size may be lower than the configured value, depending on the TCP MSS option value signaled by the peers, the effect of path MTU discovery, or other factors.

Range 384 to 9746

Options ip-stack

Introduced 21.2.R1

Platforms All

## **third-party-nexthop** *boolean*

Synopsis Apply third-party next-hop processing to EBGP peers

Context **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone | ipv6-address-with-zone)* third-party-nexthop *boolean*

Tree third-party-nexthop


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **ttl-security** *number*

| | |
|---|---|
| Synopsis | Minimum TTL value for an incoming BGP packet |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* ttl-security *number* |
| Tree | ttl-security |
| Description | This command configures the minimum TTL value that BGP will accept from an incoming packet. A packet with a TTL value less than the minimum configured TTL value is discarded.<br>When unconfigured, the command inherits the value of the group-level setting. |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **type** *keyword*

| | |
|---|---|
| Synopsis | BGP peer type |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* type *keyword* |
| Tree | type |
| Options | no-type, internal, external |
| Introduced | 16.0.R1 |
| Platforms | All |

### **vpn-apply-export** *boolean*

| | |
|---|---|
| Synopsis | Apply base-instance BGP export policies to VPN routes |
| Context | **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* vpn-apply-export *boolean* |
| Tree | vpn-apply-export |
| Description | When configured to **true**, base-instance BGP export route policies are applied to VPN-IPv4/6, MVPN-IPv4/6, L2-VPN, MDT-SAFI, MCAST-VPN-IPv4, and EVPN routes.<br>When unconfigured, the command inherits the value of the group-level setting (**true** or **false**). The command cannot be explicitly configured to **false**. |


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When this command inherits a value of **false**, the export policies are not applied.

Introduced 16.0.R1

Platforms All

## vpn-apply-import *boolean*

Synopsis Apply base-instance BGP import policies to VPN routes

Context **configure** router *named-item-64* bgp neighbor *(ipv4-address-with-zone | ipv6-address-with-zone)* vpn-apply-import *boolean*

Tree vpn-apply-import

Description When configured to **true**, base-instance BGP import route policies are applied to VPN-IPv4/6, MVPN-IPv4/6, L2-VPN, MDT-SAFI, MCAST-VPN-IPv4, and EVPN routes.

When unconfigured, the command inherits the value of the group-level setting (**true** or **false**). The command cannot be explicitly configured to **false**.

When this command inherits a value of **false**, the import policies are not applied.

Introduced 16.0.R1

Platforms All

## neighbor-trust

Synopsis Enter the **neighbor-trust** context

Context **configure** router *named-item-64* bgp neighbor-trust

Tree neighbor-trust

Description Commands in this context enable a label security feature at an inter-AS boundary for the specified IP families.

This label security feature allows the configuration of a router, acting in a PE or in an ASBR role, to accept packets of VPN-IP or EVPN prefixes only from direct EBGP neighbors to which it advertised a service label.

The untrusted state identifies the participating interfaces. The router supports a maximum of 15 network interfaces that can participate in this feature.

At a high level, BGP tracks each direct EBGP neighbor over an untrusted interface and to which it sent a prefix label. For each of those prefixes, BGP programs a bit map in the ILM record that indicates, on a per-untrusted interface basis, whether the matching received packets must be forwarded or dropped.

Introduced 16.0.R4

Platforms All


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### **evpn** *boolean*

| | |
|---|---|
| Synopsis | Enable inter-AS label security for the EVPN family |
| Context | **configure** router *named-item-64* bgp neighbor-trust evpn *boolean* |
| Tree | evpn |
| Default | false |
| Introduced | 23.3.R1 |
| Platforms | All |

### **vpn-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Enable inter-AS label security for the VPN-IPv4 family |
| Context | **configure** router *named-item-64* bgp neighbor-trust vpn-ipv4 *boolean* |
| Tree | vpn-ipv4 |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **vpn-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Enable inter-AS label security for the VPN-IPv6 family |
| Context | **configure** router *named-item-64* bgp neighbor-trust vpn-ipv6 *boolean* |
| Tree | vpn-ipv6 |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **next-hop-resolution**

| | |
|---|---|
| Synopsis | Enter the **next-hop-resolution** context |
| Context | **configure** router *named-item-64* bgp next-hop-resolution |
| Tree | next-hop-resolution |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **allow-unresolved-leaking** *boolean*

| | |
|---|---|
| Synopsis | Allow unresolved BGP routes to be leaked to VPRN routes |
| Context | **configure** router *named-item-64* bgp next-hop-resolution allow-unresolved-leaking *boolean* |
| Tree | allow-unresolved-leaking |
| Description | When configured to **true**, this command instructs BGP in the base router instance to allow its routes to be leaked to other (VPRN) BGP instances even if the routes to be leaked do not have a BGP next-hop that can be resolved by the base instance.<br>When configured to **false**, VPRN cannot import a route. |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **labeled-routes**

| | |
|---|---|
| Synopsis | Enter the **labeled-routes** context |
| Context | **configure** router *named-item-64* bgp next-hop-resolution labeled-routes |
| Tree | labeled-routes |
| Introduced | 16.0.R1 |
| Platforms | All |

### **allow-static** *boolean*

| | |
|---|---|
| Synopsis | Allow static routes to resolve BGP next-hop |
| Context | **configure** router *named-item-64* bgp next-hop-resolution labeled-routes allow-static *boolean* |
| Tree | allow-static |
| Description | When configured to **true**, the BGP next-hop of label-IPv4, label-IPv6, VPN-IPv4, and VPN-IPv6 routes received from any EBGP or IBGP peer can be resolved using static routes, except for static default routes (0/0 and ::/0).<br>A static route is less preferred than a local or interface route for resolving the BGP next-hop of labeled route but is more preferred than other IGP routes or tunnels.<br>When configured to **false**, BGP next-hop resolution using static routes is not allowed.<br>A label-IPv4 or label-IPv6 route can be resolved by a static blackhole route, even when this command is configured to **false**, but only if the static blackhole route is the longest prefix match (LPM) static route for the BGP next-hop address. |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **rr-use-route-table** *boolean*

| | |
|---|---|
| Synopsis | Use RTM to resolve BGP next-hop if TTM resolution fails |
| Context | **configure** router *named-item-64* bgp next-hop-resolution labeled-routes rr-use-route-table *boolean* |
| Tree | rr-use-route-table |
| Description | When configured to **true**, this command enables BGP to perform a lookup of IGP routes in the route table to resolve the BGP next-hop of label-IPv4 and label-IPv6 routes. This is useful for a Route Reflector (RR) that does not participate in tunnel signaling protocols such as LDP and RSVP and therefore, does not have tunnels to resolve the BGP next-hops of label-unicast routes.<br>Disable route table installation (via the **route-table-install** command) before setting this command to **true**; otherwise, forwarding of label routes resolved in this way will be incorrect.<br>When configured to **false**, RTM next-hop resolution is not enabled. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **transport-tunnel**

| | |
|---|---|
| Synopsis | Enter the **transport-tunnel** context |
| Context | **configure** router *named-item-64* bgp next-hop-resolution labeled-routes transport-tunnel |
| Tree | transport-tunnel |
| Description | Commands in this context configure options for the next-hop resolution of BGP labeled routes (VPN-IP and labeled-unicast) using tunnels in TTM. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **family** [family-type] *keyword*

| | |
|---|---|
| Synopsis | Enter the **family** list instance |
| Context | **configure** router *named-item-64* bgp next-hop-resolution labeled-routes transport-tunnel family *keyword* |
| Tree | family |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### [**family-type**] *keyword*

| | |
|---|---|
| Synopsis | Address family type for tunnel selection |
| Context | **configure** router *named-item-64* bgp next-hop-resolution labeled-routes transport-tunnel family *keyword* |
| Tree | family |
| Options | vpn, label-ipv4, label-ipv6 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **allow-flex-algo-fallback** *boolean*

| | |
|---|---|
| Synopsis | Enable flexible algorithm fallback |
| Context | **configure** router *named-item-64* bgp next-hop-resolution labeled-routes transport-tunnel family *keyword* allow-flex-algo-fallback *boolean* |
| Tree | allow-flex-algo-fallback |
| Description | When configured to **true**, a BGP router with a Flex-Algorithm action configured (via the **configure policy-options policy-statement entry action flex-algo** command) can resolve to a tunnel with algorithm 0 if no target Flex-Algorithm tunnel is available**.**<br><br>When configured to **false**, the BGP router can resolve only to the intended Flex-Algorithm tunnel, which may cause traffic loss if no corresponding Flex-Algorithm tunnel is available. |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | All |

### **enforce-strict-tunnel-tagging** *boolean*

| | |
|---|---|
| Synopsis | Consider only LSPs with an admin-tag for next hop |
| Context | **configure** router *named-item-64* bgp next-hop-resolution labeled-routes transport-tunnel family *keyword* enforce-strict-tunnel-tagging *boolean* |
| Tree | enforce-strict-tunnel-tagging |
| Description | When configured to **true**, the system only considers LSPs marked with an administrative tag for next-hop resolution. Untagged LSPs are not considered. |


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When configured to **false**, matching admin-tagged RSVP or SR-TE LSPs are used in preference to other LSP types, whether tagged or untagged. If no eligible RSVP or SR-TE LSP exists, the system falls back to using tagged LSPs that are not explicitly excluded by a route admin tag policy and untagged LSPs of other types.

Default false

Introduced 16.0.R1

Platforms All

## **enforce-untagged-route** *keyword*

Synopsis Untagged route type enforcement

Context **configure** router *named-item-64* bgp next-hop-resolution labeled-routes transport-tunnel family *keyword* enforce-untagged-route *keyword*

Tree enforce-untagged-route

Description This command configures the enforcement of BGP routes with no administrative tag policy applied by modifying the next-hop resolution behavior for autobind services.

If the **untagged-tunnel** option is configured, untagged routes only bind to LSPs with no administrative tag configured. If both tagged and untagged tunnels to the next hop exist, the system only considers the untagged tunnels. If no untagged tunnels to the next hop exist, the resolution of untagged routes fails.

The **untagged-tunnel** option can be used in combination with the **enforce-strict-tunnel-tagging** command configured to **true**, in which case tagged routes resolve to tagged LSPs, and untagged routes only resolve to untagged LSPs.

When unconfigured, untagged routes can bind to tagged or untagged LSPs.

Options none – Untagged routes can bind to tagged or untagged LSPs
untagged-tunnel – Untagged routes only bind to LSPs without an admin tag

Default none

Introduced 24.10.R1

Platforms All

## **resolution** *keyword*

Synopsis Resolution mode for binding BGP routes to tunnel types

Context **configure** router *named-item-64* bgp next-hop-resolution labeled-routes transport-tunnel family *keyword* resolution *keyword*

Tree resolution

Options none, filter, any

Default filter

Introduced 16.0.R1


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| | |
|---|---|
| Platforms | All |

## resolution-filter

| | |
|---|---|
| Synopsis | Enter the **resolution-filter** context |
| Context | **configure** router *named-item-64* bgp next-hop-resolution labeled-routes transport-tunnel family *keyword* resolution-filter |
| Tree | resolution-filter |
| Introduced | 16.0.R1 |
| Platforms | All |

## bgp *boolean*

| | |
|---|---|
| Synopsis | Use BGP tunneling for next-hop resolution |
| Context | **configure** router *named-item-64* bgp next-hop-resolution labeled-routes transport-tunnel family *keyword* resolution-filter bgp *boolean* |
| Tree | bgp |
| Description | When configured to **true**, this command enables the selection of BGP tunneling for next-hop resolution and specifies the IPv4 tunnels created by receiving BGP label-unicast IPv4 routes for /32 IPv4 prefixes.<br>When configured to **false**, BGP tunneling for next-hop resolution is not enabled. |
| Introduced | 16.0.R1 |
| Platforms | All |

## ldp *boolean*

| | |
|---|---|
| Synopsis | Use LDP tunneling for next-hop resolution |
| Context | **configure** router *named-item-64* bgp next-hop-resolution labeled-routes transport-tunnel family *keyword* resolution-filter ldp *boolean* |
| Tree | ldp |
| Description | When configured to **true**, this command enables the selection of LDP tunneling for next-hop resolution and specifies the LDP tunnels in the tunnel table corresponding to /32 IPv4 FECs and /128 IPv6 FECs.<br>When configured to **false**, LDP tunneling for next-hop resolution is not enabled. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **mpls-fwd-policy** *boolean*

| | |
|---|---|
| Synopsis | Use MPLS forwarding policy for next-hop resolution |
| Context | **configure** router *named-item-64* bgp next-hop-resolution labeled-routes transport-tunnel family *keyword* resolution-filter mpls-fwd-policy *boolean* |
| Tree | mpls-fwd-policy |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **rib-api** *boolean*

| | |
|---|---|
| Synopsis | Use RIB API gRPC service for next-hop resolution |
| Context | **configure** router *named-item-64* bgp next-hop-resolution labeled-routes transport-tunnel family *keyword* resolution-filter rib-api *boolean* |
| Tree | rib-api |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **rsvp** *boolean*

| | |
|---|---|
| Synopsis | Use RSVP tunneling for next-hop resolution |
| Context | **configure** router *named-item-64* bgp next-hop-resolution labeled-routes transport-tunnel family *keyword* resolution-filter rsvp *boolean* |
| Tree | rsvp |
| Description | When configured to **true**, this command enables the selection of RSVP tunneling for next-hop resolution and specifies RSVP tunnels in a tunnel table to IPv4 destinations.<br>This option allows BGP to use the best metric RSVP LSP to the address of the BGP next hop. This address can correspond to the system interface or to another loopback interface of the remote BGP router. In the case of multiple RSVP LSPs with the same lowest metric, BGP selects the LSP with the lowest tunnel ID.<br>When configured to **false**, this command disables the selection of RSVP tunneling for next-hop resolution. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **sr-isis** *boolean*

| | |
|---|---|
| Synopsis | Use IS-IS SR tunneling for next-hop resolution |
| Context | **configure** router *named-item-64* bgp next-hop-resolution labeled-routes transport-tunnel family *keyword* resolution-filter sr-isis *boolean* |
| Tree | sr-isis |
| Description | When configured to **true**, this command enables the selection of the Segment Routing (SR) tunnel type programmed by an IS-IS instance in the TTM for next-hop resolution of BGP routes and labeled routes.<br>This command allows BGP to use the segment-routing tunnel in the tunnel table submitted by the lowest preference IS-IS instance or, in case of a tie, the lowest numbered IS-IS instance.<br>When configured to **false**, the SR tunnel type programmed by an IS-IS instance in the TTM for next-hop resolution is not enabled for selection. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sr-ospf** *boolean*

| | |
|---|---|
| Synopsis | Use OSPF SR tunneling for next-hop resolution |
| Context | **configure** router *named-item-64* bgp next-hop-resolution labeled-routes transport-tunnel family *keyword* resolution-filter sr-ospf *boolean* |
| Tree | sr-ospf |
| Description | When configured to **true**, this command enables the selection of the Segment Routing (SR) tunnel type programmed by an OSPF instance in the TTM for next-hop resolution of BGP routes and labeled routes.<br>This command allows BGP to use the segment routing tunnel in the tunnel table submitted by the lowest preference OSPF instance or, in case of a tie, the lowest numbered OSPF instance.<br>When configured to **false**, the SR tunnel type programmed by an OSPF instance in the TTM for next-hop resolution is not enabled for selection. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sr-ospf3** *boolean*

| | |
|---|---|
| Synopsis | Use OSPFv3 SR tunneling for next-hop resolution |


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| | |
|---|---|
| Context | **configure** router *named-item-64* bgp next-hop-resolution labeled-routes transport-tunnel family *keyword* resolution-filter sr-ospf3 *boolean* |
| Tree | sr-ospf3 |
| Description | When configured to **true**, this command enables the selection of the IPv6 Segment Routing (SR) tunnel type programmed by an OSPFv3 instance in the TTMv6 for next-hop resolution of BGP routes and labeled routes.<br>This command allows BGP to use the segment routing tunnel in the tunnel table submitted by the lowest preference OSPFv3 instance or, in case of a tie, the lowest numbered OSPFv3 instance.<br>When configured to **false**, the SR tunnel type programmed by an OSPFv3 instance in the TTM for next-hop resolution is not enabled for selection. |
| Default | false |
| Introduced | 16.0.R6 |
| Platforms | All |

## **sr-policy** *boolean*

| | |
|---|---|
| Synopsis | Use SR policies for next-hop resolution |
| Context | **configure** router *named-item-64* bgp next-hop-resolution labeled-routes transport-tunnel family *keyword* resolution-filter sr-policy *boolean* |
| Tree | sr-policy |
| Description | When configured to **true**, this command enables the use of segment routing policies to resolve the BGP next hop of certain BGP routes (depending on the context).<br>The segment routing policies that are considered are statically configured in the local router or learned by BGP routes (AFI 1/SAFI 73). For a BGP route to be resolved by an SR policy, the highest numbered color extended community attached to BGP route must match the color of the SR policy. Next hop resolution of VPN-IP routes by SR policies is not supported.<br>When configured to **false**, segment routing policies are not enabled for next-hop resolution. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **sr-te** *boolean*

| | |
|---|---|
| Synopsis | Use SR-TE tunneling for next-hop resolution |
| Context | **configure** router *named-item-64* bgp next-hop-resolution labeled-routes transport-tunnel family *keyword* resolution-filter sr-te *boolean* |


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| | |
|---|---|
| Tree | sr-te |
| Description | When configured to **true**, this command enables the selection of the Segment Routing (SR) tunnel type programmed by a traffic engineered (TE) instance in the TTM for next-hop resolution.<br>In the case of multiple SR-TE tunnels with the same lowest metric, BGP selects the tunnel with the lowest tunnel ID.<br>When configured to **false**, the SR tunnel type programmed by a TE instance in the TTM for next-hop resolution is not enabled for selection. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **udp** *boolean*

| | |
|---|---|
| Synopsis | Use MPLS over UDP tunneling for next-hop resolution |
| Context | **configure** router *named-item-64* bgp next-hop-resolution labeled-routes transport-tunnel family *keyword* resolution-filter udp *boolean* |
| Tree | udp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **use-bgp-routes**

| | |
|---|---|
| Synopsis | Enter the **use-bgp-routes** context |
| Context | **configure** router *named-item-64* bgp next-hop-resolution labeled-routes use-bgp-routes |
| Tree | use-bgp-routes |
| Introduced | 21.2.R1 |
| Platforms | All |

## **label-ipv6-explicit-null** *boolean*

| | |
|---|---|
| Synopsis | Use BGP routes to resolve address family routes |
| Context | **configure** router *named-item-64* bgp next-hop-resolution labeled-routes use-bgp-routes label-ipv6-explicit-null *boolean* |
| Tree | label-ipv6-explicit-null |


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| | |
|---|---|
| Description | When configured to **true**, a labeled IPv6 route with the explicit-null label can be resolved by other routes, and also by unlabeled IPv4 routes and unlabeled IPv6 routes that are resolved by static routes, interface routes, or tunnels. Up to four levels of recursive resolution are supported when the top route is a labeled IPv6 route with an explicit-null label. When disabled, a labeled IPv6 route cannot be resolved by other labeled IPv6 routes.<br>A labeled IPv6 route with a regular label (not explicit-null) is never resolved by other labeled IPv6 routes. |
| Default | false |
| Introduced | 21.2.R1 |
| Platforms | All |

## **policy** *reference*

| | |
|---|---|
| Synopsis | Policy that filters routes for BGP next-hop resolution |
| Context | **configure** router *named-item-64* bgp next-hop-resolution policy *reference* |
| Tree | policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **shortcut-tunnel**

| | |
|---|---|
| Synopsis | Enter the **shortcut-tunnel** context |
| Context | **configure** router *named-item-64* bgp next-hop-resolution shortcut-tunnel |
| Tree | shortcut-tunnel |
| Description | Commands in this context configure the tunnel types that can be used to resolve unlabeled IPv4 and IPv6 BGP routes. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **family** [family-type] *keyword*

| | |
|---|---|
| Synopsis | Enter the **family** list instance |
| Context | **configure** router *named-item-64* bgp next-hop-resolution shortcut-tunnel family *keyword* |
| Tree | family |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### [**family-type**] *keyword*

| | |
|---|---|
| Synopsis | Address family type for shortcut tunnel selection |
| Context | **configure** router *named-item-64* bgp next-hop-resolution shortcut-tunnel family *keyword* |
| Tree | family |
| Options | ipv4, ipv6 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **allow-flex-algo-fallback** *boolean*

| | |
|---|---|
| Synopsis | Enable flexible algorithm fallback |
| Context | **configure** router *named-item-64* bgp next-hop-resolution shortcut-tunnel family *keyword* allow-flex-algo-fallback *boolean* |
| Tree | allow-flex-algo-fallback |
| Description | When configured to **true**, a BGP router with a Flex-Algorithm action configured (via the **configure policy-options policy-statement entry action flex-algo** command) can resolve to a tunnel with algorithm 0 if no target Flex-Algorithm tunnel is available**.**<br><br>When configured to **false**, the BGP router can resolve only to the intended Flex-Algorithm tunnel, which may cause traffic loss if no corresponding Flex-Algorithm tunnel is available. |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | All |

### **disallow-igp** *boolean*

| | |
|---|---|
| Synopsis | Do not perform route table lookup to resolve BGP route |
| Context | **configure** router *named-item-64* bgp next-hop-resolution shortcut-tunnel family *keyword* disallow-igp *boolean* |
| Tree | disallow-igp |
| Description | When configured to **true**, no attempt is made to resolve the IPv4 or IPv6 BGP route using route table lookup if no resolving tunnel can be found in the tunnel table. |


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When configured to **false**, route table lookup can be performed if no resolving tunnel is found in the tunnel table.

Default false

Introduced 16.0.R1

Platforms All

## **enforce-strict-tunnel-tagging** *boolean*

Synopsis Consider only LSPs with an admin-tag for next hop

Context **configure** router *named-item-64* bgp next-hop-resolution shortcut-tunnel family *keyword* enforce-strict-tunnel-tagging *boolean*

Tree enforce-strict-tunnel-tagging

Description When configured to **true**, the system only considers LSPs marked with an administrative tag for next-hop resolution. Untagged LSPs are not considered.

When configured to **false**, matching admin-tagged RSVP or SR-TE LSPs are used in preference to other LSP types, whether tagged or untagged. If no eligible RSVP or SR-TE LSP exists, the system falls back to using tagged LSPs that are not explicitly excluded by a route admin tag policy and untagged LSPs of other types.

Default false

Introduced 16.0.R1

Platforms All

## **enforce-untagged-route** *keyword*

Synopsis Untagged route type enforcement

Context **configure** router *named-item-64* bgp next-hop-resolution shortcut-tunnel family *keyword* enforce-untagged-route *keyword*

Tree enforce-untagged-route

Description This command configures the enforcement of BGP routes with no administrative tag policy applied by modifying the next-hop resolution behavior for autobind services.

If the **untagged-tunnel** option is configured, untagged routes only bind to LSPs with no administrative tag configured. If both tagged and untagged tunnels to the next hop exist, the system only considers the untagged tunnels. If no untagged tunnels to the next hop exist, the resolution of untagged routes fails.

The **untagged-tunnel** option can be used in combination with the **enforce-strict-tunnel-tagging** command configured to **true**, in which case tagged routes resolve to tagged LSPs, and untagged routes only resolve to untagged LSPs.

When unconfigured, untagged routes can bind to tagged or untagged LSPs.

Options none – Untagged routes can bind to tagged or untagged LSPs


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| | |
|---|---|
| | untagged-tunnel – Untagged routes only bind to LSPs without an admin tag |
| Default | none |
| Introduced | 24.10.R1 |
| Platforms | All |

## **resolution** *keyword*

| | |
|---|---|
| Synopsis | Resolution mode for binding BGP routes to tunnel types |
| Context | **configure** router *named-item-64* bgp next-hop-resolution shortcut-tunnel family *keyword* resolution *keyword* |
| Tree | resolution |
| Options | none, filter, any |
| Default | none |
| Introduced | 16.0.R1 |
| Platforms | All |

## **resolution-filter**

| | |
|---|---|
| Synopsis | Enter the **resolution-filter** context |
| Context | **configure** router *named-item-64* bgp next-hop-resolution shortcut-tunnel family *keyword* resolution-filter |
| Tree | resolution-filter |
| Introduced | 16.0.R1 |
| Platforms | All |

## **bgp** *boolean*

| | |
|---|---|
| Synopsis | Use BGP tunneling for next-hop resolution |
| Context | **configure** router *named-item-64* bgp next-hop-resolution shortcut-tunnel family *keyword* resolution-filter bgp *boolean* |
| Tree | bgp |
| Description | When configured to **true**, this command enables the selection of BGP tunneling for next-hop resolution and specifies the IPv4 tunnels created by receiving BGP label-unicast IPv4 routes for /32 IPv4 prefixes.<br>When configured to **false**, BGP tunneling for next-hop resolution is not enabled. |
| Default | false |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **ldp** *boolean*

| | |
|---|---|
| Synopsis | Use LDP tunneling for next-hop resolution |
| Context | **configure** router *named-item-64* bgp next-hop-resolution shortcut-tunnel family *keyword* resolution-filter ldp *boolean* |
| Tree | ldp |
| Description | When configured to **true**, BGP selects the LDP FEC that is the longest prefix match to the BGP next-hop address.<br>When configured to **false**, LDP tunneling for next-hop resolution is not enabled. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mpls-fwd-policy** *boolean*

| | |
|---|---|
| Synopsis | Use MPLS forwarding policy for next-hop resolution |
| Context | **configure** router *named-item-64* bgp next-hop-resolution shortcut-tunnel family *keyword* resolution-filter mpls-fwd-policy *boolean* |
| Tree | mpls-fwd-policy |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **rib-api** *boolean*

| | |
|---|---|
| Synopsis | Use RIB API gRPC service for next-hop resolution |
| Context | **configure** router *named-item-64* bgp next-hop-resolution shortcut-tunnel family *keyword* resolution-filter rib-api *boolean* |
| Tree | rib-api |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **rsvp** *boolean*

| | |
|---|---|
| Synopsis | Use RSVP tunneling for next-hop resolution |
| Context | **configure** router *named-item-64* bgp next-hop-resolution shortcut-tunnel family *keyword* resolution-filter rsvp *boolean* |
| Tree | rsvp |
| Description | When configured to **true**, this command enables the selection of RSVP tunneling for next-hop resolution and specifies RSVP tunnels in a tunnel table to IPv4 destinations.<br>This option allows BGP to use the best metric RSVP LSP to the address of the BGP next hop. This address can correspond to the system interface or to another loopback interface of the remote BGP router. In the case of multiple RSVP LSPs with the same lowest metric, BGP selects the LSP with the lowest tunnel ID.<br>When configured to **false**, this command disables the selection of RSVP tunneling for next-hop resolution. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sr-isis** *boolean*

| | |
|---|---|
| Synopsis | Use IS-IS SR tunneling for next-hop resolution |
| Context | **configure** router *named-item-64* bgp next-hop-resolution shortcut-tunnel family *keyword* resolution-filter sr-isis *boolean* |
| Tree | sr-isis |
| Description | When configured to **true**, this command enables the selection of the Segment Routing (SR) tunnel type programmed by an IS-IS instance in the TTM for next-hop resolution of BGP routes and labeled routes.<br>This command allows BGP to use the segment-routing tunnel in the tunnel table submitted by the lowest preference IS-IS instance or, in case of a tie, the lowest numbered IS-IS instance.<br>When configured to **false**, the SR tunnel type programmed by an IS-IS instance in the TTM for next-hop resolution is not enabled for selection. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sr-ospf** *boolean*

| | |
|---|---|
| Synopsis | Use OSPF SR tunneling for next-hop resolution |


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| | |
|---|---|
| Context | **configure** router *named-item-64* bgp next-hop-resolution shortcut-tunnel family *keyword* resolution-filter sr-ospf *boolean* |
| Tree | sr-ospf |
| Description | When configured to **true**, this command enables the selection of the Segment Routing (SR) tunnel type programmed by an OSPF instance in the TTM for next-hop resolution of BGP routes and labeled routes.<br>This command allows BGP to use the segment routing tunnel in the tunnel table submitted by the lowest preference OSPF instance or, in case of a tie, the lowest numbered OSPF instance.<br>When configured to **false**, the SR tunnel type programmed by an OSPF instance in the TTM for next-hop resolution is not enabled for selection. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **sr-ospf3** *boolean*

| | |
|---|---|
| Synopsis | Use OSPFv3 SR tunneling for next-hop resolution |
| Context | **configure** router *named-item-64* bgp next-hop-resolution shortcut-tunnel family *keyword* resolution-filter sr-ospf3 *boolean* |
| Tree | sr-ospf3 |
| Description | When configured to **true**, this command enables the selection of the IPv6 Segment Routing (SR) tunnel type programmed by an OSPFv3 instance in the TTMv6 for next-hop resolution of BGP routes and labeled routes.<br>This command allows BGP to use the segment routing tunnel in the tunnel table submitted by the lowest preference OSPFv3 instance or, in case of a tie, the lowest numbered OSPFv3 instance.<br>When configured to **false**, the SR tunnel type programmed by an OSPFv3 instance in the TTM for next-hop resolution is not enabled for selection. |
| Default | false |
| Introduced | 16.0.R6 |
| Platforms | All |

## **sr-policy** *boolean*

| | |
|---|---|
| Synopsis | Use SR policies for next-hop resolution |
| Context | **configure** router *named-item-64* bgp next-hop-resolution shortcut-tunnel family *keyword* resolution-filter sr-policy *boolean* |
| Tree | sr-policy |


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| | |
|---|---|
| Description | When configured to **true**, this command enables the use of segment routing policies to resolve the BGP next hop of certain BGP routes (depending on the context).<br>The segment routing policies that are considered are statically configured in the local router or learned by BGP routes (AFI 1/SAFI 73). For a BGP route to be resolved by an SR policy, the highest numbered color extended community attached to BGP route must match the color of the SR policy.<br>When configured to **false**, segment routing policies are not enabled for next-hop resolution. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sr-te** *boolean*

| | |
|---|---|
| Synopsis | Use SR-TE tunneling for next-hop resolution |
| Context | **configure** router *named-item-64* bgp next-hop-resolution shortcut-tunnel family *keyword* resolution-filter sr-te *boolean* |
| Tree | sr-te |
| Description | When configured to **true**, this command enables the selection of the Segment Routing (SR) tunnel type programmed by a traffic engineered (TE) instance in the TTM for next-hop resolution.<br>In the case of multiple SR-TE tunnels with the same lowest metric, BGP selects the tunnel with the lowest tunnel ID.<br>When configured to **false**, the SR tunnel type programmed by a TE instance in the TTM for next-hop resolution is not enabled for selection. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **use-bgp-routes** *boolean*

| | |
|---|---|
| Synopsis | Use BGP routes to resolve BGP next hops |
| Context | **configure** router *named-item-64* bgp next-hop-resolution use-bgp-routes *boolean* |
| Tree | use-bgp-routes |
| Description | This command enables the use of BGP routes to resolve BGP next hops. When this command is enabled, any unlabeled IPv4 or IPv6 BGP route received from a VPRN BGP peer becomes resolvable by up to four other BGP routes in order to resolve the route to a VPRN IP interface. A VPRN BGP route is not resolvable by another VPRN BGP route or by a BGP-VPN route. |


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This command also allows unlabeled IPv4 or IPv6 BGP routes leaked from the GRT with unresolved next hops (in the GRT) to be resolvable by BGP-VPN routes (of the VPRN).

| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## use-leaked-routes

| | |
|---|---|
| Synopsis | Enter the **use-leaked-routes** context |
| Context | **configure** router *named-item-64* bgp next-hop-resolution use-leaked-routes |
| Tree | use-leaked-routes |
| Introduced | 23.7.R1 |
| Platforms | All |

## static *boolean*

| | |
|---|---|
| Synopsis | Use leaked static routes to resolve BGP next hop |
| Context | **configure** router *named-item-64* bgp next-hop-resolution use-leaked-routes static *boolean* |
| Tree | static |
| Description | When configured to **true**, the router allows any non-leaked unlabeled unicast IPv4 or IPv6 route in the BGP RIB to be resolved by a leaked static route with direct next hops. A BGP route resolved this way cannot resolve other routes (including BGP routes) and cannot be redistributed into non-BGP protocols, such as IGP.<br><br>When configured to **false**, the router prevents the use of leaked static routes to resolve BGP routes. |
| Default | false |
| Introduced | 23.7.R1 |
| Platforms | All |

## vpn-family-policy *reference*

| | |
|---|---|
| Synopsis | Policy to filter routes for next-hop resolution |
| Context | **configure** router *named-item-64* bgp next-hop-resolution vpn-family-policy *reference* |
| Tree | vpn-family-policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Introduced | 20.5.R1 |


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Platforms All

## **weighted-ecmp** *boolean*

Synopsis Use weighted ECMP for next-hop tunnel selection for 6PE

Context **configure** router *named-item-64* bgp next-hop-resolution weighted-ecmp *boolean*

Tree weighted-ecmp

Description When configured to **true**, this command enables weighted ECMP for next-hop tunnel selection for 6PE. When weighted ECMP is enabled, the RSVP-TE tunnel used to forward 6PE packets to the ECMP next hop that is chosen according to the outcome of the hash on the packet at the normalized load-balancing weight of the tunnel.

When configured to **false**, weighted ECMP is disabled for next-hop tunnel selection for 6PE.

Default false

Introduced 16.0.R1

Platforms All

## **optimal-route-reflection**

Synopsis Enter the **optimal-route-reflection** context

Context **configure** router *named-item-64* bgp optimal-route-reflection

Tree optimal-route-reflection

Introduced 16.0.R1

Platforms All

## **location** [location-id] *number*

Synopsis Enter the **location** list instance

Context **configure** router *named-item-64* bgp optimal-route-reflection location *number*

Tree location

Description Commands in this context configure the location ID for the route reflector. A BGP neighbor can be associated with a location if it is a route-reflector client.

Up to three IPv4 addresses and three IPv6 addresses can be specified per location.

If the TE DB is unable find a node in its topology database that matches a primary address of the location, it tries to find a node matching a secondary address. If this attempt also fails, the TE DB tries to find a node matching a tertiary address.

The IP addresses specified for a location should be topologically “close” to a set of clients that should all receive the same optimal path for that location.


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### [**location-id**] *number*

| | |
|---|---|
| Synopsis | Optimal route reflection location ID |
| Context | **configure** router *named-item-64* bgp optimal-route-reflection location *number* |
| Tree | location |
| Range | 1 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **primary-ip-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Primary IPv4 address of the reference location for ORR |
| Context | **configure** router *named-item-64* bgp optimal-route-reflection location *number* primary-ip-address *ipv4-unicast-address* |
| Tree | primary-ip-address |
| Introduced | 16.0.R1 |
| Platforms | All |

### **primary-ipv6-address** *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Primary IPv6 address of the reference location for ORR |
| Context | **configure** router *named-item-64* bgp optimal-route-reflection location *number* primary-ipv6-address *ipv6-unicast-address* |
| Tree | primary-ipv6-address |
| Introduced | 16.0.R4 |
| Platforms | All |

### **secondary-ip-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Secondary IPv4 address of reference location for ORR |
| Context | **configure** router *named-item-64* bgp optimal-route-reflection location *number* secondary-ip-address *ipv4-unicast-address* |


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| | |
|---|---|
| Tree | secondary-ip-address |
| Introduced | 16.0.R1 |
| Platforms | All |

### **secondary-ipv6-address** *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Secondary IPv6 address of reference location for ORR |
| Context | **configure** router *named-item-64* bgp optimal-route-reflection location *number* secondary-ipv6-address *ipv6-unicast-address* |
| Tree | secondary-ipv6-address |
| Introduced | 16.0.R4 |
| Platforms | All |

### **tertiary-ip-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Tertiary IPv4 address of the reference location for ORR |
| Context | **configure** router *named-item-64* bgp optimal-route-reflection location *number* tertiary-ip-address *ipv4-unicast-address* |
| Tree | tertiary-ip-address |
| Introduced | 16.0.R1 |
| Platforms | All |

### **tertiary-ipv6-address** *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Tertiary IPv6 address of the reference location for ORR |
| Context | **configure** router *named-item-64* bgp optimal-route-reflection location *number* tertiary-ipv6-address *ipv6-unicast-address* |
| Tree | tertiary-ipv6-address |
| Introduced | 16.0.R4 |
| Platforms | All |

### **spf-wait**

| | |
|---|---|
| Synopsis | Enter the **spf-wait** context |
| Context | **configure** router *named-item-64* bgp optimal-route-reflection spf-wait |
| Tree | spf-wait |


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| | |
|---|---|
| Description | Commands in this context specify the interval between consecutive SPF calculations performed by the TE DB in support of BGP optimal route reflection. The time components implement an exponential back-off algorithm.<br>. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **initial-wait** *number*

| | |
|---|---|
| Synopsis | Initial SPF calculation delay after a topology change |
| Context | **configure** router *named-item-64* bgp optimal-route-reflection spf-wait initial-wait *number* |
| Tree | initial-wait |
| Range | 1 to 300 |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **max-wait** *number*

| | |
|---|---|
| Synopsis | Maximum interval between consecutive SPF calculations |
| Context | **configure** router *named-item-64* bgp optimal-route-reflection spf-wait max-wait *number* |
| Tree | max-wait |
| Range | 1 to 600 |
| Default | 60 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **second-wait** *number*

| | |
|---|---|
| Synopsis | Delay between first and second SPF calculation |
| Context | **configure** router *named-item-64* bgp optimal-route-reflection spf-wait second-wait *number* |
| Tree | second-wait |
| Range | 1 to 300 |
| Default | 15 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## outbound-route-filtering

| | |
|---|---|
| Synopsis | Enable the **outbound-route-filtering** context |
| Context | **configure** router *named-item-64* bgp outbound-route-filtering |
| Tree | outbound-route-filtering |
| Description | Commands in this context configure the send and receive capabilities for Outbound Route Filtering (ORF).<br>When unconfigured, the ORF capabilities are not enabled. |
| Introduced | 16.0.R1 |
| Platforms | All |

## extended-community

| | |
|---|---|
| Synopsis | Enable the **extended-community** context |
| Context | **configure** router *named-item-64* bgp outbound-route-filtering extended-community |
| Tree | extended-community |
| Description | Commands in this context configure the ORF send and receive capabilities based on Extended Communities.<br>When this context is unconfigured, the ORF capabilities for Extended Communities is not enabled. |
| Introduced | 16.0.R1 |
| Platforms | All |

## accept-orf *boolean*

| | |
|---|---|
| Synopsis | Negotiate with peer to accept BGP ORF filters |
| Context | **configure** router *named-item-64* bgp outbound-route-filtering extended-community accept-orf *boolean* |
| Tree | accept-orf |
| Description | When configured to **true**, the receive capability in the BGP ORF is negotiated with a peer and ORF filters can be accepted from peers.<br>When configured to **false**, the accept capability in the BGP ORF is removed and any existing ORF filters that are currently in place are cleared. |
| Default | false |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## send-orf

| | |
|---|---|
| Synopsis | Enable the **send-orf** context |
| Context | **configure** router *named-item-64* bgp outbound-route-filtering extended-community send-orf |
| Tree | send-orf |
| Description | Commands in this context allow BGP to negotiate the send capability in the ORF negotiation with a peer. The send capability also causes the router to send a community filter, prefix filter, or AS path filter configured as an inbound filter on the BGP session to its peer as an ORF Action ADD.<br>When this context in unconfigured, ORF send capability is not enabled. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **route-target** [community-name] *named-item*

| | |
|---|---|
| Synopsis | Add a list entry for **route-target** |
| Context | **configure** router *named-item-64* bgp outbound-route-filtering extended-community send-orf route-target *named-item* |
| Tree | route-target |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**community-name**] *named-item*

| | |
|---|---|
| Synopsis | Route target community name |
| Context | **configure** router *named-item-64* bgp outbound-route-filtering extended-community send-orf route-target *named-item* |
| Tree | route-target |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **override-tunnel-elc** *boolean*

| | |
|---|---|
| Synopsis | Enable entropy label capability on BGP tunnels |
| Context | **configure** router *named-item-64* bgp override-tunnel-elc *boolean* |
| Tree | override-tunnel-elc |
| Description | When configured to **true**, this command renders all far ends for BGP tunnels as entropy-label-capable, regardless of any received capability signaling. This ensures that the entropy label will be inserted on BGP tunnels in the absence of capability signaling support by the far end.<br><br>This is a system-wide configuration, since efficient entropy label operation requires that all LSRs in a network support entropy labels. This command should be used with care, particularly in inter-AS use cases, as entropy label capability may differ between domains.<br><br>When configured to **false**, this command disables all far ends for BGP tunnels as entropy-label-capable. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **path-mtu-discovery** *boolean*

| | |
|---|---|
| Synopsis | Enable Path MTU Discovery |
| Context | **configure** router *named-item-64* bgp path-mtu-discovery *boolean* |
| Tree | path-mtu-discovery |
| Description | When configured to **true**, Path MTU Discovery (PMTUD) is activated toward an IPv4 BGP neighbor. The Don't Fragment (DF) bit is set in the IP header of all IPv4 packets sent to the peer. If any device along the path toward the peer cannot forward the packet because the IP MTU of the interface is smaller than the IP packet size, the device drops the packet and sends an ICMP or ICMPv6 error message encoding the interface MTU. When the router receives the ICMP or ICMPv6 message, it lowers the TCP maximum segment size limit from the previous value to accomodate the IP MTU constraint.<br><br>When configured to **false**, PMTUD is disabled and there is no TCP MSS configuration to associate with a BGP neighbor (in either the BGP configuration or the first-hop IP interface configuration). The router advertises a TCP MSS option of only 1024 bytes, limiting the received TCP segments to that size. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **peer-ip-tracking** *boolean*

| | |
|---|---|
| Synopsis | Enable BGP peer tracking |
| Context | **configure** router *named-item-64* bgp peer-ip-tracking *boolean* |
| Tree | peer-ip-tracking |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **peer-tracking-policy** *reference*

| | |
|---|---|
| Synopsis | Policy for BGP peer tracking on router instance |
| Context | **configure** router *named-item-64* bgp peer-tracking-policy *reference* |
| Tree | peer-tracking-policy |
| Description | This command specifies the name of a policy statement to use with the BGP peer-tracking function on BGP sessions where peer tracking is enabled.<br>When unconfigured, the default peer-tracking policy allows any type of route to match the neighbor IP address except aggregate routes and LDP shortcut routes.<br>Peer tracking should be used with caution. The peer-tracking policy should only permit one of direct-interface or direct routes to be advertised to a BGP peer. Advertising both routes causes the best route to oscillate. |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **preference** *number*

| | |
|---|---|
| Synopsis | Route preference for routes learned from all peers |
| Context | **configure** router *named-item-64* bgp preference *number* |
| Tree | preference |
| Description | This command configures the route preference for routes learned from the configured peers.<br>The lower the preference value, the higher the chance of the route being the active route. The router assigns BGP routes the highest default preference as compared to routes that are direct, static or learned via MPLS or OSPF. |
| Range | 1 to 255 |
| Default | 170 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **purge-timer** *number*

| | |
|---|---|
| Synopsis | Maximum time before stale routes are purged |
| Context | **configure** router *named-item-64* bgp purge-timer *number* |
| Tree | purge-timer |
| Description | This command configures the maximum time before stale routes are purged.<br>When a route refresh request is sent to a peer for VPN-IP routes received from that peer (in the RIB-IN), the routes are set to stale and the purge timer is started. If the routes are not updated (refreshed) before the purge timer expires, the routes are removed. |
| Range | 1 to 60 |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rapid-update**

| | |
|---|---|
| Synopsis | Enter the **rapid-update** context |
| Context | **configure** router *named-item-64* bgp rapid-update |
| Tree | rapid-update |
| Description | Commands in this context specify the address families that are configured to support the rapid update functionality.<br>The rapid update functionality overrides the remaining time on a peer's MRAI timer and immediately sends routes belonging the specified address families (and all other pending updates) to the peers receiving these routes. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **evpn** *boolean*

| | |
|---|---|
| Synopsis | Include EVPN address family routes |
| Context | **configure** router *named-item-64* bgp rapid-update evpn *boolean* |
| Tree | evpn |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **l2-vpn** *boolean*

| | |
|---|---|
| Synopsis | Include L2 VPN address family routes |
| Context | **configure** router *named-item-64* bgp rapid-update l2-vpn *boolean* |
| Tree | l2-vpn |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **label-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Include labeled IPv4 address family routes |
| Context | **configure** router *named-item-64* bgp rapid-update label-ipv4 *boolean* |
| Tree | label-ipv4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **label-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Include labeled IPv6 address family routes |
| Context | **configure** router *named-item-64* bgp rapid-update label-ipv6 *boolean* |
| Tree | label-ipv6 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mcast-vpn-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Include multicast VPN IPv4 address family routes |
| Context | **configure** router *named-item-64* bgp rapid-update mcast-vpn-ipv4 *boolean* |
| Tree | mcast-vpn-ipv4 |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mcast-vpn-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Include multicast VPN IPv6 address family routes |
| Context | **configure** router *named-item-64* bgp rapid-update mcast-vpn-ipv6 *boolean* |
| Tree | mcast-vpn-ipv6 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mdt-safi** *boolean*

| | |
|---|---|
| Synopsis | Include MDT SAFI address family routes |
| Context | **configure** router *named-item-64* bgp rapid-update mdt-safi *boolean* |
| Tree | mdt-safi |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mvpn-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Include MVPN IPv4 address family routes |
| Context | **configure** router *named-item-64* bgp rapid-update mvpn-ipv4 *boolean* |
| Tree | mvpn-ipv4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mvpn-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Include MVPN IPv6 address family routes |
| Context | **configure** router *named-item-64* bgp rapid-update mvpn-ipv6 *boolean* |


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| | |
|---|---|
| Tree | mvpn-ipv6 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **vpn-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Include VPN IPv4 address family routes |
| Context | **configure** router *named-item-64* bgp rapid-update vpn-ipv4 *boolean* |
| Tree | vpn-ipv4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **vpn-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Include VPN IPv6 address family routes |
| Context | **configure** router *named-item-64* bgp rapid-update vpn-ipv6 *boolean* |
| Tree | vpn-ipv6 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rapid-withdrawal** *boolean*

| | |
|---|---|
| Synopsis | Send BGP withdrawal UPDATE messages immediately |
| Context | **configure** router *named-item-64* bgp rapid-withdrawal *boolean* |
| Tree | rapid-withdrawal |
| Description | When configured to **true**, UPDATE messages containing withdrawn NLRI are sent immediately to a peer without waiting for the MRAI timer to expire. UPDATE messages containing reachable NLRI continue to wait for the MRAI timer to expire, or for a rapid update trigger.<br>When configured to **false**, withdrawal processing continues with the normal behavior. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### remove-private

| | |
|---|---|
| Synopsis | Enable the **remove-private** context |
| Context | **configure** router *named-item-64* bgp remove-private |
| Tree | remove-private |
| Introduced | 16.0.R1 |
| Platforms | All |

### limited *boolean*

| | |
|---|---|
| Synopsis | Remove private ASNs up to first public ASN encountered |
| Context | **configure** router *named-item-64* bgp remove-private limited *boolean* |
| Tree | limited |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### replace *boolean*

| | |
|---|---|
| Synopsis | Replace private ASN with global ASN before advertising |
| Context | **configure** router *named-item-64* bgp remove-private replace *boolean* |
| Tree | replace |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### skip-peer-as *boolean*

| | |
|---|---|
| Synopsis | Keep private ASN if AS-PATH contains eBGP peer's ASN |
| Context | **configure** router *named-item-64* bgp remove-private skip-peer-as *boolean* |
| Tree | skip-peer-as |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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## rib-management

| | |
|---|---|
| Synopsis | Enter the **rib-management** context |
| Context | **configure** router *named-item-64* bgp rib-management |
| Tree | rib-management |
| Introduced | 16.0.R1 |
| Platforms | All |

## ipv4

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |
| Context | **configure** router *named-item-64* bgp rib-management ipv4 |
| Tree | ipv4 |
| Introduced | 16.0.R1 |
| Platforms | All |

## leak-import

| | |
|---|---|
| Synopsis | Enter the **leak-import** context |
| Context | **configure** router *named-item-64* bgp rib-management ipv4 leak-import |
| Tree | leak-import |
| Description | Commands in this context specify route policies that control the importation of leak-eligible routes from the BGP RIB of another routing instance into the unlabeled-IPv4 RIB of the base router. To leak a route from one routing instance to another, the origin and destination RIB types must be the same; for example, it is not possible to leak a route from an unlabeled-IPv4 RIB of a VPRN into the labeled-IPv4 RIB of the base router. |
| Introduced | 16.0.R1 |
| Platforms | All |

## policy *(policy-expr-string | string)*

| | |
|---|---|
| Synopsis | Leak import policy name |
| Context | **configure** router *named-item-64* bgp rib-management ipv4 leak-import policy *(policy-expr-string \| string)* |
| Tree | policy |
| Description | This command specifies one or more leak import policies. |


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| | |
|---|---|
| | Policy names are limited to 64 characters except for the first policy. Only one object can be a policy logical expression consisting of policy names (enclosed in square brackets) and logical operators (AND, OR, NOT). |
| String length | 1 to 255 |
| Max. instances | 15 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

## route-table-import

| | |
|---|---|
| Synopsis | Enter the **route-table-import** context |
| Context | **configure** router *named-item-64* bgp rib-management ipv4 route-table-import |
| Tree | route-table-import |
| Introduced | 16.0.R1 |
| Platforms | All |

## policy-name *reference*

| | |
|---|---|
| Synopsis | Name of policy that controls route importation into RIB |
| Context | **configure** router *named-item-64* bgp rib-management ipv4 route-table-import policy-name *reference* |
| Tree | policy-name |
| Description | This command specifies the name of a policy that controls the importation of active routes from the IP route table into one of the BGP RIBs.<br>When this command is configured, routes dropped or rejected by the policy are not installed in the associated RIB. Rejected routes cannot be advertised to BGP peers associated with the RIB, but they can still be used to resolve BGP next hops of routes in that RIB. If the active route for a prefix is rejected by the policy, the best BGP route for that prefix in the BGP RIB can be advertised to peers as though it is used.<br>Aggregate routes are always imported into each RIB, independent of the specified policy.<br>Route modifications specified in the actions of the policy are ignored and have no effect on the imported routes.<br>When unconfigured, or if the command refers to an empty policy, all non-BGP routes from the IP route table are imported into the applicable RIB. |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## ipv6

| | |
|---|---|
| Synopsis | Enter the **ipv6** context |
| Context | **configure** router *named-item-64* bgp rib-management ipv6 |
| Tree | ipv6 |
| Introduced | 16.0.R1 |
| Platforms | All |

## leak-import

| | |
|---|---|
| Synopsis | Enter the **leak-import** context |
| Context | **configure** router *named-item-64* bgp rib-management ipv6 leak-import |
| Tree | leak-import |
| Description | Commands in this context specify route policies that control the importation of leak-eligible routes from the BGP RIB of another routing instance into the unlabeled-IPv6 RIB of the base router. To leak a route from one routing instance to another, the origin and destination RIB types must be the same; for example, it is not possible to leak a route from an unlabeled-IPv4 RIB of a VPRN into the labeled-IPv4 RIB of the base router. |
| Introduced | 16.0.R1 |
| Platforms | All |

## policy *(policy-expr-string | string)*

| | |
|---|---|
| Synopsis | Leak import policy name |
| Context | **configure** router *named-item-64* bgp rib-management ipv6 leak-import policy *(policy-expr-string \| string)* |
| Tree | policy |
| Description | This command specifies one or more leak import policies.<br>Policy names are limited to 64 characters except for the first policy. Only one object can be a policy logical expression consisting of policy names (enclosed in square brackets) and logical operators (AND, OR, NOT). |
| String length | 1 to 255 |
| Max. instances | 15 |
| Notes | This element is ordered by the user. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## route-table-import

| | |
|---|---|
| Synopsis | Enter the **route-table-import** context |
| Context | **configure** router *named-item-64* bgp rib-management ipv6 route-table-import |
| Tree | route-table-import |
| Description | This command enables the context to specify the name of a route to control the importation of active routes from the IP route table into one of the BGP RIBs.<br>If this command is configured, then routes dropped or rejected by the configured policy are not installed in the associated RIB. Rejected routes cannot be advertised to BGP peers associated with the RIB, but they can still be used to resolve BGP next hops of routes in that RIB. If the active route for a prefix is rejected by this command then the best BGP route for that prefix in the BGP RIB can be advertised to peers as though it is used.<br>Aggregate routes are always imported into each RIB, independent of this command's policy.<br>Route modifications specified in the actions of this command's policy are ignored and have no effect on the imported routes.<br>If this command is not configured, or if the command refers to an empty policy, all non-BGP routes from the IP route table are imported into the applicable RIB. |
| Introduced | 16.0.R1 |
| Platforms | All |

## policy-name *reference*

| | |
|---|---|
| Synopsis | Name of policy that controls route importation into RIB |
| Context | **configure** router *named-item-64* bgp rib-management ipv6 route-table-import policy-name *reference* |
| Tree | policy-name |
| Description | This command specifies the name of a policy that controls the importation of active routes from the IP route table into one of the BGP RIBs.<br>When this command is configured, routes dropped or rejected by the policy are not installed in the associated RIB. Rejected routes cannot be advertised to BGP peers associated with the RIB, but they can still be used to resolve BGP next hops of routes in that RIB. If the active route for a prefix is rejected by the policy, the best BGP route for that prefix in the BGP RIB can be advertised to peers as though it is used.<br>Aggregate routes are always imported into each RIB, independent of the specified policy. |


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Route modifications specified in the actions of the policy are ignored and have no effect on the imported routes.

When unconfigured, or if the command refers to an empty policy, all non-BGP routes from the IP route table are imported into the applicable RIB.

| | |
|---|---|
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Introduced | 16.0.R1 |
| Platforms | All |

## label-ipv4

| | |
|---|---|
| Synopsis | Enter the **label-ipv4** context |
| Context | **configure** router *named-item-64* bgp rib-management label-ipv4 |
| Tree | label-ipv4 |
| Introduced | 16.0.R1 |
| Platforms | All |

## leak-import

| | |
|---|---|
| Synopsis | Enter the **leak-import** context |
| Context | **configure** router *named-item-64* bgp rib-management label-ipv4 leak-import |
| Tree | leak-import |
| Description | Commands in this context specify route policies that control the importation of leak-eligible routes from the BGP RIB of another routing instance into the labeled-IPv4 RIB of the base router. To leak a route from one routing instance to another, the origin and destination RIB types must be the same; for example, it is not possible to leak a route from an unlabeled-IPv4 RIB of a VPRN into the labeled-IPv4 RIB of the base router. |
| Introduced | 16.0.R1 |
| Platforms | All |

## policy *(policy-expr-string | string)*

| | |
|---|---|
| Synopsis | Leak import policy name |
| Context | **configure** router *named-item-64* bgp rib-management label-ipv4 leak-import policy *(policy-expr-string \| string)* |
| Tree | policy |
| Description | This command specifies one or more leak import policies. |


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| | |
|---|---|
| | Policy names are limited to 64 characters except for the first policy. Only one object can be a policy logical expression consisting of policy names (enclosed in square brackets) and logical operators (AND, OR, NOT). |
| String length | 1 to 255 |
| Max. instances | 15 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

## route-table-import

| | |
|---|---|
| Synopsis | Enter the **route-table-import** context |
| Context | **configure** router *named-item-64* bgp rib-management label-ipv4 route-table-import |
| Tree | route-table-import |
| Introduced | 16.0.R1 |
| Platforms | All |

## policy-name *reference*

| | |
|---|---|
| Synopsis | Name of policy that controls route importation into RIB |
| Context | **configure** router *named-item-64* bgp rib-management label-ipv4 route-table-import policy-name *reference* |
| Tree | policy-name |
| Description | This command specifies the name of a policy that controls the importation of active routes from the IP route table into one of the BGP RIBs.<br>When this command is configured, routes dropped or rejected by the policy are not installed in the associated RIB. Rejected routes cannot be advertised to BGP peers associated with the RIB, but they can still be used to resolve BGP next hops of routes in that RIB. If the active route for a prefix is rejected by the policy, the best BGP route for that prefix in the BGP RIB can be advertised to peers as though it is used.<br>Aggregate routes are always imported into each RIB, independent of the specified policy.<br>Route modifications specified in the actions of the policy are ignored and have no effect on the imported routes.<br>When unconfigured, or if the command refers to an empty policy, all non-BGP routes from the IP route table are imported into the applicable RIB. |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## label-ipv6

| | |
|---|---|
| Synopsis | Enter the **label-ipv6** context |
| Context | **configure** router *named-item-64* bgp rib-management label-ipv6 |
| Tree | label-ipv6 |
| Introduced | 16.0.R1 |
| Platforms | All |

## route-table-import

| | |
|---|---|
| Synopsis | Enter the **route-table-import** context |
| Context | **configure** router *named-item-64* bgp rib-management label-ipv6 route-table-import |
| Tree | route-table-import |
| Introduced | 16.0.R1 |
| Platforms | All |

## policy-name *reference*

| | |
|---|---|
| Synopsis | Name of policy that controls route importation into RIB |
| Context | **configure** router *named-item-64* bgp rib-management label-ipv6 route-table-import policy-name *reference* |
| Tree | policy-name |
| Description | This command specifies the name of a policy that controls the importation of active routes from the IP route table into one of the BGP RIBs.<br><br>When this command is configured, routes dropped or rejected by the policy are not installed in the associated RIB. Rejected routes cannot be advertised to BGP peers associated with the RIB, but they can still be used to resolve BGP next hops of routes in that RIB. If the active route for a prefix is rejected by the policy, the best BGP route for that prefix in the BGP RIB can be advertised to peers as though it is used.<br><br>Aggregate routes are always imported into each RIB, independent of the specified policy.<br><br>Route modifications specified in the actions of the policy are ignored and have no effect on the imported routes.<br><br>When unconfigured, or if the command refers to an empty policy, all non-BGP routes from the IP route table are imported into the applicable RIB. |
| Reference | **configure** policy-options policy-statement *named-item-64* |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **route-table-install** *boolean*

| | |
|---|---|
| Synopsis | Install all IPv4 and IPv6 BGP routes in FIB and RTM |
| Context | **configure** router *named-item-64* bgp route-table-install *boolean* |
| Tree | route-table-install |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **route-target-list** [community-name] *named-item*

| | |
|---|---|
| Synopsis | Add a list entry for **route-target-list** |
| Context | **configure** router *named-item-64* bgp route-target-list *named-item* |
| Tree | route-target-list |
| Description | This command specifies a route target to be accepted from or advertised to peers.<br>This command is only applicable if the router is a route-reflector server. |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**community-name**] *named-item*

| | |
|---|---|
| Synopsis | Route target community name |
| Context | **configure** router *named-item-64* bgp route-target-list *named-item* |
| Tree | route-target-list |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **router-id** *ipv4-address*

| | |
|---|---|
| Synopsis | Router ID for the BGP instance in the AS |


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| | |
|---|---|
| Context | **configure** router *named-item-64* bgp router-id *ipv4-address* |
| Tree | router-id |
| Description | This command specifies the router ID to be used with the BGP instance.<br>Changing the BGP router ID on an active BGP instance causes the BGP instance to restart with the new router ID.<br>When an SR OS is configured with an IPv6-only BOF and no IPv4 system interface address, explicitly-defined IPv4 router IDs are required for BGP as there is no mechanism to derive the router ID from an IPv6 system interface address. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **rr-vpn-forwarding** *boolean*

| | |
|---|---|
| Synopsis | Allow route reflector to forward VPN-IP routes |
| Context | **configure** router *named-item-64* bgp rr-vpn-forwarding *boolean* |
| Tree | rr-vpn-forwarding |
| Description | When configured to **true**, the route reflector resolves VPN-IPv4 and VPN-IPv6 routes, sets itself as the next hop, and generates new labels for all the resolved routes.<br>During this process, all received VPN-IP routes, regardless of route target, are imported into the dummy VRF, where the BGP next hops are resolved. The routes are resolved to next-hop-self, and BGP allocates new VPRN service-label values for the routes, which are then advertised to peers.<br>The **transport-tunnel** command under the **configure router bgp next-hop-resolution labeled-routes** context determines what types of tunnels are eligible to resolve the next hops. If a received VPN-IP route from IBGP peer X is resolved and selected as the best path so that it can be re-advertised to an IBGP peer Y, and the BGP next-hop is modified toward peer Y (by using the **next-hop-self** command in Y's group or neighbor context or by using a next-hop action in an export policy applied to Y), BGP allocates a new VPRN service label value for the route, signals that new label value to Y, and programs the IOM to do the corresponding label swap operation. The supported combinations of X and Y are outlined below:<br>• from X (client) to Y (client)<br>• from X (client) to Y (non-client)<br>• from X (non-client) to Y (client)<br>When configured to **false**, the routes are re-advertised without signaling new VPRN labels, even if the BGP next hop is changed.<br>Nokia recommends setting this command to **false** for scaling and convergence reasons. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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## segment-routing

| | |
|---|---|
| Synopsis | Enter the **segment-routing** context |
| Context | **configure** router *named-item-64* bgp segment-routing |
| Tree | segment-routing |
| Description | Commands in this context configure options related to BGP segment routing (including prefix SID support). |
| Introduced | 19.10.R1 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of segment routing |
| Context | **configure** router *named-item-64* bgp segment-routing admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 19.10.R1 |
| Platforms | All |

## prefix-sid-range

| | |
|---|---|
| Synopsis | Enable the **prefix-sid-range** context |
| Context | **configure** router *named-item-64* bgp segment-routing prefix-sid-range |
| Tree | prefix-sid-range |
| Introduced | 19.10.R1 |
| Platforms | All |

## global

| | |
|---|---|
| Synopsis | Allow label allocation from entire SRBG space |
| Context | **configure** router *named-item-64* bgp segment-routing prefix-sid-range global |
| Tree | global |
| Notes | The following elements are part of a choice: **global** or (**max-index** and **start-label**). |
| Introduced | 19.10.R1 |


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| | |
|---|---|
| Platforms | All |

## **max-index** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Last label value available in contiguous range |
| Context | **configure** router *named-item-64* bgp segment-routing prefix-sid-range max-index *number* |
| Tree | max-index |
| Range | 0 to 1048575 |
| Default | 1 |
| Notes | The following elements are part of a choice: **global** or (**max-index** and **start-label**). |
| Introduced | 19.10.R1 |
| Platforms | All |

## **start-label** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | First label value available in a contiguous range |
| Context | **configure** router *named-item-64* bgp segment-routing prefix-sid-range start-label *number* |
| Tree | start-label |
| Range | 0 to 1048575 |
| Default | 0 |
| Notes | The following elements are part of a choice: **global** or (**max-index** and **start-label**). |
| Introduced | 19.10.R1 |
| Platforms | All |

## **segment-routing-v6**

| | |
|---|---|
| Synopsis | Enable the **segment-routing-v6** context |


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| | |
|---|---|
| Context | **configure** router *named-item-64* bgp segment-routing-v6 |
| Tree | segment-routing-v6 |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **family** [family-type] *keyword*

| | |
|---|---|
| Synopsis | Enter the **family** list instance |
| Context | **configure** router *named-item-64* bgp segment-routing-v6 family *keyword* |
| Tree | family |
| Description | Commands in this context configure family-specific behavior for processing prefix SID attributes containing SRv6 TLVs. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## [**family-type**] *keyword*

| | |
|---|---|
| Synopsis | IP address type that SRv6 route attributes apply to |
| Context | **configure** router *named-item-64* bgp segment-routing-v6 family *keyword* |
| Tree | family |
| Options | ipv4, ipv6 |
| Notes | This element is part of a list key. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **add-srv6-tlvs**

| | |
|---|---|
| Synopsis | Enable the **add-srv6-tlvs** context |
| Context | **configure** router *named-item-64* bgp segment-routing-v6 family *keyword* add-srv6-tlvs |
| Tree | add-srv6-tlvs |
| Description | Commands in this context configure locator information for the family.<br>When a locator is specified for the family, a family route that is redistributed from another protocol is advertised to BGP peers with a prefix SID attribute containing an SRv6 TLV.<br>The commands also have the effect of adding a prefix SID attribute with SRv6 TLV to BGP routes received from other peers without the SRv6 TLV and propagating to other peers with next-hop-self applied. |


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| | |
|---|---|
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **locator-name** *reference*

| | |
|---|---|
| Synopsis | SRv6 locator name |
| Context | **configure** router *named-item-64* bgp segment-routing-v6 family *keyword* add-srv6-tlvs locator-name *reference* |
| Tree | locator-name |
| Reference | **configure** router *named-item-64* segment-routing segment-routing-v6 base-routing-instance locator *reference* |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **micro-segment-locator-name** *reference*

| | |
|---|---|
| Synopsis | Micro-segment SRv6 locator name |
| Context | **configure** router *named-item-64* bgp segment-routing-v6 family *keyword* add-srv6-tlvs micro-segment-locator-name *reference* |
| Tree | micro-segment-locator-name |
| Description | This command adds a prefix SID attribute containing an SRv6 TLV to routes that belong to the family and that are redistributed from another protocol to BGP. This command also adds a prefix SID attribute with SRv6 TLV to BGP routes that are received from other peers without the SRv6 TLV and that are propagated to other peers with next-hop-self applied. |
| Reference | **configure** router *named-item-64* segment-routing segment-routing-v6 base-routing-instance micro-segment-locator *reference* |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **ignore-received-srv6-tlvs** *boolean*

| | |
|---|---|
| Synopsis | Ignore SRv6 TLVs for received routes |
| Context | **configure** router *named-item-64* bgp segment-routing-v6 family *keyword* ignore-received-srv6-tlvs *boolean* |
| Tree | ignore-received-srv6-tlvs |


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| | |
|---|---|
| Description | When configured to **true**, if a route of the family is received with a prefix SID attribute carrying an SRv6 TLV, the SRv6 TLV is ignored and the route resolution is based on the BGP next-hop only.<br>When configured to **false**, if a route of the family is received with a prefix SID attribute carrying an SRv6 TLV, the SRv6 TLV is processed. Such a route is resolved only if its BGP next-hop is reachable and the locator prefix is reachable. The datapath programming and IGP cost to reach the next-hop (used by the BGP decision process) is based on the route to the locator prefix. |
| Default | true |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **resolution** *keyword*

| | |
|---|---|
| Synopsis | Resolution options for routes |
| Context | **configure** router *named-item-64* bgp segment-routing-v6 family *keyword* resolution *keyword* |
| Tree | resolution |
| Options | route-table, tunnel-table, fallback-tunnel-to-route-table |
| Default | route-table |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **upa-trigger**

| | |
|---|---|
| Synopsis | Enter the **upa-trigger** context |
| Context | **configure** router *named-item-64* bgp segment-routing-v6 family *keyword* upa-trigger |
| Tree | upa-trigger |
| Description | Commands in this context configure the UPA trigger handling for the next hop. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **next-hop** *keyword*

| | |
|---|---|
| Synopsis | Action taken when an UPA is received for a next hop |
| Context | **configure** router *named-item-64* bgp segment-routing-v6 family *keyword* upa-trigger next-hop *keyword* |


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| | |
|---|---|
| Tree | next-hop |
| Description | This command specifies the action the router takes when checking the Network Layer Reachability Information (NLRI) next hop in the routing table for a matching UPA entry using the longest prefix match (LPM). |
| Options | frr – Enable BGP FRR when UPA is received |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **source-address** *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Source address used in SRv6 packet |
| Context | **configure** router *named-item-64* bgp segment-routing-v6 source-address *ipv6-unicast-address* |
| Tree | source-address |
| Description | When configured, this command specifies the source IPv6 address used in the SA field of the outer IPv6 header of the SRv6 encapsulated packet.<br>When not configured, the source IPv6 address is inherited from the configuration of the global default address in the **router "base" segment-routing segment-routing-v6 source-address** context.<br>A source IPv6 address must be configured in this context or in the base router context.<br>The system does not check if the address entered is a valid local address. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **selective-label-ip** *keyword*

| | |
|---|---|
| Synopsis | Label IP routes installed for local use on NHS router |
| Context | **configure** router *named-item-64* bgp selective-label-ip *keyword* |
| Tree | selective-label-ip |
| Description | This command enables selective installation of labeled unicast routes for resolution by local services and IP shortcuts on a labeled unicast Next-hop=self router.<br>This command is supported for labeled unicast for both IPv4 and IPv6 routes.<br>The **no-install** option installs labeled IP routes that are required by services. This option conserves labeled route table space in addition to RTM table space on BGP-LU next-hop-self route reflectors. The **route-table-install-only** option ensures that the labeled unicast routes are installed in the RTM in full. When **no-install** is specified, the download of labeled unicast routes for NHLFE resolution by services continues. |
| Options | no-install, route-table-install-only |


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| | |
|---|---|
| Introduced | 22.10.R1 |
| Platforms | All |

## **selective-label-ip-prioritization** *boolean*

| | |
|---|---|
| Synopsis | Enable BGP selective prioritization for labeled routes |
| Context | **configure** router *named-item-64* bgp selective-label-ip-prioritization *boolean* |
| Tree | selective-label-ip-prioritization |
| Description | When this command is set to **true**, every labeled IPv4 and IPv6 route that is received and potentially usable by a local service is automatically prioritized for fast control plane reconvergence. When the reachability of a BGP next-hop changes, the labeled IPv4 and IPv6 routes are updated into the route table first, along with other routes manually tagged as high priority by import policies. A /32 or /128 labeled unicast route (and associated BGP-LU tunnel) is determined to be potentially usable by a local service if one of the following conditions applies:<br>• the route matches the far-end address of a user-provisioned SDP of a Layer 2 service and the SDP is configured to use BGP tunnels as transport<br>• the route matches the BGP next-hop address of a BGP-EVPN or IP VPN route, and this VPN route is either imported into a local service or readvertised by the router acting as a next-hop-self route reflector or a model-B ASBR<br>When this command is set to **false,** selective-label IP prioritization for BGP is not used. |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | All |

## **selective-label-ipv4-install** *boolean*

| | |
|---|---|
| Synopsis | Enable selective download for BGP label-ipv4 routes |
| Context | **configure** router *named-item-64* bgp selective-label-ipv4-install *boolean* |
| Tree | selective-label-ipv4-install |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

## **send-communities**

| | |
|---|---|
| Synopsis | Enter the **send-communities** context |
| Context | **configure** router *named-item-64* bgp send-communities |


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| | |
|---|---|
| Tree | send-communities |
| Introduced | 16.0.R1 |
| Platforms | All |

### **extended** *boolean*

| | |
|---|---|
| Synopsis | Advertise the Extended Communities attribute to peers |
| Context | **configure** router *named-item-64* bgp send-communities extended *boolean* |
| Tree | extended |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **large** *boolean*

| | |
|---|---|
| Synopsis | Advertise the Large Communities attribute to peers |
| Context | **configure** router *named-item-64* bgp send-communities large *boolean* |
| Tree | large |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **standard** *boolean*

| | |
|---|---|
| Synopsis | Advertise the Communities attribute to peers |
| Context | **configure** router *named-item-64* bgp send-communities standard *boolean* |
| Tree | standard |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **send-default**

| | |
|---|---|
| Synopsis | Enter the **send-default** context |
| Context | **configure** router *named-item-64* bgp send-default |


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| | |
|---|---|
| Tree | send-default |
| Introduced | 19.7.R1 |
| Platforms | All |

### **export-policy** *reference*

| | |
|---|---|
| Synopsis | Export policy name |
| Context | **configure** router *named-item-64* bgp send-default export-policy *reference* |
| Tree | export-policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Introduced | 19.7.R1 |
| Platforms | All |

### **ipv4** *boolean*

| | |
|---|---|
| Synopsis | Enable IPv4 family type |
| Context | **configure** router *named-item-64* bgp send-default ipv4 *boolean* |
| Tree | ipv4 |
| Default | false |
| Introduced | 19.7.R1 |
| Platforms | All |

### **ipv6** *boolean*

| | |
|---|---|
| Synopsis | Enable IPv6 family type |
| Context | **configure** router *named-item-64* bgp send-default ipv6 *boolean* |
| Tree | ipv6 |
| Default | false |
| Introduced | 19.7.R1 |
| Platforms | All |

### **split-horizon** *boolean*

| | |
|---|---|
| Synopsis | Prevent routes being reflected back to best-route peer |
| Context | **configure** router *named-item-64* bgp split-horizon *boolean* |


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| | |
|---|---|
| Tree | split-horizon |
| Description | When configured to **true**, this command enables the use of split-horizon.<br>This command prevents routes from being reflected back to a peer that sends the best route. It applies to routes of all address families and to any type of sending peer; confed-EBGP, EBGP and IBGP.<br>Enabling the split-horizon functionality may have a detrimental impact on peer and route scaling and should only be used when absolutely necessary.<br>When configured to **false**, the use of split-horizon is disabled. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **sr-policy-import** *boolean*

| | |
|---|---|
| Synopsis | Import all segment routing policies into the BGP RIB |
| Context | **configure** router *named-item-64* bgp sr-policy-import *boolean* |
| Tree | sr-policy-import |
| Description | When configured to **true**, statically-configured non-local segment routing policies from the segment routing database are imported into the BGP RIB so that they can be advertised as originated routes toward BGP peers supporting segment routing policies (**sr-policy-ipv4** IP family type).<br>When configured to **false**, the SR policies are not imported into the BGP RIB. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **subconfed-vpn-forwarding** *boolean*

| | |
|---|---|
| Synopsis | Allow subconfed route resolution, next hop and labels |
| Context | **configure** router *named-item-64* bgp subconfed-vpn-forwarding *boolean* |
| Tree | subconfed-vpn-forwarding |
| Description | When this is set to **true**, the base router BGP instance retains all received VPN-IPv4 and VPN-IPv6 routes, including those with route targets not matching any VRF import policy of any locally configured VPRN. In addition, when the base router BGP is configured to apply a **next-hop-self** command to a peer of any type (EBGP, IBGP, or confed-EBGP), VPN-IPv4 and VPN-IPv6 routes are advertised to the peer with a new BGP label, next hop, and label-swap forwarding entry. These behaviors described above are applied when the **enable-inter-as-vpn** or **enable-rr-vpn-forwarding** commands are |


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enabled in the **configure router bgp context**, in the same BGP instance. This applies regardless of whether the base router has a confederation configuration.

When this command is set to **false**, subconfederation VPN forwarding is not used.

Default false

Introduced 21.10.R1

Platforms All

### **tcp-mss** *number*

Synopsis TCP maximum segment size override

Context **configure** router *named-item-64* bgp tcp-mss *number*

Tree tcp-mss

Description This command configures an override for the TCP maximum segment size to use with a specific peer or set of peers (depending on the scope of the command).

The configured value controls two properties of the TCP connection as follows:

TCP MSS option - The router advertises the TCP MSS option value in the TCP SYN packet it sends as part of the 3-way handshake. The advertised value may be lower than the configured value, depending on the IP MTU of the first hop IP interface. The peers must abide by this value when sending TCP segments to the local router.

TCP maximum segment size - The actual transmitted size may be lower than the configured value, depending on the TCP MSS option value signaled by the peers, the effect of path MTU discovery, or other factors.

Range 384 to 9746

Introduced 21.2.R1

Platforms All

### **third-party-nexthop** *boolean*

Synopsis Apply third-party next-hop processing to EBGP peers

Context **configure** router *named-item-64* bgp third-party-nexthop *boolean*

Tree third-party-nexthop

Description When configured to **true**, this command enables the router to send third-party next hop to EBGP peers in the same subnet as the source peer. The address family of the transport must match the address family of the route.

When an IPv4 or IPv6 route is received from one EBGP peer and advertised to another EBGP peer in the same IP subnet, the BGP next hop is left unchanged.

When configured to **false**, third-party next-hop processing is disabled and the next hop carries the IP address of the interface used to establish the TCP connection to the peer.


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **vpn-apply-export** *boolean*

| | |
|---|---|
| Synopsis | Apply base-instance BGP export policies to VPN routes |
| Context | **configure** router *named-item-64* bgp vpn-apply-export *boolean* |
| Tree | vpn-apply-export |
| Description | When configured to **true**, base-instance BGP export route policies are applied to VPN-IPv4/6, MVPN-IPv4/6, L2-VPN, MDT-SAFI, MCAST-VPN-IPv4, and EVPN routes.<br>When configured to **false**, the export policies are not applied. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **vpn-apply-import** *boolean*

| | |
|---|---|
| Synopsis | Apply base-instance import route policies to VPN routes |
| Context | **configure** router *named-item-64* bgp vpn-apply-import *boolean* |
| Tree | vpn-apply-import |
| Description | When configured to **true**, base-instance BGP import route policies are applied to VPN-IPv4/6, MVPN-IPv4/6, L2-VPN, MDT-SAFI, MCAST-VPN-IPv4, and EVPN routes.<br>When configured to **false**, the import policies are not applied. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bier**

| | |
|---|---|
| Synopsis | Enable the **bier** context |
| Context | **configure** router *named-item-64* bier |
| Tree | bier |
| Introduced | 19.5.R1 |
| Platforms | All |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of BIER |
| Context | **configure** router *named-item-64* bier admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 19.5.R1 |
| Platforms | All |

### **bfd-liveness** *keyword*

| | |
|---|---|
| Synopsis | BIER next-hops with BFD enabled |
| Context | **configure** router *named-item-64* bier bfd-liveness *keyword* |
| Tree | bfd-liveness |
| Options | ipv4 |
| Max. instances | 1 |
| Introduced | 21.7.R1 |
| Platforms | All |

### **fast-reroute** *boolean*

| | |
|---|---|
| Synopsis | Enable BIER Fast Reroute |
| Context | **configure** router *named-item-64* bier fast-reroute *boolean* |
| Tree | fast-reroute |
| Default | false |
| Introduced | 21.7.R1 |
| Platforms | All |

### **template** [template-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **template** list instance |
| Context | **configure** router *named-item-64* bier template *named-item* |
| Tree | template |


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| | |
|---|---|
| Description | Commands in this context create a BIER template to be assigned to IGP. |
| Introduced | 19.5.R1 |
| Platforms | All |

### [**template-name**] *named-item*

| | |
|---|---|
| Synopsis | BIER template name |
| Context | **configure** router *named-item-64* bier template *named-item* |
| Tree | template |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 19.5.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the BIER template |
| Context | **configure** router *named-item-64* bier template *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 19.5.R1 |
| Platforms | All |

### **sub-domain** [start] *number* end *number*

| | |
|---|---|
| Synopsis | Enter the **sub-domain** list instance |
| Context | **configure** router *named-item-64* bier template *named-item* sub-domain *number* end *number* |
| Tree | sub-domain |
| Introduced | 19.5.R1 |
| Platforms | All |


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### [**start**] *number*

| | |
|---|---|
| Synopsis | Lower bound of sub-domain range |
| Context | **configure** router *named-item-64* bier template *named-item* sub-domain *number* end *number* |
| Tree | sub-domain |
| Range | 0 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 19.5.R1 |
| Platforms | All |

### **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of sub-domain range |
| Context | **configure** router *named-item-64* bier template *named-item* sub-domain *number* end *number* |
| Tree | sub-domain |
| Range | 0 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 19.5.R1 |
| Platforms | All |

### **bfr-id** *number*

| | |
|---|---|
| Synopsis | BIER ID for the sub-domain |
| Context | **configure** router *named-item-64* bier template *named-item* sub-domain *number* end *number* bfr-id *number* |
| Tree | bfr-id |
| Range | 1 to 4096 |
| Introduced | 19.5.R1 |
| Platforms | All |

### **multi-topology** *keyword*

| | |
|---|---|
| Synopsis | Multi-topology for the sub-domain |


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| | |
|---|---|
| Context | **configure** router *named-item-64* bier template *named-item* sub-domain *number* end *number* multi-topology *keyword* |
| Tree | multi-topology |
| Options | ipv4-unicast, ipv6-unicast, ipv4-multicast, ipv6-multicast |
| Default | ipv4-unicast |
| Introduced | 19.5.R1 |
| Platforms | All |

## **prefix** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IP address used as BFR prefix |
| Context | **configure** router *named-item-64* bier template *named-item* sub-domain *number* end *number* prefix *ipv4-unicast-address* |
| Tree | prefix |
| Description | This command specifies the IP address to be used as the BFR prefix. The prefix can be a loopback interface or system IP address. |
| Default | 0.0.0.0 |
| Introduced | 19.5.R1 |
| Platforms | All |

## **class-forwarding** *boolean*

| | |
|---|---|
| Synopsis | Allow class-based forwarding over IGP shortcuts |
| Context | **configure** router *named-item-64* class-forwarding *boolean* |
| Tree | class-forwarding |
| Description | When configured to **true**, this command enables class-based forwarding (CBF) over IGP shortcuts.<br>Weighted ECMP, at the transport-tunnel level of BGP prefixes over IGP shortcuts, and the CBF feature on a per-BGP next-hop basis are mutually exclusive.<br>When configured to **false**, class-based forwarding (CBF) over IGP shortcuts is disabled. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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## confederation

| | |
|---|---|
| Synopsis | Enter the **confederation** context |
| Context | **configure** router *named-item-64* confederation |
| Tree | confederation |
| Description | Commands in this context configure members that are to be part of a confederation.<br>Creating confederation autonomous systems within as AS can be used to reduce the number of IBGP sessions required within an AS. |
| Introduced | 16.0.R1 |
| Platforms | All |

## confed-as-num *number*

| | |
|---|---|
| Synopsis | Confederation AS number |
| Context | **configure** router *named-item-64* confederation confed-as-num *number* |
| Tree | confed-as-num |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

## members [as-number] *number*

| | |
|---|---|
| Synopsis | Add a list entry for **members** |
| Context | **configure** router *named-item-64* confederation members *number* |
| Tree | members |
| Max. instances | 256 |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**as-number**] *number*

| | |
|---|---|
| Synopsis | Confederation member AS number |
| Context | **configure** router *named-item-64* confederation members *number* |
| Tree | members |
| Range | 1 to 4294967295 |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** router *named-item-64* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **dhcp-server**

| | |
|---|---|
| Synopsis | Enter the **dhcp-server** context |
| Context | **configure** router *named-item-64* dhcp-server |
| Tree | dhcp-server |
| Introduced | 16.0.R1 |
| Platforms | All |

### **dhcpv4** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **dhcpv4** list instance |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* |
| Tree | dhcpv4 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | DHCP server name |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* |
| Tree | dhcpv4 |
| String length | 1 to 32 |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the DHCP server |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **failover**

| | |
|---|---|
| Synopsis | Enter the **failover** context |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* failover |
| Tree | failover |
| Description | Commands in this context define DHCP failover where two DHCP servers manage the same pool of addresses, enabling them to share the load to assign leases for pool and provide backup for each in the event of network outages. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the failover mechanism |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* failover admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ignore-mclt-on-takeover** *boolean*

| | |
|---|---|
| Synopsis | Ignore maximum client lead during takeover from partner |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* failover ignore-mclt-on-takeover *boolean* |
| Tree | ignore-mclt-on-takeover |
| Description | When configured to **true**, the remote IP address range can be taken over immediately when the intercommunication link enters the PARTNER-DOWN state, without having to wait for the MCLT to expire.<br><br>When configured to **false**, the DHCP lease time for new clients is restricted to the MCLT during a failure. For existing clients, the lease time is gradually reduced over time to the MCLT by consecutive DHCP renewals. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **maximum-client-lead-time** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum time that DHCP server can extend client's lease |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* failover maximum-client-lead-time *number* |
| Tree | maximum-client-lead-time |


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| | |
|---|---|
| Description | This command configures the maximum client lead time (MCLT), which is the maximum time that a DHCP server can extend the client's lease time beyond the lease time currently known by the DHCP partner node. In dual-homed environments, the initial lease time for all DHCP clients is restricted to the MCLT by default. Consecutive DHCP renewals can extend the lease time beyond the MCLT. |
| Range | 600 to 86399 |
| Units | seconds |
| Default | 600 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **partner-down-delay** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Delay to prevent lease duplication during link failure |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* failover partner-down-delay *number* |
| Tree | partner-down-delay |
| Description | This command configures the interval before a failed intercommunication link transitions from the COMM-INT state to the PARTNER-DOWN state. This delay prevents IP lease duplication during link failure by not allowing new IP addresses to be assigned from the remote IP address range. This timer is intended to provide the operator with enough time to remedy the failed situation and avoid duplication of IP addresses and prefixes during the failure. |
| Range | 0 to 86399 |
| Units | seconds |
| Default | 86399 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **peer** [address] *reference*

| | |
|---|---|
| Synopsis | Enter the **peer** list instance |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* failover peer *reference* |
| Tree | peer |


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| | |
|---|---|
| Description | Commands in this context define the peer-related parameters for DHCP failover.<br>DHCP leases can be synchronized at the level of the DHCP server or pool. The pair of synchronizing servers or pools is identified by a tag. The synchronization information is carried over the Multi-Chassis Synchronization (MCS) link between the two peers. The MCS link is a logical IP or MPLS link.<br>MCS runs over TCP port 45067, using either data traffic or keepalives to detect failure on the communication link between the two nodes. In the absence of any MCS data traffic for more than 0.5 seconds, MCS sends its own keepalive to the peer. If a reply is not received within 3 seconds, MCS declares its operational state as down and the DB sync state as out-of-sync. MCS consequently notifies its clients, including the DHCP server. It can take up to 3 seconds before the DHCP client realizes that the inter-chassis link has failed.<br>The link failure does not necessarily imply the same failed state for the access links. It is possible, although unlikely, that both access links are operational while the inter-chassis communication link is broken. In this case, the two redundant nodes can become isolated from each other in the network. For this reason, it is important that the MCS link be highly redundant. |
| Max. instances | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## [**address**] *reference*

| | |
|---|---|
| Synopsis | IP address of the failover peer |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* failover peer *reference* |
| Tree | peer |
| Reference | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **sync-tag** *named-item*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Tag that identifies synchronizing server or pool pairs |


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| | |
|---|---|
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* failover peer *reference* sync-tag *named-item* |
| Tree | sync-tag |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **startup-wait-time** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Time between initialization and assuming active role |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* failover startup-wait-time *number* |
| Tree | startup-wait-time |
| Description | This command configures a delay that avoids transient issues during the initialization process. During startup wait time, each failover peer waits after the initialization process before assuming the active role for the prefix designated as local or remote. |
| Range | 60 to 3600 |
| Units | seconds |
| Default | 120 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **force-renews** *boolean*

| | |
|---|---|
| Synopsis | Send FORCERENEW messages to force renewals of leases |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* force-renews *boolean* |
| Tree | force-renews |
| Description | When configured to **true**, FORCERENEW messages are enabled for DHCP. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## lease-hold

| | |
|---|---|
| Synopsis | Enter the **lease-hold** context |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* lease-hold |
| Tree | lease-hold |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## additional-scenarios

| | |
|---|---|
| Synopsis | Enter the **additional-scenarios** context |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* lease-hold additional-scenarios |
| Tree | additional-scenarios |
| Description | Commands in this context configure additional types of leases or triggers that cause the system to hold up leases. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## internal-lease-ipsec *boolean*

| | |
|---|---|
| Synopsis | Apply the lease hold timer to local IPsec clients |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* lease-hold additional-scenarios internal-lease-ipsec *boolean* |
| Tree | internal-lease-ipsec |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## solicited-release *boolean*

| | |
|---|---|
| Synopsis | Apply lease hold timer for solicited releases |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* lease-hold additional-scenarios solicited-release *boolean* |
| Tree | solicited-release |


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| | |
|---|---|
| Description | This command enables the server to hold up a lease even for a solicited release, for example, when the server receives a normal DHCP release message. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **time** *number*

| | |
|---|---|
| Synopsis | Lease hold time |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* lease-hold time *number* |
| Tree | time |
| Range | 1 to 631152000 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **pool** [pool-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **pool** list instance |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* pool *named-item* |
| Tree | pool |
| Description | Commands in this context configure a DHCP address pool on the router. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**pool-name**] *named-item*

| | |
|---|---|
| Synopsis | DHCP server pool name |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* pool *named-item* |
| Tree | pool |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* pool *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **failover**

| | |
|---|---|
| Synopsis | Enter the **failover** context |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* pool *named-item* failover |
| Tree | failover |
| Description | Commands in this context define DHCP failover where two DHCP servers manage the same pool of addresses, enabling them to share the load to assign leases for pool and provide backup for each in the event of network outages. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the failover mechanism |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* pool *named-item* failover admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ignore-mclt-on-takeover** *boolean*

| | |
|---|---|
| Synopsis | Ignore maximum client lead during takeover from partner |


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| | |
|---|---|
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* pool *named-item* failover ignore-mclt-on-takeover *boolean* |
| Tree | ignore-mclt-on-takeover |
| Description | When configured to **true**, the remote IP address range can be taken over immediately when the intercommunication link enters the PARTNER-DOWN state, without having to wait for the MCLT to expire.<br>When configured to **false**, the DHCP lease time for new clients is restricted to the MCLT during a failure. For existing clients, the lease time is gradually reduced over time to the MCLT by consecutive DHCP renewals. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **maximum-client-lead-time** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum time that DHCP server can extend client's lease |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* pool *named-item* failover maximum-client-lead-time *number* |
| Tree | maximum-client-lead-time |
| Description | This command configures the maximum client lead time (MCLT), which is the maximum time that a DHCP server can extend the client's lease time beyond the lease time currently known by the DHCP partner node. In dual-homed environments, the initial lease time for all DHCP clients is restricted to the MCLT by default. Consecutive DHCP renewals can extend the lease time beyond the MCLT. |
| Range | 600 to 86399 |
| Units | seconds |
| Default | 600 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **partner-down-delay** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.


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| | |
|---|---|
| Synopsis | Delay to prevent lease duplication during link failure |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* pool *named-item* failover partner-down-delay *number* |
| Tree | partner-down-delay |
| Description | This command configures the interval before a failed intercommunication link transitions from the COMM-INT state to the PARTNER-DOWN state. This delay prevents IP lease duplication during link failure by not allowing new IP addresses to be assigned from the remote IP address range. This timer is intended to provide the operator with enough time to remedy the failed situation and avoid duplication of IP addresses and prefixes during the failure. |
| Range | 0 to 86399 |
| Units | seconds |
| Default | 86399 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **peer** [address] *reference*

| | |
|---|---|
| Synopsis | Enter the **peer** list instance |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* pool *named-item* failover peer *reference* |
| Tree | peer |
| Description | Commands in this context configure peer-related parameters for DHCP failover.<br><br>DHCP leases can be synchronized at the level of the DHCP server or pool. The pair of synchronizing servers or pools is identified by a tag. The synchronization information is carried over the Multi-Chassis Synchronization (MCS) link between the two peers. The MCS link is a logical IP or MPLS link.<br><br>MCS runs over TCP port 45067, using either data traffic or keepalives to detect failure on the communication link between the two nodes. In the absence of any MCS data traffic for more than 0.5 seconds, MCS sends its own keepalive to the peer. If a reply is not received within 3 seconds, MCS declares its operational state as down and the DB sync state as out-of-sync. MCS consequently notifies its clients, including the DHCP server. It can take up to 3 seconds before the DHCP client realizes that the inter-chassis link has failed.<br><br>The link failure does not necessarily imply the same failed state for the access links. It is possible, although unlikely, that both access links are operational while the inter-chassis communication link is broken. In this case, the two redundant nodes can become isolated from each other in the network. For this reason, it is important that the MCS link be highly redundant. |
| Max. instances | 1 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**address**] *reference*

| | |
|---|---|
| Synopsis | IP address of the failover peer |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* pool *named-item* failover peer *reference* |
| Tree | peer |
| Reference | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sync-tag** *named-item*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Tag that identifies synchronizing server or pool pairs |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* pool *named-item* failover peer *reference* sync-tag *named-item* |
| Tree | sync-tag |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **startup-wait-time** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Time between initialization and assuming active role |


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| | |
|---|---|
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* pool *named-item* failover startup-wait-time *number* |
| Tree | startup-wait-time |
| Description | This command configures a delay that avoids transient issues during the initialization process. During startup wait time, each failover peer waits after the initialization process before assuming the active role for the prefix designated as local or remote. |
| Range | 60 to 3600 |
| Units | seconds |
| Default | 120 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **max-lease-time** *number*

| | |
|---|---|
| Synopsis | Maximum lease time |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* pool *named-item* max-lease-time *number* |
| Tree | max-lease-time |
| Range | 10 to 315446399 |
| Units | seconds |
| Default | 864000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **min-lease-time** *number*

| | |
|---|---|
| Synopsis | Minimum lease time |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* pool *named-item* min-lease-time *number* |
| Tree | min-lease-time |
| Range | 10 to 315446399 |
| Units | seconds |
| Default | 600 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## minimum-free

| | |
|---|---|
| Synopsis | Enter the **minimum-free** context |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* pool *named-item* minimum-free |
| Tree | minimum-free |
| Description | Commands in this context specify the minimum number of free addresses in this pool. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## absolute *number*

| | |
|---|---|
| Synopsis | Minimum number of free addresses in this pool or subnet |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* pool *named-item* minimum-free absolute *number* |
| Tree | absolute |
| Range | 0 to 255 |
| Default | 1 |
| Notes | The following elements are part of a choice: **absolute** or **percent**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## event-when-depleted *boolean*

| | |
|---|---|
| Synopsis | Generate notification when addresses are depleted |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* pool *named-item* minimum-free event-when-depleted *boolean* |
| Tree | event-when-depleted |
| Description | When configured to **true**, a system-generated event is generated when all available addresses in the pool or subnet of a local DHCP server are depleted.<br><br>When configured to **false**, no action is taken when all available addresses in the pool or subnet of a local DHCP server are depleted. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **percent** *number*

| | |
|---|---|
| Synopsis | Minimum free addresses as a percentage |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* pool *named-item* minimum-free percent *number* |
| Tree | percent |
| Range | 0 to 100 |
| Default | 1 |
| Notes | The following elements are part of a choice: **absolute** or **percent**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **nak-non-matching-subnet** *boolean*

| | |
|---|---|
| Synopsis | Send NAK if no match for request address pool range |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* pool *named-item* nak-non-matching-subnet *boolean* |
| Tree | nak-non-matching-subnet |
| Description | When configured to **true**, a NAK response when the local DHCPv4 server receives a DHCP request with option 50 (the client is trying to request a previously allocated message). If the address-allocation algorithm uses a pool that does not contain the requested address, the system returns the DHCP NAK.<br>When configured to **false** or unconfigured, the system drops the DHCP packet. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **offer-time** *number*

| | |
|---|---|
| Synopsis | Time interval during which a DHCP offer remains valid |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* pool *named-item* offer-time *number* |
| Tree | offer-time |
| Range | 10 to 600 |
| Units | seconds |
| Default | 60 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## options

| | |
|---|---|
| Synopsis | Enter the **options** context |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* pool *named-item* options |
| Tree | options |
| Description | Commands in this context define DHCPv4 pool options. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## option [number] *(number | keyword)*

| | |
|---|---|
| Synopsis | Enter the **option** list instance |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* pool *named-item* options option *(number | keyword)* |
| Tree | option |
| Description | This command configures DHCP options at the pool level. The pool options can be overruled by the value of the same option in the local user database. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## [**number**] *(number | keyword)*

| | |
|---|---|
| Synopsis | DHCP option to send identification strings to client |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* pool *named-item* options option *(number | keyword)* |
| Tree | option |
| Range | 1 to 254 |
| Options | subnet-mask, default-router, dns-server, domain-name, netbios-name-server, netbios-node-type, lease-time, lease-renew-time, lease-rebind-time |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **ascii-string** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | DHCP option specified as an ASCII string |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* pool *named-item* options option *(number \| keyword)* ascii-string *string-not-all-spaces* |
| Tree | ascii-string |
| String length | 1 to 127 |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **duration**, **empty**, **hex-string**, **ipv4-address**, or **netbios-node-type**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **duration** *number*

| | |
|---|---|
| Synopsis | DHCP option specified as time duration |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* pool *named-item* options option *(number \| keyword)* duration *number* |
| Tree | duration |
| Range | 10 to 315446399 |
| Units | seconds |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **duration**, **empty**, **hex-string**, **ipv4-address**, or **netbios-node-type**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **empty**

| | |
|---|---|
| Synopsis | Remove DHCP option from configuration |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* pool *named-item* options option *(number \| keyword)* empty |
| Tree | empty |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **duration**, **empty**, **hex-string**, **ipv4-address**, or **netbios-node-type**. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **hex-string** *hex-string*

| | |
|---|---|
| Synopsis | DHCP option specified as hexadecimal string |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* pool *named-item* options option *(number \| keyword)* hex-string *hex-string* |
| Tree | hex-string |
| String length | 1 to 256 |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **duration**, **empty**, **hex-string**, **ipv4-address**, or **netbios-node-type**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ipv4-address** *ipv4-address*

| | |
|---|---|
| Synopsis | DHCP option specified as a list of IPv4 addresses |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* pool *named-item* options option *(number \| keyword)* ipv4-address *ipv4-address* |
| Tree | ipv4-address |
| Max. instances | 4 |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **duration**, **empty**, **hex-string**, **ipv4-address**, or **netbios-node-type**.<br>This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **netbios-node-type** *keyword*

| | |
|---|---|
| Synopsis | DHCP option specified as a NetBIOS node type |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* pool *named-item* options option *(number \| keyword)* netbios-node-type *keyword* |
| Tree | netbios-node-type |
| Options | b-node, p-node, m-node, h-node |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **duration**, **empty**, **hex-string**, **ipv4-address**, or **netbios-node-type**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **subnet** [ipv4-prefix] *ipv4-unicast-prefix*

| | |
|---|---|
| Synopsis | Enter the **subnet** list instance |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* pool *named-item* subnet *ipv4-unicast-prefix* |
| Tree | subnet |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**ipv4-prefix**] *ipv4-unicast-prefix*

| | |
|---|---|
| Synopsis | IPv4 prefix for the subnet |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* pool *named-item* subnet *ipv4-unicast-prefix* |
| Tree | subnet |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **address-range** [start] *ipv4-unicast-address* end *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Enter the **address-range** list instance |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* pool *named-item* subnet *ipv4-unicast-prefix* address-range *ipv4-unicast-address* end *ipv4-unicast-address* |
| Tree | address-range |
| Description | This command configures the range of IP addresses to be served from the pool subnet. The range includes all the IP addresses between the specified start and end addresses, other than specifically excluded addresses. The start and end addresses must be unique within the subnet. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**start**] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Lower bound of the IP address range |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* pool *named-item* subnet *ipv4-unicast-prefix* address-range *ipv4-unicast-address* end *ipv4-unicast-address* |


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| | |
|---|---|
| Tree | address-range |
| Description | This command specifies the start of a range of IP addresses that are excluded from the pool of IP addresses in this subnet. |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **end** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Upper bound of the IP address range |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* pool *named-item* subnet *ipv4-unicast-prefix* address-range *ipv4-unicast-address* end *ipv4-unicast-address* |
| Tree | address-range |
| Description | This command specifies the end of a range of IP addresses that are excluded from the pool of IP addresses in this subnet. |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **failover-control-type** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Failover control type for this range |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* pool *named-item* subnet *ipv4-unicast-prefix* address-range *ipv4-unicast-address* end *ipv4-unicast-address* failover-control-type *keyword* |
| Tree | failover-control-type |
| Options | local, remote, access-driven |
| Default | local |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **drain** *boolean*

| | |
|---|---|
| Synopsis | Prevent new lease assignment from this subnet |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* pool *named-item* subnet *ipv4-unicast-prefix* drain *boolean* |
| Tree | drain |
| Description | When configured to **true**, new leases cannot be assigned and existing leases are kept up until they are released.<br>When configured to **false**, the subnet is active and new leases can be assigned. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **exclude-addresses** [start] *ipv4-unicast-address* end *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Add a list entry for **exclude-addresses** |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* pool *named-item* subnet *ipv4-unicast-prefix* exclude-addresses *ipv4-unicast-address* end *ipv4-unicast-address* |
| Tree | exclude-addresses |
| Description | This command configures an IP address to be excluded from the pool of IP addresses in the subnet. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**start**] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Lower bound of the IP address range |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* pool *named-item* subnet *ipv4-unicast-prefix* exclude-addresses *ipv4-unicast-address* end *ipv4-unicast-address* |
| Tree | exclude-addresses |
| Description | This command specifies the start of a range of IP addresses that are excluded from the pool of IP addresses in this subnet. |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## **end** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Upper bound of the IP address range |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* pool *named-item* subnet *ipv4-unicast-prefix* exclude-addresses *ipv4-unicast-address* end *ipv4-unicast-address* |
| Tree | exclude-addresses |
| Description | This command specifies the end of a range of IP addresses that are excluded from the pool of IP addresses in this subnet. |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **maximum-declined** *number*

| | |
|---|---|
| Synopsis | Maximum number of declined addresses allowed |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* pool *named-item* subnet *ipv4-unicast-prefix* maximum-declined *number* |
| Tree | maximum-declined |
| Max. range | 0 to 4294967295 |
| Default | 64 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **minimum-free**

| | |
|---|---|
| Synopsis | Enter the **minimum-free** context |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* pool *named-item* subnet *ipv4-unicast-prefix* minimum-free |
| Tree | minimum-free |
| Description | Commands in this context specify the minimum number of free addresses in this pool. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **absolute** *number*

| | |
|---|---|
| Synopsis | Minimum number of free addresses in this pool or subnet |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* pool *named-item* subnet *ipv4-unicast-prefix* minimum-free absolute *number* |
| Tree | absolute |
| Range | 0 to 255 |
| Default | 1 |
| Notes | The following elements are part of a choice: **absolute** or **percent**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **event-when-depleted** *boolean*

| | |
|---|---|
| Synopsis | Generate notification when addresses are depleted |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* pool *named-item* subnet *ipv4-unicast-prefix* minimum-free event-when-depleted *boolean* |
| Tree | event-when-depleted |
| Description | When configured to **true**, a system-generated event is generated when all available addresses in the pool or subnet of a local DHCP server are depleted.<br>When configured to **false**, no action is taken when all available addresses in the pool or subnet of a local DHCP server are depleted. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **percent** *number*

| | |
|---|---|
| Synopsis | Minimum free addresses as a percentage |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* pool *named-item* subnet *ipv4-unicast-prefix* minimum-free percent *number* |
| Tree | percent |
| Range | 0 to 100 |
| Default | 1 |
| Notes | The following elements are part of a choice: **absolute** or **percent**. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## options

| | |
|---|---|
| Synopsis | Enter the **options** context |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* pool *named-item* subnet *ipv4-unicast-prefix* options |
| Tree | options |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **option** [number] *(number | keyword)*

| | |
|---|---|
| Synopsis | Enter the **option** list instance |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* pool *named-item* subnet *ipv4-unicast-prefix* options option *(number | keyword)* |
| Tree | option |
| Description | This command configures DHCP options at the pool subnet level. The options can be overruled by the value of the same option in the local user database. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## [**number**] *(number | keyword)*

| | |
|---|---|
| Synopsis | DHCP option to send identification strings to client |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* pool *named-item* subnet *ipv4-unicast-prefix* options option *(number | keyword)* |
| Tree | option |
| Range | 1 to 254 |
| Options | subnet-mask, default-router, dns-server, domain-name, netbios-name-server, netbios-node-type, lease-time, lease-renew-time, lease-rebind-time |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **ascii-string** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | DHCP option specified as an ASCII string |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* pool *named-item* subnet *ipv4-unicast-prefix* options option *(number \| keyword)* ascii-string *string-not-all-spaces* |
| Tree | ascii-string |
| String length | 1 to 127 |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **duration**, **empty**, **hex-string**, **ipv4-address**, or **netbios-node-type**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **duration** *number*

| | |
|---|---|
| Synopsis | DHCP option specified as time |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* pool *named-item* subnet *ipv4-unicast-prefix* options option *(number \| keyword)* duration *number* |
| Tree | duration |
| Range | 10 to 315446399 |
| Units | seconds |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **duration**, **empty**, **hex-string**, **ipv4-address**, or **netbios-node-type**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **empty**

| | |
|---|---|
| Synopsis | Empty DHCP option |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* pool *named-item* subnet *ipv4-unicast-prefix* options option *(number \| keyword)* empty |
| Tree | empty |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **duration**, **empty**, **hex-string**, **ipv4-address**, or **netbios-node-type**. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **hex-string** *hex-string*

| | |
|---|---|
| Synopsis | DHCP option specified as hexadecimal string |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* pool *named-item* subnet *ipv4-unicast-prefix* options option *(number \| keyword)* hex-string *hex-string* |
| Tree | hex-string |
| String length | 1 to 256 |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **duration**, **empty**, **hex-string**, **ipv4-address**, or **netbios-node-type**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ipv4-address** *ipv4-address*

| | |
|---|---|
| Synopsis | DHCP option specified as a list of IPv4 addresses |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* pool *named-item* subnet *ipv4-unicast-prefix* options option *(number \| keyword)* ipv4-address *ipv4-address* |
| Tree | ipv4-address |
| Max. instances | 4 |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **duration**, **empty**, **hex-string**, **ipv4-address**, or **netbios-node-type**.<br>This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **netbios-node-type** *keyword*

| | |
|---|---|
| Synopsis | DHCP option specified as a NetBIOS node type |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* pool *named-item* subnet *ipv4-unicast-prefix* options option *(number \| keyword)* netbios-node-type *keyword* |
| Tree | netbios-node-type |
| Options | b-node, p-node, m-node, h-node |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **duration**, **empty**, **hex-string**, **ipv4-address**, or **netbios-node-type**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## pool-selection

| | |
|---|---|
| Synopsis | Enter the **pool-selection** context |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* pool-selection |
| Tree | pool-selection |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## use-gi-address

| | |
|---|---|
| Synopsis | Enable the **use-gi-address** context |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* pool-selection use-gi-address |
| Tree | use-gi-address |
| Description | Commands in this context configure gateway interface (GI) address matching. When configured, the pool can be used for address matching even if a subnet is not found. If the local user database name is not used, addresses are provided only by GI. If a user must be blocked from getting an address, the server maps to a local user database and configures the user with no address.<br><br>A pool can include multiple subnets. Since the GI is shared by multiple subnets in a subscriber interface, the pool can provide IP addresses from any of the subnets included when the GI is matched to one of its subnets. This allows a pool to be created that represents a sub-net. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## scope *keyword*

| | |
|---|---|
| Synopsis | GI address-matching scope |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* pool-selection use-gi-address scope *keyword* |
| Tree | scope |
| Options | subnet, pool |
| Default | subnet |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## use-pool-from-client

| | |
|---|---|
| Synopsis | Enable the **use-pool-from-client** context |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* pool-selection use-pool-from-client |
| Tree | use-pool-from-client |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## delimiter *string-not-all-spaces*

| | |
|---|---|
| Synopsis | Delimiter to combine primary and secondary pool names |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* pool-selection use-pool-from-client delimiter *string-not-all-spaces* |
| Tree | delimiter |
| Description | This command configures a single ASCII character that separates the pool names in DHCP vendor-specific option 82, which identifies the address pool to be used for this client. |
| String length | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## user-db *reference*

| | |
|---|---|
| Synopsis | Local user database for authentication |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* user-db *reference* |
| Tree | user-db |
| Reference | **configure** subscriber-mgmt local-user-db *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## user-identification *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.


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| | |
|---|---|
| Synopsis | User identification method for the DHCP server |
| Context | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* user-identification *keyword* |
| Tree | user-identification |
| Options | mac-circuit-id, client-id, mac, circuit-id, remote-id |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **dhcpv6** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **dhcpv6** list instance |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* |
| Tree | dhcpv6 |
| Description | Commands in this context configure DHCPv6 parameters. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | DHCP server name |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* |
| Tree | dhcpv6 |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the DHCP server |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **auto-provisioned** *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Auto-provision the pools of this server |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* auto-provisioned *boolean* |
| Tree | auto-provisioned |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **defaults**

| | |
|---|---|
| Synopsis | Enter the **defaults** context |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* defaults |
| Tree | defaults |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **options**

| | |
|---|---|
| Synopsis | Enter the **options** context |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* defaults options |
| Tree | options |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **option** [number] *(number | keyword)*

| | |
|---|---|
| Synopsis | Enter the **option** list instance |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* defaults options option *(number | keyword)* |


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| | |
|---|---|
| Tree | option |
| Description | This command configures DHCP options at the pool level. The pool options defined here can be overruled by the value of the same option in the local user database. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**number**] *(number | keyword)*

| | |
|---|---|
| Synopsis | DHCP option to send as identification string |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* defaults options option *(number | keyword)* |
| Tree | option |
| Range | 1 to 65535 |
| Options | dns-server, domain-name |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ascii-string** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | DHCP option specified as an ASCII string |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* defaults options option *(number | keyword)* ascii-string *string-not-all-spaces* |
| Tree | ascii-string |
| String length | 1 to 127 |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **domain-string**, **duration**, **empty**, **hex-string**, or **ipv6-address**. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **domain-string** *string*

| | |
|---|---|
| Synopsis | DHCP option specified as a domain name |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* defaults options option *(number | keyword)* domain-string *string* |
| Tree | domain-string |


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| | |
|---|---|
| String length | 1 to 127 |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **domain-string**, **duration**, **empty**, **hex-string**, or **ipv6-address**. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **duration** *number*

| | |
|---|---|
| Synopsis | DHCP option specified as time |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* defaults options option *(number \| keyword)* duration *number* |
| Tree | duration |
| Range | 10 to 315446399 |
| Units | seconds |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **domain-string**, **duration**, **empty**, **hex-string**, or **ipv6-address**. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **empty**

| | |
|---|---|
| Synopsis | Empty DHCP option |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* defaults options option *(number \| keyword)* empty |
| Tree | empty |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **domain-string**, **duration**, **empty**, **hex-string**, or **ipv6-address**. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **hex-string** *hex-string*

| | |
|---|---|
| Synopsis | DHCP option specified as hexadecimal string |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* defaults options option *(number \| keyword)* hex-string *hex-string* |
| Tree | hex-string |
| String length | 1 to 256 |


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| | |
|---|---|
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **domain-string**, **duration**, **empty**, **hex-string**, or **ipv6-address**. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **ipv6-address** *ipv6-address*

| | |
|---|---|
| Synopsis | DHCP option specified as a list of IPv6 addresses |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* defaults options option *(number \| keyword)* ipv6-address *ipv6-address* |
| Tree | ipv6-address |
| Max. instances | 4 |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **domain-string**, **duration**, **empty**, **hex-string**, or **ipv6-address**.<br>This element is ordered by the user. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **preferred-lifetime** *number*

| | |
|---|---|
| Synopsis | Time this lease remains preferred |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* defaults preferred-lifetime *number* |
| Tree | preferred-lifetime |
| Description | This command configures the preferred lifetime of the IPv6 lease address or prefix. When the preferred lifetime expires, any derived addresses are deprecated. The preferred lifetime must be less than or equal to the valid lifetime.<br>Each address or prefix assigned to the client has associated preferred and valid lifetimes specified by the address assignment authority (such as the DHCP server, RADIUS, or ESM). To request an extension of the lifetimes assigned to an address, the client sends a renew message to the addressing authority. The authority sends a reply message to the client with the new lifetimes, allowing the client to continue to use the address/prefix without interruption. The lifetimes are transmitted from the addressing authority to the client in the identity association (IA) option at the top level of the message (not the address or prefix level). |
| Range | 300 to 315446399 |
| Units | seconds |
| Default | 3600 |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **rebind-time** *number*

| | |
|---|---|
| Synopsis | Rebind time for the lease |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* defaults rebind-time *number* |
| Tree | rebind-time |
| Description | This command configures the rebind time, known as T2, at which the client contacts the addressing authority to extend the lifetimes of its leases.<br><br>The IP addressing authority (such as the DHCP server, RADIUS, or ESM) controls the time for extending lifetimes on assigned addresses/prefixes through the T1 and T2 parameters assigned to an identity association (IA). At renew time, T1, the client initiates a renew or reply message exchange to extend the lifetimes of any addresses in the IA. The client includes an IA option with all addresses or prefixes currently assigned to the IA in its renew message.<br><br>Recommended values for T1 and T2 are 0.5 and 0.8 times the shortest preferred lifetime of the addresses or prefixes in the IA that the addressing authority is willing to extend, respectively. The configured rebind timer value should always be less than or equal to the rebind timer. The T1 and T2 values are carried in the IPV6 address option in the IA. |
| Range | 0 to 1209600 |
| Units | seconds |
| Default | 2880 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **renew-time** *number*

| | |
|---|---|
| Synopsis | Renew time for the lease |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* defaults renew-time *number* |
| Tree | renew-time |
| Description | This command configures the renew time, known as T1, at which the client makes a transition to the lease-renewal state.<br><br>The IP addressing authority (such as the DHCP server, RADIUS, or ESM) controls the time for extending lifetimes on assigned addresses/prefixes through the T1 and T2 parameters assigned to an identity association (IA). At renew time, T1, the client initiates a renew/reply message exchange to extend the lifetimes of any addresses in the IA. The |


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client includes an IA option with all addresses/prefixes currently assigned to the IA in its renew message.

Recommended values for T1 and T2 are 0.5 and 0.8 times the shortest preferred lifetime of the addresses or prefixes in the IA that the addressing authority is willing to extend, respectively. The configured renew timer value should always be shorter than or equal to the rebind timer. The T1 and T2 values are carried in the IPV6 address option in the IA.

| | |
|---|---|
| Range | 0 to 604800 |
| Units | seconds |
| Default | 1800 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **valid-lifetime** *number*

| | |
|---|---|
| Synopsis | Time for the lease to remain valid |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* defaults valid-lifetime *number* |
| Tree | valid-lifetime |
| Description | This command configures a valid lifetime for a DHCPv6 lease address or prefix. The valid lifetime is the length of time an address and prefix remains in the valid state. The valid lifetime must be greater than or equal to the preferred lifetime. When the valid lifetime expires, the address and prefix becomes invalid and must not be used in communications. RFC 2461 recommends a default value of 30 days.<br><br>Each address and prefix assigned to the client has associated preferred and valid lifetimes specified by the address assignment authority (such as the DHCP server, RADIUS, or ESM). To request an extension of the lifetimes assigned to an address, the client sends a renew message to the addressing authority. The authority sends a reply message to the client with the new lifetimes, allowing the client to continue to use the address and prefix without interruption. The lifetimes are transmitted from the addressing authority to the client in the identity association (IA) option at the top level of the message (not the address or prefix level). |
| Range | 300 to 315446399 |
| Units | seconds |
| Default | 86400 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **failover**

| | |
|---|---|
| Synopsis | Enter the **failover** context |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* failover |
| Tree | failover |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the failover mechanism |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* failover admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ignore-mclt-on-takeover** *boolean*

| | |
|---|---|
| Synopsis | Ignore maximum client lead during takeover from partner |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* failover ignore-mclt-on-takeover *boolean* |
| Tree | ignore-mclt-on-takeover |


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| | |
|---|---|
| Description | When configured to **true**, the remote IP address range can be taken over immediately when the intercommunication link enters the PARTNER-DOWN state, without having to wait for the MCLT to expire.<br>When configured to **false**, the DHCP lease time for new clients is restricted to the MCLT during a failure. For existing clients, the lease time is gradually reduced over time to the MCLT by consecutive DHCP renewals. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **maximum-client-lead-time** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum time that DHCP server can extend client's lease |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* failover maximum-client-lead-time *number* |
| Tree | maximum-client-lead-time |
| Description | This command configures the maximum client lead time (MCLT), which is the maximum time that a DHCP server can extend the client's lease time beyond the lease time currently known by the DHCP partner node. In dual-homed environments, the initial lease time for all DHCP clients is restricted to the MCLT by default. Consecutive DHCP renewals can extend the lease time beyond the MCLT. |
| Range | 600 to 86399 |
| Units | seconds |
| Default | 600 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **partner-down-delay** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Delay to prevent lease duplication during link failure |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* failover partner-down-delay *number* |


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| | |
|---|---|
| Tree | partner-down-delay |
| Description | This command configures the interval before a failed intercommunication link transitions from the COMM-INT state to the PARTNER-DOWN state. This delay prevents IP lease duplication during link failure by not allowing new IP addresses to be assigned from the remote IP address range. This timer is intended to provide the operator with enough time to remedy the failed situation and avoid duplication of IP addresses and prefixes during the failure. |
| Range | 0 to 86399 |
| Units | seconds |
| Default | 86399 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **peer** [address] *reference*

| | |
|---|---|
| Synopsis | Enter the **peer** list instance |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* failover peer *reference* |
| Tree | peer |
| Max. instances | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## [**address**] *reference*

| | |
|---|---|
| Synopsis | IP address of the failover peer |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* failover peer *reference* |
| Tree | peer |
| Reference | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **sync-tag** *named-item*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Tag that identifies synchronizing server or pool pairs |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* failover peer *reference* sync-tag *named-item* |
| Tree | sync-tag |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **startup-wait-time** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Time between initialization and assuming active role |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* failover startup-wait-time *number* |
| Tree | startup-wait-time |
| Description | This command configures a delay that avoids transient issues during the initialization process. During startup wait time, each failover peer waits after the initialization process before assuming the active role for the prefix designated as local or remote. |
| Range | 60 to 3600 |
| Units | seconds |
| Default | 120 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ignore-rapid-commit** *boolean*

| | |
|---|---|
| Synopsis | Ignore Rapid Commit option |


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| | |
|---|---|
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* ignore-rapid-commit *boolean* |
| Tree | ignore-rapid-commit |
| Description | When configured to **true**, the server ignores the Rapid Commit option sent by the client and uses the regular message exchange. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **interface-id-mapping** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Map hosts within interface-to-prefix combinations |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* interface-id-mapping *boolean* |
| Tree | interface-id-mapping |
| Description | When configured to **true**, this command specifies an interface-mapping method that uses a combination of unique /64 prefixes and interface IDs. A /64 prefix is allocated to each interface ID, and all clients with the same interface ID are assigned an address from the prefix. This method is used for bridging clients in the same local loop and SAP, so that sharing the prefix allows communication to stay local. For SLAAC-based assignment, downstream neighbor discovery is automatically enabled to resolve the assigned address. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **lease-hold**

| | |
|---|---|
| Synopsis | Enter the **lease-hold** context |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* lease-hold |
| Tree | lease-hold |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## additional-scenarios

| | |
|---|---|
| Synopsis | Enter the **additional-scenarios** context |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* lease-hold additional-scenarios |
| Tree | additional-scenarios |
| Description | Commands in this context configure additional types of leases or triggers that cause the system to hold up leases. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## internal-lease-ipsec *boolean*

| | |
|---|---|
| Synopsis | Apply the lease hold timer to local IPsec clients |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* lease-hold additional-scenarios internal-lease-ipsec *boolean* |
| Tree | internal-lease-ipsec |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## solicited-release *boolean*

| | |
|---|---|
| Synopsis | Apply lease hold timer for solicited releases |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* lease-hold additional-scenarios solicited-release *boolean* |
| Tree | solicited-release |
| Description | This command enables the server to hold up a lease even for a solicited release, for example, when the server receives a normal DHCP release message. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## time *number*

| | |
|---|---|
| Synopsis | Lease hold time |


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| | |
|---|---|
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* lease-hold time *number* |
| Tree | time |
| Range | 1 to 631152000 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **lease-query** *boolean*

| | |
|---|---|
| Synopsis | Handle and reply to lease query messages |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* lease-query *boolean* |
| Tree | lease-query |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **pool** [pool-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **pool** list instance |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* pool *named-item* |
| Tree | pool |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**pool-name**] *named-item*

| | |
|---|---|
| Synopsis | DHCP server pool name |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* pool *named-item* |
| Tree | pool |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## delegated-prefix

| | |
|---|---|
| Synopsis | Enter the **delegated-prefix** context |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* pool *named-item* delegated-prefix |
| Tree | delegated-prefix |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## length *number*

| | |
|---|---|
| Synopsis | Prefix length for pool if unspecified by client |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* pool *named-item* delegated-prefix length *number* |
| Tree | length |
| Range | 48 to 127 |
| Default | 64 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## maximum *number*

| | |
|---|---|
| Synopsis | Maximum delegated prefix length for this pool |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* pool *named-item* delegated-prefix maximum *number* |
| Tree | maximum |
| Range | 48 to 127 |
| Default | 64 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## minimum *number*

| | |
|---|---|
| Synopsis | Minimum delegated prefix length for this pool |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* pool *named-item* delegated-prefix minimum *number* |


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| | |
|---|---|
| Tree | minimum |
| Range | 48 to 127 |
| Default | 48 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* pool *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **exclude-prefix** [ipv6-prefix] *ipv6-prefix*

| | |
|---|---|
| Synopsis | Add a list entry for **exclude-prefix** |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* pool *named-item* exclude-prefix *ipv6-prefix* |
| Tree | exclude-prefix |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**ipv6-prefix**] *ipv6-prefix*

| | |
|---|---|
| Synopsis | IPv6 prefix to be excluded from available pool prefixes |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* pool *named-item* exclude-prefix *ipv6-prefix* |
| Tree | exclude-prefix |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## failover

| | |
|---|---|
| Synopsis | Enter the **failover** context |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* pool *named-item* failover |
| Tree | failover |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the failover mechanism |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* pool *named-item* failover admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ignore-mclt-on-takeover *boolean*

| | |
|---|---|
| Synopsis | Ignore maximum client lead during takeover from partner |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* pool *named-item* failover ignore-mclt-on-takeover *boolean* |
| Tree | ignore-mclt-on-takeover |
| Description | When configured to **true**, the remote IP address range can be taken over immediately when the intercommunication link enters the PARTNER-DOWN state, without having to wait for the MCLT to expire.<br>When configured to **false**, the DHCP lease time for new clients is restricted to the MCLT during a failure. For existing clients, the lease time is gradually reduced over time to the MCLT by consecutive DHCP renewals. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## **maximum-client-lead-time** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum time that DHCP server can extend client's lease |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* pool *named-item* failover maximum-client-lead-time *number* |
| Tree | maximum-client-lead-time |
| Description | This command configures the maximum client lead time (MCLT), which is the maximum time that a DHCP server can extend the client's lease time beyond the lease time currently known by the DHCP partner node. In dual-homed environments, the initial lease time for all DHCP clients is restricted to the MCLT by default. Consecutive DHCP renewals can extend the lease time beyond the MCLT. |
| Range | 600 to 86399 |
| Units | seconds |
| Default | 600 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **partner-down-delay** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Delay to prevent lease duplication during link failure |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* pool *named-item* failover partner-down-delay *number* |
| Tree | partner-down-delay |
| Description | This command configures the interval before a failed intercommunication link transitions from the COMM-INT state to the PARTNER-DOWN state. This delay prevents IP lease duplication during link failure by not allowing new IP addresses to be assigned from the remote IP address range. This timer is intended to provide the operator with enough time to remedy the failed situation and avoid duplication of IP addresses and prefixes during the failure. |
| Range | 0 to 86399 |
| Units | seconds |
| Default | 86399 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **peer** [address] *reference*

| | |
|---|---|
| Synopsis | Enter the **peer** list instance |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* pool *named-item* failover peer *reference* |
| Tree | peer |
| Max. instances | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## [**address**] *reference*

| | |
|---|---|
| Synopsis | IP address of the failover peer |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* pool *named-item* failover peer *reference* |
| Tree | peer |
| Reference | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **sync-tag** *named-item*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Tag that identifies synchronizing server or pool pairs |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* pool *named-item* failover peer *reference* sync-tag *named-item* |
| Tree | sync-tag |
| String length | 1 to 32 |


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| | |
|---|---|
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **startup-wait-time** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Time between initialization and assuming active role |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* pool *named-item* failover startup-wait-time *number* |
| Tree | startup-wait-time |
| Description | This command configures a delay that avoids transient issues during the initialization process. During startup wait time, each failover peer waits after the initialization process before assuming the active role for the prefix designated as local or remote. |
| Range | 60 to 3600 |
| Units | seconds |
| Default | 120 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **options**

| | |
|---|---|
| Synopsis | Enter the **options** context |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* pool *named-item* options |
| Tree | options |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **option** [number] *(number | keyword)*

| | |
|---|---|
| Synopsis | Enter the **option** list instance |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* pool *named-item* options option *(number | keyword)* |


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| | |
|---|---|
| Tree | option |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**number**] *(number | keyword)*

| | |
|---|---|
| Synopsis | DHCP option to send as identification string |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* pool *named-item* options option *(number | keyword)* |
| Tree | option |
| Range | 1 to 65535 |
| Options | dns-server, domain-name |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ascii-string** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | DHCP option specified as an ASCII string |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* pool *named-item* options option *(number | keyword)* ascii-string *string-not-all-spaces* |
| Tree | ascii-string |
| String length | 1 to 127 |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **domain-string**, **duration**, **empty**, **hex-string**, or **ipv6-address**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **domain-string** *string*

| | |
|---|---|
| Synopsis | DHCP option specified as a domain name |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* pool *named-item* options option *(number | keyword)* domain-string *string* |
| Tree | domain-string |
| String length | 1 to 127 |


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| | |
|---|---|
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **domain-string**, **duration**, **empty**, **hex-string**, or **ipv6-address**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **duration** *number*

| | |
|---|---|
| Synopsis | DHCP option specified as time |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* pool *named-item* options option *(number \| keyword)* duration *number* |
| Tree | duration |
| Range | 10 to 315446399 |
| Units | seconds |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **domain-string**, **duration**, **empty**, **hex-string**, or **ipv6-address**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **empty**

| | |
|---|---|
| Synopsis | Empty DHCP option |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* pool *named-item* options option *(number \| keyword)* empty |
| Tree | empty |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **domain-string**, **duration**, **empty**, **hex-string**, or **ipv6-address**. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **hex-string** *hex-string*

| | |
|---|---|
| Synopsis | DHCP option specified as hexadecimal string |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* pool *named-item* options option *(number \| keyword)* hex-string *hex-string* |
| Tree | hex-string |
| String length | 1 to 256 |


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| | |
|---|---|
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **domain-string**, **duration**, **empty**, **hex-string**, or **ipv6-address**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ipv6-address** *ipv6-address*

| | |
|---|---|
| Synopsis | DHCP option specified as a list of IPv6 addresses |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* pool *named-item* options option *(number \| keyword)* ipv6-address *ipv6-address* |
| Tree | ipv6-address |
| Max. instances | 4 |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **domain-string**, **duration**, **empty**, **hex-string**, or **ipv6-address**.<br>This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **prefix** [ipv6-prefix] *ipv6-prefix*

| | |
|---|---|
| Synopsis | Enter the **prefix** list instance |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* pool *named-item* prefix *ipv6-prefix* |
| Tree | prefix |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**ipv6-prefix**] *ipv6-prefix*

| | |
|---|---|
| Synopsis | IPv6 prefix to be excluded from available pool prefixes |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* pool *named-item* prefix *ipv6-prefix* |
| Tree | prefix |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **drain** *boolean*

| | |
|---|---|
| Synopsis | No new leases can be assigned |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* pool *named-item* prefix *ipv6-prefix* drain *boolean* |
| Tree | drain |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **failover-control-type** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Failover control type for this range |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* pool *named-item* prefix *ipv6-prefix* failover-control-type *keyword* |
| Tree | failover-control-type |
| Options | local, remote, access-driven |
| Default | local |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **options**

| | |
|---|---|
| Synopsis | Enter the **options** context |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* pool *named-item* prefix *ipv6-prefix* options |
| Tree | options |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **option** [number] *(number | keyword)*

| | |
|---|---|
| Synopsis | Enter the **option** list instance |


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| | |
|---|---|
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* pool *named-item* prefix *ipv6-prefix* options option *(number \| keyword)* |
| Tree | option |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**number**] *(number | keyword)*

| | |
|---|---|
| Synopsis | DHCP option to send as identification string |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* pool *named-item* prefix *ipv6-prefix* options option *(number \| keyword)* |
| Tree | option |
| Range | 1 to 65535 |
| Options | dns-server, domain-name |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ascii-string** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | DHCP option specified as an ASCII string |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* pool *named-item* prefix *ipv6-prefix* options option *(number \| keyword)* ascii-string *string-not-all-spaces* |
| Tree | ascii-string |
| String length | 1 to 127 |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **domain-string**, **duration**, **empty**, **hex-string**, or **ipv6-address**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **domain-string** *string*

| | |
|---|---|
| Synopsis | DHCP option specified as a domain name |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* pool *named-item* prefix *ipv6-prefix* options option *(number \| keyword)* domain-string *string* |
| Tree | domain-string |


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| | |
|---|---|
| String length | 1 to 127 |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **domain-string**, **duration**, **empty**, **hex-string**, or **ipv6-address**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **duration** *number*

| | |
|---|---|
| Synopsis | DHCP option specified as time |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* pool *named-item* prefix *ipv6-prefix* options option *(number \| keyword)* duration *number* |
| Tree | duration |
| Range | 10 to 315446399 |
| Units | seconds |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **domain-string**, **duration**, **empty**, **hex-string**, or **ipv6-address**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **empty**

| | |
|---|---|
| Synopsis | Empty DHCP option |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* pool *named-item* prefix *ipv6-prefix* options option *(number \| keyword)* empty |
| Tree | empty |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **domain-string**, **duration**, **empty**, **hex-string**, or **ipv6-address**. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **hex-string** *hex-string*

| | |
|---|---|
| Synopsis | DHCP option specified as hexadecimal string |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* pool *named-item* prefix *ipv6-prefix* options option *(number \| keyword)* hex-string *hex-string* |
| Tree | hex-string |
| String length | 1 to 256 |


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| | |
|---|---|
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **domain-string**, **duration**, **empty**, **hex-string**, or **ipv6-address**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **ipv6-address** *ipv6-address*

| | |
|---|---|
| Synopsis | DHCP option specified as a list of IPv6 addresses |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* pool *named-item* prefix *ipv6-prefix* options option *(number \| keyword)* ipv6-address *ipv6-address* |
| Tree | ipv6-address |
| Max. instances | 4 |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **domain-string**, **duration**, **empty**, **hex-string**, or **ipv6-address**.<br>This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **preferred-lifetime** *number*

| | |
|---|---|
| Synopsis | Time this lease remains preferred |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* pool *named-item* prefix *ipv6-prefix* preferred-lifetime *number* |
| Tree | preferred-lifetime |
| Description | This command configures the preferred lifetime of the IPv6 lease address or prefix. When the preferred lifetime expires, any derived addresses are deprecated. The preferred lifetime must be less than or equal to the valid lifetime.<br>Each address or prefix assigned to the client has associated preferred and valid lifetimes specified by the address assignment authority (such as the DHCP server, RADIUS, or ESM). To request an extension of the lifetimes assigned to an address, the client sends a renew message to the addressing authority. The authority sends a reply message to the client with the new lifetimes, allowing the client to continue to use the address/prefix without interruption. The lifetimes are transmitted from the addressing authority to the client in the identity association (IA) option at the top level of the message (not the address or prefix level). |
| Range | 300 to 315446399 |
| Units | seconds |
| Default | 3600 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **prefix-length-threshold** [prefix-length] *number*

| | |
|---|---|
| Synopsis | Enter the **prefix-length-threshold** list instance |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* pool *named-item* prefix *ipv6-prefix* prefix-length-threshold *number* |
| Tree | prefix-length-threshold |
| Max. instances | 8 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**prefix-length**] *number*

| | |
|---|---|
| Synopsis | Delegated prefix length for pool thresholds |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* pool *named-item* prefix *ipv6-prefix* prefix-length-threshold *number* |
| Tree | prefix-length-threshold |
| Range | 1 to 128 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **absolute** *number*

| | |
|---|---|
| Synopsis | Minimum number of free prefixes for this prefix length |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* pool *named-item* prefix *ipv6-prefix* prefix-length-threshold *number* absolute *number* |
| Tree | absolute |
| Range | 1 to 4294967295 |
| Notes | The following elements are part of a choice: **absolute** or **percent**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **event-when-depleted** *boolean*

| | |
|---|---|
| Synopsis | Generate a notification when this pool is depleted |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* pool *named-item* prefix *ipv6-prefix* prefix-length-threshold *number* event-when-depleted *boolean* |
| Tree | event-when-depleted |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **percent** *number*

| | |
|---|---|
| Synopsis | Minimum percentage of free prefixes for prefix length |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* pool *named-item* prefix *ipv6-prefix* prefix-length-threshold *number* percent *number* |
| Tree | percent |
| Range | 1 to 100 |
| Notes | The following elements are part of a choice: **absolute** or **percent**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **prefix-type**

| | |
|---|---|
| Synopsis | Enter the **prefix-type** context |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* pool *named-item* prefix *ipv6-prefix* prefix-type |
| Tree | prefix-type |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **pd** *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Allocate IA-PD prefixes from this prefix pool |


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| | |
|---|---|
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* pool *named-item* prefix *ipv6-prefix* prefix-type pd *boolean* |
| Tree | pd |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **wan-host** *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Allocate IA-NA or SLAAC prefixes from this prefix pool |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* pool *named-item* prefix *ipv6-prefix* prefix-type wan-host *boolean* |
| Tree | wan-host |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **rebind-time** *number*

| | |
|---|---|
| Synopsis | Rebind time for the lease |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* pool *named-item* prefix *ipv6-prefix* rebind-time *number* |
| Tree | rebind-time |
| Description | This command configures the rebind time, known as T2, at which the client contacts the addressing authority to extend the lifetimes of its leases.<br><br>The IP addressing authority (such as the DHCP server, RADIUS, or ESM) controls the time for extending lifetimes on assigned addresses/prefixes through the T1 and T2 parameters assigned to an identity association (IA). At renew time, T1, the client initiates a renew or reply message exchange to extend the lifetimes of any addresses in the IA. The client includes an IA option with all addresses or prefixes currently assigned to the IA in its renew message.<br><br>Recommended values for T1 and T2 are 0.5 and 0.8 times the shortest preferred lifetime of the addresses or prefixes in the IA that the addressing authority is willing to extend, respectively. The configured rebind timer value should always be less than or equal to the rebind timer. The T1 and T2 values are carried in the IPV6 address option in the IA. |


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| | |
|---|---|
| Range | 0 to 1209600 |
| Units | seconds |
| Default | 2880 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **renew-time** *number*

| | |
|---|---|
| Synopsis | Renew time for the lease |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* pool *named-item* prefix *ipv6-prefix* renew-time *number* |
| Tree | renew-time |
| Description | This command configures the renew time, known as T1, at which the client makes a transition to the lease-renewal state.<br><br>The IP addressing authority (such as the DHCP server, RADIUS, or ESM) controls the time for extending lifetimes on assigned addresses/prefixes through the T1 and T2 parameters assigned to an identity association (IA). At renew time, T1, the client initiates a renew/reply message exchange to extend the lifetimes of any addresses in the IA. The client includes an IA option with all addresses/prefixes currently assigned to the IA in its renew message.<br><br>Recommended values for T1 and T2 are 0.5 and 0.8 times the shortest preferred lifetime of the addresses or prefixes in the IA that the addressing authority is willing to extend, respectively. The configured renew timer value should always be shorter than or equal to the rebind timer. The T1 and T2 values are carried in the IPV6 address option in the IA. |
| Range | 0 to 604800 |
| Units | seconds |
| Default | 1800 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **valid-lifetime** *number*

| | |
|---|---|
| Synopsis | Time for the lease to remain valid |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* pool *named-item* prefix *ipv6-prefix* valid-lifetime *number* |
| Tree | valid-lifetime |
| Description | This command configures a valid lifetime for a DHCPv6 lease address or prefix. The valid lifetime is the length of time an address and prefix remains in the valid state. |


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The valid lifetime must be greater than or equal to the preferred lifetime. When the valid lifetime expires, the address and prefix becomes invalid and must not be used in communications. RFC 2461 recommends a default value of 30 days.

Each address and prefix assigned to the client has associated preferred and valid lifetimes specified by the address assignment authority (such as the DHCP server, RADIUS, or ESM). To request an extension of the lifetimes assigned to an address, the client sends a renew message to the addressing authority. The authority sends a reply message to the client with the new lifetimes, allowing the client to continue to use the address and prefix without interruption. The lifetimes are transmitted from the addressing authority to the client in the identity association (IA) option at the top level of the message (not the address or prefix level).

| | |
|---|---|
| Range | 300 to 315446399 |
| Units | seconds |
| Default | 86400 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **prefix-length-threshold** [prefix-length] *number*

| | |
|---|---|
| Synopsis | Enter the **prefix-length-threshold** list instance |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* pool *named-item* prefix-length-threshold *number* |
| Tree | prefix-length-threshold |
| Max. instances | 8 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## [**prefix-length**] *number*

| | |
|---|---|
| Synopsis | Delegated prefix length for pool thresholds |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* pool *named-item* prefix-length-threshold *number* |
| Tree | prefix-length-threshold |
| Range | 1 to 128 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **event-when-depleted** *boolean*

| | |
|---|---|
| Synopsis | Generate a notification when this pool is depleted |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* pool *named-item* prefix-length-threshold *number* event-when-depleted *boolean* |
| Tree | event-when-depleted |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **minimum-free-percent** *number*

| | |
|---|---|
| Synopsis | Percentage of free prefixes for this prefix length |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* pool *named-item* prefix-length-threshold *number* minimum-free-percent *number* |
| Tree | minimum-free-percent |
| Range | 0 to 100 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **pool-selection**

| | |
|---|---|
| Synopsis | Enter the **pool-selection** context |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* pool-selection |
| Tree | pool-selection |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **use-link-address**

| | |
|---|---|
| Synopsis | Enable the **use-link-address** context |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* pool-selection use-link-address |
| Tree | use-link-address |


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| | |
|---|---|
| Description | This command configures the local pool selection for DHCPv6 address or prefix assignment to use the link address. When configured, the selected pool contains a prefix covering the link address. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **scope** *keyword*

| | |
|---|---|
| Synopsis | Scope of the IP address selection |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* pool-selection use-link-address scope *keyword* |
| Tree | scope |
| Options | subnet, pool |
| Default | subnet |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **use-pool-from-client**

| | |
|---|---|
| Synopsis | Enable the **use-pool-from-client** context |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* pool-selection use-pool-from-client |
| Tree | use-pool-from-client |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **delimiter** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | Delimiter to combine primary and secondary pool names |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* pool-selection use-pool-from-client delimiter *string-not-all-spaces* |
| Tree | delimiter |
| Description | This command configures a single ASCII character that separates the pool names in DHCP vendor-specific option 82, which identifies the address pool to be used for this client. |
| String length | 1 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## server-id

| | |
|---|---|
| Synopsis | Enter the **server-id** context |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* server-id |
| Tree | server-id |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## duid-enterprise

| | |
|---|---|
| Synopsis | Enter the **duid-enterprise** context |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* server-id duid-enterprise |
| Tree | duid-enterprise |
| Notes | The following elements are part of a choice: **duid-enterprise** or **duid-link-local**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ascii-string *string-not-all-spaces*

| | |
|---|---|
| Synopsis | DUID enterprise server ID specified as an ASCII string |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* server-id duid-enterprise ascii-string *string-not-all-spaces* |
| Tree | ascii-string |
| String length | 1 to 58 |
| Notes | The following elements are part of a choice: **ascii-string** or **hex-string**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## hex-string *hex-string*

| | |
|---|---|
| Synopsis | DUID enterprise server ID specified as a hex string |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* server-id duid-enterprise hex-string *hex-string* |


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| | |
|---|---|
| Tree | hex-string |
| String length | 1 to 118 |
| Notes | The following elements are part of a choice: **ascii-string** or **hex-string**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## duid-link-local

| | |
|---|---|
| Synopsis | Derive DUID server ID from a system link-layer address |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* server-id duid-link-local |
| Tree | duid-link-local |
| Notes | The following elements are part of a choice: **duid-enterprise** or **duid-link-local**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## user-db *reference*

| | |
|---|---|
| Synopsis | Assign local user database to lookup DHCP lease data |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* user-db *reference* |
| Tree | user-db |
| Reference | **configure** subscriber-mgmt local-user-db *named-item* |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## user-identification *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | User identification method for the DHCP server |
| Context | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* user-identification *keyword* |
| Tree | user-identification |
| Options | duid, interface-id, interface-id-link-local |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## dns

| | |
|---|---|
| Synopsis | Enter the **dns** context |
| Context | **configure** router *named-item-64* dns |
| Tree | dns |
| Introduced | 20.2.R1 |
| Platforms | All |

## redirect-vprn

| | |
|---|---|
| Synopsis | Enter the **redirect-vprn** context |
| Context | **configure** router *named-item-64* dns redirect-vprn |
| Tree | redirect-vprn |
| Description | Commands in this context configure DNS resolution of all packets through the VPRN DNS server.<br>The VPRN DNS server must be configured before using the commands in this context. If the VPRN DNS server is not configured, all packet resolution fails. |
| Introduced | 20.2.R1 |
| Platforms | All |

## **service** [service-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **service** list instance |
| Context | **configure** router *named-item-64* dns redirect-vprn service *reference* |
| Tree | service |
| Max. instances | 1 |
| Introduced | 20.2.R1 |
| Platforms | All |

## [**service-name**] *reference*

| | |
|---|---|
| Synopsis | Administrative service name |


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| | |
|---|---|
| Context | **configure** router *named-item-64* dns redirect-vprn service *reference* |
| Tree | service |
| Reference | **configure** service vprn *service-name* |
| Notes | This element is part of a list key. |
| Introduced | 20.2.R1 |
| Platforms | All |

## **preference** *number*

| | |
|---|---|
| Synopsis | Service preference |
| Context | **configure** router *named-item-64* dns redirect-vprn service *reference* preference *number* |
| Tree | preference |
| Range | 0 to 255 |
| Introduced | 20.2.R1 |
| Platforms | All |

## **ecmp** *number*

| | |
|---|---|
| Synopsis | Maximum equal-cost routes for routing table instance |
| Context | **configure** router *named-item-64* ecmp *number* |
| Tree | ecmp |
| Description | This command configures ECMP and defines the number of routes for path sharing.<br>ECMP can be used only for routes learned with the same preference and the same protocol.<br>If available ECMP routes at the best preference exceed the maximum ECMP routes allowed, the system selects the route using the following criteria:<br>**1.** The system selects the lowest next hop router ID.<br>**2.** If the next hop goes to the same neighbor, the system selects the next hop with the lowest interface index. |
| Range | 1 to 64 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **entropy-label** *boolean*

| | |
|---|---|
| Synopsis | Use entropy label |
| Context | **configure** router *named-item-64* entropy-label *boolean* |
| Tree | entropy-label |
| Description | When configured to **true**, this command enables the use of entropy labels.<br>The entropy label and indicator (EL/ELI) are inserted on relevant packets. Applicable packets are those for which at least one LSP in the stack at the far end has advertised the entropy-label capability. These LSPs are in LDP or RSVP tunnels used by an IGP or BGP shortcut. If the tunnel is of type RSVP, the entropy-label capability must also be enabled under the **configure router mpls** or **configure router mpls lsp** context.<br>This command also results in other traffic that is forwarded over an LDP or RSVP LSP for which this router is the LER, and for which there is no explicit service endpoint on this router, to have the EL/ELI enabled, subject to the LSP far-end advertising entropy-label-capability. An example of such traffic includes packets arriving on a stitched LDP LSP forwarded over an RSVP LSP.<br>The entropy label and the hash label features are mutually exclusive. The entropy label cannot be configured on a spoke SDP or service where the hash label feature has already been configured.<br>When configured to **false**, the use of entropy labels is disabled. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **fib-priority** *keyword*

| | |
|---|---|
| Synopsis | FIB priority for VPRN BGP routes |
| Context | **configure** router *named-item-64* fib-priority *keyword* |
| Tree | fib-priority |
| Options | standard, high |
| Default | standard |
| Introduced | 16.0.R1 |
| Platforms | All |

## **fib-telemetry** *boolean*

| | |
|---|---|
| Synopsis | Collect extra state information |
| Context | **configure** router *named-item-64* fib-telemetry *boolean* |


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| | |
|---|---|
| Tree | fib-telemetry |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

## firewall

| | |
|---|---|
| Synopsis | Enter the **firewall** context |
| Context | **configure** router *named-item-64* firewall |
| Tree | firewall |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **domain** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **domain** list instance |
| Context | **configure** router *named-item-64* firewall domain *named-item* |
| Tree | domain |
| Max. instances | 1024 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## [**name**] *named-item*

| | |
|---|---|
| Synopsis | Firewall domain name |
| Context | **configure** router *named-item-64* firewall domain *named-item* |
| Tree | domain |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the firewall domain |
| Context | **configure** router *named-item-64* firewall domain *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **dhcpv6-server**

| | |
|---|---|
| Synopsis | Enter the **dhcpv6-server** context |
| Context | **configure** router *named-item-64* firewall domain *named-item* dhcpv6-server |
| Tree | dhcpv6-server |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **name** *named-item*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | DHCPv6 server name |
| Context | **configure** router *named-item-64* firewall domain *named-item* dhcpv6-server name *named-item* |
| Tree | name |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **router-instance** *string*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Router name |
| Context | **configure** router *named-item-64* firewall domain *named-item* dhcpv6-server router-instance *string* |
| Tree | router-instance |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **nat-group** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | NAT group for this domain |
| Context | **configure** router *named-item-64* firewall domain *named-item* nat-group *reference* |
| Tree | nat-group |
| Reference | **configure** isa nat-group *number* |
| Notes | The following elements are part of a mandatory choice: **nat-group** or **wlan-gw-group**. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **prefix** [ip-prefix] *ipv6-unicast-prefix*

| | |
|---|---|
| Synopsis | Enter the **prefix** list instance |
| Context | **configure** router *named-item-64* firewall domain *named-item* prefix *ipv6-unicast-prefix* |
| Tree | prefix |
| Max. instances | 4096 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### [**ip-prefix**] *ipv6-unicast-prefix*

| | |
|---|---|
| Synopsis | IP prefix and prefix length for the domain firewall |
| Context | **configure** router *named-item-64* firewall domain *named-item* prefix *ipv6-unicast-prefix* |
| Tree | prefix |
| Description | This command configures a prefix for which firewall functionality applies within the domain. Prefixes cannot be shared or duplicated across multiple domains in the same routing context. A domain can contain multiple prefixes. |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** router *named-item-64* firewall domain *named-item* prefix *ipv6-unicast-prefix* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **wlan-gw-group** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | WLAN GW group used for NAT |
| Context | **configure** router *named-item-64* firewall domain *named-item* wlan-gw-group *reference* |
| Tree | wlan-gw-group |
| Reference | **configure** isa wlan-gw-group *number* |
| Notes | The following elements are part of a mandatory choice: **nat-group** or **wlan-gw-group**. |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## flowspec

| | |
|---|---|
| Synopsis | Enter the **flowspec** context |
| Context | **configure** router *named-item-64* flowspec |
| Tree | flowspec |
| Description | Commands in this context configure FlowSpec options for the routing instance. |
| Introduced | 16.0.R1 |
| Platforms | All |

## filter-cam-type *keyword*

| | |
|---|---|
| Synopsis | Filter policy type for FlowSpec embedding |
| Context | **configure** router *named-item-64* flowspec filter-cam-type *keyword* |
| Tree | filter-cam-type |
| Description | This command specifies the filter type that is required to embed FlowSpec entries. The filter type defines the match criteria that are available in the filter policy. |
| Options | normal, packet-length |
| Default | normal |
| Introduced | 20.7.R1 |
| Platforms | All |

## ip-filter-max-size *number*

| | |
|---|---|
| Synopsis | Maximum number of FlowSpec rule entries in IPv4 filter |
| Context | **configure** router *named-item-64* flowspec ip-filter-max-size *number* |
| Tree | ip-filter-max-size |
| Description | This command configures the maximum number of IPv4 FlowSpec routes, or rules, that can be entered in the autocreated embedded filter, fSpec-X. FlowSpec filter entries embedded in a filter policy in this routing instance use filter entries from the range between the embedding offset and (offset + **ip-filter-max-size** - 1).<br><br>The maximum size can be configured to a higher or lower value at any time. If the current number of FlowSpec rules is greater than the new configured limit, the extra rules are removed immediately but retained in the BGP RIB. If the limit is increased, new rules are embedded only as they are received in new BGP updates.<br><br>The sum of this command and the highest offset in any IP filter that embeds FlowSpec rules from this routing instance (excluding filters that embed at offset 262143) must not exceed 262143. |


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| | |
|---|---|
| Range | 0 to 262143 |
| Default | 512 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **ipv6-filter-max-size** *number*

| | |
|---|---|
| Synopsis | Maximum number of flowspec rule entries in IPv6 filter |
| Context | **configure** router *named-item-64* flowspec ipv6-filter-max-size *number* |
| Tree | ipv6-filter-max-size |
| Description | This command configures the maximum number of IPv6 FlowSpec routes, or rules, that can be embedded into an ingress IPv6 filter policy for a specified routing instance. Flow Spec filter entries embedded in a filter policy in this routing instance use filter entries from the range between the embedding offset and (offset + **ipv6-filter-max-size** - 1).<br>The maximum size can be configured to a higher or lower value at any time. If the current number of FlowSpec rules is greater than the new configured limit, the extra rules are removed immediately but retained in the BGP RIB. If the limit is increased, new rules are embedded only as they are received in new BGP updates.<br>The sum of this command and the highest offset in any IP filter that embeds FlowSpec rules from this routing instance (excluding filters that embed at offset 262143) must not exceed 262143. |
| Range | 0 to 262143 |
| Default | 512 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **gtm**

| | |
|---|---|
| Synopsis | Enter the **gtm** context |
| Context | **configure** router *named-item-64* gtm |
| Tree | gtm |
| Introduced | 19.5.R1 |
| Platforms | All |

## **mvpn** *boolean*

| | |
|---|---|
| Synopsis | Enable the configuration of MVPN-related parameters |
| Context | **configure** router *named-item-64* gtm mvpn *boolean* |


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| | |
|---|---|
| Tree | mvpn |
| Default | false |
| Introduced | 19.5.R1 |
| Platforms | All |

## provider-tunnel

| | |
|---|---|
| Synopsis | Enter the **provider-tunnel** context |
| Context | **configure** router *named-item-64* gtm provider-tunnel |
| Tree | provider-tunnel |
| Introduced | 19.5.R1 |
| Platforms | All |

## inclusive

| | |
|---|---|
| Synopsis | Enter the **inclusive** context |
| Context | **configure** router *named-item-64* gtm provider-tunnel inclusive |
| Tree | inclusive |
| Introduced | 19.5.R1 |
| Platforms | All |

## rsvp

| | |
|---|---|
| Synopsis | Enable the **rsvp** context |
| Context | **configure** router *named-item-64* gtm provider-tunnel inclusive rsvp |
| Tree | rsvp |
| Introduced | 19.5.R1 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of P2MP RSVP as provider tunnel |
| Context | **configure** router *named-item-64* gtm provider-tunnel inclusive rsvp admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |


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| | |
|---|---|
| Default | disable |
| Introduced | 19.5.R1 |
| Platforms | All |

### **lsp-template** *reference*

| | |
|---|---|
| Synopsis | LSP template name |
| Context | **configure** router *named-item-64* gtm provider-tunnel inclusive rsvp lsp-template *reference* |
| Tree | lsp-template |
| Reference | **configure** router *named-item-64* mpls lsp-template *named-item* |
| Introduced | 19.5.R1 |
| Platforms | All |

### **selective**

| | |
|---|---|
| Synopsis | Enter the **selective** context |
| Context | **configure** router *named-item-64* gtm provider-tunnel selective |
| Tree | selective |
| Introduced | 19.5.R1 |
| Platforms | All |

### **data-delay-interval** *number*

| | |
|---|---|
| Synopsis | Delay before a PBR switches traffic to selective tunnel |
| Context | **configure** router *named-item-64* gtm provider-tunnel selective data-delay-interval *number* |
| Tree | data-delay-interval |
| Range | 3 to 180 |
| Default | 3 |
| Introduced | 19.5.R1 |
| Platforms | All |

### **data-threshold**

| | |
|---|---|
| Synopsis | Enter the **data-threshold** context |


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| | |
|---|---|
| Context | **configure** router *named-item-64* gtm provider-tunnel selective data-threshold |
| Tree | data-threshold |
| Introduced | 19.5.R1 |
| Platforms | All |

### **group-prefix** [ip-group-prefix] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Enter the **group-prefix** list instance |
| Context | **configure** router *named-item-64* gtm provider-tunnel selective data-threshold group-prefix *(ipv4-prefix | ipv6-prefix)* |
| Tree | group-prefix |
| Introduced | 19.5.R1 |
| Platforms | All |

### [**ip-group-prefix**] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Multicast group-prefix |
| Context | **configure** router *named-item-64* gtm provider-tunnel selective data-threshold group-prefix *(ipv4-prefix | ipv6-prefix)* |
| Tree | group-prefix |
| Notes | This element is part of a list key. |
| Introduced | 19.5.R1 |
| Platforms | All |

### **pe-threshold-add** *number*

| | |
|---|---|
| Synopsis | Number of receiver PBRs to create S-PMSI |
| Context | **configure** router *named-item-64* gtm provider-tunnel selective data-threshold group-prefix *(ipv4-prefix | ipv6-prefix)* pe-threshold-add *number* |
| Tree | pe-threshold-add |
| Range | 1 to 65535 |
| Default | 65535 |
| Introduced | 19.5.R1 |
| Platforms | All |


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### **pe-threshold-delete** *number*

| | |
|---|---|
| Synopsis | Number of receiver PBRs to delete S-PMSI |
| Context | **configure** router *named-item-64* gtm provider-tunnel selective data-threshold group-prefix *(ipv4-prefix* \| *ipv6-prefix)* pe-threshold-delete *number* |
| Tree | pe-threshold-delete |
| Range | 2 to 65535 |
| Default | 65535 |
| Introduced | 19.5.R1 |
| Platforms | All |

### **threshold** *number*

| | |
|---|---|
| Synopsis | Threshold for a group prefix |
| Context | **configure** router *named-item-64* gtm provider-tunnel selective data-threshold group-prefix *(ipv4-prefix* \| *ipv6-prefix)* threshold *number* |
| Tree | threshold |
| Range | 1 to 4294967294 |
| Units | kilobps |
| Notes | This element is mandatory. |
| Introduced | 19.5.R1 |
| Platforms | All |

### **maximum-p2mp-spmsi** *number*

| | |
|---|---|
| Synopsis | Maximum number of RSVP P2MP or LDP P2MP S-PMSI tunnels |
| Context | **configure** router *named-item-64* gtm provider-tunnel selective maximum-p2mp-spmsi *number* |
| Tree | maximum-p2mp-spmsi |
| Range | 1 to 4000 |
| Default | 10 |
| Introduced | 19.5.R1 |
| Platforms | All |


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## rsvp

| | |
|---|---|
| Synopsis | Enable the **rsvp** context |
| Context | **configure** router *named-item-64* gtm provider-tunnel selective rsvp |
| Tree | rsvp |
| Introduced | 19.5.R1 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of P2MP RSVP as provider tunnel |
| Context | **configure** router *named-item-64* gtm provider-tunnel selective rsvp admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 19.5.R1 |
| Platforms | All |

## lsp-template *reference*

| | |
|---|---|
| Synopsis | LSP template name |
| Context | **configure** router *named-item-64* gtm provider-tunnel selective rsvp lsp-template *reference* |
| Tree | lsp-template |
| Reference | **configure** router *named-item-64* mpls lsp-template *named-item* |
| Introduced | 19.5.R1 |
| Platforms | All |

## gtp

| | |
|---|---|
| Synopsis | Enter the **gtp** context |
| Context | **configure** router *named-item-64* gtp |
| Tree | gtp |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## s11

| | |
|---|---|
| Synopsis | Enter the **s11** context |
| Context | **configure** router *named-item-64* gtp s11 |
| Tree | s11 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## interface [interface-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **interface** list instance |
| Context | **configure** router *named-item-64* gtp s11 interface *reference* |
| Tree | interface |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## [interface-name] *reference*

| | |
|---|---|
| Synopsis | Name for the S11 interface |
| Context | **configure** router *named-item-64* gtp s11 interface *reference* |
| Tree | interface |
| Reference | **configure** router *named-item-64* interface *interface-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## apn-policy *reference*

| | |
|---|---|
| Synopsis | Access point name policy for the S11 interface |
| Context | **configure** router *named-item-64* gtp s11 interface *reference* apn-policy *reference* |
| Tree | apn-policy |
| Reference | **configure** subscriber-mgmt gtp apn-policy *named-item* |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### peer-profile-map

| | |
|---|---|
| Synopsis | Enter the **peer-profile-map** context |
| Context | **configure** router *named-item-64* gtp s11 peer-profile-map |
| Tree | peer-profile-map |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **prefix** [peer-prefix] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Enter the **prefix** list instance |
| Context | **configure** router *named-item-64* gtp s11 peer-profile-map prefix *(ipv4-prefix \| ipv6-prefix)* |
| Tree | prefix |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**peer-prefix**] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | IP prefix and prefix length for the subnet |
| Context | **configure** router *named-item-64* gtp s11 peer-profile-map prefix *(ipv4-prefix \| ipv6-prefix)* |
| Tree | prefix |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **peer-profile** *reference*

| | |
|---|---|
| Synopsis | GTP peer profile associated with the address prefix |
| Context | **configure** router *named-item-64* gtp s11 peer-profile-map prefix *(ipv4-prefix \| ipv6-prefix)* peer-profile *reference* |
| Tree | peer-profile |
| Reference | **configure** subscriber-mgmt gtp peer-profile *named-item* |


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| | |
|---|---|
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## upf-data-endpoint

| | |
|---|---|
| Synopsis | Enable the **upf-data-endpoint** context |
| Context | **configure** router *named-item-64* gtp upf-data-endpoint |
| Tree | upf-data-endpoint |
| Description | Commands in this context configure a GTP - User Plane (GTP-U) endpoint used by BNG CUPS FWA sessions. |
| Introduced | 21.2.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## fpe *reference*

| | |
|---|---|
| Synopsis | FPE used to encapsulate and decapsulate GTP-U traffic |
| Context | **configure** router *named-item-64* gtp upf-data-endpoint fpe *reference* |
| Tree | fpe |
| Reference | **configure** fwd-path-ext fpe *number* |
| Notes | This element is mandatory. |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## interface *reference*

| | |
|---|---|
| Synopsis | Interface on which the GTP-U packets terminate |
| Context | **configure** router *named-item-64* gtp upf-data-endpoint interface *reference* |
| Tree | interface |
| Reference | **configure** router *named-item-64* interface *interface-name* |
| Notes | This element is mandatory. |
| Introduced | 21.2.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **secondary-interface** *reference*

| | |
|---|---|
| Synopsis | Secondary interface on which GTP traffic terminates |
| Context | **configure** router *named-item-64* gtp upf-data-endpoint secondary-interface *reference* |
| Tree | secondary-interface |
| Description | This command configures a secondary interface to terminate GTP-U traffic. To instruct the UPF to use this interface as the data endpoint, configure the MAG-c CPF with the special S1-u or N3 network-realm setting "Base#%secondary".<br>See the *MAG-c Control Plane Function Guide* for more information about configuring the MAG-c CPF. |
| Reference | **configure** router *named-item-64* interface *interface-name* |
| Introduced | 24.7.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **uplink**

| | |
|---|---|
| Synopsis | Enable the **uplink** context |
| Context | **configure** router *named-item-64* gtp uplink |
| Tree | uplink |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **apn** *string*

| | |
|---|---|
| Synopsis | Network identifier part of the APN for the uplink |
| Context | **configure** router *named-item-64* gtp uplink apn *string* |
| Tree | apn |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **pdn-type** *keyword*

| | |
|---|---|
| Synopsis | Default PDN to be signaled in GTP |
| Context | **configure** router *named-item-64* gtp uplink pdn-type *keyword* |
| Tree | pdn-type |


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| | |
|---|---|
| Options | ipv4, ipv6, ipv4v6 |
| Default | ipv4 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### peer-profile-map

| | |
|---|---|
| Synopsis | Enter the **peer-profile-map** context |
| Context | **configure** router *named-item-64* gtp uplink peer-profile-map |
| Tree | peer-profile-map |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **prefix** [peer-prefix] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Enter the **prefix** list instance |
| Context | **configure** router *named-item-64* gtp uplink peer-profile-map prefix *(ipv4-prefix \| ipv6-prefix)* |
| Tree | prefix |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**peer-prefix**] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | IP prefix and prefix length for the subnet |
| Context | **configure** router *named-item-64* gtp uplink peer-profile-map prefix *(ipv4-prefix \| ipv6-prefix)* |
| Tree | prefix |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **peer-profile** *reference*

| | |
|---|---|
| Synopsis | GTP peer profile associated with the address prefix |


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| | |
|---|---|
| Context | **configure** router *named-item-64* gtp uplink peer-profile-map prefix *(ipv4-prefix* \| *ipv6-prefix)* peer-profile *reference* |
| Tree | peer-profile |
| Reference | **configure** subscriber-mgmt gtp peer-profile *named-item* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **icmp-tunneling** *boolean*

| | |
|---|---|
| Synopsis | Allow tunneling of ICMP reply packets over MPLS LSPs |
| Context | **configure** router *named-item-64* icmp-tunneling *boolean* |
| Tree | icmp-tunneling |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **igmp**

| | |
|---|---|
| Synopsis | Enable the **igmp** context |
| Context | **configure** router *named-item-64* igmp |
| Tree | igmp |
| Introduced | 16.0.R1 |
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of IGMP |
| Context | **configure** router *named-item-64* igmp admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **forwarding-group-interface** forwarding-service *service-name* group-interface-name *reference*

| | |
|---|---|
| Synopsis | Enter the **forwarding-group-interface** list instance |
| Context | **configure** router *named-item-64* igmp forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* |
| Tree | forwarding-group-interface |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **forwarding-service** *service-name*

| | |
|---|---|
| Synopsis | Forwarding service for the subscriber interface |
| Context | **configure** router *named-item-64* igmp forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* |
| Tree | forwarding-group-interface |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **group-interface-name** *reference*

| | |
|---|---|
| Synopsis | Group interface name |
| Context | **configure** router *named-item-64* igmp forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* |
| Tree | forwarding-group-interface |
| Reference | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* |
| Notes | This element is part of a list key. |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of IGMP |


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| | |
|---|---|
| Context | **configure** router *named-item-64* igmp forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **import-policy** *reference*

| | |
|---|---|
| Synopsis | Import policy that filters IGMP packets |
| Context | **configure** router *named-item-64* igmp forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* import-policy *reference* |
| Tree | import-policy |
| Description | This command configures the IGMP import policy, or filter, for an interface subscriber or a group interface. An IGMP filter is also known as a black or white list, and it is defined as a router policy option.<br><br>When redirection is applied, only the import policy from the subscriber is in effect. The import policy under the group interface is applicable only for IGMP states received directly on the SAP (AN in IGMP proxy mode). |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **maximum-number-group-sources** *number*

| | |
|---|---|
| Synopsis | Maximum number of group sources for this interface |
| Context | **configure** router *named-item-64* igmp forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* maximum-number-group-sources *number* |
| Tree | maximum-number-group-sources |
| Description | This command configures the maximum number of group sources for which IGMP or MLD can have local receiver information based on received IGMP or MLD reports on this interface. When this configuration is changed dynamically to a lower value than the currently accepted number of group sources, the group sources that are already accepted are not deleted. Only new group sources are not allowed. |
| Range | 1 to 32000 |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **maximum-number-groups** *number*

| | |
|---|---|
| Synopsis | Maximum number of groups for this interface |
| Context | **configure** router *named-item-64* igmp forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* maximum-number-groups *number* |
| Tree | maximum-number-groups |
| Range | 1 to 16000 |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **maximum-number-sources** *number*

| | |
|---|---|
| Synopsis | Maximum number of sources that are allowed per group |
| Context | **configure** router *named-item-64* igmp forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* maximum-number-sources *number* |
| Tree | maximum-number-sources |
| Range | 1 to 1000 |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **mcac**

| | |
|---|---|
| Synopsis | Enter the **mcac** context |
| Context | **configure** router *named-item-64* igmp forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* mcac |
| Tree | mcac |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **bandwidth**

| | |
|---|---|
| Synopsis | Enter the **bandwidth** context |
| Context | **configure** router *named-item-64* igmp forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* mcac bandwidth |
| Tree | bandwidth |
| Introduced | 21.7.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **mandatory** *(number | keyword)*

| | |
|---|---|
| Synopsis | Pre-reserved bandwidth for all mandatory channels |
| Context | **configure** router *named-item-64* igmp forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* mcac bandwidth mandatory *(number | keyword)* |
| Tree | mandatory |
| Range | 0 to 2147483647 |
| Options | unlimited |
| Default | unlimited |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **total** *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum allowed bandwidth |
| Context | **configure** router *named-item-64* igmp forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* mcac bandwidth total *(number | keyword)* |
| Tree | total |
| Range | 0 to 2147483647 |
| Options | unlimited |
| Default | unlimited |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **interface-policy** *reference*

| | |
|---|---|
| Synopsis | Name of multicast CAC interface policy |
| Context | **configure** router *named-item-64* igmp forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* mcac interface-policy *reference* |
| Tree | interface-policy |
| Reference | **configure** mcac interface-policy *string* |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## **policy** *reference*

| | |
|---|---|
| Synopsis | Multicast CAC policy name |
| Context | **configure** router *named-item-64* igmp forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* mcac policy *reference* |
| Tree | policy |
| Description | This command configures the name of the global channel bandwidth definition policy that is used for (H)MCAC and HQoS adjustment.<br>Within the scope of HQoS adjustment, the channel definition policy under the group interface is used if redirection is unconfigured. In this case, the HQoS adjustment can be applied to IPoE subscribers in per-SAP replication mode.<br>If redirection is configured, the channel bandwidth definition policy applied under the Layer 3 redirected interface is in effect.<br>Hierarchical MCAC (HMCAC) is supported on two levels simultaneously:<br>• subscriber level and redirected interface when redirection is configured<br>• subscriber level and group-interface level when redirection is unconfigured<br>In HMCAC, the subscriber is checked against its bandwidth limits first, then against the bandwidth limits of the redirected or group interface. If redirection is configured but the policy is referenced only under the group interface, no admission control is executed (HMCAC or MCAC). |
| Reference | **configure** mcac policy *string* |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **query-interval** *number*

| | |
|---|---|
| Synopsis | Time between two consecutive host-query messages |
| Context | **configure** router *named-item-64* igmp forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* query-interval *number* |
| Tree | query-interval |
| Range | 2 to 1024 |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **query-last-member-interval** *number*

| | |
|---|---|
| Synopsis | Time between group-specific query messages |


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| | |
|---|---|
| Context | **configure** router *named-item-64* igmp forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* query-last-member-interval *number* |
| Tree | query-last-member-interval |
| Range | 1 to 1023 |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **query-response-interval** *number*

| | |
|---|---|
| Synopsis | Time to wait for a response to the host-query messages |
| Context | **configure** router *named-item-64* igmp forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* query-response-interval *number* |
| Tree | query-response-interval |
| Range | 1 to 1023 |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **query-source-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Source address for IGMP queries |
| Context | **configure** router *named-item-64* igmp forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* query-source-address *ipv4-unicast-address* |
| Tree | query-source-address |
| Description | This command configures the query source IP address for the group interface. This IP address overrides the source IP address configured at the router level. |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **router-alert-check** *boolean*

| | |
|---|---|
| Synopsis | Enable router alert checking for IGMP or MLD messages |
| Context | **configure** router *named-item-64* igmp forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* router-alert-check *boolean* |
| Tree | router-alert-check |
| Default | true |
| Introduced | 21.7.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sub-hosts-only** *boolean*

| | |
|---|---|
| Synopsis | Allow IGMP traffic from known hosts only |
| Context | **configure** router *named-item-64* igmp forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* sub-hosts-only *boolean* |
| Tree | sub-hosts-only |
| Default | true |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **subnet-check** *boolean*

| | |
|---|---|
| Synopsis | Allow subnet checking |
| Context | **configure** router *named-item-64* igmp forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* subnet-check *boolean* |
| Tree | subnet-check |
| Default | true |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **version** *keyword*

| | |
|---|---|
| Synopsis | IGMP protocol version |
| Context | **configure** router *named-item-64* igmp forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* version *keyword* |
| Tree | version |
| Options | 1, 2, 3 |
| Default | 3 |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **group-if-query-source-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Default query-source address for all group interfaces |


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| | |
|---|---|
| Context | **configure** router *named-item-64* igmp group-if-query-source-address *ipv4-unicast-address* |
| Tree | group-if-query-source-address |
| Introduced | 16.0.R1 |
| Platforms | All |

## **group-interface** [group-interface-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **group-interface** list instance |
| Context | **configure** router *named-item-64* igmp group-interface *reference* |
| Tree | group-interface |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## [**group-interface-name**] *reference*

| | |
|---|---|
| Synopsis | Group interface name |
| Context | **configure** router *named-item-64* igmp group-interface *reference* |
| Tree | group-interface |
| Reference | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of IGMP |
| Context | **configure** router *named-item-64* igmp group-interface *reference* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## **import-policy** *reference*

| | |
|---|---|
| Synopsis | Import policy that filters IGMP packets |
| Context | **configure** router *named-item-64* igmp group-interface *reference* import-policy *reference* |
| Tree | import-policy |
| Description | This command configures the IGMP import policy, or filter, for an interface subscriber or a group interface. An IGMP filter is also known as a black or white list, and it is defined as a router policy option.<br>When redirection is applied, only the import policy from the subscriber is in effect. The import policy under the group interface is applicable only for IGMP states received directly on the SAP (AN in IGMP proxy mode). |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **maximum-number-group-sources** *number*

| | |
|---|---|
| Synopsis | Maximum number of group sources for this interface |
| Context | **configure** router *named-item-64* igmp group-interface *reference* maximum-number-group-sources *number* |
| Tree | maximum-number-group-sources |
| Description | This command configures the maximum number of group sources for which IGMP or MLD can have local receiver information based on received IGMP or MLD reports on this interface. When this configuration is changed dynamically to a lower value than the currently accepted number of group sources, the group sources that are already accepted are not deleted. Only new group sources are not allowed. |
| Range | 1 to 32000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **maximum-number-groups** *number*

| | |
|---|---|
| Synopsis | Maximum number of groups for this interface |
| Context | **configure** router *named-item-64* igmp group-interface *reference* maximum-number-groups *number* |
| Tree | maximum-number-groups |
| Range | 1 to 16000 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **maximum-number-sources** *number*

| | |
|---|---|
| Synopsis | Maximum number of sources that are allowed per group |
| Context | **configure** router *named-item-64* igmp group-interface *reference* maximum-number-sources *number* |
| Tree | maximum-number-sources |
| Range | 1 to 1000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **mcac**

| | |
|---|---|
| Synopsis | Enter the **mcac** context |
| Context | **configure** router *named-item-64* igmp group-interface *reference* mcac |
| Tree | mcac |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **bandwidth**

| | |
|---|---|
| Synopsis | Enter the **bandwidth** context |
| Context | **configure** router *named-item-64* igmp group-interface *reference* mcac bandwidth |
| Tree | bandwidth |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **mandatory** *(number | keyword)*

| | |
|---|---|
| Synopsis | Pre-reserved bandwidth for all mandatory channels |
| Context | **configure** router *named-item-64* igmp group-interface *reference* mcac bandwidth mandatory *(number \| keyword)* |
| Tree | mandatory |
| Range | 0 to 2147483647 |
| Options | unlimited |


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| | |
|---|---|
| Default | unlimited |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **total** *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum allowed bandwidth |
| Context | **configure** router *named-item-64* igmp group-interface *reference* mcac bandwidth total *(number \| keyword)* |
| Tree | total |
| Range | 0 to 2147483647 |
| Options | unlimited |
| Default | unlimited |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **interface-policy** *reference*

| | |
|---|---|
| Synopsis | Name of multicast CAC interface policy |
| Context | **configure** router *named-item-64* igmp group-interface *reference* mcac interface-policy *reference* |
| Tree | interface-policy |
| Reference | **configure** mcac interface-policy *string* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **policy** *reference*

| | |
|---|---|
| Synopsis | Multicast CAC policy name |
| Context | **configure** router *named-item-64* igmp group-interface *reference* mcac policy *reference* |
| Tree | policy |
| Description | This command configures the name of the global channel bandwidth definition policy that is used for (H)MCAC and HQoS adjustment.<br>Within the scope of HQoS adjustment, the channel definition policy under the group interface is used if redirection is unconfigured. In this case, the HQoS adjustment can be applied to IPoE subscribers in per-SAP replication mode. |


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If redirection is configured, the channel bandwidth definition policy applied under the Layer 3 redirected interface is in effect.

Hierarchical MCAC (HMCAC) is supported on two levels simultaneously:

- subscriber level and redirected interface when redirection is configured
- subscriber level and group-interface level when redirection is unconfigured

In HMCAC, the subscriber is checked against its bandwidth limits first, then against the bandwidth limits of the redirected or group interface. If redirection is configured but the policy is referenced only under the group interface, no admission control is executed (HMCAC or MCAC).

| | |
|---|---|
| Reference | **configure** mcac policy *string* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **query-interval** *number*

| | |
|---|---|
| Synopsis | Time between two consecutive host-query messages |
| Context | **configure** router *named-item-64* igmp group-interface *reference* query-interval *number* |
| Tree | query-interval |
| Range | 2 to 1024 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **query-last-member-interval** *number*

| | |
|---|---|
| Synopsis | Time between group-specific query messages |
| Context | **configure** router *named-item-64* igmp group-interface *reference* query-last-member-interval *number* |
| Tree | query-last-member-interval |
| Range | 1 to 1023 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **query-response-interval** *number*

| | |
|---|---|
| Synopsis | Time to wait for a response to the host-query messages |
| Context | **configure** router *named-item-64* igmp group-interface *reference* query-response-interval *number* |


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| | |
|---|---|
| Tree | query-response-interval |
| Range | 1 to 1023 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **query-source-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Source address for IGMP queries |
| Context | **configure** router *named-item-64* igmp group-interface *reference* query-source-address *ipv4-unicast-address* |
| Tree | query-source-address |
| Description | This command configures the query source IP address for the group interface. This IP address overrides the source IP address configured at the router level. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **router-alert-check** *boolean*

| | |
|---|---|
| Synopsis | Enable router alert checking for IGMP or MLD messages |
| Context | **configure** router *named-item-64* igmp group-interface *reference* router-alert-check *boolean* |
| Tree | router-alert-check |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sub-hosts-only** *boolean*

| | |
|---|---|
| Synopsis | Allow IGMP traffic from known hosts only |
| Context | **configure** router *named-item-64* igmp group-interface *reference* sub-hosts-only *boolean* |
| Tree | sub-hosts-only |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **subnet-check** *boolean*

| | |
|---|---|
| Synopsis | Allow subnet checking |
| Context | **configure** router *named-item-64* igmp group-interface *reference* subnet-check *boolean* |
| Tree | subnet-check |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **version** *keyword*

| | |
|---|---|
| Synopsis | IGMP protocol version |
| Context | **configure** router *named-item-64* igmp group-interface *reference* version *keyword* |
| Tree | version |
| Options | 1, 2, 3 |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **interface** [ip-interface-name] *interface-name*

| | |
|---|---|
| Synopsis | Enter the **interface** list instance |
| Context | **configure** router *named-item-64* igmp interface *interface-name* |
| Tree | interface |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ip-interface-name**] *interface-name*

| | |
|---|---|
| Synopsis | IP interface name |
| Context | **configure** router *named-item-64* igmp interface *interface-name* |
| Tree | interface |
| Description | This command configures the interface name, which must be unique within the group of defined IP interfaces for the context. If the IP interface name does not exist or does not have an IP address configured, an error message is returned. If the IP interface exists in a different area, it is moved to this area. |


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| | |
|---|---|
| | An interface name cannot be in the form of an IP address. |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R2 |
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of IGMP |
| Context | **configure** router *named-item-64* igmp interface *interface-name* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

## **import-policy** *reference*

| | |
|---|---|
| Synopsis | Import policy that filters IGMP packets |
| Context | **configure** router *named-item-64* igmp interface *interface-name* import-policy *reference* |
| Tree | import-policy |
| Description | This command configures the IGMP import policy, or filter, for an interface subscriber or a group interface. An IGMP filter is also known as a black or white list, and it is defined as a router policy option.<br>When redirection is applied, only the import policy from the subscriber is in effect. The import policy under the group interface is applicable only for IGMP states received directly on the SAP (AN in IGMP proxy mode). |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **maximum-number-group-sources** *number*

| | |
|---|---|
| Synopsis | Maximum number of group sources for this interface |
| Context | **configure** router *named-item-64* igmp interface *interface-name* maximum-number-group-sources *number* |


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| | |
|---|---|
| Tree | maximum-number-group-sources |
| Description | This command configures the maximum number of group sources for which IGMP or MLD can have local receiver information based on received IGMP or MLD reports on this interface. When this configuration is changed dynamically to a lower value than the currently accepted number of group sources, the group sources that are already accepted are not deleted. Only new group sources are not allowed. |
| Range | 1 to 32000 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **maximum-number-groups** *number*

| | |
|---|---|
| Synopsis | Maximum number of groups for this interface |
| Context | **configure** router *named-item-64* igmp interface *interface-name* maximum-number-groups *number* |
| Tree | maximum-number-groups |
| Range | 1 to 16000 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **maximum-number-sources** *number*

| | |
|---|---|
| Synopsis | Maximum number of sources that are allowed per group |
| Context | **configure** router *named-item-64* igmp interface *interface-name* maximum-number-sources *number* |
| Tree | maximum-number-sources |
| Range | 1 to 1000 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **mcac**

| | |
|---|---|
| Synopsis | Enter the **mcac** context |
| Context | **configure** router *named-item-64* igmp interface *interface-name* mcac |
| Tree | mcac |
| Introduced | 16.0.R1 |
| Platforms | All |


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## bandwidth

| | |
|---|---|
| Synopsis | Enter the **bandwidth** context |
| Context | **configure** router *named-item-64* igmp interface *interface-name* mcac bandwidth |
| Tree | bandwidth |
| Introduced | 16.0.R1 |
| Platforms | All |

## mandatory *(number | keyword)*

| | |
|---|---|
| Synopsis | Pre-reserved bandwidth for all mandatory channels |
| Context | **configure** router *named-item-64* igmp interface *interface-name* mcac bandwidth mandatory *(number | keyword)* |
| Tree | mandatory |
| Range | 0 to 2147483647 |
| Options | unlimited |
| Default | unlimited |
| Introduced | 16.0.R1 |
| Platforms | All |

## total *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum allowed bandwidth |
| Context | **configure** router *named-item-64* igmp interface *interface-name* mcac bandwidth total *(number | keyword)* |
| Tree | total |
| Range | 0 to 2147483647 |
| Options | unlimited |
| Default | unlimited |
| Introduced | 16.0.R1 |
| Platforms | All |

## interface-policy *reference*

| | |
|---|---|
| Synopsis | Name of multicast CAC interface policy |


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| | |
|---|---|
| Context | **configure** router *named-item-64* igmp interface *interface-name* mcac interface-policy *reference* |
| Tree | interface-policy |
| Reference | **configure** mcac interface-policy *string* |
| Introduced | 16.0.R1 |
| Platforms | All |

## mc-constraints

| | |
|---|---|
| Synopsis | Enter the **mc-constraints** context |
| Context | **configure** router *named-item-64* igmp interface *interface-name* mcac mc-constraints |
| Tree | mc-constraints |
| Introduced | 16.0.R1 |
| Platforms | All |

## **level** [level-id] *number*

| | |
|---|---|
| Synopsis | Enter the **level** list instance |
| Context | **configure** router *named-item-64* igmp interface *interface-name* mcac mc-constraints level *number* |
| Tree | level |
| Description | Commands in this context configure the amount of bandwidth available within a given bundle for MC traffic for a specified level. |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**level-id**] *number*

| | |
|---|---|
| Synopsis | Bandwidth level ID for an MCAC constraint |
| Context | **configure** router *named-item-64* igmp interface *interface-name* mcac mc-constraints level *number* |
| Tree | level |
| Range | 1 to 8 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **bandwidth** *number*

| | |
|---|---|
| Synopsis | Bandwidth available for this level |
| Context | **configure** router *named-item-64* igmp interface *interface-name* mcac mc-constraints level *number* bandwidth *number* |
| Tree | bandwidth |
| Range | 0 to 2147483647 |
| Units | kilobps |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **number-down** [number-lag-port-down] *number*

| | |
|---|---|
| Synopsis | Enter the **number-down** list instance |
| Context | **configure** router *named-item-64* igmp interface *interface-name* mcac mc-constraints number-down *number* |
| Tree | number-down |
| Description | Commands in this context configure the number of ports down along with level for the MCAC policy on the interface. |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**number-lag-port-down**] *number*

| | |
|---|---|
| Synopsis | Number of ports that are down in this LAG link |
| Context | **configure** router *named-item-64* igmp interface *interface-name* mcac mc-constraints number-down *number* |
| Tree | number-down |
| Range | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **level** *number*

| | |
|---|---|
| Synopsis | Level ID to associate with number of down LAG ports |
| Context | **configure** router *named-item-64* igmp interface *interface-name* mcac mc-constraints number-down *number* level *number* |
| Tree | level |
| Description | This command specifies the bandwidth for a given level. Level 1 has the highest priority and level 8 has the lowest priority. |
| Range | 1 to 8 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **use-lag-port-weight** *boolean*

| | |
|---|---|
| Synopsis | Use LAG port weight in calculating MCAC constraints |
| Context | **configure** router *named-item-64* igmp interface *interface-name* mcac mc-constraints use-lag-port-weight *boolean* |
| Tree | use-lag-port-weight |
| Description | When configured to **true**, port weight is used when determining available bandwidth per level when LAG ports go down or come up. This command is required for proper operation on mixed port-speed LAGs and can also be used for unmixed port-speed LAGs. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **policy** *reference*

| | |
|---|---|
| Synopsis | Multicast CAC policy name |
| Context | **configure** router *named-item-64* igmp interface *interface-name* mcac policy *reference* |
| Tree | policy |
| Description | This command configures the name of the global channel bandwidth definition policy that is used for (H)MCAC and HQoS adjustment.<br>Within the scope of HQoS adjustment, the channel definition policy under the group interface is used if redirection is unconfigured. In this case, the HQoS adjustment can be applied to IPoE subscribers in per-SAP replication mode. |


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If redirection is configured, the channel bandwidth definition policy applied under the Layer 3 redirected interface is in effect.

Hierarchical MCAC (HMCAC) is supported on two levels simultaneously:

- subscriber level and redirected interface when redirection is configured
- subscriber level and group-interface level when redirection is unconfigured

In HMCAC, the subscriber is checked against its bandwidth limits first, then against the bandwidth limits of the redirected or group interface. If redirection is configured but the policy is referenced only under the group interface, no admission control is executed (HMCAC or MCAC).

| | |
|---|---|
| Reference | **configure** mcac policy *string* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **query-interval** *number*

| | |
|---|---|
| Synopsis | Time between two consecutive host-query messages |
| Context | **configure** router *named-item-64* igmp interface *interface-name* query-interval *number* |
| Tree | query-interval |
| Range | 2 to 1024 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **query-last-member-interval** *number*

| | |
|---|---|
| Synopsis | Time between group-specific query messages |
| Context | **configure** router *named-item-64* igmp interface *interface-name* query-last-member-interval *number* |
| Tree | query-last-member-interval |
| Range | 1 to 1023 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **query-response-interval** *number*

| | |
|---|---|
| Synopsis | Time to wait for a response to the host-query messages |
| Context | **configure** router *named-item-64* igmp interface *interface-name* query-response-interval *number* |


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| | |
|---|---|
| Tree | query-response-interval |
| Range | 1 to 1023 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **redundant-mcast** *boolean*

| | |
|---|---|
| Synopsis | Use interface as a redundant-pair member for multicast |
| Context | **configure** router *named-item-64* igmp interface *interface-name* redundant-mcast *boolean* |
| Tree | redundant-mcast |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **router-alert-check** *boolean*

| | |
|---|---|
| Synopsis | Enable router alert checking for IGMP or MLD messages |
| Context | **configure** router *named-item-64* igmp interface *interface-name* router-alert-check *boolean* |
| Tree | router-alert-check |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ssm-translate**

| | |
|---|---|
| Synopsis | Enter the **ssm-translate** context |
| Context | **configure** router *named-item-64* igmp interface *interface-name* ssm-translate |
| Tree | ssm-translate |
| Description | Commands in this context configure a group range that is translated to SSM (S,G) entries. If a static entry needs to be created, it is translated from an IGMPv1 or v2 request to an SSM join message. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **group-range** start *ipv4-multicast-address* end *ipv4-multicast-address*

| | |
|---|---|
| Synopsis | Enter the **group-range** list instance |
| Context | **configure** router *named-item-64* igmp interface *interface-name* ssm-translate group-range start *ipv4-multicast-address* end *ipv4-multicast-address* |
| Tree | group-range |
| Description | Commands in this context configure the range of IP addresses that is translated to SSM (S,G) entries. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **start** *ipv4-multicast-address*

| | |
|---|---|
| Synopsis | Lower bound of the IP address group range |
| Context | **configure** router *named-item-64* igmp interface *interface-name* ssm-translate group-range start *ipv4-multicast-address* end *ipv4-multicast-address* |
| Tree | group-range |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **end** *ipv4-multicast-address*

| | |
|---|---|
| Synopsis | Upper bound of the IP address group range |
| Context | **configure** router *named-item-64* igmp interface *interface-name* ssm-translate group-range start *ipv4-multicast-address* end *ipv4-multicast-address* |
| Tree | group-range |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **source** [source-address] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Add a list entry for **source** |
| Context | **configure** router *named-item-64* igmp interface *interface-name* ssm-translate group-range start *ipv4-multicast-address* end *ipv4-multicast-address* source *ipv4-unicast-address* |


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| | |
|---|---|
| Tree | source |
| Min. instances | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**source-address**] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Source IP address of multicast channel sending data |
| Context | **configure** router *named-item-64* igmp interface *interface-name* ssm-translate group-range start *ipv4-multicast-address* end *ipv4-multicast-address* source *ipv4-unicast-address* |
| Tree | source |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R2 |
| Platforms | All |

### **static**

| | |
|---|---|
| Synopsis | Enter the **static** context |
| Context | **configure** router *named-item-64* igmp interface *interface-name* static |
| Tree | static |
| Description | Commands in this context configure the testing of multicast forwarding on an interface without a receiver host. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **group** [group-address] *ipv4-multicast-address*

| | |
|---|---|
| Synopsis | Enter the **group** list instance |
| Context | **configure** router *named-item-64* igmp interface *interface-name* static group *ipv4-multicast-address* |
| Tree | group |
| Description | Commands in this context configure a static multicast group as either a starg (*,G), or one or more SSM (S,G) records. IGMP static group memberships are used to test multicast forwarding without a receiver host.<br>When a static IGMP group is configured, data is forwarded to an interface without receiving membership reports from host members. |


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When the group entries are configured on point-to-point links that connect routers to a rendezvous point (RP), the static IGMP group entries do not generate join messages toward the RP.

Introduced 16.0.R1

Platforms All

### [**group-address**] *ipv4-multicast-address*

Synopsis Group address of static IGMP multicast channel

Context **configure** router *named-item-64* igmp interface *interface-name* static group *ipv4-multicast-address*

Tree group

Description This command configures an address that receives data on an interface. The IP address must be unique for each static group.

Notes This element is part of a list key.

Introduced 16.0.R1

Platforms All

### **source** [source-address] *ipv4-unicast-address*

Synopsis Add a list entry for **source**

Context **configure** router *named-item-64* igmp interface *interface-name* static group *ipv4-multicast-address* source *ipv4-unicast-address*

Tree source

Notes The following elements are part of a mandatory choice: **source** or **starg**.

Introduced 16.0.R1

Platforms All

### [**source-address**] *ipv4-unicast-address*

Synopsis Source IP address of multicast channel sending data

Context **configure** router *named-item-64* igmp interface *interface-name* static group *ipv4-multicast-address* source *ipv4-unicast-address*

Tree source

Notes This element is part of a list key.

Introduced 16.0.R2


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| | |
|---|---|
| Platforms | All |

### starg

| | |
|---|---|
| Synopsis | Add a starg (*,G) address entry for the group range |
| Context | **configure** router *named-item-64* igmp interface *interface-name* static group *ipv4-multicast-address* starg |
| Tree | starg |
| Notes | The following elements are part of a mandatory choice: **source** or **starg**. |
| Introduced | 16.0.R2 |
| Platforms | All |

### group-range start *ipv4-multicast-address* end *ipv4-multicast-address* step *ipv4-address*

| | |
|---|---|
| Synopsis | Enter the **group-range** list instance |
| Context | **configure** router *named-item-64* igmp interface *interface-name* static group-range start *ipv4-multicast-address* end *ipv4-multicast-address* step *ipv4-address* |
| Tree | group-range |
| Description | Commands in this context configure the ranges of IP addresses for the static groups. |
| Introduced | 16.0.R1 |
| Platforms | All |

### start *ipv4-multicast-address*

| | |
|---|---|
| Synopsis | IP address for the start of the static group range |
| Context | **configure** router *named-item-64* igmp interface *interface-name* static group-range start *ipv4-multicast-address* end *ipv4-multicast-address* step *ipv4-address* |
| Tree | group-range |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### end *ipv4-multicast-address*

| | |
|---|---|
| Synopsis | IP address for the end of the static group range |


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| | |
|---|---|
| Context | **configure** router *named-item-64* igmp interface *interface-name* static group-range start *ipv4-multicast-address* end *ipv4-multicast-address* step *ipv4-address* |
| Tree | group-range |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **step** *ipv4-address*

| | |
|---|---|
| Synopsis | Step interval in the group-range address |
| Context | **configure** router *named-item-64* igmp interface *interface-name* static group-range start *ipv4-multicast-address* end *ipv4-multicast-address* step *ipv4-address* |
| Tree | group-range |
| MD-CLI default | 0.0.0.1 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **source** [source-address] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Add a list entry for **source** |
| Context | **configure** router *named-item-64* igmp interface *interface-name* static group-range start *ipv4-multicast-address* end *ipv4-multicast-address* step *ipv4-address* source *ipv4-unicast-address* |
| Tree | source |
| Notes | The following elements are part of a mandatory choice: **source** or **starg**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**source-address**] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Source IP address of multicast channel sending data |
| Context | **configure** router *named-item-64* igmp interface *interface-name* static group-range start *ipv4-multicast-address* end *ipv4-multicast-address* step *ipv4-address* source *ipv4-unicast-address* |
| Tree | source |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 16.0.R2 |
| Platforms | All |

## starg

| | |
|---|---|
| Synopsis | Add a starg (*,G) address entry for the group range |
| Context | **configure** router *named-item-64* igmp interface *interface-name* static group-range start *ipv4-multicast-address* end *ipv4-multicast-address* step *ipv4-address* starg |
| Tree | starg |
| Notes | The following elements are part of a mandatory choice: **source** or **starg**. |
| Introduced | 16.0.R2 |
| Platforms | All |

## subnet-check *boolean*

| | |
|---|---|
| Synopsis | Allow subnet checking |
| Context | **configure** router *named-item-64* igmp interface *interface-name* subnet-check *boolean* |
| Tree | subnet-check |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

## version *keyword*

| | |
|---|---|
| Synopsis | IGMP protocol version |
| Context | **configure** router *named-item-64* igmp interface *interface-name* version *keyword* |
| Tree | version |
| Options | 1, 2, 3 |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **query-interval** *number*

| | |
|---|---|
| Synopsis | Time between two consecutive host-query messages |
| Context | **configure** router *named-item-64* igmp query-interval *number* |
| Tree | query-interval |
| Description | This command configures the timing of the host-query messages that solicit group membership information. The messages are sent to the all-systems multicast group address, 224.0.0.1. |
| Range | 2 to 1024 |
| Units | seconds |
| Default | 125 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **query-last-member-interval** *number*

| | |
|---|---|
| Synopsis | Time between group-specific query messages |
| Context | **configure** router *named-item-64* igmp query-last-member-interval *number* |
| Tree | query-last-member-interval |
| Description | This command configures the timing of the query-message interval, defining the interval for leave-group messages among others. The lower the interval that is configured, the faster the detection of the loss of the last member of a group. |
| Range | 1 to 1023 |
| Units | seconds |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **query-response-interval** *number*

| | |
|---|---|
| Synopsis | Time to wait for a response to the host-query messages |
| Context | **configure** router *named-item-64* igmp query-response-interval *number* |
| Tree | query-response-interval |
| Range | 1 to 1023 |
| Units | seconds |
| Default | 10 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **robust-count** *number*

| | |
|---|---|
| Synopsis | Number of retries after expected message loss |
| Context | **configure** router *named-item-64* igmp robust-count *number* |
| Tree | robust-count |
| Description | This command configures the level of expected packet loss on a subnet. If a subnet anticipates losses, this value can be increased. |
| Range | 2 to 10 |
| Default | 2 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ssm-translate**

| | |
|---|---|
| Synopsis | Enter the **ssm-translate** context |
| Context | **configure** router *named-item-64* igmp ssm-translate |
| Tree | ssm-translate |
| Description | Commands in this context configure a group range that is translated to SSM (S,G) entries. If a static entry needs to be created, it is translated from an IGMPv1 or v2 request to an SSM join message. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **group-range** start *ipv4-multicast-address* end *ipv4-multicast-address*

| | |
|---|---|
| Synopsis | Enter the **group-range** list instance |
| Context | **configure** router *named-item-64* igmp ssm-translate group-range start *ipv4-multicast-address* end *ipv4-multicast-address* |
| Tree | group-range |
| Description | Commands in this context configure the range of IP addresses that is translated to SSM (S,G) entries. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **start** *ipv4-multicast-address*

| | |
|---|---|
| Synopsis | Lower bound of the IP address group range |
| Context | **configure** router *named-item-64* igmp ssm-translate group-range start *ipv4-multicast-address* end *ipv4-multicast-address* |
| Tree | group-range |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **end** *ipv4-multicast-address*

| | |
|---|---|
| Synopsis | Upper bound of the IP address group range |
| Context | **configure** router *named-item-64* igmp ssm-translate group-range start *ipv4-multicast-address* end *ipv4-multicast-address* |
| Tree | group-range |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **source** [source-address] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Add a list entry for **source** |
| Context | **configure** router *named-item-64* igmp ssm-translate group-range start *ipv4-multicast-address* end *ipv4-multicast-address* source *ipv4-unicast-address* |
| Tree | source |
| Min. instances | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**source-address**] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Source IP address of multicast channel sending data |
| Context | **configure** router *named-item-64* igmp ssm-translate group-range start *ipv4-multicast-address* end *ipv4-multicast-address* source *ipv4-unicast-address* |


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| | |
|---|---|
| Tree | source |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R2 |
| Platforms | All |

### tunnel-interface

| | |
|---|---|
| Synopsis | Enter the **tunnel-interface** context |
| Context | **configure** router *named-item-64* igmp tunnel-interface |
| Tree | tunnel-interface |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ldp-p2mp-root** [p2mp-id] *reference* sender-address *reference*

| | |
|---|---|
| Synopsis | Enter the **ldp-p2mp-root** list instance |
| Context | **configure** router *named-item-64* igmp tunnel-interface ldp-p2mp-root *reference* sender-address *reference* |
| Tree | ldp-p2mp-root |
| Description | Commands in this context configure the LDP parameters for the IGMP P2MP LSP tunnel. |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**p2mp-id**] *reference*

| | |
|---|---|
| Synopsis | RSVP P2MP LSP ID |
| Context | **configure** router *named-item-64* igmp tunnel-interface ldp-p2mp-root *reference* sender-address *reference* |
| Tree | ldp-p2mp-root |
| Reference | **configure** router *named-item-64* tunnel-interface ldp-p2mp-root *number* sender-address *ipv4-unicast-address* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **sender-address** *reference*

| | |
|---|---|
| Synopsis | System address of the ingress LER for the P2MP RSVP LSP |
| Context | **configure** router *named-item-64* igmp tunnel-interface ldp-p2mp-root *reference* sender-address *reference* |
| Tree | ldp-p2mp-root |
| Reference | **configure** router *named-item-64* tunnel-interface ldp-p2mp-root *number* sender-address *ipv4-unicast-address* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of IGMP |
| Context | **configure** router *named-item-64* igmp tunnel-interface ldp-p2mp-root *reference* sender-address *reference* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

## **static**

| | |
|---|---|
| Synopsis | Enter the **static** context |
| Context | **configure** router *named-item-64* igmp tunnel-interface ldp-p2mp-root *reference* sender-address *reference* static |
| Tree | static |
| Description | Commands in this context configure static multicast receiver hosts on a tunnel interface associated with an RSVP P2MP LSP.<br>When a static IGMP group is configured, data is forwarded to an interface without receiving membership reports from host members. |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **group** [group-address] *ipv4-multicast-address*

| | |
|---|---|
| Synopsis | Enter the **group** list instance |
| Context | **configure** router *named-item-64* igmp tunnel-interface ldp-p2mp-root *reference* sender-address *reference* static group *ipv4-multicast-address* |
| Tree | group |
| Description | Commands in this context configure a static multicast group as either a starg (*,G), or one or more SSM (S,G) records.<br><br>Static multicast group joins can be assigned to a tunnel interface associated with an RSVP P2MP LSP.<br><br>A given <*,G> or <S,G> can only be associated with a single tunnel interface.<br><br>A multicast packet which is received on an interface and which succeeds the RPF check for the source address will be replicated and forwarded to all OIFs which correspond to the branches of the P2MP LSP. The packet is sent on each OIF with the label stack indicated in the NHLFE of this OIF. The packets will also be replicated and forwarded natively on all OIFs which have received IGMP or PIM joins for this <S,G>.<br><br>The multicast packet can be received over a PIM or IGMP interface which can be an IES interface, a spoke SDP terminated IES interface, or a network interface. |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**group-address**] *ipv4-multicast-address*

| | |
|---|---|
| Synopsis | Group address of static IGMP multicast channel |
| Context | **configure** router *named-item-64* igmp tunnel-interface ldp-p2mp-root *reference* sender-address *reference* static group *ipv4-multicast-address* |
| Tree | group |
| Description | This command configures an address that receives data on an interface. The IP address must be unique for each static group. |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **source** [source-address] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Add a list entry for **source** |
| Context | **configure** router *named-item-64* igmp tunnel-interface ldp-p2mp-root *reference* sender-address *reference* static group *ipv4-multicast-address* source *ipv4-unicast-address* |


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| | |
|---|---|
| Tree | source |
| Notes | The following elements are part of a mandatory choice: **source** or **starg**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**source-address**] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Source IP address of multicast channel sending data |
| Context | **configure** router *named-item-64* igmp tunnel-interface ldp-p2mp-root *reference* sender-address *reference* static group *ipv4-multicast-address* source *ipv4-unicast-address* |
| Tree | source |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R2 |
| Platforms | All |

### **starg**

| | |
|---|---|
| Synopsis | Add a starg (*,G) address entry for the group range |
| Context | **configure** router *named-item-64* igmp tunnel-interface ldp-p2mp-root *reference* sender-address *reference* static group *ipv4-multicast-address* starg |
| Tree | starg |
| Notes | The following elements are part of a mandatory choice: **source** or **starg**. |
| Introduced | 16.0.R2 |
| Platforms | All |

### **rsvp-p2mp-root** [lsp-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **rsvp-p2mp-root** list instance |
| Context | **configure** router *named-item-64* igmp tunnel-interface rsvp-p2mp-root *reference* |
| Tree | rsvp-p2mp-root |
| Description | Commands in this context configure the RSVP parameters for the IGMP P2MP LSP tunnel. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**lsp-name**] *reference*

| | |
|---|---|
| Synopsis | LSP name for the RSVP P2MP LSP |
| Context | **configure** router *named-item-64* igmp tunnel-interface rsvp-p2mp-root *reference* |
| Tree | rsvp-p2mp-root |
| Reference | **configure** router *named-item-64* tunnel-interface rsvp-p2mp-root *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of IGMP |
| Context | **configure** router *named-item-64* igmp tunnel-interface rsvp-p2mp-root *reference* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **static**

| | |
|---|---|
| Synopsis | Enter the **static** context |
| Context | **configure** router *named-item-64* igmp tunnel-interface rsvp-p2mp-root *reference* static |
| Tree | static |
| Description | Commands in this context configure static multicast receiver hosts on a tunnel interface associated with an RSVP P2MP LSP.<br>When a static IGMP group is configured, data is forwarded to an interface without receiving membership reports from host members. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **group** [group-address] *ipv4-multicast-address*

| | |
|---|---|
| Synopsis | Enter the **group** list instance |


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| | |
|---|---|
| Context | **configure** router *named-item-64* igmp tunnel-interface rsvp-p2mp-root *reference* static group *ipv4-multicast-address* |
| Tree | group |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**group-address**] *ipv4-multicast-address*

| | |
|---|---|
| Synopsis | Group address of static IGMP multicast channel |
| Context | **configure** router *named-item-64* igmp tunnel-interface rsvp-p2mp-root *reference* static group *ipv4-multicast-address* |
| Tree | group |
| Description | This command configures an address that receives data on an interface. The IP address must be unique for each static group. |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **source** [source-address] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Add a list entry for **source** |
| Context | **configure** router *named-item-64* igmp tunnel-interface rsvp-p2mp-root *reference* static group *ipv4-multicast-address* source *ipv4-unicast-address* |
| Tree | source |
| Notes | The following elements are part of a mandatory choice: **source** or **starg**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**source-address**] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Source IP address of multicast channel sending data |
| Context | **configure** router *named-item-64* igmp tunnel-interface rsvp-p2mp-root *reference* static group *ipv4-multicast-address* source *ipv4-unicast-address* |
| Tree | source |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R2 |


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| | |
|---|---|
| Platforms | All |

### starg

| | |
|---|---|
| Synopsis | Add a starg (*,G) address entry for the group range |
| Context | **configure** router *named-item-64* igmp tunnel-interface rsvp-p2mp-root *reference* static group *ipv4-multicast-address* starg |
| Tree | starg |
| Notes | The following elements are part of a mandatory choice: **source** or **starg**. |
| Introduced | 16.0.R2 |
| Platforms | All |

### **interface** [interface-name] *interface-name*

| | |
|---|---|
| Synopsis | Enter the **interface** list instance |
| Context | **configure** router *named-item-64* interface *interface-name* |
| Tree | interface |
| Description | Commands in this context create a logical IP routing or unnumbered MPLS-TP interface. An IP address, port, or system can then be associated with the IP interface. |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**interface-name**] *interface-name*

| | |
|---|---|
| Synopsis | Router interface name |
| Context | **configure** router *named-item-64* interface *interface-name* |
| Tree | interface |
| Description | This command specifies the name of the router interface. When a user enters a new name, the system creates a new logical interface and the context changes to that interface for more command processing.<br><br>When an existing interface name is entered, the user enters the router interface context for editing and configuration.<br><br>Nokia recommends using names that are meaningful and unique to remove ambiguity when displaying the state associated with IP interfaces either via show commands or model-driven interfaces.<br><br>See "Router configuration overview" in the *7450 ESS, 7750 SR, 7950 XRS, and VSR Router Configuration Guide* for more information about the interface name. |


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| | |
|---|---|
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the interface |
| Context | **configure** router *named-item-64* interface *interface-name* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cflowd-parameters**

| | |
|---|---|
| Synopsis | Enter the **cflowd-parameters** context |
| Context | **configure** router *named-item-64* interface *interface-name* cflowd-parameters |
| Tree | cflowd-parameters |
| Description | Commands in this context configure cflowd parameters for the associated IP interfaces. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sampling** [sampling-type] *keyword*

| | |
|---|---|
| Synopsis | Enter the **sampling** list instance |
| Context | **configure** router *named-item-64* interface *interface-name* cflowd-parameters sampling *keyword* |
| Tree | sampling |
| Description | Commands in this context configure cflowd sampling behavior, which configures the collection of traffic flow samples for analysis for this IP interface. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**sampling-type**] *keyword*

| | |
|---|---|
| Synopsis | Traffic sampling type |
| Context | **configure** router *named-item-64* interface *interface-name* cflowd-parameters sampling *keyword* |
| Tree | sampling |
| Description | This command configures the type of traffic to be sampled on the associated IP interface. |
| Options | unicast, multicast, both |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **direction** *keyword*

| | |
|---|---|
| Synopsis | Direction of traffic for cflowd sampling |
| Context | **configure** router *named-item-64* interface *interface-name* cflowd-parameters sampling *keyword* direction *keyword* |
| Tree | direction |
| Description | This command configures the direction in which sampling occurs on the associated IP interfaces. |
| Options | ingress-only, egress-only, both |
| Default | ingress-only |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sample-profile** *(keyword | number)*

| | |
|---|---|
| Synopsis | Sample profile ID |
| Context | **configure** router *named-item-64* interface *interface-name* cflowd-parameters sampling *keyword* sample-profile *(keyword | number)* |
| Tree | sample-profile |
| Description | This command defines the sampling rate profile associated with this interface. |
| Max. range | 0 to 4294967295 |
| Options | 1 |
| Introduced | 19.5.R1 |


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| | |
|---|---|
| Platforms | All |

## **type** *keyword*

| | |
|---|---|
| Synopsis | Type of cflowd analysis |
| Context | **configure** router *named-item-64* interface *interface-name* cflowd-parameters sampling *keyword* type *keyword* |
| Tree | type |
| Description | This command configures the cflowd sampling type on the associated IP interface. |
| Options | acl, interface |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **cpu-protection** *reference*

| | |
|---|---|
| Synopsis | CPU protection policy ID for the interface |
| Context | **configure** router *named-item-64* interface *interface-name* cpu-protection *reference* |
| Tree | cpu-protection |
| Description | This command assigns an existing CPU protection policy to the associated interface. For these interface types, the per-source rate limit is not applicable.<br>If no CPU-protection policy is assigned to an interface, the default policy is used to limit the overall rate. |
| Reference | **configure** system security cpu-protection policy *number* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

## **description** *very-long-description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** router *named-item-64* interface *interface-name* description *very-long-description* |
| Tree | description |
| String length | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **dist-cpu-protection** *reference*

| | |
|---|---|
| Synopsis | DCP policy name for interface |
| Context | **configure** router *named-item-64* interface *interface-name* dist-cpu-protection *reference* |
| Tree | dist-cpu-protection |
| Description | This command configures a Distributed CPU Protection (DCP) policy for the associated IP interface or SAP. The user can only assign a valid created DCP policy to a SAP or network interface (this rule does not apply to templates such as an MSAP policy).<br>If the operator does not assign a DCP policy to a router interface, the system uses the default network DCP policy.<br>See "Distributed CPU protection" in the *7450 ESS, 7750 SR, 7950 XRS, and VSR System Management Guide* for more information. |
| Reference | **configure** system security dist-cpu-protection policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **egress**

| | |
|---|---|
| Synopsis | Enter the **egress** context |
| Context | **configure** router *named-item-64* interface *interface-name* egress |
| Tree | egress |
| Description | Commands in this context configure egress network filter policies for the IP interface. The system does not filter unless an operator defines a filter. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **filter**

| | |
|---|---|
| Synopsis | Enter the **filter** context |
| Context | **configure** router *named-item-64* interface *interface-name* egress filter |
| Tree | filter |
| Description | Commands in this context configure the names of the egress IPv4 and IPv6 network filter policies for the interface. Filter policies control packet forwarding and dropping based on IP match criteria. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **ip** *reference*

| | |
|---|---|
| Synopsis | IPv4 filter policy name |
| Context | **configure** router *named-item-64* interface *interface-name* egress filter ip *reference* |
| Tree | ip |
| Reference | **configure** filter ip-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv6** *reference*

| | |
|---|---|
| Synopsis | IPv6 filter policy name |
| Context | **configure** router *named-item-64* interface *interface-name* egress filter ipv6 *reference* |
| Tree | ipv6 |
| Reference | **configure** filter ipv6-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **eth-cfm**

| | |
|---|---|
| Synopsis | Enter the **eth-cfm** context |
| Context | **configure** router *named-item-64* interface *interface-name* eth-cfm |
| Tree | eth-cfm |
| Description | Commands in this context configure the Ethernet CFM parameters for the associated IP interface. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **mep** md-admin-name *reference* ma-admin-name *reference* mep-id *number*

| | |
|---|---|
| Synopsis | Enter the **mep** list instance |
| Context | **configure** router *named-item-64* interface *interface-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |
| Tree | mep |
| Description | Commands in this context configure an 802.1ag Maintenance Endpoint (MEP) instance. |


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| | |
|---|---|
| Max. instances | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **md-admin-name** *reference*

| | |
|---|---|
| Synopsis | Maintenance Domain (MD) name |
| Context | **configure** router *named-item-64* interface *interface-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |
| Tree | mep |
| Reference | **configure** eth-cfm domain *admin-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ma-admin-name** *reference*

| | |
|---|---|
| Synopsis | Maintenance Association (MA) name |
| Context | **configure** router *named-item-64* interface *interface-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |
| Tree | mep |
| Reference | **configure** eth-cfm domain *admin-name* association *admin-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **mep-id** *number*

| | |
|---|---|
| Synopsis | Maintenance Endpoint (MEP) ID |
| Context | **configure** router *named-item-64* interface *interface-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |
| Tree | mep |
| Range | 1 to 8191 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the MEP |
| Context | **configure** router *named-item-64* interface *interface-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **alarm-notification**

| | |
|---|---|
| Synopsis | Enter the **alarm-notification** context |
| Context | **configure** router *named-item-64* interface *interface-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* alarm-notification |
| Tree | alarm-notification |
| Description | Commands in this context configure the Fault Notification Generator (FNG) time values to raise an alarm or reset the CCM defect alarm.<br>Use these timers for network management processes. The timers are not tied into delaying the notification to the fault management system on the network element and do not affect fault propagation mechanisms. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **fng-alarm-time** *number*

| | |
|---|---|
| Synopsis | Time that must expire before an FNG alarm is raised |
| Context | **configure** router *named-item-64* interface *interface-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* alarm-notification fng-alarm-time *number* |
| Tree | fng-alarm-time |
| Range | 250 \| 500 \| 1000 |
| Units | centiseconds |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **fng-reset-time** *number*

| | |
|---|---|
| Synopsis | Time that must expire before an FNG alarm is reset |
| Context | **configure** router *named-item-64* interface *interface-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* alarm-notification fng-reset-time *number* |
| Tree | fng-reset-time |
| Range | 250 \| 500 \| 1000 |
| Units | centiseconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **ccm** *boolean*

| | |
|---|---|
| Synopsis | Generate CCM messages |
| Context | **configure** router *named-item-64* interface *interface-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ccm *boolean* |
| Tree | ccm |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **ccm-ltm-priority** *number*

| | |
|---|---|
| Synopsis | Priority of CCM and LTM messages transmitted by the MEP |
| Context | **configure** router *named-item-64* interface *interface-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ccm-ltm-priority *number* |
| Tree | ccm-ltm-priority |
| Range | 0 to 7 |
| Default | 7 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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## **ccm-padding-size** *number*

| | |
|---|---|
| Synopsis | Number of octets of padding to insert in CCM packets |
| Context | **configure** router *named-item-64* interface *interface-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ccm-padding-size *number* |
| Tree | ccm-padding-size |
| Description | This command sets the byte size of the optional Data TLV to be included in the ETH-CC PDU.<br><br>This command increases the size of the ETH-CC PDU by the configured value. The base size of the ETH-CC PDU, including the Interface Status TLV and Port Status TLV, is 83 bytes not including the Layer 2 encapsulation. CCM padding is not supported when the CCM interval (configured through **configure eth-cfm domain association ccm-interval)** is less than 1 second. |
| Range | 3 to 1500 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **ccm-tlv-ignore** *keyword*

| | |
|---|---|
| Synopsis | TLV to ignore on reception |
| Context | **configure** router *named-item-64* interface *interface-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ccm-tlv-ignore *keyword* |
| Tree | ccm-tlv-ignore |
| Description | This command configures the receiving MEP to ignore the specified TLVs in the CCM PDU. The ignored TLVs are reported as absent and have no impact on the MEP state machine.<br><br>When unconfigured, the MEP processes all the recognized TLVs. |
| Options | interface-status, port-status |
| Max. instances | 2 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **collect-lmm-fc-stats**

| | |
|---|---|
| Synopsis | Enter the **collect-lmm-fc-stats** context |
| Context | **configure** router *named-item-64* interface *interface-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* collect-lmm-fc-stats |


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| | |
|---|---|
| Tree | collect-lmm-fc-stats |
| Description | Commands in this context configure per forwarding class (FC) LMM information collection.<br>The commands **fc-in-profile** and **fc** in this context are mutually exclusive. The commands apply to either profile-aware or profile-unaware FCs respectively.<br>This command and the **collect-lmm-stats** command are mutually exclusive when there is entity resource contention. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **fc** *keyword*

| | |
|---|---|
| Synopsis | Forwarding class name for profile-unaware counter |
| Context | **configure** router *named-item-64* interface *interface-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* collect-lmm-fc-stats fc *keyword* |
| Tree | fc |
| Description | This command configures individual counters for the specified FCs without regard for profile. The system includes all countable packets that match a configured FC, regardless of profile, in this counter.<br>An FC specified as part of this command and for this specific context cannot be specified as a profile-aware FC using the **fc-in-profile** command under the **collect-lmm-fc-stats** context.<br>When this command is reentered, a differential is performed. Omitted FCs stop counting, newly added FCs start counting, and unchanged FCs continue to count. |
| Options | be, l2, af, l1, h2, ef, h1, nc |
| Max. instances | 8 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **fc-in-profile** *keyword*

| | |
|---|---|
| Synopsis | Forwarding class name for profile-aware counter |
| Context | **configure** router *named-item-64* interface *interface-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* collect-lmm-fc-stats fc-in-profile *keyword* |
| Tree | fc-in-profile |


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| | |
|---|---|
| Description | This command configures individual counters for the specified FCs with regard to profile. The system includes all countable packets that match a configured FC and that are deemed to be in-profile in this counter.<br>An FC specified as part of this command and for this specific context cannot be specified as a profile-unaware FC using the **fc** command under the **collect-lmm-fc-stats** context.<br>When this command is reentered, a differential is performed. Omitted FCs stop counting, newly added FCs start counting, and unchanged FCs continue to count. |
| Options | be, l2, af, l1, h2, ef, h1, nc |
| Max. instances | 8 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **collect-lmm-stats** *boolean*

| | |
|---|---|
| Synopsis | Collect statistics for loss measurement message tests |
| Context | **configure** router *named-item-64* interface *interface-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* collect-lmm-stats *boolean* |
| Tree | collect-lmm-stats |
| Description | When configured to **true**, the router instantiates the statistical counter to transmit and receive packets for the LAG facility MEP bindings.<br>The **show eth-cfm collect-lmm-stats** command displays entities that have been enabled to collect transit and receive counters.<br>When configured to **false**, the router does not instantiate the counter and the LMM PDU associated with the MEP does not populate the counters in the packet. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** router *named-item-64* interface *interface-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## eth-test

| | |
|---|---|
| Synopsis | Enable the **eth-test** context |
| Context | **configure** router *named-item-64* interface *interface-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test |
| Tree | eth-test |
| Description | Commands in this context configure information used by the Ethernet Test (ETH-TST) packet. The commands must be configured on both the sender and the receiver nodes. The test packets are used with the **oam eth-cfm eth-test** command. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## bit-error-threshold *number*

| | |
|---|---|
| Synopsis | Lowest priority defect allowed to generate fault alarm |
| Context | **configure** router *named-item-64* interface *interface-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test bit-error-threshold *number* |
| Tree | bit-error-threshold |
| Range | 0 to 11840 |
| Units | bit errors |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## test-pattern

| | |
|---|---|
| Synopsis | Enter the **test-pattern** context |
| Context | **configure** router *named-item-64* interface *interface-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test test-pattern |
| Tree | test-pattern |
| Description | Commands in this context specify the test pattern for the ETH-TST frames. The pattern does not have to be the same on the sender and the receiver. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **crc-tlv** *boolean*

| | |
|---|---|
| Synopsis | Generate a CRC checksum |
| Context | **configure** router *named-item-64* interface *interface-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test test-pattern crc-tlv *boolean* |
| Tree | crc-tlv |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **pattern** *keyword*

| | |
|---|---|
| Synopsis | Test pattern for Ethernet Test frames |
| Context | **configure** router *named-item-64* interface *interface-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test test-pattern pattern *keyword* |
| Tree | pattern |
| Description | This command specifies the test pattern of the Ethernet Test (ETH-TST) frames. This does not have to be configured the same on the sender and the receiver. |
| Options | all-zeros, all-ones |
| Default | all-zeros |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **facility-fault** *boolean*

| | |
|---|---|
| Synopsis | Allow the facility MEP to generate a network action |
| Context | **configure** router *named-item-64* interface *interface-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* facility-fault *boolean* |
| Tree | facility-fault |
| Description | When configured to **true**, the system facility MEP responds to a fault with a network-actionable function instead of just reporting the defect condition.<br>When configured to **false**, the system monitors transmissions and reports fault conditions. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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## grace

| | |
|---|---|
| Synopsis | Enter the **grace** context |
| Context | **configure** router *named-item-64* interface *interface-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace |
| Tree | grace |
| Description | Commands in this context configure the Nokia ETH-CFM Grace function and the ITU-T Y.1731 Ethernet Expected Default (ETH-ED) function. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## eth-ed

| | |
|---|---|
| Synopsis | Enter the **eth-ed** context |
| Context | **configure** router *named-item-64* interface *interface-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed |
| Tree | eth-ed |
| Description | Commands in this context configure the ITU-T Y.1731 ETH-ED function. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## max-rx-defect-window *number*

| | |
|---|---|
| Synopsis | Maximum received ETH-ED expected defect window duration |
| Context | **configure** router *named-item-64* interface *interface-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed max-rx-defect-window *number* |
| Tree | max-rx-defect-window |
| Range | 1 to 86400 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## priority *number*

| | |
|---|---|
| Synopsis | Transmission priority for ETH-ED PDUs |


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| | |
|---|---|
| Context | **configure** router *named-item-64* interface *interface-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed priority *number* |
| Tree | priority |
| Range | 0 to 7 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **rx-eth-ed** *boolean*

| | |
|---|---|
| Synopsis | Receive and process ETH-ED ITU-T Y.1731 PDUs on the MEP |
| Context | **configure** router *named-item-64* interface *interface-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed rx-eth-ed *boolean* |
| Tree | rx-eth-ed |
| Description | This command enables the reception and processing of the ITU-T Y.1731 ETH-ED PDU on the MEP. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **tx-eth-ed** *boolean*

| | |
|---|---|
| Synopsis | Transmit ETH-ED PDUs from the MEP |
| Context | **configure** router *named-item-64* interface *interface-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed tx-eth-ed *boolean* |
| Tree | tx-eth-ed |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **eth-vsm-grace**

| | |
|---|---|
| Synopsis | Enter the **eth-vsm-grace** context |
| Context | **configure** router *named-item-64* interface *interface-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-vsm-grace |
| Tree | eth-vsm-grace |
| Description | Commands in this context configure the Nokia ETH-CFM Grace function. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **rx-eth-vsm-grace** *boolean*

| | |
|---|---|
| Synopsis | Receive and process Nokia ETH-CFM Grace PDU on the MEP |
| Context | **configure** router *named-item-64* interface *interface-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-vsm-grace rx-eth-vsm-grace *boolean* |
| Tree | rx-eth-vsm-grace |
| Description | When configured to **true**, the router enables the Nokia Grace function, which is a vendor-specific PDU that informs MEP peers that the local node may be entering a period of expected defect.<br>When configured to **false**, the router disables the Nokia Grace function. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **tx-eth-vsm-grace** *boolean*

| | |
|---|---|
| Synopsis | Transmit ETH-ED PDUs from the MEP |
| Context | **configure** router *named-item-64* interface *interface-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-vsm-grace tx-eth-vsm-grace *boolean* |
| Tree | tx-eth-vsm-grace |
| Description | When configured to **true**, the router can transmit the Nokia ETH-CFM Grace PDU from the MEP when a system soft reset notification is received for one or more cards.<br>The Nokia Grace function is a vendor-specific PDU that informs MEP peers that the local node may be entering a period of expected defect.<br>The operator must configure the **configure system eth-cfm grace** command to instruct the system that the node is capable of transmitting expected-defect windows to peers. The system can only transmit one form of ETH-CFM grace (Nokia ETH-CFM Grace or ITU-T Y.1731 ETH-ED).<br>When configured to **false**, the router disables the transmission of the Nokia ETH-CFM Grace PDU from the MEP. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **lbm-svc-act-responder** *boolean*

| | |
|---|---|
| Synopsis | Process service activation streams in ETH-CFM LBM |
| Context | **configure** router *named-item-64* interface *interface-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* lbm-svc-act-responder *boolean* |
| Tree | lbm-svc-act-responder |
| Description | When configured to **true**, the router enables the MEP to process service activation streams encapsulated in ETH-CFM LBM frames that are directed to it.<br>When configured to **false**, this command reverts to MEP LBM standard processing.<br>There is interaction between this command and the **tools perform service id loopback eth** command. Nokia recommends that either the **lbm-svc act-responder** or the **tools perform service id loopback eth** command be used within a service. If both commands must be configured, and the target reflection point is the MAC Swap Loopback function, the inbound stream of data must not include ETH-CFM traffic that is equal to or lower than the domain level of any configured MEP that would otherwise extract and process the ETH-CFM message.<br>See "Promiscuous ETH-LBM mode of operation" in the *7450 ESS, 7750 SR, 7950 XRS, and VSR Services Overview Guide* for more information. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **low-priority-defect** *keyword*

| | |
|---|---|
| Synopsis | Lowest priority defect for fault alarm generation |
| Context | **configure** router *named-item-64* interface *interface-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* low-priority-defect *keyword* |
| Tree | low-priority-defect |
| Description | This command specifies the lowest priority defect that generates a fault alarm and also configures the fault state of the MEP that causes a network reaction. |
| Options | all-def, mac-rem-err-xcon, rem-err-xcon, err-xcon, xcon, no-xcon |
| Default | mac-rem-err-xcon |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **mac-address** *mac-unicast-address-no-zero*

| | |
|---|---|
| Synopsis | MAC address of the MEP |


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| | |
|---|---|
| Context | **configure** router *named-item-64* interface *interface-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* mac-address *mac-unicast-address-no-zero* |
| Tree | mac-address |
| Description | This command specifies the MAC address of the MEP.<br>When unconfigured, the MAC address of the port (if the MEP is on a SAP) or the MAC address of a bridge (if the MEP is on a spoke) is used. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## one-way-delay-threshold *number*

| | |
|---|---|
| Synopsis | Threshold time limit for the one-way delay test |
| Context | **configure** router *named-item-64* interface *interface-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* one-way-delay-threshold *number* |
| Tree | one-way-delay-threshold |
| Range | 0 to 600 |
| Units | seconds |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## external-reference

| | |
|---|---|
| Synopsis | Enter the **external-reference** context |
| Context | **configure** router *named-item-64* interface *interface-name* external-reference |
| Tree | external-reference |
| Description | Commands in this context configure the external reference used to map a Nokia vendor-specific configuration and the OpenConfig state. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## openconfig

| | |
|---|---|
| Synopsis | Enter the **openconfig** context |
| Context | **configure** router *named-item-64* interface *interface-name* external-reference openconfig |


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| | |
|---|---|
| Tree | openconfig |
| Description | Commands in this context configure the OpenConfig reference key used to map a Nokia vendor-specific configuration and the OpenConfig state. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **subinterface** *number*

| | |
|---|---|
| Synopsis | Reference to the subinterface |
| Context | **configure** router *named-item-64* interface *interface-name* external-reference openconfig subinterface *number* |
| Tree | subinterface |
| Description | This command configures the subinterface used to map a Nokia vendor-specific configuration and the OpenConfig state.<br>This command configures the ability to query the OpenConfig state through NETCONF, gRPC, and the MD-CLI from any configuration mode, without having to add any Open Config model configuration. As part of the configuration, a user must also add a port to the Layer 3 interface. |
| Range | 0 to 4294967295 |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **flavor** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Network interface flavor |
| Context | **configure** router *named-item-64* interface *interface-name* flavor *keyword* |
| Tree | flavor |
| Options | regular – Regular network interface<br>pdn – PDN interface<br>unnumbered-mpls-tp – Unnumbered MPLS-TP interface |
| Default | regular |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **gre-termination** *boolean*

| | |
|---|---|
| Synopsis | Terminate GRE packets on primary subnet of interface |
| Context | **configure** router *named-item-64* interface *interface-name* gre-termination *boolean* |
| Tree | gre-termination |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **hold-time**

| | |
|---|---|
| Synopsis | Enter the **hold-time** context |
| Context | **configure** router *named-item-64* interface *interface-name* hold-time |
| Tree | hold-time |
| Description | Commands in this context configure the interface-level up and down hold timers for the associated IP interface. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv4**

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |
| Context | **configure** router *named-item-64* interface *interface-name* hold-time ipv4 |
| Tree | ipv4 |
| Description | Commands in this context configure the interface-level IPv4 hold timers for the associated IP interface. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **down**

| | |
|---|---|
| Synopsis | Enter the **down** context |
| Context | **configure** router *named-item-64* interface *interface-name* hold-time ipv4 down |
| Tree | down |
| Description | Commands in this context configure the down hold timer, which specifies the delay before activating the associated interface. The delay is invoked whenever the system |


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attempts to bring the associated IP interface up, unless an operator configures the **init-only** command.

Introduced 16.0.R1

Platforms All

### **init-only** *boolean*

Synopsis Apply delay only at interface configuration or reboot

Context **configure** router *named-item-64* interface *interface-name* hold-time ipv4 down init-only *boolean*

Tree init-only

Description This command applies a delay only when the IP interface is first configured or after a system reboot.

Default false

Introduced 16.0.R1

Platforms All

### **seconds** *number*

Synopsis Down hold time for the IP interface

Context **configure** router *named-item-64* interface *interface-name* hold-time ipv4 down seconds *number*

Tree seconds

Range 1 to 1200

Units seconds

Introduced 16.0.R1

Platforms All

### **up**

Synopsis Enter the **up** context

Context **configure** router *named-item-64* interface *interface-name* hold-time ipv4 up

Tree up

Description Commands in this context configure the up hold timer, which specifies the delay before deactivation of the associated interface. The delay is invoked whenever the system attempts to bring the associated IP interface down.

Introduced 16.0.R1


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| | |
|---|---|
| Platforms | All |

## **seconds** *number*

| | |
|---|---|
| Synopsis | Up hold time for the IP interface |
| Context | **configure** router *named-item-64* interface *interface-name* hold-time ipv4 up seconds *number* |
| Tree | seconds |
| Range | 1 to 1200 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

## ipv6

| | |
|---|---|
| Synopsis | Enter the **ipv6** context |
| Context | **configure** router *named-item-64* interface *interface-name* hold-time ipv6 |
| Tree | ipv6 |
| Description | Commands in this context configure the interface-level IPv6 hold timers for the associated IP interface. |
| Introduced | 16.0.R1 |
| Platforms | All |

## down

| | |
|---|---|
| Synopsis | Enter the **down** context |
| Context | **configure** router *named-item-64* interface *interface-name* hold-time ipv6 down |
| Tree | down |
| Description | Commands in this context configure the down hold timer, which specifies the delay before activation of the associated interface. The delay is invoked whenever the system attempts to bring the associated IP interface up, unless an operator configures the **init-only** command. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **init-only** *boolean*

| | |
|---|---|
| Synopsis | Apply delay only at interface configuration or reboot |
| Context | **configure** router *named-item-64* interface *interface-name* hold-time ipv6 down init-only *boolean* |
| Tree | init-only |
| Description | When configured to **true**, the system applies a delay only when the IP interface is first configured or after a system reboot. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **seconds** *number*

| | |
|---|---|
| Synopsis | Down hold time for the IP interface |
| Context | **configure** router *named-item-64* interface *interface-name* hold-time ipv6 down seconds *number* |
| Tree | seconds |
| Range | 1 to 1200 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **up**

| | |
|---|---|
| Synopsis | Enter the **up** context |
| Context | **configure** router *named-item-64* interface *interface-name* hold-time ipv6 up |
| Tree | up |
| Description | Commands in this context configure the up hold timer, which specifies the delay before deactivation of the associated interface. The delay is invoked whenever the system attempts to bring the associated IP interface down. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **seconds** *number*

| | |
|---|---|
| Synopsis | Up hold time for the IP interface |
| Context | **configure** router *named-item-64* interface *interface-name* hold-time ipv6 up seconds *number* |
| Tree | seconds |
| Range | 1 to 1200 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **if-attribute**

| | |
|---|---|
| Synopsis | Enter the **if-attribute** context |
| Context | **configure** router *named-item-64* interface *interface-name* if-attribute |
| Tree | if-attribute |
| Description | Commands in this context configure attributes of the IP interface. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-group** *reference*

| | |
|---|---|
| Synopsis | Administrative group name for the interface |
| Context | **configure** router *named-item-64* interface *interface-name* if-attribute admin-group *reference* |
| Tree | admin-group |
| Description | This command specifies the administrative group membership to an interface.<br>The configured administrative group membership is applied in all levels or areas the interface is participating in. The same interface cannot have different memberships in different levels or areas. |
| Reference | **configure** routing-options if-attribute admin-group *named-item* |
| Max. instances | 32 |
| Introduced | 16.0.R1 |
| Platforms | All |


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## delay

| | |
|---|---|
| Synopsis | Enter the **delay** context |
| Context | **configure** router *named-item-64* interface *interface-name* if-attribute delay |
| Tree | delay |
| Introduced | 20.7.R1 |
| Platforms | All |

## delay-selection *keyword*

| | |
|---|---|
| Synopsis | Delay source advertised by IGP for the interface |
| Context | **configure** router *named-item-64* interface *interface-name* if-attribute delay delay-selection *keyword* |
| Tree | delay-selection |
| Options | static, dynamic, static-preferred, dynamic-preferred |
| Default | static-preferred |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## dynamic

| | |
|---|---|
| Synopsis | Enter the **dynamic** context |
| Context | **configure** router *named-item-64* interface *interface-name* if-attribute delay dynamic |
| Tree | dynamic |
| Description | Commands in this context configure dynamic link delay measurement options for the interface. |
| Introduced | 21.7.R1 |
| Platforms | All |

## lag-ip-measurement

| | |
|---|---|
| Synopsis | Enter the **lag-ip-measurement** context |
| Context | **configure** router *named-item-64* interface *interface-name* if-attribute delay dynamic lag-ip-measurement |
| Tree | lag-ip-measurement |
| Introduced | 24.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **lag-ip-measurement-template** *reference*

| | |
|---|---|
| Synopsis | LAG IP measurement template for the interface |
| Context | **configure** router *named-item-64* interface *interface-name* if-attribute delay dynamic lag-ip-measurement lag-ip-measurement-template *reference* |
| Tree | lag-ip-measurement-template |
| Reference | **configure** test-oam lag-ip-measurement lag-ip-measurement-template *named-item-64* |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **measurement-template** *reference*

| | |
|---|---|
| Synopsis | Link delay measurement template for the interface |
| Context | **configure** router *named-item-64* interface *interface-name* if-attribute delay dynamic measurement-template *reference* |
| Tree | measurement-template |
| Reference | **configure** test-oam link-measurement measurement-template *named-item-64* |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **twamp-light**

| | |
|---|---|
| Synopsis | Enter the **twamp-light** context |
| Context | **configure** router *named-item-64* interface *interface-name* if-attribute delay dynamic twamp-light |
| Tree | twamp-light |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **ipv4**

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |
| Context | **configure** router *named-item-64* interface *interface-name* if-attribute delay dynamic twamp-light ipv4 |


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| | |
|---|---|
| Tree | ipv4 |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of IPv4 TWAMP Light packets |
| Context | **configure** router *named-item-64* interface *interface-name* if-attribute delay dynamic twamp-light ipv4 admin-state *keyword* |
| Tree | admin-state |
| Description | This command specifies the administrative state of the IPv4 encapsulated TWAMP Light measurement packets. |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **destination** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | TWAMP Light measurement packet destination IPv4 address |
| Context | **configure** router *named-item-64* interface *interface-name* if-attribute delay dynamic twamp-light ipv4 destination *ipv4-unicast-address* |
| Tree | destination |
| Description | This command specifies the unicast destination address to be associated with the IPv4 TWAMP Light measurement packet. |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **source** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | TWAMP Light measurement packets source IPv4 address |
| Context | **configure** router *named-item-64* interface *interface-name* if-attribute delay dynamic twamp-light ipv4 source *ipv4-unicast-address* |
| Tree | source |
| Description | This command specifies the unicast source address to be associated with the IPv4 TWAMP Light measurement packet. |
| Introduced | 21.7.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## ipv6

| | |
|---|---|
| Synopsis | Enter the **ipv6** context |
| Context | **configure** router *named-item-64* interface *interface-name* if-attribute delay dynamic twamp-light ipv6 |
| Tree | ipv6 |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of IPv6 TWAMP Light packets |
| Context | **configure** router *named-item-64* interface *interface-name* if-attribute delay dynamic twamp-light ipv6 admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## destination *ipv6-unicast-or-linklocal-address*

| | |
|---|---|
| Synopsis | TWAMP Light measurement packet destination IPv6 address |
| Context | **configure** router *named-item-64* interface *interface-name* if-attribute delay dynamic twamp-light ipv6 destination *ipv6-unicast-or-linklocal-address* |
| Tree | destination |
| Description | This command specifies the unicast destination address to be associated with the IPv6 TWAMP Light measurement packet. Globally routable and Link Local addressing is supported. |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## source *ipv6-unicast-or-linklocal-address*

| | |
|---|---|
| Synopsis | TWAMP Light measurement packets source IPv6 address |


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| | |
|---|---|
| Context | **configure** router *named-item-64* interface *interface-name* if-attribute delay dynamic twamp-light ipv6 source *ipv6-unicast-or-linklocal-address* |
| Tree | source |
| Description | This command specifies the unicast source address to be associated with the IPv6 TWAMP Light measurement packet. Globally routable and Link Local addressing is supported. |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **static** *number*

| | |
|---|---|
| Synopsis | Unidirectional link delay static information |
| Context | **configure** router *named-item-64* interface *interface-name* if-attribute delay static *number* |
| Tree | static |
| Description | This command configures the unidirectional link delay. By default there is no configured delay, and the link delay metric TLV is pruned in the IGP. |
| Range | 1 to 16777214 |
| Units | microseconds |
| Introduced | 20.7.R1 |
| Platforms | All |

## **srlg-group** [name] *reference*

| | |
|---|---|
| Synopsis | Add a list entry for **srlg-group** |
| Context | **configure** router *named-item-64* interface *interface-name* if-attribute srlg-group *reference* |
| Tree | srlg-group |
| Description | Commands in this context add a list entry for a Shared Risk Link Group (SRLG) that can be associated with an IP or MPLS interface to tag IP or MPLS interfaces that share a specific outcome with the same identifier. For example, an SRLG group identifier could represent all links that use separate fibers but are carried in the same fiber conduit.<br><br>The name and identifier of each SRLG group must be configured locally on each router before the user configures the SRLG membership of an interface. A maximum of 1024 SRLGs can be configured per system. The user can apply SRLGs to an IES, VPRN, network IP, or MPLS interface. A maximum of 64 SRLGs can be applied to an interface.<br><br>See "Shared Risk Link Groups" in the *7450 ESS, 7750 SR, 7950 XRS, and VSR MPLS Guide* for more information about SRLGs. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### [**name**] *reference*

| | |
|---|---|
| Synopsis | SRLG name |
| Context | **configure** router *named-item-64* interface *interface-name* if-attribute srlg-group *reference* |
| Tree | srlg-group |
| Reference | **configure** routing-options if-attribute srlg-group *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### ingress

| | |
|---|---|
| Synopsis | Enter the **ingress** context |
| Context | **configure** router *named-item-64* interface *interface-name* ingress |
| Tree | ingress |
| Description | Commands in this context configure ingress network filter policies for the IP interface. If an ingress filter is not defined, the system performs no filtering. |
| Introduced | 16.0.R1 |
| Platforms | All |

### destination-class-lookup *boolean*

| | |
|---|---|
| Synopsis | Enable BGP destination class lookup |
| Context | **configure** router *named-item-64* interface *interface-name* ingress destination-class-lookup *boolean* |
| Tree | destination-class-lookup |
| Description | When configured to **true**, the router performs a destination class lookup. This command is supported on FP3-based cards and later and is used in combination with the **destination-class** match criterion for an IP filter policy to filter egress traffic based on BGP destination classes.<br>When configured to **false**, destination class lookup is not enabled. |
| Default | false |
| Introduced | 20.7.R1 |


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| | |
|---|---|
| Platforms | All |

## filter

| | |
|---|---|
| Synopsis | Enter the **filter** context |
| Context | **configure** router *named-item-64* interface *interface-name* ingress filter |
| Tree | filter |
| Description | Commands in this context associate an IP filter policy with an IP interface. Filter policies control packet forwarding and dropping based on IP match criteria. |
| Introduced | 16.0.R1 |
| Platforms | All |

## ip *reference*

| | |
|---|---|
| Synopsis | IPv4 filter policy name |
| Context | **configure** router *named-item-64* interface *interface-name* ingress filter ip *reference* |
| Tree | ip |
| Reference | **configure** filter ip-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

## ipv6 *reference*

| | |
|---|---|
| Synopsis | IPv6 filter policy name |
| Context | **configure** router *named-item-64* interface *interface-name* ingress filter ipv6 *reference* |
| Tree | ipv6 |
| Reference | **configure** filter ipv6-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

## policy-accounting *reference*

| | |
|---|---|
| Synopsis | Policy accounting template applied to the interface |
| Context | **configure** router *named-item-64* interface *interface-name* ingress policy-accounting *reference* |
| Tree | policy-accounting |


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| | |
|---|---|
| Reference | **configure** routing-options policy-accounting policy-acct-template *named-item* |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## **ingress-stats** *boolean*

| | |
|---|---|
| Synopsis | Collect ingress statistics |
| Context | **configure** router *named-item-64* interface *interface-name* ingress-stats *boolean* |
| Tree | ingress-stats |
| Description | When configured to **true**, the router configures the collection of IPv4 and IPv6 offered packets and octets. This only applies to IP statistics, not to uRPF statistics.<br>Octet statistics for IPv4 and IPv6 bytes at IP interfaces include the Layer 2 frame overhead.<br>When configured to **false**, the router does not collect the statistics. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **ip-mtu** *number*

| | |
|---|---|
| Synopsis | Interface IP MTU |
| Context | **configure** router *named-item-64* interface *interface-name* ip-mtu *number* |
| Tree | ip-mtu |
| Description | This command configures the IP maximum transmission unit (MTU) for the associated router IP interface.<br>The operational IP MTU used for the interface is based on the configured IP MTU and the port MTU of the port bound to this interface; that is, the operational MTU is set to the lesser of the values configured by this command and the port MTU value less the Ethernet header size.<br>If the interface supports IPv6 packets, this command must be set to at least 1280, in accordance with RFC 2460 *Internet Protocol, Version 6 (IPv6) Specification*. |
| Range | 512 to 9786 |
| Units | bytes |
| Introduced | 16.0.R1 |
| Platforms | All |


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## ipsec

| | |
|---|---|
| Synopsis | Enable the **ipsec** context |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec |
| Tree | ipsec |
| Description | Commands in this context configure an IPsec secured interface. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of IPsec secured interface |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## ip-exception *reference*

| | |
|---|---|
| Synopsis | IP exception filter |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ip-exception *reference* |
| Tree | ip-exception |
| Description | This command configures the IP exception filter for the secured interface. All ingress traffic matching the specified filter bypasses IPsec processing. |
| Reference | **configure** filter ip-exception *filter-name* |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## ipsec-tunnel [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **ipsec-tunnel** list instance |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* |


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| | |
|---|---|
| Tree | ipsec-tunnel |
| Description | Commands in this context configure IPsec tunnels used to secure traffic forwarded over the interface. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | IPsec tunnel name |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* |
| Tree | ipsec-tunnel |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the IPsec tunnel |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 22.7.R1 |
| Platforms | VSR |

### **bfd**

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **bfd** context |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* bfd |


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| | |
|---|---|
| Tree | bfd |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **bfd-designate** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Designate IPsec tunnel to carry BFD traffic |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* bfd bfd-designate *boolean* |
| Tree | bfd-designate |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## bfd-liveness

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable the **bfd-liveness** context |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* bfd bfd-liveness |
| Tree | bfd-liveness |
| Description | Commands in this context configure a BFD session to provide a heart-beat mechanism for a specified IPsec tunnel. There can be only one BFD session assigned to any given IPsec tunnel, but there can be multiple IPsec tunnels using the same BFD session.<br>BFD controls the state of the association tunnel. If the BFD session goes down, the system brings down the associated non-designated IPsec tunnel. |
| Introduced | 22.7.R1 |
| Platforms | VSR |


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### **dest-ip** *ipv4-unicast-address*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Destination address used for the BFD session |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* bfd bfd-liveness dest-ip *ipv4-unicast-address* |
| Tree | dest-ip |
| Notes | This element is mandatory. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

### **interface** *interface-name*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Name of the interface used by the BFD session |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* bfd bfd-liveness interface *interface-name* |
| Tree | interface |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

### **service-name** *service-name*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Administrative service name |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* bfd bfd-liveness service-name *service-name* |


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| | |
|---|---|
| Tree | service-name |
| Description | This command configures the name of the service where BFD traffic is forwarded to. |
| String length | 1 to 64 |
| Notes | This element is mandatory. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **clear-df-bit** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Reset the DF bit to 0 in all payload IP packets |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* clear-df-bit *boolean* |
| Tree | clear-df-bit |
| Description | When configured to **true**, the DF bit is set to 0 in all payload IP packets associated with the IPsec tunnel, before any potential fragmentation occurs. |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **copy-traffic-class-upon-decapsulation** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable traffic class copy upon decapsulation |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* copy-traffic-class-upon-decapsulation *boolean* |
| Tree | copy-traffic-class-upon-decapsulation |
| Description | When configured to **true**, the system copies the traffic class from the outer tunnel IP packet header to the payload IP packet header in the decapsulating direction (public to private). |
| Default | false |
| Introduced | 22.7.R1 |


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| | |
|---|---|
| Platforms | VSR |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **encapsulated-ip-mtu** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum size of the encapsulated tunnel packet |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* encapsulated-ip-mtu *number* |
| Tree | encapsulated-ip-mtu |
| Description | This command specifies the maximum size of the encapsulated tunnel packet to the IPsec tunnel, the IP tunnel, or the dynamic tunnels terminated on the IPsec Gateway. If the encapsulated IPv4 or IPv6 tunnel packet exceeds this value, the system fragments the packet. |
| Range | 512 to 9000 |
| Units | bytes |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **icmp-generation**

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **icmp-generation** context |


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| | |
|---|---|
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* icmp-generation |
| Tree | icmp-generation |
| Description | Commands in this context configure settings for ICMPv4 message generation. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## frag-required

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **frag-required** context |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* icmp-generation frag-required |
| Tree | frag-required |
| Description | Commands in this context configure the attributes for sending generated ICMP Destination Unreachable "fragmentation needed and DF set" messages (type 3, code 4) back to the source, if the received size of the IPv4 packet on the private side exceeds the private MTU size. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## admin-state *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Administrative state of sending ICMP messages |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* icmp-generation frag-required admin-state *keyword* |
| Tree | admin-state |
| Description | This command configures the administrative state of sending ICMP Destination Unreachable "fragmentation needed, DF set" messages (type 3, code 4) messages to the source if the received size of the IPv4 packet on the private side exceeds the private MTU size. |
| Options | enable, disable |


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| | |
|---|---|
| Default | enable |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **interval** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Interval for sending ICMP messages |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* icmp-generation frag-required interval *number* |
| Tree | interval |
| Description | This command configures the interval for sending ICMP Destination Unreachable "fragmentation needed, DF set" messages (type 3, code 4). |
| Range | 1 to 60 |
| Units | seconds |
| Default | 10 |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **message-count** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum number of ICMP messages that can be sent |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* icmp-generation frag-required message-count *number* |
| Tree | message-count |
| Description | This command configures the maximum number of ICMP Destination Unreachable "fragmentation needed, DF set" messages (type 3, code 4) that can be sent during the configured interval. |
| Range | 10 to 1000 |
| Default | 100 |
| Introduced | 22.7.R1 |


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| | |
|---|---|
| Platforms | VSR |

## icmp6-generation

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **icmp6-generation** context |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* icmp6-generation |
| Tree | icmp6-generation |
| Description | Commands in this context configure settings for ICMPv6 message generation. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## packet-too-big

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **packet-too-big** context |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* icmp6-generation packet-too-big |
| Tree | packet-too-big |
| Description | Commands in this context configure the parameters to send ICMPv6 PTB (Packet Too Big) messages on the private side.<br>The system sends PTB messages if a received IPv6 packet on the private side is greater than 1280 bytes and it exceeds the private MTU of the tunnel.<br>The private MTU for the tunnel is configured via the **configure router interface ipsec ipsec-tunnel ip-mtu** command for the interface. |
| Introduced | 22.7.R1 |
| Platforms | VSR |


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### **admin-state** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Administrative state of Packet Too Big message sends |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* icmp6-generation packet-too-big admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 22.7.R1 |
| Platforms | VSR |

### **interval** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Interval for sending Packet Too Big messages |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* icmp6-generation packet-too-big interval *number* |
| Tree | interval |
| Range | 1 to 60 |
| Units | seconds |
| Default | 10 |
| Introduced | 22.7.R1 |
| Platforms | VSR |

### **message-count** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum number of ICMPv6 PTB messages that can be sent |


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| | |
|---|---|
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* icmp6-generation packet-too-big message-count *number* |
| Tree | message-count |
| Description | This command configures the maximum number of PTB messages that can be sent during the configured interval. |
| Range | 10 to 1000 |
| Default | 100 |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **ip-mtu** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Private MTU of the IPsec tunnel |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* ip-mtu *number* |
| Tree | ip-mtu |
| Description | This command specifies the private MTU of the IPsec tunnel. The private MTU is used to determine the need for fragmentation before encapsulation of the payload packet. |
| Range | 512 to 9000 |
| Units | bytes |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **key-exchange**

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **key-exchange** context |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange |
| Tree | key-exchange |
| Introduced | 22.7.R1 |


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| | |
|---|---|
| Platforms | VSR |

## dynamic

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable the **dynamic** context |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange dynamic |
| Tree | dynamic |
| Notes | The following elements are part of a choice: **dynamic** or **manual**. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## auto-establish *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Attempt to establish a phase 1 exchange automatically |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange dynamic auto-establish *boolean* |
| Tree | auto-establish |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## cert

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **cert** context |


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| | |
|---|---|
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange dynamic cert |
| Tree | cert |
| Description | Commands in this context configure the attributes of the dynamic keying certificate. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **cert-profile** *reference*

| | |
|---|---|
| Synopsis | Certificate profile name |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange dynamic cert cert-profile *reference* |
| Tree | cert-profile |
| Reference | **configure** ipsec cert-profile *named-item* |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **status-verify**

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **status-verify** context |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange dynamic cert status-verify |
| Tree | status-verify |
| Description | Commands in this context configure attributes of Certificate Status Verification (CSV). |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **default-result** *keyword*

| | |
|---|---|
| Synopsis | Default result for Certificate Status Verification |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange dynamic cert status-verify default-result *keyword* |
| Tree | default-result |


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| | |
|---|---|
| Description | This command specifies the default certificate revocation status result to use when all configured CSV methods fail to return a result. |
| Options | revoked, good |
| Default | revoked |
| Introduced | 22.7.R1 |
| Platforms | VSR |

### **primary** *keyword*

| | |
|---|---|
| Synopsis | Primary method of CSV to verify the revocation status |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange dynamic cert status-verify primary *keyword* |
| Tree | primary |
| Description | This command configures the primary method of Certificate Status Verification (CSV) that is used to verify the revocation status of the certificate of the peer. |
| Options | crl, ocsp |
| Default | crl |
| Introduced | 22.7.R1 |
| Platforms | VSR |

### **secondary** *keyword*

| | |
|---|---|
| Synopsis | Secondary method used to verify certificate revocation |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange dynamic cert status-verify secondary *keyword* |
| Tree | secondary |
| Description | This command specifies the secondary method of Certificate Status Verification (CSV) that is used to verify the revocation status of the peer certificate. |
| Options | none, crl, ocsp |
| Default | none |
| Introduced | 22.7.R1 |
| Platforms | VSR |

### **trust-anchor-profile** *reference*

| | |
|---|---|
| Synopsis | Trust anchor profile name |


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| | |
|---|---|
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange dynamic cert trust-anchor-profile *reference* |
| Tree | trust-anchor-profile |
| Reference | **configure** ipsec trust-anchor-profile *named-item* |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## id

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **id** context |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange dynamic id |
| Tree | id |
| Description | Commands in this context specify the local ID used for IDi or IDr for IKEv2 negotiation.<br>The default behavior depends on the local authentication method as follows:<br>• Psk: local tunnel IP address<br>• Cert-auth: subject of the local certificate |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **fqdn** *fully-qualified-domain-name*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | FQDN used as the local ID IKE type |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange dynamic id fqdn *fully-qualified-domain-name* |
| Tree | fqdn |
| String length | 1 to 255 |
| Notes | The following elements are part of a choice: **fqdn**, **ipv4**, or **ipv6**. |
| Introduced | 22.7.R1 |


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| | |
|---|---|
| Platforms | VSR |

## **ipv4** *ipv4-unicast-address*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IPv4 as the local ID type |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange dynamic id ipv4 *ipv4-unicast-address* |
| Tree | ipv4 |
| Notes | The following elements are part of a choice: **fqdn**, **ipv4**, or **ipv6**. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **ipv6** *(ipv4-address-no-zone | ipv6-address-no-zone)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IPv6 used as the local IKE ID type |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange dynamic id ipv6 *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | ipv6 |
| Notes | The following elements are part of a choice: **fqdn**, **ipv4**, or **ipv6**. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **ike-policy** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IKE policy ID |


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| | |
|---|---|
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange dynamic ike-policy *reference* |
| Tree | ike-policy |
| Description | This command specifies the ID of the IKE policy used for IKE negotiation.<br>The **ipsec-transport-mode-profile** configuration only supports IKEv2. |
| Reference | **configure** ipsec ike-policy *number* |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **ipsec-transform** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IPsec transform IDs used by the dynamic key |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange dynamic ipsec-transform *reference* |
| Tree | ipsec-transform |
| Description | This command specifies IPsec transform IDs used for CHILD_SA negotiation. |
| Reference | **configure** ipsec ipsec-transform *number* |
| Max. instances | 4 |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **ppk**

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **ppk** context |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange dynamic ppk |
| Tree | ppk |
| Description | Commands in this context configure the PPKs to use for dynamic keying of the IPsec tunnel. |


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| | |
|---|---|
| Introduced | 24.10.R1 |
| Platforms | VSR |

## **id** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | PPK ID |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange dynamic ppk id *reference* |
| Tree | id |
| Reference | **configure** ipsec ppk-list *named-item* ppk *named-item-64* |
| Introduced | 24.10.R1 |
| Platforms | VSR |

## **list** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | PPK list instance name |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange dynamic ppk list *reference* |
| Tree | list |
| Reference | **configure** ipsec ppk-list *named-item* |
| Introduced | 24.10.R1 |
| Platforms | VSR |

## **pre-shared-key** *encrypted-leaf*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Pre-shared key for authentication |


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| | |
|---|---|
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange dynamic pre-shared-key *encrypted-leaf* |
| Tree | pre-shared-key |
| String length | 1 to 115 |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## manual

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable the **manual** context |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange manual |
| Tree | manual |
| Description | Commands in this context configure settings for manually configured security associations for the IPsec tunnel. |
| Notes | The following elements are part of a choice: **dynamic** or **manual**. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **keys** [security-association] *number* direction *keyword*

| | |
|---|---|
| Synopsis | Enter the **keys** list instance |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange manual keys *number* direction *keyword* |
| Tree | keys |
| Description | Commands in this context configure the security association list for the tunnel. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## [**security-association**] *number*

| | |
|---|---|
| Synopsis | SA entry ID |


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| | |
|---|---|
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange manual keys *number* direction *keyword* |
| Tree | keys |
| Range | 1 to 16 |
| Notes | This element is part of a list key. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **direction** *keyword*

| | |
|---|---|
| Synopsis | Direction of the IPsec tunnel |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange manual keys *number* direction *keyword* |
| Tree | keys |
| Options | inbound, outbound |
| Notes | This element is part of a list key. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **authentication-key** *hex-string*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Key used for the authentication algorithm |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange manual keys *number* direction *keyword* authentication-key *hex-string* |
| Tree | authentication-key |
| String length | 1 to 130 |
| Introduced | 22.7.R1 |
| Platforms | VSR |


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## **encryption-key** *hex-string*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Key used for the encryption algorithm |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange manual keys *number* direction *keyword* encryption-key *hex-string* |
| Tree | encryption-key |
| String length | 1 to 66 |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **ipsec-transform** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Transform entry used by manual SAs |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange manual keys *number* direction *keyword* ipsec-transform *reference* |
| Tree | ipsec-transform |
| Reference | **configure** ipsec ipsec-transform *number* |
| Notes | This element is mandatory. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **spi** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | SPI of inbound and outbound packets |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange manual keys *number* direction *keyword* spi *number* |


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| | |
|---|---|
| Tree | spi |
| Description | This command specifies the Security Parameter Index (SPI) used to look up the instruction to verify and decrypt the incoming IPsec packets when the direction is inbound. When the direction is outbound, the SPI is used in the encoding of the outgoing packets.<br>The remote node can use the SPI to look up the instruction to verify and decrypt the packet. |
| Range | 256 to 16383 |
| Notes | This element is mandatory. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **local-gateway-address-override** *(ipv4-address-no-zone | ipv6-address-no-zone)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Local IPsec tunnel endpoint address |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* local-gateway-address-override *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | local-gateway-address-override |
| Description | This command configures the local IPsec tunnel endpoint address. This overrides the default endpoint address, which is the interface address. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **max-history-key-records**

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **max-history-key-records** context |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* max-history-key-records |
| Tree | max-history-key-records |
| Description | Commands in this context configure the settings for recording historical IPsec keys. |


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| | |
|---|---|
| Introduced | 22.7.R1 |
| Platforms | VSR |

### **esp** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum number of recent records |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* max-history-key-records esp *number* |
| Tree | esp |
| Range | 1 to 48 |
| Introduced | 22.7.R1 |
| Platforms | VSR |

### **ike** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum number of historical IKE key records |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* max-history-key-records ike *number* |
| Tree | ike |
| Range | 1 to 3 |
| Introduced | 22.7.R1 |
| Platforms | VSR |

### **pmtu-discovery-aging** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Aging out time of the learned path MTU |


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| | |
|---|---|
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* pmtu-discovery-aging *number* |
| Tree | pmtu-discovery-aging |
| Description | This command configures the temporary public and private MTU expiration time. The temporary MTU is used for MTU propagation. |
| Range | 900 to 3600 |
| Units | seconds |
| Default | 900 |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **private-sap** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Private SAP ID |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* private-sap *number* |
| Tree | private-sap |
| Range | 0 to 4094 |
| Notes | This element is mandatory. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **private-service** *service-name*

**WARNING:**
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**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Private service name |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* private-service *service-name* |
| Tree | private-service |
| Description | This command configures the private service name.<br>If unconfigured, the private service is the service where the secured interface resides. |
| String length | 1 to 64 |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **private-tcp-mss-adjust** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | TCP maximum segment size (MSS) adjustment |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* private-tcp-mss-adjust *number* |
| Tree | private-tcp-mss-adjust |
| Description | This command specifies the TCP MSS to adjust for the tunnel on the private side.<br>When configured, the system may use the value to update the MSS option in the received TCP SYN packet on the private side. |
| Range | 512 to 9000 |
| Units | bytes |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **propagate-pmtu-v4** *boolean*

**WARNING:**
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| | |
|---|---|
| Synopsis | Enable propagation of the path MTU to IPv4 hosts |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* propagate-pmtu-v4 *boolean* |
| Tree | propagate-pmtu-v4 |
| Description | When configured to **true**, the system propagates the path MTU learned from the public side to the private side (IPv4 hosts). |
| Default | true |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **propagate-pmtu-v6** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable propagation of the path MTU to IPv6 hosts |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* propagate-pmtu-v6 *boolean* |
| Tree | propagate-pmtu-v6 |
| Description | When configured to **true**, the system propagates the path MTU learned from the public side to the private side (IPv6 hosts). |
| Default | true |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **public-tcp-mss-adjust** *(number | keyword)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | TCP maximum segment size (MSS) on the public network |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* public-tcp-mss-adjust *(number \| keyword)* |
| Tree | public-tcp-mss-adjust |


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| | |
|---|---|
| Description | This command configures the MSS for the TCP traffic in an IPsec tunnel that is sent from the public network to the private network. The system may use this value to adjust or insert the MSS option in the TCP SYN packet. |
| Range | 512 to 9000 |
| Units | bytes |
| Options | auto |
| Introduced | 22.7.R1 |
| Platforms | VSR |

### **remote-gateway-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Remote IPsec tunnel endpoint address |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* remote-gateway-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | remote-gateway-address |
| Introduced | 22.7.R1 |
| Platforms | VSR |

### **replay-window** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Anti-replay window size |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* replay-window *number* |
| Tree | replay-window |
| Description | This command specifies the size of an IPsec anti-replay window. If unconfigured, IPsec anti-replay is disabled. |
| Range | 32 \| 64 \| 128 \| 256 \| 512 |
| Units | packets |
| Introduced | 22.7.R1 |
| Platforms | VSR |


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## security-policy

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **security-policy** context |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* security-policy |
| Tree | security-policy |
| Description | Commands in this context specify a security policy used by the tunnel. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## id *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Security policy ID for use by the tunnel |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* security-policy id *number* |
| Tree | id |
| Max. range | 0 to 4294967295 |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## strict-match *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable strict match of the security policy entry |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipsec-tunnel *named-item* security-policy strict-match *boolean* |
| Tree | strict-match |


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| | |
|---|---|
| Description | When configured to **true**, this command enables strict match of the security policy entry.<br>When a CREATE_CHILD exchange request is received for a static IPsec tunnel, and this request is not a rekey request, ISA matches the received TSi and TSr with the configured security policy. This can be a match only when a received TS (in TSi or TSr) address range matches exactly with the subnet in a security policy entry.<br>If there is no match, the setup fails, and TS_UNACCEPTABLE is sent.<br>If there is a match, but there is an existing CHILD_SA for the matched security policy, the setup fails, and NO_PROPOSAL_CHOSEN is sent.<br>If there is a match, and there is not a CHILD_SA for the matched entry, the subnet is sent in the matched security policy entry as TSi and TSr, and the CHILD_SA is created. |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **ipv6-exception** *reference*

| | |
|---|---|
| Synopsis | IPv6 filter exception used to bypass encryption |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec ipv6-exception *reference* |
| Tree | ipv6-exception |
| Description | This command specifies the IPv6 filter exception for an IPsec-secured IPv6 interface. When an IPv6 filter exception is added, clear text packets that match the exception criteria in the IPv6 filter exception can ingress the interface, even when IPsec is enabled on the interface. |
| Reference | **configure** filter ipv6-exception *filter-name* |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **public-sap** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Public SAP ID |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec public-sap *number* |
| Tree | public-sap |
| Range | 0 to 4094 |


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| | |
|---|---|
| Notes | This element is mandatory. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **tunnel-group** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Tunnel group ID |
| Context | **configure** router *named-item-64* interface *interface-name* ipsec tunnel-group *reference* |
| Tree | tunnel-group |
| Reference | **configure** isa tunnel-group *number* |
| Notes | This element is mandatory. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **ipv4**

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 |
| Tree | ipv4 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **allow-directed-broadcasts** *boolean*

| | |
|---|---|
| Synopsis | Forward directed broadcasts |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 allow-directed-broadcasts *boolean* |
| Tree | allow-directed-broadcasts |
| Description | When configured to **true**, the router forwards packets received on a local router interface to the subnet broadcast address of another IP interface.<br>When configured to **false**, this router does not allow directed broadcasts and the packets are discarded. |


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| | |
|---|---|
| | Allowing directed broadcasts is a well-known mechanism used for denial-of-service attacks. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## bfd

| | |
|---|---|
| Synopsis | Enter the **bfd** context |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 bfd |
| Tree | bfd |
| Description | Commands in this context configure the Bidirectional Forwarding Detection (BFD) settings for the associated IP interface. |
| Introduced | 16.0.R1 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of BFD sessions |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 bfd admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

## echo-receive *number*

| | |
|---|---|
| Synopsis | Minimum echo interval over this interface |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 bfd echo-receive *number* |
| Tree | echo-receive |
| Range | 100 to 100000 |
| Units | milliseconds |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **multiplier** *number*

| | |
|---|---|
| Synopsis | Number of consecutive BFD messages missed from the peer |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 bfd multiplier *number* |
| Tree | multiplier |
| Description | This command configures the number of missed messages before the BFD session state is changed to down and the upper-level protocol is notified of the fault. A multiplier of less than 3 should not be used in production environments. |
| Range | 1 to 20 |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **receive** *number*

| | |
|---|---|
| Synopsis | BFD receive interval over this interface |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 bfd receive *number* |
| Tree | receive |
| Description | This command specifies the receive interval for the BFD session.<br>On the 7750 SR, this command can only be configured to a value less than 100 when the **type** command is configured to **cpm-np**. |
| Range | 10 to 100000 |
| Units | milliseconds |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **transmit-interval** *number*

| | |
|---|---|
| Synopsis | BFD transmit interval over this interface |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 bfd transmit-interval *number* |
| Tree | transmit-interval |
| Description | This command configures the transmit intervals.<br>On the 7750 SR, this command can only be configured to a value less than 100 when the **type** command is configured to **cpm-np**. |


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| | |
|---|---|
| Range | 10 to 100000 |
| Units | milliseconds |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **type** *keyword*

| | |
|---|---|
| Synopsis | Local termination point for the BFD session |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 bfd type *keyword* |
| Tree | type |
| Description | This command sets the local termination point for the BFD session to allow for fast timers down to 10 ms granularity.<br>The options to specify where the BFD session runs are:<br>• **auto** (default) – the system chooses and uses the line card CPU only for single-hop BFD sessions with timer intervals equal to or greater than 100ms. All others are placed on the **cpm-np**.<br>• **cpm-np** – BFD session runs on the FP complex associated with the CPM. This is either the FP on the CPM or the one elected on smaller systems.<br>• **fp** – BFD session runs on the line card CPU. This option can only be used for single-hop BFD sessions with timers equal to or greater than 100ms. |
| Options | cpm-np, auto, fp |
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **dhcp**

| | |
|---|---|
| Synopsis | Enter the **dhcp** context |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 dhcp |
| Tree | dhcp |
| Introduced | 16.0.R1 |
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of DHCP |


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| | |
|---|---|
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 dhcp admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Introduced | 16.0.R1 |
| Platforms | All |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 dhcp description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **gi-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | GI address for the DHCP relay |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 dhcp gi-address *ipv4-unicast-address* |
| Tree | gi-address |
| Description | This command configures the GI address to distinguish between the different subscriber interfaces (and potentially group interfaces) defined when the router functions as a DHCP relay.<br>By default, the GI address used in the relayed DHCP packet is the primary IP address of a normal IES interface. Specifying the GI address allows the user to choose a secondary address. For group interfaces, a GI address must be specified under the group interface DHCP context or subscriber interface DHCP context for DHCP to function. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **option-82**

| | |
|---|---|
| Synopsis | Enter the **option-82** context |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 dhcp option-82 |


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| | |
|---|---|
| Tree | option-82 |
| Description | Commands in this context configure the processing required when the router receives a DHCP request that already has an Option 82 field in the packet. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **action** *keyword*

| | |
|---|---|
| Synopsis | Action to take with received DHCP Option 82 |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 dhcp option-82 action *keyword* |
| Tree | action |
| Options | replace, drop, keep |
| Default | keep |
| Introduced | 16.0.R1 |
| Platforms | All |

## circuit-id

| | |
|---|---|
| Synopsis | Enter the **circuit-id** context |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 dhcp option-82 circuit-id |
| Tree | circuit-id |
| Introduced | 16.0.R1 |
| Platforms | All |

## ascii-tuple

| | |
|---|---|
| Synopsis | Use the ASCII-encoded tuple for the circuit ID |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 dhcp option-82 circuit-id ascii-tuple |
| Tree | ascii-tuple |
| Notes | The following elements are part of a choice: **ascii-tuple**, **if-name**, **ifindex**, **none**, **port-id**, or **vlan-ascii-tuple**. |
| Introduced | 16.0.R1 |
| Platforms | All |


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## if-name

| | |
|---|---|
| Synopsis | Use the interface name for the circuit ID |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 dhcp option-82 circuit-id if-name |
| Tree | if-name |
| Notes | The following elements are part of a choice: **ascii-tuple**, **if-name**, **ifindex**, **none**, **port-id**, or **vlan-ascii-tuple**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## ifindex

| | |
|---|---|
| Synopsis | Use the interface index for the circuit ID |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 dhcp option-82 circuit-id ifindex |
| Tree | ifindex |
| Notes | The following elements are part of a choice: **ascii-tuple**, **if-name**, **ifindex**, **none**, **port-id**, or **vlan-ascii-tuple**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## none

| | |
|---|---|
| Synopsis | Do not include the circuit ID |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 dhcp option-82 circuit-id none |
| Tree | none |
| Notes | The following elements are part of a choice: **ascii-tuple**, **if-name**, **ifindex**, **none**, **port-id**, or **vlan-ascii-tuple**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## port-id

| | |
|---|---|
| Synopsis | Use the port ID for the circuit ID |


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| | |
|---|---|
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 dhcp option-82 circuit-id port-id |
| Tree | port-id |
| Notes | The following elements are part of a choice: **ascii-tuple**, **if-name**, **ifindex**, **none**, **port-id**, or **vlan-ascii-tuple**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## vlan-ascii-tuple

| | |
|---|---|
| Synopsis | Include the VLAN ID and dot1p bits in the ASCII tuple |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 dhcp option-82 circuit-id vlan-ascii-tuple |
| Tree | vlan-ascii-tuple |
| Description | When configured, the router includes the VLAN ID and dot1p bits with the ASCII-tuple information. This only occurs on dot1q and QinQ-encapsulated ports. When the Option 82 bits are stripped, dot1p bits are copied to the Ethernet header of the outgoing packet.<br>When unconfigured, the router leaves the circuit ID sub-option of the DHCP packet empty. |
| Notes | The following elements are part of a choice: **ascii-tuple**, **if-name**, **ifindex**, **none**, **port-id**, or **vlan-ascii-tuple**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## remote-id

| | |
|---|---|
| Synopsis | Enter the **remote-id** context |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 dhcp option-82 remote-id |
| Tree | remote-id |
| Description | Commands in this context configure the remote IP sub-option of the DHCP packet with the identity of the remote host end (typically the DHCP client). |
| Introduced | 16.0.R1 |
| Platforms | All |

## ascii-string *string-not-all-spaces*

| | |
|---|---|
| Synopsis | User-defined ASCII string for the remote ID |


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| | |
|---|---|
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 dhcp option-82 remote-id ascii-string *string-not-all-spaces* |
| Tree | ascii-string |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **ascii-string**, **mac**, or **none**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## mac

| | |
|---|---|
| Synopsis | Use the MAC address for the remote ID |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 dhcp option-82 remote-id mac |
| Tree | mac |
| Notes | The following elements are part of a choice: **ascii-string**, **mac**, or **none**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## none

| | |
|---|---|
| Synopsis | Do not include the remote ID |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 dhcp option-82 remote-id none |
| Tree | none |
| Notes | The following elements are part of a choice: **ascii-string**, **mac**, or **none**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## vendor-specific-option

| | |
|---|---|
| Synopsis | Enter the **vendor-specific-option** context |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 dhcp option-82 vendor-specific-option |
| Tree | vendor-specific-option |
| Description | Commands in this context configure the Nokia Vendor-Specific Option (VSO) of the DHCP packet. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **client-mac-address** *boolean*

| | |
|---|---|
| Synopsis | Send the MAC address in the VSO |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 dhcp option-82 vendor-specific-option client-mac-address *boolean* |
| Tree | client-mac-address |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **pool-name** *boolean*

| | |
|---|---|
| Synopsis | Send the pool name in the VSO |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 dhcp option-82 vendor-specific-option pool-name *boolean* |
| Tree | pool-name |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **port-id** *boolean*

| | |
|---|---|
| Synopsis | Send the port ID in the VSO |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 dhcp option-82 vendor-specific-option port-id *boolean* |
| Tree | port-id |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **service-id** *boolean*

| | |
|---|---|
| Synopsis | Send the service ID in the Vendor Specific Option |


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| | |
|---|---|
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 dhcp option-82 vendor-specific-option service-id *boolean* |
| Tree | service-id |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **string** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | User-defined ASCII string for the VSO |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 dhcp option-82 vendor-specific-option string *string-not-all-spaces* |
| Tree | string |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **system-id** *boolean*

| | |
|---|---|
| Synopsis | Send the system ID in the VSO |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 dhcp option-82 vendor-specific-option system-id *boolean* |
| Tree | system-id |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **python-policy** *reference*

| | |
|---|---|
| Synopsis | Python policy name |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 dhcp python-policy *reference* |
| Tree | python-policy |
| Description | This command associates a Python policy name with the interface. |
| Reference | **configure** python python-policy *named-item* |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## **relay-plain-bootp** *boolean*

| | |
|---|---|
| Synopsis | Relay plain BOOTP messages |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 dhcp relay-plain-bootp *boolean* |
| Tree | relay-plain-bootp |
| Description | When configured to **true**, the system relays plain BOOTP messages.<br>When configured to **false**, the system considers the plain BOOTP packets as malformed DHCP packets; therefore, the system does not relay the messages. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **release-include-gi-address** *boolean*

| | |
|---|---|
| Synopsis | Include gateway IP address in DHCP Release messages |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 dhcp release-include-gi-address *boolean* |
| Tree | release-include-gi-address |
| Default | false |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **server** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IP addresses for DHCP server requests |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 dhcp server *ipv4-unicast-address* |
| Tree | server |
| Description | This command configures a list of servers that this interface forwards requests to.<br>The operator can enter the list of servers as either IP addresses or fully qualified domain names. The operator must specify at least one server specified for DHCP relay to work. If there are multiple servers, the system forwards the request to all the servers in the list. |
| Max. instances | 8 |


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| | |
|---|---|
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **src-ip-addr** *keyword*

| | |
|---|---|
| Synopsis | Type of source address to use for DHCP relay |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 dhcp src-ip-addr *keyword* |
| Tree | src-ip-addr |
| Options | auto, gi-address |
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | All |

## **trusted** *boolean*

| | |
|---|---|
| Synopsis | Relay untrusted packets |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 dhcp trusted *boolean* |
| Tree | trusted |
| Description | When configured to **true**, the router enables the trusted mode on the interface. When enabled, the relay agent changes the existing GI address (of the request) to the ingress interface, and forwards the request.<br>A DHCP request that contains a GI address of 0.0.0.0 and an Option 82 field in the packet is discarded unless it arrives on a trusted circuit.<br>This behavior only applies if the Relay Agent Information Option action is to keep the existing information. When the Option 82 field is replaced by the relay agent, the original Option 82 information is lost, and there is no reason to enable the trusted option. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **icmp**

| | |
|---|---|
| Synopsis | Enter the **icmp** context |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 icmp |
| Tree | icmp |


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| | |
|---|---|
| Description | Commands in this context configure Internet Control Message Protocol (ICMP) parameters on a network IP interface. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mask-reply** *boolean*

| | |
|---|---|
| Synopsis | Allow responses to ICMP mask requests on the interface |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 icmp mask-reply *boolean* |
| Tree | mask-reply |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **param-problem**

| | |
|---|---|
| Synopsis | Enter the **param-problem** context |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 icmp param-problem |
| Tree | param-problem |
| Description | Commands in this context specify the settings for ICMP Parameter Problem messages generated by the interface. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of sent Parameter Problem messages |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 icmp param-problem admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **number** *number*

| | |
|---|---|
| Synopsis | Maximum number of Parameter Problem messages to send |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 icmp param-problem number *number* |
| Tree | number |
| Range | 10 to 1000 |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **seconds** *number*

| | |
|---|---|
| Synopsis | Time used to limit number of Parameter Problem messages |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 icmp param-problem seconds *number* |
| Tree | seconds |
| Range | 1 to 60 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **redirects**

| | |
|---|---|
| Synopsis | Enter the **redirects** context |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 icmp redirects |
| Tree | redirects |
| Description | Commands in this context configure the settings for ICMP redirect messages generated by the interface.<br>The system sends ICMP redirect messages to alert the sending node that a more optimal route is available on another router on the same subnetwork. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of sending ICMP redirect messages |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 icmp redirects admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **number** *number*

| | |
|---|---|
| Synopsis | Maximum number of ICMP redirect messages to send |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 icmp redirects number *number* |
| Tree | number |
| Range | 10 to 1000 |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **seconds** *number*

| | |
|---|---|
| Synopsis | Time used to limit the number of ICMP redirect messages |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 icmp redirects seconds *number* |
| Tree | seconds |
| Range | 1 to 60 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |


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## ttl-expired

| | |
|---|---|
| Synopsis | Enter the **ttl-expired** context |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 icmp ttl-expired |
| Tree | ttl-expired |
| Description | Commands in this context configure the settings for ICMP TTL expired messages generated by the interface. |
| Introduced | 16.0.R1 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of sending TTL expired messages |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 icmp ttl-expired admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

## number *number*

| | |
|---|---|
| Synopsis | Maximum number of TTL expired messages to send |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 icmp ttl-expired number *number* |
| Tree | number |
| Range | 10 to 2000 |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

## seconds *number*

| | |
|---|---|
| Synopsis | Time used to limit the number of TTL expired messages |


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| | |
|---|---|
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 icmp ttl-expired seconds *number* |
| Tree | seconds |
| Range | 1 to 60 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

## unreachables

| | |
|---|---|
| Synopsis | Enter the **unreachables** context |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 icmp unreachables |
| Tree | unreachables |
| Description | Commands in this context specify the settings for ICMP host and network destination unreachable messages generated by the interface. |
| Introduced | 16.0.R1 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of sending unreachable messages |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 icmp unreachables admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

## number *number*

| | |
|---|---|
| Synopsis | Maximum number of unreachable messages to send |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 icmp unreachables number *number* |
| Tree | number |


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| | |
|---|---|
| Range | 10 to 2000 |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **seconds** *number*

| | |
|---|---|
| Synopsis | Time to limit the number of ICMP unreachable messages |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 icmp unreachables seconds *number* |
| Tree | seconds |
| Range | 1 to 60 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ip-helper-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IP address of the target UDP broadcast gateway |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 ip-helper-address *ipv4-unicast-address* |
| Tree | ip-helper-address |
| Description | This command configures the redirection of broadcast UDP packets received on the associated interface to the specified helper gateway address, and then to the gateway. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **local-dhcp-server** *reference*

| | |
|---|---|
| Synopsis | DHCP server for the interface |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 local-dhcp-server *reference* |
| Tree | local-dhcp-server |
| Reference | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## neighbor-discovery

| | |
|---|---|
| Synopsis | Enter the **neighbor-discovery** context |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 neighbor-discovery |
| Tree | neighbor-discovery |
| Introduced | 16.0.R1 |
| Platforms | All |

## learn-unsolicited *boolean*

| | |
|---|---|
| Synopsis | Learn new entries from any received NA message |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 neighbor-discovery learn-unsolicited *boolean* |
| Tree | learn-unsolicited |
| Description | When configured to **true**, the router can learn neighbor entries from received unsolicited Neighbor Advertisement (NA) messages, with or without the solicited (S) flag set. The command can be enabled for global addresses, link-local addresses, or for both.<br>When configured to **false**, the router follows standard behavior for learning neighbor entries.<br>• If an unsolicited NA (regardless of the S flag) is received from a neighbor that is not yet in the Neighbor Discovery (ND) cache, the NA is ignored.<br>• If an NS, RS, RA, or Redirect message with a Link Layer Address (MAC) is received from a neighbor that is not yet in the ND cache, a new neighbor entry is created in the cache to store the received Link Layer MAC. The neighbor is put in the STALE state. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## limit

| | |
|---|---|
| Synopsis | Enter the **limit** context |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 neighbor-discovery limit |
| Tree | limit |
| Description | Commands in this context configure the maximum number of dynamic neighbor entries that can be learned on the interface |


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When the number of entries reaches the threshold (the configured percentage) of this limit, the system sends an SNMP trap.

When the limit is exceeded, the system learns no new entries until an entry expires and traffic to these destinations is dropped. Already learned entries are refreshed.

| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **log-only** *boolean*

| | |
|---|---|
| Synopsis | Generate log entries only if limit is reached |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 neighbor-discovery limit log-only *boolean* |
| Tree | log-only |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **max-entries** *number*

| | |
|---|---|
| Synopsis | Maximum number of entries learned on an IP interface |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 neighbor-discovery limit max-entries *number* |
| Tree | max-entries |
| Range | 0 to 524288 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **threshold** *number*

| | |
|---|---|
| Synopsis | Threshold value that triggers a warning message |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 neighbor-discovery limit threshold *number* |
| Tree | threshold |
| Range | 1 to 100 |
| Units | percent |
| Default | 90 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## **local-proxy-arp** *boolean*

| | |
|---|---|
| Synopsis | Enable local proxy ARP on interface |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 neighbor-discovery local-proxy-arp *boolean* |
| Tree | local-proxy-arp |
| Description | When configured to **true**, the router enables local proxy ARP on the interface.<br>When configured to **false**, the router does not respond to ARP requests for addresses on the same subnet. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **proactive-refresh** *boolean*

| | |
|---|---|
| Synopsis | Send a single refresh message before entry timeout |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 neighbor-discovery proactive-refresh *boolean* |
| Tree | proactive-refresh |
| Description | When configured to **true**, the router always sends a refresh message 30 seconds before the timeout of the entry (a single refresh message with no retries).<br>When configured to **false**, the router marks an entry as stale 30 seconds before age-out, and the router only sends an ARP request to refresh the entry if the IOM receives traffic that uses it. Then, the IOM asks the ARP application to send a refresh message. With ARP proactive refresh enabled, the ARP module sends a refresh message regardless of the IOM receiving traffic. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **proxy-arp-policy** *reference*

| | |
|---|---|
| Synopsis | Proxy ARP policy name |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 neighbor-discovery proxy-arp-policy *reference* |
| Tree | proxy-arp-policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |


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| | |
|---|---|
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **remote-proxy-arp** *boolean*

| | |
|---|---|
| Synopsis | Enable remote proxy ARP on the interface |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 neighbor-discovery remote-proxy-arp *boolean* |
| Tree | remote-proxy-arp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **retry-timer** *number*

| | |
|---|---|
| Synopsis | ARP retry interval |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 neighbor-discovery retry-timer *number* |
| Tree | retry-timer |
| Range | 1 to 300 |
| Units | deciseconds |
| Default | 50 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **static-neighbor** [ipv4-address] *ipv4-address*

| | |
|---|---|
| Synopsis | Enter the **static-neighbor** list instance |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 neighbor-discovery static-neighbor *ipv4-address* |
| Tree | static-neighbor |
| Description | Commands in this context configure a static ARP entry that associates an IP address with a MAC address for the core router instance. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ipv4-address**] *ipv4-address*

| | |
|---|---|
| Synopsis | IPv4 address that corresponds to the physical address |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 neighbor-discovery static-neighbor *ipv4-address* |
| Tree | static-neighbor |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mac-address** *mac-address*

| | |
|---|---|
| Synopsis | MAC address for the static neighbor |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 neighbor-discovery static-neighbor *ipv4-address* mac-address *mac-address* |
| Tree | mac-address |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **static-neighbor-unnumbered**

| | |
|---|---|
| Synopsis | Enable the **static-neighbor-unnumbered** context |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 neighbor-discovery static-neighbor-unnumbered |
| Tree | static-neighbor-unnumbered |
| Description | Commands in this context configure the static ARP MAC for an unnumbered interface. This entry overrides the dynamic ARP entry on the unnumbered interface. |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **mac-address** *mac-address*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | MAC address for the static neighbor |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 neighbor-discovery static-neighbor-unnumbered mac-address *mac-address* |
| Tree | mac-address |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **timeout** *number*

| | |
|---|---|
| Synopsis | Timeout for an ARP entry learned on the interface |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 neighbor-discovery timeout *number* |
| Tree | timeout |
| Description | This command configures the minimum time an ARP entry learned on the IP interface is stored in the ARP table. ARP entries are automatically refreshed when an ARP request or gratuitous ARP is seen by an IP host. Otherwise, the ARP entry is aged from the ARP table. |
| Range | 0 to 65535 |
| Units | seconds |
| Default | 14400 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **primary**

| | |
|---|---|
| Synopsis | Enable the **primary** context |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 primary |
| Tree | primary |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Primary IPv4 address assigned to the interface |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 primary address *ipv4-unicast-address* |
| Tree | address |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **broadcast** *keyword*

| | |
|---|---|
| Synopsis | Broadcast address format |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 primary broadcast *keyword* |
| Tree | broadcast |
| Description | This command overrides the default broadcast address that the IP interface uses when sourcing IP broadcasts.<br>This command does not affect the type of broadcasts the IP interface can receive. The IP interface can receive either the local broadcast or the valid subnet broadcast address sent by a host. |
| Options | all-ones, host-ones |
| Default | host-ones |
| Introduced | 16.0.R1 |
| Platforms | All |

### **gre-termination** *boolean*

| | |
|---|---|
| Synopsis | Enable GRE termination |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 primary gre-termination *boolean* |
| Tree | gre-termination |
| Description | When configured to **true**, the router terminates MPLS-over-GRE and IP-over-GRE packets for destination IP addresses from a user-defined subnet. The user defines a subnet for the termination of GRE packets by executing this command on a numbered network IP interface or a loopback interface. |
| Default | false |


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| | |
|---|---|
| Introduced | 19.10.R1 |
| Platforms | VSR |

### **prefix-length** *number*

| | |
|---|---|
| Synopsis | IPv4 address prefix length |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 primary prefix-length *number* |
| Tree | prefix-length |
| Range | 0 to 32 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **track-srrp** *number*

| | |
|---|---|
| Synopsis | SRRP instance whose state is tracked on this IP address |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 primary track-srrp *number* |
| Tree | track-srrp |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **qos-route-lookup** *keyword*

| | |
|---|---|
| Synopsis | IP address for QoS route lookup for ingress IP packets |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 qos-route-lookup *keyword* |
| Tree | qos-route-lookup |
| Description | This command specifies the IP address type used for QPPB enabled per-packet QoS handling (in terms of FC and priority). When using QPPB, routes are associated with a QoS treatment (FC and optionally priority) through either explicit configuration or the route policy. If an IPv4 or IPv6 packet arrives on an interface where the configuration of this command applies to the packet, the QoS treatment of the packet is based on the route that matched the destination IP address or the route that matched the source IP address. |


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| | |
|---|---|
| | See "Enabling QPPB on an IP interface" in the *7450 ESS, 7750 SR, 7950 XRS, and VSR Router Configuration Guide* for more information about QPPB. |
| Options | destination, source, source-and-dest |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **secondary** [address] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Enter the **secondary** list instance |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 secondary *ipv4-unicast-address* |
| Tree | secondary |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**address**] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Secondary IPv4 address assigned to the interface |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 secondary *ipv4-unicast-address* |
| Tree | secondary |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **broadcast** *keyword*

| | |
|---|---|
| Synopsis | Broadcast address format |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 secondary *ipv4-unicast-address* broadcast *keyword* |
| Tree | broadcast |
| Description | This command overrides the default broadcast address that the IP interface uses when sourcing IP broadcasts.<br>This command does not affect the type of broadcasts the IP interface can receive. The IP interface can receive either the local broadcast or the valid subnet broadcast address sent by a host. |
| Options | all-ones, host-ones |


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| | |
|---|---|
| Default | host-ones |
| Introduced | 16.0.R1 |
| Platforms | All |

### **igp-inhibit** *boolean*

| | |
|---|---|
| Synopsis | Disable the running IGP from recognizing secondary IP |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 secondary *ipv4-unicast-address* igp-inhibit *boolean* |
| Tree | igp-inhibit |
| Description | When configured to **true**, the running IGP does not recognize the secondary IP address as a local interface. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **prefix-length** *number*

| | |
|---|---|
| Synopsis | IPv4 address prefix length |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 secondary *ipv4-unicast-address* prefix-length *number* |
| Tree | prefix-length |
| Range | 0 to 32 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **track-srrp** *number*

| | |
|---|---|
| Synopsis | SRRP instance whose state is tracked on this IP address |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 secondary *ipv4-unicast-address* track-srrp *number* |
| Tree | track-srrp |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **tcp-mss** *number*

| | |
|---|---|
| Synopsis | TCP maximum segment size for the interface |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 tcp-mss *number* |
| Tree | tcp-mss |
| Range | 384 to 9746 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **unnumbered**

| | |
|---|---|
| Synopsis | Enter the **unnumbered** context |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 unnumbered |
| Tree | unnumbered |
| Description | Commands in this context configure an IP interface as an unnumbered interface and specify the IP address to use for the interface. An operator can configure unnumbered interfaces to conserve IP addresses. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ip-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IP address to associate with unnumbered IP interface |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 unnumbered ip-address *ipv4-unicast-address* |
| Tree | ip-address |
| Notes | The following elements are part of a choice: **ip-address**, **ip-int-name**, or **system**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ip-int-name** *interface-name*

| | |
|---|---|
| Synopsis | Unnumbered IP interface name |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 unnumbered ip-int-name *interface-name* |
| Tree | ip-int-name |


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| | |
|---|---|
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **ip-address**, **ip-int-name**, or **system**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### system

| | |
|---|---|
| Synopsis | Use system IP address for the unnumbered IP interface |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 unnumbered system |
| Tree | system |
| Notes | The following elements are part of a choice: **ip-address**, **ip-int-name**, or **system**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### urpf-check

| | |
|---|---|
| Synopsis | Enable the **urpf-check** context |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 urpf-check |
| Tree | urpf-check |
| Introduced | 16.0.R1 |
| Platforms | All |

### ignore-default *boolean*

| | |
|---|---|
| Synopsis | Ignore default routes when performing a uRPF check |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 urpf-check ignore-default *boolean* |
| Tree | ignore-default |
| Description | When configured to **true**, the router ignores default routes while performing a uRPF check to determine the validity of incoming packets.<br>When configured to **false**, default routes are considered eligible. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **mode** *keyword*

| | |
|---|---|
| Synopsis | Unicast RPF check mode |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 urpf-check mode *keyword* |
| Tree | mode |
| Options | strict, loose, strict-no-ecmp |
| Default | strict |
| Introduced | 16.0.R1 |
| Platforms | All |

### **vrrp** [virtual-router-id] *number*

| | |
|---|---|
| Synopsis | Enter the **vrrp** list instance |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 vrrp *number* |
| Tree | vrrp |
| Description | Commands in this context configure a VRRP virtual router instance. A virtual router is defined by its Virtual Router Identifier (VRID) and a set of IP addresses. |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**virtual-router-id**] *number*

| | |
|---|---|
| Synopsis | Virtual Router Identifier (VRID) for the IP interface |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 vrrp *number* |
| Tree | vrrp |
| Range | 1 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of VRRP |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 vrrp *number* admin-state *keyword* |


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| | |
|---|---|
| Tree | admin-state |
| Description | The command determines the administrative state of non-owner virtual router instances.<br><br>Non-owner virtual router instances can be administratively disabled. This allows the termination of VRRP participation in the virtual router and stops all routing and other access capabilities with regards to the virtual router IP addresses. Disabling the virtual router instance provides a mechanism to maintain the virtual routers without causing false backup or master state changes.<br><br>When **disabled**, no VRRP advertisement messages are generated and all received VRRP advertisement messages are silently discarded with no processing.<br><br>Whenever the administrative or operational state of a virtual router instance transitions, a log message is generated.<br><br>An owner virtual router context does not use this command. To administratively disable an owner virtual router instance, use the **admin-state** command within the parent IP interface node which administratively disables the IP interface. |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

## **authentication-key** *encrypted-leaf*

| | |
|---|---|
| Synopsis | Password for simple text authentication |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 vrrp *number* authentication-key *encrypted-leaf* |
| Tree | authentication-key |
| Description | This command optionally assigns a simple text password authentication key to generate master VRRP advertisement messages and validate received VRRP advertisement messages.<br><br>If this command is re-executed with a different password key defined, the new key immediately replaces the old key. This command may be executed at any time. |
| String length | 1 to 38 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **backup** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Virtual router IP addresses for the interface |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 vrrp *number* backup *ipv4-unicast-address* |


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| | |
|---|---|
| Tree | backup |
| Description | This command associates virtual router IP addresses with those of the parental IP interface.<br><br>This command has two different functions based on whether it is being executed on an owner or non-owner virtual router instance.<br><br>Non-owner virtual router instances create a routable IP interface address that is operationally dependent on the virtual router instance mode (master or backup). This command, when executed on an owner virtual router instance, does not create a routable IP interface address; it simply defines the existing IP addresses of the parental IP interface that are advertised by the virtual router instance.<br><br>For owner virtual router instances, this command defines the IP addresses that are advertised within VRRP advertisement messages. This communicates the IP addresses that the master is advertising to backup virtual routers receiving the messages. The specified *unicast-ipv4-address* must be equal to one of the existing IP addresses in the parental IP interface (primary or secondary) or this command fails.<br><br>See "Owner and non-owner VRRP" in the *7450 ESS, 7750 SR, 7950 XRS, and VSR Router Configuration Guide* for more information about owner and non-owner virtual router instances. |
| Max. instances | 16 |
| Introduced | 16.0.R1 |
| Platforms | All |

## bfd-liveness

| | |
|---|---|
| Synopsis | Enable the **bfd-liveness** context |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 vrrp *number* bfd-liveness |
| Tree | bfd-liveness |
| Description | Commands in this context assign a Bidirectional Forwarding Detection (BFD) session to a specific VRRP or SRRP instance. This BFD session provides a heartbeat mechanism that speeds up the transition of the standby VRRP router to an active state. If the associated BFD session fails, the VRRP routers immediately send a VRRP advertisement message. In addition, the standby VRRP routers transition to a master state to speed up convergence.<br><br>The VRRP election process takes place based on the advertisement messages sent by all VRRP routers.<br><br>Only one BFD session can be assigned to any VRRP or SRRP instance, but multiple SRRP or VRRP sessions can use the same BFD session. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **dest-ip** *ipv4-address*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Destination IP address to use for BFD session |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 vrrp *number* bfd-liveness dest-ip *ipv4-address* |
| Tree | dest-ip |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **interface-name** *interface-name*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Name of the interface running BFD |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 vrrp *number* bfd-liveness interface-name *interface-name* |
| Tree | interface-name |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **service-name** *service-name*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Administrative service name |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 vrrp *number* bfd-liveness service-name *service-name* |


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| | |
|---|---|
| Tree | service-name |
| String length | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **init-delay** *number*

| | |
|---|---|
| Synopsis | VRRP initialization delay timer |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 vrrp *number* init-delay *number* |
| Tree | init-delay |
| Range | 1 to 65535 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mac** *mac-unicast-address*

| | |
|---|---|
| Synopsis | Virtual MAC address to use in ARP responses |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 vrrp *number* mac *mac-unicast-address* |
| Tree | mac |
| Description | This command sets an explicit MAC address for the virtual router instance that overrides the VRRP default derived from the VRID.<br><br>Changing the default MAC address is useful when an existing HSRP or other non-VRRP default MAC is in use by the IP hosts that use the virtual router IP address. Many hosts do not monitor unessential ARPs and continue to use the cached non-VRRP MAC address after the virtual router becomes master of the host's gateway address.<br><br>Additionally, this command sets the MAC address used in ARP responses when the virtual router instance is master. Routing of IP packets with *unicast-mac-address* as the destination MAC is also enabled. The MAC must be the same for all virtual routers participating as a virtual router or indeterminate connectivity by the attached IP hosts results. All VRRP advertisement messages are transmitted with *unicast-mac-address* as the source MAC.<br><br>An operator can execute this command at any time and it takes effect immediately. When the virtual router MAC on a master virtual router instance changes, a gratuitous ARP is immediately sent with a VRRP advertisement message. If the virtual router instance is disabled or operating as a backup, the gratuitous ARP and VRRP advertisement messages are not sent. |
| Introduced | 16.0.R1 |


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Platforms All

## **master-int-inherit** *boolean*

Synopsis Allow master instance to dictate the master down timer

Context **configure** router *named-item-64* interface *interface-name* ipv4 vrrp *number* master-int-inherit *boolean*

Tree master-int-inherit

Description When configured to **true**, the virtual router instance inherits the advertisement interval timer of the master VRRP router, which backup routers use to calculate the master down timer.

When configured to **false**, the locally configured message interval must match the master's VRRP advertisement message advertisement interval field value or the message is discarded.

Introduced 16.0.R1

Platforms All

## **message-interval** *number*

Synopsis Interval for sending VRRP advertisement messages

Context **configure** router *named-item-64* interface *interface-name* ipv4 vrrp *number* message-interval *number*

Tree message-interval

Description This command configures the administrative advertisement message timer used by the master virtual router instance to send VRRP advertisement messages. The backup master down timer is derived from the value configured using this command.

The usage of this command varies for non-owner virtual router instances, depending on the state of the virtual router (master or backup) and the state of the **master-int-inherit** command:

- When a non-owner is operating as master for the virtual router, the system uses the configured value of this command as the operational advertisement timer, similar to an owner virtual router instance. The **master-int-inherit** command has no effect when operating as master.
- When a non-owner is in the backup state with **master-int-inherit** disabled, the system uses the configured value of this command to match the incoming advertisement interval field of the VRRP advertisement message. If the locally configured message interval does not match the advertisement interval field, the system discards the VRRP advertisement.
- When a non-owner is in the backup state with **master-int-inherit** enabled, the configured value of this command is ignored. The master down timer is


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indirectly derived from the advertisement interval field value of the incoming VRRP advertisement message.

| | |
|---|---|
| Range | 1 to 2559 |
| Units | deciseconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **monitor-oper-group** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | VRRP instance to follow a specified operational group |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 vrrp *number* monitor-oper-group *reference* |
| Tree | monitor-oper-group |
| Description | This command configures VRRP to associate with an operational group. When associated, VRRP notifies the operational group of its state changes so that other protocols can monitor it to provide a redundancy mechanism. When VRRP is the master router, the operational group is up and the operational group is down for all other VRRP states. |
| Reference | **configure** service oper-group *named-item* |
| Introduced | 22.2.R1 |
| Platforms | All |

## **ntp-reply** *boolean*

| | |
|---|---|
| Synopsis | Allow processing of NTP requests |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 vrrp *number* ntp-reply *boolean* |
| Tree | ntp-reply |
| Description | When configured to **true**, the router redirects NTP requests to the VRRP virtual IP address. This behavior only applies to the router acting as the master VRRP router.<br>When configured to **false**, the router does not process NTP requests. |
| Default | false |
| Introduced | 20.2.R1 |


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| | |
|---|---|
| Platforms | All |

## **oper-group** *reference*

| | |
|---|---|
| Synopsis | Operational group name associated with the VRRP |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 vrrp *number* oper-group *reference* |
| Tree | oper-group |
| Description | This command configures an operational group to associate with the VRRP. When associated, VRRP notifies the operational group of its state changes so that other protocols can monitor it to provide a redundancy mechanism. When VRRP is the master router (MR), the operational group is up. The operational group is down for all other VRRP states. |
| Reference | **configure** service oper-group *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **owner** *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Designate the virtual router instance as owner |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 vrrp *number* owner *boolean* |
| Tree | owner |
| Description | When configured to **true**, the router designates this virtual router instance as the owner of the virtual router IP addresses. Therefore, this virtual router becomes responsible for forwarding packets sent to the virtual router IP addresses. The owner also assumes the role of master virtual router.<br>When configured to **false**, this virtual router instance is designated as a non-owner. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **passive** *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Suppress the processing of VRRP advertisement messages |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 vrrp *number* passive *boolean* |
| Tree | passive |
| Description | When configured to **true**, the router identifies this virtual router instance as passive; and therefore the owner of the virtual router IP addresses. A passive virtual router instance does not transmit or receive VRRP advertisement messages and is always in either the master state (if the interface is operationally up) or the init state (if the interface is operationally down).<br>When configured to **false**, this virtual router instance is not identified as passive, meaning that it transmits and receives VRRP advertisement messages. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **ping-reply** *boolean*

| | |
|---|---|
| Synopsis | Allow non-owner master to reply to ICMP echo requests |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 vrrp *number* ping-reply *boolean* |
| Tree | ping-reply |
| Description | When configured to **true**, the router allows the non-owner master to reply to ICMP echo requests directed at the IP addresses of the virtual router instance. Any routed interface can receive the ping request. Ping must not have been disabled at the management security level (either on the parental IP interface or on the Ping source host address).<br>When configured to **false**, ICMP echo requests sent to non-owner master virtual IP addresses are silently discarded.<br>Non-owner backup virtual routers never respond to ICMP echo requests, regardless of the configuration of this command. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **policy** *reference*

| | |
|---|---|
| Synopsis | VRRP priority control policy |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 vrrp *number* policy *reference* |
| Tree | policy |
| Description | This command configures a VRRP priority control policy to associate with the virtual router instance.<br>VRRP priority control policies can override or adjust the base priority value of the virtual router instance, depending on events or conditions within the chassis.<br>An operator can associate a policy with more than one virtual router instance. The priority events within the policy either override or diminish the base priority set with the **priority** command. As priority events clear in the policy, the in-use priority can eventually be restored to the base priority value.<br>For non-owner virtual router instances, if this command is not executed, the base priority is used as the in-use priority. |
| Reference | **configure** vrrp policy *number* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **preempt** *boolean*

| | |
|---|---|
| Synopsis | Allow the VRRP to override an existing non-owner master |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 vrrp *number* preempt *boolean* |
| Tree | preempt |
| Description | When configured to **true**, this virtual router instance overrides any non-owner master with an in-use message priority value less than the in-use priority value of this virtual router.<br>When configured to **false**, this virtual router only becomes master if the master down timer expires before a VRRP advertisement message is received from another virtual router. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

## **priority** *number*

| | |
|---|---|
| Synopsis | Base priority for the VRRP |


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| | |
|---|---|
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 vrrp *number* priority *number* |
| Tree | priority |
| Description | This command configures the base router priority for the virtual router instance, which defines the selection order of the virtual router in the master election process.<br>The in-use priority is derived from the base priority. However, the in-use priority is modified by optional VRRP priority control policies. An operator can use VRRP priority control policies to either override or adjust the base priority value depending on events or conditions within the chassis. |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **ssh-reply** *boolean*

| | |
|---|---|
| Synopsis | Allow the non-owner master to reply to SSH requests |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 vrrp *number* ssh-reply *boolean* |
| Tree | ssh-reply |
| Description | When configured to **true**, the router allows the non-owner master to reply to SSH requests directed at the IP addresses of the virtual router instance. Any routed interface can receive the SSH request. SSH cannot be disabled at the management security level (either on the parental IP interface or on the SSH source host address).<br>When configure to **false**, SSH requests to non-owner master virtual IP addresses are silently discarded. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **standby-forwarding** *boolean*

| | |
|---|---|
| Synopsis | Allow standby router to forward traffic |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 vrrp *number* standby-forwarding *boolean* |
| Tree | standby-forwarding |
| Description | When configured to **true**, the standby router forwards all traffic.<br>When configured to **false**, the standby router cannot forward traffic sent to the MAC address of the virtual router. However, the standby router still forwards traffic sent to its own MAC address. |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **telnet-reply** *boolean*

| | |
|---|---|
| Synopsis | Allow non-owner master to reply to Telnet requests |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 vrrp *number* telnet-reply *boolean* |
| Tree | telnet-reply |
| Description | When configured to **true**, the router allows the non-owner master to reply to Telnet requests directed at the IP addresses of the virtual router instance. Any routed interface can receive Telnet requests. Telnet cannot be disabled at the management security level (either on the parental IP interface or on the Telnet source host address).<br>When configured to **false**, the router silently discards Telnet requests sent to non-owner master virtual IP addresses. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **traceroute-reply** *boolean*

| | |
|---|---|
| Synopsis | Allow non-owner master to reply to traceroute requests |
| Context | **configure** router *named-item-64* interface *interface-name* ipv4 vrrp *number* traceroute-reply *boolean* |
| Tree | traceroute-reply |
| Description | When configured to **true**, the router allows a non-owner master to reply to traceroute requests directed to the IP addresses of the virtual router instance.<br>When configured to **false**, the router silently discards traceroute requests sent to non-owner master virtual IP addresses.<br>Traceroute must not have been disabled at the management security level (either on the parental IP interface or the source host address). |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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## ipv6

| | |
|---|---|
| Synopsis | Enable the **ipv6** context |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 |
| Tree | ipv6 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **address** [ipv6-address] *ipv6-address*

| | |
|---|---|
| Synopsis | Enter the **address** list instance |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 address *ipv6-address* |
| Tree | address |
| Description | Commands in this context assign an IPv6 address to the interface.<br>A global IPv6 address and *prefix-length* combined create a locally configured interface IPv6 prefix and subnet. The defined global IP prefix must be unique within the context of a routing instance. It cannot overlap with any other existing global IP prefix defined on another IP interface within the same routing context.<br>This overlap restriction is not applicable for IPv6 host addresses configured on loopback interfaces. For example, an IPv6 loopback host address configured on a loopback interface may overlap with another prefix subnet configured on another IP interface within the same routing context. |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**ipv6-address**] *ipv6-address*

| | |
|---|---|
| Synopsis | IPv6 address assigned to the interface |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 address *ipv6-address* |
| Tree | address |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **duplicate-address-detection** *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable Duplicate Address Detection |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 address *ipv6-address* duplicate-address-detection *boolean* |
| Tree | duplicate-address-detection |
| Description | When configured to **true**, the router enables Duplicate Address Detection (DAD).<br>When configured to **false**, the router disables DAD and sets the address to preferred, even if there is a duplicated address. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

## **eui-64** *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Form IPv6 address from prefix and 64-bit interface ID |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 address *ipv6-address* eui-64 *boolean* |
| Tree | eui-64 |
| Description | When configured to **true**, the router forms a complete IPv6 address from the supplied prefix and 64-bit interface identifier. The 64-bit interface identifier is derived from the MAC address on Ethernet interfaces. For interfaces without a MAC address, for example POS interfaces, use the base MAC address of the chassis. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **prefix-length** *number*

| | |
|---|---|
| Synopsis | IPv6 address prefix length |


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| | |
|---|---|
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 address *ipv6-address* prefix-length *number* |
| Tree | prefix-length |
| Range | 4 to 128 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **primary-preference** *number*

| | |
|---|---|
| Synopsis | Index assigned to the IPv6 address of the interface |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 address *ipv6-address* primary-preference *number* |
| Tree | primary-preference |
| Description | This command assigns a primary preference index to an IPv6 address of the interface to enforce the order in which the address is used by control plane protocols and applications that require a fixed address of the interface, such as LDP and Segment Routing. In cases where a fixed address is required when originating packets from the interface, the IPv6 address with the lowest primary preference index is selected. If the selected address is removed, the next IPv6 address with the next lowest primary preference index is selected.<br><br>If this index is not specified for the IPv6 address, the system assigns the next available index value to the address. The address index space is unique across all addresses of a given interface. |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **track-srrp** *number*

| | |
|---|---|
| Synopsis | SRRP ID whose state is tracked on this IP address |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 address *ipv6-address* track-srrp *number* |
| Tree | track-srrp |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |


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## bfd

| | |
|---|---|
| Synopsis | Enter the **bfd** context |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 bfd |
| Tree | bfd |
| Introduced | 16.0.R1 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of BFD sessions |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 bfd admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

## echo-receive *number*

| | |
|---|---|
| Synopsis | Minimum echo interval over this interface |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 bfd echo-receive *number* |
| Tree | echo-receive |
| Range | 100 to 100000 |
| Units | milliseconds |
| Introduced | 16.0.R1 |
| Platforms | All |

## multiplier *number*

| | |
|---|---|
| Synopsis | Number of consecutive BFD messages missed from the peer |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 bfd multiplier *number* |
| Tree | multiplier |
| Description | This command configures the number of missed messages before the BFD session state is changed to down and the upper-level protocol is notified of the fault. A multiplier of less than 3 should not be used in production environments. |


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| | |
|---|---|
| Range | 1 to 20 |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **receive** *number*

| | |
|---|---|
| Synopsis | BFD receive interval over this interface |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 bfd receive *number* |
| Tree | receive |
| Description | This command specifies the receive interval for the BFD session.<br>On the 7750 SR, this command can only be configured to a value less than 100 when the **type** command is configured to **cpm-np**. |
| Range | 10 to 100000 |
| Units | milliseconds |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **transmit-interval** *number*

| | |
|---|---|
| Synopsis | BFD transmit interval over this interface |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 bfd transmit-interval *number* |
| Tree | transmit-interval |
| Description | This command configures the transmit intervals.<br>On the 7750 SR, this command can only be configured to a value less than 100 when the **type** command is configured to **cpm-np**. |
| Range | 10 to 100000 |
| Units | milliseconds |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **type** *keyword*

| | |
|---|---|
| Synopsis | Local termination point for the BFD session |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 bfd type *keyword* |
| Tree | type |
| Description | This command sets the local termination point for the BFD session to allow for fast timers down to 10 ms granularity.<br>The options to specify where the BFD session runs are:<br>• **auto** (default) – the system chooses and uses the line card CPU only for single-hop BFD sessions with timer intervals equal to or greater than 100ms. All others are placed on the **cpm-np**.<br>• **cpm-np** – BFD session runs on the FP complex associated with the CPM. This is either the FP on the CPM or the one elected on smaller systems.<br>• **fp** – BFD session runs on the line card CPU. This option can only be used for single-hop BFD sessions with timers equal to or greater than 100ms. |
| Options | cpm-np, auto, fp |
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **duplicate-address-detection** *boolean*

| | |
|---|---|
| Synopsis | Enable Duplicate Address Detection |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 duplicate-address-detection *boolean* |
| Tree | duplicate-address-detection |
| Description | When configured to **true**, the router enables Duplicate Address Detection (DAD) on the interface.<br>When configured to **false**, the router disables DAD on a per-interface basis. This prevents the router from performing a DAD check on the interface. All IPv6 addresses on an interface with DAD disabled, immediately enter a preferred state, without checking for uniqueness on the interface. This is useful for interfaces that enter a looped state during troubleshooting and are operationally disabled when the loop is detected, requiring manual intervention to clear the DAD violation. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **forward-ipv4-packets** *boolean*

| | |
|---|---|
| Synopsis | Forward unencapsulated IPv4 packets |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 forward-ipv4-packets *boolean* |
| Tree | forward-ipv4-packets |
| Description | When configured to **true**, the router can use an IPv6-only interface, with no configured IPv4 addresses, to forward IPv4 packets that originate or terminate locally.<br>The interface reports that its IPv4 operational state is up if its IPv6 operational state is up. Not all protocols observe the interface as up from an IPv4 perspective. This command mostly supports BGP routing use cases; see RFC 5549 for details.<br>When configured to **false**, the router prevents IPv4 packets from being forwarded if there are no configured IPv4 subnets. |
| Default | false |
| Introduced | 19.5.R1 |
| Platforms | All |

### **icmp6**

| | |
|---|---|
| Synopsis | Enter the **icmp6** context |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 icmp6 |
| Tree | icmp6 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **packet-too-big**

| | |
|---|---|
| Synopsis | Enter the **packet-too-big** context |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 icmp6 packet-too-big |
| Tree | packet-too-big |
| Description | Commands in this context configure limiting the number of ICMPv6 Packet Too Big messages. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of Packet Too Big message sends |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 icmp6 packet-too-big admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **number** *number*

| | |
|---|---|
| Synopsis | Number of Packet Too big Messages issued per time frame |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 icmp6 packet-too-big number *number* |
| Tree | number |
| Range | 10 to 1000 |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **seconds** *number*

| | |
|---|---|
| Synopsis | Time used to limit Packet Too Big messages |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 icmp6 packet-too-big seconds *number* |
| Tree | seconds |
| Range | 1 to 60 |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **param-problem**

| | |
|---|---|
| Synopsis | Enter the **param-problem** context |


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| | |
|---|---|
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 icmp6 param-problem |
| Tree | param-problem |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of Parameter Problem message sends |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 icmp6 param-problem admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **number** *number*

| | |
|---|---|
| Synopsis | Number used to limit ICMPv6 Parameter Problem messages |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 icmp6 param-problem number *number* |
| Tree | number |
| Range | 10 to 1000 |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **seconds** *number*

| | |
|---|---|
| Synopsis | Time used to limit ICMPv6 Parameter Problem messages |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 icmp6 param-problem seconds *number* |
| Tree | seconds |
| Range | 1 to 60 |
| Default | 10 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## redirects

| | |
|---|---|
| Synopsis | Enter the **redirects** context |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 icmp6 redirects |
| Tree | redirects |
| Introduced | 16.0.R1 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of Redirect message sends |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 icmp6 redirects admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

## number *number*

| | |
|---|---|
| Synopsis | Number to limit ICMPv6 Redirect messages per time frame |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 icmp6 redirects number *number* |
| Tree | number |
| Range | 10 to 1000 |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

## seconds *number*

| | |
|---|---|
| Synopsis | Time used to limit ICMPv6 Redirect messages |


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| | |
|---|---|
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 icmp6 redirects seconds *number* |
| Tree | seconds |
| Range | 1 to 60 |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

## time-exceeded

| | |
|---|---|
| Synopsis | Enter the **time-exceeded** context |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 icmp6 time-exceeded |
| Tree | time-exceeded |
| Introduced | 16.0.R1 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of Time Exceeded message sends |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 icmp6 time-exceeded admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

## number *number*

| | |
|---|---|
| Synopsis | Number to limit Time Exceeded messages per time frame |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 icmp6 time-exceeded number *number* |
| Tree | number |
| Range | 10 to 2000 |
| Default | 100 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **seconds** *number*

| | |
|---|---|
| Synopsis | Time used to limit ICMPv6 Time Exceeded messages |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 icmp6 time-exceeded seconds *number* |
| Tree | seconds |
| Range | 1 to 60 |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **unreachables**

| | |
|---|---|
| Synopsis | Enter the **unreachables** context |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 icmp6 unreachables |
| Tree | unreachables |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of Unreachable message sends |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 icmp6 unreachables admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **number** *number*

| | |
|---|---|
| Synopsis | Number to limit Unreachable messages per time frame |


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| | |
|---|---|
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 icmp6 unreachables number *number* |
| Tree | number |
| Range | 10 to 2000 |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **seconds** *number*

| | |
|---|---|
| Synopsis | Time used to limit ICMPv6 Unreachable messages |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 icmp6 unreachables seconds *number* |
| Tree | seconds |
| Range | 1 to 60 |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### link-local-address

| | |
|---|---|
| Synopsis | Enter the **link-local-address** context |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 link-local-address |
| Tree | link-local-address |
| Description | Commands in this context configure the IPv6 link-local address that is used as a virtual SRRP IPv6 address by the master SRRP node. This address is sent in the Router Advertisements initiated by the master SRRP node. Clients use this address as IPv6 default-gateway. Both SRRP nodes, master and backup, must be configured with the same link-local address.<br><br>Only one link-local address is allowed per interface.<br><br>**Caution**: Removing a manually configured link-local address may impact routing protocols or static routes that have a dependency on that address. Nokia does not recommend removing a link-local address when there are active IPv6 subscriber hosts on an IES or VPRN interface. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **address** *ipv6-address*

| | |
|---|---|
| Synopsis | IPv6 link-local address |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 link-local-address address *ipv6-address* |
| Tree | address |
| Introduced | 16.0.R1 |
| Platforms | All |

### **duplicate-address-detection** *boolean*

| | |
|---|---|
| Synopsis | Enable Duplicate Address Detection |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 link-local-address duplicate-address-detection *boolean* |
| Tree | duplicate-address-detection |
| Description | When configured to **true**, the router enables Duplicate Address Detection (DAD) on the interface.<br>When configured to **false**, the router disables DAD and sets the address to preferred, even if there is a duplicated address. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **local-dhcp-server** *reference*

| | |
|---|---|
| Synopsis | DHCP server for the interface |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 local-dhcp-server *reference* |
| Tree | local-dhcp-server |
| Description | This command instantiates a local DHCP server. A local DHCP server can serve multiple interfaces but is limited to the routing context in which it was created. |
| Reference | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## neighbor-discovery

| | |
|---|---|
| Synopsis | Enter the **neighbor-discovery** context |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 neighbor-discovery |
| Tree | neighbor-discovery |
| Introduced | 16.0.R1 |
| Platforms | All |

## learn-unsolicited *keyword*

| | |
|---|---|
| Synopsis | Type of entries learned from unsolicited NA messages |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 neighbor-discovery learn-unsolicited *keyword* |
| Tree | learn-unsolicited |
| Description | This command enables the ability to learn neighbor entries out of received unsolicited Neighbor Advertisement (NA) messages, with or without the solicited flag set.<br>When unconfigured, the router follows standard RFC 4861 behavior for learning of neighbor entries. The neighbor is put in the stale state. This is the standard RFC behavior. |
| Options | global, link-local, both |
| Introduced | 16.0.R1 |
| Platforms | All |

## limit

| | |
|---|---|
| Synopsis | Enter the **limit** context |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 neighbor-discovery limit |
| Tree | limit |
| Description | Commands in this context configure the maximum amount of dynamic IPv6 neighbor entries that can be learned on an IP interface.<br>When the number of dynamic neighbor entries reaches the configured percentage of this limit the system sends an SNMP trap. When the limit is exceeded, no new entries are learned until an entry expires and traffic to these destinations is dropped. Entries that have already been learned are refreshed. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **log-only** *boolean*

| | |
|---|---|
| Synopsis | Generate log entries when limit is reached |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 neighbor-discovery limit log-only *boolean* |
| Tree | log-only |
| Description | When configured to **true**, the router sends the warning message at the specified threshold percentage or upon exceeding the specified limit. Entries that exceed the limit are learned.<br>When configured to **false**, the router does not send the warning message. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **max-entries** *number*

| | |
|---|---|
| Synopsis | Maximum number of entries learned on an IP interface |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 neighbor-discovery limit max-entries *number* |
| Tree | max-entries |
| Description | This command configures the maximum number of entries that can be learned on an IP interface.<br>When unconfigured, no maximum limit is imposed. |
| Range | 0 to 102400 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **threshold** *number*

| | |
|---|---|
| Synopsis | Threshold percentage that triggers a warning message |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 neighbor-discovery limit threshold *number* |
| Tree | threshold |
| Range | 1 to 100 |
| Units | percent |
| Default | 90 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## **local-proxy-nd** *boolean*

| | |
|---|---|
| Synopsis | Enable local proxy neighbor discovery on the interface |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 neighbor-discovery local-proxy-nd *boolean* |
| Tree | local-proxy-nd |
| Description | When configured to **true**, the router enables local proxy neighbor discovery on the interface and replies to neighbor solicitation requests when both the hosts are on the same subnet. In this case, ICMP redirects are disabled.<br>When configured to **false**, the router disables local proxy neighbor discovery on the interface and does not reply to neighbor solicitation requests if both the hosts are on the same subnet. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **proactive-refresh** *keyword*

| | |
|---|---|
| Synopsis | Proactive refresh of neighbor entries |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 neighbor-discovery proactive-refresh *keyword* |
| Tree | proactive-refresh |
| Description | This command enables a proactive refresh of the neighbor entries. After the stale timer expires, the router sends an NUD message to the host (regardless of the existence of traffic to the IP address on the IOM), so the entry can be refreshed or removed. |
| Options | global, link-local, both |
| Introduced | 16.0.R1 |
| Platforms | All |

## **proxy-nd-policy** *reference*

| | |
|---|---|
| Synopsis | Proxy Neighbor Discovery policy name for the interface |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 neighbor-discovery proxy-nd-policy *reference* |
| Tree | proxy-nd-policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |


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| | |
|---|---|
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **reachable-time** *number*

| | |
|---|---|
| Synopsis | Neighbor reachability detection timer |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 neighbor-discovery reachable-time *number* |
| Tree | reachable-time |
| Range | 30 to 3600 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **secure-nd**

| | |
|---|---|
| Synopsis | Enter the **secure-nd** context |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 neighbor-discovery secure-nd |
| Tree | secure-nd |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of Secure Neighbor Discovery |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 neighbor-discovery secure-nd admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **allow-unsecured-msgs** *boolean*

| | |
|---|---|
| Synopsis | Accept unsecured messages |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 neighbor-discovery secure-nd allow-unsecured-msgs *boolean* |
| Tree | allow-unsecured-msgs |
| Description | When configured to **true**, the router accepts unsecured messages. When Secure Neighbor Discovery (SeND) is enabled, only secure messages are accepted.<br>When configured to **false**, the router disables the acceptance of unsecured messages. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **public-key-min-bits** *number*

| | |
|---|---|
| Synopsis | Minimum acceptable key length for public keys in CGA |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 neighbor-discovery secure-nd public-key-min-bits *number* |
| Tree | public-key-min-bits |
| Range | 512 to 1024 |
| Default | 1024 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **security-parameter** *number*

| | |
|---|---|
| Synopsis | Security parameter used in the generation of a CGA |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 neighbor-discovery secure-nd security-parameter *number* |
| Tree | security-parameter |
| Range | 0 to 1 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **stale-time** *number*

| | |
|---|---|
| Synopsis | Time a Neighbor Discovery cache entry remains stale |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 neighbor-discovery stale-time *number* |
| Tree | stale-time |
| Range | 60 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **static-neighbor** [ipv6-address] *ipv6-address*

| | |
|---|---|
| Synopsis | Enter the **static-neighbor** list instance |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 neighbor-discovery static-neighbor *ipv6-address* |
| Tree | static-neighbor |
| Description | Commands in this context configure an IPv6-to-MAC address mapping on the interface. Use this command if a directly attached IPv6 node does not support ICMPv6 neighbor discovery, or for some reason, a static address must be used. This command can only be used on Ethernet media.<br>The IPv6 address must be on the subnet that was configured from the IPv6 **address** or a **link-local-address** commands. |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ipv6-address**] *ipv6-address*

| | |
|---|---|
| Synopsis | IPv6 address corresponding to the physical address |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 neighbor-discovery static-neighbor *ipv6-address* |
| Tree | static-neighbor |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **mac-address** *mac-address*

| | |
|---|---|
| Synopsis | MAC address for the static neighbor |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 neighbor-discovery static-neighbor *ipv6-address* mac-address *mac-address* |
| Tree | mac-address |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **qos-route-lookup** *keyword*

| | |
|---|---|
| Synopsis | IP address for QoS route lookup for ingress IP packets |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 qos-route-lookup *keyword* |
| Tree | qos-route-lookup |
| Description | This command specifies the IP address type used for QPPB enabled per-packet QoS handling (in terms of FC and priority). When using QPPB, routes are associated with a QoS treatment (FC and optionally priority) through either explicit configuration or the route policy. If an IPv4 or IPv6 packet arrives on an interface where the configuration of this command applies to the packet, the QoS treatment of the packet is based on the route that matched the destination IP address or the route that matched the source IP address.<br><br>See "Enabling QPPB on an IP interface" in the *7450 ESS, 7750 SR, 7950 XRS, and VSR Router Configuration Guide* for more information about QPPB. |
| Options | destination, source, source-and-dest |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **tcp-mss** *number*

| | |
|---|---|
| Synopsis | TCP maximum segment size for the IPv6 interface |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 tcp-mss *number* |
| Tree | tcp-mss |
| Range | 1220 to 9726 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### urpf-check

| | |
|---|---|
| Synopsis | Enable the **urpf-check** context |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 urpf-check |
| Tree | urpf-check |
| Introduced | 16.0.R1 |
| Platforms | All |

### ignore-default *boolean*

| | |
|---|---|
| Synopsis | Ignore default route when performing a uRPF check |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 urpf-check ignore-default *boolean* |
| Tree | ignore-default |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### mode *keyword*

| | |
|---|---|
| Synopsis | Unicast RPF check mode |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 urpf-check mode *keyword* |
| Tree | mode |
| Options | strict, loose, strict-no-ecmp |
| Default | strict |
| Introduced | 16.0.R1 |
| Platforms | All |

### vrrp [virtual-router-id] *number*

| | |
|---|---|
| Synopsis | Enter the **vrrp** list instance |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 vrrp *number* |
| Tree | vrrp |
| Description | Commands in this context configure a VRRP virtual router instance. A virtual router is defined by its virtual router identifier (VRID) and a set of IP addresses. |


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| | |
|---|---|
| Max. instances | 4 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**virtual-router-id**] *number*

| | |
|---|---|
| Synopsis | Virtual Router Identifier (VRID) for the IP interface |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 vrrp *number* |
| Tree | vrrp |
| Range | 1 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of VRRP |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 vrrp *number* admin-state *keyword* |
| Tree | admin-state |
| Description | The command determines the administrative state of non-owner virtual router instances.<br>Non-owner virtual router instances can be administratively disabled. This allows the termination of VRRP participation in the virtual router and stops all routing and other access capabilities with regards to the virtual router IP addresses. Disabling the virtual router instance provides a mechanism to maintain the virtual routers without causing false backup or master state changes.<br>When **disabled**, no VRRP advertisement messages are generated and all received VRRP advertisement messages are silently discarded with no processing.<br>Whenever the administrative or operational state of a virtual router instance transitions, a log message is generated.<br>An owner virtual router context does not use this command. To administratively disable an owner virtual router instance, use the **admin-state** command within the parent IP interface node which administratively disables the IP interface. |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **backup** *ipv6-address*

| | |
|---|---|
| Synopsis | Virtual router IP addresses for the interface |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 vrrp *number* backup *ipv6-address* |
| Tree | backup |
| Description | This command associates router IPv6 virtual router IP addresses with those of the parental IP interface.<br><br>This command has two different functions based on whether it is being executed on an owner or non-owner virtual router instance.<br><br>Non-owner virtual router instance create a routable IP interface address that is operationally dependent on the virtual router instance mode (master or backup). This command, when executed on an owner virtual router instance, does not create a routable IP interface address; it simply defines the existing IP addresses of the parental IP interface that are advertised by the virtual router instance.<br><br>For owner virtual router instances, this command defines the IP addresses that are advertised within VRRP advertisement messages. This communicates the IP addresses that the master is representing to backup virtual routers receiving the messages. The specified IPv6 address must be equal to one of the existing parental IP addresses in the parental IP interface (primary or secondary) or this command fails.<br><br>See "Owner and non-owner VRRP" in the *7450 ESS, 7750 SR, 7950 XRS, and VSR Router Configuration Guide* for more information about owner and non-owner virtual router instances. |
| Introduced | 16.0.R1 |
| Platforms | All |

## bfd-liveness

| | |
|---|---|
| Synopsis | Enable the **bfd-liveness** context |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 vrrp *number* bfd-liveness |
| Tree | bfd-liveness |
| Description | Commands in this context assign a bidirectional forwarding detect (BFD) session to a specific VRRP or SRRP instance. This BFD session provides a heartbeat mechanism for use in speeding up the transition of the standby VRRP router to an active state.<br>If the associated BFD session fails, the VRRP routers immediately send a VRRP Advertisement message. In addition, the standby VRRP routers transition to a Master state to speed convergence.<br><br>The normal VRRP election process takes place based on the Advertisement messages sent by all VRRP routers.<br><br>There can be only one BFD session assigned to any specific VRRP or SRRP instance, but there can be multiple SRRP or VRRP sessions using the same BFD session. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **dest-ip** *(ipv4-address-no-zone | ipv6-address-no-zone)*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Destination address for the BFD session |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 vrrp *number* bfd-liveness dest-ip *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | dest-ip |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **interface-name** *interface-name*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Name of the interface running BFD |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 vrrp *number* bfd-liveness interface-name *interface-name* |
| Tree | interface-name |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **service-name** *service-name*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.


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| | |
|---|---|
| Synopsis | Administrative service name |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 vrrp *number* bfd-liveness service-name *service-name* |
| Tree | service-name |
| String length | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **init-delay** *number*

| | |
|---|---|
| Synopsis | VRRP initialization delay timer |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 vrrp *number* init-delay *number* |
| Tree | init-delay |
| Range | 1 to 65535 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

## **mac** *mac-unicast-address*

| | |
|---|---|
| Synopsis | Virtual MAC address to use in ARP responses |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 vrrp *number* mac *mac-unicast-address* |
| Tree | mac |
| Description | This command sets an explicit MAC address for the virtual router instance that overrides the VRRP default derived from the VRID.<br><br>Changing the default MAC address is useful when an existing HSRP or other non-VRRP default MAC is in use by the IP hosts that use the virtual router IP address. Many hosts do not monitor unessential ARPs and continue to use the cached non-VRRP MAC address after the virtual router becomes master of the host's gateway address.<br><br>Additionally, this command sets the MAC address used in ARP responses when the virtual router instance is master. Routing of IP packets with *unicast-mac-address* as the destination MAC is also enabled. The MAC must be the same for all virtual routers participating as a virtual router or indeterminate connectivity by the attached IP hosts results. All VRRP advertisement messages are transmitted with *unicast-mac-address* as the source MAC.<br><br>An operator can execute this command at any time and it takes effect immediately. When the virtual router MAC on a master virtual router instance changes, a gratuitous ARP is immediately sent with a VRRP advertisement message. If the virtual router |


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instance is disabled or operating as a backup, the gratuitous ARP and VRRP advertisement messages are not sent.

Introduced 16.0.R1

Platforms All

## **master-int-inherit** *boolean*

Synopsis Allow master instance to dictate the master down timer

Context **configure** router *named-item-64* interface *interface-name* ipv6 vrrp *number* master-int-inherit *boolean*

Tree master-int-inherit

Description When configured to **true**, the virtual router instance inherits the advertisement interval timer of the master VRRP router, which backup routers use to calculate the master down timer.

When configured to **false**, the locally configured message interval must match the master's VRRP advertisement message advertisement interval field value or the message is discarded.

Introduced 16.0.R1

Platforms All

## **message-interval** *number*

Synopsis Interval for sending VRRP advertisement messages

Context **configure** router *named-item-64* interface *interface-name* ipv6 vrrp *number* message-interval *number*

Tree message-interval

Description This command configures the administrative advertisement message timer used by the master virtual router instance to send VRRP advertisement messages. The backup master down timer is derived from the value configured using this command.

The use of this command varies for non-owner virtual router instances, depending on the state of the virtual router (master or backup) and the state of the **master-int-inherit** command:

- When a non-owner is operating as master for the virtual router, the system uses the configured value of this command as the operational advertisement timer, similar to an owner virtual router instance. The **master-int-inherit** command has no effect when operating as the master.
- When a non-owner is in the backup state with **master-int-inherit** disabled, the system uses the configured value of this command to match the incoming advertisement interval field of the VRRP advertisement message. If the locally configured message interval does not match the advertisement interval field, the system discards the VRRP advertisement.


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- When a non-owner is in the backup state with **master-int-inherit** enabled, the configured value of this command is ignored. The master down timer is indirectly derived from the advertisement interval field value of the incoming VRRP advertisement message.

| | |
|---|---|
| Range | 10 to 4095 |
| Units | centiseconds |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **monitor-oper-group** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | VRRP instance to follow a specified operational group |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 vrrp *number* monitor-oper-group *reference* |
| Tree | monitor-oper-group |
| Description | This command configures VRRP to associate with an operational group. When associated, VRRP notifies the operational group of its state changes so that other protocols can monitor it to provide a redundancy mechanism. When VRRP is the master router, the operational group is up and the operational group is down for all other VRRP states. |
| Reference | **configure** service oper-group *named-item* |
| Introduced | 22.2.R1 |
| Platforms | All |

## **ntp-reply** *boolean*

| | |
|---|---|
| Synopsis | Allow processing of NTP requests |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 vrrp *number* ntp-reply *boolean* |
| Tree | ntp-reply |
| Description | When configured to **true**, the router redirects NTP requests to the VRRP virtual IP address. This behavior only applies to the router acting as the master VRRP router.<br>When configured to **false**, the router does not process NTP requests. |
| Default | false |


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| | |
|---|---|
| Introduced | 20.2.R1 |
| Platforms | All |

## **oper-group** *reference*

| | |
|---|---|
| Synopsis | Operational group name associated with the VRRP |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 vrrp *number* oper-group *reference* |
| Tree | oper-group |
| Description | This command configures an operational group to associate with the VRRP. When associated, VRRP notifies the operational group of its state changes so that other protocols can monitor it to provide a redundancy mechanism. When VRRP is the master router (MR), the operational group is up. The operational group is down for all other VRRP states. |
| Reference | **configure** service oper-group *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **owner** *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Designate the virtual router instance as owner |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 vrrp *number* owner *boolean* |
| Tree | owner |
| Description | When configured to **true**, the router designates this virtual router instance as the owner of the virtual router IP addresses. Therefore, this virtual router becomes responsible for forwarding packets sent to the virtual router IP addresses. The owner also assumes the role of master virtual router.<br>When configured to **false**, this virtual router instance is designated as a non-owner. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **passive** *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Suppress the processing of VRRP advertisement messages |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 vrrp *number* passive *boolean* |
| Tree | passive |
| Description | When configured to **true**, the router identifies this virtual router instance as passive; and therefore the owner of the virtual router IP addresses. A passive virtual router instance does not transmit or receive VRRP advertisement messages and is always in either the master state (if the interface is operationally up) or the init state (if the interface is operationally down).<br>When configured to **false**, this virtual router instance is not identified as passive, meaning that it transmits and receives VRRP advertisement messages. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **ping-reply** *boolean*

| | |
|---|---|
| Synopsis | Allow non-owner master to reply to ICMP echo requests |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 vrrp *number* ping-reply *boolean* |
| Tree | ping-reply |
| Description | When configured to **true**, the router allows the non-owner master to reply to ICMP echo requests directed at the IP addresses of the virtual router instance. Any routed interface can receive the ping request. Ping must not have been disabled at the management security level (either on the parental IP interface or on the Ping source host address).<br>When configured to **false**, ICMP echo requests sent to non-owner master virtual IP addresses are silently discarded.<br>Non-owner backup virtual routers never respond to ICMP echo requests, regardless of the configuration of this command. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **policy** *reference*

| | |
|---|---|
| Synopsis | VRRP priority control policy |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 vrrp *number* policy *reference* |
| Tree | policy |
| Description | This command configures a VRRP priority control policy to associate with the virtual router instance.<br>VRRP priority control policies can override or adjust the base priority value of the virtual router instance, depending on events or conditions within the chassis.<br>An operator can associate a policy with more than one virtual router instance. The priority events within the policy either override or diminish the base priority set with the **priority** command. As priority events clear in the policy, the in-use priority can eventually be restored to the base priority value.<br>For non-owner virtual router instances, if this command is not executed, the base priority is used as the in-use priority. |
| Reference | **configure** vrrp policy *number* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **preempt** *boolean*

| | |
|---|---|
| Synopsis | Allow the VRRP to override an existing non-owner master |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 vrrp *number* preempt *boolean* |
| Tree | preempt |
| Description | When configured to **true**, this virtual router instance overrides any non-owner master with an in-use message priority value less than the in-use priority value of this virtual router.<br>When configured to **false**, this virtual router only becomes master if the master down timer expires before a VRRP advertisement message is received from another virtual router. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

## **priority** *number*

| | |
|---|---|
| Synopsis | Base priority for the VRRP |


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| | |
|---|---|
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 vrrp *number* priority *number* |
| Tree | priority |
| Description | This command configures the base router priority for the virtual router instance, which defines the selection order of the virtual router in the master election process.<br>The in-use priority is derived from the base priority. However, the in-use priority is modified by optional VRRP priority control policies. An operator can use VRRP priority control policies to either override or adjust the base priority value depending on events or conditions within the chassis. |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **standby-forwarding** *boolean*

| | |
|---|---|
| Synopsis | Allow standby router to forward traffic |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 vrrp *number* standby-forwarding *boolean* |
| Tree | standby-forwarding |
| Description | When configured to **true**, the standby router forwards all traffic.<br>When configured to **false**, the standby router cannot forward traffic sent to the MAC address of the virtual router. However, the standby router still forwards traffic sent to its own MAC address. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **telnet-reply** *boolean*

| | |
|---|---|
| Synopsis | Allow non-owner master to reply to Telnet requests |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 vrrp *number* telnet-reply *boolean* |
| Tree | telnet-reply |
| Description | When configured to **true**, the router allows the non-owner master to reply to Telnet requests directed at the IP addresses of the virtual router instance. Any routed interface can receive Telnet requests. Telnet cannot be disabled at the management security level (either on the parental IP interface or on the Telnet source host address).<br>When configured to **false**, the router silently discards Telnet requests sent to non-owner master virtual IP addresses. |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **traceroute-reply** *boolean*

| | |
|---|---|
| Synopsis | Allow non-owner master to reply to traceroute requests |
| Context | **configure** router *named-item-64* interface *interface-name* ipv6 vrrp *number* traceroute-reply *boolean* |
| Tree | traceroute-reply |
| Description | When configured to **true**, the router allows a non-owner master to reply to traceroute requests directed to the IP addresses of the virtual router instance.<br>When configured to **false**, the router silently discards traceroute requests sent to non-owner master virtual IP addresses.<br>Traceroute must not have been disabled at the management security level (either on the parental IP interface or the source host address). |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lag**

| | |
|---|---|
| Synopsis | Enter the **lag** context |
| Context | **configure** router *named-item-64* interface *interface-name* lag |
| Tree | lag |
| Introduced | 16.0.R1 |
| Platforms | All |

### **link-map-profile** *number*

| | |
|---|---|
| Synopsis | LAG link map profile for a SAP or network interface |
| Context | **configure** router *named-item-64* interface *interface-name* lag link-map-profile *number* |
| Tree | link-map-profile |
| Description | This command assigns a preconfigured LAG link map profile to a SAP or network interface configured on a LAG or a PW port that exists on a LAG. After an operator assigns a LAG link map profile, the system rehashes the SAP or network interface egress traffic over the LAG as required by the new configuration. |


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If the LAG link map profile for a SAP or network interface is deleted, the system reverts back to per-flow hashing.

| | |
|---|---|
| Range | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | All |

## per-link-hash

| | |
|---|---|
| Synopsis | Enter the **per-link-hash** context |
| Context | **configure** router *named-item-64* interface *interface-name* lag per-link-hash |
| Tree | per-link-hash |
| Introduced | 16.0.R1 |
| Platforms | All |

## class *number*

| | |
|---|---|
| Synopsis | Class used on LAG egress using weighted per-link-hash |
| Context | **configure** router *named-item-64* interface *interface-name* lag per-link-hash class *number* |
| Tree | class |
| Range | 1 to 3 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

## weight *number*

| | |
|---|---|
| Synopsis | Weight used on LAG egress using weighted per-link-hash |
| Context | **configure** router *named-item-64* interface *interface-name* lag per-link-hash weight *number* |
| Tree | weight |
| Range | 1 to 1024 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |


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## ldp-sync-timer

| | |
|---|---|
| Synopsis | Enter the **ldp-sync-timer** context |
| Context | **configure** router *named-item-64* interface *interface-name* ldp-sync-timer |
| Tree | ldp-sync-timer |
| Description | Commands in this context set associated parameters for the synchronization of an IGP and LDP. |
| Introduced | 16.0.R1 |
| Platforms | All |

## end-of-lib *boolean*

| | |
|---|---|
| Synopsis | Terminate LDP synchronization timer |
| Context | **configure** router *named-item-64* interface *interface-name* ldp-sync-timer end-of-lib *boolean* |
| Tree | end-of-lib |
| Description | This command configures the system to terminate the LDP synchronization timer early for a specific session to an LDP peer, if the IGP interface receives LDP End-of-LIB Typed Wildcard FEC messages for every FEC type negotiated. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## seconds *number*

| | |
|---|---|
| Synopsis | Time interval for the LDP synchronization timer |
| Context | **configure** router *named-item-64* interface *interface-name* ldp-sync-timer seconds *number* |
| Tree | seconds |
| Range | 1 to 1800 |
| Introduced | 16.0.R1 |
| Platforms | All |

## load-balancing

| | |
|---|---|
| Synopsis | Enter the **load-balancing** context |


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| | |
|---|---|
| Context | **configure** router *named-item-64* interface *interface-name* load-balancing |
| Tree | load-balancing |
| Description | Commands in this context configure interface per-flow load-balancing options that apply to traffic that enters this interface and that egresses over a LAG or ECMP. This is a per-interface setting. Load-balancing options enabled on the interface level overwrite options that can also be enabled on the system level. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **flow-label-load-balancing** *boolean*

| | |
|---|---|
| Synopsis | Enable flow label load balancing |
| Context | **configure** router *named-item-64* interface *interface-name* load-balancing flow-label-load-balancing *boolean* |
| Tree | flow-label-load-balancing |
| Description | When configured to **true**, the router enables load balancing in ECMP and LAG based on the output of a hash performed on the triplet (SA, DA, flow label) in the header of an IPv6 packet received on an IES, VPRN, R-VPLS, CSC, or network interface.<br>When configured to **false**, the router disables load balancing in ECMP and LAG. |
| Default | false |
| Introduced | 21.5.R1 |
| Platforms | All |

## **ip-load-balancing** *keyword*

| | |
|---|---|
| Synopsis | IP load-balancing algorithm |
| Context | **configure** router *named-item-64* interface *interface-name* load-balancing ip-load-balancing *keyword* |
| Tree | ip-load-balancing |
| Description | This command specifies whether to include the source address, destination address, or both in LAG or ECMP hash on IP interfaces. Additionally, when the **l4-load-balancing** command is enabled, this command also includes the source or destination port in the hash inputs. |
| Options | both, destination, source, inner-ip |
| Default | both |
| Introduced | 16.0.R3 |
| Platforms | All |


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### **lsr-load-balancing** *keyword*

| | |
|---|---|
| Synopsis | LSR load-balancing algorithm |
| Context | **configure** router *named-item-64* interface *interface-name* load-balancing lsr-load-balancing *keyword* |
| Tree | lsr-load-balancing |
| Description | This command specifies whether the IP header is used in the LAG and ECMP LSR hashing algorithm. This is the per-interface setting. |
| Options | lbl-only, lbl-ip, ip-only, eth-encap-ip, lbl-ip-l4-teid |
| Introduced | 16.0.R1 |
| Platforms | All |

### **spi-load-balancing** *boolean*

| | |
|---|---|
| Synopsis | Enable SPI use in hashing |
| Context | **configure** router *named-item-64* interface *interface-name* load-balancing spi-load-balancing *boolean* |
| Tree | spi-load-balancing |
| Description | When configured to **true**, the router uses the Security Parameter Index (SPI) in hashing for ESP and AH encrypted IPv4 and IPv6 traffic. This is a per-interface setting. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **teid-load-balancing** *boolean*

| | |
|---|---|
| Synopsis | Enable use of TEID in hashing |
| Context | **configure** router *named-item-64* interface *interface-name* load-balancing teid-load-balancing *boolean* |
| Tree | teid-load-balancing |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### loopback

| | |
|---|---|
| Synopsis | Use interface as a loopback interface |
| Context | **configure** router *named-item-64* interface *interface-name* loopback |
| Tree | loopback |
| Description | When configured, this interface is used as a loopback interface.<br>This command and the **vas-if-type** command are mutually exclusive. |
| Notes | The following elements are part of a choice: **loopback** or **port**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### mac *mac-unicast-address*

| | |
|---|---|
| Synopsis | MAC address of the interface |
| Context | **configure** router *named-item-64* interface *interface-name* mac *mac-unicast-address* |
| Tree | mac |
| Description | This command assigns a specific MAC address to an IP interface. Only one MAC address can be assigned to an IP interface. When multiple **mac** commands are entered, the last command overwrites the previous command. |
| Introduced | 16.0.R1 |
| Platforms | All |

### mac-accounting *boolean*

| | |
|---|---|
| Synopsis | Enable MAC accounting functionality |
| Context | **configure** router *named-item-64* interface *interface-name* mac-accounting *boolean* |
| Tree | mac-accounting |
| Description | When configured to **true**, the router enables MAC accounting functionality. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### network-domains

| | |
|---|---|
| Synopsis | Enter the **network-domains** context |


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| | |
|---|---|
| Context | **configure** router *named-item-64* interface *interface-name* network-domains |
| Tree | network-domains |
| Introduced | 16.0.R4 |
| Platforms | All |

## **network-domain** [domain-name] *reference*

| | |
|---|---|
| Synopsis | Add a list entry for **network-domain** |
| Context | **configure** router *named-item-64* interface *interface-name* network-domains network-domain *reference* |
| Tree | network-domain |
| Description | Commands in this context assign an interface to a network domain. The router then takes the network domain into account during SAP ingress queue allocation for VPLS SAP.<br>The network domain association can only be done in the base routing context. An operator can associate a network domain with an interface without a physical port being specified, but the configuration has no effect until a corresponding port, or LAG, is defined.<br>Single interfaces can be associated with multiple network domains. |
| Max. instances | 5 |
| Introduced | 16.0.R4 |
| Platforms | All |

## [**domain-name**] *reference*

| | |
|---|---|
| Synopsis | Network domain name |
| Context | **configure** router *named-item-64* interface *interface-name* network-domains network-domain *reference* |
| Tree | network-domain |
| Reference | **configure** router *named-item-64* network-domains network-domain *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |


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## **port** *(port-and-encap | keyword)*

| | |
|---|---|
| Synopsis | Port to bind to this interface |
| Context | **configure** router *named-item-64* interface *interface-name* port *(port-and-encap \| keyword)* |
| Tree | port |
| Description | This command creates an association between a logical IP interface and a physical port. An operator can also associate an interface with the system (loopback address). |
| String length | 1 to 45 |
| Options | system |
| Notes | The following elements are part of a choice: **loopback** or **port**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **ptp-hw-assist**

| | |
|---|---|
| Synopsis | Enter the **ptp-hw-assist** context |
| Context | **configure** router *named-item-64* interface *interface-name* ptp-hw-assist |
| Tree | ptp-hw-assist |
| Description | Commands in this context enable the port-based timestamping assist of PTP packets at the physical interface. This capability is supported on specific hardware. The command may be blocked if not all hardware has the required level of support.<br>Only one interface per physical port can have port-based timestamping assist enabled. This feature cannot be enabled if the physical port supporting the interface is configured as a PTP port. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the PTP timestamping assist |
| Context | **configure** router *named-item-64* interface *interface-name* ptp-hw-assist admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## qos

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** router *named-item-64* interface *interface-name* qos |
| Tree | qos |
| Description | Commands in this context associate a network QoS policy with a network IP interface. Only one network QoS policy can be associated with an IP interface at one time. Attempts to associate a second QoS policy return an error. |
| Introduced | 16.0.R1 |
| Platforms | All |

## egress-instance *number*

| | |
|---|---|
| Synopsis | Port egress queue group instance for this interface |
| Context | **configure** router *named-item-64* interface *interface-name* qos egress-instance *number* |
| Tree | egress-instance |
| Description | This command specifies which instance to associate with this specific network IP interface since multiple instances of the same egress queue-group can be applied to the same port. |
| Range | 1 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

## egress-port-redirect-group *reference*

| | |
|---|---|
| Synopsis | QoS queue group name |
| Context | **configure** router *named-item-64* interface *interface-name* qos egress-port-redirect-group *reference* |
| Tree | egress-port-redirect-group |
| Description | This command configures the egress queue group used for all egress forwarding-class redirections specified within the network QoS policy ID. The specified queue group name must exist as an egress queue group applied to the egress context of the port associated with the IP interface. |
| Reference | **configure** qos queue-group-templates egress queue-group *named-item* |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## **ingress-fp-redirect-group** *reference*

| | |
|---|---|
| Synopsis | Forwarding plane queue group policy for the interface |
| Context | **configure** router *named-item-64* interface *interface-name* qos ingress-fp-redirect-group *reference* |
| Tree | ingress-fp-redirect-group |
| Description | This command configures the ingress queue-group used for all ingress forwarding-class redirections specified within the network QoS policy ID. The specified queue group name must exist as an ingress queue group applied to the ingress context of the forwarding plane associated with the IP interface. |
| Reference | **configure** qos queue-group-templates ingress queue-group *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **ingress-instance** *number*

| | |
|---|---|
| Synopsis | Forwarding plane ingress queue group for this interface |
| Context | **configure** router *named-item-64* interface *interface-name* qos ingress-instance *number* |
| Tree | ingress-instance |
| Description | This command configures which instance to associate with this specific network IP interface. An operator can apply multiple instances of the same ingress queue group to the same forwarding plane. |
| Range | 1 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **network-policy** *reference*

| | |
|---|---|
| Synopsis | Network policy name associated with a network interface |
| Context | **configure** router *named-item-64* interface *interface-name* qos network-policy *reference* |
| Tree | network-policy |
| Description | This command associates an existing network policy name with the IP interface. |
| Reference | **configure** qos network *network-policy-name* |
| Introduced | 16.0.R1 |


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Platforms All

## **strip-label** *boolean*

Synopsis Strip all MPLS labels before PBR processing

Context **configure** router *named-item-64* interface *interface-name* strip-label *boolean*

Tree strip-label

Description When configured to **true**, the router forces packets to be stripped of all (maximum 5) MPLS labels before the packets are handed over for possible filter (PBR) processing.

This command is supported on:

- optical ports for the 7750 SR and 7450 ESS
- null/dot1q encaps
- network ports
- IPv4
- IPv6

Default false

Introduced 16.0.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS

## **tos-marking-state** *keyword*

Synopsis TOS marking state

Context **configure** router *named-item-64* interface *interface-name* tos-marking-state *keyword*

Tree tos-marking-state

Description This command configures the ToS marking state.

This command is used to alter the default trusted state to a non-trusted state. When configured to **trusted** or default, the ToS field is not remarked by egress network IP interfaces unless the egress network IP interface has the remark-trusted state set, in which case the egress network interface treats all VPRN and network IP interfaces as untrusted.

When configured to **untrusted**, all egress network IP interfaces remark IP packets received on the network interface according to the egress marking defintions on each network interface.

Options trusted, untrusted

Default trusted

Introduced 16.0.R1

Platforms All


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## untrusted

| | |
|---|---|
| Synopsis | Enable the **untrusted** context |
| Context | **configure** router *named-item-64* interface *interface-name* untrusted |
| Tree | untrusted |
| Description | Commands in this context configure the untrusted state for a network IP interface.<br>The untrusted state identifies the participating interfaces in the label security feature for prefixes of a VPN family at an inter-AS boundary. The router supports a maximum of 15 network interfaces that can participate in this feature.<br>The user normally applies this command to an inter-AS interface. PIP keeps track of the untrusted status of each interface. |
| Introduced | 16.0.R4 |
| Platforms | All |

## default-forwarding *keyword*

| | |
|---|---|
| Synopsis | Default action for selective ILM |
| Context | **configure** router *named-item-64* interface *interface-name* untrusted default-forwarding *keyword* |
| Tree | default-forwarding |
| Description | This command specifies the default forwarding behavior of labeled packets received on this interface.<br>This command sets the default behavior for an untrusted interface in the datapath and for all ILMs. When enabling the label security for VPN IPv4 or VPN IPv6 prefixes, BGP programs the data path to provide an exception to the normal way of forwarding away from the default for those VPRN ILMs.<br>When the default behavior is to forward packets, the router checks labeled packets in the normal way against the table of programmed ILMs to decide if packets are dropped or forwarded in a GRT, a VRF, or a L2 service context.<br>When the specified behavior is to drop packets, all labeled packets received on the interface are automatically dropped. |
| Options | forward, drop |
| Default | forward |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **urpf-selected-vprns** *boolean*

| | |
|---|---|
| Synopsis | Enable uRPF checking of incoming traffic on interface |
| Context | **configure** router *named-item-64* interface *interface-name* urpf-selected-vprns *boolean* |
| Tree | urpf-selected-vprns |
| Description | When configured to **true**, the router performs uRPF checks of incoming traffic on the network interface for the following:<br>• Packets associated with the global routing table (base router) context<br>• Packets associated with VPRNs that have enabled the uRPF check using the **configure service vprn network ingress urpf-check** command<br>When configured to **false**, the router performs uRPF checks for all ingress traffic on the network interface (associated with the base router and all VPRNs) based on the IPv4 and IPv6 **urpf-check** command configuration options of the network interface. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **vas-if-type** *keyword*

| | |
|---|---|
| Synopsis | VAS interface type |
| Context | **configure** router *named-item-64* interface *interface-name* vas-if-type *keyword* |
| Tree | vas-if-type |
| Description | This command configures the type of a Value Added Service (VAS) facing interface. This command and **loopback** command |
| Options | to-from-access, to-from-network, to-from-both |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipsec**

| | |
|---|---|
| Synopsis | Enter the **ipsec** context |
| Context | **configure** router *named-item-64* ipsec |
| Tree | ipsec |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **multi-chassis-shunt-interface** [name] *interface-name*

| | |
|---|---|
| Synopsis | Enter the **multi-chassis-shunt-interface** list instance |
| Context | **configure** router *named-item-64* ipsec multi-chassis-shunt-interface *interface-name* |
| Tree | multi-chassis-shunt-interface |
| Description | This command configures the multi-chassis shunting interface name for the peer. |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *interface-name*

| | |
|---|---|
| Synopsis | Multi-chassis shunt interface name |
| Context | **configure** router *named-item-64* ipsec multi-chassis-shunt-interface *interface-name* |
| Tree | multi-chassis-shunt-interface |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **next-hop**

| | |
|---|---|
| Synopsis | Enter the **next-hop** context |
| Context | **configure** router *named-item-64* ipsec multi-chassis-shunt-interface *interface-name* next-hop |
| Tree | next-hop |
| Description | Commands in this context configure the next hop for shunting over the interface. |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Next hop address for the shunting interface |
| Context | **configure** router *named-item-64* ipsec multi-chassis-shunt-interface *interface-name* next-hop address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | address |


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| | |
|---|---|
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **multi-chassis-shunting-profile** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **multi-chassis-shunting-profile** list instance |
| Context | **configure** router *named-item-64* ipsec multi-chassis-shunting-profile *named-item* |
| Tree | multi-chassis-shunting-profile |
| Max. instances | 64 |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | Multi-chassis shunting profile name |
| Context | **configure** router *named-item-64* ipsec multi-chassis-shunting-profile *named-item* |
| Tree | multi-chassis-shunting-profile |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **peer** [ip-address] *reference*

| | |
|---|---|
| Synopsis | Enter the **peer** list instance |
| Context | **configure** router *named-item-64* ipsec multi-chassis-shunting-profile *named-item* peer *reference* |
| Tree | peer |
| Max. instances | 3 |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### [**ip-address**] *reference*

| | |
|---|---|
| Synopsis | Peer address |
| Context | **configure** router *named-item-64* ipsec multi-chassis-shunting-profile *named-item* peer *reference* |
| Tree | peer |
| Reference | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Notes | This element is part of a list key. |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **multi-chassis-shunt-interface** *reference*

| | |
|---|---|
| Synopsis | Multi-chassis shunt interface |
| Context | **configure** router *named-item-64* ipsec multi-chassis-shunting-profile *named-item* peer *reference* multi-chassis-shunt-interface *reference* |
| Tree | multi-chassis-shunt-interface |
| Description | This command configures the shunting interface name for the peer. |
| Reference | **configure** router *named-item-64* ipsec multi-chassis-shunt-interface *interface-name* |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **security-policy** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **security-policy** list instance |
| Context | **configure** router *named-item-64* ipsec security-policy *number* |
| Tree | security-policy |
| Introduced | 22.7.R1 |
| Platforms | VSR |

### [**id**] *number*

| | |
|---|---|
| Synopsis | IPsec security policy ID |
| Context | **configure** router *named-item-64* ipsec security-policy *number* |
| Tree | security-policy |


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| | |
|---|---|
| Range | 1 to 32768 |
| Notes | This element is part of a list key. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

### **entry** [entry-id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** router *named-item-64* ipsec security-policy *number* entry *number* |
| Tree | entry |
| Introduced | 22.7.R1 |
| Platforms | VSR |

### [**entry-id**] *number*

| | |
|---|---|
| Synopsis | IPsec security policy entry ID |
| Context | **configure** router *named-item-64* ipsec security-policy *number* entry *number* |
| Tree | entry |
| Range | 1 to 16 |
| Notes | This element is part of a list key. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

### **local-ip**

| | |
|---|---|
| Synopsis | Enter the **local-ip** context |
| Context | **configure** router *named-item-64* ipsec security-policy *number* entry *number* local-ip |
| Tree | local-ip |
| Description | Commands in this context configure the local (from the VPN) IPv4 prefix/mask for the policy entry.<br>The system evaluates the local IP as the source IP when traffic is examined in the direction of the flows from private to public and as the destination IP when traffic flows from public to private. |
| Introduced | 22.7.R1 |
| Platforms | VSR |


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## **address** *ipv4-prefix*

| | |
|---|---|
| Synopsis | Destination IPv4 address of the aggregate route |
| Context | **configure** router *named-item-64* ipsec security-policy *number* entry *number* local-ip address *ipv4-prefix* |
| Tree | address |
| Notes | The following elements are part of a choice: **address** or **any**. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **any** *boolean*

| | |
|---|---|
| Synopsis | Use any IP address |
| Context | **configure** router *named-item-64* ipsec security-policy *number* entry *number* local-ip any *boolean* |
| Tree | any |
| Default | false |
| Notes | The following elements are part of a choice: **address** or **any**. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **local-ipv6**

| | |
|---|---|
| Synopsis | Enter the **local-ipv6** context |
| Context | **configure** router *named-item-64* ipsec security-policy *number* entry *number* local-ipv6 |
| Tree | local-ipv6 |
| Description | Commands in this context configure the local (from the VPN) IPv6 prefix/mask for the policy entry.<br>The system evaluates the local IP as the source IP when traffic is examined in the direction of the flows from private to public and as the destination IP when traffic flows from public to private. |
| Introduced | 22.7.R1 |
| Platforms | VSR |


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### **address** *ipv6-prefix*

| | |
|---|---|
| Synopsis | Destination IPv6 address of the aggregate route |
| Context | **configure** router *named-item-64* ipsec security-policy *number* entry *number* local-ipv6 address *ipv6-prefix* |
| Tree | address |
| Notes | The following elements are part of a choice: **address** or **any**. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

### **any** *boolean*

| | |
|---|---|
| Synopsis | Use any IP address |
| Context | **configure** router *named-item-64* ipsec security-policy *number* entry *number* local-ipv6 any *boolean* |
| Tree | any |
| Default | false |
| Notes | The following elements are part of a choice: **address** or **any**. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

### **remote-ip**

| | |
|---|---|
| Synopsis | Enter the **remote-ip** context |
| Context | **configure** router *named-item-64* ipsec security-policy *number* entry *number* remote-ip |
| Tree | remote-ip |
| Description | Commands in this context configure the remote (from the tunnel) IP prefix/mask for the policy entry.<br>The system evaluates the remote IP as the source IP when traffic flows public to private and as the destination IP when traffic flows from private to public. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

### **address** *ipv4-prefix*

| | |
|---|---|
| Synopsis | Destination IPv4 address of the aggregate route |


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| | |
|---|---|
| Context | **configure** router *named-item-64* ipsec security-policy *number* entry *number* remote-ip address *ipv4-prefix* |
| Tree | address |
| Notes | The following elements are part of a choice: **address** or **any**. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **any** *boolean*

| | |
|---|---|
| Synopsis | Use any IP address |
| Context | **configure** router *named-item-64* ipsec security-policy *number* entry *number* remote-ip any *boolean* |
| Tree | any |
| Default | false |
| Notes | The following elements are part of a choice: **address** or **any**. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **remote-ipv6**

| | |
|---|---|
| Synopsis | Enter the **remote-ipv6** context |
| Context | **configure** router *named-item-64* ipsec security-policy *number* entry *number* remote-ipv6 |
| Tree | remote-ipv6 |
| Description | Commands in this context configure the remote (from the tunnel) IPv6 prefix/mask for the policy entry.<br>The system evaluates the remote IP as the source IP when traffic flows from public to private and as the destination IP when traffic flows from private to public. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **address** *ipv6-prefix*

| | |
|---|---|
| Synopsis | Destination IPv6 address of the aggregate route |
| Context | **configure** router *named-item-64* ipsec security-policy *number* entry *number* remote-ipv6 address *ipv6-prefix* |
| Tree | address |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **address** or **any**. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

### **any** *boolean*

| | |
|---|---|
| Synopsis | Use any IP address |
| Context | **configure** router *named-item-64* ipsec security-policy *number* entry *number* remote-ipv6 any *boolean* |
| Tree | any |
| Default | false |
| Notes | The following elements are part of a choice: **address** or **any**. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

### **ipv6**

| | |
|---|---|
| Synopsis | Enter the **ipv6** context |
| Context | **configure** router *named-item-64* ipv6 |
| Tree | ipv6 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **neighbor-discovery**

| | |
|---|---|
| Synopsis | Enter the **neighbor-discovery** context |
| Context | **configure** router *named-item-64* ipv6 neighbor-discovery |
| Tree | neighbor-discovery |
| Introduced | 16.0.R1 |
| Platforms | All |

### **reachable-time** *number*

| | |
|---|---|
| Synopsis | Neighbor reachability detection timer |
| Context | **configure** router *named-item-64* ipv6 neighbor-discovery reachable-time *number* |


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| | |
|---|---|
| Tree | reachable-time |
| Range | 30 to 3600 |
| Default | 30 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **stale-time** *number*

| | |
|---|---|
| Synopsis | Neighbor discovery cache entry stale time |
| Context | **configure** router *named-item-64* ipv6 neighbor-discovery stale-time *number* |
| Tree | stale-time |
| Range | 60 to 65535 |
| Default | 14400 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **router-advertisement**

| | |
|---|---|
| Synopsis | Enter the **router-advertisement** context |
| Context | **configure** router *named-item-64* ipv6 router-advertisement |
| Tree | router-advertisement |
| Introduced | 16.0.R1 |
| Platforms | All |

### **dns-options**

| | |
|---|---|
| Synopsis | Enable the **dns-options** context |
| Context | **configure** router *named-item-64* ipv6 router-advertisement dns-options |
| Tree | dns-options |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rdnss-lifetime** *(keyword | number)*

| | |
|---|---|
| Synopsis | Maximum time over which the RDNSS address is valid |


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| | |
|---|---|
| Context | **configure** router *named-item-64* ipv6 router-advertisement dns-options rdnss-lifetime *(keyword* \| *number)* |
| Tree | rdnss-lifetime |
| Description | This command specifies the maximum time that the RDNSS address is used for name resolution by the client. |
| Range | 0 \| 4 to 3600 |
| Units | seconds |
| Options | infinite |
| Default | infinite |
| Introduced | 16.0.R1 |
| Platforms | All |

### **server** *ipv6-address*

| | |
|---|---|
| Synopsis | RAs that are forwarded to IPv6 DNS servers |
| Context | **configure** router *named-item-64* ipv6 router-advertisement dns-options server *ipv6-address* |
| Tree | server |
| Max. instances | 4 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **interface** [ip-int-name] *interface-name*

| | |
|---|---|
| Synopsis | Enter the **interface** list instance |
| Context | **configure** router *named-item-64* ipv6 router-advertisement interface *interface-name* |
| Tree | interface |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ip-int-name**] *interface-name*

| | |
|---|---|
| Synopsis | Router interface name |
| Context | **configure** router *named-item-64* ipv6 router-advertisement interface *interface-name* |


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| | |
|---|---|
| Tree | interface |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of router advertisement |
| Context | **configure** router *named-item-64* ipv6 router-advertisement interface *interface-name* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

## **current-hop-limit** *number*

| | |
|---|---|
| Synopsis | Hop limit advertised in RA messages |
| Context | **configure** router *named-item-64* ipv6 router-advertisement interface *interface-name* current-hop-limit *number* |
| Tree | current-hop-limit |
| Range | 0 to 255 |
| Default | 64 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **dns-options**

| | |
|---|---|
| Synopsis | Enable the **dns-options** context |
| Context | **configure** router *named-item-64* ipv6 router-advertisement interface *interface-name* dns-options |
| Tree | dns-options |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **include-rdnss** *boolean*

| | |
|---|---|
| Synopsis | Include the RDNSS option in the RA |
| Context | **configure** router *named-item-64* ipv6 router-advertisement interface *interface-name* dns-options include-rdnss *boolean* |
| Tree | include-rdnss |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rdnss-lifetime** *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum time over which the RDNSS address 25 is valid |
| Context | **configure** router *named-item-64* ipv6 router-advertisement interface *interface-name* dns-options rdnss-lifetime *(number | keyword)* |
| Tree | rdnss-lifetime |
| Range | 0 \| 4 to 3600 |
| Units | seconds |
| Options | infinite |
| Introduced | 16.0.R1 |
| Platforms | All |

### **server** *ipv6-address*

| | |
|---|---|
| Synopsis | RAs that are forwarded to IPv6 DNS servers |
| Context | **configure** router *named-item-64* ipv6 router-advertisement interface *interface-name* dns-options server *ipv6-address* |
| Tree | server |
| Max. instances | 4 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### managed-configuration *boolean*

| | |
|---|---|
| Synopsis | Set the managed address configuration flag |
| Context | **configure** router *named-item-64* ipv6 router-advertisement interface *interface-name* managed-configuration *boolean* |
| Tree | managed-configuration |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### max-advertisement-interval *number*

| | |
|---|---|
| Synopsis | Maximum time between sending advertisement messages |
| Context | **configure** router *named-item-64* ipv6 router-advertisement interface *interface-name* max-advertisement-interval *number* |
| Tree | max-advertisement-interval |
| Range | 4 to 1800 |
| Units | seconds |
| Default | 600 |
| Introduced | 16.0.R1 |
| Platforms | All |

### min-advertisement-interval *number*

| | |
|---|---|
| Synopsis | Minimum interval between router advertisement messages |
| Context | **configure** router *named-item-64* ipv6 router-advertisement interface *interface-name* min-advertisement-interval *number* |
| Tree | min-advertisement-interval |
| Range | 3 to 1350 |
| Units | seconds |
| Default | 200 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **mtu** *number*

| | |
|---|---|
| Synopsis | MTU for sending packets to the router |
| Context | **configure** router *named-item-64* ipv6 router-advertisement interface *interface-name* mtu *number* |
| Tree | mtu |
| Range | 1280 to 9800 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **nd-router-preference** *keyword*

| | |
|---|---|
| Synopsis | Default router preference for Router Advertisements |
| Context | **configure** router *named-item-64* ipv6 router-advertisement interface *interface-name* nd-router-preference *keyword* |
| Tree | nd-router-preference |
| Description | This command configures the default router preference for Router Advertisements (RAs) and allows IPv6 hosts to discover and select a default gateway address by listening to RAs.<br>This feature provides basic traffic engineering functionality for host devices. When this command is applied, the router advertises the respective router preference to the connected host to assist in its selection of the most appropriate default gateway on a link.<br>This extension is backward compatible, both for routers (setting the router preference bits) and hosts (interpreting the router preference bits). These bits are ignored by hosts that do not implement the RFC 4191 functionality by configuring this command. Similarly, hosts that do not implement the RFC 4191 functionality interpret the values sent by devices that do not implement the RFC 4191 extension as a medium preference. |
| Options | medium, high, low |
| Default | medium |
| Introduced | 23.10.R1 |
| Platforms | All |

### **other-stateful-configuration** *boolean*

| | |
|---|---|
| Synopsis | Set the other configuration flag |
| Context | **configure** router *named-item-64* ipv6 router-advertisement interface *interface-name* other-stateful-configuration *boolean* |


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| | |
|---|---|
| Tree | other-stateful-configuration |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **prefix** [ipv6-prefix] *ipv6-prefix*

| | |
|---|---|
| Synopsis | Enter the **prefix** list instance |
| Context | **configure** router *named-item-64* ipv6 router-advertisement interface *interface-name* prefix *ipv6-prefix* |
| Tree | prefix |
| Max. instances | 254 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ipv6-prefix**] *ipv6-prefix*

| | |
|---|---|
| Synopsis | IPv6 address prefix |
| Context | **configure** router *named-item-64* ipv6 router-advertisement interface *interface-name* prefix *ipv6-prefix* |
| Tree | prefix |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **autonomous** *boolean*

| | |
|---|---|
| Synopsis | Set the autonomous flag value |
| Context | **configure** router *named-item-64* ipv6 router-advertisement interface *interface-name* prefix *ipv6-prefix* autonomous *boolean* |
| Tree | autonomous |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **on-link** *boolean*

| | |
|---|---|
| Synopsis | Use prefix for on-link determination |
| Context | **configure** router *named-item-64* ipv6 router-advertisement interface *interface-name* prefix *ipv6-prefix* on-link *boolean* |
| Tree | on-link |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **preferred-lifetime** *(keyword | number)*

| | |
|---|---|
| Synopsis | Remaining time that the prefix remains preferred |
| Context | **configure** router *named-item-64* ipv6 router-advertisement interface *interface-name* prefix *ipv6-prefix* preferred-lifetime *(keyword | number)* |
| Tree | preferred-lifetime |
| Range | 0 to 4294967294 |
| Units | seconds |
| Options | infinite |
| Default | 604800 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **valid-lifetime** *(keyword | number)*

| | |
|---|---|
| Synopsis | Remaining time in which the prefix is still valid |
| Context | **configure** router *named-item-64* ipv6 router-advertisement interface *interface-name* prefix *ipv6-prefix* valid-lifetime *(keyword | number)* |
| Tree | valid-lifetime |
| Range | 0 to 4294967294 |
| Units | seconds |
| Options | infinite |
| Default | 2592000 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **reachable-time** *number*

| | |
|---|---|
| Synopsis | Time the router is reachable by other hosts or nodes |
| Context | **configure** router *named-item-64* ipv6 router-advertisement interface *interface-name* reachable-time *number* |
| Tree | reachable-time |
| Range | 0 to 3600000 |
| Units | milliseconds |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **retransmit-time** *number*

| | |
|---|---|
| Synopsis | Time to advertise neighbor advertisement messages |
| Context | **configure** router *named-item-64* ipv6 router-advertisement interface *interface-name* retransmit-time *number* |
| Tree | retransmit-time |
| Range | 0 to 1800000 |
| Units | milliseconds |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **router-lifetime** *number*

| | |
|---|---|
| Synopsis | Lifetime value in neighbor advertisement messages |
| Context | **configure** router *named-item-64* ipv6 router-advertisement interface *interface-name* router-lifetime *number* |
| Tree | router-lifetime |
| Range | 0 \| 4 to 9000 |
| Units | seconds |
| Default | 1800 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **use-virtual-mac** *boolean*

| | |
|---|---|
| Synopsis | Use VRRP virtual MAC address for advertisement message |
| Context | **configure** router *named-item-64* ipv6 router-advertisement interface *interface-name* use-virtual-mac *boolean* |
| Tree | use-virtual-mac |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv6-te-router-id**

| | |
|---|---|
| Synopsis | Enter the **ipv6-te-router-id** context |
| Context | **configure** router *named-item-64* ipv6-te-router-id |
| Tree | ipv6-te-router-id |
| Introduced | 19.10.R1 |
| Platforms | All |

### **interface** *reference*

| | |
|---|---|
| Synopsis | Network IP interface name to obtain IP address |
| Context | **configure** router *named-item-64* ipv6-te-router-id interface *reference* |
| Tree | interface |
| Description | This command specifies the interface name from which to obtain the IP address to use as the IPv6 TE Router ID. This router ID uniquely identifies the router to other routers as IPv6 TE capable in an IGP TE domain.<br>IS-IS advertises this information using the IPv6 TE Router ID TLV. |
| Reference | **configure** router *named-item-64* interface *interface-name* |
| Introduced | 19.10.R1 |
| Platforms | All |

### **isa-service-chaining**

| | |
|---|---|
| Synopsis | Enable the **isa-service-chaining** context |
| Context | **configure** router *named-item-64* isa-service-chaining |
| Tree | isa-service-chaining |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **nat-group** [id] *number*

| | |
|---|---|
| Synopsis | Add a list entry for **nat-group** |
| Context | **configure** router *named-item-64* isa-service-chaining nat-group *number* |
| Tree | nat-group |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ISA NAT group/ISA WLAN GW group ID for the EVPN pools |
| Context | **configure** router *named-item-64* isa-service-chaining nat-group *number* |
| Tree | nat-group |
| Max. range | 0 to 4294967295 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **vxlan-vtep-range**

| | |
|---|---|
| Synopsis | Enable the **vxlan-vtep-range** context |
| Context | **configure** router *named-item-64* isa-service-chaining vxlan-vtep-range |
| Tree | vxlan-vtep-range |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **end** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | End address of the VXLAN VTEP range |
| Context | **configure** router *named-item-64* isa-service-chaining vxlan-vtep-range end *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | end |


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| | |
|---|---|
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **start** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Start address of the VXLAN VTEP range |
| Context | **configure** router *named-item-64* isa-service-chaining vxlan-vtep-range start *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | start |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **isis** [isis-instance] *number*

| | |
|---|---|
| Synopsis | Enter the **isis** list instance |
| Context | **configure** router *named-item-64* isis *number* |
| Tree | isis |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**isis-instance**] *number*

| | |
|---|---|
| Synopsis | Instance ID for the IS-IS instance |
| Context | **configure** router *named-item-64* isis *number* |
| Tree | isis |
| Range | 0 to 127 |
| MD-CLI default | 0 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the IS-IS instance |
| Context | **configure** router *named-item-64* isis *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **advertise-passive-only** *boolean*

| | |
|---|---|
| Synopsis | Advertise prefixes that belong to passive interfaces |
| Context | **configure** router *named-item-64* isis *number* advertise-passive-only *boolean* |
| Tree | advertise-passive-only |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **advertise-router-capability** *keyword*

| | |
|---|---|
| Synopsis | Router capabilities advertisement to neighbors |
| Context | **configure** router *named-item-64* isis *number* advertise-router-capability *keyword* |
| Tree | advertise-router-capability |
| Options | area, as |
| Introduced | 16.0.R1 |
| Platforms | All |

### **advertise-tunnel-link** *boolean*

| | |
|---|---|
| Synopsis | Allow use of forwarding adjacency |
| Context | **configure** router *named-item-64* isis *number* advertise-tunnel-link *boolean* |
| Tree | advertise-tunnel-link |
| Default | false |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **all-l1isis** *mac-address*

| | |
|---|---|
| Synopsis | Destination MAC address for all L1 IS-IS routers |
| Context | **configure** router *named-item-64* isis *number* all-l1isis *mac-address* |
| Tree | all-l1isis |
| Default | 01:80:C2:00:00:14 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **all-l2isis** *mac-address*

| | |
|---|---|
| Synopsis | Destination MAC address for all L2 IS-IS routers |
| Context | **configure** router *named-item-64* isis *number* all-l2isis *mac-address* |
| Tree | all-l2isis |
| Default | 01:80:C2:00:00:15 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **area-address** *area-address*

| | |
|---|---|
| Synopsis | Area address portion of the NSAP address |
| Context | **configure** router *named-item-64* isis *number* area-address *area-address* |
| Tree | area-address |
| String length | 2 to 38 |
| Max. instances | 3 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **authentication-check** *boolean*

| | |
|---|---|
| Synopsis | Perform authentication check to reject mismatch PDUs |
| Context | **configure** router *named-item-64* isis *number* authentication-check *boolean* |
| Tree | authentication-check |


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| | |
|---|---|
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **authentication-key** *encrypted-leaf*

| | |
|---|---|
| Synopsis | Authentication key to verify PDUs sent from neighbors |
| Context | **configure** router *named-item-64* isis *number* authentication-key *encrypted-leaf* |
| Tree | authentication-key |
| String length | 1 to 366 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **authentication-keychain** *reference*

| | |
|---|---|
| Synopsis | Keychain used to sign and authenticate |
| Context | **configure** router *named-item-64* isis *number* authentication-keychain *reference* |
| Tree | authentication-keychain |
| Reference | **configure** system security keychains keychain *named-item* |
| Introduced | 16.0.R3 |
| Platforms | All |

### **authentication-type** *keyword*

| | |
|---|---|
| Synopsis | Authentication type |
| Context | **configure** router *named-item-64* isis *number* authentication-type *keyword* |
| Tree | authentication-type |
| Options | password, message-digest |
| Introduced | 16.0.R1 |
| Platforms | All |

### **csnp-authentication** *boolean*

| | |
|---|---|
| Synopsis | Authenticate individual IS-IS packets of the CSNP type |
| Context | **configure** router *named-item-64* isis *number* csnp-authentication *boolean* |


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| | |
|---|---|
| Tree | csnp-authentication |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

## **csnp-on-p2p** *boolean*

| | |
|---|---|
| Synopsis | Send periodic CSNP PDUs on point-to-point interfaces |
| Context | **configure** router *named-item-64* isis *number* csnp-on-p2p *boolean* |
| Tree | csnp-on-p2p |
| Default | true |
| Introduced | 24.7.R1 |
| Platforms | All |

## database-export

| | |
|---|---|
| Synopsis | Enable the **database-export** context |
| Context | **configure** router *named-item-64* isis *number* database-export |
| Tree | database-export |
| Description | Commands in this context enable the population of the extended TE Database (TE-DB) with the link-state information from a specific IGP instance.<br>This information includes the IGP, TE, and SR information, prefix SID sub-TLV, adjacency SID sub-TLV, and router SR capability TLV. |
| Introduced | 16.0.R1 |
| Platforms | All |

## bgp-ls-identifier

| | |
|---|---|
| Synopsis | Enable the **bgp-ls-identifier** context |
| Context | **configure** router *named-item-64* isis *number* database-export bgp-ls-identifier |
| Tree | bgp-ls-identifier |
| Description | Commands in this context correlate, along with the Autonomous System Number (ASN), the BGP-LS NLRI advertisements of multiple BGP-LS speakers of the same IGP domain. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **value** *number*

| | |
|---|---|
| Synopsis | BGP-LS ID sent in the BGP-LS NLRI |
| Context | **configure** router *named-item-64* isis *number* database-export bgp-ls-identifier value *number* |
| Tree | value |
| Description | This command configures the BGP-LS ID to export.<br>If an NRC-P network domain has multiple IGP domains, a user must configure BGP-LS speakers within each IGP domain with the same unique ASN, BGP-LS ID tuple. The BGP-LS identifier is optional and is only sent in a BGP-LS NLRI if configured in the IGP instance of an IGP domain.<br>**Note:** If this IGP instance participates in traffic engineering with RSVP-TE or SR-TE, the **traffic-engineering** command configuration is not strictly required because enabling the extended TE-DB populates this information automatically. However, Nokia recommends enabling the **traffic-engineering** command to make the configuration consistent with other routers in the network that do not require the enabling of the extended TE-DB. |
| Max. range | 0 to 4294967295 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **igp-identifier** *number*

| | |
|---|---|
| Synopsis | IGP instance ID in the BGP-LS NLRI |
| Context | **configure** router *named-item-64* isis *number* database-export igp-identifier *number* |
| Tree | igp-identifier |
| Description | This command configures the unique identifier for the IGP instance in the BGP-LS NLRI when a router has interfaces participating in multiple IGP instances.<br>The concept of instance ID defined in IS-IS (RFC 6822) is unique within a routing domain. A user can remove any overlap by configuring the new identifier value to be unique within an IGP domain when this router sends the IGP link-state information using BGP-LS. |
| Max. range | 0 to 18446744073709551615 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **reachable-ls-only** *boolean*

| | |
|---|---|
| Synopsis | Encode only reachable link-state information |


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| | |
|---|---|
| Context | **configure** router *named-item-64* isis *number* database-export reachable-ls-only *boolean* |
| Tree | reachable-ls-only |
| Description | When configured to **true**, the router, acting as a BGP-LS producer, must withdraw all link-state objects it has advertised in BGP, in accordance with section 5.9 of RFC 9552. This withdrawal occurs when the node that originated the corresponding LSPs is determined to be unreachable in the IGP based on the failure of a reachability check for that node. This withdrawal operation assists network controllers in assessing a reachable IGP topology, even in networks with segmented areas. For backward compatibility, the default behavior remains unchanged.<br>When configure to **false**, the router continues to send link-state objects even for links that fail an IGP reachability check. |
| Default | false |
| Introduced | 24.10.R1 |
| Platforms | All |

## **default-route-tag** *number*

| | |
|---|---|
| Synopsis | Route tag for the default route |
| Context | **configure** router *named-item-64* isis *number* default-route-tag *number* |
| Tree | default-route-tag |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **entropy-label**

| | |
|---|---|
| Synopsis | Enter the **entropy-label** context |
| Context | **configure** router *named-item-64* isis *number* entropy-label |
| Tree | entropy-label |
| Introduced | 16.0.R1 |
| Platforms | All |

## **override-tunnel-elc** *boolean*

| | |
|---|---|
| Synopsis | Enable override of received ELC advertisements |
| Context | **configure** router *named-item-64* isis *number* entropy-label override-tunnel-elc *boolean* |
| Tree | override-tunnel-elc |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### export-limit

| | |
|---|---|
| Synopsis | Enable the **export-limit** context |
| Context | **configure** router *named-item-64* isis *number* export-limit |
| Tree | export-limit |
| Introduced | 16.0.R1 |
| Platforms | All |

### log-percent *number*

| | |
|---|---|
| Synopsis | Export limit before warning and SNMP notification sent |
| Context | **configure** router *named-item-64* isis *number* export-limit log-percent *number* |
| Tree | log-percent |
| Range | 1 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### number *number*

| | |
|---|---|
| Synopsis | Maximum routes or prefixes exported from route table |
| Context | **configure** router *named-item-64* isis *number* export-limit number *number* |
| Tree | number |
| Range | 1 to 4294967295 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### export-policy *reference*

| | |
|---|---|
| Synopsis | Export policies that determine exported routes |
| Context | **configure** router *named-item-64* isis *number* export-policy *reference* |


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| | |
|---|---|
| Tree | export-policy |
| Description | This command configures export routing policies for the routes exported from the routing table to IS-IS.<br>If the export policy is undefined, the system does not export non IS-IS routes from the routing table manager to IS-IS.<br>If multiple policy names are specified, the policies are evaluated in the order they are specified. The first policy that matches is applied.<br>If the **aggregate** command is also configured in the **configure router** context, the aggregation is applied before the export policy is applied.<br>Routing policies are created in the **configure router policy-options** context. |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

## flexible-algorithms

| | |
|---|---|
| Synopsis | Enter the **flexible-algorithms** context |
| Context | **configure** router *named-item-64* isis *number* flexible-algorithms |
| Tree | flexible-algorithms |
| Description | Commands in this context configure IS-IS parameters for flexible algorithm participation. |
| Introduced | 20.7.R1 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of flexible algorithm support |
| Context | **configure** router *named-item-64* isis *number* flexible-algorithms admin-state *keyword* |
| Tree | admin-state |
| Description | This command specifies the administrative state of the support of flexible algorithm IGP LSDB extensions. |
| Options | enable, disable |
| Default | disable |
| Introduced | 20.7.R1 |


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| | |
|---|---|
| Platforms | All |

### **advertise-admin-group** *keyword*

| | |
|---|---|
| Synopsis | Administrative group TLV to advertise |
| Context | **configure** router *named-item-64* isis *number* flexible-algorithms advertise-admin-group *keyword* |
| Tree | advertise-admin-group |
| Description | This command configures the type of Administrative Group TLV the router advertises as an IGP link attribute. This command is configured for this IGP instance. |
| Options | prefer-ag, eag-only, ag-eag |
| Default | prefer-ag |
| Introduced | 23.3.R1 |
| Platforms | All |

### **flex-algo** [flex-algo-id] *number*

| | |
|---|---|
| Synopsis | Enter the **flex-algo** list instance |
| Context | **configure** router *named-item-64* isis *number* flexible-algorithms flex-algo *number* |
| Tree | flex-algo |
| Description | Commands in this context configure an IS-IS flexible algorithm.<br>When flexible algorithm is configured in an IS-IS instance, the IS-IS instance is configured for all levels (Level 1 and Level 2). |
| Max. instances | 7 |
| Introduced | 20.7.R1 |
| Platforms | All |

### [**flex-algo-id**] *number*

| | |
|---|---|
| Synopsis | Flexible algorithm ID |
| Context | **configure** router *named-item-64* isis *number* flexible-algorithms flex-algo *number* |
| Tree | flex-algo |
| Range | 128 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 20.7.R1 |


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Platforms All

## **advertise** *reference*

Synopsis Flexible Algorithm Definition advertisement

Context **configure** router *named-item-64* isis *number* flexible-algorithms flex-algo *number* advertise *reference*

Tree advertise

Description This command enables the advertisement of a locally configured Flexible Algorithm Definition (FAD).

The winning FAD that a router uses must be consistent with the winning FAD on all other routers, which avoids routing loops and traffic blackholing. The winning FAD is selected using a tiebreaker algorithm that first selects the highest advertised FAD priority followed by the highest system ID.

Reference **configure** routing-options flexible-algorithm-definitions flex-algo *named-item*

Introduced 20.7.R1

Platforms All

## loopfree-alternate

Synopsis Enable the **loopfree-alternate** context

Context **configure** router *named-item-64* isis *number* flexible-algorithms flex-algo *number* loopfree-alternate

Tree loopfree-alternate

Introduced 20.7.R1

Platforms All

## micro-loop-avoidance

Synopsis Enable the **micro-loop-avoidance** context

Context **configure** router *named-item-64* isis *number* flexible-algorithms flex-algo *number* micro-loop-avoidance

Tree micro-loop-avoidance

Description This command configure flexible-algorithms-aware microloop avoidance. When enabled, the microloop configuration parameters are inherited from the base SPF.

This command enables microloop avoidance with flexible algorithms for MT0. Microloop avoidance with flexible algorithms for MT2 is enabled when this command is enabled


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along with SR-MPLS MT2 using the **configure router isis segment-routing multi-topology mt2** command.

Introduced 21.7.R1

Platforms All

## **participate** *boolean*

Synopsis Allow participation in the Flexible Algorithm

Context **configure** router *named-item-64* isis *number* flexible-algorithms flex-algo *number* participate *boolean*

Tree participate

Description When configured to **true**, the router advertises the capability to participate in a flexible algorithm within the IS-IS Router Capability TLV. A router only advertises participation when the winning FAD can be supported, which includes segment routing support.

When configured to **false**, flexible algorithm participation is not enabled.

Default false

Introduced 20.7.R1

Platforms All

## **graceful-restart**

Synopsis Enable the **graceful-restart** context

Context **configure** router *named-item-64* isis *number* graceful-restart

Tree graceful-restart

Introduced 16.0.R1

Platforms All

## **helper-mode** *boolean*

Synopsis Enable the Graceful Restart helper for IS-IS

Context **configure** router *named-item-64* isis *number* graceful-restart helper-mode *boolean*

Tree helper-mode

Default true

Introduced 16.0.R1

Platforms All


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### **hello-authentication** *boolean*

| | |
|---|---|
| Synopsis | Authenticate Hello type IS-IS protocol packets |
| Context | **configure** router *named-item-64* isis *number* hello-authentication *boolean* |
| Tree | hello-authentication |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hello-padding** *keyword*

| | |
|---|---|
| Synopsis | IS-IS Hello message padding |
| Context | **configure** router *named-item-64* isis *number* hello-padding *keyword* |
| Tree | hello-padding |
| Options | adaptive, loose, strict, none |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ignore-attached-bit** *boolean*

| | |
|---|---|
| Synopsis | Ignore attached bit on received Layer 1 LSPs |
| Context | **configure** router *named-item-64* isis *number* ignore-attached-bit *boolean* |
| Tree | ignore-attached-bit |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ignore-lsp-errors** *boolean*

| | |
|---|---|
| Synopsis | Ignore LSP packets with errors |
| Context | **configure** router *named-item-64* isis *number* ignore-lsp-errors *boolean* |
| Tree | ignore-lsp-errors |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **ignore-narrow-metric** *boolean*

| | |
|---|---|
| Synopsis | Ignore links with narrow metrics |
| Context | **configure** router *named-item-64* isis *number* ignore-narrow-metric *boolean* |
| Tree | ignore-narrow-metric |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **igp-shortcut**

| | |
|---|---|
| Synopsis | Enter the **igp-shortcut** context |
| Context | **configure** router *named-item-64* isis *number* igp-shortcut |
| Tree | igp-shortcut |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of RSVP-TE or SR-TE shortcut |
| Context | **configure** router *named-item-64* isis *number* igp-shortcut admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **allow-sr-over-srte** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable SR over SR-TE LSPs |
| Context | **configure** router *named-item-64* isis *number* igp-shortcut allow-sr-over-srte *boolean* |
| Tree | allow-sr-over-srte |


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| | |
|---|---|
| Description | When configured to **true**, the router only allows SR-MPLS SRv4 and SRv6 IGP shortcuts to use SR-TE LSPs with **allow-sr-over-srte** explicitly enabled with an adjacency SID as top SID in the SR-TE LSP. IPv4 and IPv6 addresses can use all available SR-TE LSPs as IGP shortcuts regardless of the explicit **allow-sr-over-srte** configuration.<br>Under ECMP, when this command is configured to **true**, preference is given to the SR-TE LSPs with **allow-sr-over-srte** explicitly configured over the LSPs that do not have **allow-sr-over-srte** configured. |
| Default | false |
| Introduced | 23.3.R1 |
| Platforms | All |

## tunnel-next-hop

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **tunnel-next-hop** context |
| Context | **configure** router *named-item-64* isis *number* igp-shortcut tunnel-next-hop |
| Tree | tunnel-next-hop |
| Introduced | 16.0.R1 |
| Platforms | All |

## **family** [family-type] *keyword*

| | |
|---|---|
| Synopsis | Enter the **family** list instance |
| Context | **configure** router *named-item-64* isis *number* igp-shortcut tunnel-next-hop family *keyword* |
| Tree | family |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**family-type**] *keyword*

| | |
|---|---|
| Synopsis | Address family type for tunnel next hop |
| Context | **configure** router *named-item-64* isis *number* igp-shortcut tunnel-next-hop family *keyword* |


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| | |
|---|---|
| Tree | family |
| Options | ipv4, ipv6, srv4, srv6 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **resolution** *keyword*

| | |
|---|---|
| Synopsis | Resolution mode for IGP shortcut tunnels |
| Context | **configure** router *named-item-64* isis *number* igp-shortcut tunnel-next-hop family *keyword* resolution *keyword* |
| Tree | resolution |
| Options | none, filter, any, match-family-ip |
| Default | none |
| Introduced | 16.0.R1 |
| Platforms | All |

## **resolution-filter**

| | |
|---|---|
| Synopsis | Enter the **resolution-filter** context |
| Context | **configure** router *named-item-64* isis *number* igp-shortcut tunnel-next-hop family *keyword* resolution-filter |
| Tree | resolution-filter |
| Introduced | 16.0.R1 |
| Platforms | All |

## **rsvp** *boolean*

| | |
|---|---|
| Synopsis | Use RSVP tunneling for next-hop resolution |
| Context | **configure** router *named-item-64* isis *number* igp-shortcut tunnel-next-hop family *keyword* resolution-filter rsvp *boolean* |
| Tree | rsvp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **sr-te** *boolean*

| | |
|---|---|
| Synopsis | Use SR-TE tunneling for next-hop resolution |
| Context | **configure** router *named-item-64* isis *number* igp-shortcut tunnel-next-hop family *keyword* resolution-filter sr-te *boolean* |
| Tree | sr-te |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **iid-tlv** *boolean*

| | |
|---|---|
| Synopsis | Use IID TLVs with IS-IS multi-instance |
| Context | **configure** router *named-item-64* isis *number* iid-tlv *boolean* |
| Tree | iid-tlv |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **import-policy** *reference*

| | |
|---|---|
| Synopsis | Import policy names for routes from IGP to route table |
| Context | **configure** router *named-item-64* isis *number* import-policy *reference* |
| Tree | import-policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **interface** [interface-name] *interface-name*

| | |
|---|---|
| Synopsis | Enter the **interface** list instance |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* |


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| | |
|---|---|
| Tree | interface |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**interface-name**] *interface-name*

| | |
|---|---|
| Synopsis | Router interface name |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* |
| Tree | interface |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **adjacency-set** [id] *reference*

| | |
|---|---|
| Synopsis | Add a list entry for **adjacency-set** |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* adjacency-set *reference* |
| Tree | adjacency-set |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**id**] *reference*

| | |
|---|---|
| Synopsis | Adjacency set ID |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* adjacency-set *reference* |
| Tree | adjacency-set |
| Reference | **configure** router *named-item-64* isis *number* segment-routing adjacency-set *number* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the IS-IS interface |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bfd-liveness**

| | |
|---|---|
| Synopsis | Enter the **bfd-liveness** context |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* bfd-liveness |
| Tree | bfd-liveness |
| Description | Commands in this context enable the use of bidirectional forwarding (BFD) to control IPv4 and IPv6 adjacencies. Enabling BFD on an IPv4 or IPv6 protocol interface ties the protocol interface state to the BFD session state between the local and remote nodes. BFD must be enabled on the applicable IP interface. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv4**

| | |
|---|---|
| Synopsis | Enable the **ipv4** context |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* bfd-liveness ipv4 |
| Tree | ipv4 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **include-bfd-tlv** *boolean*

| | |
|---|---|
| Synopsis | Enable IS-IS BFD TLVs on the interface |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* bfd-liveness ipv4 include-bfd-tlv *boolean* |
| Tree | include-bfd-tlv |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## ipv6

| | |
|---|---|
| Synopsis | Enable the **ipv6** context |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* bfd-liveness ipv6 |
| Tree | ipv6 |
| Introduced | 16.0.R1 |
| Platforms | All |

## include-bfd-tlv *boolean*

| | |
|---|---|
| Synopsis | Enable IS-IS BFD TLVs on the interface |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* bfd-liveness ipv6 include-bfd-tlv *boolean* |
| Tree | include-bfd-tlv |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## csnp-interval *number*

| | |
|---|---|
| Synopsis | Time interval between successive CSN PDUs sent |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* csnp-interval *number* |
| Tree | csnp-interval |
| Range | 1 to 65535 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **default-instance** *boolean*

| | |
|---|---|
| Synopsis | Allow non-MI capable router to establish an adjacency |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* default-instance *boolean* |
| Tree | default-instance |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **delay-normalization**

| | |
|---|---|
| Synopsis | Enable the **delay-normalization** context |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* delay-normalization |
| Tree | delay-normalization |
| Description | Commands in this context configure delay normalization for the interface within the IGP instance. When configured, the normalized delay is used by the TLVs within the IGP link-state packets.<br>When unconfigured, the measured delay is used by the respective TLVs within the IGP link-state packets. |
| Introduced | 24.10.R1 |
| Platforms | All |

## **delay-tolerance-interval** *number*

| | |
|---|---|
| Synopsis | Interval between two delay values on the interface |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* delay-normalization delay-tolerance-interval *number* |
| Tree | delay-tolerance-interval |
| Description | This command defines the interval used by the IGP to differentiate between two delay values. |
| Range | 1 to 10000000 |
| Units | microseconds |
| Default | 10 |
| Introduced | 24.10.R1 |
| Platforms | All |


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### **minimum-delay** *number*

| | |
|---|---|
| Synopsis | Minimum delay on the interface |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* delay-normalization minimum-delay *number* |
| Tree | minimum-delay |
| Range | 1 to 10000000 |
| Units | microseconds |
| Default | 1 |
| Introduced | 24.10.R1 |
| Platforms | All |

### **flex-algo** [flex-algo-id] *number*

| | |
|---|---|
| Synopsis | Enter the **flex-algo** list instance |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* flex-algo *number* |
| Tree | flex-algo |
| Max. instances | 7 |
| Introduced | 20.7.R1 |
| Platforms | All |

### [**flex-algo-id**] *number*

| | |
|---|---|
| Synopsis | Flexible algorithm ID |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* flex-algo *number* |
| Tree | flex-algo |
| Range | 128 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 20.7.R1 |
| Platforms | All |

### **ipv4-node-sid**

| | |
|---|---|
| Synopsis | Enable the **ipv4-node-sid** context |


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| | |
|---|---|
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* flex-algo *number* ipv4-node-sid |
| Tree | ipv4-node-sid |
| Introduced | 20.7.R1 |
| Platforms | All |

## **index** *number*

| | |
|---|---|
| Synopsis | Node SID index for this interface |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* flex-algo *number* ipv4-node-sid index *number* |
| Tree | index |
| Range | 0 to 4294967295 |
| Notes | The following elements are part of a choice: **index** or **label**. |
| Introduced | 20.7.R1 |
| Platforms | All |

## **label** *number*

| | |
|---|---|
| Synopsis | Label value for the node SID |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* flex-algo *number* ipv4-node-sid label *number* |
| Tree | label |
| Range | 1 to 4294967295 |
| Notes | The following elements are part of a choice: **index** or **label**. |
| Introduced | 20.7.R1 |
| Platforms | All |

## **ipv6-node-sid**

| | |
|---|---|
| Synopsis | Enable the **ipv6-node-sid** context |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* flex-algo *number* ipv6-node-sid |
| Tree | ipv6-node-sid |
| Introduced | 20.7.R1 |
| Platforms | All |


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### **index** *number*

| | |
|---|---|
| Synopsis | Node SID index for this interface |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* flex-algo *number* ipv6-node-sid index *number* |
| Tree | index |
| Range | 0 to 4294967295 |
| Notes | The following elements are part of a choice: **index** or **label**. |
| Introduced | 20.7.R1 |
| Platforms | All |

### **label** *number*

| | |
|---|---|
| Synopsis | Label value for the node SID |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* flex-algo *number* ipv6-node-sid label *number* |
| Tree | label |
| Range | 1 to 4294967295 |
| Notes | The following elements are part of a choice: **index** or **label**. |
| Introduced | 20.7.R1 |
| Platforms | All |

### **hello-authentication** *boolean*

| | |
|---|---|
| Synopsis | Authenticate Hello type IS-IS protocol packets |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* hello-authentication *boolean* |
| Tree | hello-authentication |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hello-authentication-key** *encrypted-leaf*

| | |
|---|---|
| Synopsis | Authentication key or hash string for Hello PDUs |


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| | |
|---|---|
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* hello-authentication-key *encrypted-leaf* |
| Tree | hello-authentication-key |
| String length | 1 to 366 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **hello-authentication-keychain** *reference*

| | |
|---|---|
| Synopsis | Authentication keychain to use for the session |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* hello-authentication-keychain *reference* |
| Tree | hello-authentication-keychain |
| Reference | **configure** system security keychains keychain *named-item* |
| Introduced | 16.0.R3 |
| Platforms | All |

## **hello-authentication-type** *keyword*

| | |
|---|---|
| Synopsis | Hello authentication type |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* hello-authentication-type *keyword* |
| Tree | hello-authentication-type |
| Options | password, message-digest |
| Introduced | 16.0.R1 |
| Platforms | All |

## **hello-padding** *keyword*

| | |
|---|---|
| Synopsis | Padding on IS-IS Hello packets |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* hello-padding *keyword* |
| Tree | hello-padding |
| Options | adaptive, loose, strict, none |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **interface-type** *keyword*

| | |
|---|---|
| Synopsis | Interface type to broadcast, point-to-point, or to be default |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* interface-type *keyword* |
| Tree | interface-type |
| Options | point-to-point, broadcast |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv4-adjacency-sid**

| | |
|---|---|
| Synopsis | Enable the **ipv4-adjacency-sid** context |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* ipv4-adjacency-sid |
| Tree | ipv4-adjacency-sid |
| Introduced | 16.0.R1 |
| Platforms | All |

### **label** *number*

| | |
|---|---|
| Synopsis | Adjacency SID label |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* ipv4-adjacency-sid label *number* |
| Tree | label |
| Range | 1 to 1048575 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv4-multicast** *boolean*

| | |
|---|---|
| Synopsis | Enable IPv4 multicast routing for the interface |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* ipv4-multicast *boolean* |
| Tree | ipv4-multicast |
| Default | true |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## ipv4-node-sid

| | |
|---|---|
| Synopsis | Enable the **ipv4-node-sid** context |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* ipv4-node-sid |
| Tree | ipv4-node-sid |
| Introduced | 16.0.R1 |
| Platforms | All |

## clear-n-flag *boolean*

| | |
|---|---|
| Synopsis | Clear the node-sid flag (N-flag) |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* ipv4-node-sid clear-n-flag *boolean* |
| Tree | clear-n-flag |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## index *number*

| | |
|---|---|
| Synopsis | Node SID index for this interface |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* ipv4-node-sid index *number* |
| Tree | index |
| Range | 0 to 4294967295 |
| Notes | The following elements are part of a choice: **index** or **label**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## label *number*

| | |
|---|---|
| Synopsis | Label value for the node SID |


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| | |
|---|---|
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* ipv4-node-sid label *number* |
| Tree | label |
| Range | 1 to 4294967295 |
| Notes | The following elements are part of a choice: **index** or **label**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## ipv6-adjacency-sid

| | |
|---|---|
| Synopsis | Enable the **ipv6-adjacency-sid** context |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* ipv6-adjacency-sid |
| Tree | ipv6-adjacency-sid |
| Introduced | 16.0.R1 |
| Platforms | All |

## label *number*

| | |
|---|---|
| Synopsis | Adjacency SID label |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* ipv6-adjacency-sid label *number* |
| Tree | label |
| Range | 1 to 1048575 |
| Introduced | 16.0.R1 |
| Platforms | All |

## ipv6-multicast *boolean*

| | |
|---|---|
| Synopsis | Enable IPv6 multicast routing for the interface |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* ipv6-multicast *boolean* |
| Tree | ipv6-multicast |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |


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## ipv6-node-sid

| | |
|---|---|
| Synopsis | Enable the **ipv6-node-sid** context |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* ipv6-node-sid |
| Tree | ipv6-node-sid |
| Introduced | 16.0.R1 |
| Platforms | All |

## clear-n-flag *boolean*

| | |
|---|---|
| Synopsis | Clear the node-sid flag (N-flag) |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* ipv6-node-sid clear-n-flag *boolean* |
| Tree | clear-n-flag |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## index *number*

| | |
|---|---|
| Synopsis | Node SID index for this interface |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* ipv6-node-sid index *number* |
| Tree | index |
| Range | 0 to 4294967295 |
| Notes | The following elements are part of a choice: **index** or **label**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## label *number*

| | |
|---|---|
| Synopsis | Label value for the node SID |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* ipv6-node-sid label *number* |
| Tree | label |
| Range | 1 to 4294967295 |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **index** or **label**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv6-unicast** *boolean*

| | |
|---|---|
| Synopsis | Enable IPv6 unicast routing for the interface |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* ipv6-unicast *boolean* |
| Tree | ipv6-unicast |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **level** [level-number] *keyword*

| | |
|---|---|
| Synopsis | Enter the **level** list instance |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* level *keyword* |
| Tree | level |
| Max. instances | 2 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**level-number**] *keyword*

| | |
|---|---|
| Synopsis | ISIS protocol level number |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* level *keyword* |
| Tree | level |
| Options | 1, 2 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **hello-authentication-key** *encrypted-leaf*

| | |
|---|---|
| Synopsis | Authentication key for Hello PDUs |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* level *keyword* hello-authentication-key *encrypted-leaf* |
| Tree | hello-authentication-key |
| Description | This command configures the authentication key (password) for Hello PDUs. Both the Hello authentication key and the Hello authentication type on a segment must match.<br><br>If both IS-IS and Hello authentication are configured, Hello messages are validated using Hello authentication. If only IS-IS authentication is configured, it is used to authenticate all IS-IS (including Hello) protocol PDUs. |
| String length | 1 to 366 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **hello-authentication-keychain** *reference*

| | |
|---|---|
| Synopsis | Authentication keychain to use for the session |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* level *keyword* hello-authentication-keychain *reference* |
| Tree | hello-authentication-keychain |
| Reference | **configure** system security keychains keychain *named-item* |
| Introduced | 16.0.R3 |
| Platforms | All |

## **hello-authentication-type** *keyword*

| | |
|---|---|
| Synopsis | Hello authentication enabled on the context |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* level *keyword* hello-authentication-type *keyword* |
| Tree | hello-authentication-type |
| Description | This command enables Hello authentication at the level context. Both the Hello authentication key and the Hello authentication type on a segment must match. The Hello **authentication-key** statement must also be included. |
| Options | password, message-digest |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **hello-interval** *number*

| | |
|---|---|
| Synopsis | Interval between Hello messages sent on this level |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* level *keyword* hello-interval *number* |
| Tree | hello-interval |
| Range | 1 to 20000 |
| Units | seconds |
| Default | 9 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hello-multiplier** *number*

| | |
|---|---|
| Synopsis | Hello messages missed from neighbor before router declares adjacency down |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* level *keyword* hello-multiplier *number* |
| Tree | hello-multiplier |
| Range | 2 to 100 |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hello-padding** *keyword*

| | |
|---|---|
| Synopsis | Padding on IS-IS Hello packets |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* level *keyword* hello-padding *keyword* |
| Tree | hello-padding |
| Options | adaptive, loose, strict, none |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv4-multicast-metric** *number*

| | |
|---|---|
| Synopsis | IS-IS interface metric applied for IPv4 multicast |


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| | |
|---|---|
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* level *keyword* ipv4-multicast-metric *number* |
| Tree | ipv4-multicast-metric |
| Range | 1 to 16777215 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **ipv6-multicast-metric** *number*

| | |
|---|---|
| Synopsis | IS-IS interface metric applied for IPv6 multicast |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* level *keyword* ipv6-multicast-metric *number* |
| Tree | ipv6-multicast-metric |
| Range | 1 to 16777215 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **ipv6-unicast-metric** *number*

| | |
|---|---|
| Synopsis | IS-IS interface metric applied for IPv6 unicast |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* level *keyword* ipv6-unicast-metric *number* |
| Tree | ipv6-unicast-metric |
| Range | 1 to 16777215 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **metric** *number*

| | |
|---|---|
| Synopsis | IS-IS interface metric applied for IPv4 unicast |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* level *keyword* metric *number* |
| Tree | metric |
| Range | 1 to 16777215 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **passive** *boolean*

| | |
|---|---|
| Synopsis | Passive interface |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* level *keyword* passive *boolean* |
| Tree | passive |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **priority** *number*

| | |
|---|---|
| Synopsis | Router to become the designated router on a multi-access network |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* level *keyword* priority *number* |
| Tree | priority |
| Range | 0 to 127 |
| Default | 64 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sd-offset** *number*

| | |
|---|---|
| Synopsis | Value of the signal degrade offset |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* level *keyword* sd-offset *number* |
| Tree | sd-offset |
| Range | 1 to 16777215 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sf-offset** *number*

| | |
|---|---|
| Synopsis | Value of the signal fail offset |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* level *keyword* sf-offset *number* |


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| | |
|---|---|
| Tree | sf-offset |
| Range | 1 to 16777215 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **level-capability** *keyword*

| | |
|---|---|
| Synopsis | IS-IS levels for this interface |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* level-capability *keyword* |
| Tree | level-capability |
| Options | 1, 2, 1/2 |
| Default | 1/2 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **load-balancing-weight** *number*

| | |
|---|---|
| Synopsis | Load balancing weight |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* load-balancing-weight *number* |
| Tree | load-balancing-weight |
| Max. range | 0 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **loopfree-alternate**

| | |
|---|---|
| Synopsis | Enter the **loopfree-alternate** context |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* loopfree-alternate |
| Tree | loopfree-alternate |
| Introduced | 16.0.R3 |
| Platforms | All |


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### **exclude** *boolean*

| | |
|---|---|
| Synopsis | Exclude Loopfree Alternative at the interface level |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* loopfree-alternate exclude *boolean* |
| Tree | exclude |
| Default | false |
| Introduced | 16.0.R3 |
| Platforms | All |

### **policy-map**

| | |
|---|---|
| Synopsis | Enable the **policy-map** context |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* loopfree-alternate policy-map |
| Tree | policy-map |
| Introduced | 16.0.R3 |
| Platforms | All |

### **route-nh-template** *reference*

| | |
|---|---|
| Synopsis | Route next hop policy template name |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* loopfree-alternate policy-map route-nh-template *reference* |
| Tree | route-nh-template |
| Reference | **configure** routing-options route-next-hop-policy template *named-item* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R3 |
| Platforms | All |

### **lsp-pacing-interval** *number*

| | |
|---|---|
| Synopsis | Interval for sending LSPs from interface |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* lsp-pacing-interval *number* |
| Tree | lsp-pacing-interval |


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| | |
|---|---|
| Range | 0 to 65535 |
| Units | milliseconds |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

## mesh-group

| | |
|---|---|
| Synopsis | Enable the **mesh-group** context |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* mesh-group |
| Tree | mesh-group |
| Introduced | 16.0.R1 |
| Platforms | All |

## blocked

| | |
|---|---|
| Synopsis | Prevent the interface from flooding LSPs |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* mesh-group blocked |
| Tree | blocked |
| Notes | The following elements are part of a choice: **blocked** or **value**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## value *number*

| | |
|---|---|
| Synopsis | Mesh group for the interface |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* mesh-group value *number* |
| Tree | value |
| Range | 1 to 2000000000 |
| Notes | The following elements are part of a choice: **blocked** or **value**. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **passive** *boolean*

| | |
|---|---|
| Synopsis | Passive interface |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* passive *boolean* |
| Tree | passive |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **retransmit-interval** *number*

| | |
|---|---|
| Synopsis | Minimum time between LSP PDU retransmissions on point-to-point interface |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* retransmit-interval *number* |
| Tree | retransmit-interval |
| Range | 1 to 65535 |
| Units | seconds |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sid-protection** *boolean*

| | |
|---|---|
| Synopsis | Allow adjacency SID protection by LFA and remote LFA |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* sid-protection *boolean* |
| Tree | sid-protection |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **tag** *number*

| | |
|---|---|
| Synopsis | Route tag for IP address of interface |
| Context | **configure** router *named-item-64* isis *number* interface *interface-name* tag *number* |
| Tree | tag |


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| | |
|---|---|
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv4-multicast-routing** *keyword*

| | |
|---|---|
| Synopsis | IS-IS topology for IPv4 multicast routing |
| Context | **configure** router *named-item-64* isis *number* ipv4-multicast-routing *keyword* |
| Tree | ipv4-multicast-routing |
| Options | false, native, mt |
| Default | native |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv4-routing** *boolean*

| | |
|---|---|
| Synopsis | Support IPv4 routing for IS-IS instance |
| Context | **configure** router *named-item-64* isis *number* ipv4-routing *boolean* |
| Tree | ipv4-routing |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv6-multicast-routing** *keyword*

| | |
|---|---|
| Synopsis | Topology to populate the IPv6 multicast RTM |
| Context | **configure** router *named-item-64* isis *number* ipv6-multicast-routing *keyword* |
| Tree | ipv6-multicast-routing |
| Options | false, native, mt |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv6-routing** *keyword*

| | |
|---|---|
| Synopsis | Routing topology for IPv6 |


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| | |
|---|---|
| Context | **configure** router *named-item-64* isis *number* ipv6-routing *keyword* |
| Tree | ipv6-routing |
| Options | false, native, mt |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ldp-over-rsvp** *boolean*

| | |
|---|---|
| Synopsis | Allow LDP over RSVP processing |
| Context | **configure** router *named-item-64* isis *number* ldp-over-rsvp *boolean* |
| Tree | ldp-over-rsvp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ldp-sync** *boolean*

| | |
|---|---|
| Synopsis | Use IGP-LDP synchronization feature on all interfaces participating in IS-IS routing protocol |
| Context | **configure** router *named-item-64* isis *number* ldp-sync *boolean* |
| Tree | ldp-sync |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **level** [level-number] *keyword*

| | |
|---|---|
| Synopsis | Enter the **level** list instance |
| Context | **configure** router *named-item-64* isis *number* level *keyword* |
| Tree | level |
| Max. instances | 2 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**level-number**] *keyword*

| | |
|---|---|
| Synopsis | ISIS protocol level number |
| Context | **configure** router *named-item-64* isis *number* level *keyword* |
| Tree | level |
| Options | 1, 2 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **advertise-router-capability** *boolean*

| | |
|---|---|
| Synopsis | Allow router advertisement capabilities |
| Context | **configure** router *named-item-64* isis *number* level *keyword* advertise-router-capability *boolean* |
| Tree | advertise-router-capability |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **authentication-key** *encrypted-leaf*

| | |
|---|---|
| Synopsis | Authentication key to verify PDUs sent on the interface |
| Context | **configure** router *named-item-64* isis *number* level *keyword* authentication-key *encrypted-leaf* |
| Tree | authentication-key |
| Description | This command sets the authentication key used to verify PDUs sent by neighboring routers on the interface.<br>Neighboring routers use passwords to authenticate PDUs sent from an interface. For authentication to work, both the authentication key and the authentication type on a segment must match. The **authentication-type** command must also be included. |
| String length | 1 to 366 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **authentication-keychain** *reference*

| | |
|---|---|
| Synopsis | Keychain used to sign and authenticate |
| Context | **configure** router *named-item-64* isis *number* level *keyword* authentication-keychain *reference* |
| Tree | authentication-keychain |
| Reference | **configure** system security keychains keychain *named-item* |
| Introduced | 16.0.R3 |
| Platforms | All |

### **authentication-type** *keyword*

| | |
|---|---|
| Synopsis | Authentication type to be used |
| Context | **configure** router *named-item-64* isis *number* level *keyword* authentication-type *keyword* |
| Tree | authentication-type |
| Options | password, message-digest |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bier**

| | |
|---|---|
| Synopsis | Enter the **bier** context |
| Context | **configure** router *named-item-64* isis *number* level *keyword* bier |
| Tree | bier |
| Introduced | 16.0.R4 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of BIER |
| Context | **configure** router *named-item-64* isis *number* level *keyword* bier admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R4 |


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| | |
|---|---|
| Platforms | All |

### **template** *reference*

| | |
|---|---|
| Synopsis | BIER template name |
| Context | **configure** router *named-item-64* isis *number* level *keyword* bier template *reference* |
| Tree | template |
| Reference | **configure** router *named-item-64* bier template *named-item* |
| Introduced | 16.0.R4 |
| Platforms | All |

### **csnp-authentication** *boolean*

| | |
|---|---|
| Synopsis | Enable authentication of CSNP IS-IS protocol packets |
| Context | **configure** router *named-item-64* isis *number* level *keyword* csnp-authentication *boolean* |
| Tree | csnp-authentication |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **database-export-exclude** *boolean*

| | |
|---|---|
| Synopsis | Exclude IGP link-state information of a specific IS-IS level from being exported into extended TE-DB |
| Context | **configure** router *named-item-64* isis *number* level *keyword* database-export-exclude *boolean* |
| Tree | database-export-exclude |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **default-ipv4-multicast-metric** *number*

| | |
|---|---|
| Synopsis | Default metric for IPv4 unicast |
| Context | **configure** router *named-item-64* isis *number* level *keyword* default-ipv4-multicast-metric *number* |


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| | |
|---|---|
| Tree | default-ipv4-multicast-metric |
| Range | 1 to 16777215 |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **default-ipv6-multicast-metric** *number*

| | |
|---|---|
| Synopsis | Default metric for IPv6 unicast |
| Context | **configure** router *named-item-64* isis *number* level *keyword* default-ipv6-multicast-metric *number* |
| Tree | default-ipv6-multicast-metric |
| Range | 1 to 16777215 |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **default-ipv6-unicast-metric** *number*

| | |
|---|---|
| Synopsis | Default metric for IPv6 unicast |
| Context | **configure** router *named-item-64* isis *number* level *keyword* default-ipv6-unicast-metric *number* |
| Tree | default-ipv6-unicast-metric |
| Range | 1 to 16777215 |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **default-metric** *number*

| | |
|---|---|
| Synopsis | Default metric |
| Context | **configure** router *named-item-64* isis *number* level *keyword* default-metric *number* |
| Tree | default-metric |
| Range | 1 to 16777215 |
| Default | 10 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **external-preference** *number*

| | |
|---|---|
| Synopsis | External route preference for IS-IS level |
| Context | **configure** router *named-item-64* isis *number* level *keyword* external-preference *number* |
| Tree | external-preference |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hello-authentication** *boolean*

| | |
|---|---|
| Synopsis | Authenticate Hello type IS-IS protocol packets |
| Context | **configure** router *named-item-64* isis *number* level *keyword* hello-authentication *boolean* |
| Tree | hello-authentication |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hello-padding** *keyword*

| | |
|---|---|
| Synopsis | Padding on IS-IS Hello packets |
| Context | **configure** router *named-item-64* isis *number* level *keyword* hello-padding *keyword* |
| Tree | hello-padding |
| Options | adaptive, loose, strict, none |
| Introduced | 16.0.R1 |
| Platforms | All |

### **loopfree-alternate-exclude** *boolean*

| | |
|---|---|
| Synopsis | Exclude interface participating in specific IS-IS level in SPF LFA computation |
| Context | **configure** router *named-item-64* isis *number* level *keyword* loopfree-alternate-exclude *boolean* |
| Tree | loopfree-alternate-exclude |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **lsp-mtu-size** *number*

| | |
|---|---|
| Synopsis | LSP MTU size |
| Context | **configure** router *named-item-64* isis *number* level *keyword* lsp-mtu-size *number* |
| Tree | lsp-mtu-size |
| Range | 490 to 9778 |
| Units | bytes |
| Default | 1492 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **preference** *number*

| | |
|---|---|
| Synopsis | External route preference at level |
| Context | **configure** router *named-item-64* isis *number* level *keyword* preference *number* |
| Tree | preference |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **psnp-authentication** *boolean*

| | |
|---|---|
| Synopsis | Enable authentication on PSNP IS-IS protocol packets |
| Context | **configure** router *named-item-64* isis *number* level *keyword* psnp-authentication *boolean* |
| Tree | psnp-authentication |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **wide-metrics-only** *boolean*

| | |
|---|---|
| Synopsis | Use wide metrics advertisements in the LSPs |


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| | |
|---|---|
| Context | **configure** router *named-item-64* isis *number* level *keyword* wide-metrics-only *boolean* |
| Tree | wide-metrics-only |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **level-capability** *keyword*

| | |
|---|---|
| Synopsis | Routing level for instance |
| Context | **configure** router *named-item-64* isis *number* level-capability *keyword* |
| Tree | level-capability |
| Options | 1, 2, 1/2 |
| Default | 1/2 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **link-group** [link-group-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **link-group** list instance |
| Context | **configure** router *named-item-64* isis *number* link-group *named-item* |
| Tree | link-group |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**link-group-name**] *named-item*

| | |
|---|---|
| Synopsis | Link group name for the IS-IS protocol |
| Context | **configure** router *named-item-64* isis *number* link-group *named-item* |
| Tree | link-group |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **description** *very-long-description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** router *named-item-64* isis *number* link-group *named-item* description *very-long-description* |
| Tree | description |
| String length | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **level** [level-number] *keyword*

| | |
|---|---|
| Synopsis | Enter the **level** list instance |
| Context | **configure** router *named-item-64* isis *number* link-group *named-item* level *keyword* |
| Tree | level |
| Max. instances | 2 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**level-number**] *keyword*

| | |
|---|---|
| Synopsis | ISIS protocol level number |
| Context | **configure** router *named-item-64* isis *number* link-group *named-item* level *keyword* |
| Tree | level |
| Options | 1, 2 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv4-multicast-metric-offset** *number*

| | |
|---|---|
| Synopsis | Offset value for the IPv4 multicast address family |
| Context | **configure** router *named-item-64* isis *number* link-group *named-item* level *keyword* ipv4-multicast-metric-offset *number* |
| Tree | ipv4-multicast-metric-offset |


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| | |
|---|---|
| Range | 1 to 16777215 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv4-unicast-metric-offset** *number*

| | |
|---|---|
| Synopsis | Offset value for the IPv4 unicast address family |
| Context | **configure** router *named-item-64* isis *number* link-group *named-item* level *keyword* ipv4-unicast-metric-offset *number* |
| Tree | ipv4-unicast-metric-offset |
| Range | 1 to 16777215 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv6-multicast-metric-offset** *number*

| | |
|---|---|
| Synopsis | Offset value for the IPv6 multicast address family |
| Context | **configure** router *named-item-64* isis *number* link-group *named-item* level *keyword* ipv6-multicast-metric-offset *number* |
| Tree | ipv6-multicast-metric-offset |
| Range | 1 to 16777215 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv6-unicast-metric-offset** *number*

| | |
|---|---|
| Synopsis | Offset value for the IPv6 unicast address family |
| Context | **configure** router *named-item-64* isis *number* link-group *named-item* level *keyword* ipv6-unicast-metric-offset *number* |
| Tree | ipv6-unicast-metric-offset |
| Range | 1 to 16777215 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **member** [interface-name] *reference*

| | |
|---|---|
| Synopsis | Add a list entry for **member** |
| Context | **configure** router *named-item-64* isis *number* link-group *named-item* level *keyword* member *reference* |
| Tree | member |
| Max. instances | 8 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**interface-name**] *reference*

| | |
|---|---|
| Synopsis | Router interface name for this link group |
| Context | **configure** router *named-item-64* isis *number* link-group *named-item* level *keyword* member *reference* |
| Tree | member |
| Reference | **configure** router *named-item-64* isis *number* interface *interface-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **oper-members** *number*

| | |
|---|---|
| Synopsis | Minimum number of operational links |
| Context | **configure** router *named-item-64* isis *number* link-group *named-item* level *keyword* oper-members *number* |
| Tree | oper-members |
| Range | 1 to 8 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **revert-members** *number*

| | |
|---|---|
| Synopsis | Minimum number of operational links to return link group to normal state and remove offsets |


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| | |
|---|---|
| Context | **configure** router *named-item-64* isis *number* link-group *named-item* level *keyword* revert-members *number* |
| Tree | revert-members |
| Range | 1 to 8 |
| Introduced | 16.0.R1 |
| Platforms | All |

## loopfree-alternate

| | |
|---|---|
| Synopsis | Enable the **loopfree-alternate** context |
| Context | **configure** router *named-item-64* isis *number* loopfree-alternate |
| Tree | loopfree-alternate |
| Introduced | 16.0.R1 |
| Platforms | All |

## augment-route-table *boolean*

| | |
|---|---|
| Synopsis | Attach remote LFA information to RTM entries |
| Context | **configure** router *named-item-64* isis *number* loopfree-alternate augment-route-table *boolean* |
| Tree | augment-route-table |
| Description | When configured to **true**, this command enables IS-IS to attach remote LFA-specific information to RTM entries for use by protocols such as LDP.<br>When configured to **false**, rLFA-specific information is not added to RTM entries. |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

## exclude

| | |
|---|---|
| Synopsis | Enter the **exclude** context |
| Context | **configure** router *named-item-64* isis *number* loopfree-alternate exclude |
| Tree | exclude |
| Introduced | 16.0.R3 |
| Platforms | All |


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## **prefix-policy** *reference*

| | |
|---|---|
| Synopsis | Policy to exclude prefixes from LFA SPF calculation |
| Context | **configure** router *named-item-64* isis *number* loopfree-alternate exclude prefix-policy *reference* |
| Tree | prefix-policy |
| Description | This command specifies the name of the policy for the prefixes to exclude from the LFA SPF calculation.<br>An excluded prefix is not included in LFA calculation regardless of its priority. The prefix tag is, however, used in the main SPF. |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R3 |
| Platforms | All |

## **multi-homed-prefix**

| | |
|---|---|
| Synopsis | Enable the **multi-homed-prefix** context |
| Context | **configure** router *named-item-64* isis *number* loopfree-alternate multi-homed-prefix |
| Tree | multi-homed-prefix |
| Description | Commands in this context enable multihomed prefix LFA for IS-IS routes (IP FRR), SR-ISIS tunnels, and SRv6-ISIS tunnels.<br>This feature uses the multihomed prefix model described in RFC 8518 to compute a backup IP next hop using an alternate ABR or ASBR for external prefixes and to an alternate router owner for local anycast prefixes.<br>This feature further enhances the multihomed prefix backup path calculation beyond RFC 8518 with the addition of repair tunnels that make use of a PQ node or a P-Q set to reach the alternate exit ABR or ASBR of external prefixes or the alternate owner router of intra-area anycast prefixes.<br>The computed IP next hop-based backup path is added to IS-IS routes of external /32 prefixes or /128 prefixes and intra-area /32 or /128 anycast prefixes in the RTM if the prefix is not protected by the base LFA or if the user set leaf preference command option is configured to all. The user must enable the **configure routing-options ip-fast-reroute** command to have these backup paths programmed into the FIB in the datapath.<br>The computed IP next hop or repair tunnel-based backup path is also programmed for:<br>• SR-ISIS node SID tunnels of external /32 IPv4 prefixes and /128 IPv6 prefixes, and node SID tunnels of intra-area /32 IPv4 anycast prefixes and /128 anycast IPv6 prefixes, in both algorithm 0 and flexible-algorithms |


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- SRv6-ISIS locator routes and tunnels of external prefixes and of intra-area anycast prefixes of any size, in both algorithm 0 and flexible algorithm numbers.

As a result, an SR-TE LSP, an SR-MPLS policy, or an SRv6 policy which uses an SR-ISIS SID or an SRv6-ISIS SID of those same prefixes in its configured or computed SID list benefits from the multihomed prefix LFA protection.

Once the IP next-hop based multihomed prefix LFA is enabled, the extensions to compute an SR-TE repair tunnel for the multihomed prefix LFA in the case of SR-ISIS and SRv6-ISIS are automatically enabled if the user also enabled TI-LFA or Remote LFA. The computation reuses the SID list of the primary path or of the TI-LFA or Remote LFA backup path of the alternate ABR or ASBR or alternate owner router.

| | |
|---|---|
| Introduced | 22.7.R1 |
| Platforms | All |

## **preference** *keyword*

| | |
|---|---|
| Synopsis | Multihomed prefix LFA backup path preference |
| Context | **configure** router *named-item-64* isis *number* loopfree-alternate multi-homed-prefix preference *keyword* |
| Tree | preference |
| Options | none, all |
| Default | none |
| Introduced | 22.7.R1 |
| Platforms | All |

## **remote-lfa**

| | |
|---|---|
| Synopsis | Enable the **remote-lfa** context |
| Context | **configure** router *named-item-64* isis *number* loopfree-alternate remote-lfa |
| Tree | remote-lfa |
| Introduced | 16.0.R1 |
| Platforms | All |

## **max-pq-cost** *number*

| | |
|---|---|
| Synopsis | Maximum cost of destination node during reverse SPF calculation |
| Context | **configure** router *named-item-64* isis *number* loopfree-alternate remote-lfa max-pq-cost *number* |
| Tree | max-pq-cost |


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| | |
|---|---|
| Max. range | 0 to 4294967295 |
| Default | 4261412864 |
| Introduced | 16.0.R1 |
| Platforms | All |

## node-protect

| | |
|---|---|
| Synopsis | Enable the **node-protect** context |
| Context | **configure** router *named-item-64* isis *number* loopfree-alternate remote-lfa node-protect |
| Tree | node-protect |
| Introduced | 16.0.R4 |
| Platforms | All |

## max-pq-nodes *number*

| | |
|---|---|
| Synopsis | Maximum number of PQ nodes found in the LFA SPFs |
| Context | **configure** router *named-item-64* isis *number* loopfree-alternate remote-lfa node-protect max-pq-nodes *number* |
| Tree | max-pq-nodes |
| Range | 1 to 32 |
| Default | 16 |
| Introduced | 16.0.R4 |
| Platforms | All |

## ti-lfa

| | |
|---|---|
| Synopsis | Enable the **ti-lfa** context |
| Context | **configure** router *named-item-64* isis *number* loopfree-alternate ti-lfa |
| Tree | ti-lfa |
| Description | Commands in this context configure the Topology-Independent Loop-Free Alternate (TI-LFA) algorithm used in the LFA Shortest Path First (SPF) calculation for this IS-IS instance. |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **max-sr-frr-labels** *number*

| | |
|---|---|
| Synopsis | Maximum number of labels the TI-LFA backup path can use |
| Context | **configure** router *named-item-64* isis *number* loopfree-alternate ti-lfa max-sr-frr-labels *number* |
| Tree | max-sr-frr-labels |
| Description | This command configures the maximum number of labels allowed in the segment list of the TI-LFA repair tunnel. A higher value results in better coverage by TI-LFA at the expense of increased packet encapsulation overhead. The TI-LFA algorithm uses this value to limit the search for the Q-node from the P-node on the post-convergence path. |
| Range | 0 to 3 |
| Default | 2 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **max-srv6-frr-sids** *number*

| | |
|---|---|
| Synopsis | Maximum number of SIDs the TI-LFA backup path can use |
| Context | **configure** router *named-item-64* isis *number* loopfree-alternate ti-lfa max-srv6-frr-sids *number* |
| Tree | max-srv6-frr-sids |
| Description | This command configures the maximum number of SRv6 SIDs allowed in the segment list of the TI-LFA repair tunnel. A higher value results in better coverage by TI-LFA at the expense of increased packet encapsulation overhead. The TI-LFA algorithm uses this value to limit the search for the Q-node from the P-node on the post-convergence path |
| Range | 0 to 3 |
| Default | 1 |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **node-protect**

| | |
|---|---|
| Synopsis | Enable the **node-protect** context |
| Context | **configure** router *named-item-64* isis *number* loopfree-alternate ti-lfa node-protect |
| Tree | node-protect |
| Introduced | 16.0.R5 |
| Platforms | All |


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## **lsp-lifetime** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Amount of time during which an LSP is considered valid |
| Context | **configure** router *named-item-64* isis *number* lsp-lifetime *number* |
| Tree | lsp-lifetime |
| Range | 350 to 65535 |
| Units | seconds |
| Default | 1200 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **lsp-minimum-remaining-lifetime** *number*

| | |
|---|---|
| Synopsis | Minimum value for the Remaining Lifetime of an LSP |
| Context | **configure** router *named-item-64* isis *number* lsp-minimum-remaining-lifetime *number* |
| Tree | lsp-minimum-remaining-lifetime |
| Range | 350 to 65535 |
| Units | seconds |
| Introduced | 19.7.R1 |
| Platforms | All |

## **lsp-mtu-size** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | LSP MTU size |
| Context | **configure** router *named-item-64* isis *number* lsp-mtu-size *number* |
| Tree | lsp-mtu-size |
| Range | 490 to 9778 |
| Units | bytes |


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| | |
|---|---|
| Default | 1492 |
| Introduced | 16.0.R1 |
| Platforms | All |

## lsp-refresh

| | |
|---|---|
| Synopsis | Enter the **lsp-refresh** context |
| Context | **configure** router *named-item-64* isis *number* lsp-refresh |
| Tree | lsp-refresh |
| Introduced | 16.0.R1 |
| Platforms | All |

## half-lifetime *boolean*

| | |
|---|---|
| Synopsis | Set the refresh interval to always be half the LSP lifetime |
| Context | **configure** router *named-item-64* isis *number* lsp-refresh half-lifetime *boolean* |
| Tree | half-lifetime |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

## interval *number*

| | |
|---|---|
| Synopsis | Refresh timer interval |
| Context | **configure** router *named-item-64* isis *number* lsp-refresh interval *number* |
| Tree | interval |
| Range | 150 to 65535 |
| Units | seconds |
| Default | 600 |
| Introduced | 16.0.R1 |
| Platforms | All |

## mru-mismatch-detection *boolean*

| | |
|---|---|
| Synopsis | Enable detection of MRU mismatch |


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| | |
|---|---|
| Context | **configure** router *named-item-64* isis *number* mru-mismatch-detection *boolean* |
| Tree | mru-mismatch-detection |
| Description | When configured to **true**, this command verifies that the received IS-IS Hello (IIH) packet size does not exceed the configured maximum port MTU size. The received IIH packet is dropped when its size exceeds the maximum port MTU size.<br>When configured to **false**, the IS-IS router instance will not drop oversized IIH packets.<br>By default, FP-based hardware can receive oversized packets but it will not originate them. |
| Default | false |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## multi-topology

| | |
|---|---|
| Synopsis | Enable the **multi-topology** context |
| Context | **configure** router *named-item-64* isis *number* multi-topology |
| Tree | multi-topology |
| Introduced | 16.0.R1 |
| Platforms | All |

## ipv4-multicast *boolean*

| | |
|---|---|
| Synopsis | Support IPv4 topology (MT3) |
| Context | **configure** router *named-item-64* isis *number* multi-topology ipv4-multicast *boolean* |
| Tree | ipv4-multicast |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## ipv6-multicast *boolean*

| | |
|---|---|
| Synopsis | Support IPv6 topology (MT4) |
| Context | **configure** router *named-item-64* isis *number* multi-topology ipv6-multicast *boolean* |
| Tree | ipv6-multicast |
| Default | false |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **ipv6-unicast** *boolean*

| | |
|---|---|
| Synopsis | Support multi-topology TLVs |
| Context | **configure** router *named-item-64* isis *number* multi-topology ipv6-unicast *boolean* |
| Tree | ipv6-unicast |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **multicast-import**

| | |
|---|---|
| Synopsis | Enter the **multicast-import** context |
| Context | **configure** router *named-item-64* isis *number* multicast-import |
| Tree | multicast-import |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv4** *boolean*

| | |
|---|---|
| Synopsis | Submit IPv4 routes into the multicast RPF of the RTM |
| Context | **configure** router *named-item-64* isis *number* multicast-import ipv4 *boolean* |
| Tree | ipv4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv6** *boolean*

| | |
|---|---|
| Synopsis | Submit IPv6 routes into the multicast RPF of the RTM |
| Context | **configure** router *named-item-64* isis *number* multicast-import ipv6 *boolean* |
| Tree | ipv6 |
| Default | false |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## overload

| | |
|---|---|
| Synopsis | Enable the **overload** context |
| Context | **configure** router *named-item-64* isis *number* overload |
| Tree | overload |
| Introduced | 16.0.R1 |
| Platforms | All |

## max-metric *boolean*

| | |
|---|---|
| Synopsis | Advertise transit links with maximum metric instead of setting overload bit |
| Context | **configure** router *named-item-64* isis *number* overload max-metric *boolean* |
| Tree | max-metric |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## overload-export-external *boolean*

| | |
|---|---|
| Synopsis | Advertise the external routes when router is in overloaded |
| Context | **configure** router *named-item-64* isis *number* overload-export-external *boolean* |
| Tree | overload-export-external |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## overload-export-interlevel *boolean*

| | |
|---|---|
| Synopsis | Advertise the inter-level routes when router is overloaded |
| Context | **configure** router *named-item-64* isis *number* overload-export-interlevel *boolean* |
| Tree | overload-export-interlevel |
| Default | false |
| Introduced | 16.0.R1 |


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Platforms All

## overload-fib-error-notify-only

Synopsis Enable the **overload-fib-error-notify-only** context

Context **configure** router *named-item-64* isis *number* overload-fib-error-notify-only

Tree overload-fib-error-notify-only

Description Commands in this context configure the IS-IS router to send a notification when an overload condition occurs while programming the FIB, instead of advertising the overload condition of the router in the IS-IS LSP.

**Note**: Nokia recommends being careful using this command. When you configure the router not to advertise the IS-IS overload state in the IS-IS LSP, other routers are not instructed to take the overloaded router out of the IS-IS forwarding topology and this will cause suboptimal forwarding and non-deterministic behavior on the overloaded router. To avoid changing the default IS-IS overflow behavior, leave this command disabled.

When this command is configured, the IS-IS router enters a suboptimal state where it sends only a notification trap; transit traffic can still use the router in this state.

The IS-IS router tracks the segment routing prefix SIDs where FIB programming failed. With the **retry** command configured, the router retries programming the segment routing prefix SIDs in the FIB using this tracked information.

When this command is not configured, during normal operation, the system may force the router to enter an overload state because of a lack of FIB resources. In this state, the router is used to terminate traffic and is not used to transit traffic.

Introduced 23.7.R1

Platforms All

## **retry** *number*

Synopsis Time to retry programming failed entries in the FIB

Context **configure** router *named-item-64* isis *number* overload-fib-error-notify-only retry *number*

Tree retry

Description This command configures the time the router uses to retry programming the failed entries in the FIB.

The **overload-fib-error-notify-only** command must be configured to use the retry timer. The removal of the **overload-fib-error-notify-only** configuration causes the system to program the failed entries in the FIB by triggering an immediate SPF.

Range 10 to 1800

Units seconds

Default 10


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| | |
|---|---|
| Introduced | 23.7.R1 |
| Platforms | All |

### **overload-include-locators** *boolean*

| | |
|---|---|
| Synopsis | Advertise SRv6 locators if IS-IS instance overloads |
| Context | **configure** router *named-item-64* isis *number* overload-include-locators *boolean* |
| Tree | overload-include-locators |
| Description | When configured to **true**, if the IS-IS instance goes into overload (because of resource depletion or manual configuration), the router includes SRv6 locators when it advertises links and prefixes with **max-metric**. |
| Default | false |
| Introduced | 23.10.R1 |
| Platforms | All |

### **overload-on-boot**

| | |
|---|---|
| Synopsis | Enable the **overload-on-boot** context |
| Context | **configure** router *named-item-64* isis *number* overload-on-boot |
| Tree | overload-on-boot |
| Introduced | 16.0.R1 |
| Platforms | All |

### **max-metric** *boolean*

| | |
|---|---|
| Synopsis | Advertise transit links with maximum metric instead of setting overload bit |
| Context | **configure** router *named-item-64* isis *number* overload-on-boot max-metric *boolean* |
| Tree | max-metric |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **timeout** *number*

| | |
|---|---|
| Synopsis | Time during which the router operates in overload state after reboot |
| Context | **configure** router *named-item-64* isis *number* overload-on-boot timeout *number* |


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| | |
|---|---|
| Tree | timeout |
| Range | 60 to 1800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **poi-tlv** *boolean*

| | |
|---|---|
| Synopsis | Purge Originator Identification TLV |
| Context | **configure** router *named-item-64* isis *number* poi-tlv *boolean* |
| Tree | poi-tlv |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **prefix-attributes-tlv** *boolean*

| | |
|---|---|
| Synopsis | Use IS-IS Prefix Attributes TLV to exchange extended IPv4 and IPv6 reachability information |
| Context | **configure** router *named-item-64* isis *number* prefix-attributes-tlv *boolean* |
| Tree | prefix-attributes-tlv |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **prefix-limit**

| | |
|---|---|
| Synopsis | Enable the **prefix-limit** context |
| Context | **configure** router *named-item-64* isis *number* prefix-limit |
| Tree | prefix-limit |
| Introduced | 16.0.R1 |
| Platforms | All |

### **limit** *number*

| | |
|---|---|
| Synopsis | Maximum number of prefixes for IS-IS instance |


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| | |
|---|---|
| Context | **configure** router *named-item-64* isis *number* prefix-limit limit *number* |
| Tree | limit |
| Range | 1 to 4294967295 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **log-only** *boolean*

| | |
|---|---|
| Synopsis | Send warning message when the prefix limit is reached |
| Context | **configure** router *named-item-64* isis *number* prefix-limit log-only *boolean* |
| Tree | log-only |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **overload-timeout** *(number | keyword)*

| | |
|---|---|
| Synopsis | Time in overload state when prefix limit is reached |
| Context | **configure** router *named-item-64* isis *number* prefix-limit overload-timeout *(number | keyword)* |
| Tree | overload-timeout |
| Range | 1 to 1800 |
| Units | seconds |
| Options | forever |
| Default | forever |
| Introduced | 16.0.R1 |
| Platforms | All |

### **warning-threshold** *number*

| | |
|---|---|
| Synopsis | Threshold value to trigger a warning message to be sent |
| Context | **configure** router *named-item-64* isis *number* prefix-limit warning-threshold *number* |
| Tree | warning-threshold |
| Range | 0 to 100 |


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| | |
|---|---|
| Units | percent |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

## prefix-unreachable

| | |
|---|---|
| Synopsis | Enter the **prefix-unreachable** context |
| Context | **configure** router *named-item-64* isis *number* prefix-unreachable |
| Tree | prefix-unreachable |
| Introduced | 24.3.R1 |
| Platforms | All |

## maximum-number-upas *number*

| | |
|---|---|
| Synopsis | Maximum number of UPAs the router can advertise |
| Context | **configure** router *named-item-64* isis *number* prefix-unreachable maximum-number-upas *number* |
| Tree | maximum-number-upas |
| Description | This command configures a limit for the number of UPAs the router can advertise. If overrun, a system log is generated and additional UPAs are not advertised. |
| Range | 1 to 8192 |
| Default | 32 |
| Introduced | 24.3.R1 |
| Platforms | All |

## process-received-upa *boolean*

| | |
|---|---|
| Synopsis | Process received UPA |
| Context | **configure** router *named-item-64* isis *number* prefix-unreachable process-received-upa *boolean* |
| Tree | process-received-upa |
| Description | When configured to **true**, the router enables processing of received UPAs from other routers. Received UPAs are inserted into the unicast routing table as unreachable prefixes. When configured on an Area Boundary Router (ABR), received UPAs are inserted into the unreachable prefix table and redistributed into the other areas.<br><br>When configured to **false**, received UPAs are ignored by the router. |


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| | |
|---|---|
| Default | false |
| Introduced | 24.3.R1 |
| Platforms | All |

### **upa-lifetime** *number*

| | |
|---|---|
| Synopsis | Time during which a UPA is advertised |
| Context | **configure** router *named-item-64* isis *number* prefix-unreachable upa-lifetime *number* |
| Tree | upa-lifetime |
| Range | 30 to 1800 |
| Units | seconds |
| Default | 180 |
| Introduced | 24.3.R1 |
| Platforms | All |

### **upa-metric** *number*

| | |
|---|---|
| Synopsis | Metric to an advertised UPA |
| Context | **configure** router *named-item-64* isis *number* prefix-unreachable upa-metric *number* |
| Tree | upa-metric |
| Range | 4261412865 to 4294967294 |
| Default | 4261412865 |
| Introduced | 24.3.R1 |
| Platforms | All |

### **psnp-authentication** *boolean*

| | |
|---|---|
| Synopsis | Authenticate individual IS-IS protocol packets of partial sequence number PDU (PSNP) type |
| Context | **configure** router *named-item-64* isis *number* psnp-authentication *boolean* |
| Tree | psnp-authentication |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **reference-bandwidth** *number*

| | |
|---|---|
| Synopsis | Reference bandwidth for bandwidth relative costing |
| Context | **configure** router *named-item-64* isis *number* reference-bandwidth *number* |
| Tree | reference-bandwidth |
| Range | 1 to 18446744073709551615 |
| Units | kilobps |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rib-priority**

| | |
|---|---|
| Synopsis | Enter the **rib-priority** context |
| Context | **configure** router *named-item-64* isis *number* rib-priority |
| Tree | rib-priority |
| Introduced | 16.0.R1 |
| Platforms | All |

### **high**

| | |
|---|---|
| Synopsis | Enter the **high** context |
| Context | **configure** router *named-item-64* isis *number* rib-priority high |
| Tree | high |
| Introduced | 16.0.R1 |
| Platforms | All |

### **prefix-list** *reference*

| | |
|---|---|
| Synopsis | List used to select routes processed at higher priority through OSPF route calculation process |
| Context | **configure** router *named-item-64* isis *number* rib-priority high prefix-list *reference* |
| Tree | prefix-list |
| Reference | **configure** policy-options prefix-list *named-item-64* |
| Notes | The following elements are part of a choice: **prefix-list** or **tag**. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **tag** *number*

| | |
|---|---|
| Synopsis | Tag value that is used to match IS-IS routes |
| Context | **configure** router *named-item-64* isis *number* rib-priority high tag *number* |
| Tree | tag |
| Range | 1 to 4294967295 |
| Notes | The following elements are part of a choice: **prefix-list** or **tag**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **router-id** *router-id*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Unique router ID for the ISIS instance |
| Context | **configure** router *named-item-64* isis *number* router-id *router-id* |
| Tree | router-id |
| Introduced | 16.0.R1 |
| Platforms | All |

### **segment-routing**

| | |
|---|---|
| Synopsis | Enter the **segment-routing** context |
| Context | **configure** router *named-item-64* isis *number* segment-routing |
| Tree | segment-routing |
| Introduced | 16.0.R1 |
| Platforms | All |

### **adj-sid-hold** *(number | keyword)*

| | |
|---|---|
| Synopsis | Adjacency SID hold time |


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Context **configure** router *named-item-64* isis *number* segment-routing adj-sid-hold *(number | keyword)*

Tree adj-sid-hold

Description This command configures a timer to hold the ILM or LTN of an adjacency SID following a failure of the adjacency.

When an adjacency to a neighbor fails, the following procedure is followed for both an LFA protected and the LFA unprotected SID of this adjacency in SR-MPLS. An adjacency can have both types of SIDs assigned by configuration. An LFA protected adjacency SID is eligible for LFA protection, however, the following procedure applies even if an LFA backup is not programmed at the time of the failure. An LFA unprotected adjacency SID is not eligible for LFA protection.

- IGP withdraws the advertisement of the link TLV as well as its adjacency SID sub-TLV.
- The adjacency SID hold timer starts.
- The LTN and ILM records of the adjacency are kept in the datapath for as long as the adjacency SID hold time is running. This allows packets to flow over the LFA backup path, when the adjacency is protected, and allows the ingress LER or PCE time to compute a new path of the SR-TE LSP after IGP converges.
- If the adjacency is restored while the adjacency SID hold timer is running, the timer is aborted, and the adjacency SID remains programmed in the datapath with the retained SID values. However, the backup NHLFE may change if a new LFA SPF runs while the adjacency SID hold timer running. An update to the backup NHLFE is performed immediately following the LFA SPF. In all cases, the adjacency keeps its assigned SID label value.
- If the adjacency SID hold timer expires before the adjacency is restored, the SID is deprogrammed from the datapath and the label returned into the common pool where it was drawn from. Users of the adjacency (for example, SR policy and SR-TE LSP) are also informed. When the adjacency is subsequently restored, it gets assigned its allocated static-label value or a new dynamic-label value.
- A new PG-ID is assigned each time an adjacency comes back up. This PG-ID is used by the ILM and LTN of the adjacency SID and of all downstream node SIDs that resolve to a next hop over this adjacency.

Range 1 to 1800

Units seconds

Options none

Default 15

Introduced 16.0.R1

Platforms All

## **adjacency-set** [id] *number*

Synopsis Enter the **adjacency-set** list instance


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| | |
|---|---|
| Context | **configure** router *named-item-64* isis *number* segment-routing adjacency-set *number* |
| Tree | adjacency-set |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | Identifier for specified adjacency set |
| Context | **configure** router *named-item-64* isis *number* segment-routing adjacency-set *number* |
| Tree | adjacency-set |
| Range | 1 to 4294967295 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **advertise** *boolean*

| | |
|---|---|
| Synopsis | Advertise the adjacency set when all links terminate on the same neighboring node |
| Context | **configure** router *named-item-64* isis *number* segment-routing adjacency-set *number* advertise *boolean* |
| Tree | advertise |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **family** *keyword*

| | |
|---|---|
| Synopsis | Address family for the adjacency set |
| Context | **configure** router *named-item-64* isis *number* segment-routing adjacency-set *number* family *keyword* |
| Tree | family |
| Options | ipv4, ipv6 |
| Default | ipv4 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **parallel** *boolean*

| | |
|---|---|
| Synopsis | Require all members of the adjacency set to terminate on the same neighboring node |
| Context | **configure** router *named-item-64* isis *number* segment-routing adjacency-set *number* parallel *boolean* |
| Tree | parallel |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sid**

| | |
|---|---|
| Synopsis | Enable the **sid** context |
| Context | **configure** router *named-item-64* isis *number* segment-routing adjacency-set *number* sid |
| Tree | sid |
| Introduced | 16.0.R1 |
| Platforms | All |

### **label** *number*

| | |
|---|---|
| Synopsis | Adjacency SID label |
| Context | **configure** router *named-item-64* isis *number* segment-routing adjacency-set *number* sid label *number* |
| Tree | label |
| Range | 1 to 1048575 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **adjacency-sid**

| | |
|---|---|
| Synopsis | Enter the **adjacency-sid** context |
| Context | **configure** router *named-item-64* isis *number* segment-routing adjacency-sid |
| Tree | adjacency-sid |
| Introduced | 22.7.R1 |
| Platforms | All |


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### **allocate-dual-sids** *boolean*

| | |
|---|---|
| Synopsis | Allocate dual adjacency SIDs per interface |
| Context | **configure** router *named-item-64* isis *number* segment-routing adjacency-sid allocate-dual-sids *boolean* |
| Tree | allocate-dual-sids |
| Description | When configured to **true**, the router supports two SR-MPLS adjacency SIDs per interface. A protected and unprotected adjacency SID is instantiated and advertised. If an SR-MPLS adjacency SID already exists, an additional complementary (protected or unprotected) adjacency SID is created on the interface.<br>When configured to **false**, the router disables the support of two SR-MPLS adjacency SIDs per interface. |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of segment routing |
| Context | **configure** router *named-item-64* isis *number* segment-routing admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **class-forwarding** *boolean*

| | |
|---|---|
| Synopsis | Allow CBF with ECMP over RSVP-TE LSPs as IGP shortcuts |
| Context | **configure** router *named-item-64* isis *number* segment-routing class-forwarding *boolean* |
| Tree | class-forwarding |
| Description | When configured to **true**, this command enables Class-Based Forwarding (CBF) with ECMP for SR-ISIS resolved to RSVP-TE LSPs as IGP shortcuts.<br>For CBF with ECMP to be effective, a class forwarding policy must be defined, as well as FC to set associations and RSVP-TE LSPs to set associations.<br>When configured to **false**, CBF over IGP shortcuts is disabled. |
| Default | false |


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| | |
|---|---|
| Introduced | 20.2.R1 |
| Platforms | All |

## egress-statistics

| | |
|---|---|
| Synopsis | Enter the **egress-statistics** context |
| Context | **configure** router *named-item-64* isis *number* segment-routing egress-statistics |
| Tree | egress-statistics |
| Introduced | 19.10.R1 |
| Platforms | All |

## adj-set *boolean*

| | |
|---|---|
| Synopsis | Enable the allocation of statistics on adjacency sets |
| Context | **configure** router *named-item-64* isis *number* segment-routing egress-statistics adj-set *boolean* |
| Tree | adj-set |
| Description | When configured to **true**, this command enables the allocation of statistic indices to each adjacency set. All adjacencies of a set share the same statistics index. If a statistics index is not available at allocation time, the allocation fails and the system retries the allocation. The system generates a log on the first fail and a log on the final successful allocation. |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

## adj-sid *boolean*

| | |
|---|---|
| Synopsis | Enable the allocation of statistics on adjacency SIDs |
| Context | **configure** router *named-item-64* isis *number* segment-routing egress-statistics adj-sid *boolean* |
| Tree | adj-sid |
| Description | When configured to **true**, this command enables the allocation of statistic indexes to each programmed NHLFE corresponding to Adjacency SIDs (local and received by means of IGP advertisement). All NHLFEs associated to a given SID share the same index. If a statistics index is not available at allocation time, the allocation fails and the system retries the allocation. The system generates a log on the first fail and a log on the final successful allocation. |


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| | |
|---|---|
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **node-sid** *boolean*

| | |
|---|---|
| Synopsis | Enable the allocation of statistics on node SIDs |
| Context | **configure** router *named-item-64* isis *number* segment-routing egress-statistics node-sid *boolean* |
| Tree | node-sid |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **entropy-label** *boolean*

| | |
|---|---|
| Synopsis | Enable processing of received ELC signaled in the IGP |
| Context | **configure** router *named-item-64* isis *number* segment-routing entropy-label *boolean* |
| Tree | entropy-label |
| Introduced | 16.0.R1 |
| Platforms | All |

### **export-tunnel-table** *keyword*

| | |
|---|---|
| Synopsis | Tunnel table export policies to export tunneled routes |
| Context | **configure** router *named-item-64* isis *number* segment-routing export-tunnel-table *keyword* |
| Tree | export-tunnel-table |
| Options | ldp |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ingress-statistics**

| | |
|---|---|
| Synopsis | Enter the **ingress-statistics** context |
| Context | **configure** router *named-item-64* isis *number* segment-routing ingress-statistics |


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| | |
|---|---|
| Tree | ingress-statistics |
| Introduced | 19.10.R1 |
| Platforms | All |

### **adj-set** *boolean*

| | |
|---|---|
| Synopsis | Enable the allocation of statistics on adjacency sets |
| Context | **configure** router *named-item-64* isis *number* segment-routing ingress-statistics adj-set *boolean* |
| Tree | adj-set |
| Description | When configured to **true**, this command enables the allocation of statistic indices to each adjacency set. All adjacencies of a set share the same statistics index. If a statistics index is not available at allocation time, the allocation fails and the system retries the allocation. The system generates a log on the first fail and a log on the final successful allocation. |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **adj-sid** *boolean*

| | |
|---|---|
| Synopsis | Enable the allocation of statistics on adjacency SIDs |
| Context | **configure** router *named-item-64* isis *number* segment-routing ingress-statistics adj-sid *boolean* |
| Tree | adj-sid |
| Description | When configured to **true**, this command enables the allocation of statistic indexes to each programmed NHLFE corresponding to Adjacency SIDs (local and received by means of IGP advertisement). All NHLFEs associated to a given SID share the same index. If a statistics index is not available at allocation time, the allocation fails and the system retries the allocation. The system generates a log on the first fail and a log on the final successful allocation. |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **node-sid** *boolean*

| | |
|---|---|
| Synopsis | Enable the allocation of statistics on node SIDs |


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| | |
|---|---|
| Context | **configure** router *named-item-64* isis *number* segment-routing ingress-statistics node-sid *boolean* |
| Tree | node-sid |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

## mapping-server

| | |
|---|---|
| Synopsis | Enter the **mapping-server** context |
| Context | **configure** router *named-item-64* isis *number* segment-routing mapping-server |
| Tree | mapping-server |
| Introduced | 16.0.R1 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the IS-IS mapping server |
| Context | **configure** router *named-item-64* isis *number* segment-routing mapping-server admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

## node-sid-map [sid-index] *number*

| | |
|---|---|
| Synopsis | Enter the **node-sid-map** list instance |
| Context | **configure** router *named-item-64* isis *number* segment-routing mapping-server node-sid-map *number* |
| Tree | node-sid-map |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**sid-index**] *number*

| | |
|---|---|
| Synopsis | SID index of a mapping server Prefix-SID |
| Context | **configure** router *named-item-64* isis *number* segment-routing mapping-server node-sid-map *number* |
| Tree | node-sid-map |
| Max. range | 0 to 4294967295 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **clear-n-flag** *boolean*

| | |
|---|---|
| Synopsis | Clear the node-sid flag (N-flag) |
| Context | **configure** router *named-item-64* isis *number* segment-routing mapping-server node-sid-map *number* clear-n-flag *boolean* |
| Tree | clear-n-flag |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ip-prefix** *ipv4-unicast-prefix*

| | |
|---|---|
| Synopsis | Prefix of a mapping server Prefix-SID |
| Context | **configure** router *named-item-64* isis *number* segment-routing mapping-server node-sid-map *number* ip-prefix *ipv4-unicast-prefix* |
| Tree | ip-prefix |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **level-capability** *keyword*

| | |
|---|---|
| Synopsis | Flags to assign in SID Label Binding TLV advertised by Segment Routing Mapping Server |


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| | |
|---|---|
| Context | **configure** router *named-item-64* isis *number* segment-routing mapping-server node-sid-map *number* level-capability *keyword* |
| Tree | level-capability |
| Options | 1, 2, 1/2 |
| Default | 1/2 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **range** *number*

| | |
|---|---|
| Synopsis | Range of addresses and their associated prefix SIDs |
| Context | **configure** router *named-item-64* isis *number* segment-routing mapping-server node-sid-map *number* range *number* |
| Tree | range |
| Range | 0 to 65535 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **set-flags**

| | |
|---|---|
| Synopsis | Enter the **set-flags** context |
| Context | **configure** router *named-item-64* isis *number* segment-routing mapping-server node-sid-map *number* set-flags |
| Tree | set-flags |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bit-s** *boolean*

| | |
|---|---|
| Synopsis | SID Label Binding TLV to be flooded across the entire routing domain |
| Context | **configure** router *named-item-64* isis *number* segment-routing mapping-server node-sid-map *number* set-flags bit-s *boolean* |
| Tree | bit-s |
| Default | false |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## maximum-sid-depth

| | |
|---|---|
| Synopsis | Enter the **maximum-sid-depth** context |
| Context | **configure** router *named-item-64* isis *number* segment-routing maximum-sid-depth |
| Tree | maximum-sid-depth |
| Introduced | 20.2.R1 |
| Platforms | All |

## override-bmi *number*

| | |
|---|---|
| Synopsis | Value to override the announced node MSD-BMI value |
| Context | **configure** router *named-item-64* isis *number* segment-routing maximum-sid-depth override-bmi *number* |
| Tree | override-bmi |
| Description | This command overrides the announced MSD node Base MPLS Imposition (BMI) value. The MSD-BMI value announced by a router can be used by recipients to understand the number of MPLS labels that can be imposed inclusive of all service, transport, or special labels.<br><br>When unconfigured, the router announces the maximum supported BMI of the node assuming the most simple services and Layer 2 encapsulation. |
| Range | 0 to 12 |
| Introduced | 20.2.R1 |
| Platforms | All |

## override-erld *number*

| | |
|---|---|
| Synopsis | Value to override the announced node MSD-ERLD value |
| Context | **configure** router *named-item-64* isis *number* segment-routing maximum-sid-depth override-erld *number* |
| Tree | override-erld |
| Description | This command configures the override Entropy Readable Label Depth (ERLD) Maximum Sid Depth (MSD) value. Information about the capability of each intermediate LSR of reading the maximum label stack depth is used by ingress LSRs to perform EL-based load balancing.<br><br>When unconfigured, the router announces the node maximum supported ERLD assuming the most simple Layer 2 encapsulation. |


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| | |
|---|---|
| Range | 0 to 15 |
| Introduced | 20.2.R1 |
| Platforms | All |

## micro-loop-avoidance

| | |
|---|---|
| Synopsis | Enable the **micro-loop-avoidance** context |
| Context | **configure** router *named-item-64* isis *number* segment-routing micro-loop-avoidance |
| Tree | micro-loop-avoidance |
| Description | Commands in this context configure the microloop avoidance feature in the IGP instance. This feature prevents microloops from using Segment Routing (SR) loop-free tunnels for packets that are forwarded over SR IS-IS node SID tunnels.<br>These commands enable microloop avoidance for MT0. Microloop avoidance for MT2 is enabled when this command is enabled along with SR-MPLS MT2 using the **configure router isis segment-routing multi-topology mt2** command. |
| Introduced | 19.10.R1 |
| Platforms | All |

## fib-delay *number*

| | |
|---|---|
| Synopsis | FIB delay before programming new primary next-hops |
| Context | **configure** router *named-item-64* isis *number* segment-routing micro-loop-avoidance fib-delay *number* |
| Tree | fib-delay |
| Description | This command specifies the delay time before programming the new next-hops for the SR tunnel. |
| Range | 1 to 300 |
| Units | deciseconds |
| Default | 15 |
| Introduced | 19.10.R1 |
| Platforms | All |

## multi-topology

| | |
|---|---|
| Synopsis | Enter the **multi-topology** context |
| Context | **configure** router *named-item-64* isis *number* segment-routing multi-topology |
| Tree | multi-topology |


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| | |
|---|---|
| Introduced | 23.10.R1 |
| Platforms | All |

## **mt2** *boolean*

| | |
|---|---|
| Synopsis | Support IPv6 routing topology (MT2) |
| Context | **configure** router *named-item-64* isis *number* segment-routing multi-topology mt2 *boolean* |
| Tree | mt2 |
| Description | When configured to **true**, the router enables SR-MPLS for MS-ISIS MT, which enables Segment Routing in MT2. |
| Default | false |
| Introduced | 23.10.R1 |
| Platforms | All |

## prefix-sid-range

| | |
|---|---|
| Synopsis | Enable the **prefix-sid-range** context |
| Context | **configure** router *named-item-64* isis *number* segment-routing prefix-sid-range |
| Tree | prefix-sid-range |
| Description | Commands in this context configure the label block BGP segment routing can use. |
| Introduced | 16.0.R1 |
| Platforms | All |

## global

| | |
|---|---|
| Synopsis | BGP global SR range allocation |
| Context | **configure** router *named-item-64* isis *number* segment-routing prefix-sid-range global |
| Tree | global |
| Description | When configured, the system allows BGP to allocate labels from the SRGB space, as defined under the **configure router mpls-labels sr-labels** context. |
| Notes | The following elements are part of a choice: **global** or (**max-index** and **start-label**). |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **max-index** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Upper bound value for the local SID index |
| Context | **configure** router *named-item-64* isis *number* segment-routing prefix-sid-range max-index *number* |
| Tree | max-index |
| Range | 0 to 1048575 |
| Default | 1 |
| Notes | The following elements are part of a choice: **global** or (**max-index** and **start-label**). |
| Introduced | 16.0.R1 |
| Platforms | All |

### **start-label** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Lower bound value for the local label offset |
| Context | **configure** router *named-item-64* isis *number* segment-routing prefix-sid-range start-label *number* |
| Tree | start-label |
| Range | 0 to 1048575 |
| Default | 0 |
| Notes | The following elements are part of a choice: **global** or (**max-index** and **start-label**). |
| Introduced | 16.0.R1 |
| Platforms | All |

### **srlb** *reference*

| | |
|---|---|
| Synopsis | Segment routing local block |
| Context | **configure** router *named-item-64* isis *number* segment-routing srlb *reference* |
| Tree | srlb |


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| | |
|---|---|
| Reference | **configure** router *named-item-64* mpls-labels reserved-label-block *named-item-64* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **tunnel-mtu** *number*

| | |
|---|---|
| Synopsis | Tunnel MTU size |
| Context | **configure** router *named-item-64* isis *number* segment-routing tunnel-mtu *number* |
| Tree | tunnel-mtu |
| Range | 512 to 9786 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **tunnel-table-pref** *number*

| | |
|---|---|
| Synopsis | Preference of SR tunnels created by the IGP instance |
| Context | **configure** router *named-item-64* isis *number* segment-routing tunnel-table-pref *number* |
| Tree | tunnel-table-pref |

Description

This command configures the TTM preference of SR tunnels created by the IGP instance. This is used in the case of BGP shortcuts, VPRN auto-bind, or BGP transport tunnel when the new tunnel binding commands are configured to the **any** value which parses the TTM for tunnels in the protocol preference order. The user can choose to either go with the global TTM preference or list explicitly the tunnel types they want to use. When they list the tunnel types explicitly, the TTM preference is still used to select one type over the other. In both cases, a fallback to the next preferred tunnel type is performed if the selected one fails. Also, a reversion to a more preferred tunnel type is performed as soon as one is available.

The segment routing module adds to TTM a SR tunnel entry for each resolved remote node SID prefix and programs the data path with the corresponding LTN with the push operation pointing to the primary and LFA backup NHLFEs.

The default preference for SR tunnels in the TTM is set lower than LDP tunnels but higher than BGP tunnels to allow controlled migration of customers without disrupting their current deployment when they enable segment routing. The following is the setting of the default preference of the various tunnel types. This includes the preference of SR tunnels based on shortest path (referred to as **SR-ISIS** and **SR-OSPF**).

The global default TTM preference for the tunnel types is as follows:

- ROUTE_PREF_RSVP 7
- ROUTE_PREF_SR_TE 8
- ROUTE_PREF_LDP 9
- ROUTE_PREF_OSPF_TTM 10


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- ROUTE_PREF_ISIS_TTM 11
- ROUTE_PREF_BGP_TTM 12
- ROUTE_PREF_GRE 255

The default value for SR-ISIS or SR-OSPF is the same regardless if one or more IS-IS or OSPF instances programmed a tunnel for the same prefix. The selection of a SR tunnel in this case will be based on lowest IGP instance-id.

It is recommended to not set two or more tunnel types to the same preference value. In such a situation, the tunnel table prefers the tunnel type which was first introduced in SR OS implementation historically.

| | |
|---|---|
| Range | 1 to 255 |
| Default | 11 |
| Introduced | 16.0.R1 |
| Platforms | All |

## segment-routing-v6

| | |
|---|---|
| Synopsis | Enter the **segment-routing-v6** context |
| Context | **configure** router *named-item-64* isis *number* segment-routing-v6 |
| Tree | segment-routing-v6 |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## adj-sid-hold *(number | keyword)*

| | |
|---|---|
| Synopsis | Adjacency SID hold time |
| Context | **configure** router *named-item-64* isis *number* segment-routing-v6 adj-sid-hold *(number \| keyword)* |
| Tree | adj-sid-hold |

Description

This command specifies the length of time the system holds the SRv6 adjacency route and tunnel entries programmed in datapath while the adjacency is down.

When an adjacency to a neighbor fails, the following procedure is followed for both an LFA protected and the LFA unprotected SID of this adjacency in SR-MPLS. An adjacency can have both types of SIDs assigned by configuration. An LFA protected adjacency SID is eligible for LFA protection, however, the following procedure applies even if an LFA backup is not programmed at the time of the failure. An LFA unprotected adjacency SID is not eligible for LFA protection.

- IGP withdraws the advertisement of the link TLV as well as its SRv6 End.X SID sub-TLV
- The adjacency SID hold timer starts.


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- The route table, FIB, and tunnel table entries are kept for as long as the adjacency SID hold timer is running. This is allows packets to flow over the LFA backup path, if the adjacency is protected, and allows the ingress LER or PCE time to compute a new path of a SRv6 policy after IGP converges.
- If the adjacency is restored while the adjacency SID hold timer is running, the timer is aborted, and the adjacency SID remains programmed in the datapath with the retained SID values. However, the backup NHLFE may change when a new LFA SPF is run while the adjacency SID hold timer is running. An update to the backup NHLFE is performed immediately following the LFA SPF. In all cases, the adjacency keeps its assigned SID value.
- If the adjacency SID hold timer expires before the adjacency is restored, the SID is deprogrammed from the datapath and the SID value returned into the locator subnet where it was drawn from. Users of the adjacency (for example, SRv6 policy) are also informed. When the adjacency is subsequently restored, it gets assigned its allocated static SID value or a new dynamic SID value.
- A new PG-ID is assigned each time an adjacency comes back up. This PG-ID is used by tunnel of the local adjacency SID and of all remote locator routes that resolve to a next hop over this adjacency.

Each IS-IS instance runs a single timer per adjacency that IPv4 SR-MPLS, IPv6 SR-MPLS, and SRv6 adjacency SIDs share. When you enable both SR-MPLS (**configure router isis segment-routing**) and SRv6 (**configure router isis segment-routing-v6**) in the IS-IS instance, the system programs the higher of the two timer values for all SIDs on the adjacency.

| | |
|---|---|
| Range | 1 to 1800 |
| Units | seconds |
| Options | none |
| Default | 15 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of segment routing SRv6 |
| Context | **configure** router *named-item-64* isis *number* segment-routing-v6 admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |


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### **locator** [locator-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **locator** list instance |
| Context | **configure** router *named-item-64* isis *number* segment-routing-v6 locator *reference* |
| Tree | locator |
| Description | This command adds a reference to a locator for each algorithm in this IS-IS instance.<br>The same algorithm locator can be shared with other IGP instances and BGP instances in IP-VPN or EVPN. |
| Max. instances | 8 |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### [**locator-name**] *reference*

| | |
|---|---|
| Synopsis | Locator name |
| Context | **configure** router *named-item-64* isis *number* segment-routing-v6 locator *reference* |
| Tree | locator |
| Reference | **configure** router *named-item-64* segment-routing segment-routing-v6 locator *named-item-64* |
| Notes | This element is part of a list key. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **level** [level-number] *keyword*

| | |
|---|---|
| Synopsis | Enter the **level** list instance |
| Context | **configure** router *named-item-64* isis *number* segment-routing-v6 locator *reference* level *keyword* |
| Tree | level |
| Max. instances | 2 |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |


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### [**level-number**] *keyword*

| | |
|---|---|
| Synopsis | ISIS protocol level number |
| Context | **configure** router *named-item-64* isis *number* segment-routing-v6 locator *reference* level *keyword* |
| Tree | level |
| Options | 1, 2 |
| Notes | This element is part of a list key. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **metric** *number*

| | |
|---|---|
| Synopsis | IS-IS metric to advertise in the locator level list |
| Context | **configure** router *named-item-64* isis *number* segment-routing-v6 locator *reference* level *keyword* metric *number* |
| Tree | metric |
| Range | 1 to 16777215 |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **level-capability** *keyword*

| | |
|---|---|
| Synopsis | IS-IS routing level capability |
| Context | **configure** router *named-item-64* isis *number* segment-routing-v6 locator *reference* level-capability *keyword* |
| Tree | level-capability |
| Description | This command configures the routing level capability for an instance of the IS-IS routing process.<br>The level capability configured on the instance must match the level capability on the interface to form an adjacency. |
| Options | 1, 2, 1/2 |
| Default | 1/2 |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |


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## multi-topology

| | |
|---|---|
| Synopsis | Enter the **multi-topology** context |
| Context | **configure** router *named-item-64* isis *number* segment-routing-v6 locator *reference* multi-topology |
| Tree | multi-topology |
| Description | Commands in this context enable the use of a local SRv6 locator in an IS-IS IPv6 topology. A user can enable one or more locators in an IS-IS instance. Each locator can be enabled in a single topology of an IS-IS instance, topology 0 (MT0) or topology 2 (MT2). A local locator can be used in multiple IS-IS instances, but can only be assigned to at most one IPv6 topology independently within each IS-IS instance.<br><br>Use the **configure router isis segment-routing-v6 admin-state** command to enable the processing of local and remote IPv6 prefixes and SRv6 locators in MT0 and MT2. In addition, to enable SRv6 forwarding in the MT0, MT2, or both topologies, set the **configure router isis ipv6-routing** command to **native**, the **configure router isis multi-topology ipv6-unicast** command to **true**, or both. |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## mt0 *boolean*

| | |
|---|---|
| Synopsis | Support standard topology (MT0) |
| Context | **configure** router *named-item-64* isis *number* segment-routing-v6 locator *reference* multi-topology mt0 *boolean* |
| Tree | mt0 |
| Default | true |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## mt2 *boolean*

| | |
|---|---|
| Synopsis | Support IPv6 routing topology (MT2) |
| Context | **configure** router *named-item-64* isis *number* segment-routing-v6 locator *reference* multi-topology mt2 *boolean* |
| Tree | mt2 |
| Default | false |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |


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### **tag** *number*

| | |
|---|---|
| Synopsis | Route tag to advertise in the locator |
| Context | **configure** router *named-item-64* isis *number* segment-routing-v6 locator *reference* tag *number* |
| Tree | tag |
| Range | 1 to 4294967295 |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **micro-segment-locator** [locator-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **micro-segment-locator** list instance |
| Context | **configure** router *named-item-64* isis *number* segment-routing-v6 micro-segment-locator *reference* |
| Tree | micro-segment-locator |
| Max. instances | 8 |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### [**locator-name**] *reference*

| | |
|---|---|
| Synopsis | Micro-segment SRv6 locator name |
| Context | **configure** router *named-item-64* isis *number* segment-routing-v6 micro-segment-locator *reference* |
| Tree | micro-segment-locator |
| Reference | **configure** router *named-item-64* segment-routing segment-routing-v6 micro-segment-locator *named-item-64* |
| Notes | This element is part of a list key. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **level** [level-number] *keyword*

| | |
|---|---|
| Synopsis | Enter the **level** list instance |


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| | |
|---|---|
| Context | **configure** router *named-item-64* isis *number* segment-routing-v6 micro-segment-locator *reference* level *keyword* |
| Tree | level |
| Max. instances | 2 |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### [**level-number**] *keyword*

| | |
|---|---|
| Synopsis | ISIS protocol level number |
| Context | **configure** router *named-item-64* isis *number* segment-routing-v6 micro-segment-locator *reference* level *keyword* |
| Tree | level |
| Options | 1, 2 |
| Notes | This element is part of a list key. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **metric** *number*

| | |
|---|---|
| Synopsis | IS-IS metric to advertise in the locator level list |
| Context | **configure** router *named-item-64* isis *number* segment-routing-v6 micro-segment-locator *reference* level *keyword* metric *number* |
| Tree | metric |
| Range | 1 to 16777215 |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **level-capability** *keyword*

| | |
|---|---|
| Synopsis | IS-IS routing level capability |
| Context | **configure** router *named-item-64* isis *number* segment-routing-v6 micro-segment-locator *reference* level-capability *keyword* |
| Tree | level-capability |
| Description | This command configures the routing level capability for an instance of the IS-IS routing process. |


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The level capability configured on the instance must match the level capability on the interface to form an adjacency.

Options 1, 2, 1/2

Default 1/2

Introduced 22.10.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR

## multi-topology

Synopsis Enter the **multi-topology** context

Context **configure** router *named-item-64* isis *number* segment-routing-v6 micro-segment-locator *reference* multi-topology

Tree multi-topology

Description Commands in this context enable the use of a local SRv6 locator in an IS-IS IPv6 topology. A user can enable one or more locators in an IS-IS instance. Each locator can be enabled in a single topology of an IS-IS instance, topology 0 (MT0) or topology 2 (MT2). A local locator can be used in multiple IS-IS instances, but can only be assigned to at most one IPv6 topology independently within each IS-IS instance.

Use the **configure router isis segment-routing-v6 admin-state** command to enable the processing of local and remote IPv6 prefixes and SRv6 locators in MT0 and MT2. In addition, to enable SRv6 forwarding in the MT0, MT2, or both topologies, set the **configure router isis ipv6-routing** command to **native**, the **configure router isis multi-topology ipv6-unicast** command to **true**, or both.

Introduced 22.10.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR

## **mt0** *boolean*

Synopsis Support standard topology (MT0)

Context **configure** router *named-item-64* isis *number* segment-routing-v6 micro-segment-locator *reference* multi-topology mt0 *boolean*

Tree mt0

Default true

Introduced 22.10.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR

## **mt2** *boolean*

Synopsis Support IPv6 routing topology (MT2)


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| | |
|---|---|
| Context | **configure** router *named-item-64* isis *number* segment-routing-v6 micro-segment-locator *reference* multi-topology mt2 *boolean* |
| Tree | mt2 |
| Default | false |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **tag** *number*

| | |
|---|---|
| Synopsis | Route tag to advertise in the locator |
| Context | **configure** router *named-item-64* isis *number* segment-routing-v6 micro-segment-locator *reference* tag *number* |
| Tree | tag |
| Range | 1 to 4294967295 |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **standard-multi-instance** *boolean*

| | |
|---|---|
| Synopsis | Enable RFC standards compliant multi-instance behavior |
| Context | **configure** router *named-item-64* isis *number* standard-multi-instance *boolean* |
| Tree | standard-multi-instance |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **strict-adjacency-check** *boolean*

| | |
|---|---|
| Synopsis | Enable strict checking of address families for IS-IS adjacencies |
| Context | **configure** router *named-item-64* isis *number* strict-adjacency-check *boolean* |
| Tree | strict-adjacency-check |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **summary-address** [ip-prefix] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Enter the **summary-address** list instance |
| Context | **configure** router *named-item-64* isis *number* summary-address *(ipv4-prefix \| ipv6-prefix)* |
| Tree | summary-address |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ip-prefix**] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | IP prefix for the summary address |
| Context | **configure** router *named-item-64* isis *number* summary-address *(ipv4-prefix \| ipv6-prefix)* |
| Tree | summary-address |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **advertise-unreachable**

| | |
|---|---|
| Synopsis | Enable the **advertise-unreachable** context |
| Context | **configure** router *named-item-64* isis *number* summary-address *(ipv4-prefix \| ipv6-prefix)* advertise-unreachable |
| Tree | advertise-unreachable |
| Description | Commands in this context enable Unreachable Prefix Announcements (UPAs) for summary member routes. A UPA is advertised for IPv4 and IPv6 summary member prefixes when a summary member prefix suddenly becomes unreachable. By default, all summary member prefixes are monitored for reachability. |
| Introduced | 24.3.R1 |
| Platforms | All |

### **advertise-route-tag** *number*

| | |
|---|---|
| Synopsis | Route tag to advertise in UPA |
| Context | **configure** router *named-item-64* isis *number* summary-address *(ipv4-prefix \| ipv6-prefix)* advertise-unreachable advertise-route-tag *number* |
| Tree | advertise-route-tag |


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| | |
|---|---|
| Description | This command configures a UPA route tag to add to the advertised UPA. The UPA route tag can be used when there are multiple Autonomous System Boundary Routers (ASBRs) redistributing prefixes between two Interior Gateway Protocol (IGP) areas. |
| Range | 1 to 4294967295 |
| Introduced | 24.3.R1 |
| Platforms | All |

### **match-route-tag** *number*

| | |
|---|---|
| Synopsis | Route tag to match UPA |
| Context | **configure** router *named-item-64* isis *number* summary-address *(ipv4-prefix \| ipv6-prefix)* advertise-unreachable match-route-tag *number* |
| Tree | match-route-tag |
| Description | This command specifies the route tag to be used (by the router) as the basis to select a subset of summary member prefixes to monitor for reachability. |
| Range | 1 to 4294967295 |
| Introduced | 24.3.R1 |
| Platforms | All |

### **algorithm** *number*

| | |
|---|---|
| Synopsis | Algorithm topology for the summary address |
| Context | **configure** router *named-item-64* isis *number* summary-address *(ipv4-prefix \| ipv6-prefix)* algorithm *number* |
| Tree | algorithm |
| Range | 0 \| 128 to 255 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **level-capability** *keyword*

| | |
|---|---|
| Synopsis | IS-IS level for the summary address |
| Context | **configure** router *named-item-64* isis *number* summary-address *(ipv4-prefix \| ipv6-prefix)* level-capability *keyword* |
| Tree | level-capability |
| Options | 1, 2, 1/2 |
| Default | 1/2 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **route-tag** *number*

| | |
|---|---|
| Synopsis | Route tag assigned to the summary address |
| Context | **configure** router *named-item-64* isis *number* summary-address *(ipv4-prefix \| ipv6-prefix)* route-tag *number* |
| Tree | route-tag |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **suppress-attached-bit** *boolean*

| | |
|---|---|
| Synopsis | Allow IS-IS to suppress setting attached bit on LSPs |
| Context | **configure** router *named-item-64* isis *number* suppress-attached-bit *boolean* |
| Tree | suppress-attached-bit |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **system-id** *system-id*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | System ID |
| Context | **configure** router *named-item-64* isis *number* system-id *system-id* |
| Tree | system-id |
| String length | 14 |
| Default | 0000.0000.0000 |
| Introduced | 16.0.R1 |
| Platforms | All |


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## timers

| | |
|---|---|
| Synopsis | Enter the **timers** context |
| Context | **configure** router *named-item-64* isis *number* timers |
| Tree | timers |
| Introduced | 16.0.R1 |
| Platforms | All |

## lsp-wait

| | |
|---|---|
| Synopsis | Enter the **lsp-wait** context |
| Context | **configure** router *named-item-64* isis *number* timers lsp-wait |
| Tree | lsp-wait |
| Introduced | 16.0.R1 |
| Platforms | All |

## lsp-initial-wait *number*

| | |
|---|---|
| Synopsis | Initial LSP generation delay |
| Context | **configure** router *named-item-64* isis *number* timers lsp-wait lsp-initial-wait *number* |
| Tree | lsp-initial-wait |
| Range | 10 to 100000 |
| Units | milliseconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

## lsp-max-wait *number*

| | |
|---|---|
| Synopsis | Maximum time between two consecutive LSP occurrences |
| Context | **configure** router *named-item-64* isis *number* timers lsp-wait lsp-max-wait *number* |
| Tree | lsp-max-wait |
| Range | 10 to 120000 |
| Units | milliseconds |
| Default | 5000 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **lsp-second-wait** *number*

| | |
|---|---|
| Synopsis | Delay between first and second LSP generation |
| Context | **configure** router *named-item-64* isis *number* timers lsp-wait lsp-second-wait *number* |
| Tree | lsp-second-wait |
| Range | 10 to 100000 |
| Units | milliseconds |
| Default | 1000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **spf-wait**

| | |
|---|---|
| Synopsis | Enter the **spf-wait** context |
| Context | **configure** router *named-item-64* isis *number* timers spf-wait |
| Tree | spf-wait |
| Introduced | 16.0.R1 |
| Platforms | All |

### **spf-initial-wait** *number*

| | |
|---|---|
| Synopsis | Initial SPF calculation delay after topology change |
| Context | **configure** router *named-item-64* isis *number* timers spf-wait spf-initial-wait *number* |
| Tree | spf-initial-wait |
| Range | 10 to 100000 |
| Units | milliseconds |
| Default | 1000 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **spf-max-wait** *number*

| | |
|---|---|
| Synopsis | Maximum interval amid two consecutive SPF calculations |
| Context | **configure** router *named-item-64* isis *number* timers spf-wait spf-max-wait *number* |
| Tree | spf-max-wait |
| Range | 10 to 120000 |
| Units | milliseconds |
| Default | 10000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **spf-second-wait** *number*

| | |
|---|---|
| Synopsis | Hold time between first and second SPF calculations |
| Context | **configure** router *named-item-64* isis *number* timers spf-wait spf-second-wait *number* |
| Tree | spf-second-wait |
| Range | 10 to 100000 |
| Units | milliseconds |
| Default | 1000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **traffic-engineering** *boolean*

| | |
|---|---|
| Synopsis | Enable traffic engineering for the router |
| Context | **configure** router *named-item-64* isis *number* traffic-engineering *boolean* |
| Tree | traffic-engineering |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **traffic-engineering-options**

| | |
|---|---|
| Synopsis | Enter the **traffic-engineering-options** context |
| Context | **configure** router *named-item-64* isis *number* traffic-engineering-options |


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| | |
|---|---|
| Tree | traffic-engineering-options |
| Introduced | 19.10.R1 |
| Platforms | All |

## **advertise-delay** *boolean*

| | |
|---|---|
| Synopsis | Enable the advertisement of link delay for TE |
| Context | **configure** router *named-item-64* isis *number* traffic-engineering-options advertise-delay *boolean* |
| Tree | advertise-delay |
| Description | When configured to **true**, the router advertises link delay in the IGP LSDB within legacy Traffic Engineering (TE) attributes in IS-IS or within the Application-Specific Link Attribute (ASLA) when ASLA is enabled for SR-TE or RSVP-TE applications.<br>When the **application-link-attributes legacy** command is configured for SR-TE or RSVP-TE, link delay is advertised as a legacy TE TLV with the ASLA legacy bit set.<br>When configured to **false**, the router disables link delay advertisement. |
| Default | false |
| Introduced | 22.10.R1 |
| Platforms | All |

## **application-link-attributes**

| | |
|---|---|
| Synopsis | Enable the **application-link-attributes** context |
| Context | **configure** router *named-item-64* isis *number* traffic-engineering-options application-link-attributes |
| Tree | application-link-attributes |
| Introduced | 19.10.R1 |
| Platforms | All |

## **legacy** *boolean*

| | |
|---|---|
| Synopsis | Advertise legacy TE attributes |
| Context | **configure** router *named-item-64* isis *number* traffic-engineering-options application-link-attributes legacy *boolean* |
| Tree | legacy |
| Description | When configured to **true**, the router supports the legacy mode of advertising TE attributes. |


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When configured to **false**, legacy mode is disabled.

| | |
|---|---|
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **ipv6** *boolean*

| | |
|---|---|
| Synopsis | Advertise IS-IS IPv6 Traffic Engineering |
| Context | **configure** router *named-item-64* isis *number* traffic-engineering-options ipv6 *boolean* |
| Tree | ipv6 |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **unicast-import**

| | |
|---|---|
| Synopsis | Enter the **unicast-import** context |
| Context | **configure** router *named-item-64* isis *number* unicast-import |
| Tree | unicast-import |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv4** *boolean*

| | |
|---|---|
| Synopsis | Submit IPv4 routes into unicast RTM |
| Context | **configure** router *named-item-64* isis *number* unicast-import ipv4 *boolean* |
| Tree | ipv4 |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv6** *boolean*

| | |
|---|---|
| Synopsis | Submit IPv6 routes into unicast RTM |
| Context | **configure** router *named-item-64* isis *number* unicast-import ipv6 *boolean* |


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| | |
|---|---|
| Tree | ipv6 |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

## l2tp

| | |
|---|---|
| Synopsis | Enter the **l2tp** context |
| Context | **configure** router *named-item-64* l2tp |
| Tree | l2tp |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of L2TP |
| Context | **configure** router *named-item-64* l2tp admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## avp-hiding *keyword*

| | |
|---|---|
| Synopsis | Attribute of the Value Pair (AVP) hiding algorithm |
| Context | **configure** router *named-item-64* l2tp avp-hiding *keyword* |
| Tree | avp-hiding |
| Options | sensitive, always |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## challenge *boolean*

| | |
|---|---|
| Synopsis | Use challenge-response authentication |


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| | |
|---|---|
| Context | **configure** router *named-item-64* l2tp challenge *boolean* |
| Tree | challenge |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **destruct-timeout** *number*

| | |
|---|---|
| Synopsis | Destruction timeout |
| Context | **configure** router *named-item-64* l2tp destruct-timeout *number* |
| Tree | destruct-timeout |
| Range | 60 to 86400 |
| Units | seconds |
| Default | 60 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ethernet-tunnel**

| | |
|---|---|
| Synopsis | Enter the **ethernet-tunnel** context |
| Context | **configure** router *named-item-64* l2tp ethernet-tunnel |
| Tree | ethernet-tunnel |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **reconnect-timeout** *(number | keyword)*

| | |
|---|---|
| Synopsis | Timeout for a session setup retry |
| Context | **configure** router *named-item-64* l2tp ethernet-tunnel reconnect-timeout *(number | keyword)* |
| Tree | reconnect-timeout |
| Range | 10 to 3600 |
| Units | seconds |
| Options | infinite |
| Default | infinite |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### exclude-avps

| | |
|---|---|
| Synopsis | Enter the **exclude-avps** context |
| Context | **configure** router *named-item-64* l2tp exclude-avps |
| Tree | exclude-avps |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### calling-number *boolean*

| | |
|---|---|
| Synopsis | Calling Number AVP to exclude |
| Context | **configure** router *named-item-64* l2tp exclude-avps calling-number *boolean* |
| Tree | calling-number |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### initial-rx-lcp-conf-req *boolean*

| | |
|---|---|
| Synopsis | Exclude the Initial Received LCP CONFREQ AVP |
| Context | **configure** router *named-item-64* l2tp exclude-avps initial-rx-lcp-conf-req *boolean* |
| Tree | initial-rx-lcp-conf-req |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### failover

| | |
|---|---|
| Synopsis | Enter the **failover** context |
| Context | **configure** router *named-item-64* l2tp failover |
| Tree | failover |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **recovery-max-session-lifetime** *number*

| | |
|---|---|
| Synopsis | Subset of sessions that this system attempts to synchronize in the Session State Synchronization phase |
| Context | **configure** router *named-item-64* l2tp failover recovery-max-session-lifetime *number* |
| Tree | recovery-max-session-lifetime |
| Range | 2 to 4294967295 |
| Units | centiseconds |
| Default | 2 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **recovery-method** *keyword*

| | |
|---|---|
| Synopsis | Recovery method of the sequence numbers after failover |
| Context | **configure** router *named-item-64* l2tp failover recovery-method *keyword* |
| Tree | recovery-method |
| Options | mcs, recovery-tunnel |
| Default | mcs |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **recovery-time** *number*

| | |
|---|---|
| Synopsis | Time requested from the L2TP peer before assuming failover as failed |
| Context | **configure** router *named-item-64* l2tp failover recovery-time *number* |
| Tree | recovery-time |
| Range | 0 to 900 |
| Units | seconds |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **track-srrp** [id] *reference*

| | |
|---|---|
| Synopsis | Enter the **track-srrp** list instance |
| Context | **configure** router *named-item-64* l2tp failover track-srrp *reference* |
| Tree | track-srrp |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**id**] *reference*

| | |
|---|---|
| Synopsis | SRRP instance ID for multi-chassis redundancy failover |
| Context | **configure** router *named-item-64* l2tp failover track-srrp *reference* |
| Tree | track-srrp |
| Reference | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* sync track-srrp *number* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **peer** *reference*

| | |
|---|---|
| Synopsis | Multi-chassis peer address |
| Context | **configure** router *named-item-64* l2tp failover track-srrp *reference* peer *reference* |
| Tree | peer |
| Reference | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sync-tag** *named-item*

| | |
|---|---|
| Synopsis | Synchronization tag on the multi-chassis peer |
| Context | **configure** router *named-item-64* l2tp failover track-srrp *reference* sync-tag *named-item* |
| Tree | sync-tag |


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| | |
|---|---|
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **group** [tunnel-group-name] *named-item-64*

| | |
|---|---|
| Synopsis | Enter the **group** list instance |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* |
| Tree | group |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**tunnel-group-name**] *named-item-64*

| | |
|---|---|
| Synopsis | Tunnel group name |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* |
| Tree | group |
| String length | 1 to 63 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the L2TP tunnel group |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **avp-hiding** *keyword*

| | |
|---|---|
| Synopsis | The AVP hiding algorithm |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* avp-hiding *keyword* |
| Tree | avp-hiding |
| Options | never, sensitive, always |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **challenge** *keyword*

| | |
|---|---|
| Synopsis | Enable use of challenge-response authentication |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* challenge *keyword* |
| Tree | challenge |
| Options | false, true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **destruct-timeout** *number*

| | |
|---|---|
| Synopsis | Destruction timeout |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* destruct-timeout *number* |
| Tree | destruct-timeout |
| Range | 60 to 86400 |
| Units | seconds |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ethernet-tunnel

| | |
|---|---|
| Synopsis | Enter the **ethernet-tunnel** context |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* ethernet-tunnel |
| Tree | ethernet-tunnel |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## reconnect-timeout *(number | keyword)*

| | |
|---|---|
| Synopsis | Timeout for a session setup retry at group level |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* ethernet-tunnel reconnect-timeout *(number \| keyword)* |
| Tree | reconnect-timeout |
| Range | 10 to 3600 |
| Units | seconds |
| Options | infinite |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## failover

| | |
|---|---|
| Synopsis | Enter the **failover** context |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* failover |
| Tree | failover |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## recovery-method *keyword*

| | |
|---|---|
| Synopsis | Recovery method of the sequence numbers after failover |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* failover recovery-method *keyword* |
| Tree | recovery-method |


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| | |
|---|---|
| Options | mcs, recovery-tunnel |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **recovery-time** *number*

| | |
|---|---|
| Synopsis | Time requested from the L2TP peer before assuming failover as failed |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* failover recovery-time *number* |
| Tree | recovery-time |
| Range | 0 to 900 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **hello-interval** *(number | keyword)*

| | |
|---|---|
| Synopsis | Hello interval |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* hello-interval *(number | keyword)* |
| Tree | hello-interval |
| Range | 10 to 3600 |
| Units | seconds |
| Options | infinite |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **idle-timeout** *(number | keyword)*

| | |
|---|---|
| Synopsis | Idle timeout |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* idle-timeout *(number | keyword)* |
| Tree | idle-timeout |
| Range | 0 to 3600 |
| Units | seconds |
| Options | infinite |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## l2tpv3

| | |
|---|---|
| Synopsis | Enter the **l2tpv3** context |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* l2tpv3 |
| Tree | l2tpv3 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## cookie-length *(number | keyword)*

| | |
|---|---|
| Synopsis | Cookie field length |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* l2tpv3 cookie-length *(number \| keyword)* |
| Tree | cookie-length |
| Range | 4 \| 8 |
| Options | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## digest-type *keyword*

| | |
|---|---|
| Synopsis | Hashing algorithm that calculates the message digest |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* l2tpv3 digest-type *keyword* |
| Tree | digest-type |
| Options | none, md5, sha1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## nonce-length *number*

| | |
|---|---|
| Synopsis | Length for the local L2TPv3 nonce (random number) |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* l2tpv3 nonce-length *number* |
| Tree | nonce-length |


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| | |
|---|---|
| Range | 0 \| 16 to 64 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **password** *encrypted-leaf*

| | |
|---|---|
| Synopsis | L2TPv3 password |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* l2tpv3 password *encrypted-leaf* |
| Tree | password |
| String length | 1 to 115 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **private-tcp-mss-adjust** *(number | keyword)*

| | |
|---|---|
| Synopsis | TCP maximum segment size (MSS) on private network |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* l2tpv3 private-tcp-mss-adjust *(number \| keyword)* |
| Tree | private-tcp-mss-adjust |
| Range | 512 to 9000 |
| Units | octets |
| Options | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **public-tcp-mss-adjust** *(number | keyword)*

| | |
|---|---|
| Synopsis | TCP Maximum Segment Size (MSS) on public network |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* l2tpv3 public-tcp-mss-adjust *(number \| keyword)* |
| Tree | public-tcp-mss-adjust |
| Range | 512 to 9000 |
| Units | octets |
| Options | disable |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## pw-cap-list

| | |
|---|---|
| Synopsis | Enter the **pw-cap-list** context |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* l2tpv3 pw-cap-list |
| Tree | pw-cap-list |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ethernet *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Advertise Ethernet pseudowire type |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* l2tpv3 pw-cap-list ethernet *boolean* |
| Tree | ethernet |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ethernet-vlan *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Advertise Ethernet VLAN pseudowire type |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* l2tpv3 pw-cap-list ethernet-vlan *boolean* |
| Tree | ethernet-vlan |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **rem-router-id** *ipv4-address*

| | |
|---|---|
| Synopsis | Filter on remote router ID |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* l2tpv3 rem-router-id *ipv4-address* |
| Tree | rem-router-id |
| Default | 0.0.0.0 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **track-password-change** *boolean*

| | |
|---|---|
| Synopsis | Enable tracking of password changes |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* l2tpv3 track-password-change *boolean* |
| Tree | track-password-change |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **lac**

| | |
|---|---|
| Synopsis | Enter the **lac** context |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* lac |
| Tree | lac |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **df-bit** *keyword*

| | |
|---|---|
| Synopsis | DF (do not fragment) bit in data traffic transmitted as LAC |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* lac df-bit *keyword* |
| Tree | df-bit |
| Options | false, true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## lns

| | |
|---|---|
| Synopsis | Enter the **lns** context |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* lns |
| Tree | lns |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## lns-group *reference*

| | |
|---|---|
| Synopsis | ISA LNS group |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* lns lns-group *reference* |
| Tree | lns-group |
| Reference | **configure** isa lns-group *number* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## load-balance-method *keyword*

| | |
|---|---|
| Synopsis | New sessions for L2TP ISA MDA |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* lns load-balance-method *keyword* |
| Tree | load-balance-method |
| Options | per-session, per-tunnel |
| Default | per-session |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## mlppp

| | |
|---|---|
| Synopsis | Enter the **mlppp** context |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* lns mlppp |
| Tree | mlppp |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of MLPPP in the L2TP tunnel group |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* lns mlppp admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

### **endpoint**

| | |
|---|---|
| Synopsis | Enter the **endpoint** context |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* lns mlppp endpoint |
| Tree | endpoint |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

### **ip** *(ipv4-address | keyword)*

| | |
|---|---|
| Synopsis | Endpoint ID as an IP address |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* lns mlppp endpoint ip *(ipv4-address | keyword)* |
| Tree | ip |
| Options | system |
| Notes | The following elements are part of a choice: **ip** or **mac**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

### **mac** *(mac-address | keyword)*

| | |
|---|---|
| Synopsis | Endpoint ID as a MAC address |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* lns mlppp endpoint mac *(mac-address | keyword)* |
| Tree | mac |


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| | |
|---|---|
| Options | system |
| Notes | The following elements are part of a choice: **ip** or **mac**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

### **interleave** *boolean*

| | |
|---|---|
| Synopsis | Enable link fragmentation and interleaving |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* lns mlppp interleave *boolean* |
| Tree | interleave |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

### **max-fragment-delay** *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum fragment delay caused by transmission on a link |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* lns mlppp max-fragment-delay *(number | keyword)* |
| Tree | max-fragment-delay |
| Range | 5 to 1000 |
| Units | milliseconds |
| Options | no-fragmentation |
| Default | no-fragmentation |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

### **max-links** *number*

| | |
|---|---|
| Synopsis | Maximum MLPPP links |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* lns mlppp max-links *number* |
| Tree | max-links |
| Range | 1 to 8 |
| Default | 1 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

### **reassembly-timeout** *number*

| | |
|---|---|
| Synopsis | Reassembly timeout |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* lns mlppp reassembly-timeout *number* |
| Tree | reassembly-timeout |
| Range | 100 \| 1000 |
| Units | milliseconds |
| Default | 1000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

### **short-sequence-numbers** *boolean*

| | |
|---|---|
| Synopsis | Request a peer to send short sequence numbers |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* lns mlppp short-sequence-numbers *boolean* |
| Tree | short-sequence-numbers |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

### **ppp**

| | |
|---|---|
| Synopsis | Enter the **ppp** context |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* lns ppp |
| Tree | ppp |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **authentication** *keyword*

| | |
|---|---|
| Synopsis | PPP authentication protocol to negotiate |


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| | |
|---|---|
| Context | **configure** router *named-item-64* l2tp group *named-item-64* lns ppp authentication *keyword* |
| Tree | authentication |
| Options | pap, chap, pref-chap, pref-pap |
| Default | pref-chap |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **authentication-policy** *named-item*

| | |
|---|---|
| Synopsis | Authentication policy when a DHCP message is received |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* lns ppp authentication-policy *named-item* |
| Tree | authentication-policy |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **chap-challenge-length**

| | |
|---|---|
| Synopsis | Enter the **chap-challenge-length** context |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* lns ppp chap-challenge-length |
| Tree | chap-challenge-length |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the PPP CHAP challenge length |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* lns ppp chap-challenge-length end *number* |
| Tree | end |
| Range | 8 to 64 |
| Units | octets |
| Default | 64 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of the PPP CHAP challenge length |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* lns ppp chap-challenge-length start *number* |
| Tree | start |
| Range | 8 to 64 |
| Units | octets |
| Default | 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **default-group-interface**

| | |
|---|---|
| Synopsis | Enter the **default-group-interface** context |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* lns ppp default-group-interface |
| Tree | default-group-interface |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **interface** *named-item*

| | |
|---|---|
| Synopsis | Group interface |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* lns ppp default-group-interface interface *named-item* |
| Tree | interface |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **service-name** *service-name*

| | |
|---|---|
| Synopsis | Administrative service name |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* lns ppp default-group-interface service-name *service-name* |
| Tree | service-name |
| String length | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ipcp-subnet-negotiation** *boolean*

| | |
|---|---|
| Synopsis | Allow IPCP subnet negotiation for PPPoE hosts |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* lns ppp ipcp-subnet-negotiation *boolean* |
| Tree | ipcp-subnet-negotiation |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **keepalive**

| | |
|---|---|
| Synopsis | Enter the **keepalive** context |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* lns ppp keepalive |
| Tree | keepalive |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **interval** *number*

| | |
|---|---|
| Synopsis | PPP keepalive interval |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* lns ppp keepalive interval *number* |
| Tree | interval |
| Range | 10 to 300 |
| Units | seconds |


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| | |
|---|---|
| Default | 30 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **multiplier** *number*

| | |
|---|---|
| Synopsis | PPP keepalive multiplier |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* lns ppp keepalive multiplier *number* |
| Tree | multiplier |
| Range | 1 to 5 |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **lcp-force-ack-accm** *boolean*

| | |
|---|---|
| Synopsis | Force acknowledgement of the LCP Asynchronous Control Character Map (ACCM) option |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* lns ppp lcp-force-ack-accm *boolean* |
| Tree | lcp-force-ack-accm |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **lcp-ignore-magic-numbers** *boolean*

| | |
|---|---|
| Synopsis | Check magic number in echo request and reply messages |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* lns ppp lcp-ignore-magic-numbers *boolean* |
| Tree | lcp-ignore-magic-numbers |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **mtu** *number*

| | |
|---|---|
| Synopsis | Maximum PPP MTU size |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* lns ppp mtu *number* |
| Tree | mtu |
| Range | 512 to 9212 |
| Units | octets |
| Default | 1500 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **proxy-authentication** *boolean*

| | |
|---|---|
| Synopsis | Use authentication AVPs that are received from LAC |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* lns ppp proxy-authentication *boolean* |
| Tree | proxy-authentication |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **proxy-lcp** *boolean*

| | |
|---|---|
| Synopsis | Proxy LCP AVPs that are received from LAC |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* lns ppp proxy-lcp *boolean* |
| Tree | proxy-lcp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **reject-disabled-ncp** *boolean*

| | |
|---|---|
| Synopsis | Force LCP Protocol Reject for IPv6CP Configure Request |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* lns ppp reject-disabled-ncp *boolean* |
| Tree | reject-disabled-ncp |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R6 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **user-db** *named-item*

| | |
|---|---|
| Synopsis | Local user database for PPP PAP and CHAP authentication |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* lns ppp user-db *named-item* |
| Tree | user-db |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **local-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Local address |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* local-address *ipv4-unicast-address* |
| Tree | local-address |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **local-name** *host-name*

| | |
|---|---|
| Synopsis | Local host name used to distinguish tunnels |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* local-name *host-name* |
| Tree | local-name |
| String length | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **max-retries-estab** *number*

| | |
|---|---|
| Synopsis | Maximum retries for established tunnels |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* max-retries-estab *number* |
| Tree | max-retries-estab |


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| | |
|---|---|
| Range | 2 to 7 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **max-retries-not-estab** *number*

| | |
|---|---|
| Synopsis | Maximum retries for unestablished tunnels |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* max-retries-not-estab *number* |
| Tree | max-retries-not-estab |
| Range | 2 to 7 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **password** *encrypted-leaf*

| | |
|---|---|
| Synopsis | Password between L2TP LAC and LNS |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* password *encrypted-leaf* |
| Tree | password |
| String length | 1 to 115 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **protocol** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Protocol version |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* protocol *keyword* |
| Tree | protocol |
| Options | v2, v3, v3draft |
| Default | v2 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **radius-accounting-policy** *reference*

| | |
|---|---|
| Synopsis | RADIUS accounting policy |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* radius-accounting-policy *reference* |
| Tree | radius-accounting-policy |
| Reference | **configure** aaa radius l2tp-accounting-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **receive-window-size** *number*

| | |
|---|---|
| Synopsis | L2TP receive window size |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* receive-window-size *number* |
| Tree | receive-window-size |
| Range | 4 to 1024 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **session-assign-method** *keyword*

| | |
|---|---|
| Synopsis | Session assignment method |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* session-assign-method *keyword* |
| Tree | session-assign-method |
| Options | existing-first, weighted, weighted-random |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **session-limit** *(number | keyword)*

| | |
|---|---|
| Synopsis | Session limit |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* session-limit *(number | keyword)* |
| Tree | session-limit |
| Range | 1 to 250000 |


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| | |
|---|---|
| Options | unlimited |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **tunnel** [tunnel-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **tunnel** list instance |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* tunnel *named-item* |
| Tree | tunnel |
| Max. instances | 31 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**tunnel-name**] *named-item*

| | |
|---|---|
| Synopsis | Tunnel name |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* tunnel *named-item* |
| Tree | tunnel |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the L2TP tunnel |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* tunnel *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **auto-establish** *boolean*

| | |
|---|---|
| Synopsis | Allow the tunnel to be automatically set up by the system |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* tunnel *named-item* auto-establish *boolean* |
| Tree | auto-establish |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **avp-hiding** *keyword*

| | |
|---|---|
| Synopsis | The AVP hiding algorithm |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* tunnel *named-item* avp-hiding *keyword* |
| Tree | avp-hiding |
| Options | never, sensitive, always |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **challenge** *keyword*

| | |
|---|---|
| Synopsis | Enable use of challenge-response authentication |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* tunnel *named-item* challenge *keyword* |
| Tree | challenge |
| Options | false, true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* tunnel *named-item* description *description* |
| Tree | description |


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| | |
|---|---|
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **destruct-timeout** *number*

| | |
|---|---|
| Synopsis | Destruction timeout |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* tunnel *named-item* destruct-timeout *number* |
| Tree | destruct-timeout |
| Range | 60 to 86400 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **failover**

| | |
|---|---|
| Synopsis | Enter the **failover** context |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* tunnel *named-item* failover |
| Tree | failover |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **recovery-method** *keyword*

| | |
|---|---|
| Synopsis | Recovery method of the sequence numbers after failover |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* tunnel *named-item* failover recovery-method *keyword* |
| Tree | recovery-method |
| Options | mcs, recovery-tunnel |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **recovery-time** *number*

| | |
|---|---|
| Synopsis | Time requested from the L2TP peer before assuming failover as failed |


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| | |
|---|---|
| Context | **configure** router *named-item-64* l2tp group *named-item-64* tunnel *named-item* failover recovery-time *number* |
| Tree | recovery-time |
| Range | 0 to 900 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **hello-interval** *(number | keyword)*

| | |
|---|---|
| Synopsis | Hello interval |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* tunnel *named-item* hello-interval *(number | keyword)* |
| Tree | hello-interval |
| Range | 10 to 3600 |
| Units | seconds |
| Options | infinite |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **idle-timeout** *(number | keyword)*

| | |
|---|---|
| Synopsis | Idle timeout |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* tunnel *named-item* idle-timeout *(number | keyword)* |
| Tree | idle-timeout |
| Range | 0 to 3600 |
| Units | seconds |
| Options | infinite |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **l2tpv3**

| | |
|---|---|
| Synopsis | Enter the **l2tpv3** context |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* tunnel *named-item* l2tpv3 |


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| | |
|---|---|
| Tree | l2tpv3 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **private-tcp-mss-adjust** *(number | keyword)*

| | |
|---|---|
| Synopsis | TCP maximum segment size (MSS) on private network |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* tunnel *named-item* l2tpv3 private-tcp-mss-adjust *(number | keyword)* |
| Tree | private-tcp-mss-adjust |
| Range | 512 to 9000 |
| Units | octets |
| Options | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **public-tcp-mss-adjust** *(number | keyword)*

| | |
|---|---|
| Synopsis | TCP maximum segment size (MSS) on public network |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* tunnel *named-item* l2tpv3 public-tcp-mss-adjust *(number | keyword)* |
| Tree | public-tcp-mss-adjust |
| Range | 512 to 9000 |
| Units | octets |
| Options | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **lac**

| | |
|---|---|
| Synopsis | Enter the **lac** context |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* tunnel *named-item* lac |
| Tree | lac |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **df-bit** *keyword*

| | |
|---|---|
| Synopsis | DF (do not fragment) bit in data traffic transmitted as LAC |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* tunnel *named-item* lac df-bit *keyword* |
| Tree | df-bit |
| Options | false, true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **lns**

| | |
|---|---|
| Synopsis | Enter the **lns** context |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* tunnel *named-item* lns |
| Tree | lns |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **lns-group** *reference*

| | |
|---|---|
| Synopsis | ISA LNS group |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* tunnel *named-item* lns lns-group *reference* |
| Tree | lns-group |
| Reference | **configure** isa lns-group *number* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **load-balance-method** *keyword*

| | |
|---|---|
| Synopsis | New sessions for L2TP ISA MDA |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* tunnel *named-item* lns load-balance-method *keyword* |
| Tree | load-balance-method |
| Options | per-session, per-tunnel |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## mlppp

| | |
|---|---|
| Synopsis | Enter the **mlppp** context |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* tunnel *named-item* lns mlppp |
| Tree | mlppp |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of MLPPP in the L2TP tunnel |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* tunnel *named-item* lns mlppp admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

## endpoint

| | |
|---|---|
| Synopsis | Enter the **endpoint** context |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* tunnel *named-item* lns mlppp endpoint |
| Tree | endpoint |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

## ip *(ipv4-address | keyword)*

| | |
|---|---|
| Synopsis | Endpoint ID as an IP address |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* tunnel *named-item* lns mlppp endpoint ip *(ipv4-address | keyword)* |
| Tree | ip |
| Options | system |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **ip** or **mac**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

### **mac** *(mac-address | keyword)*

| | |
|---|---|
| Synopsis | Endpoint ID as a MAC address |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* tunnel *named-item* lns mlppp endpoint mac *(mac-address \| keyword)* |
| Tree | mac |
| Options | system |
| Notes | The following elements are part of a choice: **ip** or **mac**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

### **interleave** *keyword*

| | |
|---|---|
| Synopsis | Use of Link fragmentation and interleaving |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* tunnel *named-item* lns mlppp interleave *keyword* |
| Tree | interleave |
| Options | false, true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

### **max-fragment-delay** *number*

| | |
|---|---|
| Synopsis | Maximum fragment delay caused by transmission on a link |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* tunnel *named-item* lns mlppp max-fragment-delay *number* |
| Tree | max-fragment-delay |
| Range | 5 to 1000 |
| Units | milliseconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |


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### **max-links** *number*

| | |
|---|---|
| Synopsis | Maximum MLPPP links |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* tunnel *named-item* lns mlppp max-links *number* |
| Tree | max-links |
| Range | 1 to 8 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

### **reassembly-timeout** *number*

| | |
|---|---|
| Synopsis | Reassembly timeout |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* tunnel *named-item* lns mlppp reassembly-timeout *number* |
| Tree | reassembly-timeout |
| Range | 100 \| 1000 |
| Units | milliseconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

### **short-sequence-numbers** *keyword*

| | |
|---|---|
| Synopsis | Request a peer to send short sequence numbers |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* tunnel *named-item* lns mlppp short-sequence-numbers *keyword* |
| Tree | short-sequence-numbers |
| Options | false, true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

### **ppp**

| | |
|---|---|
| Synopsis | Enter the **ppp** context |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* tunnel *named-item* lns ppp |
| Tree | ppp |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **authentication** *keyword*

| | |
|---|---|
| Synopsis | PPP authentication protocol to negotiate |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* tunnel *named-item* lns ppp authentication *keyword* |
| Tree | authentication |
| Options | pap, chap, pref-chap, pref-pap |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **authentication-policy** *named-item*

| | |
|---|---|
| Synopsis | Authentication policy when a DHCP message is received |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* tunnel *named-item* lns ppp authentication-policy *named-item* |
| Tree | authentication-policy |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **chap-challenge-length**

| | |
|---|---|
| Synopsis | Enter the **chap-challenge-length** context |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* tunnel *named-item* lns ppp chap-challenge-length |
| Tree | chap-challenge-length |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the PPP CHAP challenge length |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* tunnel *named-item* lns ppp chap-challenge-length end *number* |


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| | |
|---|---|
| Tree | end |
| Range | 8 to 64 |
| Units | octets |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of the PPP CHAP challenge length |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* tunnel *named-item* lns ppp chap-challenge-length start *number* |
| Tree | start |
| Range | 8 to 64 |
| Units | octets |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **default-group-interface**

| | |
|---|---|
| Synopsis | Enter the **default-group-interface** context |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* tunnel *named-item* lns ppp default-group-interface |
| Tree | default-group-interface |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **interface** *named-item*

| | |
|---|---|
| Synopsis | Group interface |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* tunnel *named-item* lns ppp default-group-interface interface *named-item* |
| Tree | interface |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **service-name** *service-name*

| | |
|---|---|
| Synopsis | Administrative service name |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* tunnel *named-item* lns ppp default-group-interface service-name *service-name* |
| Tree | service-name |
| String length | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ipcp-subnet-negotiation** *keyword*

| | |
|---|---|
| Synopsis | Use of IPCP subnet negotiation for PPPoE hosts |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* tunnel *named-item* lns ppp ipcp-subnet-negotiation *keyword* |
| Tree | ipcp-subnet-negotiation |
| Options | false, true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **keepalive**

| | |
|---|---|
| Synopsis | Enter the **keepalive** context |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* tunnel *named-item* lns ppp keepalive |
| Tree | keepalive |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **interval** *number*

| | |
|---|---|
| Synopsis | PPP keepalive interval |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* tunnel *named-item* lns ppp keepalive interval *number* |
| Tree | interval |
| Range | 10 to 300 |


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| | |
|---|---|
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **multiplier** *number*

| | |
|---|---|
| Synopsis | PPP keepalive multiplier |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* tunnel *named-item* lns ppp keepalive multiplier *number* |
| Tree | multiplier |
| Range | 1 to 5 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **lcp-force-ack-accm** *keyword*

| | |
|---|---|
| Synopsis | Forced acknowledgement of the LCP Asynchronous Control Character Map (ACCM) option |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* tunnel *named-item* lns ppp lcp-force-ack-accm *keyword* |
| Tree | lcp-force-ack-accm |
| Options | false, true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **lcp-ignore-magic-numbers** *keyword*

| | |
|---|---|
| Synopsis | Magic-Number field in LCP Echo-Request and LCP Echo-Reply messages that are checked |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* tunnel *named-item* lns ppp lcp-ignore-magic-numbers *keyword* |
| Tree | lcp-ignore-magic-numbers |
| Options | false, true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **mtu** *number*

| | |
|---|---|
| Synopsis | Maximum PPP MTU size |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* tunnel *named-item* lns ppp mtu *number* |
| Tree | mtu |
| Range | 512 to 9212 |
| Units | octets |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **proxy-authentication** *keyword*

| | |
|---|---|
| Synopsis | Authentication AVPs that are received from LAC |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* tunnel *named-item* lns ppp proxy-authentication *keyword* |
| Tree | proxy-authentication |
| Options | false, true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **proxy-lcp** *keyword*

| | |
|---|---|
| Synopsis | Use the Proxy LCP AVPs that are received from the LAC |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* tunnel *named-item* lns ppp proxy-lcp *keyword* |
| Tree | proxy-lcp |
| Options | false, true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **reject-disabled-ncp** *keyword*

| | |
|---|---|
| Synopsis | Force LCP Project Reject for IPv6CP Configure Request |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* tunnel *named-item* lns ppp reject-disabled-ncp *keyword* |


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| | |
|---|---|
| Tree | reject-disabled-ncp |
| Options | false, true |
| Introduced | 16.0.R6 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **user-db** *named-item*

| | |
|---|---|
| Synopsis | Local user database for PPP PAP and CHAP authentication |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* tunnel *named-item* lns ppp user-db *named-item* |
| Tree | user-db |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **local-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Local address |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* tunnel *named-item* local-address *ipv4-unicast-address* |
| Tree | local-address |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **local-name** *host-name*

| | |
|---|---|
| Synopsis | Local host name used to distinguish tunnels |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* tunnel *named-item* local-name *host-name* |
| Tree | local-name |
| String length | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **max-retries-estab** *number*

| | |
|---|---|
| Synopsis | Maximum retries for established tunnels |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* tunnel *named-item* max-retries-estab *number* |
| Tree | max-retries-estab |
| Range | 2 to 7 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **max-retries-not-estab** *number*

| | |
|---|---|
| Synopsis | Maximum retries for unestablished tunnels |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* tunnel *named-item* max-retries-not-estab *number* |
| Tree | max-retries-not-estab |
| Range | 2 to 7 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **password** *encrypted-leaf*

| | |
|---|---|
| Synopsis | Password between L2TP LAC and LNS |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* tunnel *named-item* password *encrypted-leaf* |
| Tree | password |
| String length | 1 to 115 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **peer** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Peer address |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* tunnel *named-item* peer *ipv4-unicast-address* |
| Tree | peer |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **preference** *number*

| | |
|---|---|
| Synopsis | Tunnel preference number with its group |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* tunnel *named-item* preference *number* |
| Tree | preference |
| Range | 0 to 16777215 |
| Default | 50 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **radius-accounting-policy** *reference*

| | |
|---|---|
| Synopsis | RADIUS accounting policy |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* tunnel *named-item* radius-accounting-policy *reference* |
| Tree | radius-accounting-policy |
| Reference | **configure** aaa radius l2tp-accounting-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **receive-window-size** *number*

| | |
|---|---|
| Synopsis | L2TP receive window size |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* tunnel *named-item* receive-window-size *number* |
| Tree | receive-window-size |
| Range | 4 to 1024 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **remote-name** *host-name*

| | |
|---|---|
| Synopsis | Remote tunnel host name |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* tunnel *named-item* remote-name *host-name* |
| Tree | remote-name |
| String length | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **session-limit** *(number | keyword)*

| | |
|---|---|
| Synopsis | L2TP session limit for each tunnel of this router |
| Context | **configure** router *named-item-64* l2tp group *named-item-64* tunnel *named-item* session-limit *(number | keyword)* |
| Tree | session-limit |
| Range | 1 to 65534 |
| Options | unlimited |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **group-session-limit** *number*

| | |
|---|---|
| Synopsis | L2TP session limit for each group of this router |
| Context | **configure** router *named-item-64* l2tp group-session-limit *number* |
| Tree | group-session-limit |
| Range | 1 to 250000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **hello-interval** *(number | keyword)*

| | |
|---|---|
| Synopsis | Hello interval |
| Context | **configure** router *named-item-64* l2tp hello-interval *(number | keyword)* |
| Tree | hello-interval |
| Range | 10 to 3600 |


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| | |
|---|---|
| Units | seconds |
| Options | infinite |
| Default | 300 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **idle-timeout** *(number | keyword)*

| | |
|---|---|
| Synopsis | Idle timeout |
| Context | **configure** router *named-item-64* l2tp idle-timeout *(number | keyword)* |
| Tree | idle-timeout |
| Range | 0 to 3600 |
| Units | seconds |
| Options | infinite |
| Default | infinite |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ignore-avps**

| | |
|---|---|
| Synopsis | Enter the **ignore-avps** context |
| Context | **configure** router *named-item-64* l2tp ignore-avps |
| Tree | ignore-avps |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sequencing-required** *boolean*

| | |
|---|---|
| Synopsis | Ignore Sequencing Required AVP |
| Context | **configure** router *named-item-64* l2tp ignore-avps sequencing-required *boolean* |
| Tree | sequencing-required |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### l2tpv3

| | |
|---|---|
| Synopsis | Enter the **l2tpv3** context |
| Context | **configure** router *named-item-64* l2tp l2tpv3 |
| Tree | l2tpv3 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### cookie-length *number*

| | |
|---|---|
| Synopsis | Cookie field length |
| Context | **configure** router *named-item-64* l2tp l2tpv3 cookie-length *number* |
| Tree | cookie-length |
| Range | 4 \| 8 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### digest-type *keyword*

| | |
|---|---|
| Synopsis | Hashing algorithm that calculates the message digest |
| Context | **configure** router *named-item-64* l2tp l2tpv3 digest-type *keyword* |
| Tree | digest-type |
| Options | md5, sha1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### nonce-length *number*

| | |
|---|---|
| Synopsis | Length of the local L2TPv3 nonce (random number) |
| Context | **configure** router *named-item-64* l2tp l2tpv3 nonce-length *number* |
| Tree | nonce-length |
| Range | 0 \| 16 to 64 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **password** *encrypted-leaf*

| | |
|---|---|
| Synopsis | L2TPv3 password |
| Context | **configure** router *named-item-64* l2tp l2tpv3 password *encrypted-leaf* |
| Tree | password |
| String length | 1 to 115 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **private-tcp-mss-adjust** *number*

| | |
|---|---|
| Synopsis | TCP maximum segment size (MSS) on private network |
| Context | **configure** router *named-item-64* l2tp l2tpv3 private-tcp-mss-adjust *number* |
| Tree | private-tcp-mss-adjust |
| Range | 512 to 9000 |
| Units | octets |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **public-tcp-mss-adjust** *number*

| | |
|---|---|
| Synopsis | TCP maximum segment size (MSS) on public network |
| Context | **configure** router *named-item-64* l2tp l2tpv3 public-tcp-mss-adjust *number* |
| Tree | public-tcp-mss-adjust |
| Range | 512 to 9000 |
| Units | octets |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **transport-type**

| | |
|---|---|
| Synopsis | Enter the **transport-type** context |
| Context | **configure** router *named-item-64* l2tp l2tpv3 transport-type |
| Tree | transport-type |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ip** *boolean*

| | |
|---|---|
| Synopsis | Use IP as the transport type for the L2TPv3 tunnel |
| Context | **configure** router *named-item-64* l2tp l2tpv3 transport-type ip *boolean* |
| Tree | ip |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **lac**

| | |
|---|---|
| Synopsis | Enter the **lac** context |
| Context | **configure** router *named-item-64* l2tp lac |
| Tree | lac |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **calling-number-format** *ascii-specification*

| | |
|---|---|
| Synopsis | Calling Number AVP for L2TP control messages |
| Context | **configure** router *named-item-64* l2tp lac calling-number-format *ascii-specification* |
| Tree | calling-number-format |
| String length | 1 to 255 |
| Default | %S %s |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **cisco-nas-port**

| | |
|---|---|
| Synopsis | Enter the **cisco-nas-port** context |
| Context | **configure** router *named-item-64* l2tp lac cisco-nas-port |
| Tree | cisco-nas-port |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ethernet** *binary-specification*

| | |
|---|---|
| Synopsis | L2TP Cisco NAS port AVP with binary patterns for Ethernet |
| Context | **configure** router *named-item-64* l2tp lac cisco-nas-port ethernet *binary-specification* |
| Tree | ethernet |
| String length | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **df-bit** *boolean*

| | |
|---|---|
| Synopsis | Send all L2TP packets with DF bit set to 1 |
| Context | **configure** router *named-item-64* l2tp lac df-bit *boolean* |
| Tree | df-bit |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **local-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Local address |
| Context | **configure** router *named-item-64* l2tp local-address *ipv4-unicast-address* |
| Tree | local-address |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **local-name** *host-name*

| | |
|---|---|
| Synopsis | Local host name |
| Context | **configure** router *named-item-64* l2tp local-name *host-name* |
| Tree | local-name |
| String length | 1 to 64 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **max-retries-estab** *number*

| | |
|---|---|
| Synopsis | Maximum retries for established tunnels |
| Context | **configure** router *named-item-64* l2tp max-retries-estab *number* |
| Tree | max-retries-estab |
| Range | 2 to 7 |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **max-retries-not-estab** *number*

| | |
|---|---|
| Synopsis | Maximum retries for unestablished tunnels |
| Context | **configure** router *named-item-64* l2tp max-retries-not-estab *number* |
| Tree | max-retries-not-estab |
| Range | 2 to 7 |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **next-attempt** *keyword*

| | |
|---|---|
| Synopsis | Tunnel that is selected when previous session setup failed |
| Context | **configure** router *named-item-64* l2tp next-attempt *keyword* |
| Tree | next-attempt |
| Options | same-preference-level, next-preference-level |
| Default | next-preference-level |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **password** *encrypted-leaf*

| | |
|---|---|
| Synopsis | L2TP password |


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| | |
|---|---|
| Context | **configure** router *named-item-64* l2tp password *encrypted-leaf* |
| Tree | password |
| String length | 1 to 115 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **peer-address-change-policy** *keyword*

| | |
|---|---|
| Synopsis | Reaction for L2TP response from a different address |
| Context | **configure** router *named-item-64* l2tp peer-address-change-policy *keyword* |
| Tree | peer-address-change-policy |
| Options | accept, ignore, reject |
| Default | reject |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **radius-accounting-policy** *reference*

| | |
|---|---|
| Synopsis | RADIUS accounting policy |
| Context | **configure** router *named-item-64* l2tp radius-accounting-policy *reference* |
| Tree | radius-accounting-policy |
| Reference | **configure** aaa radius l2tp-accounting-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **receive-window-size** *number*

| | |
|---|---|
| Synopsis | L2TP receive window size |
| Context | **configure** router *named-item-64* l2tp receive-window-size *number* |
| Tree | receive-window-size |
| Range | 4 to 1024 |
| Default | 64 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### replace-result-code

| | |
|---|---|
| Synopsis | Enter the **replace-result-code** context |
| Context | **configure** router *named-item-64* l2tp replace-result-code |
| Tree | replace-result-code |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### cdn-invalid-dst *boolean*

| | |
|---|---|
| Synopsis | Replace result code with general error code |
| Context | **configure** router *named-item-64* l2tp replace-result-code cdn-invalid-dst *boolean* |
| Tree | cdn-invalid-dst |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### cdn-permanent-no-facilities *boolean*

| | |
|---|---|
| Synopsis | Replace result code with general error |
| Context | **configure** router *named-item-64* l2tp replace-result-code cdn-permanent-no-facilities *boolean* |
| Tree | cdn-permanent-no-facilities |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### cdn-temporary-no-facilities *boolean*

| | |
|---|---|
| Synopsis | Replace result code with general error |
| Context | **configure** router *named-item-64* l2tp replace-result-code cdn-temporary-no-facilities *boolean* |
| Tree | cdn-temporary-no-facilities |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **rtm-debounce-time** *(number | keyword)*

| | |
|---|---|
| Synopsis | Debounce timer that declares L2TP action for route table management events |
| Context | **configure** router *named-item-64* l2tp rtm-debounce-time *(number \| keyword)* |
| Tree | rtm-debounce-time |
| Range | 0 to 5000 |
| Units | milliseconds |
| Options | infinite |
| Default | infinite |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **session-assign-method** *keyword*

| | |
|---|---|
| Synopsis | Session assignment method |
| Context | **configure** router *named-item-64* l2tp session-assign-method *keyword* |
| Tree | session-assign-method |
| Options | existing-first, weighted, weighted-random |
| Default | existing-first |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **session-limit** *number*

| | |
|---|---|
| Synopsis | L2TP session limit of this router |
| Context | **configure** router *named-item-64* l2tp session-limit *number* |
| Tree | session-limit |
| Range | 1 to 250000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **tunnel-selection-blacklist**

| | |
|---|---|
| Synopsis | Enter the **tunnel-selection-blacklist** context |
| Context | **configure** router *named-item-64* l2tp tunnel-selection-blacklist |


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| | |
|---|---|
| Tree | tunnel-selection-blacklist |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### add-tunnel-on

| | |
|---|---|
| Synopsis | Enter the **add-tunnel-on** context |
| Context | **configure** router *named-item-64* l2tp tunnel-selection-blacklist add-tunnel-on |
| Tree | add-tunnel-on |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### address-change-timeout *boolean*

| | |
|---|---|
| Synopsis | Enable a timed-out tunnel to be forced to the denylist |
| Context | **configure** router *named-item-64* l2tp tunnel-selection-blacklist add-tunnel-on address-change-timeout *boolean* |
| Tree | address-change-timeout |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### cdn-err-code *boolean*

| | |
|---|---|
| Synopsis | Add to deny if CDN is received with code: General error |
| Context | **configure** router *named-item-64* l2tp tunnel-selection-blacklist add-tunnel-on cdn-err-code *boolean* |
| Tree | cdn-err-code |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### cdn-invalid-dst *boolean*

| | |
|---|---|
| Synopsis | Force tunnel to the denylist in case of Result Codes 6 |


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| | |
|---|---|
| Context | **configure** router *named-item-64* l2tp tunnel-selection-blacklist add-tunnel-on cdn-invalid-dst *boolean* |
| Tree | cdn-invalid-dst |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **cdn-permanent-no-facilities** *boolean*

| | |
|---|---|
| Synopsis | Force tunnel to the denylist in case of Result Codes 5 |
| Context | **configure** router *named-item-64* l2tp tunnel-selection-blacklist add-tunnel-on cdn-permanent-no-facilities *boolean* |
| Tree | cdn-permanent-no-facilities |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **cdn-temporary-no-facilities** *boolean*

| | |
|---|---|
| Synopsis | Force tunnel to the denylist in case of Result Codes 4 |
| Context | **configure** router *named-item-64* l2tp tunnel-selection-blacklist add-tunnel-on cdn-temporary-no-facilities *boolean* |
| Tree | cdn-temporary-no-facilities |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **stop-ccn-err-code** *boolean*

| | |
|---|---|
| Synopsis | Add to denylist if received with general error code |
| Context | **configure** router *named-item-64* l2tp tunnel-selection-blacklist add-tunnel-on stop-ccn-err-code *boolean* |
| Tree | stop-ccn-err-code |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **stop-ccn-other** *boolean*

| | |
|---|---|
| Synopsis | Add to denylist if StopCCN received with general error |
| Context | **configure** router *named-item-64* l2tp tunnel-selection-blacklist add-tunnel-on stop-ccn-other *boolean* |
| Tree | stop-ccn-other |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **tx-cdn-not-established-in-time** *boolean*

| | |
|---|---|
| Synopsis | Add to denylist if CDN transmitted with result code |
| Context | **configure** router *named-item-64* l2tp tunnel-selection-blacklist add-tunnel-on tx-cdn-not-established-in-time *boolean* |
| Tree | tx-cdn-not-established-in-time |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **max-list-length** *(number | keyword)*

| | |
|---|---|
| Synopsis | Number of tunnels or peers in the denylist |
| Context | **configure** router *named-item-64* l2tp tunnel-selection-blacklist max-list-length *(number | keyword)* |
| Tree | max-list-length |
| Range | 1 to 65535 |
| Options | infinite |
| Default | infinite |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **max-time** *number*

| | |
|---|---|
| Synopsis | Time that a tunnel or peer can remain in the denylist |
| Context | **configure** router *named-item-64* l2tp tunnel-selection-blacklist max-time *number* |


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| | |
|---|---|
| Tree | max-time |
| Range | 1 to 60 |
| Units | minutes |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **timeout-action** *keyword*

| | |
|---|---|
| Synopsis | Action when a tunnel or peer exceeds time in denylist |
| Context | **configure** router *named-item-64* l2tp tunnel-selection-blacklist timeout-action *keyword* |
| Tree | timeout-action |
| Options | remove-from-blacklist, try-one-session |
| Default | remove-from-blacklist |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **tunnel-session-limit** *number*

| | |
|---|---|
| Synopsis | L2TP session limit for each tunnel of this router |
| Context | **configure** router *named-item-64* l2tp tunnel-session-limit *number* |
| Tree | tunnel-session-limit |
| Range | 1 to 65534 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ldp

| | |
|---|---|
| Synopsis | Enable the **ldp** context |
| Context | **configure** router *named-item-64* ldp |
| Tree | ldp |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of LDP |
| Context | **configure** router *named-item-64* ldp admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **aggregate-prefix-match**

| | |
|---|---|
| Synopsis | Enable the **aggregate-prefix-match** context |
| Context | **configure** router *named-item-64* ldp aggregate-prefix-match |
| Tree | aggregate-prefix-match |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the LDP aggregate prefix match |
| Context | **configure** router *named-item-64* ldp aggregate-prefix-match admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **prefix-exclude** *reference*

| | |
|---|---|
| Synopsis | Import policies to filter LDP label bindings received from LDP peers |
| Context | **configure** router *named-item-64* ldp aggregate-prefix-match prefix-exclude *reference* |
| Tree | prefix-exclude |
| Reference | **configure** policy-options policy-statement *named-item-64* |


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| | |
|---|---|
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **class-forwarding** *keyword*

| | |
|---|---|
| Synopsis | Forwarding mode for LDP over RSVP |
| Context | **configure** router *named-item-64* ldp class-forwarding *keyword* |
| Tree | class-forwarding |
| Options | lsr – Class-based forwarding for LSR/SWAP only<br>ler – Class-based forwarding for LER/PUSH only<br>lsr-and-ler – Class-based forwarding for LER/PUSH and LSR/SWAP |
| Introduced | 16.0.R1 |
| Platforms | All |

## **consider-system-ip-in-gep** *boolean*

| | |
|---|---|
| Synopsis | Apply global export policy for system IP FEC creation |
| Context | **configure** router *named-item-64* ldp consider-system-ip-in-gep *boolean* |
| Tree | consider-system-ip-in-gep |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **egress-statistics**

| | |
|---|---|
| Synopsis | Enter the **egress-statistics** context |
| Context | **configure** router *named-item-64* ldp egress-statistics |
| Tree | egress-statistics |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **fec-prefix** [ip-prefix] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Enter the **fec-prefix** list instance |
| Context | **configure** router *named-item-64* ldp egress-statistics fec-prefix *(ipv4-prefix \| ipv6-prefix)* |
| Tree | fec-prefix |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ip-prefix**] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | IP prefix |
| Context | **configure** router *named-item-64* ldp egress-statistics fec-prefix *(ipv4-prefix \| ipv6-prefix)* |
| Tree | fec-prefix |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **accounting-policy** *reference*

| | |
|---|---|
| Synopsis | Accounting policy ID |
| Context | **configure** router *named-item-64* ldp egress-statistics fec-prefix *(ipv4-prefix \| ipv6-prefix)* accounting-policy *reference* |
| Tree | accounting-policy |
| Reference | **configure** log accounting-policy *number* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the LDP egress statistics |
| Context | **configure** router *named-item-64* ldp egress-statistics fec-prefix *(ipv4-prefix \| ipv6-prefix)* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **collect-stats** *boolean*

| | |
|---|---|
| Synopsis | Collect statistics |
| Context | **configure** router *named-item-64* ldp egress-statistics fec-prefix *(ipv4-prefix \| ipv6-prefix)* collect-stats *boolean* |
| Tree | collect-stats |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **entropy-label-capability** *boolean*

| | |
|---|---|
| Synopsis | Enable entropy label capability on the LDP instance |
| Context | **configure** router *named-item-64* ldp entropy-label-capability *boolean* |
| Tree | entropy-label-capability |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **export-policy** *reference*

| | |
|---|---|
| Synopsis | Export policies to determine routes exported to LDP |
| Context | **configure** router *named-item-64* ldp export-policy *reference* |
| Tree | export-policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **export-tunnel-table** *reference*

| | |
|---|---|
| Synopsis | Tunnel table export policies to export tunneled routes |
| Context | **configure** router *named-item-64* ldp export-tunnel-table *reference* |
| Tree | export-tunnel-table |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **fast-reroute**

| | |
|---|---|
| Synopsis | Enable the **fast-reroute** context |
| Context | **configure** router *named-item-64* ldp fast-reroute |
| Tree | fast-reroute |
| Introduced | 16.0.R1 |
| Platforms | All |

### **backup-sr-tunnel** *boolean*

| | |
|---|---|
| Synopsis | Use SR tunnel as a remote LFA backup tunnel next-hop by an LDP FEC |
| Context | **configure** router *named-item-64* ldp fast-reroute backup-sr-tunnel *boolean* |
| Tree | backup-sr-tunnel |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **fec-originate** [fec-prefix] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Enter the **fec-originate** list instance |
| Context | **configure** router *named-item-64* ldp fec-originate *(ipv4-prefix \| ipv6-prefix)* |
| Tree | fec-originate |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### [**fec-prefix**] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Static FEC IP prefix |
| Context | **configure** router *named-item-64* ldp fec-originate *(ipv4-prefix | ipv6-prefix)* |
| Tree | fec-originate |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **advertised-label** *number*

| | |
|---|---|
| Synopsis | Label that is advertised to upstream peer |
| Context | **configure** router *named-item-64* ldp fec-originate *(ipv4-prefix | ipv6-prefix)* advertised-label *number* |
| Tree | advertised-label |
| Range | 32 to 1048575 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **interface** *named-item-or-empty*

| | |
|---|---|
| Synopsis | Interface name for this static FEC prefix |
| Context | **configure** router *named-item-64* ldp fec-originate *(ipv4-prefix | ipv6-prefix)* interface *named-item-or-empty* |
| Tree | interface |
| String length | 0 to 32 |
| Notes | The following elements are part of a choice: (**interface**, **next-hop**, and **swap-label**) or **pop**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **next-hop** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the next hop |


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| | |
|---|---|
| Context | **configure** router *named-item-64* ldp fec-originate *(ipv4-prefix* \| *ipv6-prefix)* next-hop *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* |
| Tree | next-hop |
| Notes | The following elements are part of a choice: (**interface**, **next-hop**, and **swap-label**) or **pop**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **pop** *boolean*

| | |
|---|---|
| Synopsis | Pop the label and transmit without the label |
| Context | **configure** router *named-item-64* ldp fec-originate *(ipv4-prefix* \| *ipv6-prefix)* pop *boolean* |
| Tree | pop |
| Notes | The following elements are part of a choice: (**interface**, **next-hop**, and **swap-label**) or **pop**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **swap-label** *number*

| | |
|---|---|
| Synopsis | Value mapped to egress label associated with next-hop entry that LSR uses to swap incoming label |
| Context | **configure** router *named-item-64* ldp fec-originate *(ipv4-prefix* \| *ipv6-prefix)* swap-label *number* |
| Tree | swap-label |
| Range | 6 to 1048575 |
| Notes | The following elements are part of a choice: (**interface**, **next-hop**, and **swap-label**) or **pop**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **generate-basic-fec-only** *boolean*

| | |
|---|---|
| Synopsis | Enable mLDP to generate a basic FEC |
| Context | **configure** router *named-item-64* ldp generate-basic-fec-only *boolean* |
| Tree | generate-basic-fec-only |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### graceful-restart

| | |
|---|---|
| Synopsis | Enter the **graceful-restart** context |
| Context | **configure** router *named-item-64* ldp graceful-restart |
| Tree | graceful-restart |
| Introduced | 16.0.R1 |
| Platforms | All |

### helper-mode *boolean*

| | |
|---|---|
| Synopsis | Enable graceful restart helper |
| Context | **configure** router *named-item-64* ldp graceful-restart helper-mode *boolean* |
| Tree | helper-mode |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### maximum-recovery-time *number*

| | |
|---|---|
| Synopsis | Value for the local maximum recovery time |
| Context | **configure** router *named-item-64* ldp graceful-restart maximum-recovery-time *number* |
| Tree | maximum-recovery-time |
| Range | 15 to 1800 |
| Units | seconds |
| Default | 120 |
| Introduced | 16.0.R1 |
| Platforms | All |

### neighbor-liveness-time *number*

| | |
|---|---|
| Synopsis | Value for the neighbor liveness timer |
| Context | **configure** router *named-item-64* ldp graceful-restart neighbor-liveness-time *number* |


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| | |
|---|---|
| Tree | neighbor-liveness-time |
| Range | 5 to 300 |
| Units | seconds |
| Default | 120 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **implicit-null-label** *boolean*

| | |
|---|---|
| Synopsis | Signal the implicit null label value for all LDP FECs for which the node is the egress LER |
| Context | **configure** router *named-item-64* ldp implicit-null-label *boolean* |
| Tree | implicit-null-label |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **import-mcast-policy** *reference*

| | |
|---|---|
| Synopsis | Import policy for mLDP FECs arriving on the node |
| Context | **configure** router *named-item-64* ldp import-mcast-policy *reference* |
| Tree | import-mcast-policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 19.5.R1 |
| Platforms | All |

## **import-pmsi-routes**

| | |
|---|---|
| Synopsis | Enter the **import-pmsi-routes** context |
| Context | **configure** router *named-item-64* ldp import-pmsi-routes |
| Tree | import-pmsi-routes |
| Introduced | 19.5.R1 |
| Platforms | All |


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### **mvpn** *boolean*

| | |
|---|---|
| Synopsis | Import BGP MVPN inter-AS routes |
| Context | **configure** router *named-item-64* ldp import-pmsi-routes mvpn *boolean* |
| Tree | mvpn |
| Default | false |
| Introduced | 19.5.R1 |
| Platforms | All |

### **mvpn-no-export-community** *boolean*

| | |
|---|---|
| Synopsis | Import BGP MVPN intra-AS routes |
| Context | **configure** router *named-item-64* ldp import-pmsi-routes mvpn-no-export-community *boolean* |
| Tree | mvpn-no-export-community |
| Default | false |
| Introduced | 19.5.R1 |
| Platforms | All |

### **import-policy** *reference*

| | |
|---|---|
| Synopsis | Import policies to filter LDP label bindings received from LDP peers |
| Context | **configure** router *named-item-64* ldp import-policy *reference* |
| Tree | import-policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **import-tunnel-table** *reference*

| | |
|---|---|
| Synopsis | Tunnel table import policies for non-host prefixes |
| Context | **configure** router *named-item-64* ldp import-tunnel-table *reference* |


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| | |
|---|---|
| Tree | import-tunnel-table |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

## interface-parameters

| | |
|---|---|
| Synopsis | Enter the **interface-parameters** context |
| Context | **configure** router *named-item-64* ldp interface-parameters |
| Tree | interface-parameters |
| Introduced | 16.0.R1 |
| Platforms | All |

## interface [ip-int-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **interface** list instance |
| Context | **configure** router *named-item-64* ldp interface-parameters interface *reference* |
| Tree | interface |
| Introduced | 16.0.R1 |
| Platforms | All |

## [ip-int-name] *reference*

| | |
|---|---|
| Synopsis | Interface name |
| Context | **configure** router *named-item-64* ldp interface-parameters interface *reference* |
| Tree | interface |
| Reference | **configure** router *named-item-64* interface *interface-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the LDP interface |
| Context | **configure** router *named-item-64* ldp interface-parameters interface *reference* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bfd-liveness**

| | |
|---|---|
| Synopsis | Enter the **bfd-liveness** context |
| Context | **configure** router *named-item-64* ldp interface-parameters interface *reference* bfd-liveness |
| Tree | bfd-liveness |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv4** *boolean*

| | |
|---|---|
| Synopsis | Allow BFD tracking of IPv4 LDP Session for interface |
| Context | **configure** router *named-item-64* ldp interface-parameters interface *reference* bfd-liveness ipv4 *boolean* |
| Tree | ipv4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv6** *boolean*

| | |
|---|---|
| Synopsis | Allow BFD tracking of IPv6 LDP session for interface |
| Context | **configure** router *named-item-64* ldp interface-parameters interface *reference* bfd-liveness ipv6 *boolean* |
| Tree | ipv6 |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## ipv4

| | |
|---|---|
| Synopsis | Enable the **ipv4** context |
| Context | **configure** router *named-item-64* ldp interface-parameters interface *reference* ipv4 |
| Tree | ipv4 |
| Introduced | 16.0.R1 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the LDP interface |
| Context | **configure** router *named-item-64* ldp interface-parameters interface *reference* ipv4 admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

## fec-type-capability

| | |
|---|---|
| Synopsis | Enter the **fec-type-capability** context |
| Context | **configure** router *named-item-64* ldp interface-parameters interface *reference* ipv4 fec-type-capability |
| Tree | fec-type-capability |
| Introduced | 16.0.R1 |
| Platforms | All |

## p2mp-ipv4 *boolean*

| | |
|---|---|
| Synopsis | Enable IPv4 P2MP FEC capability |


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| | |
|---|---|
| Context | **configure** router *named-item-64* ldp interface-parameters interface *reference* ipv4 fec-type-capability p2mp-ipv4 *boolean* |
| Tree | p2mp-ipv4 |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **p2mp-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Enable IPv6 P2MP FEC capability |
| Context | **configure** router *named-item-64* ldp interface-parameters interface *reference* ipv4 fec-type-capability p2mp-ipv6 *boolean* |
| Tree | p2mp-ipv6 |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **prefix-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Enable IPv4 prefix FEC capability |
| Context | **configure** router *named-item-64* ldp interface-parameters interface *reference* ipv4 fec-type-capability prefix-ipv4 *boolean* |
| Tree | prefix-ipv4 |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **prefix-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Enable IPv6 prefix FEC capability |
| Context | **configure** router *named-item-64* ldp interface-parameters interface *reference* ipv4 fec-type-capability prefix-ipv6 *boolean* |
| Tree | prefix-ipv6 |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |


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### hello

| | |
|---|---|
| Synopsis | Enable the **hello** context |
| Context | **configure** router *named-item-64* ldp interface-parameters interface *reference* ipv4 hello |
| Tree | hello |
| Introduced | 16.0.R1 |
| Platforms | All |

### factor *number*

| | |
|---|---|
| Synopsis | Factor value for Hello |
| Context | **configure** router *named-item-64* ldp interface-parameters interface *reference* ipv4 hello factor *number* |
| Tree | factor |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

### timeout *number*

| | |
|---|---|
| Synopsis | Timeout value for Hello |
| Context | **configure** router *named-item-64* ldp interface-parameters interface *reference* ipv4 hello timeout *number* |
| Tree | timeout |
| Range | 3 to 65535 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### keepalive

| | |
|---|---|
| Synopsis | Enable the **keepalive** context |
| Context | **configure** router *named-item-64* ldp interface-parameters interface *reference* ipv4 keepalive |
| Tree | keepalive |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **factor** *number*

| | |
|---|---|
| Synopsis | Factor value for keepalive |
| Context | **configure** router *named-item-64* ldp interface-parameters interface *reference* ipv4 keepalive factor *number* |
| Tree | factor |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **timeout** *number*

| | |
|---|---|
| Synopsis | Time that LDP waits before tearing down session |
| Context | **configure** router *named-item-64* ldp interface-parameters interface *reference* ipv4 keepalive timeout *number* |
| Tree | timeout |
| Range | 3 to 65535 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **local-lsr-id**

| | |
|---|---|
| Synopsis | Enter the **local-lsr-id** context |
| Context | **configure** router *named-item-64* ldp interface-parameters interface *reference* ipv4 local-lsr-id |
| Tree | local-lsr-id |
| Introduced | 16.0.R1 |
| Platforms | All |

### **interface-name** *reference*

| | |
|---|---|
| Synopsis | Name of network IP interface from which to obtain IP address to use as LSR-ID of LDP LSP |


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| | |
|---|---|
| Context | **configure** router *named-item-64* ldp interface-parameters interface *reference* ipv4 local-lsr-id interface-name *reference* |
| Tree | interface-name |
| Reference | **configure** router *named-item-64* interface *interface-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **transport-address** *keyword*

| | |
|---|---|
| Synopsis | Transport address to set up the LDP TCP sessions |
| Context | **configure** router *named-item-64* ldp interface-parameters interface *reference* ipv4 transport-address *keyword* |
| Tree | transport-address |
| Options | interface, system |
| Introduced | 16.0.R1 |
| Platforms | All |

## **ipv6**

| | |
|---|---|
| Synopsis | Enable the **ipv6** context |
| Context | **configure** router *named-item-64* ldp interface-parameters interface *reference* ipv6 |
| Tree | ipv6 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the LDP interface |
| Context | **configure** router *named-item-64* ldp interface-parameters interface *reference* ipv6 admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |


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## fec-type-capability

| | |
|---|---|
| Synopsis | Enter the **fec-type-capability** context |
| Context | **configure** router *named-item-64* ldp interface-parameters interface *reference* ipv6 fec-type-capability |
| Tree | fec-type-capability |
| Introduced | 16.0.R1 |
| Platforms | All |

## p2mp-ipv4 *boolean*

| | |
|---|---|
| Synopsis | Enable IPv4 P2MP FEC capability |
| Context | **configure** router *named-item-64* ldp interface-parameters interface *reference* ipv6 fec-type-capability p2mp-ipv4 *boolean* |
| Tree | p2mp-ipv4 |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

## p2mp-ipv6 *boolean*

| | |
|---|---|
| Synopsis | Enable IPv6 P2MP FEC capability |
| Context | **configure** router *named-item-64* ldp interface-parameters interface *reference* ipv6 fec-type-capability p2mp-ipv6 *boolean* |
| Tree | p2mp-ipv6 |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

## prefix-ipv4 *boolean*

| | |
|---|---|
| Synopsis | Enable IPv4 prefix FEC capability |
| Context | **configure** router *named-item-64* ldp interface-parameters interface *reference* ipv6 fec-type-capability prefix-ipv4 *boolean* |
| Tree | prefix-ipv4 |
| Default | true |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **prefix-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Enable IPv6 prefix FEC capability |
| Context | **configure** router *named-item-64* ldp interface-parameters interface *reference* ipv6 fec-type-capability prefix-ipv6 *boolean* |
| Tree | prefix-ipv6 |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hello**

| | |
|---|---|
| Synopsis | Enable the **hello** context |
| Context | **configure** router *named-item-64* ldp interface-parameters interface *reference* ipv6 hello |
| Tree | hello |
| Introduced | 16.0.R1 |
| Platforms | All |

### **factor** *number*

| | |
|---|---|
| Synopsis | Factor value for Hello |
| Context | **configure** router *named-item-64* ldp interface-parameters interface *reference* ipv6 hello factor *number* |
| Tree | factor |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **timeout** *number*

| | |
|---|---|
| Synopsis | Timeout value for Hello |
| Context | **configure** router *named-item-64* ldp interface-parameters interface *reference* ipv6 hello timeout *number* |


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| | |
|---|---|
| Tree | timeout |
| Range | 3 to 65535 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

## keepalive

| | |
|---|---|
| Synopsis | Enable the **keepalive** context |
| Context | **configure** router *named-item-64* ldp interface-parameters interface *reference* ipv6 keepalive |
| Tree | keepalive |
| Introduced | 16.0.R1 |
| Platforms | All |

## factor *number*

| | |
|---|---|
| Synopsis | Factor value for keepalive |
| Context | **configure** router *named-item-64* ldp interface-parameters interface *reference* ipv6 keepalive factor *number* |
| Tree | factor |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

## timeout *number*

| | |
|---|---|
| Synopsis | Time that LDP waits before tearing down session |
| Context | **configure** router *named-item-64* ldp interface-parameters interface *reference* ipv6 keepalive timeout *number* |
| Tree | timeout |
| Range | 3 to 65535 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |


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### local-lsr-id

| | |
|---|---|
| Synopsis | Enter the **local-lsr-id** context |
| Context | **configure** router *named-item-64* ldp interface-parameters interface *reference* ipv6 local-lsr-id |
| Tree | local-lsr-id |
| Introduced | 16.0.R1 |
| Platforms | All |

### format-32bit *boolean*

| | |
|---|---|
| Synopsis | Use IPv4 address of local LSR-ID interface as LSR-ID of the LDP LSR |
| Context | **configure** router *named-item-64* ldp interface-parameters interface *reference* ipv6 local-lsr-id format-32bit *boolean* |
| Tree | format-32bit |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### interface-name *reference*

| | |
|---|---|
| Synopsis | Name of network IP interface from which to obtain IP address to use as LSR-ID of LDP LSP |
| Context | **configure** router *named-item-64* ldp interface-parameters interface *reference* ipv6 local-lsr-id interface-name *reference* |
| Tree | interface-name |
| Reference | **configure** router *named-item-64* interface *interface-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### transport-address *keyword*

| | |
|---|---|
| Synopsis | Transport address to set up the LDP TCP sessions |
| Context | **configure** router *named-item-64* ldp interface-parameters interface *reference* ipv6 transport-address *keyword* |
| Tree | transport-address |
| Options | interface, system |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **load-balancing-weight** *number*

| | |
|---|---|
| Synopsis | Load balancing weight for the LDP interface |
| Context | **configure** router *named-item-64* ldp interface-parameters interface *reference* load-balancing-weight *number* |
| Tree | load-balancing-weight |
| Max. range | 0 to 4294967295 |
| Introduced | 20.2.R1 |
| Platforms | All |

### **ipv4**

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |
| Context | **configure** router *named-item-64* ldp interface-parameters ipv4 |
| Tree | ipv4 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hello**

| | |
|---|---|
| Synopsis | Enter the **hello** context |
| Context | **configure** router *named-item-64* ldp interface-parameters ipv4 hello |
| Tree | hello |
| Introduced | 16.0.R1 |
| Platforms | All |

### **factor** *number*

| | |
|---|---|
| Synopsis | Value for the Hello factor |
| Context | **configure** router *named-item-64* ldp interface-parameters ipv4 hello factor *number* |
| Tree | factor |
| Range | 1 to 255 |
| Default | 3 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **timeout** *number*

| | |
|---|---|
| Synopsis | Timeout value for Hello |
| Context | **configure** router *named-item-64* ldp interface-parameters ipv4 hello timeout *number* |
| Tree | timeout |
| Range | 3 to 65535 |
| Units | seconds |
| Default | 15 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **keepalive**

| | |
|---|---|
| Synopsis | Enter the **keepalive** context |
| Context | **configure** router *named-item-64* ldp interface-parameters ipv4 keepalive |
| Tree | keepalive |
| Introduced | 16.0.R1 |
| Platforms | All |

### **factor** *number*

| | |
|---|---|
| Synopsis | Value for the keep-alive factor |
| Context | **configure** router *named-item-64* ldp interface-parameters ipv4 keepalive factor *number* |
| Tree | factor |
| Range | 1 to 255 |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **timeout** *number*

| | |
|---|---|
| Synopsis | Timeout value for keepalive |


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| | |
|---|---|
| Context | **configure** router *named-item-64* ldp interface-parameters ipv4 keepalive timeout *number* |
| Tree | timeout |
| Range | 3 to 65535 |
| Units | seconds |
| Default | 30 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **transport-address** *keyword*

| | |
|---|---|
| Synopsis | Transport address to set up the LDP TCP sessions |
| Context | **configure** router *named-item-64* ldp interface-parameters ipv4 transport-address *keyword* |
| Tree | transport-address |
| Options | interface, system |
| Default | system |
| Introduced | 16.0.R1 |
| Platforms | All |

## ipv6

| | |
|---|---|
| Synopsis | Enter the **ipv6** context |
| Context | **configure** router *named-item-64* ldp interface-parameters ipv6 |
| Tree | ipv6 |
| Introduced | 16.0.R1 |
| Platforms | All |

## hello

| | |
|---|---|
| Synopsis | Enter the **hello** context |
| Context | **configure** router *named-item-64* ldp interface-parameters ipv6 hello |
| Tree | hello |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **factor** *number*

| | |
|---|---|
| Synopsis | Value for the Hello factor |
| Context | **configure** router *named-item-64* ldp interface-parameters ipv6 hello factor *number* |
| Tree | factor |
| Range | 1 to 255 |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **timeout** *number*

| | |
|---|---|
| Synopsis | Timeout value for Hello |
| Context | **configure** router *named-item-64* ldp interface-parameters ipv6 hello timeout *number* |
| Tree | timeout |
| Range | 3 to 65535 |
| Units | seconds |
| Default | 15 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **keepalive**

| | |
|---|---|
| Synopsis | Enter the **keepalive** context |
| Context | **configure** router *named-item-64* ldp interface-parameters ipv6 keepalive |
| Tree | keepalive |
| Introduced | 16.0.R1 |
| Platforms | All |

### **factor** *number*

| | |
|---|---|
| Synopsis | Value for the keep-alive factor |
| Context | **configure** router *named-item-64* ldp interface-parameters ipv6 keepalive factor *number* |
| Tree | factor |
| Range | 1 to 255 |


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| | |
|---|---|
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **timeout** *number*

| | |
|---|---|
| Synopsis | Timeout value for keepalive |
| Context | **configure** router *named-item-64* ldp interface-parameters ipv6 keepalive timeout *number* |
| Tree | timeout |
| Range | 3 to 65535 |
| Units | seconds |
| Default | 30 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **transport-address** *keyword*

| | |
|---|---|
| Synopsis | Transport address to set up the LDP TCP sessions |
| Context | **configure** router *named-item-64* ldp interface-parameters ipv6 transport-address *keyword* |
| Tree | transport-address |
| Options | interface, system |
| Default | system |
| Introduced | 16.0.R1 |
| Platforms | All |

### **label-withdrawal-delay** *number*

| | |
|---|---|
| Synopsis | Time interval during which LDP delays for the withdrawal of FEC-label binding |
| Context | **configure** router *named-item-64* ldp label-withdrawal-delay *number* |
| Tree | label-withdrawal-delay |
| Range | 3 to 120 |
| Units | seconds |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## ldp-shortcut

| | |
|---|---|
| Synopsis | Enter the **ldp-shortcut** context |
| Context | **configure** router *named-item-64* ldp ldp-shortcut |
| Tree | ldp-shortcut |
| Introduced | 16.0.R1 |
| Platforms | All |

## ipv4 *boolean*

| | |
|---|---|
| Synopsis | Forward IPv4 packets by using LDP shortcuts |
| Context | **configure** router *named-item-64* ldp ldp-shortcut ipv4 *boolean* |
| Tree | ipv4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## ipv6 *boolean*

| | |
|---|---|
| Synopsis | Forward IPv6 packets by using LDP shortcuts |
| Context | **configure** router *named-item-64* ldp ldp-shortcut ipv6 *boolean* |
| Tree | ipv6 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## legacy-ipv4-lsr-interop *boolean*

| | |
|---|---|
| Synopsis | Allow interoperability with legacy IPv4 LSR implementations |
| Context | **configure** router *named-item-64* ldp legacy-ipv4-lsr-interop *boolean* |
| Tree | legacy-ipv4-lsr-interop |
| Default | false |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **lsp-bfd** [prefix-list] *reference*

| | |
|---|---|
| Synopsis | Enter the **lsp-bfd** list instance |
| Context | **configure** router *named-item-64* ldp lsp-bfd *reference* |
| Tree | lsp-bfd |
| Max. instances | 16 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**prefix-list**] *reference*

| | |
|---|---|
| Synopsis | Name of a router policy options prefix list |
| Context | **configure** router *named-item-64* ldp lsp-bfd *reference* |
| Tree | lsp-bfd |
| Reference | **configure** policy-options prefix-list *named-item-64* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bfd-liveness** *boolean*

| | |
|---|---|
| Synopsis | Enable BFD on LDP LSPs with FECs that match the prefix list |
| Context | **configure** router *named-item-64* ldp lsp-bfd *reference* bfd-liveness *boolean* |
| Tree | bfd-liveness |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bfd-template** *reference*

| | |
|---|---|
| Synopsis | BFD template to apply to BFD sessions associated with the prefix list |
| Context | **configure** router *named-item-64* ldp lsp-bfd *reference* bfd-template *reference* |


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| | |
|---|---|
| Tree | bfd-template |
| Reference | **configure** bfd bfd-template *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **failure-action** *keyword*

| | |
|---|---|
| Synopsis | Reaction to BFD session failure for the prefix list |
| Context | **configure** router *named-item-64* ldp lsp-bfd *reference* failure-action *keyword* |
| Tree | failure-action |
| Options | down |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lsp-ping-interval** *(number | keyword)*

| | |
|---|---|
| Synopsis | LSP ping transmit interval for periodic verification |
| Context | **configure** router *named-item-64* ldp lsp-bfd *reference* lsp-ping-interval *(number | keyword)* |
| Tree | lsp-ping-interval |
| Range | 60 to 300 |
| Units | seconds |
| Options | none |
| Default | 60 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **priority** *number*

| | |
|---|---|
| Synopsis | Prefix list to control the search order |
| Context | **configure** router *named-item-64* ldp lsp-bfd *reference* priority *number* |
| Tree | priority |
| Range | 1 to 99 |
| Default | 1 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **source-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source address in LSP ping packets and BFD control packets associated with prefix list |
| Context | **configure** router *named-item-64* ldp lsp-bfd *reference* source-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | source-address |
| Introduced | 16.0.R1 |
| Platforms | All |

### **max-ecmp-routes** *number*

| | |
|---|---|
| Synopsis | Maximum ECMP value for LDP |
| Context | **configure** router *named-item-64* ldp max-ecmp-routes *number* |
| Tree | max-ecmp-routes |
| Description | This command sets the maximum number of ECMP routes that LDP may use to resolve the next hop for a FEC as permitted by the RTM or TTM.<br>The system-wide maximum number of ECMP routes is set by the **configure router ecmp** command; therefore, the operational maximum number used by LDP is set to the lesser of the values configured by this command and the **configure router ecmp** command. |
| Range | 1 to 64 |
| Default | 32 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **mcast-upstream-asbr-frr** *boolean*

| | |
|---|---|
| Synopsis | Enable ASBR MoFRR to allow local leaf to perform MoFRR for multiple ASBRs |
| Context | **configure** router *named-item-64* ldp mcast-upstream-asbr-frr *boolean* |
| Tree | mcast-upstream-asbr-frr |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **mcast-upstream-frr** *boolean*

| | |
|---|---|
| Synopsis | Use fast upstream switchover for mLDP FECs |
| Context | **configure** router *named-item-64* ldp mcast-upstream-frr *boolean* |
| Tree | mcast-upstream-frr |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mp-mbb-time** *number*

| | |
|---|---|
| Synopsis | MP MBB time |
| Context | **configure** router *named-item-64* ldp mp-mbb-time *number* |
| Tree | mp-mbb-time |
| Range | 0 to 10 |
| Units | seconds |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **prefer-mcast-tunnel-in-tunnel** *boolean*

| | |
|---|---|
| Synopsis | Use T-LDP session to the peer for FEC resolution |
| Context | **configure** router *named-item-64* ldp prefer-mcast-tunnel-in-tunnel *boolean* |
| Tree | prefer-mcast-tunnel-in-tunnel |
| Default | true |
| Introduced | 21.2.R1 |
| Platforms | All |

### **prefer-protocol-stitching** *boolean*

| | |
|---|---|
| Synopsis | Stitch LDP ILM to SR NHLFE even if LDP NHLFE exists |
| Context | **configure** router *named-item-64* ldp prefer-protocol-stitching *boolean* |
| Tree | prefer-protocol-stitching |


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| | |
|---|---|
| Description | When configured to **true**, an LDP ILM stitches to an SR NHLFE, even if an LDP NHLFE exists.<br>When configured to **false**, the stitching preference of an LDP ILM is to an LDP NHLFE. |
| Default | false |
| Introduced | 21.7.R1 |
| Platforms | All |

## **prefer-tunnel-in-tunnel** *boolean*

| | |
|---|---|
| Synopsis | Preference tunnel-in-tunnel over a simple LDP tunnel |
| Context | **configure** router *named-item-64* ldp prefer-tunnel-in-tunnel *boolean* |
| Tree | prefer-tunnel-in-tunnel |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

## **resolve-root-using** *keyword*

| | |
|---|---|
| Synopsis | Resolution route table for multicast FECs |
| Context | **configure** router *named-item-64* ldp resolve-root-using *keyword* |
| Tree | resolve-root-using |
| Options | ucast-rtm, mcast-rtm |
| Default | ucast-rtm |
| Introduced | 16.0.R1 |
| Platforms | All |

## **session-parameters**

| | |
|---|---|
| Synopsis | Enter the **session-parameters** context |
| Context | **configure** router *named-item-64* ldp session-parameters |
| Tree | session-parameters |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **peer** [ip-address] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Enter the **peer** list instance |
| Context | **configure** router *named-item-64* ldp session-parameters peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | peer |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ip-address**] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the LDP peer |
| Context | **configure** router *named-item-64* ldp session-parameters peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | peer |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **adv-adj-addr-only** *boolean*

| | |
|---|---|
| Synopsis | Distribute only the local addresses used to establish the Hello adjacencies with a peer |
| Context | **configure** router *named-item-64* ldp session-parameters peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* adv-adj-addr-only *boolean* |
| Tree | adv-adj-addr-only |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **adv-local-lsr-id** *boolean*

| | |
|---|---|
| Synopsis | Advertise local LSR ID over a specified LDP session |
| Context | **configure** router *named-item-64* ldp session-parameters peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* adv-local-lsr-id *boolean* |
| Tree | adv-local-lsr-id |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **community** *policy-string*

| | |
|---|---|
| Synopsis | Community string associated with a session to a specified peer |
| Context | **configure** router *named-item-64* ldp session-parameters peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* community *policy-string* |
| Tree | community |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **dod-label-distribution** *boolean*

| | |
|---|---|
| Synopsis | Use LDP Downstream-on-Demand (DoD) label distribution procedures |
| Context | **configure** router *named-item-64* ldp session-parameters peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* dod-label-distribution *boolean* |
| Tree | dod-label-distribution |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **export-addresses** *reference*

| | |
|---|---|
| Synopsis | Export policies to determine which local addresses should be distributed to this peer |
| Context | **configure** router *named-item-64* ldp session-parameters peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* export-addresses *reference* |
| Tree | export-addresses |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **export-prefixes** *reference*

| | |
|---|---|
| Synopsis | Export policies to determine which FEC prefixes are redistributed to LDP and TLDP peers |
| Context | **configure** router *named-item-64* ldp session-parameters peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* export-prefixes *reference* |
| Tree | export-prefixes |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **fec-limit**

| | |
|---|---|
| Synopsis | Enter the **fec-limit** context |
| Context | **configure** router *named-item-64* ldp session-parameters peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* fec-limit |
| Tree | fec-limit |
| Introduced | 16.0.R1 |
| Platforms | All |

### **limit** *number*

| | |
|---|---|
| Synopsis | Maximum number of FECs to be accepted from this peer LSR |
| Context | **configure** router *named-item-64* ldp session-parameters peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* fec-limit limit *number* |
| Tree | limit |
| Range | 0 \| 1 to 4294967295 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **log-only** *boolean*

| | |
|---|---|
| Synopsis | Trap and syslog message to generate when reaching the threshold and limit |
| Context | **configure** router *named-item-64* ldp session-parameters peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* fec-limit log-only *boolean* |
| Tree | log-only |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **threshold** *number*

| | |
|---|---|
| Synopsis | Threshold that generates trap and warning when reached |
| Context | **configure** router *named-item-64* ldp session-parameters peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* fec-limit threshold *number* |
| Tree | threshold |
| Range | 1 to 100 |
| Default | 90 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **fec-type-capability**

| | |
|---|---|
| Synopsis | Enter the **fec-type-capability** context |
| Context | **configure** router *named-item-64* ldp session-parameters peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* fec-type-capability |
| Tree | fec-type-capability |
| Introduced | 16.0.R1 |
| Platforms | All |

### **p2mp** *boolean*

| | |
|---|---|
| Synopsis | Enable P2MP FEC capability for the session |
| Context | **configure** router *named-item-64* ldp session-parameters peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* fec-type-capability p2mp *boolean* |
| Tree | p2mp |


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| | |
|---|---|
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **prefix-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Enable IPv4 prefix FEC capability for the session |
| Context | **configure** router *named-item-64* ldp session-parameters peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* fec-type-capability prefix-ipv4 *boolean* |
| Tree | prefix-ipv4 |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **prefix-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Enable IPv6 prefix FEC capability |
| Context | **configure** router *named-item-64* ldp session-parameters peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* fec-type-capability prefix-ipv6 *boolean* |
| Tree | prefix-ipv6 |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **fec129-cisco-interop** *boolean*

| | |
|---|---|
| Synopsis | Allow translation between non-compliant FEC 129 formats of Cisco |
| Context | **configure** router *named-item-64* ldp session-parameters peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* fec129-cisco-interop *boolean* |
| Tree | fec129-cisco-interop |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **import-prefixes** *reference*

| | |
|---|---|
| Synopsis | FEC prefixes to be redistributed to this LDP peer |
| Context | **configure** router *named-item-64* ldp session-parameters peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* import-prefixes *reference* |
| Tree | import-prefixes |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **pe-id-mac-flush-interop** *boolean*

| | |
|---|---|
| Synopsis | Send PE-ID TLV in LDP MAC withdrawal message |
| Context | **configure** router *named-item-64* ldp session-parameters peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* pe-id-mac-flush-interop *boolean* |
| Tree | pe-id-mac-flush-interop |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **shortcut-local-ttl-propagate** *boolean*

| | |
|---|---|
| Synopsis | Propagate TTL over LSP shortcut for local packets |
| Context | **configure** router *named-item-64* ldp shortcut-local-ttl-propagate *boolean* |
| Tree | shortcut-local-ttl-propagate |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **shortcut-transit-ttl-propagate** *boolean*

| | |
|---|---|
| Synopsis | Enable TTL propagation over LSP shortcut |
| Context | **configure** router *named-item-64* ldp shortcut-transit-ttl-propagate *boolean* |


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| | |
|---|---|
| Tree | shortcut-transit-ttl-propagate |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

## targeted-session

| | |
|---|---|
| Synopsis | Enter the **targeted-session** context |
| Context | **configure** router *named-item-64* ldp targeted-session |
| Tree | targeted-session |
| Introduced | 16.0.R1 |
| Platforms | All |

## auto-rx

| | |
|---|---|
| Synopsis | Enter the **auto-rx** context |
| Context | **configure** router *named-item-64* ldp targeted-session auto-rx |
| Tree | auto-rx |
| Description | Commands in this context specify the LDP session configuration to accept targeted Hello messages from any peer. |
| Introduced | 20.10.R1 |
| Platforms | All |

## ipv4

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |
| Context | **configure** router *named-item-64* ldp targeted-session auto-rx ipv4 |
| Tree | ipv4 |
| Introduced | 20.10.R1 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of IPv4 capabilities for peers |
| Context | **configure** router *named-item-64* ldp targeted-session auto-rx ipv4 admin-state *keyword* |


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| | |
|---|---|
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 20.10.R1 |
| Platforms | All |

## **tunneling** *boolean*

| | |
|---|---|
| Synopsis | Enable tunneling for targeted peers |
| Context | **configure** router *named-item-64* ldp targeted-session auto-rx ipv4 tunneling *boolean* |
| Tree | tunneling |
| Description | When configured to **true**, this command enables the local system to use the targeted LDP session to send FEC label bindings that are advertised to other LDP peers. For LDP rLFA, the source node requires the PQ node's label binding information in order to reach the destination.<br>If the **auto-rx** and **auto-tx** contexts are both administratively enabled, this command must be set to **true** for LDP rLFA to function properly.<br>When configured to **false**, FEC label bindings are not sent via the LDP session. |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | All |

## **auto-tx**

| | |
|---|---|
| Synopsis | Enter the **auto-tx** context |
| Context | **configure** router *named-item-64* ldp targeted-session auto-tx |
| Tree | auto-tx |
| Description | Commands in this context specify the LDP session configuration to send targeted Hello messages toward PQ nodes determined by the rLFA algorithm. |
| Introduced | 20.10.R1 |
| Platforms | All |

## **ipv4**

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |
| Context | **configure** router *named-item-64* ldp targeted-session auto-tx ipv4 |


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| | |
|---|---|
| Tree | ipv4 |
| Introduced | 20.10.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of IPv4 capabilities for peers |
| Context | **configure** router *named-item-64* ldp targeted-session auto-tx ipv4 admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 20.10.R1 |
| Platforms | All |

### **tunneling** *boolean*

| | |
|---|---|
| Synopsis | Enable tunneling for targeted peers |
| Context | **configure** router *named-item-64* ldp targeted-session auto-tx ipv4 tunneling *boolean* |
| Tree | tunneling |
| Description | When configured to **true**, this command enables the local system to use the targeted LDP session to send FEC label bindings that are advertised to other LDP peers. For LDP rLFA, the source node requires the PQ node's label binding information in order to reach the destination.<br>If the **auto-rx** context is administratively disabled, this command should be set to **true** for LDP rLFA to function properly.<br>When configured to **false**, FEC label bindings are not sent via the LDP session. |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | All |

### **export-prefixes** *reference*

| | |
|---|---|
| Synopsis | Export route policy to determine which routes are exported to this targeted LDP session |
| Context | **configure** router *named-item-64* ldp targeted-session export-prefixes *reference* |
| Tree | export-prefixes |
| Reference | **configure** policy-options policy-statement *named-item-64* |


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| | |
|---|---|
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **import-prefixes** *reference*

| | |
|---|---|
| Synopsis | Import route policy to determine which routes are accepted from targeted LDP neighbors |
| Context | **configure** router *named-item-64* ldp targeted-session import-prefixes *reference* |
| Tree | import-prefixes |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **ipv4**

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |
| Context | **configure** router *named-item-64* ldp targeted-session ipv4 |
| Tree | ipv4 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **hello**

| | |
|---|---|
| Synopsis | Enter the **hello** context |
| Context | **configure** router *named-item-64* ldp targeted-session ipv4 hello |
| Tree | hello |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **factor** *number*

| | |
|---|---|
| Synopsis | Factor value for Hello |
| Context | **configure** router *named-item-64* ldp targeted-session ipv4 hello factor *number* |
| Tree | factor |
| Range | 1 to 255 |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **timeout** *number*

| | |
|---|---|
| Synopsis | Timeout value for Hello |
| Context | **configure** router *named-item-64* ldp targeted-session ipv4 hello timeout *number* |
| Tree | timeout |
| Range | 3 to 65535 |
| Units | seconds |
| Default | 45 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hello-reduction**

| | |
|---|---|
| Synopsis | Enter the **hello-reduction** context |
| Context | **configure** router *named-item-64* ldp targeted-session ipv4 hello-reduction |
| Tree | hello-reduction |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of suppression of Hello messages |
| Context | **configure** router *named-item-64* ldp targeted-session ipv4 hello-reduction admin-state *keyword* |
| Tree | admin-state |


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| | |
|---|---|
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R3 |
| Platforms | All |

### **factor** *number*

| | |
|---|---|
| Synopsis | Hello reduction dampening factor |
| Context | **configure** router *named-item-64* ldp targeted-session ipv4 hello-reduction factor *number* |
| Tree | factor |
| Range | 3 to 20 |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **keepalive**

| | |
|---|---|
| Synopsis | Enter the **keepalive** context |
| Context | **configure** router *named-item-64* ldp targeted-session ipv4 keepalive |
| Tree | keepalive |
| Introduced | 16.0.R1 |
| Platforms | All |

### **factor** *number*

| | |
|---|---|
| Synopsis | Factor value for keepalive |
| Context | **configure** router *named-item-64* ldp targeted-session ipv4 keepalive factor *number* |
| Tree | factor |
| Range | 1 to 255 |
| Default | 4 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **timeout** *number*

| | |
|---|---|
| Synopsis | Timeout value for keepalive |
| Context | **configure** router *named-item-64* ldp targeted-session ipv4 keepalive timeout *number* |
| Tree | timeout |
| Range | 3 to 65535 |
| Units | seconds |
| Default | 40 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv6**

| | |
|---|---|
| Synopsis | Enter the **ipv6** context |
| Context | **configure** router *named-item-64* ldp targeted-session ipv6 |
| Tree | ipv6 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hello**

| | |
|---|---|
| Synopsis | Enter the **hello** context |
| Context | **configure** router *named-item-64* ldp targeted-session ipv6 hello |
| Tree | hello |
| Introduced | 16.0.R1 |
| Platforms | All |

### **factor** *number*

| | |
|---|---|
| Synopsis | Factor value for Hello |
| Context | **configure** router *named-item-64* ldp targeted-session ipv6 hello factor *number* |
| Tree | factor |
| Range | 1 to 255 |
| Default | 3 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **timeout** *number*

| | |
|---|---|
| Synopsis | Timeout value for Hello |
| Context | **configure** router *named-item-64* ldp targeted-session ipv6 hello timeout *number* |
| Tree | timeout |
| Range | 3 to 65535 |
| Units | seconds |
| Default | 45 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hello-reduction**

| | |
|---|---|
| Synopsis | Enter the **hello-reduction** context |
| Context | **configure** router *named-item-64* ldp targeted-session ipv6 hello-reduction |
| Tree | hello-reduction |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of suppression of Hello messages |
| Context | **configure** router *named-item-64* ldp targeted-session ipv6 hello-reduction admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R3 |
| Platforms | All |

### **factor** *number*

| | |
|---|---|
| Synopsis | Hello reduction dampening factor |
| Context | **configure** router *named-item-64* ldp targeted-session ipv6 hello-reduction factor *number* |


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| | |
|---|---|
| Tree | factor |
| Range | 3 to 20 |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | All |

### keepalive

| | |
|---|---|
| Synopsis | Enter the **keepalive** context |
| Context | **configure** router *named-item-64* ldp targeted-session ipv6 keepalive |
| Tree | keepalive |
| Introduced | 16.0.R1 |
| Platforms | All |

### factor *number*

| | |
|---|---|
| Synopsis | Factor value for keepalive |
| Context | **configure** router *named-item-64* ldp targeted-session ipv6 keepalive factor *number* |
| Tree | factor |
| Range | 1 to 255 |
| Default | 4 |
| Introduced | 16.0.R1 |
| Platforms | All |

### timeout *number*

| | |
|---|---|
| Synopsis | Timeout value for keepalive |
| Context | **configure** router *named-item-64* ldp targeted-session ipv6 keepalive timeout *number* |
| Tree | timeout |
| Range | 3 to 65535 |
| Units | seconds |
| Default | 40 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **peer** [ip-address] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Enter the **peer** list instance |
| Context | **configure** router *named-item-64* ldp targeted-session peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | peer |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ip-address**] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the LDP peer |
| Context | **configure** router *named-item-64* ldp targeted-session peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | peer |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the LDP peer |
| Context | **configure** router *named-item-64* ldp targeted-session peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bfd-liveness** *boolean*

| | |
|---|---|
| Synopsis | Enable BFD tracking of LDP session for the peer |
| Context | **configure** router *named-item-64* ldp targeted-session peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* bfd-liveness *boolean* |
| Tree | bfd-liveness |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## hello

| | |
|---|---|
| Synopsis | Enable the **hello** context |
| Context | **configure** router *named-item-64* ldp targeted-session peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* hello |
| Tree | hello |
| Introduced | 16.0.R1 |
| Platforms | All |

## factor *number*

| | |
|---|---|
| Synopsis | Factor value for Hello |
| Context | **configure** router *named-item-64* ldp targeted-session peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* hello factor *number* |
| Tree | factor |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

## timeout *number*

| | |
|---|---|
| Synopsis | Timeout value for Hello |
| Context | **configure** router *named-item-64* ldp targeted-session peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* hello timeout *number* |
| Tree | timeout |
| Range | 3 to 65535 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |


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## hello-reduction

| | |
|---|---|
| Synopsis | Enable the **hello-reduction** context |
| Context | **configure** router *named-item-64* ldp targeted-session peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* hello-reduction |
| Tree | hello-reduction |
| Introduced | 16.0.R1 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of suppression of Hello messages |
| Context | **configure** router *named-item-64* ldp targeted-session peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* hello-reduction admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Introduced | 16.0.R3 |
| Platforms | All |

## factor *number*

| | |
|---|---|
| Synopsis | Hello reduction dampening factor |
| Context | **configure** router *named-item-64* ldp targeted-session peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* hello-reduction factor *number* |
| Tree | factor |
| Range | 3 to 20 |
| Introduced | 16.0.R1 |
| Platforms | All |

## keepalive

| | |
|---|---|
| Synopsis | Enable the **keepalive** context |
| Context | **configure** router *named-item-64* ldp targeted-session peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* keepalive |
| Tree | keepalive |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **factor** *number*

| | |
|---|---|
| Synopsis | Factor value for keepalive |
| Context | **configure** router *named-item-64* ldp targeted-session peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* keepalive factor *number* |
| Tree | factor |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **timeout** *number*

| | |
|---|---|
| Synopsis | Time that LDP waits before tearing down session |
| Context | **configure** router *named-item-64* ldp targeted-session peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* keepalive timeout *number* |
| Tree | timeout |
| Range | 3 to 65535 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **local-lsr-id**

| | |
|---|---|
| Synopsis | Enter the **local-lsr-id** context |
| Context | **configure** router *named-item-64* ldp targeted-session peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* local-lsr-id |
| Tree | local-lsr-id |
| Introduced | 16.0.R1 |
| Platforms | All |

### **format-32bit** *boolean*

| | |
|---|---|
| Synopsis | Use IPv4 address of local LSR-ID interface as LSR-ID of the LDP LSR |
| Context | **configure** router *named-item-64* ldp targeted-session peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* local-lsr-id format-32bit *boolean* |


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| | |
|---|---|
| Tree | format-32bit |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **interface-name** *reference*

| | |
|---|---|
| Synopsis | Name of network IP interface from which to obtain IP address to use as LSR-ID of LDP LSP |
| Context | **configure** router *named-item-64* ldp targeted-session peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* local-lsr-id interface-name *reference* |
| Tree | interface-name |
| Reference | **configure** router *named-item-64* interface *interface-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mcast-tunneling**

| | |
|---|---|
| Synopsis | Enable the **mcast-tunneling** context |
| Context | **configure** router *named-item-64* ldp targeted-session peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* mcast-tunneling |
| Tree | mcast-tunneling |
| Introduced | 21.2.R1 |
| Platforms | All |

### **lsp** [lsp-name] *named-item-64*

| | |
|---|---|
| Synopsis | Add a list entry for **lsp** |
| Context | **configure** router *named-item-64* ldp targeted-session peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* mcast-tunneling lsp *named-item-64* |
| Tree | lsp |
| Max. instances | 4 |
| Introduced | 21.2.R1 |
| Platforms | All |


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### [**lsp-name**] *named-item-64*

| | |
|---|---|
| Synopsis | LSP name |
| Context | **configure** router *named-item-64* ldp targeted-session peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* mcast-tunneling lsp *named-item-64* |
| Tree | lsp |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 21.2.R1 |
| Platforms | All |

### tunneling

| | |
|---|---|
| Synopsis | Enable the **tunneling** context |
| Context | **configure** router *named-item-64* ldp targeted-session peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* tunneling |
| Tree | tunneling |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lsp** [lsp-name] *named-item-64*

| | |
|---|---|
| Synopsis | Add a list entry for **lsp** |
| Context | **configure** router *named-item-64* ldp targeted-session peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* tunneling lsp *named-item-64* |
| Tree | lsp |
| Max. instances | 4 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**lsp-name**] *named-item-64*

| | |
|---|---|
| Synopsis | LSP name |
| Context | **configure** router *named-item-64* ldp targeted-session peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* tunneling lsp *named-item-64* |
| Tree | lsp |


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| | |
|---|---|
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **peer-template** [template-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **peer-template** list instance |
| Context | **configure** router *named-item-64* ldp targeted-session peer-template *named-item* |
| Tree | peer-template |
| Max. instances | 500 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**template-name**] *named-item*

| | |
|---|---|
| Synopsis | Name for the targeted peer template |
| Context | **configure** router *named-item-64* ldp targeted-session peer-template *named-item* |
| Tree | peer-template |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the peer template |
| Context | **configure** router *named-item-64* ldp targeted-session peer-template *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **adv-local-lsr-id** *boolean*

| | |
|---|---|
| Synopsis | Advertise local LSR ID over a specified LDP session |
| Context | **configure** router *named-item-64* ldp targeted-session peer-template *named-item* adv-local-lsr-id *boolean* |
| Tree | adv-local-lsr-id |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bfd-liveness** *boolean*

| | |
|---|---|
| Synopsis | Enable BFD tracking of LDP session for sessions created by peer template |
| Context | **configure** router *named-item-64* ldp targeted-session peer-template *named-item* bfd-liveness *boolean* |
| Tree | bfd-liveness |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **community** *policy-string*

| | |
|---|---|
| Synopsis | Community string associated with a session to a specified peer |
| Context | **configure** router *named-item-64* ldp targeted-session peer-template *named-item* community *policy-string* |
| Tree | community |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hello**

| | |
|---|---|
| Synopsis | Enable the **hello** context |
| Context | **configure** router *named-item-64* ldp targeted-session peer-template *named-item* hello |
| Tree | hello |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **factor** *number*

| | |
|---|---|
| Synopsis | Factor value for Hello |
| Context | **configure** router *named-item-64* ldp targeted-session peer-template *named-item* hello factor *number* |
| Tree | factor |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **timeout** *number*

| | |
|---|---|
| Synopsis | Timeout value for Hello |
| Context | **configure** router *named-item-64* ldp targeted-session peer-template *named-item* hello timeout *number* |
| Tree | timeout |
| Range | 3 to 65535 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hello-reduction**

| | |
|---|---|
| Synopsis | Enable the **hello-reduction** context |
| Context | **configure** router *named-item-64* ldp targeted-session peer-template *named-item* hello-reduction |
| Tree | hello-reduction |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of suppression of Hello messages |
| Context | **configure** router *named-item-64* ldp targeted-session peer-template *named-item* hello-reduction admin-state *keyword* |


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| | |
|---|---|
| Tree | admin-state |
| Options | enable, disable |
| Introduced | 16.0.R3 |
| Platforms | All |

### **factor** *number*

| | |
|---|---|
| Synopsis | Hello reduction dampening factor |
| Context | **configure** router *named-item-64* ldp targeted-session peer-template *named-item* hello-reduction factor *number* |
| Tree | factor |
| Range | 3 to 20 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **keepalive**

| | |
|---|---|
| Synopsis | Enable the **keepalive** context |
| Context | **configure** router *named-item-64* ldp targeted-session peer-template *named-item* keepalive |
| Tree | keepalive |
| Introduced | 16.0.R1 |
| Platforms | All |

### **factor** *number*

| | |
|---|---|
| Synopsis | Factor value for keepalive |
| Context | **configure** router *named-item-64* ldp targeted-session peer-template *named-item* keepalive factor *number* |
| Tree | factor |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **timeout** *number*

| | |
|---|---|
| Synopsis | Time that LDP waits before tearing down session |
| Context | **configure** router *named-item-64* ldp targeted-session peer-template *named-item* keepalive timeout *number* |
| Tree | timeout |
| Range | 3 to 65535 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **local-lsr-id**

| | |
|---|---|
| Synopsis | Enter the **local-lsr-id** context |
| Context | **configure** router *named-item-64* ldp targeted-session peer-template *named-item* local-lsr-id |
| Tree | local-lsr-id |
| Introduced | 16.0.R1 |
| Platforms | All |

### **interface-name** *reference*

| | |
|---|---|
| Synopsis | Name of network IP interface from which to obtain IP address to use as LSR-ID of LDP LSP |
| Context | **configure** router *named-item-64* ldp targeted-session peer-template *named-item* local-lsr-id interface-name *reference* |
| Tree | interface-name |
| Reference | **configure** router *named-item-64* interface *interface-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mcast-tunneling** *boolean*

| | |
|---|---|
| Synopsis | Enable MLDP over RSVP-TE tunnels for the template |
| Context | **configure** router *named-item-64* ldp targeted-session peer-template *named-item* mcast-tunneling *boolean* |
| Tree | mcast-tunneling |


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| | |
|---|---|
| Default | false |
| Introduced | 21.2.R1 |
| Platforms | All |

### **tunneling** *boolean*

| | |
|---|---|
| Synopsis | Allow LDP over tunnels |
| Context | **configure** router *named-item-64* ldp targeted-session peer-template *named-item* tunneling *boolean* |
| Tree | tunneling |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **peer-template-map** [template-map-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **peer-template-map** list instance |
| Context | **configure** router *named-item-64* ldp targeted-session peer-template-map *reference* |
| Tree | peer-template-map |
| Max. instances | 500 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**template-map-name**] *reference*

| | |
|---|---|
| Synopsis | Name to identify the targeted peer template |
| Context | **configure** router *named-item-64* ldp targeted-session peer-template-map *reference* |
| Tree | peer-template-map |
| Reference | **configure** router *named-item-64* ldp targeted-session peer-template *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **policy-map** *reference*

| | |
|---|---|
| Synopsis | Targeted peer template to apply to the given policies |
| Context | **configure** router *named-item-64* ldp targeted-session peer-template-map *reference* policy-map *reference* |
| Tree | policy-map |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Min. instances | 1 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **resolve-v6-prefix-over-shortcut** *boolean*

| | |
|---|---|
| Synopsis | Resolve IPv6 prefix over IGP shortcuts |
| Context | **configure** router *named-item-64* ldp targeted-session resolve-v6-prefix-over-shortcut *boolean* |
| Tree | resolve-v6-prefix-over-shortcut |
| Description | When configured to **true**, the system enables the resolution of IPv6 LDP unicast prefix FECs over IGP shortcuts.<br>When configured to **false**, the resolution is not allowed. |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | All |

### **sdp-auto-targeted-session** *boolean*

| | |
|---|---|
| Synopsis | Allow auto-creation of targeted sessions by SDP |
| Context | **configure** router *named-item-64* ldp targeted-session sdp-auto-targeted-session *boolean* |
| Tree | sdp-auto-targeted-session |
| Default | true |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## tcp-session-parameters

| | |
|---|---|
| Synopsis | Enter the **tcp-session-parameters** context |
| Context | **configure** router *named-item-64* ldp tcp-session-parameters |
| Tree | tcp-session-parameters |
| Introduced | 16.0.R1 |
| Platforms | All |

## authentication-key *encrypted-leaf*

| | |
|---|---|
| Synopsis | Authentication key between LDP peers |
| Context | **configure** router *named-item-64* ldp tcp-session-parameters authentication-key *encrypted-leaf* |
| Tree | authentication-key |
| Description | This command specifies the authentication key used to establish a session between LDP peers.<br>Authentication uses the MD-5 message-based digest. The peer address used in authentication must be the TCP session transport address. If one or more transport addresses used in the Hello adjacencies to the same peer LSR are different from the LSR ID value, the user must add each transport address to the authentication key configuration as a separate peer. As a result, when the TCP connection is bootstrapped by a specific Hello adjacency, the authentication can operate over that TCP connection by using its specific transport address.<br>The per-peer authentication configuration takes precedence over global authentication configuration, and authentication keychain configuration takes precedence over authentication key configuration. |
| String length | 1 to 370 |
| Introduced | 21.2.R1 |
| Platforms | All |

## authentication-keychain *reference*

| | |
|---|---|
| Synopsis | Authentication keychain to use for the TCP session |
| Context | **configure** router *named-item-64* ldp tcp-session-parameters authentication-keychain *reference* |
| Tree | authentication-keychain |


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| | |
|---|---|
| Description | This command configures the authentication keychain to use for the TCP session.<br>The per-peer authentication configuration takes precedence over the global authentication configuration. |
| Reference | **configure** system security keychains keychain *named-item* |
| Introduced | 21.2.R1 |
| Platforms | All |

### **peer-transport** [ip-address] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Enter the **peer-transport** list instance |
| Context | **configure** router *named-item-64* ldp tcp-session-parameters peer-transport *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | peer-transport |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ip-address**] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the TCP connection to the LDP peer |
| Context | **configure** router *named-item-64* ldp tcp-session-parameters peer-transport *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | peer-transport |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **authentication-key** *encrypted-leaf*

| | |
|---|---|
| Synopsis | Authentication key between LDP peers |
| Context | **configure** router *named-item-64* ldp tcp-session-parameters peer-transport *(ipv4-address-no-zone \| ipv6-address-no-zone)* authentication-key *encrypted-leaf* |
| Tree | authentication-key |
| Description | This command specifies the authentication key used to establish a session between LDP peers.<br>Authentication uses the MD-5 message-based digest. The peer address used in authentication must be the TCP session transport address. If one or more transport addresses used in the Hello adjacencies to the same peer LSR are different from the LSR ID value, the user must add each transport address to the authentication key |


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configuration as a separate peer. As a result, when the TCP connection is bootstrapped by a specific Hello adjacency, the authentication can operate over that TCP connection by using its specific transport address.

The per-peer authentication configuration takes precedence over global authentication configuration, and authentication keychain configuration takes precedence over authentication key configuration.

| | |
|---|---|
| String length | 1 to 370 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **authentication-keychain** *reference*

| | |
|---|---|
| Synopsis | Authentication keychain to use for the TCP session |
| Context | **configure** router *named-item-64* ldp tcp-session-parameters peer-transport *(ipv4-address-no-zone \| ipv6-address-no-zone)* authentication-keychain *reference* |
| Tree | authentication-keychain |
| Description | This command configures the authentication keychain to use for the TCP session.<br>The per-peer authentication configuration takes precedence over the global authentication configuration. |
| Reference | **configure** system security keychains keychain *named-item* |
| Introduced | 16.0.R3 |
| Platforms | All |

### **path-mtu-discovery** *boolean*

| | |
|---|---|
| Synopsis | Allow Path MTU Discovery for associated TCP connections |
| Context | **configure** router *named-item-64* ldp tcp-session-parameters peer-transport *(ipv4-address-no-zone \| ipv6-address-no-zone)* path-mtu-discovery *boolean* |
| Tree | path-mtu-discovery |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ttl-security** *number*

| | |
|---|---|
| Synopsis | Minimum TTL value for incoming packets |
| Context | **configure** router *named-item-64* ldp tcp-session-parameters peer-transport *(ipv4-address-no-zone \| ipv6-address-no-zone)* ttl-security *number* |


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| | |
|---|---|
| Tree | ttl-security |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **tunnel-down-damp-time** *number*

| | |
|---|---|
| Synopsis | Time interval for an LDP to damp a tunnel down event before posting to the Route Table Manager (RTM) |
| Context | **configure** router *named-item-64* ldp tunnel-down-damp-time *number* |
| Tree | tunnel-down-damp-time |
| Range | 0 to 20 |
| Units | seconds |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **tunnel-table-pref** *number*

| | |
|---|---|
| Synopsis | Tunnel table preference value for address FECs |
| Context | **configure** router *named-item-64* ldp tunnel-table-pref *number* |
| Tree | tunnel-table-pref |
| Description | This command configures the tunnel table preference for an LDP tunnel type.<br>The tunnel table preference applies to next-hop resolution of BGP routes for: EVPN, IPv4, IPv6, VPN-IPv4, VPN-IPv6, label-IPv4, and label-IPV6 in the tunnel table.<br>This feature does not apply to a VPRN, VPLS, or VLL service with explicit binding to an SDP that enabled the **mixed-lsp-mode** option. The service manager controls and fixes the tunnel preference in such an SDP. The tunnel table preference configuration does not modify the SDP behavior, nor the services that bind to it.<br>It is recommended to not set two or more tunnel types to the same preference value. In such a situation, the tunnel table prefers the tunnel type which was first introduced in SR OS implementation historically. |
| Range | 1 to 255 |
| Default | 9 |
| Introduced | 21.10.R1 |
| Platforms | All |


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### **weighted-ecmp** *boolean*

| | |
|---|---|
| Synopsis | Allow weighted ECMP load-balancing |
| Context | **configure** router *named-item-64* ldp weighted-ecmp *boolean* |
| Tree | weighted-ecmp |
| Description | When configured to **true**, the system allows weighted ECMP on LDP using RSVP LSPs or SR-TE LSPs. LDP labeled packets are sprayed across the RSVP or SR-TE LSP ECMP set in proportion to the configured load-balancing weight of LSPs.<br>When configured to **false**, the system removes weighted ECMP load-balancing. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **leak-export**

| | |
|---|---|
| Synopsis | Enter the **leak-export** context |
| Context | **configure** router *named-item-64* leak-export |
| Tree | leak-export |
| Introduced | 16.0.R4 |
| Platforms | All |

### **leak-export-limit** *number*

| | |
|---|---|
| Synopsis | Maximum limit on number of GRT routes leaked into VPRNs |
| Context | **configure** router *named-item-64* leak-export leak-export-limit *number* |
| Tree | leak-export-limit |
| Range | 1 to 10000 |
| Default | 5 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **policy-name** *(policy-expr-string | string)*

| | |
|---|---|
| Synopsis | Route policy name |
| Context | **configure** router *named-item-64* leak-export policy-name *(policy-expr-string | string)* |
| Tree | policy-name |


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| | |
|---|---|
| String length | 1 to 255 |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R4 |
| Platforms | All |

## lsp-bfd

| | |
|---|---|
| Synopsis | Enter the **lsp-bfd** context |
| Context | **configure** router *named-item-64* lsp-bfd |
| Tree | lsp-bfd |
| Introduced | 16.0.R1 |
| Platforms | All |

## bfd-sessions *number*

| | |
|---|---|
| Synopsis | Maximum number of LSP BFD session tail-ends |
| Context | **configure** router *named-item-64* lsp-bfd bfd-sessions *number* |
| Tree | bfd-sessions |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

## tail-end

| | |
|---|---|
| Synopsis | Enter the **tail-end** context |
| Context | **configure** router *named-item-64* lsp-bfd tail-end |
| Tree | tail-end |
| Introduced | 20.10.R1 |
| Platforms | All |

## multiplier *number*

| | |
|---|---|
| Synopsis | Missed message threshold before session is set to down |


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| | |
|---|---|
| Context | **configure** router *named-item-64* lsp-bfd tail-end multiplier *number* |
| Tree | multiplier |
| Range | 1 to 20 |
| Default | 3 |
| Introduced | 20.10.R1 |
| Platforms | All |

### **receive-interval** *number*

| | |
|---|---|
| Synopsis | The BFD receive interval for LSP tail-end |
| Context | **configure** router *named-item-64* lsp-bfd tail-end receive-interval *number* |
| Tree | receive-interval |
| Range | 100 to 1000 |
| Units | milliseconds |
| Default | 1000 |
| Introduced | 20.10.R1 |
| Platforms | All |

### **transmit-interval** *number*

| | |
|---|---|
| Synopsis | The BFD transmit interval for LSP tail-end |
| Context | **configure** router *named-item-64* lsp-bfd tail-end transmit-interval *number* |
| Tree | transmit-interval |
| Range | 100 to 1000 |
| Units | milliseconds |
| Default | 1000 |
| Introduced | 20.10.R1 |
| Platforms | All |

### **mc-maximum-routes**

| | |
|---|---|
| Synopsis | Enter the **mc-maximum-routes** context |
| Context | **configure** router *named-item-64* mc-maximum-routes |
| Tree | mc-maximum-routes |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **log-only** *boolean*

| | |
|---|---|
| Synopsis | Log and allow learning of new multicast routes |
| Context | **configure** router *named-item-64* mc-maximum-routes log-only *boolean* |
| Tree | log-only |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **threshold** *number*

| | |
|---|---|
| Synopsis | Maximum multicast routes which the VRF holds |
| Context | **configure** router *named-item-64* mc-maximum-routes threshold *number* |
| Tree | threshold |
| Range | 1 to 100 |
| Units | percent |
| Introduced | 16.0.R1 |
| Platforms | All |

### **value** *number*

| | |
|---|---|
| Synopsis | Maximum multicast routes configured on virtual router |
| Context | **configure** router *named-item-64* mc-maximum-routes value *number* |
| Tree | value |
| Range | 1 to 2147483647 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mld**

| | |
|---|---|
| Synopsis | Enable the **mld** context |
| Context | **configure** router *named-item-64* mld |
| Tree | mld |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of MLD |
| Context | **configure** router *named-item-64* mld admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **forwarding-group-interface** forwarding-service *service-name* group-interface-name *reference*

| | |
|---|---|
| Synopsis | Enter the **forwarding-group-interface** list instance |
| Context | **configure** router *named-item-64* mld forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* |
| Tree | forwarding-group-interface |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **forwarding-service** *service-name*

| | |
|---|---|
| Synopsis | Forwarding service for the subscriber interface |
| Context | **configure** router *named-item-64* mld forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* |
| Tree | forwarding-group-interface |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **group-interface-name** *reference*

| | |
|---|---|
| Synopsis | Group interface name |
| Context | **configure** router *named-item-64* mld forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* |
| Tree | forwarding-group-interface |
| Reference | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* |
| Notes | This element is part of a list key. |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the MLD interface |
| Context | **configure** router *named-item-64* mld forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **import-policy** *reference*

| | |
|---|---|
| Synopsis | Import policy to filter MLD packets |
| Context | **configure** router *named-item-64* mld forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* import-policy *reference* |
| Tree | import-policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **maximum-number-group-sources** *number*

| | |
|---|---|
| Synopsis | Maximum number of group sources for this interface |


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| | |
|---|---|
| Context | **configure** router *named-item-64* mld forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* maximum-number-group-sources *number* |
| Tree | maximum-number-group-sources |
| Description | This command configures the maximum number of group sources for which IGMP or MLD can have local receiver information based on received IGMP or MLD reports on this interface. When this configuration is changed dynamically to a lower value than the currently accepted number of group sources, the group sources that are already accepted are not deleted. Only new group sources are not allowed. |
| Range | 1 to 32000 |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **maximum-number-groups** *number*

| | |
|---|---|
| Synopsis | Maximum number of groups for this interface |
| Context | **configure** router *named-item-64* mld forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* maximum-number-groups *number* |
| Tree | maximum-number-groups |
| Range | 1 to 16000 |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **maximum-number-sources** *number*

| | |
|---|---|
| Synopsis | Maximum number of sources that are allowed per group |
| Context | **configure** router *named-item-64* mld forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* maximum-number-sources *number* |
| Tree | maximum-number-sources |
| Range | 1 to 1000 |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **mcac**

| | |
|---|---|
| Synopsis | Enter the **mcac** context |
| Context | **configure** router *named-item-64* mld forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* mcac |


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| | |
|---|---|
| Tree | mcac |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## bandwidth

| | |
|---|---|
| Synopsis | Enter the **bandwidth** context |
| Context | **configure** router *named-item-64* mld forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* mcac bandwidth |
| Tree | bandwidth |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **mandatory** *(number | keyword)*

| | |
|---|---|
| Synopsis | Pre-reserved bandwidth for all mandatory channels |
| Context | **configure** router *named-item-64* mld forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* mcac bandwidth mandatory *(number | keyword)* |
| Tree | mandatory |
| Range | 0 to 2147483647 |
| Options | unlimited |
| Default | unlimited |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **total** *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum allowed bandwidth |
| Context | **configure** router *named-item-64* mld forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* mcac bandwidth total *(number | keyword)* |
| Tree | total |
| Range | 0 to 2147483647 |
| Options | unlimited |
| Default | unlimited |
| Introduced | 21.7.R1 |


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Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR

## **interface-policy** *reference*

Synopsis Name of multicast CAC interface policy

Context **configure** router *named-item-64* mld forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* mcac interface-policy *reference*

Tree interface-policy

Reference **configure** mcac interface-policy *string*

Introduced 21.7.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR

## **policy** *reference*

Synopsis Multicast CAC policy name

Context **configure** router *named-item-64* mld forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* mcac policy *reference*

Tree policy

Description This command configures the name of the global channel bandwidth definition policy that is used for (H)MCAC and HQoS adjustment.

Within the scope of HQoS adjustment, the channel definition policy under the group interface is used if redirection is unconfigured. In this case, the HQoS adjustment can be applied to IPoE subscribers in per-SAP replication mode.

If redirection is configured, the channel bandwidth definition policy applied under the Layer 3 redirected interface is in effect.

Hierarchical MCAC (HMCAC) is supported on two levels simultaneously:

- subscriber level and redirected interface when redirection is configured
- subscriber level and group-interface level when redirection is unconfigured

In HMCAC, the subscriber is checked against its bandwidth limits first, then against the bandwidth limits of the redirected or group interface. If redirection is configured but the policy is referenced only under the group interface, no admission control is executed (HMCAC or MCAC).

Reference **configure** mcac policy *string*

Introduced 21.7.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR


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### **query-interval** *number*

| | |
|---|---|
| Synopsis | Time between two consecutive host-query messages |
| Context | **configure** router *named-item-64* mld forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* query-interval *number* |
| Tree | query-interval |
| Range | 2 to 1024 |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **query-last-member-interval** *number*

| | |
|---|---|
| Synopsis | Time between group-specific query messages |
| Context | **configure** router *named-item-64* mld forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* query-last-member-interval *number* |
| Tree | query-last-member-interval |
| Range | 1 to 1023 |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **query-response-interval** *number*

| | |
|---|---|
| Synopsis | Time to wait for a response to the host-query messages |
| Context | **configure** router *named-item-64* mld forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* query-response-interval *number* |
| Tree | query-response-interval |
| Range | 1 to 1023 |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **query-source-address** *ipv6-unicast-or-linklocal-address*

| | |
|---|---|
| Synopsis | Source address for MLD queries |
| Context | **configure** router *named-item-64* mld forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* query-source-address *ipv6-unicast-or-linklocal-address* |
| Tree | query-source-address |


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| | |
|---|---|
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **router-alert-check** *boolean*

| | |
|---|---|
| Synopsis | Enable router alert checking for IGMP or MLD messages |
| Context | **configure** router *named-item-64* mld forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* router-alert-check *boolean* |
| Tree | router-alert-check |
| Default | true |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sub-hosts-only** *boolean*

| | |
|---|---|
| Synopsis | Allow MLD traffic from known hosts only |
| Context | **configure** router *named-item-64* mld forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* sub-hosts-only *boolean* |
| Tree | sub-hosts-only |
| Default | true |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **subnet-check** *boolean*

| | |
|---|---|
| Synopsis | Enable subnet checking |
| Context | **configure** router *named-item-64* mld forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* subnet-check *boolean* |
| Tree | subnet-check |
| Default | true |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **version** *keyword*

| | |
|---|---|
| Synopsis | MLD protocol version |


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| | |
|---|---|
| Context | **configure** router *named-item-64* mld forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* version *keyword* |
| Tree | version |
| Options | 1, 2 |
| Default | 2 |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **group-if-query-source-address** *ipv6-unicast-or-linklocal-address*

| | |
|---|---|
| Synopsis | Source address in queries for group interfaces when not configured at group interface level |
| Context | **configure** router *named-item-64* mld group-if-query-source-address *ipv6-unicast-or-linklocal-address* |
| Tree | group-if-query-source-address |
| Introduced | 16.0.R1 |
| Platforms | All |

### **group-interface** [group-interface-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **group-interface** list instance |
| Context | **configure** router *named-item-64* mld group-interface *reference* |
| Tree | group-interface |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**group-interface-name**] *reference*

| | |
|---|---|
| Synopsis | Group interface name |
| Context | **configure** router *named-item-64* mld group-interface *reference* |
| Tree | group-interface |
| Reference | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the MLD interface |
| Context | **configure** router *named-item-64* mld group-interface *reference* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **import-policy** *reference*

| | |
|---|---|
| Synopsis | Import policy to filter MLD packets |
| Context | **configure** router *named-item-64* mld group-interface *reference* import-policy *reference* |
| Tree | import-policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **maximum-number-group-sources** *number*

| | |
|---|---|
| Synopsis | Maximum number of group sources for this interface |
| Context | **configure** router *named-item-64* mld group-interface *reference* maximum-number-group-sources *number* |
| Tree | maximum-number-group-sources |
| Description | This command configures the maximum number of group sources for which IGMP or MLD can have local receiver information based on received IGMP or MLD reports on this interface. When this configuration is changed dynamically to a lower value than the currently accepted number of group sources, the group sources that are already accepted are not deleted. Only new group sources are not allowed. |
| Range | 1 to 32000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **maximum-number-groups** *number*

| | |
|---|---|
| Synopsis | Maximum number of groups for this interface |
| Context | **configure** router *named-item-64* mld group-interface *reference* maximum-number-groups *number* |
| Tree | maximum-number-groups |
| Range | 1 to 16000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **maximum-number-sources** *number*

| | |
|---|---|
| Synopsis | Maximum number of sources that are allowed per group |
| Context | **configure** router *named-item-64* mld group-interface *reference* maximum-number-sources *number* |
| Tree | maximum-number-sources |
| Range | 1 to 1000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **mcac**

| | |
|---|---|
| Synopsis | Enter the **mcac** context |
| Context | **configure** router *named-item-64* mld group-interface *reference* mcac |
| Tree | mcac |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **bandwidth**

| | |
|---|---|
| Synopsis | Enter the **bandwidth** context |
| Context | **configure** router *named-item-64* mld group-interface *reference* mcac bandwidth |
| Tree | bandwidth |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **mandatory** *(number | keyword)*

| | |
|---|---|
| Synopsis | Pre-reserved bandwidth for all mandatory channels |
| Context | **configure** router *named-item-64* mld group-interface *reference* mcac bandwidth mandatory *(number \| keyword)* |
| Tree | mandatory |
| Range | 0 to 2147483647 |
| Options | unlimited |
| Default | unlimited |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **total** *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum allowed bandwidth |
| Context | **configure** router *named-item-64* mld group-interface *reference* mcac bandwidth total *(number \| keyword)* |
| Tree | total |
| Range | 0 to 2147483647 |
| Options | unlimited |
| Default | unlimited |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **interface-policy** *reference*

| | |
|---|---|
| Synopsis | Name of multicast CAC interface policy |
| Context | **configure** router *named-item-64* mld group-interface *reference* mcac interface-policy *reference* |
| Tree | interface-policy |
| Reference | **configure** mcac interface-policy *string* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## **policy** *reference*

| | |
|---|---|
| Synopsis | Multicast CAC policy name |
| Context | **configure** router *named-item-64* mld group-interface *reference* mcac policy *reference* |
| Tree | policy |
| Description | This command configures the name of the global channel bandwidth definition policy that is used for (H)MCAC and HQoS adjustment.<br>Within the scope of HQoS adjustment, the channel definition policy under the group interface is used if redirection is unconfigured. In this case, the HQoS adjustment can be applied to IPoE subscribers in per-SAP replication mode.<br>If redirection is configured, the channel bandwidth definition policy applied under the Layer 3 redirected interface is in effect.<br>Hierarchical MCAC (HMCAC) is supported on two levels simultaneously:<br>• subscriber level and redirected interface when redirection is configured<br>• subscriber level and group-interface level when redirection is unconfigured<br>In HMCAC, the subscriber is checked against its bandwidth limits first, then against the bandwidth limits of the redirected or group interface. If redirection is configured but the policy is referenced only under the group interface, no admission control is executed (HMCAC or MCAC). |
| Reference | **configure** mcac policy *string* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **query-interval** *number*

| | |
|---|---|
| Synopsis | Time between two consecutive host-query messages |
| Context | **configure** router *named-item-64* mld group-interface *reference* query-interval *number* |
| Tree | query-interval |
| Range | 2 to 1024 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **query-last-member-interval** *number*

| | |
|---|---|
| Synopsis | Time between group-specific query messages |
| Context | **configure** router *named-item-64* mld group-interface *reference* query-last-member-interval *number* |


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| | |
|---|---|
| Tree | query-last-member-interval |
| Range | 1 to 1023 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **query-response-interval** *number*

| | |
|---|---|
| Synopsis | Time to wait for a response to the host-query messages |
| Context | **configure** router *named-item-64* mld group-interface *reference* query-response-interval *number* |
| Tree | query-response-interval |
| Range | 1 to 1023 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **query-source-address** *ipv6-unicast-or-linklocal-address*

| | |
|---|---|
| Synopsis | Source address for MLD queries |
| Context | **configure** router *named-item-64* mld group-interface *reference* query-source-address *ipv6-unicast-or-linklocal-address* |
| Tree | query-source-address |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **router-alert-check** *boolean*

| | |
|---|---|
| Synopsis | Enable router alert checking for IGMP or MLD messages |
| Context | **configure** router *named-item-64* mld group-interface *reference* router-alert-check *boolean* |
| Tree | router-alert-check |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **sub-hosts-only** *boolean*

| | |
|---|---|
| Synopsis | Allow MLD traffic from known hosts only |
| Context | **configure** router *named-item-64* mld group-interface *reference* sub-hosts-only *boolean* |
| Tree | sub-hosts-only |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **subnet-check** *boolean*

| | |
|---|---|
| Synopsis | Enable subnet checking |
| Context | **configure** router *named-item-64* mld group-interface *reference* subnet-check *boolean* |
| Tree | subnet-check |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **version** *keyword*

| | |
|---|---|
| Synopsis | MLD protocol version |
| Context | **configure** router *named-item-64* mld group-interface *reference* version *keyword* |
| Tree | version |
| Options | 1, 2 |
| Default | 2 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **interface** [ip-interface-name] *interface-name*

| | |
|---|---|
| Synopsis | Enter the **interface** list instance |
| Context | **configure** router *named-item-64* mld interface *interface-name* |
| Tree | interface |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**ip-interface-name**] *interface-name*

| | |
|---|---|
| Synopsis | IP interface name |
| Context | **configure** router *named-item-64* mld interface *interface-name* |
| Tree | interface |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R2 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the MLD interface |
| Context | **configure** router *named-item-64* mld interface *interface-name* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **import-policy** *reference*

| | |
|---|---|
| Synopsis | Import policy to filter MLD packets |
| Context | **configure** router *named-item-64* mld interface *interface-name* import-policy *reference* |
| Tree | import-policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **maximum-number-group-sources** *number*

| | |
|---|---|
| Synopsis | Maximum number of group sources for this interface |
| Context | **configure** router *named-item-64* mld interface *interface-name* maximum-number-group-sources *number* |
| Tree | maximum-number-group-sources |


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| | |
|---|---|
| Description | This command configures the maximum number of group sources for which IGMP or MLD can have local receiver information based on received IGMP or MLD reports on this interface. When this configuration is changed dynamically to a lower value than the currently accepted number of group sources, the group sources that are already accepted are not deleted. Only new group sources are not allowed. |
| Range | 1 to 32000 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **maximum-number-groups** *number*

| | |
|---|---|
| Synopsis | Maximum number of groups for this interface |
| Context | **configure** router *named-item-64* mld interface *interface-name* maximum-number-groups *number* |
| Tree | maximum-number-groups |
| Range | 1 to 16000 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **maximum-number-sources** *number*

| | |
|---|---|
| Synopsis | Maximum number of sources that are allowed per group |
| Context | **configure** router *named-item-64* mld interface *interface-name* maximum-number-sources *number* |
| Tree | maximum-number-sources |
| Range | 1 to 1000 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **mcac**

| | |
|---|---|
| Synopsis | Enter the **mcac** context |
| Context | **configure** router *named-item-64* mld interface *interface-name* mcac |
| Tree | mcac |
| Introduced | 16.0.R1 |
| Platforms | All |


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### bandwidth

| | |
|---|---|
| Synopsis | Enter the **bandwidth** context |
| Context | **configure** router *named-item-64* mld interface *interface-name* mcac bandwidth |
| Tree | bandwidth |
| Introduced | 16.0.R1 |
| Platforms | All |

### mandatory *(number | keyword)*

| | |
|---|---|
| Synopsis | Pre-reserved bandwidth for all mandatory channels |
| Context | **configure** router *named-item-64* mld interface *interface-name* mcac bandwidth mandatory *(number | keyword)* |
| Tree | mandatory |
| Range | 0 to 2147483647 |
| Options | unlimited |
| Default | unlimited |
| Introduced | 16.0.R1 |
| Platforms | All |

### total *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum allowed bandwidth |
| Context | **configure** router *named-item-64* mld interface *interface-name* mcac bandwidth total *(number | keyword)* |
| Tree | total |
| Range | 0 to 2147483647 |
| Options | unlimited |
| Default | unlimited |
| Introduced | 16.0.R1 |
| Platforms | All |

### interface-policy *reference*

| | |
|---|---|
| Synopsis | Name of multicast CAC interface policy |


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| | |
|---|---|
| Context | **configure** router *named-item-64* mld interface *interface-name* mcac interface-policy *reference* |
| Tree | interface-policy |
| Reference | **configure** mcac interface-policy *string* |
| Introduced | 16.0.R1 |
| Platforms | All |

## mc-constraints

| | |
|---|---|
| Synopsis | Enter the **mc-constraints** context |
| Context | **configure** router *named-item-64* mld interface *interface-name* mcac mc-constraints |
| Tree | mc-constraints |
| Introduced | 16.0.R1 |
| Platforms | All |

## **level** [level-id] *number*

| | |
|---|---|
| Synopsis | Enter the **level** list instance |
| Context | **configure** router *named-item-64* mld interface *interface-name* mcac mc-constraints level *number* |
| Tree | level |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**level-id**] *number*

| | |
|---|---|
| Synopsis | Bandwidth level ID for an MCAC constraint |
| Context | **configure** router *named-item-64* mld interface *interface-name* mcac mc-constraints level *number* |
| Tree | level |
| Range | 1 to 8 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **bandwidth** *number*

| | |
|---|---|
| Synopsis | Bandwidth available for this level |
| Context | **configure** router *named-item-64* mld interface *interface-name* mcac mc-constraints level *number* bandwidth *number* |
| Tree | bandwidth |
| Range | 0 to 2147483647 |
| Units | kilobps |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **number-down** [number-lag-port-down] *number*

| | |
|---|---|
| Synopsis | Enter the **number-down** list instance |
| Context | **configure** router *named-item-64* mld interface *interface-name* mcac mc-constraints number-down *number* |
| Tree | number-down |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**number-lag-port-down**] *number*

| | |
|---|---|
| Synopsis | Number of ports that are down in this LAG link |
| Context | **configure** router *named-item-64* mld interface *interface-name* mcac mc-constraints number-down *number* |
| Tree | number-down |
| Range | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **level** *number*

| | |
|---|---|
| Synopsis | Level ID to associate with number of down LAG ports |


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| | |
|---|---|
| Context | **configure** router *named-item-64* mld interface *interface-name* mcac mc-constraints number-down *number* level *number* |
| Tree | level |
| Description | This command specifies the bandwidth for a given level. Level 1 has the highest priority and level 8 has the lowest priority. |
| Range | 1 to 8 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **use-lag-port-weight** *boolean*

| | |
|---|---|
| Synopsis | Use LAG port weight in calculating MCAC constraints |
| Context | **configure** router *named-item-64* mld interface *interface-name* mcac mc-constraints use-lag-port-weight *boolean* |
| Tree | use-lag-port-weight |
| Description | When configured to **true**, port weight is used when determining available bandwidth per level when LAG ports go down or come up. This command is required for proper operation on mixed port-speed LAGs and can also be used for unmixed port-speed LAGs. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **policy** *reference*

| | |
|---|---|
| Synopsis | Multicast CAC policy name |
| Context | **configure** router *named-item-64* mld interface *interface-name* mcac policy *reference* |
| Tree | policy |
| Description | This command configures the name of the global channel bandwidth definition policy that is used for (H)MCAC and HQoS adjustment.<br>Within the scope of HQoS adjustment, the channel definition policy under the group interface is used if redirection is unconfigured. In this case, the HQoS adjustment can be applied to IPoE subscribers in per-SAP replication mode.<br>If redirection is configured, the channel bandwidth definition policy applied under the Layer 3 redirected interface is in effect.<br>Hierarchical MCAC (HMCAC) is supported on two levels simultaneously:<br>• subscriber level and redirected interface when redirection is configured |


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- subscriber level and group-interface level when redirection is unconfigured

In HMCAC, the subscriber is checked against its bandwidth limits first, then against the bandwidth limits of the redirected or group interface. If redirection is configured but the policy is referenced only under the group interface, no admission control is executed (HMCAC or MCAC).

| | |
|---|---|
| Reference | **configure** mcac policy *string* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **query-interval** *number*

| | |
|---|---|
| Synopsis | Time between two consecutive host-query messages |
| Context | **configure** router *named-item-64* mld interface *interface-name* query-interval *number* |
| Tree | query-interval |
| Range | 2 to 1024 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **query-last-member-interval** *number*

| | |
|---|---|
| Synopsis | Time between group-specific query messages |
| Context | **configure** router *named-item-64* mld interface *interface-name* query-last-member-interval *number* |
| Tree | query-last-member-interval |
| Range | 1 to 1023 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **query-response-interval** *number*

| | |
|---|---|
| Synopsis | Time to wait for a response to the host-query messages |
| Context | **configure** router *named-item-64* mld interface *interface-name* query-response-interval *number* |
| Tree | query-response-interval |
| Range | 1 to 1023 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **router-alert-check** *boolean*

| | |
|---|---|
| Synopsis | Enable router alert checking for IGMP or MLD messages |
| Context | **configure** router *named-item-64* mld interface *interface-name* router-alert-check *boolean* |
| Tree | router-alert-check |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ssm-translate**

| | |
|---|---|
| Synopsis | Enter the **ssm-translate** context |
| Context | **configure** router *named-item-64* mld interface *interface-name* ssm-translate |
| Tree | ssm-translate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **group-range** start *ipv6-multicast-address* end *ipv6-multicast-address*

| | |
|---|---|
| Synopsis | Enter the **group-range** list instance |
| Context | **configure** router *named-item-64* mld interface *interface-name* ssm-translate group-range start *ipv6-multicast-address* end *ipv6-multicast-address* |
| Tree | group-range |
| Introduced | 16.0.R1 |
| Platforms | All |

### **start** *ipv6-multicast-address*

| | |
|---|---|
| Synopsis | Lower bound of the group range |
| Context | **configure** router *named-item-64* mld interface *interface-name* ssm-translate group-range start *ipv6-multicast-address* end *ipv6-multicast-address* |
| Tree | group-range |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **end** *ipv6-multicast-address*

| | |
|---|---|
| Synopsis | Upper bound of the group range |
| Context | **configure** router *named-item-64* mld interface *interface-name* ssm-translate group-range start *ipv6-multicast-address* end *ipv6-multicast-address* |
| Tree | group-range |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **source** [source-address] *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Add a list entry for **source** |
| Context | **configure** router *named-item-64* mld interface *interface-name* ssm-translate group-range start *ipv6-multicast-address* end *ipv6-multicast-address* source *ipv6-unicast-address* |
| Tree | source |
| Min. instances | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**source-address**] *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Source IP address |
| Context | **configure** router *named-item-64* mld interface *interface-name* ssm-translate group-range start *ipv6-multicast-address* end *ipv6-multicast-address* source *ipv6-unicast-address* |
| Tree | source |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R2 |
| Platforms | All |


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### static

| | |
|---|---|
| Synopsis | Enter the **static** context |
| Context | **configure** router *named-item-64* mld interface *interface-name* static |
| Tree | static |
| Introduced | 16.0.R1 |
| Platforms | All |

### **group** [group-address] *ipv6-multicast-address*

| | |
|---|---|
| Synopsis | Enter the **group** list instance |
| Context | **configure** router *named-item-64* mld interface *interface-name* static group *ipv6-multicast-address* |
| Tree | group |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**group-address**] *ipv6-multicast-address*

| | |
|---|---|
| Synopsis | Group address of multicast channel |
| Context | **configure** router *named-item-64* mld interface *interface-name* static group *ipv6-multicast-address* |
| Tree | group |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **source** [source-address] *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Add a list entry for **source** |
| Context | **configure** router *named-item-64* mld interface *interface-name* static group *ipv6-multicast-address* source *ipv6-unicast-address* |
| Tree | source |
| Notes | The following elements are part of a mandatory choice: **source** or **starg**. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**source-address**] *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Source IP address |
| Context | **configure** router *named-item-64* mld interface *interface-name* static group *ipv6-multicast-address* source *ipv6-unicast-address* |
| Tree | source |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R2 |
| Platforms | All |

### **starg**

| | |
|---|---|
| Synopsis | any source address (*,G) |
| Context | **configure** router *named-item-64* mld interface *interface-name* static group *ipv6-multicast-address* starg |
| Tree | starg |
| Notes | The following elements are part of a mandatory choice: **source** or **starg**. |
| Introduced | 16.0.R2 |
| Platforms | All |

### **group-range** start *ipv6-multicast-address* end *ipv6-multicast-address* step *ipv6-address*

| | |
|---|---|
| Synopsis | Enter the **group-range** list instance |
| Context | **configure** router *named-item-64* mld interface *interface-name* static group-range start *ipv6-multicast-address* end *ipv6-multicast-address* step *ipv6-address* |
| Tree | group-range |
| Introduced | 16.0.R1 |
| Platforms | All |

### **start** *ipv6-multicast-address*

| | |
|---|---|
| Synopsis | Lower bound of the static multicast group |
| Context | **configure** router *named-item-64* mld interface *interface-name* static group-range start *ipv6-multicast-address* end *ipv6-multicast-address* step *ipv6-address* |
| Tree | group-range |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **end** *ipv6-multicast-address*

| | |
|---|---|
| Synopsis | Upper bound of the static multicast group |
| Context | **configure** router *named-item-64* mld interface *interface-name* static group-range start *ipv6-multicast-address* end *ipv6-multicast-address* step *ipv6-address* |
| Tree | group-range |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **step** *ipv6-address*

| | |
|---|---|
| Synopsis | Step interval for the group-range addresses |
| Context | **configure** router *named-item-64* mld interface *interface-name* static group-range start *ipv6-multicast-address* end *ipv6-multicast-address* step *ipv6-address* |
| Tree | group-range |
| MD-CLI default | ::1 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **source** [source-address] *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Add a list entry for **source** |
| Context | **configure** router *named-item-64* mld interface *interface-name* static group-range start *ipv6-multicast-address* end *ipv6-multicast-address* step *ipv6-address* source *ipv6-unicast-address* |
| Tree | source |
| Notes | The following elements are part of a mandatory choice: **source** or **starg**. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**source-address**] *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Source IP address |
| Context | **configure** router *named-item-64* mld interface *interface-name* static group-range start *ipv6-multicast-address* end *ipv6-multicast-address* step *ipv6-address* source *ipv6-unicast-address* |
| Tree | source |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R2 |
| Platforms | All |

### **starg**

| | |
|---|---|
| Synopsis | any source address (*,G) |
| Context | **configure** router *named-item-64* mld interface *interface-name* static group-range start *ipv6-multicast-address* end *ipv6-multicast-address* step *ipv6-address* starg |
| Tree | starg |
| Notes | The following elements are part of a mandatory choice: **source** or **starg**. |
| Introduced | 16.0.R2 |
| Platforms | All |

### **version** *keyword*

| | |
|---|---|
| Synopsis | MLD protocol version |
| Context | **configure** router *named-item-64* mld interface *interface-name* version *keyword* |
| Tree | version |
| Options | 1, 2 |
| Default | 2 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **query-interval** *number*

| | |
|---|---|
| Synopsis | Time between two consecutive host-query messages |
| Context | **configure** router *named-item-64* mld query-interval *number* |
| Tree | query-interval |


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| | |
|---|---|
| Range | 2 to 1024 |
| Units | seconds |
| Default | 125 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **query-last-member-interval** *number*

| | |
|---|---|
| Synopsis | Time between group-specific query messages |
| Context | **configure** router *named-item-64* mld query-last-member-interval *number* |
| Tree | query-last-member-interval |
| Range | 1 to 1023 |
| Units | seconds |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **query-response-interval** *number*

| | |
|---|---|
| Synopsis | Time to wait for a response to the host-query messages |
| Context | **configure** router *named-item-64* mld query-response-interval *number* |
| Tree | query-response-interval |
| Range | 1 to 1023 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **robust-count** *number*

| | |
|---|---|
| Synopsis | Number of retries after expected message loss |
| Context | **configure** router *named-item-64* mld robust-count *number* |
| Tree | robust-count |
| Range | 2 to 10 |
| Default | 2 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### ssm-translate

| | |
|---|---|
| Synopsis | Enter the **ssm-translate** context |
| Context | **configure** router *named-item-64* mld ssm-translate |
| Tree | ssm-translate |
| Introduced | 16.0.R1 |
| Platforms | All |

### group-range start *ipv6-multicast-address* end *ipv6-multicast-address*

| | |
|---|---|
| Synopsis | Enter the **group-range** list instance |
| Context | **configure** router *named-item-64* mld ssm-translate group-range start *ipv6-multicast-address* end *ipv6-multicast-address* |
| Tree | group-range |
| Introduced | 16.0.R1 |
| Platforms | All |

### start *ipv6-multicast-address*

| | |
|---|---|
| Synopsis | Lower bound of the group range |
| Context | **configure** router *named-item-64* mld ssm-translate group-range start *ipv6-multicast-address* end *ipv6-multicast-address* |
| Tree | group-range |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### end *ipv6-multicast-address*

| | |
|---|---|
| Synopsis | Upper bound of the group range |
| Context | **configure** router *named-item-64* mld ssm-translate group-range start *ipv6-multicast-address* end *ipv6-multicast-address* |
| Tree | group-range |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **source** [source-address] *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Add a list entry for **source** |
| Context | **configure** router *named-item-64* mld ssm-translate group-range start *ipv6-multicast-address* end *ipv6-multicast-address* source *ipv6-unicast-address* |
| Tree | source |
| Min. instances | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**source-address**] *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Source IP address |
| Context | **configure** router *named-item-64* mld ssm-translate group-range start *ipv6-multicast-address* end *ipv6-multicast-address* source *ipv6-unicast-address* |
| Tree | source |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R2 |
| Platforms | All |

### **mpls**

| | |
|---|---|
| Synopsis | Enable the **mpls** context |
| Context | **configure** router *named-item-64* mpls |
| Tree | mpls |
| Description | Commands in this context configure MPLS. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **admin-group-frr** *boolean*

| | |
|---|---|
| Synopsis | Use admin group constraints for FRR path computation |
| Context | **configure** router *named-item-64* mpls admin-group-frr *boolean* |
| Tree | admin-group-frr |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the MPLS instance |
| Context | **configure** router *named-item-64* mpls admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **auto-bandwidth-multipliers**

| | |
|---|---|
| Synopsis | Enter the **auto-bandwidth-multipliers** context |
| Context | **configure** router *named-item-64* mpls auto-bandwidth-multipliers |
| Tree | auto-bandwidth-multipliers |
| Introduced | 16.0.R1 |
| Platforms | All |

### **adjust-multiplier** *number*

| | |
|---|---|
| Synopsis | Collection intervals in a sample interval |
| Context | **configure** router *named-item-64* mpls auto-bandwidth-multipliers adjust-multiplier *number* |
| Tree | adjust-multiplier |
| Range | 1 to 16383 |
| Default | 288 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **sample-multiplier** *number*

| | |
|---|---|
| Synopsis | Collection intervals in a sample interval |
| Context | **configure** router *named-item-64* mpls auto-bandwidth-multipliers sample-multiplier *number* |
| Tree | sample-multiplier |
| Range | 1 to 511 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **auto-lsp** [template-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **auto-lsp** list instance |
| Context | **configure** router *named-item-64* mpls auto-lsp *reference* |
| Tree | auto-lsp |
| Max. instances | 500 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**template-name**] *reference*

| | |
|---|---|
| Synopsis | LSP template name |
| Context | **configure** router *named-item-64* mpls auto-lsp *reference* |
| Tree | auto-lsp |
| Reference | **configure** router *named-item-64* mpls lsp-template *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **one-hop** *boolean*

| | |
|---|---|
| Synopsis | Enable one-hop point-to-point LSP automatic signaling |
| Context | **configure** router *named-item-64* mpls auto-lsp *reference* one-hop *boolean* |
| Tree | one-hop |
| Description | This command enables the automatic signaling of one-hop point-to-point LSPs. |
| Default | false |
| Notes | The following elements are part of a choice: **one-hop** or **policy**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **policy** *reference*

| | |
|---|---|
| Synopsis | Peer prefix policy name |
| Context | **configure** router *named-item-64* mpls auto-lsp *reference* policy *reference* |
| Tree | policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | The following elements are part of a choice: **one-hop** or **policy**.<br>This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **aux-stats**

| | |
|---|---|
| Synopsis | Enable the **aux-stats** context |
| Context | **configure** router *named-item-64* mpls aux-stats |
| Tree | aux-stats |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **sr** *boolean*

| | |
|---|---|
| Synopsis | Traffic type count in MPLS statistics table |


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| | |
|---|---|
| Context | **configure** router *named-item-64* mpls aux-stats sr *boolean* |
| Tree | sr |
| Description | This command configures the type of traffic to count in the auxiliary MPLS statistics table. It refers to any type of segment routing traffic (SR-OSPF, SR-ISIS, SR-TE, and so on). |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **bypass-resignal-timer** *number*

| | |
|---|---|
| Synopsis | Resignal timer for bypass |
| Context | **configure** router *named-item-64* mpls bypass-resignal-timer *number* |
| Tree | bypass-resignal-timer |
| Range | 1 to 10080 |
| Units | minutes |
| Introduced | 16.0.R1 |
| Platforms | All |

## **class-forwarding-policy** [policy-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **class-forwarding-policy** list instance |
| Context | **configure** router *named-item-64* mpls class-forwarding-policy *named-item* |
| Tree | class-forwarding-policy |
| Max. instances | 15 |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**policy-name**] *named-item*

| | |
|---|---|
| Synopsis | Name of class forwarding policy |
| Context | **configure** router *named-item-64* mpls class-forwarding-policy *named-item* |
| Tree | class-forwarding-policy |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **default-set** *number*

| | |
|---|---|
| Synopsis | Default forwarding set ID |
| Context | **configure** router *named-item-64* mpls class-forwarding-policy *named-item* default-set *number* |
| Tree | default-set |
| Range | 1 to 6 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **fc** [fc-name] *keyword*

| | |
|---|---|
| Synopsis | Enter the **fc** list instance |
| Context | **configure** router *named-item-64* mpls class-forwarding-policy *named-item* fc *keyword* |
| Tree | fc |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**fc-name**] *keyword*

| | |
|---|---|
| Synopsis | Forwarding class name for LSP |
| Context | **configure** router *named-item-64* mpls class-forwarding-policy *named-item* fc *keyword* |
| Tree | fc |
| Options | be – Best effort<br>l2 – Low 2 (best effort)<br>af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority)<br>ef – Expedited forwarding (high priority)<br>h1 – High 1 (high priority)<br>nc – Network control (high priority) |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **forwarding-set** *number*

| | |
|---|---|
| Synopsis | Forwarding set ID for forwarding classes |
| Context | **configure** router *named-item-64* mpls class-forwarding-policy *named-item* fc *keyword* forwarding-set *number* |
| Tree | forwarding-set |
| Range | 1 to 6 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cspf-on-loose-hop** *boolean*

| | |
|---|---|
| Synopsis | Calculate CSPF until next loose hop on LSR |
| Context | **configure** router *named-item-64* mpls cspf-on-loose-hop *boolean* |
| Tree | cspf-on-loose-hop |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **dynamic-bypass** *boolean*

| | |
|---|---|
| Synopsis | Create dynamic bypass LSPs in FRR |
| Context | **configure** router *named-item-64* mpls dynamic-bypass *boolean* |
| Tree | dynamic-bypass |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **entropy-label**

| | |
|---|---|
| Synopsis | Enter the **entropy-label** context |
| Context | **configure** router *named-item-64* mpls entropy-label |
| Tree | entropy-label |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **rsvp-te** *boolean*

| | |
|---|---|
| Synopsis | Apply entropy labels to RSVP-TE LSPs |
| Context | **configure** router *named-item-64* mpls entropy-label rsvp-te *boolean* |
| Tree | rsvp-te |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sr-te** *boolean*

| | |
|---|---|
| Synopsis | Apply entropy labels to SR-TE LSPs |
| Context | **configure** router *named-item-64* mpls entropy-label sr-te *boolean* |
| Tree | sr-te |
| Introduced | 16.0.R1 |
| Platforms | All |

### **exponential-backoff-retry** *boolean*

| | |
|---|---|
| Synopsis | Use exponential back-off timer when retrying an LSP |
| Context | **configure** router *named-item-64* mpls exponential-backoff-retry *boolean* |
| Tree | exponential-backoff-retry |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **forwarding-policies**

| | |
|---|---|
| Synopsis | Enable the **forwarding-policies** context |
| Context | **configure** router *named-item-64* mpls forwarding-policies |
| Tree | forwarding-policies |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of MPLS forwarding policies |
| Context | **configure** router *named-item-64* mpls forwarding-policies admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **forwarding-policy** [policy-name] *named-item-64*

| | |
|---|---|
| Synopsis | Enter the **forwarding-policy** list instance |
| Context | **configure** router *named-item-64* mpls forwarding-policies forwarding-policy *named-item-64* |
| Tree | forwarding-policy |
| Max. instances | 65536 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**policy-name**] *named-item-64*

| | |
|---|---|
| Synopsis | Forwarding policy name |
| Context | **configure** router *named-item-64* mpls forwarding-policies forwarding-policy *named-item-64* |
| Tree | forwarding-policy |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the MPLS forwarding policy |


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| | |
|---|---|
| Context | **configure** router *named-item-64* mpls forwarding-policies forwarding-policy *named-item-64* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

## **binding-label** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Binding label |
| Context | **configure** router *named-item-64* mpls forwarding-policies forwarding-policy *named-item-64* binding-label *number* |
| Tree | binding-label |
| Range | 32 to 1048575 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **egress-statistics**

| | |
|---|---|
| Synopsis | Enable the **egress-statistics** context |
| Context | **configure** router *named-item-64* mpls forwarding-policies forwarding-policy *named-item-64* egress-statistics |
| Tree | egress-statistics |
| Introduced | 19.7.R1 |
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of egress or ingress statistics |
| Context | **configure** router *named-item-64* mpls forwarding-policies forwarding-policy *named-item-64* egress-statistics admin-state *keyword* |
| Tree | admin-state |


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| | |
|---|---|
| Options | enable, disable |
| Default | disable |
| Introduced | 19.7.R1 |
| Platforms | All |

## **endpoint** *(ipv4-address-no-zone | ipv6-address-no-zone)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Endpoint address for the MPLS forwarding policy |
| Context | **configure** router *named-item-64* mpls forwarding-policies forwarding-policy *named-item-64* endpoint *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | endpoint |
| Introduced | 16.0.R4 |
| Platforms | All |

## **ingress-statistics**

| | |
|---|---|
| Synopsis | Enable the **ingress-statistics** context |
| Context | **configure** router *named-item-64* mpls forwarding-policies forwarding-policy *named-item-64* ingress-statistics |
| Tree | ingress-statistics |
| Introduced | 16.0.R1 |
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of egress or ingress statistics |
| Context | **configure** router *named-item-64* mpls forwarding-policies forwarding-policy *named-item-64* ingress-statistics admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **metric** *number*

| | |
|---|---|
| Synopsis | Metric of an MPLS forwarding policy |
| Context | **configure** router *named-item-64* mpls forwarding-policies forwarding-policy *named-item-64* metric *number* |
| Tree | metric |
| Range | 1 to 16777215 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **next-hop-group** [index] *number*

| | |
|---|---|
| Synopsis | Enter the **next-hop-group** list instance |
| Context | **configure** router *named-item-64* mpls forwarding-policies forwarding-policy *named-item-64* next-hop-group *number* |
| Tree | next-hop-group |
| Max. instances | 32 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**index**] *number*

| | |
|---|---|
| Synopsis | Index for next hop group |
| Context | **configure** router *named-item-64* mpls forwarding-policies forwarding-policy *named-item-64* next-hop-group *number* |
| Tree | next-hop-group |
| Range | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of NHG in MPLS forwarding policy |
| Context | **configure** router *named-item-64* mpls forwarding-policies forwarding-policy *named-item-64* next-hop-group *number* admin-state *keyword* |


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| | |
|---|---|
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

## backup-next-hop

| | |
|---|---|
| Synopsis | Enable the **backup-next-hop** context |
| Context | **configure** router *named-item-64* mpls forwarding-policies forwarding-policy *named-item-64* next-hop-group *number* backup-next-hop |
| Tree | backup-next-hop |
| Introduced | 16.0.R1 |
| Platforms | All |

## next-hop *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Next hop address |
| Context | **configure** router *named-item-64* mpls forwarding-policies forwarding-policy *named-item-64* next-hop-group *number* backup-next-hop next-hop *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | next-hop |
| Introduced | 16.0.R1 |
| Platforms | All |

## pushed-labels [index] *number*

| | |
|---|---|
| Synopsis | Enter the **pushed-labels** list instance |
| Context | **configure** router *named-item-64* mpls forwarding-policies forwarding-policy *named-item-64* next-hop-group *number* backup-next-hop pushed-labels *number* |
| Tree | pushed-labels |
| Max. instances | 10 |
| Introduced | 16.0.R4 |
| Platforms | All |


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### [**index**] *number*

| | |
|---|---|
| Synopsis | Index for push label |
| Context | **configure** router *named-item-64* mpls forwarding-policies forwarding-policy *named-item-64* next-hop-group *number* backup-next-hop pushed-labels *number* |
| Tree | pushed-labels |
| Range | 1 to 10 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **label** *number*

| | |
|---|---|
| Synopsis | Label value |
| Context | **configure** router *named-item-64* mpls forwarding-policies forwarding-policy *named-item-64* next-hop-group *number* backup-next-hop pushed-labels *number* label *number* |
| Tree | label |
| Range | 1 to 1048575 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **load-balancing-weight** *number*

| | |
|---|---|
| Synopsis | Load balancing weight of an NHG entry |
| Context | **configure** router *named-item-64* mpls forwarding-policies forwarding-policy *named-item-64* next-hop-group *number* load-balancing-weight *number* |
| Tree | load-balancing-weight |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **primary-next-hop**

| | |
|---|---|
| Synopsis | Enable the **primary-next-hop** context |


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| | |
|---|---|
| Context | **configure** router *named-item-64* mpls forwarding-policies forwarding-policy *named-item-64* next-hop-group *number* primary-next-hop |
| Tree | primary-next-hop |
| Introduced | 16.0.R1 |
| Platforms | All |

### **next-hop** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Next hop address |
| Context | **configure** router *named-item-64* mpls forwarding-policies forwarding-policy *named-item-64* next-hop-group *number* primary-next-hop next-hop *(ipv4-address-no-zone | ipv6-address-no-zone)* |
| Tree | next-hop |
| Introduced | 16.0.R1 |
| Platforms | All |

### **pushed-labels** [index] *number*

| | |
|---|---|
| Synopsis | Enter the **pushed-labels** list instance |
| Context | **configure** router *named-item-64* mpls forwarding-policies forwarding-policy *named-item-64* next-hop-group *number* primary-next-hop pushed-labels *number* |
| Tree | pushed-labels |
| Max. instances | 10 |
| Introduced | 16.0.R4 |
| Platforms | All |

### [**index**] *number*

| | |
|---|---|
| Synopsis | Index for push label |
| Context | **configure** router *named-item-64* mpls forwarding-policies forwarding-policy *named-item-64* next-hop-group *number* primary-next-hop pushed-labels *number* |
| Tree | pushed-labels |
| Range | 1 to 10 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **label** *number*

| | |
|---|---|
| Synopsis | Label value |
| Context | **configure** router *named-item-64* mpls forwarding-policies forwarding-policy *named-item-64* next-hop-group *number* primary-next-hop pushed-labels *number* label *number* |
| Tree | label |
| Range | 1 to 1048575 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **resolution-type** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Resolution type for next hop group |
| Context | **configure** router *named-item-64* mpls forwarding-policies forwarding-policy *named-item-64* next-hop-group *number* resolution-type *keyword* |
| Tree | resolution-type |
| Options | direct, indirect |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **preference** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Preference number |
| Context | **configure** router *named-item-64* mpls forwarding-policies forwarding-policy *named-item-64* preference *number* |
| Tree | preference |
| Range | 1 to 255 |


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| | |
|---|---|
| Default | 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **revert-timer** *number*

| | |
|---|---|
| Synopsis | Revert timer |
| Context | **configure** router *named-item-64* mpls forwarding-policies forwarding-policy *named-item-64* revert-timer *number* |
| Tree | revert-timer |
| Range | 1 to 600 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **tunnel-table-pref** *number*

| | |
|---|---|
| Synopsis | Tunnel table preference |
| Context | **configure** router *named-item-64* mpls forwarding-policies forwarding-policy *named-item-64* tunnel-table-pref *number* |
| Tree | tunnel-table-pref |
| Description | This command configures the TTM preference value of an MPLS forwarding policy. It is used by applications to select one tunnel type to bind to in TTM when multiple tunnel types are enabled for the application.<br><br>It is recommended to not set two or more tunnel types to the same preference value. In such a situation, the tunnel table prefers the tunnel type which was first introduced in SR OS implementation historically. |
| Range | 1 to 255 |
| Default | 255 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **reserved-label-block** *reference*

**WARNING:**
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| | |
|---|---|
| Synopsis | Reserved label block |
| Context | **configure** router *named-item-64* mpls forwarding-policies reserved-label-block *reference* |
| Tree | reserved-label-block |
| Reference | **configure** router *named-item-64* mpls-labels reserved-label-block *named-item-64* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **frr-object** *boolean*

| | |
|---|---|
| Synopsis | Signal with fast reroute object |
| Context | **configure** router *named-item-64* mpls frr-object *boolean* |
| Tree | frr-object |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

## **hold-timer** *number*

| | |
|---|---|
| Synopsis | Hold timer value |
| Context | **configure** router *named-item-64* mpls hold-timer *number* |
| Tree | hold-timer |
| Range | 0 to 1000 |
| Units | seconds |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **ingress-statistics**

| | |
|---|---|
| Synopsis | Enter the **ingress-statistics** context |
| Context | **configure** router *named-item-64* mpls ingress-statistics |
| Tree | ingress-statistics |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **lsp** sender *(ipv4-address-no-zone | ipv6-address-no-zone)* lsp-name *named-item-64*

| | |
|---|---|
| Synopsis | Enter the **lsp** list instance |
| Context | **configure** router *named-item-64* mpls ingress-statistics lsp sender *(ipv4-address-no-zone \| ipv6-address-no-zone)* lsp-name *named-item-64* |
| Tree | lsp |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sender** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Sender address |
| Context | **configure** router *named-item-64* mpls ingress-statistics lsp sender *(ipv4-address-no-zone \| ipv6-address-no-zone)* lsp-name *named-item-64* |
| Tree | lsp |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lsp-name** *named-item-64*

| | |
|---|---|
| Synopsis | LSP name |
| Context | **configure** router *named-item-64* mpls ingress-statistics lsp sender *(ipv4-address-no-zone \| ipv6-address-no-zone)* lsp-name *named-item-64* |
| Tree | lsp |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **accounting-policy** *reference*

| | |
|---|---|
| Synopsis | Accounting policy ID |
| Context | **configure** router *named-item-64* mpls ingress-statistics lsp sender *(ipv4-address-no-zone \| ipv6-address-no-zone)* lsp-name *named-item-64* accounting-policy *reference* |
| Tree | accounting-policy |


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| | |
|---|---|
| Reference | **configure** log accounting-policy *number* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of statistics for the LSP |
| Context | **configure** router *named-item-64* mpls ingress-statistics lsp sender *(ipv4-address-no-zone \| ipv6-address-no-zone)* lsp-name *named-item-64* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

## **collect-stats** *boolean*

| | |
|---|---|
| Synopsis | Collect statistics |
| Context | **configure** router *named-item-64* mpls ingress-statistics lsp sender *(ipv4-address-no-zone \| ipv6-address-no-zone)* lsp-name *named-item-64* collect-stats *boolean* |
| Tree | collect-stats |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **stat-mode** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Stat mode |
| Context | **configure** router *named-item-64* mpls ingress-statistics lsp sender *(ipv4-address-no-zone \| ipv6-address-no-zone)* lsp-name *named-item-64* stat-mode *keyword* |
| Tree | stat-mode |
| Options | per-fc, aggregate |
| Introduced | 21.10.R1 |


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| | |
|---|---|
| Platforms | All |

### **p2mp-template-lsp** sender *(ipv4-address-no-zone | ipv6-address-no-zone)* rsvp-session-name *named-item-64*

| | |
|---|---|
| Synopsis | Enter the **p2mp-template-lsp** list instance |
| Context | **configure** router *named-item-64* mpls ingress-statistics p2mp-template-lsp sender *(ipv4-address-no-zone \| ipv6-address-no-zone)* rsvp-session-name *named-item-64* |
| Tree | p2mp-template-lsp |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sender** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Sender address |
| Context | **configure** router *named-item-64* mpls ingress-statistics p2mp-template-lsp sender *(ipv4-address-no-zone \| ipv6-address-no-zone)* rsvp-session-name *named-item-64* |
| Tree | p2mp-template-lsp |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rsvp-session-name** *named-item-64*

| | |
|---|---|
| Synopsis | RSVP session name |
| Context | **configure** router *named-item-64* mpls ingress-statistics p2mp-template-lsp sender *(ipv4-address-no-zone \| ipv6-address-no-zone)* rsvp-session-name *named-item-64* |
| Tree | p2mp-template-lsp |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **accounting-policy** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Accounting policy ID |
| Context | **configure** router *named-item-64* mpls ingress-statistics p2mp-template-lsp sender *(ipv4-address-no-zone \| ipv6-address-no-zone)* rsvp-session-name *named-item-64* accounting-policy *reference* |
| Tree | accounting-policy |
| Reference | **configure** log accounting-policy *number* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of statistics for the LSP |
| Context | **configure** router *named-item-64* mpls ingress-statistics p2mp-template-lsp sender *(ipv4-address-no-zone \| ipv6-address-no-zone)* rsvp-session-name *named-item-64* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

## **collect-stats** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Collect statistics |
| Context | **configure** router *named-item-64* mpls ingress-statistics p2mp-template-lsp sender *(ipv4-address-no-zone \| ipv6-address-no-zone)* rsvp-session-name *named-item-64* collect-stats *boolean* |
| Tree | collect-stats |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **max-stats** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum number of statistic indices |
| Context | **configure** router *named-item-64* mpls ingress-statistics p2mp-template-lsp sender *(ipv4-address-no-zone \| ipv6-address-no-zone)* rsvp-session-name *named-item-64* max-stats *number* |
| Tree | max-stats |
| Range | 1 to 8191 |
| Default | 8191 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **stat-mode** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Stat mode |
| Context | **configure** router *named-item-64* mpls ingress-statistics p2mp-template-lsp sender *(ipv4-address-no-zone \| ipv6-address-no-zone)* rsvp-session-name *named-item-64* stat-mode *keyword* |
| Tree | stat-mode |
| Options | per-fc, aggregate |
| Introduced | 21.10.R1 |
| Platforms | All |


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### **p2p-template-lsp** sender *(ipv4-address-no-zone | ipv6-address-no-zone)* rsvp-session-name *named-item-64*

| | |
|---|---|
| Synopsis | Enter the **p2p-template-lsp** list instance |
| Context | **configure** router *named-item-64* mpls ingress-statistics p2p-template-lsp sender *(ipv4-address-no-zone \| ipv6-address-no-zone)* rsvp-session-name *named-item-64* |
| Tree | p2p-template-lsp |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sender** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Sender address |
| Context | **configure** router *named-item-64* mpls ingress-statistics p2p-template-lsp sender *(ipv4-address-no-zone \| ipv6-address-no-zone)* rsvp-session-name *named-item-64* |
| Tree | p2p-template-lsp |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rsvp-session-name** *named-item-64*

| | |
|---|---|
| Synopsis | RSVP session name |
| Context | **configure** router *named-item-64* mpls ingress-statistics p2p-template-lsp sender *(ipv4-address-no-zone \| ipv6-address-no-zone)* rsvp-session-name *named-item-64* |
| Tree | p2p-template-lsp |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **accounting-policy** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.


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| | |
|---|---|
| Synopsis | Accounting policy ID |
| Context | **configure** router *named-item-64* mpls ingress-statistics p2p-template-lsp sender *(ipv4-address-no-zone \| ipv6-address-no-zone)* rsvp-session-name *named-item-64* accounting-policy *reference* |
| Tree | accounting-policy |
| Reference | **configure** log accounting-policy *number* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of statistics for the LSP |
| Context | **configure** router *named-item-64* mpls ingress-statistics p2p-template-lsp sender *(ipv4-address-no-zone \| ipv6-address-no-zone)* rsvp-session-name *named-item-64* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

## **collect-stats** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Collect statistics |
| Context | **configure** router *named-item-64* mpls ingress-statistics p2p-template-lsp sender *(ipv4-address-no-zone \| ipv6-address-no-zone)* rsvp-session-name *named-item-64* collect-stats *boolean* |
| Tree | collect-stats |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **max-stats** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum number of statistic indices |
| Context | **configure** router *named-item-64* mpls ingress-statistics p2p-template-lsp sender *(ipv4-address-no-zone \| ipv6-address-no-zone)* rsvp-session-name *named-item-64* max-stats *number* |
| Tree | max-stats |
| Range | 1 to 8191 |
| Default | 8191 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **stat-mode** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Stat mode |
| Context | **configure** router *named-item-64* mpls ingress-statistics p2p-template-lsp sender *(ipv4-address-no-zone \| ipv6-address-no-zone)* rsvp-session-name *named-item-64* stat-mode *keyword* |
| Tree | stat-mode |
| Options | per-fc, aggregate |
| Introduced | 21.10.R1 |
| Platforms | All |

### **interface** [interface-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **interface** list instance |
| Context | **configure** router *named-item-64* mpls interface *reference* |
| Tree | interface |
| Description | Commands in this context configure the attributes for MPLS protocol support on an IP interface. |


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MPLS commands are not executed on an IP interface where MPLS is not enabled. An MPLS interface must be explicitly enabled (admin-state enabled).

The MPLS interface must be admin-state disabled to delete the interface definition.

A corresponding RSVP interface must also be configured. The MPLS interface cannot be deleted without also deleting the RSVP interface.

| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### [**interface-name**] *reference*

| | |
|---|---|
| Synopsis | Router interface name |
| Context | **configure** router *named-item-64* mpls interface *reference* |
| Tree | interface |
| Reference | **configure** router *named-item-64* interface *interface-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-group** *reference*

| | |
|---|---|
| Synopsis | Administrative groups supported by the interface |
| Context | **configure** router *named-item-64* mpls interface *reference* admin-group *reference* |
| Tree | admin-group |
| Description | This command specifies the administrative groups that the interface supports.<br>This information is advertised as part of OSPF and IS-IS to help CSPF compute constrained LSPs that must include or exclude certain administrative groups. An MPLS interface is assumed to belong to all the administrative groups unless this command is issued under the interface configuration. With this command configured, the interface is assumed to belong to only the groups specifically configured in this command.<br>Only the administrative groups bound to an MPLS interface are advertised in TE link TLVs and sub-TLVs when the **traffic-engineering** option is enabled in IS-IS or OSPF. IES and VPRN interfaces do not have their attributes advertised in TE TLVs. |
| Reference | **configure** routing-options if-attribute admin-group *named-item* |
| Max. instances | 32 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the MPLS interface |
| Context | **configure** router *named-item-64* mpls interface *reference* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **label-map** [in-label] *number*

| | |
|---|---|
| Synopsis | Enter the **label-map** list instance |
| Context | **configure** router *named-item-64* mpls interface *reference* label-map *number* |
| Tree | label-map |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**in-label**] *number*

| | |
|---|---|
| Synopsis | Match the incoming MPLS label |
| Context | **configure** router *named-item-64* mpls interface *reference* label-map *number* |
| Tree | label-map |
| Range | 32 to 1048575 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the label map |
| Context | **configure** router *named-item-64* mpls interface *reference* label-map *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |


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| | |
|---|---|
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

## pop

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Pop (remove) the incoming label and forward packet based on service header |
| Context | **configure** router *named-item-64* mpls interface *reference* label-map *number* pop |
| Tree | pop |
| Notes | The following elements are part of a choice: **pop** or **swap**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## swap

| | |
|---|---|
| Synopsis | Enable the **swap** context |
| Context | **configure** router *named-item-64* mpls interface *reference* label-map *number* swap |
| Tree | swap |
| Notes | The following elements are part of a choice: **pop** or **swap**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## next-hop *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IP address for the next hop |
| Context | **configure** router *named-item-64* mpls interface *reference* label-map *number* swap next-hop *ipv4-unicast-address* |
| Tree | next-hop |
| Notes | This element is mandatory. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **out-label** *(number | keyword)*

| | |
|---|---|
| Synopsis | Push specific label onto the top of the outgoing packet's label stack |
| Context | **configure** router *named-item-64* mpls interface *reference* label-map *number* swap out-label *(number | keyword)* |
| Tree | out-label |
| Range | 16 to 1048575 |
| Options | implicit-null-label |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **srlg-group** [name] *reference*

| | |
|---|---|
| Synopsis | Add a list entry for **srlg-group** |
| Context | **configure** router *named-item-64* mpls interface *reference* srlg-group *reference* |
| Tree | srlg-group |
| Max. instances | 64 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**name**] *reference*

| | |
|---|---|
| Synopsis | Shared Risk Link Group (SRLG) name |
| Context | **configure** router *named-item-64* mpls interface *reference* srlg-group *reference* |
| Tree | srlg-group |
| Reference | **configure** routing-options if-attribute srlg-group *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **te-metric** *number*

| | |
|---|---|
| Synopsis | TE metric for the interface |
| Context | **configure** router *named-item-64* mpls interface *reference* te-metric *number* |
| Tree | te-metric |
| Range | 1 to 16777215 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **least-fill-min-thd** *number*

| | |
|---|---|
| Synopsis | Percentage of the least fill minimum threshold value |
| Context | **configure** router *named-item-64* mpls least-fill-min-thd *number* |
| Tree | least-fill-min-thd |
| Range | 0 to 100 |
| Units | percent |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **least-fill-reoptim-thd** *number*

| | |
|---|---|
| Synopsis | Percentage of the least fill reoptimization threshold value |
| Context | **configure** router *named-item-64* mpls least-fill-reoptim-thd *number* |
| Tree | least-fill-reoptim-thd |
| Range | 0 to 100 |
| Units | percent |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **logger-event-bundling** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Merge and bundle MPLS traps |
| Context | **configure** router *named-item-64* mpls logger-event-bundling *boolean* |
| Tree | logger-event-bundling |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lsp** [lsp-name] *named-item-64*

| | |
|---|---|
| Synopsis | Enter the **lsp** list instance |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* |
| Tree | lsp |
| Description | Commands in this context create or configure an LSP that is either signaled dynamically by the router, or is a statically provisioned MPLS-TP LSP.<br>Use the **to** command to specify the egress router. At least one **primary** or **secondary** path (for signaled LSPs or at least one working path for MPL-TP LSPs) must be specified when the LSP is created. All other statements under the LSP hierarchy are optional. |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**lsp-name**] *named-item-64*

| | |
|---|---|
| Synopsis | Labeled Switch path name |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* |
| Tree | lsp |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **adaptive** *boolean*

| | |
|---|---|
| Synopsis | Enable make-before-break functionality |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* adaptive *boolean* |
| Tree | adaptive |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the LSP |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-tag** [name] *reference*

| | |
|---|---|
| Synopsis | Add a list entry for **admin-tag** |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* admin-tag *reference* |
| Tree | admin-tag |
| Max. instances | 4 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**name**] *reference*

| | |
|---|---|
| Synopsis | Name of the admin tags |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* admin-tag *reference* |
| Tree | admin-tag |
| Reference | **configure** routing-options admin-tags admin-tag *string* |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **adspec** *boolean*

| | |
|---|---|
| Synopsis | Include ADSPEC object in RSVP messages |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* adspec *boolean* |
| Tree | adspec |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **auto-bandwidth**

| | |
|---|---|
| Synopsis | Enable the **auto-bandwidth** context |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* auto-bandwidth |
| Tree | auto-bandwidth |
| Introduced | 16.0.R1 |
| Platforms | All |

### **adjust-down**

| | |
|---|---|
| Synopsis | Enter the **adjust-down** context |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* auto-bandwidth adjust-down |
| Tree | adjust-down |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bw** *number*

| | |
|---|---|
| Synopsis | Minimum difference in absolute bandwidth |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* auto-bandwidth adjust-down bw *number* |
| Tree | bw |


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| | |
|---|---|
| Range | 0 to 6400000 |
| Units | megabps |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **percent** *number*

| | |
|---|---|
| Synopsis | Minimum difference in percent |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* auto-bandwidth adjust-down percent *number* |
| Tree | percent |
| Range | 0 to 100 |
| Units | percent |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **adjust-up**

| | |
|---|---|
| Synopsis | Enter the **adjust-up** context |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* auto-bandwidth adjust-up |
| Tree | adjust-up |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bw** *number*

| | |
|---|---|
| Synopsis | Minimum difference in absolute bandwidth |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* auto-bandwidth adjust-up bw *number* |
| Tree | bw |
| Range | 0 to 6400000 |
| Units | megabps |
| Default | 0 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **percent** *number*

| | |
|---|---|
| Synopsis | Minimum difference in percent |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* auto-bandwidth adjust-up percent *number* |
| Tree | percent |
| Range | 0 to 100 |
| Units | percent |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **fc** [fc-name] *keyword*

| | |
|---|---|
| Synopsis | Enter the **fc** list instance |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* auto-bandwidth fc *keyword* |
| Tree | fc |
| Max. instances | 8 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**fc-name**] *keyword*

| | |
|---|---|
| Synopsis | Forwarding class name for LSP |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* auto-bandwidth fc *keyword* |
| Tree | fc |
| Options | be – Best effort<br>l2 – Low 2 (best effort)<br>af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority)<br>ef – Expedited forwarding (high priority)<br>h1 – High 1 (high priority)<br>nc – Network control (high priority) |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **sampling-weight** *number*

| | |
|---|---|
| Synopsis | Forwarding class weight for LSP |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* auto-bandwidth fc *keyword* sampling-weight *number* |
| Tree | sampling-weight |
| Range | 0 to 100 |
| Units | percent |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **max-bandwidth** *number*

| | |
|---|---|
| Synopsis | Maximum bandwidth of auto-bandwidth to request for LSP |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* auto-bandwidth max-bandwidth *number* |
| Tree | max-bandwidth |
| Range | 0 to 6400000 |
| Units | megabps |
| Default | 100000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **min-bandwidth** *number*

| | |
|---|---|
| Synopsis | Minimum bandwidth of auto-bandwidth to request for the LSP |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* auto-bandwidth min-bandwidth *number* |
| Tree | min-bandwidth |
| Range | 0 to 6400000 |
| Units | megabps |
| Default | 0 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **monitor-bandwidth** *boolean*

| | |
|---|---|
| Synopsis | Collect and display auto-bandwidth measurements for the LSP |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* auto-bandwidth monitor-bandwidth *boolean* |
| Tree | monitor-bandwidth |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **multipliers**

| | |
|---|---|
| Synopsis | Enter the **multipliers** context |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* auto-bandwidth multipliers |
| Tree | multipliers |
| Introduced | 16.0.R1 |
| Platforms | All |

### **adjust-multiplier** *number*

| | |
|---|---|
| Synopsis | Number of collection intervals in the adjust interval |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* auto-bandwidth multipliers adjust-multiplier *number* |
| Tree | adjust-multiplier |
| Range | 1 to 16383 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sample-multiplier** *number*

| | |
|---|---|
| Synopsis | Multiplier for collection intervals in a sample interval |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* auto-bandwidth multipliers sample-multiplier *number* |


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| | |
|---|---|
| Tree | sample-multiplier |
| Range | 1 to 511 |
| Introduced | 16.0.R1 |
| Platforms | All |

### overflow-limit

| | |
|---|---|
| Synopsis | Enable the **overflow-limit** context |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* auto-bandwidth overflow-limit |
| Tree | overflow-limit |
| Introduced | 16.0.R1 |
| Platforms | All |

### bw *number*

| | |
|---|---|
| Synopsis | Minimum difference in absolute bandwidth |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* auto-bandwidth overflow-limit bw *number* |
| Tree | bw |
| Range | 1 to 6400000 |
| Units | megabps |
| Introduced | 16.0.R1 |
| Platforms | All |

### number *number*

| | |
|---|---|
| Synopsis | Number of overflow samples to trigger an overflow auto-bandwidth adjustment attempt |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* auto-bandwidth overflow-limit number *number* |
| Tree | number |
| Range | 1 to 10 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **threshold** *number*

| | |
|---|---|
| Synopsis | Minimum difference in percent between the LSP bandwidth and the sampled data rate |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* auto-bandwidth overflow-limit threshold *number* |
| Tree | threshold |
| Range | 0 to 100 |
| Units | percent |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **underflow-limit**

| | |
|---|---|
| Synopsis | Enable the **underflow-limit** context |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* auto-bandwidth underflow-limit |
| Tree | underflow-limit |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bw** *number*

| | |
|---|---|
| Synopsis | Minimum difference in absolute bandwidth |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* auto-bandwidth underflow-limit bw *number* |
| Tree | bw |
| Range | 1 to 6400000 |
| Units | megabps |
| Introduced | 16.0.R1 |
| Platforms | All |

### **number** *number*

| | |
|---|---|
| Synopsis | Number of overflow samples to trigger an overflow auto-bandwidth adjustment attempt |


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| | |
|---|---|
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* auto-bandwidth underflow-limit number *number* |
| Tree | number |
| Range | 1 to 10 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **threshold** *number*

| | |
|---|---|
| Synopsis | Minimum difference in percent between the LSP bandwidth and the sampled data rate |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* auto-bandwidth underflow-limit threshold *number* |
| Tree | threshold |
| Range | 0 to 100 |
| Units | percent |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **use-last-adj-bw**

| | |
|---|---|
| Synopsis | Enable the **use-last-adj-bw** context |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* auto-bandwidth use-last-adj-bw |
| Tree | use-last-adj-bw |
| Introduced | 16.0.R5 |
| Platforms | All |

## **secondary-retry-limit** *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum number of retry limits for secondary paths |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* auto-bandwidth use-last-adj-bw secondary-retry-limit *(number | keyword)* |
| Tree | secondary-retry-limit |


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| | |
|---|---|
| Description | This command configures the maximum number of retry attempts for secondary paths. After each successful attempt, the counter is reset to zero. |
| Range | 1 to 10000 |
| Options | infinite |
| Default | 5 |
| Introduced | 16.0.R5 |
| Platforms | All |

## bfd

| | |
|---|---|
| Synopsis | Enter the **bfd** context |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* bfd |
| Tree | bfd |
| Description | Commands in this context configure BFD on RSVP LSPs or Seamless BFD on SR-TE LSPs. |
| Introduced | 16.0.R1 |
| Platforms | All |

## bfd-liveness *boolean*

| | |
|---|---|
| Synopsis | Enable BFD on the RSVP LSP or S-BFD on the SR-TE LSP |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* bfd bfd-liveness *boolean* |
| Tree | bfd-liveness |
| Description | When configured to **true**, LSP BFD is enabled on the RSVP LSP or S-BFD is enabled for the SR-TE LSP.<br>LSP BFD must also be configured under the **configure router** context. The named BFD template provides the configuration settings for the BFD session, which must be configured and associated with the service using the BFD template.<br>When configured to **false**, LSP BFD is disabled on the RSVP LSP or S-BFD on the SR-TE LSP. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## bfd-template *reference*

| | |
|---|---|
| Synopsis | BFD template to be used by LSP BFD sessions |


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| | |
|---|---|
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* bfd bfd-template *reference* |
| Tree | bfd-template |
| Reference | **configure** bfd bfd-template *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **failure-action** *keyword*

| | |
|---|---|
| Synopsis | Action when LSP BFD fails on the RSVP SR-TE LSP |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* bfd failure-action *keyword* |
| Tree | failure-action |
| Description | The command specifies the action when LSP BFD fails on an RSVP, SR-TE, or LDP LSP.<br>Regardless of the failure action specified, when the BFD session goes down on the LSP, the system generates an SNMP trap. |
| Options | none, down, failover, failover-or-down |
| Default | none |
| Introduced | 16.0.R1 |
| Platforms | All |

## **lsp-ping-interval** *(number | keyword)*

| | |
|---|---|
| Synopsis | Interval for periodic LSP ping for BFD bootstrapping |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* bfd lsp-ping-interval *(number \| keyword)* |
| Tree | lsp-ping-interval |
| Range | 60 to 300 |
| Units | seconds |
| Options | none |
| Default | 60 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **return-path-label** *number*

| | |
|---|---|
| Synopsis | S-BFD return-path label |


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| | |
|---|---|
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* bfd return-path-label *number* |
| Tree | return-path-label |
| Description | This command configures the S-BFD session to echo mode and adds an additional MPLS label to the bottom of the label stack for the S-BFD packet.<br>The command applies to the initiator of the S-BFD sessions. The return-path label may be a binding SID for an SR policy or other MPLS path configured on the reflector router. Instead of being routed through the IGP path, the S-BFD packet returns to the initiator through this MPLS return path.<br>If the command is deleted, S-BFD returns to asynchronous mode and no return-path label is pushed by the initiator node. Any S-BFD packets for this LSP or path that the reflector receives are routed through the IGP path. |
| Range | 32 to 1048575 |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **source-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source address for the S-BFD packets |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* bfd source-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | source-address |
| Description | This command configures a source address for the S-BFD packets sent on the SR-TE LSP. If this command is not configured, the system uses the LSP **from** address, where applicable. Otherwise, the system uses the system IPv4 address for IPv4 SR-TE LSPs or the IPv6 address corresponding to the IPv6 TE router ID for IPv6 SR-TE LSPs. |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **wait-for-up-timer** *number*

| | |
|---|---|
| Synopsis | Time to wait for BFD to become operationally available |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* bfd wait-for-up-timer *number* |
| Tree | wait-for-up-timer |
| Description | This command configures the time to wait for BFD to become operationally up. The timer is applicable to SR-TE LSPs, including auto LSPs and PCE-initiated LSPS, as well RSVP-TE LSPs.<br>For SR-TE LSPs, the timer takes effect when BFD is first enabled on a path or when BFD transitions from up to down. Upon expiration, if BFD is not up, the path is torn down, removed from the TTM and the IOM, and the system starts the retry timer. |


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For RSVP-TE LSPs, the timer controls the following:

- a path undergoing MBB when BFD is up
- the initial administrative state of the LSP
- the retry signaling of non-standby secondary paths

| | |
|---|---|
| Range | 1 to 60 |
| Units | seconds |
| Default | 4 |
| Introduced | 19.7.R1 |
| Platforms | All |

### **bgp-shortcut** *boolean*

| | |
|---|---|
| Synopsis | Include LSP for BGP routes |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* bgp-shortcut *boolean* |
| Tree | bgp-shortcut |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bgp-transport-tunnel** *boolean*

| | |
|---|---|
| Synopsis | Include LSP as transport LSP for labeled BGP routes |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* bgp-transport-tunnel *boolean* |
| Tree | bgp-transport-tunnel |
| Introduced | 16.0.R1 |
| Platforms | All |

### **binding-sid** *number*

| | |
|---|---|
| Synopsis | Binding SID for the LSP |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* binding-sid *number* |
| Tree | binding-sid |
| Description | This command binds a label to the LSP. The label value must belong to the reserved label block that is configured with the **configure router mpls lsp-bsid-block** command. |
| Range | 32 to 1048575 |
| Introduced | 22.10.R1 |


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| | |
|---|---|
| Platforms | All |

## class-forwarding

| | |
|---|---|
| Synopsis | Enable the **class-forwarding** context |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* class-forwarding |
| Tree | class-forwarding |
| Introduced | 16.0.R1 |
| Platforms | All |

## forwarding-set

| | |
|---|---|
| Synopsis | Enter the **forwarding-set** context |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* class-forwarding forwarding-set |
| Tree | forwarding-set |
| Notes | The following elements are part of a choice: (**default-lsp** and **fc**) or **forwarding-set**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## policy *reference*

| | |
|---|---|
| Synopsis | Name for the class based forwarding policy for LSP instances |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* class-forwarding forwarding-set policy *reference* |
| Tree | policy |
| Reference | **configure** router *named-item-64* mpls class-forwarding-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

## set *number*

| | |
|---|---|
| Synopsis | Forwarding set ID |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* class-forwarding forwarding-set set *number* |
| Tree | set |


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| | |
|---|---|
| Range | 1 to 6 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **class-type** *number*

| | |
|---|---|
| Synopsis | Class type for an LSP |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* class-type *number* |
| Tree | class-type |
| Range | 0 to 7 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **egress-statistics**

| | |
|---|---|
| Synopsis | Enable the **egress-statistics** context |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* egress-statistics |
| Tree | egress-statistics |
| Introduced | 16.0.R1 |
| Platforms | All |

### **accounting-policy** *reference*

| | |
|---|---|
| Synopsis | Accounting policy ID |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* egress-statistics accounting-policy *reference* |
| Tree | accounting-policy |
| Reference | **configure** log accounting-policy *number* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of statistics for the LSP |


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| | |
|---|---|
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* egress-statistics admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

## **collect-stats** *boolean*

| | |
|---|---|
| Synopsis | Collect LSP statistics |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* egress-statistics collect-stats *boolean* |
| Tree | collect-stats |
| Description | When configured to **true**, this command enables LSP statistics collection. When you apply accounting policies, the forwarding engine collects data in the appropriate records and by default the CPU obtains and writes the results to the designated billing file.<br>When configured to **false**, the forwarding engine still accumulates statistics. However, the CPU does not write them to the billing file. If you subsequently re-enable this command, the counters written to the billing file include all the traffic collected while the command was disabled. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **stat-mode** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Statistics collection mode |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* egress-statistics stat-mode *keyword* |
| Tree | stat-mode |
| Options | per-fc, aggregate |
| Introduced | 21.10.R1 |
| Platforms | All |


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### **entropy-label** *keyword*

| | |
|---|---|
| Synopsis | Entropy label |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* entropy-label *keyword* |
| Tree | entropy-label |
| Options | false, true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **exclude-admin-group** *reference*

| | |
|---|---|
| Synopsis | Name of admin group excluded when LSP is set up |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* exclude-admin-group *reference* |
| Tree | exclude-admin-group |
| Reference | **configure** routing-options if-attribute admin-group *named-item* |
| Max. instances | 32 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **exclude-node** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Exclude Routers object to be included in the bypass path message |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* exclude-node *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | exclude-node |
| Introduced | 16.0.R1 |
| Platforms | All |

### **fallback-path-computation-method** *keyword*

| | |
|---|---|
| Synopsis | Fallback path computation method |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* fallback-path-computation-method *keyword* |
| Tree | fallback-path-computation-method |


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| | |
|---|---|
| Description | This command specifies the fallback path computation method used if all configured PCEs are down or are signaling overload and the redelegation timer has expired. This method is used regardless of whether the LSP is PCE-controlled and PCE-computed, or only PCE-computed. |
| Options | none, local-cspf |
| Introduced | 21.2.R1 |
| Platforms | All |

## fast-reroute

| | |
|---|---|
| Synopsis | Enable the **fast-reroute** context |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* fast-reroute |
| Tree | fast-reroute |
| Introduced | 16.0.R1 |
| Platforms | All |

## frr-method *keyword*

| | |
|---|---|
| Synopsis | Fast Reroute method |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* fast-reroute frr-method *keyword* |
| Tree | frr-method |
| Options | one-to-one, facility |
| Introduced | 16.0.R1 |
| Platforms | All |

## hop-limit *number*

| | |
|---|---|
| Synopsis | Total number of hops a detour or backup LSP can take |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* fast-reroute hop-limit *number* |
| Tree | hop-limit |
| Range | 0 to 255 |
| Default | 16 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **node-protect** *boolean*

| | |
|---|---|
| Synopsis | Enable node and link protection for the specified LSP |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* fast-reroute node-protect *boolean* |
| Tree | node-protect |
| Introduced | 16.0.R1 |
| Platforms | All |

### **propagate-admin-group** *boolean*

| | |
|---|---|
| Synopsis | Enable admin group constraints on a FRR backup LSP |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* fast-reroute propagate-admin-group *boolean* |
| Tree | propagate-admin-group |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **from** *(ipv4-address-no-zone | ipv6-address-no-zone)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Source IP address of this LSP |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* from *(ipv4-address-no-zone | ipv6-address-no-zone)* |
| Tree | from |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hop-limit** *number*

| | |
|---|---|
| Synopsis | Maximum number of hops that an LSP can traverse including ingress and egress routers |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* hop-limit *number* |


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| | |
|---|---|
| Tree | hop-limit |
| Range | 2 to 255 |
| Default | 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

## igp-shortcut

| | |
|---|---|
| Synopsis | Enter the **igp-shortcut** context |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* igp-shortcut |
| Tree | igp-shortcut |
| Introduced | 16.0.R1 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of LSP for shortcut or forwarding |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* igp-shortcut admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Introduced | 16.0.R1 |
| Platforms | All |

## allow-sr-over-srte *boolean*

| | |
|---|---|
| Synopsis | Use as eligible SRv4 or SRv6 IGP shortcut |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* igp-shortcut allow-sr-over-srte *boolean* |
| Tree | allow-sr-over-srte |
| Description | When configured to **true**, the router performs the local SPF and the SR-TE LSP is used as an eligible IGP SR-MPLS shortcut for SR-MPLS SRv4 or SRv6 only if the SR-TE is explicitly allowed using this command when the top SID in the SR-TE LSP is an adjacency SID. |
| Default | false |
| Introduced | 23.3.R1 |


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| | |
|---|---|
| Platforms | All |

### **lfa-type** *keyword*

| | |
|---|---|
| Synopsis | LSP usage in LFA SPF |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* igp-shortcut lfa-type *keyword* |
| Tree | lfa-type |
| Options | lfa-protect, lfa-only |
| Notes | The following elements are part of a choice: **lfa-type** or **relative-metric**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **relative-metric** *number*

| | |
|---|---|
| Synopsis | Shortest IGP cost between the endpoints of the LSP plus the configured offset |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* igp-shortcut relative-metric *number* |
| Tree | relative-metric |
| Range | -10 to 10 |
| Notes | The following elements are part of a choice: **lfa-type** or **relative-metric**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **include-admin-group** *reference*

| | |
|---|---|
| Synopsis | Admin group name included when LSP is set up |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* include-admin-group *reference* |
| Tree | include-admin-group |
| Reference | **configure** routing-options if-attribute admin-group *named-item* |
| Max. instances | 32 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **label-stack-reduction** *boolean*

| | |
|---|---|
| Synopsis | Enable label compression for LSP path |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* label-stack-reduction *boolean* |
| Tree | label-stack-reduction |
| Default | false |
| Introduced | 19.7.R1 |
| Platforms | All |

### **ldp-over-rsvp** *boolean*

| | |
|---|---|
| Synopsis | Include this LSP in LDP over RSVP |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* ldp-over-rsvp *boolean* |
| Tree | ldp-over-rsvp |
| Introduced | 16.0.R1 |
| Platforms | All |

### **least-fill** *boolean*

| | |
|---|---|
| Synopsis | Enable least-fill path selection for this LSP |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* least-fill *boolean* |
| Tree | least-fill |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **load-balancing-weight** *number*

| | |
|---|---|
| Synopsis | Load balancing weight for an MPLS LSP |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* load-balancing-weight *number* |
| Tree | load-balancing-weight |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **local-sr-protection** *keyword*

| | |
|---|---|
| Synopsis | Local SR protection preference for LSP path computation |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* local-sr-protection *keyword* |
| Tree | local-sr-protection |
| Options | none, preferred, mandatory |
| Default | preferred |
| Introduced | 19.7.R1 |
| Platforms | All |

### **lsp-self-ping** *keyword*

| | |
|---|---|
| Synopsis | LSP Self Ping activation status on the RSVP-TE LSP |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* lsp-self-ping *keyword* |
| Tree | lsp-self-ping |
| Description | When configured, the system uses this setting for the LSP regardless of the value configured under **configure router mpls lsp-self-ping rsvp-te**.<br>When unconfigured, the command inherits the value configured under **configure router mpls lsp-self-ping rsvp-te**. |
| Options | false, true |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **main-ct-retry-limit** *number*

| | |
|---|---|
| Synopsis | Maximum number of retries before reverting to backup CT |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* main-ct-retry-limit *number* |
| Tree | main-ct-retry-limit |
| Range | 1 to 10000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **max-sr-labels**

| | |
|---|---|
| Synopsis | Enter the **max-sr-labels** context |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* max-sr-labels |


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| | |
|---|---|
| Tree | max-sr-labels |
| Introduced | 16.0.R1 |
| Platforms | All |

### **additional-frr-labels** *number*

| | |
|---|---|
| Synopsis | Value for the maximum additional overhead labels |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* max-sr-labels additional-frr-labels *number* |
| Tree | additional-frr-labels |
| Range | 0 to 4 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **label-stack-size** *number*

| | |
|---|---|
| Synopsis | Maximum label stack size |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* max-sr-labels label-stack-size *number* |
| Tree | label-stack-size |
| Description | This command configures the maximum label stack size of the primary path of the SR-TE LSP. |
| Range | 1 to 11 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **metric** *number*

| | |
|---|---|
| Synopsis | LSP metric that forces to a constant value |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* metric *number* |
| Tree | metric |
| Range | 0 to 16777215 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **metric-type** *keyword*

| | |
|---|---|
| Synopsis | Metric type used for LSP path computation |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* metric-type *keyword* |
| Tree | metric-type |
| Options | igp, te, delay |
| Default | igp |
| Introduced | 19.7.R1 |
| Platforms | All |

### **override-tunnel-elc** *boolean*

| | |
|---|---|
| Synopsis | Override any received entropy label capability |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* override-tunnel-elc *boolean* |
| Tree | override-tunnel-elc |
| Description | When configured to **true**, this command allows the system to override any received entropy label capability advertisement.<br>When configured to **false**, this command disables the override. |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | All |

### **p2mp-id** *number*

| | |
|---|---|
| Synopsis | Unique identifier as Point-to-Multipoint (P2MP) identifier |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* p2mp-id *number* |
| Tree | p2mp-id |
| Range | 1 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **path-computation-method** *keyword*

| | |
|---|---|
| Synopsis | Path computation method |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* path-computation-method *keyword* |


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| | |
|---|---|
| Tree | path-computation-method |
| Description | This command configures the path computation method of an RSVP-TE or SR-TE LSP.<br>If this command is not configured to one of the supported options, the default path computation method is used depending on the type of LSP; the hop-to-label translation is used for the SR-TE LSP template and the IGP-based path is used for the RSVP-TE-LSP.<br>See "SR-TE LSP path computation using hop-to-label translation" in the *7750 Service Router and 7950 Extensible Routing System Segment Routing nad PCE User Guide* for more information. |
| Options | local-cspf, pce |
| Introduced | 19.7.R1 |
| Platforms | All |

## **path-profile** [profile-id] *number*

| | |
|---|---|
| Synopsis | Enter the **path-profile** list instance |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* path-profile *number* |
| Tree | path-profile |
| Description | Commands in this context configure the attributes of the PCE path profile. |
| Max. instances | 5 |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**profile-id**] *number*

| | |
|---|---|
| Synopsis | Profile ID for the specified LSP |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* path-profile *number* |
| Tree | path-profile |
| Range | 1 to 4294967295 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **path-group** *number*

| | |
|---|---|
| Synopsis | Path-group ID for the specified LSP |


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| | |
|---|---|
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* path-profile *number* path-group *number* |
| Tree | path-group |
| Max. range | 0 to 4294967295 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

## pce-associations

| | |
|---|---|
| Synopsis | Enter the **pce-associations** context |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* pce-associations |
| Tree | pce-associations |
| Description | Commands in this context configure the LSP binding with one or more PCEP associations. |
| Introduced | 22.5.R1 |
| Platforms | All |

## **diversity** [diversity-name] *reference*

| | |
|---|---|
| Synopsis | Add a list entry for **diversity** |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* pce-associations diversity *reference* |
| Tree | diversity |
| Description | Commands in this context bind the LSP to a named diversity association. The diversity association must exist under the PCC. |
| Max. instances | 5 |
| Introduced | 22.5.R1 |
| Platforms | All |

## [**diversity-name**] *reference*

| | |
|---|---|
| Synopsis | Name of the PCE association configured under the PCC |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* pce-associations diversity *reference* |
| Tree | diversity |


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| | |
|---|---|
| Reference | **configure** router *named-item-64* pcep pcc pce-associations diversity *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 22.5.R1 |
| Platforms | All |

## **policy** [policy-name] *reference*

| | |
|---|---|
| Synopsis | Add a list entry for **policy** |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* pce-associations policy *reference* |
| Tree | policy |
| Description | Commands in this context bind the LSP to a named policy association. The policy association name must exist under the PCC. |
| Max. instances | 5 |
| Introduced | 22.5.R1 |
| Platforms | All |

## [**policy-name**] *reference*

| | |
|---|---|
| Synopsis | Name of the PCE association configured under the PCC |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* pce-associations policy *reference* |
| Tree | policy |
| Reference | **configure** router *named-item-64* pcep pcc pce-associations policy *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 22.5.R1 |
| Platforms | All |

## **pce-control** *boolean*

| | |
|---|---|
| Synopsis | Enable PCE controlled LSP mode of operation |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* pce-control *boolean* |
| Tree | pce-control |
| Description | When configured to **true**, this command enables a PCE-controlled mode of operation for the LSP. In this mode, the router delegates full control of the LSP to the PCE (PCE controlled). The PCE acts in stateful-active mode for this LSP and is able to reroute the |


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| | |
|---|---|
| | path following a failure or to re-optimize the path and update the router without a request from the router.<br>When configured to **false**, the PCE-controlled mode of operation for the LSP has no effect. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **pce-report** *keyword*

| | |
|---|---|
| Synopsis | Global configuration of reporting to PCE to override |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* pce-report *keyword* |
| Tree | pce-report |
| Options | false, true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **primary** [path-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **primary** list instance |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* primary *reference* |
| Tree | primary |
| Description | Commands in this context configure a preferred path for the LSP. This command is optional only if the secondary path name is included in the LSP definition. Only one primary path can be defined for an LSP.<br>Some attributes of the LSP, such as the bandwidth and hop-limit can be optionally specified as the attributes of the primary path. The attributes specified in this command override the LSP attributes. |
| Max. instances | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**path-name**] *reference*

| | |
|---|---|
| Synopsis | Path name |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* primary *reference* |


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| | |
|---|---|
| Tree | primary |
| Reference | **configure** router *named-item-64* mpls path *named-item-64* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **adaptive** *boolean*

| | |
|---|---|
| Synopsis | Enable make-before-break functionality |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* primary *reference* adaptive *boolean* |
| Tree | adaptive |
| Introduced | 16.0.R1 |
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the LSP path |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* primary *reference* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

## **backup-class-type** *number*

| | |
|---|---|
| Synopsis | Class-type for the LSP or LSP path |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* primary *reference* backup-class-type *number* |
| Tree | backup-class-type |
| Range | 0 to 7 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **bandwidth** *number*

| | |
|---|---|
| Synopsis | Amount of bandwidth to be reserved |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* primary *reference* bandwidth *number* |
| Tree | bandwidth |
| Range | 0 to 6400000 |
| Units | megabps |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bfd**

| | |
|---|---|
| Synopsis | Enter the **bfd** context |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* primary *reference* bfd |
| Tree | bfd |
| Description | Commands in this context configure BFD on RSVP LSPs or Seamless BFD (S-BFD) on SR-TE LSPs. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bfd-liveness** *boolean*

| | |
|---|---|
| Synopsis | Enable BFD on the RSVP LSP or S-BFD on the SR-TE LSP |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* primary *reference* bfd bfd-liveness *boolean* |
| Tree | bfd-liveness |
| Description | When configured to **true**, LSP BFD is enabled on the RSVP LSP or S-BFD is enabled for the SR-TE LSP.<br>LSP BFD must also be configured under the **configure router** context. The named BFD template provides the configuration settings for the BFD session, which must be configured and associated with the service using the BFD template.<br>When configured to **false**, LSP BFD is disabled on the RSVP LSP or S-BFD on the SR-TE LSP. |
| Default | false |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **bfd-template** *reference*

| | |
|---|---|
| Synopsis | BFD template to be used by LSP BFD sessions |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* primary *reference* bfd bfd-template *reference* |
| Tree | bfd-template |
| Reference | **configure** bfd bfd-template *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lsp-ping-interval** *(number | keyword)*

| | |
|---|---|
| Synopsis | Interval for periodic LSP ping for BFD bootstrapping |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* primary *reference* bfd lsp-ping-interval *(number | keyword)* |
| Tree | lsp-ping-interval |
| Range | 60 to 300 |
| Units | seconds |
| Options | none |
| Default | 60 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **return-path-label** *number*

| | |
|---|---|
| Synopsis | S-BFD return-path label |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* primary *reference* bfd return-path-label *number* |
| Tree | return-path-label |
| Description | This command configures the S-BFD session to echo mode and adds an additional MPLS label to the bottom of the label stack for the S-BFD packet.<br><br>The command applies to the initiator of the S-BFD sessions. The return-path label may be a binding SID for an SR policy or other MPLS path configured on the reflector router. Instead of being routed through the IGP path, the S-BFD packet returns to the initiator through this MPLS return path. |


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If the command is deleted, S-BFD returns to asynchronous mode and no return-path label is pushed by the initiator node. Any S-BFD packets for this LSP or path that the reflector receives are routed through the IGP path.

Range 32 to 1048575

Introduced 22.2.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS

## **source-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

Synopsis Source address for S-BFD packets

Context **configure** router *named-item-64* mpls lsp *named-item-64* primary *reference* bfd source-address *(ipv4-address-no-zone | ipv6-address-no-zone)*

Tree source-address

Description This command configures a source address for the S-BFD packets sent on the SR-TE LSP path. The system uses the LSP **from** address, where applicable. Otherwise, the system uses the system IPv4 address for IPv4 SR-TE LSPs or the IPv6 address corresponding to the IPv6 TE router ID for IPv6 SR-TE LSPs.

Introduced 24.10.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS

## **wait-for-up-timer** *number*

Synopsis Time to wait for BFD to become operationally available

Context **configure** router *named-item-64* mpls lsp *named-item-64* primary *reference* bfd wait-for-up-timer *number*

Tree wait-for-up-timer

Description This command configures the time to wait for BFD to become operationally up. The timer is applicable to SR-TE LSPs, including auto LSPs and PCE-initiated LSPS, as well RSVP-TE LSPs.

For SR-TE LSPs, the timer takes effect when BFD is first enabled on a path or when BFD transitions from up to down. Upon expiration, if BFD is not up, the path is torn down, removed from the TTM and the IOM, and the system starts the retry timer.

For RSVP-TE LSPs, the timer controls the following:

- a path undergoing MBB when BFD is up
- the initial administrative state of the LSP
- the retry signaling of non-standby secondary paths

Range 1 to 60

Units seconds


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| | |
|---|---|
| Default | 4 |
| Introduced | 19.7.R1 |
| Platforms | All |

## **class-type** *number*

| | |
|---|---|
| Synopsis | Class-type |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* primary *reference* class-type *number* |
| Tree | class-type |
| Range | 0 to 7 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **delay-metric-limit** *number*

| | |
|---|---|
| Synopsis | Delay metric limit |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* primary *reference* delay-metric-limit *number* |
| Tree | delay-metric-limit |
| Description | This command configures the upper limit of the delay metric used by the local CSPF in the LSP path computation. The computation uses this configuration value only if the metric type is configured to **delay** in the **configure router mpls lsp metric-type** context.<br><br>If the configured metric type is **delay** and this command is not configured, the computation selects the lowest latency path. |
| Range | 1 to 16777215 |
| Units | microseconds |
| Introduced | 24.10.R1 |
| Platforms | All |

## **exclude-admin-group**

| | |
|---|---|
| Synopsis | Enable the **exclude-admin-group** context |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* primary *reference* exclude-admin-group |
| Tree | exclude-admin-group |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## **group** *reference*

| | |
|---|---|
| Synopsis | Groups to exclude when the LSP path is setup |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* primary *reference* exclude-admin-group group *reference* |
| Tree | group |
| Reference | **configure** routing-options if-attribute admin-group *named-item* |
| Max. instances | 32 |
| Min. instances | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **hop-limit** *number*

| | |
|---|---|
| Synopsis | Total number of hops that an LSP traverses |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* primary *reference* hop-limit *number* |
| Tree | hop-limit |
| Range | 2 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **include-admin-group**

| | |
|---|---|
| Synopsis | Enable the **include-admin-group** context |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* primary *reference* include-admin-group |
| Tree | include-admin-group |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **group** *reference*

| | |
|---|---|
| Synopsis | Groups that are included when LSP path is setup |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* primary *reference* include-admin-group group *reference* |
| Tree | group |
| Reference | **configure** routing-options if-attribute admin-group *named-item* |
| Max. instances | 32 |
| Min. instances | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **priority**

| | |
|---|---|
| Synopsis | Enter the **priority** context |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* primary *reference* priority |
| Tree | priority |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hold-priority** *number*

| | |
|---|---|
| Synopsis | Priority of an LSP session at preemption action |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* primary *reference* priority hold-priority *number* |
| Tree | hold-priority |
| Range | 0 to 7 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **setup-priority** *number*

| | |
|---|---|
| Synopsis | Priority when insufficient bandwidth for LSP setup |


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| | |
|---|---|
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* primary *reference* priority setup-priority *number* |
| Tree | setup-priority |
| Range | 0 to 7 |
| Default | 7 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **record** *boolean*

| | |
|---|---|
| Synopsis | Enable recording of all hops that an LSP path traverses |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* primary *reference* record *boolean* |
| Tree | record |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **record-label** *boolean*

| | |
|---|---|
| Synopsis | Enable recording of labels at each node or instance |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* primary *reference* record-label *boolean* |
| Tree | record-label |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **primary-p2mp-instance** [instance-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **primary-p2mp-instance** list instance |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* primary-p2mp-instance *named-item* |
| Tree | primary-p2mp-instance |
| Max. instances | 1 |
| Introduced | 16.0.R4 |


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| | |
|---|---|
| Platforms | All |

### [**instance-name**] *named-item*

| | |
|---|---|
| Synopsis | P2MP LSP instance name |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* primary-p2mp-instance *named-item* |
| Tree | primary-p2mp-instance |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **adaptive** *boolean*

| | |
|---|---|
| Synopsis | Enable make-before-break functionality |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* primary-p2mp-instance *named-item* adaptive *boolean* |
| Tree | adaptive |
| Introduced | 16.0.R4 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the LSP path |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* primary-p2mp-instance *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R4 |
| Platforms | All |

### **bandwidth** *number*

| | |
|---|---|
| Synopsis | Amount of bandwidth to be reserved |


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| | |
|---|---|
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* primary-p2mp-instance *named-item* bandwidth *number* |
| Tree | bandwidth |
| Range | 0 to 6400000 |
| Units | megabps |
| Default | 0 |
| Introduced | 16.0.R4 |
| Platforms | All |

## exclude-admin-group

| | |
|---|---|
| Synopsis | Enable the **exclude-admin-group** context |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* primary-p2mp-instance *named-item* exclude-admin-group |
| Tree | exclude-admin-group |
| Introduced | 16.0.R4 |
| Platforms | All |

## group *reference*

| | |
|---|---|
| Synopsis | Groups to exclude when the LSP path is setup |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* primary-p2mp-instance *named-item* exclude-admin-group group *reference* |
| Tree | group |
| Reference | **configure** routing-options if-attribute admin-group *named-item* |
| Max. instances | 32 |
| Min. instances | 1 |
| Introduced | 16.0.R4 |
| Platforms | All |

## hop-limit *number*

| | |
|---|---|
| Synopsis | Total number of hops that an LSP traverses |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* primary-p2mp-instance *named-item* hop-limit *number* |


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| | |
|---|---|
| Tree | hop-limit |
| Range | 2 to 255 |
| Introduced | 16.0.R4 |
| Platforms | All |

## include-admin-group

| | |
|---|---|
| Synopsis | Enable the **include-admin-group** context |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* primary-p2mp-instance *named-item* include-admin-group |
| Tree | include-admin-group |
| Introduced | 16.0.R4 |
| Platforms | All |

## group *reference*

| | |
|---|---|
| Synopsis | Groups that are included when LSP path is setup |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* primary-p2mp-instance *named-item* include-admin-group group *reference* |
| Tree | group |
| Reference | **configure** routing-options if-attribute admin-group *named-item* |
| Max. instances | 32 |
| Min. instances | 1 |
| Introduced | 16.0.R4 |
| Platforms | All |

## priority

| | |
|---|---|
| Synopsis | Enter the **priority** context |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* primary-p2mp-instance *named-item* priority |
| Tree | priority |
| Introduced | 21.10.R1 |
| Platforms | All |


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### **hold-priority** *number*

| | |
|---|---|
| Synopsis | Hold priority when not enough bandwidth for LSP setup |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* primary-p2mp-instance *named-item* priority hold-priority *number* |
| Tree | hold-priority |
| Range | 0 to 7 |
| Default | 0 |
| Introduced | 21.10.R1 |
| Platforms | All |

### **setup-priority** *number*

| | |
|---|---|
| Synopsis | Priority when insufficient bandwidth for LSP setup |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* primary-p2mp-instance *named-item* priority setup-priority *number* |
| Tree | setup-priority |
| Range | 0 to 7 |
| Default | 7 |
| Introduced | 21.10.R1 |
| Platforms | All |

### **record** *boolean*

| | |
|---|---|
| Synopsis | Enable recording of all hops that an LSP path traverses |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* primary-p2mp-instance *named-item* record *boolean* |
| Tree | record |
| Default | true |
| Introduced | 16.0.R4 |
| Platforms | All |

### **record-label** *boolean*

| | |
|---|---|
| Synopsis | Enable recording of labels at each node or instance |


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| | |
|---|---|
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* primary-p2mp-instance *named-item* record-label *boolean* |
| Tree | record-label |
| Default | true |
| Introduced | 16.0.R4 |
| Platforms | All |

### **s2l-path** [path-name] *reference* to *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Enter the **s2l-path** list instance |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* primary-p2mp-instance *named-item* s2l-path *reference* to *(ipv4-address-no-zone | ipv6-address-no-zone)* |
| Tree | s2l-path |
| Max. instances | 650 |
| Introduced | 16.0.R4 |
| Platforms | All |

### [**path-name**] *reference*

| | |
|---|---|
| Synopsis | P2MP LSP name |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* primary-p2mp-instance *named-item* s2l-path *reference* to *(ipv4-address-no-zone | ipv6-address-no-zone)* |
| Tree | s2l-path |
| Reference | **configure** router *named-item-64* mpls path *named-item-64* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **to** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | System IP address of the egress router |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* primary-p2mp-instance *named-item* s2l-path *reference* to *(ipv4-address-no-zone | ipv6-address-no-zone)* |
| Tree | s2l-path |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the S2L sub-LSP for a P2MP LSP |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* primary-p2mp-instance *named-item* s2l-path *reference* to *(ipv4-address-no-zone \| ipv6-address-no-zone)* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R4 |
| Platforms | All |

### **propagate-admin-group** *boolean*

| | |
|---|---|
| Synopsis | Enable admin groups via session attribute object |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* propagate-admin-group *boolean* |
| Tree | propagate-admin-group |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **retry-limit** *number*

| | |
|---|---|
| Synopsis | Number of attempts to re-establish LSP after it fails |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* retry-limit *number* |
| Tree | retry-limit |
| Range | 1 to 10000 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **retry-timer** *number*

| | |
|---|---|
| Synopsis | Time for LSP re-establishment attempts after failure |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* retry-timer *number* |
| Tree | retry-timer |
| Range | 1 to 600 |
| Units | seconds |
| Default | 30 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **revert-timer** *number*

| | |
|---|---|
| Synopsis | Revert timer for the LSP |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* revert-timer *number* |
| Tree | revert-timer |
| Range | 1 to 4320 |
| Units | minutes |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rsvp-resv-style** *keyword*

| | |
|---|---|
| Synopsis | Reservation style for RSVP |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* rsvp-resv-style *keyword* |
| Tree | rsvp-resv-style |
| Options | se, ff |
| Default | se |
| Introduced | 16.0.R1 |
| Platforms | All |

### **secondary** [path-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **secondary** list instance |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* secondary *reference* |


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| | |
|---|---|
| Tree | secondary |
| Description | Commands in this context configure an alternative path that the LSP uses if the primary path is not available. This command is optional and is not required when the **configure router mpls lsp primary** command is specified. After the switchover from the primary to the secondary, the system continuously tries to revert to the primary path. The switch back to the primary path is based on the retry-timer interval.<br><br>The system does not switch among secondary paths. The system starts the signaling (RSVP-TE) or programming (SR-TE) of all non-standby secondary paths at the same time. Retry counters are maintained for each unsuccessful attempt. After the retry limit is reached on a path, the system does not attempt to signal the path and administratively disables the path. The first successfully established non-standby secondary path is made the active path for the LSP.<br><br>For RSVP-TE LSPs, up to eight secondary paths can be specified (or seven if a primary is configured). For SR-TE LSPs, up to three paths of any type (with a maximum of one primary) can be configured. By default, a secondary path is non-standby unless the **standby** keyword is configured. All non-standby secondary paths are considered equal, and the first available path is used. |
| Max. instances | 8 |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**path-name**] *reference*

| | |
|---|---|
| Synopsis | Path name |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* secondary *reference* |
| Tree | secondary |
| Reference | **configure** router *named-item-64* mpls path *named-item-64* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **adaptive** *boolean*

| | |
|---|---|
| Synopsis | Enable make-before-break functionality |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* secondary *reference* adaptive *boolean* |
| Tree | adaptive |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the LSP path |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* secondary *reference* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

## **bandwidth** *number*

| | |
|---|---|
| Synopsis | Amount of bandwidth to be reserved |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* secondary *reference* bandwidth *number* |
| Tree | bandwidth |
| Range | 0 to 6400000 |
| Units | megabps |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **bfd**

| | |
|---|---|
| Synopsis | Enter the **bfd** context |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* secondary *reference* bfd |
| Tree | bfd |
| Description | Commands in this context configure BFD on RSVP LSPs or Seamless BFD (S-BFD) on SR-TE LSPs. |
| Introduced | 19.7.R1 |
| Platforms | All |


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### **bfd-liveness** *boolean*

| | |
|---|---|
| Synopsis | Enable BFD on the RSVP LSP or S-BFD on the SR-TE LSP |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* secondary *reference* bfd bfd-liveness *boolean* |
| Tree | bfd-liveness |
| Description | When configured to **true**, LSP BFD is enabled on the RSVP LSP or S-BFD is enabled for the SR-TE LSP.<br>LSP BFD must also be configured under the **configure router** context. The named BFD template provides the configuration settings for the BFD session, which must be configured and associated with the service using the BFD template.<br>When configured to **false**, LSP BFD is disabled on the RSVP LSP or S-BFD on the SR-TE LSP. |
| Default | false |
| Introduced | 19.7.R1 |
| Platforms | All |

### **bfd-template** *reference*

| | |
|---|---|
| Synopsis | BFD template to be used by LSP BFD sessions |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* secondary *reference* bfd bfd-template *reference* |
| Tree | bfd-template |
| Reference | **configure** bfd bfd-template *named-item* |
| Introduced | 19.7.R1 |
| Platforms | All |

### **lsp-ping-interval** *(number | keyword)*

| | |
|---|---|
| Synopsis | Interval for periodic LSP ping for BFD bootstrapping |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* secondary *reference* bfd lsp-ping-interval *(number \| keyword)* |
| Tree | lsp-ping-interval |
| Range | 60 to 300 |
| Units | seconds |
| Options | none |
| Default | 60 |


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| | |
|---|---|
| Introduced | 19.7.R1 |
| Platforms | All |

### **return-path-label** *number*

| | |
|---|---|
| Synopsis | S-BFD return-path label |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* secondary *reference* bfd return-path-label *number* |
| Tree | return-path-label |
| Description | This command configures the S-BFD session to echo mode and adds an additional MPLS label to the bottom of the label stack for the S-BFD packet.<br>The command applies to the initiator of the S-BFD sessions. The return-path label may be a binding SID for an SR policy or other MPLS path configured on the reflector router. Instead of being routed through the IGP path, the S-BFD packet returns to the initiator through this MPLS return path.<br>If the command is deleted, S-BFD returns to asynchronous mode and no return-path label is pushed by the initiator node. Any S-BFD packets for this LSP or path that the reflector receives are routed through the IGP path. |
| Range | 32 to 1048575 |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **source-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source address for S-BFD packets |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* secondary *reference* bfd source-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | source-address |
| Description | This command configures a source address for the S-BFD packets sent on the SR-TE LSP path. The system uses the LSP **from** address, where applicable. Otherwise, the system uses the system IPv4 address for IPv4 SR-TE LSPs or the IPv6 address corresponding to the IPv6 TE router ID for IPv6 SR-TE LSPs. |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **wait-for-up-timer** *number*

| | |
|---|---|
| Synopsis | Time to wait for BFD to become operationally available |


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| | |
|---|---|
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* secondary *reference* bfd wait-for-up-timer *number* |
| Tree | wait-for-up-timer |
| Description | This command configures the time to wait for BFD to become operationally up. The timer is applicable to SR-TE LSPs, including auto LSPs and PCE-initiated LSPS, as well RSVP-TE LSPs.<br>For SR-TE LSPs, the timer takes effect when BFD is first enabled on a path or when BFD transitions from up to down. Upon expiration, if BFD is not up, the path is torn down, removed from the TTM and the IOM, and the system starts the retry timer.<br>For RSVP-TE LSPs, the timer controls the following:<br>• a path undergoing MBB when BFD is up<br>• the initial administrative state of the LSP<br>• the retry signaling of non-standby secondary paths |
| Range | 1 to 60 |
| Units | seconds |
| Default | 4 |
| Introduced | 19.7.R1 |
| Platforms | All |

## **class-type** *number*

| | |
|---|---|
| Synopsis | Class-type |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* secondary *reference* class-type *number* |
| Tree | class-type |
| Range | 0 to 7 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **delay-metric-limit** *number*

| | |
|---|---|
| Synopsis | Delay metric limit |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* secondary *reference* delay-metric-limit *number* |
| Tree | delay-metric-limit |
| Description | This command configures the upper limit of the delay metric used by the local CSPF in the LSP path computation. The computation uses this configuration value only if |


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| | |
|---|---|
| | the metric type is configured to **delay** in the **configure router mpls lsp metric-type** context.<br>If the configured metric type is **delay** and this command is not configured, the computation selects the lowest latency path. |
| Range | 1 to 16777215 |
| Units | microseconds |
| Introduced | 24.10.R1 |
| Platforms | All |

## exclude-admin-group

| | |
|---|---|
| Synopsis | Enable the **exclude-admin-group** context |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* secondary *reference* exclude-admin-group |
| Tree | exclude-admin-group |
| Introduced | 16.0.R1 |
| Platforms | All |

## group *reference*

| | |
|---|---|
| Synopsis | Groups to exclude when the LSP path is setup |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* secondary *reference* exclude-admin-group group *reference* |
| Tree | group |
| Reference | **configure** routing-options if-attribute admin-group *named-item* |
| Max. instances | 32 |
| Min. instances | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

## hop-limit *number*

| | |
|---|---|
| Synopsis | Total number of hops that an LSP traverses |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* secondary *reference* hop-limit *number* |


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| | |
|---|---|
| Tree | hop-limit |
| Range | 2 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

## include-admin-group

| | |
|---|---|
| Synopsis | Enable the **include-admin-group** context |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* secondary *reference* include-admin-group |
| Tree | include-admin-group |
| Introduced | 16.0.R1 |
| Platforms | All |

## group *reference*

| | |
|---|---|
| Synopsis | Groups that are included when LSP path is setup |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* secondary *reference* include-admin-group group *reference* |
| Tree | group |
| Reference | **configure** routing-options if-attribute admin-group *named-item* |
| Max. instances | 32 |
| Min. instances | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

## path-preference *number*

| | |
|---|---|
| Synopsis | Path preference for the secondary standby path |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* secondary *reference* path-preference *number* |
| Tree | path-preference |
| Range | 1 to 255 |
| Default | 255 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## priority

| | |
|---|---|
| Synopsis | Enter the **priority** context |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* secondary *reference* priority |
| Tree | priority |
| Introduced | 16.0.R1 |
| Platforms | All |

## hold-priority *number*

| | |
|---|---|
| Synopsis | Priority of an LSP session at preemption action |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* secondary *reference* priority hold-priority *number* |
| Tree | hold-priority |
| Range | 0 to 7 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

## setup-priority *number*

| | |
|---|---|
| Synopsis | Priority when insufficient bandwidth for LSP setup |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* secondary *reference* priority setup-priority *number* |
| Tree | setup-priority |
| Range | 0 to 7 |
| Default | 7 |
| Introduced | 16.0.R1 |
| Platforms | All |

## record *boolean*

| | |
|---|---|
| Synopsis | Enable recording of all hops that an LSP path traverses |


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| | |
|---|---|
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* secondary *reference* record *boolean* |
| Tree | record |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **record-label** *boolean*

| | |
|---|---|
| Synopsis | Enable recording of labels at each node or instance |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* secondary *reference* record-label *boolean* |
| Tree | record-label |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **srlg** *boolean*

| | |
|---|---|
| Synopsis | Use SRLG constraint in secondary path computation for an LSP at the head-end LER |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* secondary *reference* srlg *boolean* |
| Tree | srlg |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **standby** *boolean*

| | |
|---|---|
| Synopsis | Keep secondary path indefinitely in hot standby state |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* secondary *reference* standby *boolean* |
| Tree | standby |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **soft-preemption** *boolean*

| | |
|---|---|
| Synopsis | Enable soft preemption |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* soft-preemption *boolean* |
| Tree | soft-preemption |
| Description | When configured to **true**, the P2MP LSP preemption is governed by the **configure router rsvp preemption-timer** value.<br>When configured to **false**, the preemption timer value is set to 0 and the P2MP LSPs are hard preempted.<br>For P2P LSPs, soft preemption is always enabled and cannot be disabled. |
| Introduced | 22.2.R1 |
| Platforms | All |

### **to** *(ipv4-address-no-zone | ipv6-address-no-zone)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Destination IP address or the egress router for the LSP |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* to *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | to |
| Introduced | 16.0.R1 |
| Platforms | All |

### **type** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | LSP for bypass protection, point to multipoint, segment routing or MPLS-TP static LSP |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* type *keyword* |
| Tree | type |
| Options | p2p-rsvp, p2p-static-mpls, p2p-rsvp-bypass, p2mp-rsvp, p2mp-rsvp-auto, p2p-rsvp-mesh, p2p-rsvp-one-hop, p2p-sr-te, p2p-sr-te-mesh, p2p-sr-te-one-hop, p2p-sr-te-pce-init, p2p-sr-te-on-demand |


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| | |
|---|---|
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **vprn-auto-bind** *boolean*

| | |
|---|---|
| Synopsis | Include this LSP in auto-bind for VPRN services |
| Context | **configure** router *named-item-64* mpls lsp *named-item-64* vprn-auto-bind *boolean* |
| Tree | vprn-auto-bind |
| Introduced | 16.0.R1 |
| Platforms | All |

## **lsp-bsid-block** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Reserved label block for binding SIDs |
| Context | **configure** router *named-item-64* mpls lsp-bsid-block *reference* |
| Tree | lsp-bsid-block |
| Description | This command references a pre-existing reserved label block for statically configured binding SIDs. |
| Reference | **configure** router *named-item-64* mpls-labels reserved-label-block *named-item-64* |
| Introduced | 22.7.R1 |
| Platforms | All |

## **lsp-history**

| | |
|---|---|
| Synopsis | Enable the **lsp-history** context |
| Context | **configure** router *named-item-64* mpls lsp-history |
| Tree | lsp-history |
| Description | Commands in this context control the recording of LSP history events.<br>When the context is deleted, memory is deallocated.<br>When the context is created, memory is allocated for storing up to 100 of the most recent RSVP and SR-TE LSP history events. |


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| | |
|---|---|
| Introduced | 22.10.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of LSP history recording |
| Context | **configure** router *named-item-64* mpls lsp-history admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 22.10.R1 |
| Platforms | All |

### **lsp-init-retry-timeout** *number*

| | |
|---|---|
| Synopsis | LSP initial retry timeout |
| Context | **configure** router *named-item-64* mpls lsp-init-retry-timeout *number* |
| Tree | lsp-init-retry-timeout |
| Range | 10 to 600 |
| Units | seconds |
| Default | 30 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lsp-self-ping**

| | |
|---|---|
| Synopsis | Enter the **lsp-self-ping** context |
| Context | **configure** router *named-item-64* mpls lsp-self-ping |
| Tree | lsp-self-ping |
| Description | Commands in this context configure LSP Self Ping parameters.<br>LSP Self Ping checks that the datapath of an RSVP LSP has been programmed by all LSRs along its path before switching the traffic to it. If enabled, LSP Self Ping packets are sent periodically at a configurable interval following the receipt of the RESV message for an RSVP LSP path following an MBB or other event where the active path changes while the previous active path stayed up. The router will not switch traffic to the new path until an LSP Self Ping reply is received from the far-end LER. |


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When configured under the MPLS context, LSP Self Ping is enabled for all RSVP LSPs, unless it is explicitly disabled for a given LSP.

Introduced 19.10.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS

### **interval** *number*

Synopsis MPLS periodic LSP Self Ping interval

Context **configure** router *named-item-64* mpls lsp-self-ping interval *number*

Tree interval

Description This command configures the interval at which LSP Self Ping packets are periodically sent on a candidate path of an RSVP LSP.

This value is used for all LSPs that have LSP Self Ping enabled.

Range 1 to 10

Units seconds

Default 1

Introduced 19.10.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS

### **rsvp-te** *boolean*

Synopsis Activate LSP Self Ping on RSVP-TE LSPs

Context **configure** router *named-item-64* mpls lsp-self-ping rsvp-te *boolean*

Tree rsvp-te

Description When configured to **true**, this command enables LSP Self Ping on all RSVP-TE LSPs, unless an individual LSP has this explicitly disabled under the **configure router mpls lsp lsp-self-ping** command or in the LSP template.

When configured to **false**, this command disables LSP Self Ping on all RSVP-TE LSPs.

Default false

Introduced 19.10.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS

### **timeout** *number*

Synopsis MPLS LSP Self Ping timeout

Context **configure** router *named-item-64* mpls lsp-self-ping timeout *number*


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| | |
|---|---|
| Tree | timeout |
| Description | This command configures a timeout value for the LSP Self Ping timer.<br>The LSP Self Ping timer starts when the RESV message is received for an LSP. The system periodically sends LSP Self Ping packets until the timer expires or the first LSP Self Ping reply is received, whichever comes first. If the timer expires before an LSP Self Ping packet is received, the configured timeout action is performed. |
| Range | 3 to 3600 |
| Units | seconds |
| Default | 300 |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **timeout-action** *keyword*

| | |
|---|---|
| Synopsis | Action taken when LSP Self Ping timer expires |
| Context | **configure** router *named-item-64* mpls lsp-self-ping timeout-action *keyword* |
| Tree | timeout-action |
| Options | retry, switch |
| Default | retry |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **lsp-template** [template-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **lsp-template** list instance |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* |
| Tree | lsp-template |
| Description | Commands in this context configure the attributes of an LSP template that can be referenced by a client application when dynamic LSPs must be created. |
| Max. instances | 4096 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**template-name**] *named-item*

| | |
|---|---|
| Synopsis | LSP template name |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* |
| Tree | lsp-template |
| Description | This command specifies the name of the LSP template. An LSP template name and LSP name must not be the same. |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **adaptive** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable make-before-break functionality |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* adaptive *boolean* |
| Tree | adaptive |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the LSP template |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **admin-tag** [name] *reference*

| | |
|---|---|
| Synopsis | Add a list entry for **admin-tag** |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* admin-tag *reference* |
| Tree | admin-tag |
| Max. instances | 4 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**name**] *reference*

| | |
|---|---|
| Synopsis | Name of the admin tags |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* admin-tag *reference* |
| Tree | admin-tag |
| Reference | **configure** routing-options admin-tags admin-tag *string* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **adspec** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Include ADSPEC objects in RSVP messages |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* adspec *boolean* |
| Tree | adspec |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **auto-bandwidth**

| | |
|---|---|
| Synopsis | Enable the **auto-bandwidth** context |


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| | |
|---|---|
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* auto-bandwidth |
| Tree | auto-bandwidth |
| Introduced | 16.0.R1 |
| Platforms | All |

## adjust-down

| | |
|---|---|
| Synopsis | Enter the **adjust-down** context |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* auto-bandwidth adjust-down |
| Tree | adjust-down |
| Introduced | 16.0.R1 |
| Platforms | All |

## bw *number*

| | |
|---|---|
| Synopsis | Minimum difference in absolute bandwidth |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* auto-bandwidth adjust-down bw *number* |
| Tree | bw |
| Range | 0 to 6400000 |
| Units | megabps |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

## percent *number*

| | |
|---|---|
| Synopsis | Minimum difference in percent |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* auto-bandwidth adjust-down percent *number* |
| Tree | percent |
| Range | 0 to 100 |
| Units | percent |
| Default | 5 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## adjust-up

| | |
|---|---|
| Synopsis | Enter the **adjust-up** context |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* auto-bandwidth adjust-up |
| Tree | adjust-up |
| Introduced | 16.0.R1 |
| Platforms | All |

## **bw** *number*

| | |
|---|---|
| Synopsis | Minimum difference in absolute bandwidth |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* auto-bandwidth adjust-up bw *number* |
| Tree | bw |
| Range | 0 to 6400000 |
| Units | megabps |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **percent** *number*

| | |
|---|---|
| Synopsis | Minimum difference in percent |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* auto-bandwidth adjust-up percent *number* |
| Tree | percent |
| Range | 0 to 100 |
| Units | percent |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **fc** [fc-name] *keyword*

| | |
|---|---|
| Synopsis | Enter the **fc** list instance |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* auto-bandwidth fc *keyword* |
| Tree | fc |
| Max. instances | 8 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**fc-name**] *keyword*

| | |
|---|---|
| Synopsis | Forwarding class name for LSP |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* auto-bandwidth fc *keyword* |
| Tree | fc |
| Options | be – Best effort<br>l2 – Low 2 (best effort)<br>af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority)<br>ef – Expedited forwarding (high priority)<br>h1 – High 1 (high priority)<br>nc – Network control (high priority) |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sampling-weight** *number*

| | |
|---|---|
| Synopsis | Forwarding class weight for LSP |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* auto-bandwidth fc *keyword* sampling-weight *number* |
| Tree | sampling-weight |
| Range | 0 to 100 |
| Units | percent |
| Default | 100 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **max-bandwidth** *number*

| | |
|---|---|
| Synopsis | Maximum bandwidth of auto-bandwidth to request for LSP |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* auto-bandwidth max-bandwidth *number* |
| Tree | max-bandwidth |
| Range | 0 to 6400000 |
| Units | megabps |
| Default | 100000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **min-bandwidth** *number*

| | |
|---|---|
| Synopsis | Minimum bandwidth of auto-bandwidth to request for the LSP |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* auto-bandwidth min-bandwidth *number* |
| Tree | min-bandwidth |
| Range | 0 to 6400000 |
| Units | megabps |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **monitor-bandwidth** *boolean*

| | |
|---|---|
| Synopsis | Collect and display auto-bandwidth measurements for the LSP |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* auto-bandwidth monitor-bandwidth *boolean* |
| Tree | monitor-bandwidth |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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## multipliers

| | |
|---|---|
| Synopsis | Enter the **multipliers** context |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* auto-bandwidth multipliers |
| Tree | multipliers |
| Introduced | 16.0.R1 |
| Platforms | All |

## adjust-multiplier *number*

| | |
|---|---|
| Synopsis | Number of collection intervals in the adjust interval |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* auto-bandwidth multipliers adjust-multiplier *number* |
| Tree | adjust-multiplier |
| Range | 1 to 16383 |
| Introduced | 16.0.R1 |
| Platforms | All |

## sample-multiplier *number*

| | |
|---|---|
| Synopsis | Multiplier for collection intervals in a sample interval |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* auto-bandwidth multipliers sample-multiplier *number* |
| Tree | sample-multiplier |
| Range | 1 to 511 |
| Introduced | 16.0.R1 |
| Platforms | All |

## overflow-limit

| | |
|---|---|
| Synopsis | Enable the **overflow-limit** context |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* auto-bandwidth overflow-limit |
| Tree | overflow-limit |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **bw** *number*

| | |
|---|---|
| Synopsis | Minimum difference in absolute bandwidth |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* auto-bandwidth overflow-limit bw *number* |
| Tree | bw |
| Range | 1 to 6400000 |
| Units | megabps |
| Introduced | 16.0.R1 |
| Platforms | All |

### **number** *number*

| | |
|---|---|
| Synopsis | Number of overflow samples to trigger an overflow auto-bandwidth adjustment attempt |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* auto-bandwidth overflow-limit number *number* |
| Tree | number |
| Range | 1 to 10 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **threshold** *number*

| | |
|---|---|
| Synopsis | Minimum difference in percent between the LSP bandwidth and the sampled data rate |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* auto-bandwidth overflow-limit threshold *number* |
| Tree | threshold |
| Range | 0 to 100 |
| Units | percent |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### underflow-limit

| | |
|---|---|
| Synopsis | Enable the **underflow-limit** context |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* auto-bandwidth underflow-limit |
| Tree | underflow-limit |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bw** *number*

| | |
|---|---|
| Synopsis | Minimum difference in absolute bandwidth |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* auto-bandwidth underflow-limit bw *number* |
| Tree | bw |
| Range | 1 to 6400000 |
| Units | megabps |
| Introduced | 16.0.R1 |
| Platforms | All |

### **number** *number*

| | |
|---|---|
| Synopsis | Number of overflow samples to trigger an overflow auto-bandwidth adjustment attempt |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* auto-bandwidth underflow-limit number *number* |
| Tree | number |
| Range | 1 to 10 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **threshold** *number*

| | |
|---|---|
| Synopsis | Minimum difference in percent between the LSP bandwidth and the sampled data rate |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* auto-bandwidth underflow-limit threshold *number* |


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| | |
|---|---|
| Tree | threshold |
| Range | 0 to 100 |
| Units | percent |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **backup-class-type** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Backup class type for this LSP template |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* backup-class-type *number* |
| Tree | backup-class-type |
| Range | 0 to 7 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **bandwidth** *number*

| | |
|---|---|
| Synopsis | Amount of bandwidth reserved for the P2MP instance |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* bandwidth *number* |
| Tree | bandwidth |
| Range | 0 to 6400000 |
| Units | megabps |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |


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## bfd

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **bfd** context |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* bfd |
| Tree | bfd |
| Description | Commands in this context configure BFD on RSVP LSPs or Seamless BFD (S-BFD) on SR-TE LSPs. |
| Introduced | 16.0.R1 |
| Platforms | All |

## bfd-liveness *boolean*

| | |
|---|---|
| Synopsis | Enable BFD on the RSVP LSP or S-BFD on the SR-TE LSP |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* bfd bfd-liveness *boolean* |
| Tree | bfd-liveness |
| Description | When configured to **true**, LSP BFD is enabled on the RSVP LSP or S-BFD is enabled for the SR-TE LSP.<br>LSP BFD must also be configured under the **configure router** context. The named BFD template provides the configuration settings for the BFD session, which must be configured and associated with the service using the BFD template.<br>When configured to **false**, LSP BFD is disabled on the RSVP LSP or S-BFD on the SR-TE LSP. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## bfd-template *reference*

| | |
|---|---|
| Synopsis | BFD template to be used by LSP BFD sessions |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* bfd bfd-template *reference* |
| Tree | bfd-template |
| Reference | **configure** bfd bfd-template *named-item* |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **failure-action** *keyword*

| | |
|---|---|
| Synopsis | Action to take when LSP BFD session fails |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* bfd failure-action *keyword* |
| Tree | failure-action |
| Options | none, down, failover-or-down |
| Default | none |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lsp-ping-interval** *(number | keyword)*

| | |
|---|---|
| Synopsis | Interval for periodic LSP ping for BFD bootstrapping |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* bfd lsp-ping-interval *(number | keyword)* |
| Tree | lsp-ping-interval |
| Range | 60 to 300 |
| Units | seconds |
| Options | none |
| Default | 60 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **return-path-label** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | S-BFD return-path label |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* bfd return-path-label *number* |
| Tree | return-path-label |


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| | |
|---|---|
| Description | This command configures the S-BFD session to echo mode and adds an additional MPLS label to the bottom of the label stack for the S-BFD packet.<br><br>The command applies to the initiator of the S-BFD sessions. The return-path label may be a binding SID for an SR policy or other MPLS path configured on the reflector router. Instead of being routed through the IGP path, the S-BFD packet returns to the initiator through this MPLS return path.<br><br>If the command is deleted, S-BFD returns to asynchronous mode and no return-path label is pushed by the initiator node. Any S-BFD packets for this LSP or path that the reflector receives are routed through the IGP path. |
| Range | 32 to 1048575 |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **source-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Source address for S-BFD packets |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* bfd source-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | source-address |
| Description | This command configures a source address for the S-BFD packets sent on the SR-TE LSP path instantiated according to the LSP template. The system uses the LSP **from** address, where applicable. Otherwise, the system uses the system IPv4 address for IPv4 SR-TE LSPs or the IPv6 address corresponding to the IPv6 TE router ID for IPv6 SR-TE LSPs. |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **wait-for-up-timer** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Time to wait for BFD to become operationally available |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* bfd wait-for-up-timer *number* |


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| | |
|---|---|
| Tree | wait-for-up-timer |
| Description | This command configures the time to wait for BFD to become operationally up. The timer is applicable to SR-TE LSPs, including auto LSPs and PCE-initiated LSPS, as well RSVP-TE LSPs.<br>For SR-TE LSPs, the timer takes effect when BFD is first enabled on a path or when BFD transitions from up to down. Upon expiration, if BFD is not up, the path is torn down, removed from the TTM and the IOM, and the system starts the retry timer.<br>For RSVP-TE LSPs, the timer controls the following:<br>• a path undergoing MBB when BFD is up<br>• the initial administrative state of the LSP<br>• the retry signaling of non-standby secondary paths |
| Range | 1 to 60 |
| Units | seconds |
| Default | 4 |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **bgp-shortcut** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable use of RSVP LSP for IPv4 BGP routes |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* bgp-shortcut *boolean* |
| Tree | bgp-shortcut |
| Introduced | 16.0.R1 |
| Platforms | All |

## **bgp-transport-tunnel** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Allow use of RSVP-TE LSP as transport for tunnel routes |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* bgp-transport-tunnel *boolean* |


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| | |
|---|---|
| Tree | bgp-transport-tunnel |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

## **binding-sid** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Request to allocate and bind a label |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* binding-sid *boolean* |
| Tree | binding-sid |
| Description | When configured to **true**, the system allocates and binds a label to any LSP that is created using the template.<br>When configured to **false**, this command removes the configuration but this does not affect LSPs that were already created using the template. |
| Default | false |
| Introduced | 22.10.R1 |
| Platforms | All |

## **class-forwarding**

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable the **class-forwarding** context |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* class-forwarding |
| Tree | class-forwarding |
| Introduced | 16.0.R1 |
| Platforms | All |


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## forwarding-set

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **forwarding-set** context |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* class-forwarding forwarding-set |
| Tree | forwarding-set |
| Notes | The following elements are part of a choice: (**default-lsp** and **fc**) or **forwarding-set**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## policy *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Name for the class based forwarding policy for LSP instances |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* class-forwarding forwarding-set policy *reference* |
| Tree | policy |
| Reference | **configure** router *named-item-64* mpls class-forwarding-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

## set *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Forwarding set ID |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* class-forwarding forwarding-set set *number* |
| Tree | set |


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| | |
|---|---|
| Range | 1 to 6 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **class-type** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Class type for an LSP template |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* class-type *number* |
| Tree | class-type |
| Range | 0 to 7 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **default-path** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Default path to be used for signaling LSP instances |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* default-path *reference* |
| Tree | default-path |
| Reference | **configure** router *named-item-64* mpls path *named-item-64* |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **delay-metric-limit** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Delay metric limit |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* delay-metric-limit *number* |
| Tree | delay-metric-limit |
| Description | This command configures the upper limit of the delay metric used by the local CSPF in the LSP path computation. The computation uses this configuration value only if the metric type is configured to **delay** in the **configure router mpls lsp-template metric-type** context.<br>If the configured metric type is **delay** and this command is not configured, the computation selects the lowest latency path. |
| Range | 1 to 16777215 |
| Units | microseconds |
| Introduced | 24.10.R1 |
| Platforms | All |

## **egress-statistics**

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable the **egress-statistics** context |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* egress-statistics |
| Tree | egress-statistics |
| Introduced | 16.0.R1 |
| Platforms | All |

## **accounting-policy** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.


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| | |
|---|---|
| Synopsis | Accounting policy ID |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* egress-statistics accounting-policy *reference* |
| Tree | accounting-policy |
| Reference | **configure** log accounting-policy *number* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **collect-stats** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Collect LSP statistics |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* egress-statistics collect-stats *boolean* |
| Tree | collect-stats |
| Description | When configured to **true**, this command enables LSP statistics collection. When you apply accounting policies, the forwarding engine collects data in the appropriate records and by default the CPU obtains and writes the results to the designated billing file.<br><br>When configured to **false**, the forwarding engine still accumulates statistics. However, the CPU does not write them to the billing file. If you subsequently re-enable this command, the counters written to the billing file include all the traffic collected while the command was disabled. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **stat-mode** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Statistics collection mode |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* egress-statistics stat-mode *keyword* |
| Tree | stat-mode |


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| | |
|---|---|
| Options | per-fc, aggregate |
| Introduced | 21.10.R1 |
| Platforms | All |

## **entropy-label** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Entropy label for an LSP template |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* entropy-label *keyword* |
| Tree | entropy-label |
| Options | false, true |
| Introduced | 16.0.R1 |
| Platforms | All |

## **exclude-admin-group** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Admin group name excluded when LSP is set up |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* exclude-admin-group *reference* |
| Tree | exclude-admin-group |
| Reference | **configure** routing-options if-attribute admin-group *named-item* |
| Max. instances | 32 |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **fallback-path-computation-method** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Fallback path computation method |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* fallback-path-computation-method *keyword* |
| Tree | fallback-path-computation-method |
| Description | This command specifies the fallback path computation method used if all configured PCEs are down or are signaling overload and the redelegation timer has expired. This method is used regardless of whether the LSP is PCE-controlled and PCE-computed, or only PCE-computed. |
| Options | none, local-cspf |
| Introduced | 21.10.R1 |
| Platforms | All |

## **family** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Address family that specifies template use in SR-TE LSP |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* family *keyword* |
| Tree | family |
| Description | This command specifies the address family for which the LSP template applies in an SR-TE LSP.<br>An LSP template is required for each address family. |
| Options | ipv4, ipv6 |
| Default | ipv4 |
| Introduced | 20.5.R1 |
| Platforms | All |


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## fast-reroute

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable the **fast-reroute** context |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* fast-reroute |
| Tree | fast-reroute |
| Introduced | 16.0.R1 |
| Platforms | All |

## frr-method *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Fast Reroute method for the LSPs that are dynamically created using this LSP template |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* fast-reroute frr-method *keyword* |
| Tree | frr-method |
| Options | one-to-one, facility |
| Default | facility |
| Introduced | 16.0.R1 |
| Platforms | All |

## hop-limit *number*

| | |
|---|---|
| Synopsis | Total number of hops a detour or backup LSP can take |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* fast-reroute hop-limit *number* |
| Tree | hop-limit |
| Range | 0 to 255 |
| Default | 16 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **node-protect** *boolean*

| | |
|---|---|
| Synopsis | Enable node and link protection for the specified LSP |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* fast-reroute node-protect *boolean* |
| Tree | node-protect |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **propagate-admin-group** *boolean*

| | |
|---|---|
| Synopsis | Enable admin group constraints on a FRR backup LSP |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* fast-reroute propagate-admin-group *boolean* |
| Tree | propagate-admin-group |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **from** *(ipv4-address-no-zone | ipv6-address-no-zone)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IP address of the ingress router for the LSP template |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* from *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | from |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **hop-limit** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum hops for an LSP created using this LSP template |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* hop-limit *number* |
| Tree | hop-limit |
| Range | 2 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **igp-shortcut**

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **igp-shortcut** context |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* igp-shortcut |
| Tree | igp-shortcut |
| Introduced | 16.0.R1 |
| Platforms | All |

## **admin-state** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Administrative state of LSP for shortcut or forwarding |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* igp-shortcut admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## **allow-sr-over-srte** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Use as eligible SRv4 or SRv6 IGP shortcut |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* igp-shortcut allow-sr-over-srte *boolean* |
| Tree | allow-sr-over-srte |
| Description | When configured to **true**, the router performs local SPF and the SR-TE LSP template is used as an eligible IGP SR-MPLS shortcut for SR-MPLS SRv4 or SRv6 only if the SR-TE is explicitly allowed using this command and when the top SID in the SR-TE LSP is an adjacency SID. |
| Default | false |
| Introduced | 23.3.R1 |
| Platforms | All |

## **lfa-type** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | LSP usage in LFA SPF |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* igp-shortcut lfa-type *keyword* |
| Tree | lfa-type |
| Options | lfa-protect, lfa-only |
| Notes | The following elements are part of a choice: **lfa-type** or **relative-metric**. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **relative-metric** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Shortest IGP cost between the endpoints of the LSP plus the configured offset |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* igp-shortcut relative-metric *number* |
| Tree | relative-metric |
| Range | -10 to 10 |
| Notes | The following elements are part of a choice: **lfa-type** or **relative-metric**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **include-admin-group** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Admin group name included when LSP is set up |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* include-admin-group *reference* |
| Tree | include-admin-group |
| Reference | **configure** routing-options if-attribute admin-group *named-item* |
| Max. instances | 32 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **label-stack-reduction** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable label compression for LSP path |


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| | |
|---|---|
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* label-stack-reduction *boolean* |
| Tree | label-stack-reduction |
| Default | false |
| Introduced | 19.7.R1 |
| Platforms | All |

## **ldp-over-rsvp** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Include this LSP in LDP over RSVP |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* ldp-over-rsvp *boolean* |
| Tree | ldp-over-rsvp |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

## **least-fill** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable least-fill path selection for this LSP template |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* least-fill *boolean* |
| Tree | least-fill |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **load-balancing-weight** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Load balancing weight for an MPLS LSP template |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* load-balancing-weight *number* |
| Tree | load-balancing-weight |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **local-sr-protection** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Local SR protection preference for LSP path computation |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* local-sr-protection *keyword* |
| Tree | local-sr-protection |
| Options | none, preferred, mandatory |
| Default | preferred |
| Introduced | 19.7.R1 |
| Platforms | All |

## **lsp-self-ping** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | LSP Self Ping activation status on RSVP-TE LSP template |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* lsp-self-ping *keyword* |
| Tree | lsp-self-ping |


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| | |
|---|---|
| Description | When configured, the system uses this setting for the LSP template regardless of the value configured under **configure router mpls lsp-self-ping rsvp-te**.<br>When unconfigured, the command inherits the value configured under **configure router mpls lsp-self-ping rsvp-te**. |
| Options | false, true |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **main-ct-retry-limit** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum number of retries before reverting to backup CT |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* main-ct-retry-limit *number* |
| Tree | main-ct-retry-limit |
| Range | 1 to 10000 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **max-sr-labels**

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **max-sr-labels** context |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* max-sr-labels |
| Tree | max-sr-labels |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **additional-frr-labels** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum number of additional overhead labels |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* max-sr-labels additional-frr-labels *number* |
| Tree | additional-frr-labels |
| Range | 0 to 4 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **label-stack-size** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Size for the maximum segment routing label stack |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* max-sr-labels label-stack-size *number* |
| Tree | label-stack-size |
| Range | 1 to 11 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **metric** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | LSP template metric |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* metric *number* |
| Tree | metric |


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| | |
|---|---|
| Range | 0 to 16777215 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **metric-type** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Metric type used for LSP path computation |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* metric-type *keyword* |
| Tree | metric-type |
| Options | igp, te, delay |
| Default | igp |
| Introduced | 19.7.R1 |
| Platforms | All |

## **override-tunnel-elc** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Override any received entropy label capability |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* override-tunnel-elc *boolean* |
| Tree | override-tunnel-elc |
| Description | When configured to **true**, this command allows the system to override any received entropy label capability advertisement.<br>When configured to **false**, this command disables the override. |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | All |


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## **path-computation-method** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Path computation method |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* path-computation-method *keyword* |
| Tree | path-computation-method |
| Description | This command configures the path computation method of an RSVP-TE or SR-TE LSP.<br>If this command is not configured to one of the supported options, the default path computation method is used depending on the type of LSP; the hop-to-label translation is used for the SR-TE LSP template and the IGP-based path is used for the RSVP-TE-LSP.<br>See "SR-TE LSP path computation using hop-to-label translation" in the *7750 Service Router and 7950 Extensible Routing System Segment Routing nad PCE User Guide* for more information. |
| Options | local-cspf, pce |
| Introduced | 19.7.R1 |
| Platforms | All |

## **path-profile** [profile-id] *number*

| | |
|---|---|
| Synopsis | Enter the **path-profile** list instance |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* path-profile *number* |
| Tree | path-profile |
| Description | Commands in this context configure the attributes of the PCE path profile. |
| Max. instances | 5 |
| Introduced | 21.10.R1 |
| Platforms | All |

## [**profile-id**] *number*

| | |
|---|---|
| Synopsis | Profile ID for the specified LSP |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* path-profile *number* |
| Tree | path-profile |


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| | |
|---|---|
| Range | 1 to 4294967295 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | All |

## **path-group** *number*

| | |
|---|---|
| Synopsis | Path-group ID for the specified LSP |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* path-profile *number* path-group *number* |
| Tree | path-group |
| Max. range | 0 to 4294967295 |
| Default | 0 |
| Introduced | 21.10.R1 |
| Platforms | All |

## **pce-associations**

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **pce-associations** context |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* pce-associations |
| Tree | pce-associations |
| Description | Commands in this context configure the LSP binding with one or more PCEP associations. |
| Introduced | 22.5.R1 |
| Platforms | All |

## **diversity** [diversity-name] *reference*

| | |
|---|---|
| Synopsis | Add a list entry for **diversity** |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* pce-associations diversity *reference* |
| Tree | diversity |


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| | |
|---|---|
| Description | Commands in this context bind the LSP to a named diversity association. The diversity association must exist under the PCC. |
| Max. instances | 5 |
| Introduced | 22.5.R1 |
| Platforms | All |

### [**diversity-name**] *reference*

| | |
|---|---|
| Synopsis | Name of the PCE association configured under the PCC |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* pce-associations diversity *reference* |
| Tree | diversity |
| Reference | **configure** router *named-item-64* pcep pcc pce-associations diversity *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 22.5.R1 |
| Platforms | All |

### **policy** [policy-name] *reference*

| | |
|---|---|
| Synopsis | Add a list entry for **policy** |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* pce-associations policy *reference* |
| Tree | policy |
| Description | Commands in this context bind the LSP to a named policy association. The policy association name must exist under the PCC. |
| Max. instances | 5 |
| Introduced | 22.5.R1 |
| Platforms | All |

### [**policy-name**] *reference*

| | |
|---|---|
| Synopsis | Name of the PCE association configured under the PCC |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* pce-associations policy *reference* |
| Tree | policy |


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| | |
|---|---|
| Reference | **configure** router *named-item-64* pcep pcc pce-associations policy *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 22.5.R1 |
| Platforms | All |

## **pce-control** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable PCE controlled LSP mode of operation |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* pce-control *boolean* |
| Tree | pce-control |
| Description | When configured to **true**, this command enables a PCE-controlled mode of operation for the LSP. In this mode, the router delegates full control of the LSP to the PCE (PCE controlled). The PCE acts in stateful-active mode for this LSP and is able to reroute the path following a failure or to re-optimize the path and update the router without a request from the router.<br>When configured to **false**, the PCE-controlled mode of operation for the LSP has no effect. |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | All |

## **pce-report** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable reporting modes to PCE for RSVP-TE or SR-TE LSPs |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* pce-report *keyword* |
| Tree | pce-report |
| Options | false, true |
| Introduced | 16.0.R1 |
| Platforms | All |


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## priority

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **priority** context |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* priority |
| Tree | priority |
| Introduced | 16.0.R1 |
| Platforms | All |

## hold-priority *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Hold priority when insufficient bandwidth is available to set up LSP |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* priority hold-priority *number* |
| Tree | hold-priority |
| Range | 0 to 7 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

## setup-priority *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Setup priority when insufficient bandwidth is available to set up LSP |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* priority setup-priority *number* |
| Tree | setup-priority |
| Range | 0 to 7 |


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| | |
|---|---|
| Default | 7 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **propagate-admin-group** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable admin groups via session attribute object |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* propagate-admin-group *boolean* |
| Tree | propagate-admin-group |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **record** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable recording of all hops for this LSP template |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* record *boolean* |
| Tree | record |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

## **record-label** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable recording of labels at each node or instance |


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| | |
|---|---|
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* record-label *boolean* |
| Tree | record-label |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

## **retry-limit** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Number of attempts to re-establish LSP after it fails |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* retry-limit *number* |
| Tree | retry-limit |
| Range | 1 to 10000 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **retry-timer** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Time for LSP re-establishment attempts after failure |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* retry-timer *number* |
| Tree | retry-timer |
| Range | 1 to 600 |
| Units | seconds |
| Default | 30 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **soft-preemption** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable soft preemption |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* soft-preemption *boolean* |
| Tree | soft-preemption |
| Description | When configured to **true**, the P2MP LSP preemption is governed by the **configure router rsvp preemption-timer** value.<br>When configured to **false**, the preemption timer value is set to 0 and the P2MP LSPs are hard preempted.<br>For P2P LSPs, soft preemption is always enabled and cannot be disabled. |
| Introduced | 22.2.R1 |
| Platforms | All |

### **template-id** *(number | keyword)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Template ID |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* template-id *(number \| keyword)* |
| Tree | template-id |
| Description | This command specifies the value that is signaled in the PCE to identify the LSP template. |
| Range | 1 to 4294967295 |
| Options | default |
| Introduced | 16.0.R5 |
| Platforms | All |


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### **type** *keyword*

**WARNING:**
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**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | LSP template type |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* type *keyword* |
| Tree | type |
| Description | This command configures the type of a template that can be referenced by a client application where dynamic LSP creation is required. The LSP template type is mandatory. |
| Options | p2mp-rsvp, p2p-rsvp-one-hop, p2p-rsvp-mesh, p2p-sr-te-one-hop, p2p-sr-te-mesh, p2p-sr-te-pce-init, p2p-sr-te-on-demand |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **vprn-auto-bind** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Include LSP template in auto-bind for VPRN services |
| Context | **configure** router *named-item-64* mpls lsp-template *named-item* vprn-auto-bind *boolean* |
| Tree | vprn-auto-bind |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **max-bypass-associations** *number*

| | |
|---|---|
| Synopsis | Maximum number of LSPs associated with a bypass tunnel |


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| | |
|---|---|
| Context | **configure** router *named-item-64* mpls max-bypass-associations *number* |
| Tree | max-bypass-associations |
| Range | 100 to 131072 |
| Default | 1000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **max-bypass-plr-associations** *number*

| | |
|---|---|
| Synopsis | Maximum number of PLRs per RSVP-TE bypass LSP |
| Context | **configure** router *named-item-64* mpls max-bypass-plr-associations *number* |
| Tree | max-bypass-plr-associations |
| Range | 1 to 16 |
| Default | 16 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **mbb-prefer-current-hops** *boolean*

| | |
|---|---|
| Synopsis | Select preference to use the current hops for Make-Before-Break (MBB) |
| Context | **configure** router *named-item-64* mpls mbb-prefer-current-hops *boolean* |
| Tree | mbb-prefer-current-hops |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **p2mp-resignal-timer** *number*

| | |
|---|---|
| Synopsis | Resignal timer for P2MP LSPs |
| Context | **configure** router *named-item-64* mpls p2mp-resignal-timer *number* |
| Tree | p2mp-resignal-timer |
| Range | 60 to 10080 |
| Units | minutes |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **p2mp-s2l-fast-retry** *number*

| | |
|---|---|
| Synopsis | Fast retry timer for P2MP S2L paths |
| Context | **configure** router *named-item-64* mpls p2mp-s2l-fast-retry *number* |
| Tree | p2mp-s2l-fast-retry |
| Range | 1 to 10 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **p2mp-ttl-propagate** *boolean*

| | |
|---|---|
| Synopsis | Use uniform mode for TTL propagation for RSVP P2MP LSPs |
| Context | **configure** router *named-item-64* mpls p2mp-ttl-propagate *boolean* |
| Tree | p2mp-ttl-propagate |
| Description | When configured to **true**, the router configures the uniform mode of operation for P2MP LSPs.<br>When configured to **false**, the router configures the pipe mode of operation for RSVP P2MP LSPs.<br>When the propagation mode is modified, the new configuration applies to future RSVP P2MP LSPs only and the existing operational LSPs are not affected. |
| Default | true |
| Introduced | 23.7.R1 |
| Platforms | All |

### **p2p-active-path-fast-retry** *number*

| | |
|---|---|
| Synopsis | Fast retry timer for P2P active paths |
| Context | **configure** router *named-item-64* mpls p2p-active-path-fast-retry *number* |
| Tree | p2p-active-path-fast-retry |
| Range | 1 to 10 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **path** [path-name] *named-item-64*

| | |
|---|---|
| Synopsis | Enter the **path** list instance |
| Context | **configure** router *named-item-64* mpls path *named-item-64* |
| Tree | path |
| Max. instances | 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**path-name**] *named-item-64*

| | |
|---|---|
| Synopsis | Name for this LSP path |
| Context | **configure** router *named-item-64* mpls path *named-item-64* |
| Tree | path |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the path used for LSPs |
| Context | **configure** router *named-item-64* mpls path *named-item-64* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hop** [hop-index] *number*

| | |
|---|---|
| Synopsis | Enter the **hop** list instance |
| Context | **configure** router *named-item-64* mpls path *named-item-64* hop *number* |
| Tree | hop |


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| | |
|---|---|
| Max. instances | 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**hop-index**] *number*

| | |
|---|---|
| Synopsis | Index to identify a particular hop |
| Context | **configure** router *named-item-64* mpls path *named-item-64* hop *number* |
| Tree | hop |
| Range | 1 to 1024 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ip-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IP address of the transit router |
| Context | **configure** router *named-item-64* mpls path *named-item-64* hop *number* ip-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | ip-address |
| Notes | The following elements are part of a mandatory choice: (**ip-address** and **type**) or **sid-label**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sid-label** *number*

| | |
|---|---|
| Synopsis | MPLS label for tunnel hop in the path of an SR-TE LSP |
| Context | **configure** router *named-item-64* mpls path *named-item-64* hop *number* sid-label *number* |
| Tree | sid-label |
| Range | 32 to 1048575 |


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| | |
|---|---|
| Notes | The following elements are part of a mandatory choice: (**ip-address** and **type**) or **sid-label**. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **type** *keyword*

| | |
|---|---|
| Synopsis | Tunnel hop type |
| Context | **configure** router *named-item-64* mpls path *named-item-64* hop *number* type *keyword* |
| Tree | type |
| Options | strict, loose |
| Notes | The following elements are part of a mandatory choice: (**ip-address** and **type**) or **sid-label**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **pce-init-lsp**

| | |
|---|---|
| Synopsis | Enable the **pce-init-lsp** context |
| Context | **configure** router *named-item-64* mpls pce-init-lsp |
| Tree | pce-init-lsp |
| Introduced | 16.0.R5 |
| Platforms | All |

### **sr-te**

| | |
|---|---|
| Synopsis | Enable the **sr-te** context |
| Context | **configure** router *named-item-64* mpls pce-init-lsp sr-te |
| Tree | sr-te |
| Introduced | 16.0.R5 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of SR-TE PCE-initiated LSP support |
| Context | **configure** router *named-item-64* mpls pce-init-lsp sr-te admin-state *keyword* |


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| | |
|---|---|
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R5 |
| Platforms | All |

### pce-report

| | |
|---|---|
| Synopsis | Enter the **pce-report** context |
| Context | **configure** router *named-item-64* mpls pce-report |
| Tree | pce-report |
| Introduced | 16.0.R1 |
| Platforms | All |

### rsvp-te *boolean*

| | |
|---|---|
| Synopsis | Allow PCE reporting for all TE LSPs of RSVP-TE type |
| Context | **configure** router *named-item-64* mpls pce-report rsvp-te *boolean* |
| Tree | rsvp-te |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### sr-te *boolean*

| | |
|---|---|
| Synopsis | Allow PCE reporting for all TE LSPs of SR-TE type |
| Context | **configure** router *named-item-64* mpls pce-report sr-te *boolean* |
| Tree | sr-te |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### resignal-on-igp-event *boolean*

| | |
|---|---|
| Synopsis | Reoptimize RSVP LSP paths upon IGP events |


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Context **configure** router *named-item-64* mpls resignal-on-igp-event *boolean*

Tree resignal-on-igp-event

Description When configured to **true**, the system enables the ad hoc reoptimization of the active CSPF path of all RSVP-TE LSPs at the receipt of an IGP link event. The following link events are supported:

- link down
- link up
- IGP or TE metric change
- SRLG change
- admin group change

The ad hoc reoptimization follows the same behavior as in the timer-based resignal Make-Before-Break (MBB) feature. MPLS reevaluates the active paths of all RSVP-TE LSPs. The reevaluation consists of updating the total IGP or TE metric of the current path, checking the validity of the hops, and computing a new CSPF path. MPLS signals and programs the new path only if its total metric is different than the updated metric of the current path, or if one or more hops of the current path are invalid. Otherwise, the current path is considered to be the most optimal and retained.

This feature does not require that the timer-based resignal (**configure router mpls resignal-timer**) command be enabled. If enabled, the resignal timer is aborted and an ad hoc reoptimization is performed.

Default false

Introduced 24.10.R1

Platforms All

## **resignal-on-igp-overload** *boolean*

Synopsis Resignal all RSVP-TE LSPs upon IGP overload

Context **configure** router *named-item-64* mpls resignal-on-igp-overload *boolean*

Tree resignal-on-igp-overload

Description When configured to **true**, the receipt of the IS-IS overload bit in the TE-DB triggers the immediate resignaling of all RSVP-TE LSPs. MPLS forces the expiry of the resignal timer and the TE-DB computes a new CSPF for each RSVP-TE LSP active path. The re-optimization causes the immediate transition of RSVP-TE LSP paths away from the IS-IS node in overload using the MBB operation.

This command cannot be configured to **true** when the **retry-on-igp-overloa**d command is configured to **true**.

When configured to **false**, the default behavior is maintained where MBB re-optimization occurs only when a timer-based resignal is performed or a manual resignal is executed.

Default false

Introduced 20.10.R1


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| | |
|---|---|
| Platforms | All |

### **resignal-timer** *number*

| | |
|---|---|
| Synopsis | Resignal timer for RSVP LSPs |
| Context | **configure** router *named-item-64* mpls resignal-timer *number* |
| Tree | resignal-timer |
| Range | 30 to 10080 |
| Units | minutes |
| Introduced | 16.0.R1 |
| Platforms | All |

### **retry-on-igp-overload** *boolean*

| | |
|---|---|
| Synopsis | Tear down LSPs when IGP is in overload state |
| Context | **configure** router *named-item-64* mpls retry-on-igp-overload *boolean* |
| Tree | retry-on-igp-overload |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **secondary-fast-retry-timer** *number*

| | |
|---|---|
| Synopsis | Fast retry timer for secondary paths |
| Context | **configure** router *named-item-64* mpls secondary-fast-retry-timer *number* |
| Tree | secondary-fast-retry-timer |
| Range | 1 to 10 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **shortcut-local-ttl-propagate** *boolean*

| | |
|---|---|
| Synopsis | Propagate TTL over LSP shortcut for local packets |
| Context | **configure** router *named-item-64* mpls shortcut-local-ttl-propagate *boolean* |


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| | |
|---|---|
| Tree | shortcut-local-ttl-propagate |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **shortcut-transit-ttl-propagate** *boolean*

| | |
|---|---|
| Synopsis | Propagate TTL over LSP shortcut for local packets for transit packets |
| Context | **configure** router *named-item-64* mpls shortcut-transit-ttl-propagate *boolean* |
| Tree | shortcut-transit-ttl-propagate |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sr-te-resignal**

| | |
|---|---|
| Synopsis | Enter the **sr-te-resignal** context |
| Context | **configure** router *named-item-64* mpls sr-te-resignal |
| Tree | sr-te-resignal |
| Introduced | 19.10.R1 |
| Platforms | All |

### **resignal-on-igp-event** *boolean*

| | |
|---|---|
| Synopsis | Reoptimize SR-TE LSPs upon IGP link events |
| Context | **configure** router *named-item-64* mpls sr-te-resignal resignal-on-igp-event *boolean* |
| Tree | resignal-on-igp-event |
| Description | When configured to **true**, the system enables the ad hoc reoptimization of all CSPF paths in the operational UP state of all SR-TE LSPs at the receipt of an IGP link event. The following link events are supported:<br>• link down<br>• link up<br>• IGP or TE metric change<br>• SRLG change<br>• admin group change |


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The ad hoc reoptimization follows the same behavior as in the timer-based resignal Make-Before-Break (MBB) feature. MPLS reevaluates all the paths in the operational UP state of all SR-TE LSPs. The reevaluation consists of updating the total IGP or TE metric of the current path, checking the validity of the hops and labels, and computing a new CSPF path. MPLS programs the new path only if its total metric is different than the updated metric of the current path, or if one or more hops or labels of the current path are invalid. Otherwise, the current path is considered to be the most optimal and retained.

This feature does not require that the timer-based resignal (**configure router mpls sr-te-resignal resignal-timer**) command be enabled. If enabled, the resignal timer is aborted and an ad hoc reoptimization is performed.

Default false

Introduced 19.10.R1

Platforms All

## **resignal-on-igp-overload** *boolean*

Synopsis Enable resignaling of SR-TE LSPs upon IGP overload

Context **configure** router *named-item-64* mpls sr-te-resignal resignal-on-igp-overload *boolean*

Tree resignal-on-igp-overload

Description When configured to **true**, the system enables ad-hoc re-optimzation of the CSPF paths of all SR-TE LSPs when IS-IS receives an IS-IS overload bit advertisement from a remote router.

When this command is enabled on the router and an IGP overload bit is set in a Layer 1 or Layer 2 IS-IS LSP received from a remote router, MPLS performs an ad-hoc re-optimization of all the paths of all the SR-TE LSPs that have paths computed by the local CSPF. For each SR-TE LSP current path that transits the router in overload, the CSPF looks for a new path that avoids the router. For each SR-TE LSP current path that terminates on the router in overload, the CSPF checks if a better path exists. In both cases, if a new path is not found the system maintains the current path when operationally up.

The ad-hoc re-optimization triggers the timer-based re-optimization by forcing the resignal timer to expire. Therefore, the user must use the **configure router mpls sr-te-resignal resignal-timer** command to configure the resignal timer for the SR-TE application.

When configured to **false**, MPLS does not act immediately on an IS-IS overload bit from a remote router. MPLS acts on it at the next timer-based or manual re-optimization of the SR-TE LSPs.

Default false

Introduced 23.3.R1

Platforms All


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### **resignal-timer** *number*

| | |
|---|---|
| Synopsis | Resignal timer for SR-TE LSPs |
| Context | **configure** router *named-item-64* mpls sr-te-resignal resignal-timer *number* |
| Tree | resignal-timer |
| Description | This command configures the time the system waits before signaling the re-optimization of all SR-TE LSPs. |
| Range | 30 to 10080 |
| Units | minutes |
| Introduced | 19.10.R1 |
| Platforms | All |

### **srlg-database**

| | |
|---|---|
| Synopsis | Enter the **srlg-database** context |
| Context | **configure** router *named-item-64* mpls srlg-database |
| Tree | srlg-database |
| Introduced | 16.0.R1 |
| Platforms | All |

### **router-id** [router-address] *ipv4-address*

| | |
|---|---|
| Synopsis | Enter the **router-id** list instance |
| Context | **configure** router *named-item-64* mpls srlg-database router-id *ipv4-address* |
| Tree | router-id |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**router-address**] *ipv4-address*

| | |
|---|---|
| Synopsis | Router ID for the system |
| Context | **configure** router *named-item-64* mpls srlg-database router-id *ipv4-address* |
| Tree | router-id |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R2 |


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| | |
|---|---|
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the interface entry |
| Context | **configure** router *named-item-64* mpls srlg-database router-id *ipv4-address* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **interface** [interface-address] *ipv4-address* srlg-group *reference*

| | |
|---|---|
| Synopsis | Add a list entry for **interface** |
| Context | **configure** router *named-item-64* mpls srlg-database router-id *ipv4-address* interface *ipv4-address* srlg-group *reference* |
| Tree | interface |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**interface-address**] *ipv4-address*

| | |
|---|---|
| Synopsis | IP address of the interface |
| Context | **configure** router *named-item-64* mpls srlg-database router-id *ipv4-address* interface *ipv4-address* srlg-group *reference* |
| Tree | interface |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R2 |
| Platforms | All |

### **srlg-group** *reference*

| | |
|---|---|
| Synopsis | SRLG group name |


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| | |
|---|---|
| Context | **configure** router *named-item-64* mpls srlg-database router-id *ipv4-address* interface *ipv4-address* srlg-group *reference* |
| Tree | interface |
| Reference | **configure** routing-options if-attribute srlg-group *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **srlg-frr** *keyword*

| | |
|---|---|
| Synopsis | Use of SRLG constraint for FRR path computation |
| Context | **configure** router *named-item-64* mpls srlg-frr *keyword* |
| Tree | srlg-frr |
| Options | loose, strict |
| Introduced | 16.0.R1 |
| Platforms | All |

### **static-lsp** [lsp-name] *named-item-64*

| | |
|---|---|
| Synopsis | Enter the **static-lsp** list instance |
| Context | **configure** router *named-item-64* mpls static-lsp *named-item-64* |
| Tree | static-lsp |
| Max. instances | 1000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**lsp-name**] *named-item-64*

| | |
|---|---|
| Synopsis | Labeled Switch path name |
| Context | **configure** router *named-item-64* mpls static-lsp *named-item-64* |
| Tree | static-lsp |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the static LSP |
| Context | **configure** router *named-item-64* mpls static-lsp *named-item-64* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **metric** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | MPLS static LSP metric to select an LSP |
| Context | **configure** router *named-item-64* mpls static-lsp *named-item-64* metric *number* |
| Tree | metric |
| Range | 1 to 16777215 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **push**

| | |
|---|---|
| Synopsis | Enable the **push** context |
| Context | **configure** router *named-item-64* mpls static-lsp *named-item-64* push |
| Tree | push |
| Introduced | 16.0.R1 |
| Platforms | All |

### **next-hop** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IP address for the next hop |


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| | |
|---|---|
| Context | **configure** router *named-item-64* mpls static-lsp *named-item-64* push next-hop *ipv4-unicast-address* |
| Tree | next-hop |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **out-label** *(number | keyword)*

| | |
|---|---|
| Synopsis | Push specific label onto the top of the outgoing packet's label stack |
| Context | **configure** router *named-item-64* mpls static-lsp *named-item-64* push out-label *(number \| keyword)* |
| Tree | out-label |
| Range | 16 to 1048575 |
| Options | implicit-null-label |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **to** *ipv4-unicast-address*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Destination IP address or the egress router for the LSP |
| Context | **configure** router *named-item-64* mpls static-lsp *named-item-64* to *ipv4-unicast-address* |
| Tree | to |
| Introduced | 16.0.R1 |
| Platforms | All |

### **static-lsp-fast-retry** *number*

| | |
|---|---|
| Synopsis | Fast retry timer for static LSPs |
| Context | **configure** router *named-item-64* mpls static-lsp-fast-retry *number* |
| Tree | static-lsp-fast-retry |


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| | |
|---|---|
| Range | 1 to 30 |
| Units | seconds |
| Default | 30 |
| Introduced | 16.0.R1 |
| Platforms | All |

## strict-ero-nhop-direct-resolution *boolean*

| | |
|---|---|
| Synopsis | Resolves RSVP-TE LSP ERO to local and host routes only |
| Context | **configure** router *named-item-64* mpls strict-ero-nhop-direct-resolution *boolean* |
| Tree | strict-ero-nhop-direct-resolution |
| Description | When configured to **true**, the router enables the strict Explicit Route Object (ERO) next-hop direct resolution. The feature restricts the routes used to resolve the next hop of an ERO address to local and host routes. This command avoids using a next hop over a parallel link when a half link is up in the routing table.<br>This command applies to an ERO when all of the following conditions are met:<br>• the ERO next hop is an IPv4 address<br>• the ERO object is a strict hop<br>• the IPv4 address matches the primary subnet of a local numbered interface<br>If no such route exists, RSVP rejects the PATH message with ErrCode = Routing Error (24) and SubErrCode = Bad Strict Node (2).<br>When configured to **false**, the router disables the strict ERO next-hop direct resolution. |
| Default | false |
| Introduced | 22.5.R1 |
| Platforms | All |

## tunnel-table-pref

| | |
|---|---|
| Synopsis | Enter the **tunnel-table-pref** context |
| Context | **configure** router *named-item-64* mpls tunnel-table-pref |
| Tree | tunnel-table-pref |
| Description | Commands in this context configure the tunnel table preference for RSVP-TE LSP and SR-TE LSP tunnel types. |
| Introduced | 21.10.R1 |
| Platforms | All |


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### **rsvp-te** *number*

| | |
|---|---|
| Synopsis | RSVP-TE tunnel table preference |
| Context | **configure** router *named-item-64* mpls tunnel-table-pref rsvp-te *number* |
| Tree | rsvp-te |
| Description | This command configures the tunnel table preference for RSVP-TE LSP tunnel type.<br>The tunnel table preference applies to next-hop resolution of BGP routes for: EVPN, IPv4, IPv6, VPN-IPv4, VPN-IPv6, label-IPv4, and label-IPV6 in the tunnel table.<br>This feature does not apply to a VPRN, VPLS, or VLL service with explicit binding to an SDP that enabled the **mixed-lsp-mode** option. The service manager controls and fixes the tunnel preference in such an SDP. The tunnel table preference configuration does not modify the SDP behavior, nor the services that bind to it.<br>Nokia recommends that tunnel types have unique preference values. In a situation where two or more tunnel types are set to the same preference value, the tunnel table prefers the tunnel type which was first introduced in SR OS implementation historically. |
| Range | 1 to 255 |
| Default | 7 |
| Introduced | 21.10.R1 |
| Platforms | All |

### **sr-te** *number*

| | |
|---|---|
| Synopsis | SR-TE tunnel table preference |
| Context | **configure** router *named-item-64* mpls tunnel-table-pref sr-te *number* |
| Tree | sr-te |
| Description | This command configures the tunnel table preference for SR-TE LSP tunnel type.<br>The tunnel table preference applies to next-hop resolution of BGP routes for: EVPN, IPv4, IPv6, VPN-IPv4, VPN-IPv6, label-IPv4, and label-IPV6 in the tunnel table.<br>This feature does not apply to a VPRN, VPLS, or VLL service with explicit binding to an SDP that enabled the **mixed-lsp-mode** option. The service manager controls and fixes the tunnel preference in such an SDP. The tunnel table preference configuration does not modify the SDP behavior, nor the services that bind to it.<br>It is recommended to not set two or more tunnel types to the same preference value. In such a situation, the tunnel table prefers the tunnel type which was first introduced in SR OS implementation historically. |
| Range | 1 to 255 |
| Default | 8 |
| Introduced | 21.10.R1 |


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| | |
|---|---|
| Platforms | All |

## **user-srlg-db** *boolean*

| | |
|---|---|
| Synopsis | Enable the use of user SRLG database |
| Context | **configure** router *named-item-64* mpls user-srlg-db *boolean* |
| Tree | user-srlg-db |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **mpls-labels**

| | |
|---|---|
| Synopsis | Enter the **mpls-labels** context |
| Context | **configure** router *named-item-64* mpls-labels |
| Tree | mpls-labels |
| Introduced | 16.0.R1 |
| Platforms | All |

## **bgp-labels-hold-timer** *number*

| | |
|---|---|
| Synopsis | BGP labels hold timer for the ingress router |
| Context | **configure** router *named-item-64* mpls-labels bgp-labels-hold-timer *number* |
| Tree | bgp-labels-hold-timer |
| Description | This command configures the time to delay before the label-forwarding entries programmed by BGP are removed from the datapath. A non-zero delay is useful in the following situations:<br>• label-unicast route is readvertised by an ABR/ASBR operating in label-per-next-hop mode to choose a new primary path<br>• IP VPN route is readvertised by an ABR/ASBR operating in label-per-next-hop mode to choose a new primary path<br>• IP VPN best-external route is readvertised by a VPRN to choose a new backup path<br>• IP VPN route is readvertised by a VPRN in label-per-next-hop mode to choose a new primary path<br>In the preceding situations, configure the hold timer to be large enough to account for the propagation delay of the route withdrawal to all ingress routers. |
| Range | 0 to 255 |


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| | |
|---|---|
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **reserved-label-block** [label-block-name] *named-item-64*

| | |
|---|---|
| Synopsis | Enter the **reserved-label-block** list instance |
| Context | **configure** router *named-item-64* mpls-labels reserved-label-block *named-item-64* |
| Tree | reserved-label-block |
| Description | Commands in this context configure a block of labels from the dynamic range to be locally assigned for specific applications, such as segment routing adjacency SIDs. The reserved label block is not advertised by the IGP.<br>**Note**: Changes to the reserved label block range do not impact the actual MPLS datapath table sizes. |
| Max. instances | 16 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**label-block-name**] *named-item-64*

| | |
|---|---|
| Synopsis | Name for the reserved label block |
| Context | **configure** router *named-item-64* mpls-labels reserved-label-block *named-item-64* |
| Tree | reserved-label-block |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **end-label** *number*

| | |
|---|---|
| Synopsis | Upper bound of the reserved label block range |
| Context | **configure** router *named-item-64* mpls-labels reserved-label-block *named-item-64* end-label *number* |
| Tree | end-label |
| Range | 32 to 1048575 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **start-label** *number*

| | |
|---|---|
| Synopsis | Lower bound of the reserved label block range |
| Context | **configure** router *named-item-64* mpls-labels reserved-label-block *named-item-64* start-label *number* |
| Tree | start-label |
| Range | 32 to 1048575 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sr-labels**

| | |
|---|---|
| Synopsis | Enter the **sr-labels** context |
| Context | **configure** router *named-item-64* mpls-labels sr-labels |
| Tree | sr-labels |
| Description | Commands in this context configure the range of the Segment Routing Global Block (SRGB), which assigns labels to segment routing prefix SIDs originated by this router. The range is taken from the system dynamic label range and is not instantiated by default.<br><br>Segment routing labels are reserved labels. After they are instantiated, they cannot be used for dynamic label assignment by other protocols, such as RSVP, LDP, and BGP.<br><br>**Note**: Changes to the SRGB range do not impact the actual MPLS datapath table sizes. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the label range |
| Context | **configure** router *named-item-64* mpls-labels sr-labels end *number* |
| Tree | end |
| Range | 32 to 1048575 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of the label range |
| Context | **configure** router *named-item-64* mpls-labels sr-labels start *number* |
| Tree | start |
| Range | 32 to 1048575 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **static-label-range** *number*

| | |
|---|---|
| Synopsis | Static label range on the ingress router |
| Context | **configure** router *named-item-64* mpls-labels static-label-range *number* |
| Tree | static-label-range |
| Range | 0 to 1048544 |
| Default | 18400 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **msdp**

| | |
|---|---|
| Synopsis | Enable the **msdp** context |
| Context | **configure** router *named-item-64* msdp |
| Tree | msdp |
| Description | Commands in this context configure Multicast Source Discovery Protocol (MSDP) for the router. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **active-source-limit** *number*

| | |
|---|---|
| Synopsis | Maximum source-active messages accepted by MSDP |
| Context | **configure** router *named-item-64* msdp active-source-limit *number* |
| Tree | active-source-limit |


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| | |
|---|---|
| Description | This command configures the maximum number of source-active (SA) messages that are accepted by MSDP, effectively controlling the number of active sources that the system can store.<br>When unconfigured, the system sets no limit on the number of SA messages it can accept. |
| Range | 0 to 1000000 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of MSDP |
| Context | **configure** router *named-item-64* msdp admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 19.10.R1 |
| Platforms | All |

### **data-encapsulation** *boolean*

| | |
|---|---|
| Synopsis | Enable encapsulation of multicast data used by MSDP |
| Context | **configure** router *named-item-64* msdp data-encapsulation *boolean* |
| Tree | data-encapsulation |
| Description | When configured to **true**, the system (acting as the rendezvous point [RP]) encapsulates multicast data received from MSDP register messages inside forwarded MSDP SA messages. |
| Default | true |
| Introduced | 19.10.R1 |
| Platforms | All |

### **export-policy** *reference*

| | |
|---|---|
| Synopsis | Policy to export source-active states into MSDP |
| Context | **configure** router *named-item-64* msdp export-policy *reference* |
| Tree | export-policy |


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| | |
|---|---|
| Description | This command specifies the policy used to export SA states from the SA list into MSDP.<br>If multiple policy names are specified, the router evaluates the policies in the order they are specified, and applies the first policy that matches.<br>If an export policy is configured at the global level, each individual peer inherits the global policy. If an export policy is configured at the group level, each individual peer in a group inherits the group policy. If an export policy is configured at the peer level, the policy only applies to the peer where it is configured. |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 19.10.R1 |
| Platforms | All |

## **group** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **group** list instance |
| Context | **configure** router *named-item-64* msdp group *named-item* |
| Tree | group |
| Description | Commands in this context configure an MSDP group.<br>By default, group options are inherited from the global MSDP options. To override these global options, configure the group-specific options within this context.<br>For a group to function, at least one peer must be configured in the group. |
| Introduced | 19.10.R1 |
| Platforms | All |

## [**name**] *named-item*

| | |
|---|---|
| Synopsis | MSDP group name |
| Context | **configure** router *named-item-64* msdp group *named-item* |
| Tree | group |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | All |


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### **active-source-limit** *number*

| | |
|---|---|
| Synopsis | Maximum source-active messages accepted by MSDP |
| Context | **configure** router *named-item-64* msdp group *named-item* active-source-limit *number* |
| Tree | active-source-limit |
| Description | This command configures the maximum number of source-active (SA) messages that are accepted by MSDP, effectively controlling the number of active sources that the system can store.<br>When unconfigured, the system sets no limit on the number of SA messages it can accept. |
| Range | 0 to 1000000 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of MSDP |
| Context | **configure** router *named-item-64* msdp group *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 19.10.R1 |
| Platforms | All |

### **export-policy** *reference*

| | |
|---|---|
| Synopsis | Policy to export source-active states into MSDP |
| Context | **configure** router *named-item-64* msdp group *named-item* export-policy *reference* |
| Tree | export-policy |
| Description | This command specifies the policy used to export SA states from the SA list into MSDP.<br>If multiple policy names are specified, the router evaluates the policies in the order they are specified, and applies the first policy that matches.<br>If an export policy is configured at the global level, each individual peer inherits the global policy. If an export policy is configured at the group level, each individual peer in a group inherits the group policy. If an export policy is configured at the peer level, the policy only applies to the peer where it is configured. |
| Reference | **configure** policy-options policy-statement *named-item-64* |


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| | |
|---|---|
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 19.10.R1 |
| Platforms | All |

## **import-policy** *reference*

| | |
|---|---|
| Synopsis | Policy to import source-active states into MSDP |
| Context | **configure** router *named-item-64* msdp group *named-item* import-policy *reference* |
| Tree | import-policy |
| Description | This command specifies the policy used to import SA states from the SA list into MSDP.<br>If multiple policy names are specified, the router evaluates the policies in the order they are specified, and applies the first policy that matches.<br>If an import policy is configured at the global level, each individual peer inherits the global policy. If an import policy is configured at the group level, each individual peer in a group inherits the group policy. If an import policy is configured at the peer level, the policy only applies to the peer where it is configured. |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 19.10.R1 |
| Platforms | All |

## **local-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Local end IP address of the MSDP group |
| Context | **configure** router *named-item-64* msdp group *named-item* local-address *ipv4-unicast-address* |
| Tree | local-address |
| Description | This command configures the local end address of an MSDP session. For MSDP to function, at least one peer with a local address must be configured. This address must be present on the node and is used to validate incoming connections to the peer and to establish connections to the remote peer.<br>The specified IP address is validated and used as the local address for MSDP peers from that point. If a subsequent address is configured, it replaces the existing configuration and terminates any existing sessions |


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When a session is terminated, all information pertaining to and learned from that peer is removed. When a new peering session is created or a peering session is lost, an event message is generated.

Introduced 19.10.R1

Platforms All

## **mode** *keyword*

Synopsis Topology of the group of peers

Context **configure** router *named-item-64* msdp group *named-item* mode *keyword*

Tree mode

Description This command configures the MSDP group topology. MSDP peers can be grouped in a full-mesh topology to prevent excessive flooding of SA messages to neighboring peers.

In a mesh group, SA messages received from a mesh group member are always accepted but are not flooded to other members of the same mesh group. These SA messages are only flooded to non-mesh group peers or members of other mesh groups.

**Note:** In a meshed configuration, all members of the group must have a peer connection with every other mesh group member. If this rule is not adhered to, unpredictable results may occur.

Options standard, mesh-group

Default standard

Introduced 19.10.R1

Platforms All

## **peer** [ip-address] *ipv4-unicast-address*

Synopsis Enter the **peer** list instance

Context **configure** router *named-item-64* msdp group *named-item* peer *ipv4-unicast-address*

Tree peer

Description Commands in this context configure an MSDP group peer. For MSDP to function, at least one peer with a local address must be configured.

After peer relationships are established, the MSDP peers exchange messages to advertise active multicast sources.

By default, the options applied to a peer are inherited from the global or group level. To override these inherited options, configure the peer-specific options within this context.

Introduced 19.10.R1

Platforms All


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### [**ip-address**] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IP address of the remote MSDP router for peering |
| Context | **configure** router *named-item-64* msdp group *named-item* peer *ipv4-unicast-address* |
| Tree | peer |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **active-source-limit** *number*

| | |
|---|---|
| Synopsis | Maximum source-active messages accepted by MSDP |
| Context | **configure** router *named-item-64* msdp group *named-item* peer *ipv4-unicast-address* active-source-limit *number* |
| Tree | active-source-limit |
| Description | This command configures the maximum number of source-active (SA) messages that are accepted by MSDP, effectively controlling the number of active sources that the system can store.<br>When unconfigured, the system sets no limit on the number of SA messages it can accept. |
| Range | 0 to 1000000 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of MSDP |
| Context | **configure** router *named-item-64* msdp group *named-item* peer *ipv4-unicast-address* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 19.10.R1 |
| Platforms | All |


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## **authentication-key** *encrypted-leaf*

| | |
|---|---|
| Synopsis | MD5 authentication key for the MSDP peering session |
| Context | **configure** router *named-item-64* msdp group *named-item* peer *ipv4-unicast-address* authentication-key *encrypted-leaf* |
| Tree | authentication-key |
| Description | This command configures a Message Digest 5 (MD5) authentication key to be used with a specific MSDP peering session. The authentication key is not inherited from the global or group level and must be configured per peer. |
| String length | 1 to 370 |
| Introduced | 19.10.R1 |
| Platforms | All |

## **default-peer** *boolean*

| | |
|---|---|
| Synopsis | Set the peer as a default MSDP peer |
| Context | **configure** router *named-item-64* msdp group *named-item* peer *ipv4-unicast-address* default-peer *boolean* |
| Tree | default-peer |
| Description | When configured to **true**, the system sets the peer as a default MSDP peer. All SA messages from a default peer are accepted without the usual peer-reverse-path-forwarding (RPF) check.<br>Unlike the normal multicast RPF checks, the peer-RPF check stops SA messages from looping.<br>When configured to **false**, the system sets the peer as a non-default peer, which forces all SA messages from the peer to be RPF checked.<br>See "Peer-RPF check" in the *7450 ESS, 7750 SR, 7950 XRS, and VSR Multicast Routing Protocols Guide* for information about the peer-RPF check rules. |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

## **export-policy** *reference*

| | |
|---|---|
| Synopsis | Policy to export source-active states into MSDP |
| Context | **configure** router *named-item-64* msdp group *named-item* peer *ipv4-unicast-address* export-policy *reference* |
| Tree | export-policy |


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| | |
|---|---|
| Description | This command specifies the policy used to export SA states from the SA list into MSDP.<br>If multiple policy names are specified, the router evaluates the policies in the order they are specified, and applies the first policy that matches.<br>If an export policy is configured at the global level, each individual peer inherits the global policy. If an export policy is configured at the group level, each individual peer in a group inherits the group policy. If an export policy is configured at the peer level, the policy only applies to the peer where it is configured. |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 19.10.R1 |
| Platforms | All |

## **import-policy** *reference*

| | |
|---|---|
| Synopsis | Policy to import source-active states into MSDP |
| Context | **configure** router *named-item-64* msdp group *named-item* peer *ipv4-unicast-address* import-policy *reference* |
| Tree | import-policy |
| Description | This command specifies the policy used to import SA states from the SA list into MSDP.<br>If multiple policy names are specified, the router evaluates the policies in the order they are specified, and applies the first policy that matches.<br>If an import policy is configured at the global level, each individual peer inherits the global policy. If an import policy is configured at the group level, each individual peer in a group inherits the group policy. If an import policy is configured at the peer level, the policy only applies to the peer where it is configured. |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 19.10.R1 |
| Platforms | All |

## **local-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Local end IP address of the MSDP group |


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| | |
|---|---|
| Context | **configure** router *named-item-64* msdp group *named-item* peer *ipv4-unicast-address* local-address *ipv4-unicast-address* |
| Tree | local-address |
| Description | This command configures the local end address of an MSDP session. For MSDP to function, at least one peer with a local address must be configured. This address must be present on the node and is used to validate incoming connections to the peer and to establish connections to the remote peer.<br>The specified IP address is validated and used as the local address for MSDP peers from that point. If a subsequent address is configured, it replaces the existing configuration and terminates any existing sessions<br>When a session is terminated, all information pertaining to and learned from that peer is removed. When a new peering session is created or a peering session is lost, an event message is generated. |
| Introduced | 19.10.R1 |
| Platforms | All |

## receive-message-rate

| | |
|---|---|
| Synopsis | Enter the **receive-message-rate** context |
| Context | **configure** router *named-item-64* msdp group *named-item* peer *ipv4-unicast-address* receive-message-rate |
| Tree | receive-message-rate |
| Description | Commands in this context configure rate limiting for the number of MSDP messages that the router can read from the TCP session. |
| Introduced | 19.10.R1 |
| Platforms | All |

## rate *number*

| | |
|---|---|
| Synopsis | Maximum number of MSDP messages read from TCP session |
| Context | **configure** router *named-item-64* msdp group *named-item* peer *ipv4-unicast-address* receive-message-rate rate *number* |
| Tree | rate |
| Description | This command configures the maximum number of MSDP messages that the MSDP or RP router can read from the TCP session when message rate limiting is active. When this limit is reached within the time interval configured using the **configure router msdp group peer receive-message-rate time** command, the router stops accepting messages from the TCP session until the time interval has elapsed. |
| Range | 10 to 10000 |


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| | |
|---|---|
| Introduced | 19.10.R1 |
| Platforms | All |

### **threshold** *number*

| | |
|---|---|
| Synopsis | Processed MSDP message limit to activate rate limiting |
| Context | **configure** router *named-item-64* msdp group *named-item* peer *ipv4-unicast-address* receive-message-rate threshold *number* |
| Tree | threshold |
| Description | This command configures the number of MSDP messages that the router can process before it activates message rate limiting. |
| Range | 1 to 1000000 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **time** *number*

| | |
|---|---|
| Synopsis | Time interval to rate limit MSDP messages |
| Context | **configure** router *named-item-64* msdp group *named-item* peer *ipv4-unicast-address* receive-message-rate time *number* |
| Tree | time |
| Description | This command configures the time interval to rate limit MSDP messages read from the TCP session. When the message limit, configured using the **configure router msdp group peer receive-message-rate rate** command, is reached within this time interval, the router stops accepting messages from the TCP session until the time interval has elapsed. |
| Range | 1 to 600 |
| Units | seconds |
| Introduced | 19.10.R1 |
| Platforms | All |

### **receive-message-rate**

| | |
|---|---|
| Synopsis | Enter the **receive-message-rate** context |
| Context | **configure** router *named-item-64* msdp group *named-item* receive-message-rate |
| Tree | receive-message-rate |


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| | |
|---|---|
| Description | Commands in this context configure rate limiting for the number of MSDP messages that the router can read from the TCP session. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **rate** *number*

| | |
|---|---|
| Synopsis | Maximum number of MSDP messages read from TCP session |
| Context | **configure** router *named-item-64* msdp group *named-item* receive-message-rate rate *number* |
| Tree | rate |
| Description | This command configures the maximum number of MSDP messages that the MSDP or RP router can read from the TCP session when message rate limiting is active. When this limit is reached within the time interval configured using the **configure router msdp group peer receive-message-rate time** command, the router stops accepting messages from the TCP session until the time interval has elapsed. |
| Range | 10 to 10000 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **threshold** *number*

| | |
|---|---|
| Synopsis | Processed MSDP message limit to activate rate limiting |
| Context | **configure** router *named-item-64* msdp group *named-item* receive-message-rate threshold *number* |
| Tree | threshold |
| Description | This command configures the number of MSDP messages that the router can process before it activates message rate limiting. |
| Range | 1 to 1000000 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **time** *number*

| | |
|---|---|
| Synopsis | Time interval to rate limit MSDP messages |
| Context | **configure** router *named-item-64* msdp group *named-item* receive-message-rate time *number* |
| Tree | time |


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| | |
|---|---|
| Description | This command configures the time interval to rate limit MSDP messages read from the TCP session. When the message limit, configured using the **configure router msdp group peer receive-message-rate rate** command, is reached within this time interval, the router stops accepting messages from the TCP session until the time interval has elapsed. |
| Range | 1 to 600 |
| Units | seconds |
| Introduced | 19.10.R1 |
| Platforms | All |

## **import-policy** *reference*

| | |
|---|---|
| Synopsis | Policy to import source-active states into MSDP |
| Context | **configure** router *named-item-64* msdp import-policy *reference* |
| Tree | import-policy |
| Description | This command specifies the policy used to import SA states from the SA list into MSDP.<br>If multiple policy names are specified, the router evaluates the policies in the order they are specified, and applies the first policy that matches.<br>If an import policy is configured at the global level, each individual peer inherits the global policy. If an import policy is configured at the group level, each individual peer in a group inherits the group policy. If an import policy is configured at the peer level, the policy only applies to the peer where it is configured. |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 19.10.R1 |
| Platforms | All |

## **local-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Local end IP address of the MSDP group |
| Context | **configure** router *named-item-64* msdp local-address *ipv4-unicast-address* |
| Tree | local-address |
| Description | This command configures the local end address of an MSDP session. For MSDP to function, at least one peer with a local address must be configured. This address must be present on the node and is used to validate incoming connections to the peer and to establish connections to the remote peer. |


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The specified IP address is validated and used as the local address for MSDP peers from that point. If a subsequent address is configured, it replaces the existing configuration and terminates any existing sessions

When a session is terminated, all information pertaining to and learned from that peer is removed. When a new peering session is created or a peering session is lost, an event message is generated.

Introduced 19.10.R1

Platforms All

## **peer** [ip-address] *ipv4-unicast-address*

Synopsis Enter the **peer** list instance

Context **configure** router *named-item-64* msdp peer *ipv4-unicast-address*

Tree peer

Description Commands in this context configure an MSDP peer. For MSDP to function, at least one peer with a local address must be configured.

After peer relationships are established, the MSDP peers exchange messages to advertise active multicast sources.

By default, the options applied to a peer are inherited from the global level. To override these inherited options, configure the peer-specific options within this context.

Introduced 19.10.R1

Platforms All

## [**ip-address**] *ipv4-unicast-address*

Synopsis IP address of the remote MSDP router for peering

Context **configure** router *named-item-64* msdp peer *ipv4-unicast-address*

Tree peer

Notes This element is part of a list key.

Introduced 19.10.R1

Platforms All

## **active-source-limit** *number*

Synopsis Maximum source-active messages accepted by MSDP

Context **configure** router *named-item-64* msdp peer *ipv4-unicast-address* active-source-limit *number*

Tree active-source-limit


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| | |
|---|---|
| Description | This command configures the maximum number of source-active (SA) messages that are accepted by MSDP, effectively controlling the number of active sources that the system can store.<br>When unconfigured, the system sets no limit on the number of SA messages it can accept. |
| Range | 0 to 1000000 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of MSDP |
| Context | **configure** router *named-item-64* msdp peer *ipv4-unicast-address* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 19.10.R1 |
| Platforms | All |

### **authentication-key** *encrypted-leaf*

| | |
|---|---|
| Synopsis | MD5 authentication key for the MSDP peering session |
| Context | **configure** router *named-item-64* msdp peer *ipv4-unicast-address* authentication-key *encrypted-leaf* |
| Tree | authentication-key |
| Description | This command configures an MD5 authentication key to be used with a specific MSDP peering session. The authentication key is not inherited from the global level and must be configured per peer. |
| String length | 1 to 370 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **default-peer** *boolean*

| | |
|---|---|
| Synopsis | Set the peer as a default MSDP peer |
| Context | **configure** router *named-item-64* msdp peer *ipv4-unicast-address* default-peer *boolean* |
| Tree | default-peer |


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| | |
|---|---|
| Description | When configured to **true**, the system sets the peer as a default MSDP peer. All SA messages from a default peer are accepted without the usual peer-reverse-path-forwarding (RPF) check.<br>Unlike the normal multicast RPF checks, the peer-RPF check stops SA messages from looping.<br>When configured to **false**, the system sets the peer as a non-default peer, which forces all SA messages from the peer to be RPF checked.<br>See "Peer-RPF check" in the *7450 ESS, 7750 SR, 7950 XRS, and VSR Multicast Routing Protocols Guide* for information about the peer-RPF check rules. |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

## **export-policy** *reference*

| | |
|---|---|
| Synopsis | Policy to export source-active states into MSDP |
| Context | **configure** router *named-item-64* msdp peer *ipv4-unicast-address* export-policy *reference* |
| Tree | export-policy |
| Description | This command specifies the policy used to export SA states from the SA list into MSDP.<br>If multiple policy names are specified, the router evaluates the policies in the order they are specified, and applies the first policy that matches.<br>If an export policy is configured at the global level, each individual peer inherits the global policy. If an export policy is configured at the group level, each individual peer in a group inherits the group policy. If an export policy is configured at the peer level, the policy only applies to the peer where it is configured. |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 19.10.R1 |
| Platforms | All |

## **import-policy** *reference*

| | |
|---|---|
| Synopsis | Policy to import source-active states into MSDP |
| Context | **configure** router *named-item-64* msdp peer *ipv4-unicast-address* import-policy *reference* |


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| | |
|---|---|
| Tree | import-policy |
| Description | This command specifies the policy used to import SA states from the SA list into MSDP.<br>If multiple policy names are specified, the router evaluates the policies in the order they are specified, and applies the first policy that matches.<br>If an import policy is configured at the global level, each individual peer inherits the global policy. If an import policy is configured at the group level, each individual peer in a group inherits the group policy. If an import policy is configured at the peer level, the policy only applies to the peer where it is configured. |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 19.10.R1 |
| Platforms | All |

## **local-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Local end IP address of the MSDP group |
| Context | **configure** router *named-item-64* msdp peer *ipv4-unicast-address* local-address *ipv4-unicast-address* |
| Tree | local-address |
| Description | This command configures the local end address of an MSDP session. For MSDP to function, at least one peer with a local address must be configured. This address must be present on the node and is used to validate incoming connections to the peer and to establish connections to the remote peer.<br>The specified IP address is validated and used as the local address for MSDP peers from that point. If a subsequent address is configured, it replaces the existing configuration and terminates any existing sessions<br>When a session is terminated, all information pertaining to and learned from that peer is removed. When a new peering session is created or a peering session is lost, an event message is generated. |
| Introduced | 19.10.R1 |
| Platforms | All |

## **receive-message-rate**

| | |
|---|---|
| Synopsis | Enter the **receive-message-rate** context |
| Context | **configure** router *named-item-64* msdp peer *ipv4-unicast-address* receive-message-rate |
| Tree | receive-message-rate |


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| | |
|---|---|
| Description | Commands in this context configure rate limiting for the number of MSDP messages that the router can read from the TCP session. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **rate** *number*

| | |
|---|---|
| Synopsis | Maximum number of MSDP messages read from TCP session |
| Context | **configure** router *named-item-64* msdp peer *ipv4-unicast-address* receive-message-rate rate *number* |
| Tree | rate |
| Description | This command configures the maximum number of MSDP messages that the MSDP or RP router can read from the TCP session when message rate limiting is active. When this limit is reached within the time interval configured using the **configure router msdp group peer receive-message-rate time** command, the router stops accepting messages from the TCP session until the time interval has elapsed. |
| Range | 10 to 10000 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **threshold** *number*

| | |
|---|---|
| Synopsis | Processed MSDP message limit to activate rate limiting |
| Context | **configure** router *named-item-64* msdp peer *ipv4-unicast-address* receive-message-rate threshold *number* |
| Tree | threshold |
| Description | This command configures the number of MSDP messages that the router can process before it activates message rate limiting. |
| Range | 1 to 1000000 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **time** *number*

| | |
|---|---|
| Synopsis | Time interval to rate limit MSDP messages |
| Context | **configure** router *named-item-64* msdp peer *ipv4-unicast-address* receive-message-rate time *number* |
| Tree | time |


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| | |
|---|---|
| Description | This command configures the time interval to rate limit MSDP messages read from the TCP session. When the message limit, configured using the **configure router msdp group peer receive-message-rate rate** command, is reached within this time interval, the router stops accepting messages from the TCP session until the time interval has elapsed. |
| Range | 1 to 600 |
| Units | seconds |
| Introduced | 19.10.R1 |
| Platforms | All |

## receive-message-rate

| | |
|---|---|
| Synopsis | Enter the **receive-message-rate** context |
| Context | **configure** router *named-item-64* msdp receive-message-rate |
| Tree | receive-message-rate |
| Description | Commands in this context configure rate limiting for the number of MSDP messages that the router can read from the TCP session. |
| Introduced | 19.10.R1 |
| Platforms | All |

## rate *number*

| | |
|---|---|
| Synopsis | Maximum number of MSDP messages read from TCP session |
| Context | **configure** router *named-item-64* msdp receive-message-rate rate *number* |
| Tree | rate |
| Description | This command configures the maximum number of MSDP messages that the MSDP or RP router can read from the TCP session when message rate limiting is active. When this limit is reached within the time interval configured using the **configure router msdp group peer receive-message-rate time** command, the router stops accepting messages from the TCP session until the time interval has elapsed. |
| Range | 10 to 10000 |
| Introduced | 19.10.R1 |
| Platforms | All |

## threshold *number*

| | |
|---|---|
| Synopsis | Processed MSDP message limit to activate rate limiting |
| Context | **configure** router *named-item-64* msdp receive-message-rate threshold *number* |


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| | |
|---|---|
| Tree | threshold |
| Description | This command configures the number of MSDP messages that the router can process before it activates message rate limiting. |
| Range | 1 to 1000000 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **time** *number*

| | |
|---|---|
| Synopsis | Time interval to rate limit MSDP messages |
| Context | **configure** router *named-item-64* msdp receive-message-rate time *number* |
| Tree | time |
| Description | This command configures the time interval to rate limit MSDP messages read from the TCP session. When the message limit, configured using the **configure router msdp group peer receive-message-rate rate** command, is reached within this time interval, the router stops accepting messages from the TCP session until the time interval has elapsed. |
| Range | 1 to 600 |
| Units | seconds |
| Introduced | 19.10.R1 |
| Platforms | All |

### **rpf-table** *keyword*

| | |
|---|---|
| Synopsis | Route tables for RPF lookup |
| Context | **configure** router *named-item-64* msdp rpf-table *keyword* |
| Tree | rpf-table |
| Description | This command configures the sequence of route tables used to find an RPF interface for a multicast route.<br>By default, the router only uses the unicast route table to calculate RPF interface towards the source or rendezvous point. The user can specify the following options:<br>• rtable-u - use the unicast route table only<br>• rtable-m - use the multicast route table only<br>• both - use both route tables |
| Options | rtable-m, rtable-u, both |
| Default | rtable-u |
| Introduced | 19.10.R1 |


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| | |
|---|---|
| Platforms | All |

### **source** [ip-prefix] *ipv4-unicast-prefix*

| | |
|---|---|
| Synopsis | Enter the **source** list instance |
| Context | **configure** router *named-item-64* msdp source *ipv4-unicast-prefix* |
| Tree | source |
| Introduced | 19.10.R1 |
| Platforms | All |

### [**ip-prefix**] *ipv4-unicast-prefix*

| | |
|---|---|
| Synopsis | Source IP address for accepted source-active messages |
| Context | **configure** router *named-item-64* msdp source *ipv4-unicast-prefix* |
| Tree | source |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **active-source-limit** *number*

| | |
|---|---|
| Synopsis | Number of source-active messages accepted by MSDP |
| Context | **configure** router *named-item-64* msdp source *ipv4-unicast-prefix* active-source-limit *number* |
| Tree | active-source-limit |
| Description | This command configures the maximum number of SA messages that are accepted by the MSDP source, effectively controlling the number of active sources that the system can store.<br>When unconfigured, the system sets no limit on the number of SA messages it can accept. |
| Range | 0 to 1000000 |
| Introduced | 19.10.R1 |
| Platforms | All |


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### **source-active-cache-lifetime** *number*

| | |
|---|---|
| Synopsis | Timeout interval for SA entries in the cache |
| Context | **configure** router *named-item-64* msdp source-active-cache-lifetime *number* |
| Tree | source-active-cache-lifetime |
| Description | This command configures the timeout interval for the SA entries in the cache. If these entries are not refreshed within the timeout interval, they are removed from the cache. Normally, the entries are refreshed at least once per minute, but under high load with many MSDP peers, the refresh cycle could be incomplete. Configuring a higher timeout value is useful to prevent instabilities in the MSDP cache. |
| Range | 90 to 600 |
| Units | seconds |
| Default | 90 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **mss-adjust**

| | |
|---|---|
| Synopsis | Enable the **mss-adjust** context |
| Context | **configure** router *named-item-64* mss-adjust |
| Tree | mss-adjust |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **nat-group** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | NAT group used for TCP-MSS adjustment |
| Context | **configure** router *named-item-64* mss-adjust nat-group *number* |
| Tree | nat-group |
| Max. range | 0 to 4294967295 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **segment-size** *number*

| | |
|---|---|
| Synopsis | TCP-MSS option value in transmitted TCP SYN requests |
| Context | **configure** router *named-item-64* mss-adjust segment-size *number* |
| Tree | segment-size |
| Range | 160 to 10240 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **mtrace2**

| | |
|---|---|
| Synopsis | Enter the **mtrace2** context |
| Context | **configure** router *named-item-64* mtrace2 |
| Tree | mtrace2 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of multicast path tracing |
| Context | **configure** router *named-item-64* mtrace2 admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **udp-port** *number*

| | |
|---|---|
| Synopsis | Destination and listening port for the mtrace2 command |
| Context | **configure** router *named-item-64* mtrace2 udp-port *number* |
| Tree | udp-port |
| Range | 1024 to 49151 |
| Default | 5000 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **multicast-info-policy** *reference*

| | |
|---|---|
| Synopsis | Multicast policy name for virtual router |
| Context | **configure** router *named-item-64* multicast-info-policy *reference* |
| Tree | multicast-info-policy |
| Reference | **configure** multicast-management multicast-info-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### nat

| | |
|---|---|
| Synopsis | Enable the **nat** context |
| Context | **configure** router *named-item-64* nat |
| Tree | nat |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### inside

| | |
|---|---|
| Synopsis | Enter the **inside** context |
| Context | **configure** router *named-item-64* nat inside |
| Tree | inside |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### l2-aware

| | |
|---|---|
| Synopsis | Enter the **l2-aware** context |
| Context | **configure** router *named-item-64* nat inside l2-aware |
| Tree | l2-aware |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **force-unique-ip-addresses** *boolean*

| | |
|---|---|
| Synopsis | Enforce unique IPv4 addresses for L2-aware subscribers |
| Context | **configure** router *named-item-64* nat inside l2-aware force-unique-ip-addresses *boolean* |
| Tree | force-unique-ip-addresses |
| Description | When configured to **true**, the system enforces the uniqueness of IPv4 addresses of L2-aware subscribers in an inside routing context.<br>This functionality is required if multicast sourced from the inside routing context is enabled for L2-aware subscribers. |
| Default | false |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **subscribers** [prefix] *ipv4-prefix-with-host-bits*

| | |
|---|---|
| Synopsis | Add a list entry for **subscribers** |
| Context | **configure** router *named-item-64* nat inside l2-aware subscribers *ipv4-prefix-with-host-bits* |
| Tree | subscribers |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**prefix**] *ipv4-prefix-with-host-bits*

| | |
|---|---|
| Synopsis | Layer-2 Aware NAT subscriber prefix |
| Context | **configure** router *named-item-64* nat inside l2-aware subscribers *ipv4-prefix-with-host-bits* |
| Tree | subscribers |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **large-scale**

| | |
|---|---|
| Synopsis | Enter the **large-scale** context |
| Context | **configure** router *named-item-64* nat inside large-scale |


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| | |
|---|---|
| Tree | large-scale |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## dnat-only

| | |
|---|---|
| Synopsis | Enter the **dnat-only** context |
| Context | **configure** router *named-item-64* nat inside large-scale dnat-only |
| Tree | dnat-only |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## source-prefix-list *reference*

| | |
|---|---|
| Synopsis | NAT prefix list that contains source IP addresses |
| Context | **configure** router *named-item-64* nat inside large-scale dnat-only source-prefix-list *reference* |
| Tree | source-prefix-list |
| Reference | **configure** service nat prefix-list *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## dual-stack-lite

| | |
|---|---|
| Synopsis | Enter the **dual-stack-lite** context |
| Context | **configure** router *named-item-64* nat inside large-scale dual-stack-lite |
| Tree | dual-stack-lite |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of Dual Stack Lite |
| Context | **configure** router *named-item-64* nat inside large-scale dual-stack-lite admin-state *keyword* |
| Tree | admin-state |


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| | |
|---|---|
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## deterministic

| | |
|---|---|
| Synopsis | Enter the **deterministic** context |
| Context | **configure** router *named-item-64* nat inside large-scale dual-stack-lite deterministic |
| Tree | deterministic |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **address-map** [from] *ipv6-prefix* to *ipv6-prefix* nat-policy *reference*

| | |
|---|---|
| Synopsis | Enter the **address-map** list instance |
| Context | **configure** router *named-item-64* nat inside large-scale dual-stack-lite deterministic address-map *ipv6-prefix* to *ipv6-prefix* nat-policy *reference* |
| Tree | address-map |
| Description | Commands in this context map inside IPv6 addresses of deterministic DS-Lite subscribers to the outside IPv4 addresses in a NAT pool.<br>This context is only applicable to deterministic DS-Lite with a single ESA-VM in a NAT-group. The number of subscribers per outside IP address is flexible and not restricted to a discrete range governed by the 2^n rule. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## [**from**] *ipv6-prefix*

| | |
|---|---|
| Synopsis | Lower bound of IPv6 address of inside IPv6 NAT range |
| Context | **configure** router *named-item-64* nat inside large-scale dual-stack-lite deterministic address-map *ipv6-prefix* to *ipv6-prefix* nat-policy *reference* |
| Tree | address-map |
| Description | This command specifies the starting IPv6 address or IPv6 prefix for a DS-Lite subscriber or B4 element on the inside IPv6 address range. |
| Notes | This element is part of a list key. |
| Introduced | 24.7.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **to** *ipv6-prefix*

| | |
|---|---|
| Synopsis | Upper bound of IPv6 address of inside IPv6 NAT range |
| Context | **configure** router *named-item-64* nat inside large-scale dual-stack-lite deterministic address-map *ipv6-prefix* to *ipv6-prefix* nat-policy *reference* |
| Tree | address-map |
| Description | This command specifies the ending IPv6 address or IPv6 prefix for a DS-Lite subscriber or B4 element on the inside IPv6 address range. |
| Notes | This element is part of a list key. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **nat-policy** *reference*

| | |
|---|---|
| Synopsis | NAT policy name for LSN |
| Context | **configure** router *named-item-64* nat inside large-scale dual-stack-lite deterministic address-map *ipv6-prefix* to *ipv6-prefix* nat-policy *reference* |
| Tree | address-map |
| Reference | **configure** service nat nat-policy *external-named-item* |
| Notes | This element is part of a list key. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of address map |
| Context | **configure** router *named-item-64* nat inside large-scale dual-stack-lite deterministic address-map *ipv6-prefix* to *ipv6-prefix* nat-policy *reference* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **outside-range** *ipv4-address*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | First outside IP address in NAT pool |
| Context | **configure** router *named-item-64* nat inside large-scale dual-stack-lite deterministic address-map *ipv6-prefix* to *ipv6-prefix* nat-policy *reference* outside-range *ipv4-address* |
| Tree | outside-range |
| Description | This command specifies the first outside IP address in the NAT pool.<br>The last outside IP address is determined by the number of subscribers mapped to an outside IP address via the **configure router nat outside pool large-scale subscriber-limit** and **configure service vprn nat outside pool large-scale subscriber-limit** commands. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **prefix-map** [source-prefix] *ipv6-unicast-prefix* nat-policy *reference*

| | |
|---|---|
| Synopsis | Enter the **prefix-map** list instance |
| Context | **configure** router *named-item-64* nat inside large-scale dual-stack-lite deterministic prefix-map *ipv6-unicast-prefix* nat-policy *reference* |
| Tree | prefix-map |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**source-prefix**] *ipv6-unicast-prefix*

| | |
|---|---|
| Synopsis | List containing source IP addresses on the private side |
| Context | **configure** router *named-item-64* nat inside large-scale dual-stack-lite deterministic prefix-map *ipv6-unicast-prefix* nat-policy *reference* |
| Tree | prefix-map |
| Notes | This element is part of a list key. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **nat-policy** *reference*

| | |
|---|---|
| Synopsis | NAT policy |
| Context | **configure** router *named-item-64* nat inside large-scale dual-stack-lite deterministic prefix-map *ipv6-unicast-prefix* nat-policy *reference* |
| Tree | prefix-map |
| Reference | **configure** service nat nat-policy *external-named-item* |
| Notes | This element is part of a list key. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the prefix |
| Context | **configure** router *named-item-64* nat inside large-scale dual-stack-lite deterministic prefix-map *ipv6-unicast-prefix* nat-policy *reference* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **map** [from] *ipv6-prefix* to *ipv6-prefix*

| | |
|---|---|
| Synopsis | Enter the **map** list instance |
| Context | **configure** router *named-item-64* nat inside large-scale dual-stack-lite deterministic prefix-map *ipv6-unicast-prefix* nat-policy *reference* map *ipv6-prefix* to *ipv6-prefix* |
| Tree | map |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**from**] *ipv6-prefix*

| | |
|---|---|
| Synopsis | Beginning of the range for IPv6 addresses |
| Context | **configure** router *named-item-64* nat inside large-scale dual-stack-lite deterministic prefix-map *ipv6-unicast-prefix* nat-policy *reference* map *ipv6-prefix* to *ipv6-prefix* |


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| | |
|---|---|
| Tree | map |
| Notes | This element is part of a list key. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **to** *ipv6-prefix*

| | |
|---|---|
| Synopsis | End of the range for IPv6 addresses |
| Context | **configure** router *named-item-64* nat inside large-scale dual-stack-lite deterministic prefix-map *ipv6-unicast-prefix* nat-policy *reference* map *ipv6-prefix* to *ipv6-prefix* |
| Tree | map |
| Notes | This element is part of a list key. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **first-outside-address** *ipv4-address*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Outside IP address mapped to inside IP address range |
| Context | **configure** router *named-item-64* nat inside large-scale dual-stack-lite deterministic prefix-map *ipv6-unicast-prefix* nat-policy *reference* map *ipv6-prefix* to *ipv6-prefix* first-outside-address *ipv4-address* |
| Tree | first-outside-address |
| Notes | This element is mandatory. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **endpoint** [address] *ipv6-address*

| | |
|---|---|
| Synopsis | Enter the **endpoint** list instance |
| Context | **configure** router *named-item-64* nat inside large-scale dual-stack-lite endpoint *ipv6-address* |
| Tree | endpoint |


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| | |
|---|---|
| Max. instances | 128 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**address**] *ipv6-address*

| | |
|---|---|
| Synopsis | Dual Stack Lite IPv6 address |
| Context | **configure** router *named-item-64* nat inside large-scale dual-stack-lite endpoint *ipv6-address* |
| Tree | endpoint |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ip-fragmentation** *keyword*

| | |
|---|---|
| Synopsis | Fragmentation control of the AFTR originated downstream IPv6 traffic |
| Context | **configure** router *named-item-64* nat inside large-scale dual-stack-lite endpoint *ipv6-address* ip-fragmentation *keyword* |
| Tree | ip-fragmentation |
| Options | fragment-ipv6, fragment-ipv6-unless-ipv4-df-set |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **min-first-fragment-size-rx** *number*

| | |
|---|---|
| Synopsis | Minimum MTU size for upstream packets |
| Context | **configure** router *named-item-64* nat inside large-scale dual-stack-lite endpoint *ipv6-address* min-first-fragment-size-rx *number* |
| Tree | min-first-fragment-size-rx |
| Description | This command configures the minimum MTU size for the first fragment in the upstream direction. This command can be used to enable processing of first IPv6 fragments smaller than 1280 bytes. RFC 8200 recommends the minimum MTU in IPv6 be 1280 bytes which allows fragmentation only for packets that are larger than 1280 bytes. If a first fragment is smaller than 1280 bytes, DS-lite implementation in the SR OS, by default, drops the first fragment. |
| Range | 512 to 1280 |


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| | |
|---|---|
| Default | 1280 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **reassembly** *boolean*

| | |
|---|---|
| Synopsis | Reassembly of IPv6 payload datagrams |
| Context | **configure** router *named-item-64* nat inside large-scale dual-stack-lite endpoint *ipv6-address* reassembly *boolean* |
| Tree | reassembly |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **tunnel-mtu** *number*

| | |
|---|---|
| Synopsis | DS-Lite tunnel MTU for this address |
| Context | **configure** router *named-item-64* nat inside large-scale dual-stack-lite endpoint *ipv6-address* tunnel-mtu *number* |
| Tree | tunnel-mtu |
| Description | This command configures the Dual Stack Lite (DS-Lite) tunnel MTU for this address. |
| Range | 464 to 9212 |
| Default | 1500 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **max-subscriber-limit** *number*

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

| | |
|---|---|
| Synopsis | Largest value for all subscriber limits in each deterministic pool |
| Context | **configure** router *named-item-64* nat inside large-scale dual-stack-lite max-subscriber-limit *number* |
| Tree | max-subscriber-limit |
| Range | 1 \| 2 \| 4 \| 8 \| 16 \| 32 \| 64 \| 128 \| 256 \| 512 \| 1024 \| 2048 \| 4096 \| 8192 \| 16384 \| 32768 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **subscriber-prefix-length** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

| | |
|---|---|
| Synopsis | IPv6 prefix length of the Dual Stack Lite subscribers |
| Context | **configure** router *named-item-64* nat inside large-scale dual-stack-lite subscriber-prefix-length *number* |
| Tree | subscriber-prefix-length |
| Range | 32 to 64 \| 128 |
| Default | 128 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **nat-policy** *reference*

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

| | |
|---|---|
| Synopsis | NAT policy name for LSN |
| Context | **configure** router *named-item-64* nat inside large-scale nat-policy *reference* |
| Tree | nat-policy |
| Reference | **configure** service nat nat-policy *external-named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **nat44**

| | |
|---|---|
| Synopsis | Enter the **nat44** context |
| Context | **configure** router *named-item-64* nat inside large-scale nat44 |


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| | |
|---|---|
| Tree | nat44 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **destination-prefix** [ip-prefix-length] *ipv4-unicast-prefix*

| | |
|---|---|
| Synopsis | Enter the **destination-prefix** list instance |
| Context | **configure** router *named-item-64* nat inside large-scale nat44 destination-prefix *ipv4-unicast-prefix* |
| Tree | destination-prefix |
| Max. instances | 6144 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## [**ip-prefix-length**] *ipv4-unicast-prefix*

| | |
|---|---|
| Synopsis | IP prefix for the destination address |
| Context | **configure** router *named-item-64* nat inside large-scale nat44 destination-prefix *ipv4-unicast-prefix* |
| Tree | destination-prefix |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **nat-policy** *reference*

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

| | |
|---|---|
| Synopsis | NAT policy |
| Context | **configure** router *named-item-64* nat inside large-scale nat44 destination-prefix *ipv4-unicast-prefix* nat-policy *reference* |
| Tree | nat-policy |
| Reference | **configure** service nat nat-policy *external-named-item* |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## deterministic

| | |
|---|---|
| Synopsis | Enter the **deterministic** context |
| Context | **configure** router *named-item-64* nat inside large-scale nat44 deterministic |
| Tree | deterministic |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **address-map** [from] *ipv4-address* to *ipv4-address* nat-policy *reference*

| | |
|---|---|
| Synopsis | Enter the **address-map** list instance |
| Context | **configure** router *named-item-64* nat inside large-scale nat44 deterministic address-map *ipv4-address* to *ipv4-address* nat-policy *reference* |
| Tree | address-map |
| Description | Commands in this context map inside IP addresses of deterministic NAT44 subscribers to the outside IP addresses in a NAT pool.<br>This context is only applicable to deterministic NAT44 with a single ESA-VM in a NAT-group. The number of subscribers per outside IP address is flexible and not restricted to a discrete range governed by the 2^n rule.<br>When context is configured, the **max-subscriber-limit** command must be set to 1. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## [**from**] *ipv4-address*

| | |
|---|---|
| Synopsis | First IP address of inside IP NAT range |
| Context | **configure** router *named-item-64* nat inside large-scale nat44 deterministic address-map *ipv4-address* to *ipv4-address* nat-policy *reference* |
| Tree | address-map |
| Description | This command specifies the starting IPv4 address, IPv6 address, or IPv6 prefix on the inside IP address range. |
| Notes | This element is part of a list key. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **to** *ipv4-address*

| | |
|---|---|
| Synopsis | Ending IP address of inside IP NAT range |
| Context | **configure** router *named-item-64* nat inside large-scale nat44 deterministic address-map *ipv4-address* to *ipv4-address* nat-policy *reference* |
| Tree | address-map |
| Description | This command specifies the ending IPv4 address, IPv6 address, or IPv6 prefix on the inside IP address range. |
| Notes | This element is part of a list key. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **nat-policy** *reference*

| | |
|---|---|
| Synopsis | NAT policy name for LSN |
| Context | **configure** router *named-item-64* nat inside large-scale nat44 deterministic address-map *ipv4-address* to *ipv4-address* nat-policy *reference* |
| Tree | address-map |
| Reference | **configure** service nat nat-policy *external-named-item* |
| Notes | This element is part of a list key. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of address map |
| Context | **configure** router *named-item-64* nat inside large-scale nat44 deterministic address-map *ipv4-address* to *ipv4-address* nat-policy *reference* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **outside-range** *ipv4-address*

**WARNING:**
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| | |
|---|---|
| Synopsis | First outside IP address in NAT pool |
| Context | **configure** router *named-item-64* nat inside large-scale nat44 deterministic address-map *ipv4-address* to *ipv4-address* nat-policy *reference* outside-range *ipv4-address* |
| Tree | outside-range |
| Description | This command specifies the first outside IP address in the NAT pool.<br>The last outside IP address is determined by the number of subscribers mapped to an outside IP address via the **configure router nat outside pool large-scale subscriber-limit** and **configure service vprn nat outside pool large-scale subscriber-limit** commands. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **prefix-map** [source-prefix] *ipv4-unicast-prefix* nat-policy *reference*

| | |
|---|---|
| Synopsis | Enter the **prefix-map** list instance |
| Context | **configure** router *named-item-64* nat inside large-scale nat44 deterministic prefix-map *ipv4-unicast-prefix* nat-policy *reference* |
| Tree | prefix-map |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**source-prefix**] *ipv4-unicast-prefix*

| | |
|---|---|
| Synopsis | Traffic sent from sources within this prefix will be NATed |
| Context | **configure** router *named-item-64* nat inside large-scale nat44 deterministic prefix-map *ipv4-unicast-prefix* nat-policy *reference* |
| Tree | prefix-map |
| Notes | This element is part of a list key. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **nat-policy** *reference*

| | |
|---|---|
| Synopsis | NAT policy |
| Context | **configure** router *named-item-64* nat inside large-scale nat44 deterministic prefix-map *ipv4-unicast-prefix* nat-policy *reference* |
| Tree | prefix-map |
| Reference | **configure** service nat nat-policy *external-named-item* |
| Notes | This element is part of a list key. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the prefix |
| Context | **configure** router *named-item-64* nat inside large-scale nat44 deterministic prefix-map *ipv4-unicast-prefix* nat-policy *reference* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **map** [from] *ipv4-address* to *ipv4-address*

| | |
|---|---|
| Synopsis | Enter the **map** list instance |
| Context | **configure** router *named-item-64* nat inside large-scale nat44 deterministic prefix-map *ipv4-unicast-prefix* nat-policy *reference* map *ipv4-address* to *ipv4-address* |
| Tree | map |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**from**] *ipv4-address*

| | |
|---|---|
| Synopsis | First IP address of inside IP NAT range |
| Context | **configure** router *named-item-64* nat inside large-scale nat44 deterministic prefix-map *ipv4-unicast-prefix* nat-policy *reference* map *ipv4-address* to *ipv4-address* |


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| | |
|---|---|
| Tree | map |
| Description | This command specifies the starting IPv4 address, IPv6 address, or IPv6 prefix on the inside IP address range. |
| Notes | This element is part of a list key. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **to** *ipv4-address*

| | |
|---|---|
| Synopsis | Ending IP address of inside IP NAT range |
| Context | **configure** router *named-item-64* nat inside large-scale nat44 deterministic prefix-map *ipv4-unicast-prefix* nat-policy *reference* map *ipv4-address* to *ipv4-address* |
| Tree | map |
| Description | This command specifies the ending IPv4 address, IPv6 address, or IPv6 prefix on the inside IP address range. |
| Notes | This element is part of a list key. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **first-outside-address** *ipv4-address*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Outside IP address mapped to inside IP address range |
| Context | **configure** router *named-item-64* nat inside large-scale nat44 deterministic prefix-map *ipv4-unicast-prefix* nat-policy *reference* map *ipv4-address* to *ipv4-address* first-outside-address *ipv4-address* |
| Tree | first-outside-address |
| Notes | This element is mandatory. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **max-subscriber-limit** *number*

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

| | |
|---|---|
| Synopsis | Largest value for all subscriber limits in each deterministic pool |
| Context | **configure** router *named-item-64* nat inside large-scale nat44 max-subscriber-limit *number* |
| Tree | max-subscriber-limit |
| Range | 1 \| 2 \| 4 \| 8 \| 16 \| 32 \| 64 \| 128 \| 256 \| 512 \| 1024 \| 2048 \| 4096 \| 8192 \| 16384 \| 32768 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **nat-import** *reference*

| | |
|---|---|
| Synopsis | Import BGP-VPN routes in NAT inside routing context |
| Context | **configure** router *named-item-64* nat inside large-scale nat44 nat-import *reference* |
| Tree | nat-import |
| Description | This command references an import policy to determine the routes that should be installed in the routing table as NAT routes, which are used to steer traffic to NAT.<br>A dynamic route obtained by BGP-VPN can be imported into an inside (private side) routing context in NAT environment. This route is associated with a NAT policy that maps traffic destined into a NAT pool and outside routing context. If the NAT policy is not explicitly configured in the import route-policy, the imported NAT route is, by default, associated with the default NAT policy defined in the NAT inside routing context.<br>All BGP-VPN routes that are destined to be imported into NAT inside routing context must be configured with action-type accept in the route policy. |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **source-prefix** [ip-prefix-length] *ipv4-unicast-prefix*

| | |
|---|---|
| Synopsis | Enter the **source-prefix** list instance |


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| | |
|---|---|
| Context | **configure** router *named-item-64* nat inside large-scale nat44 source-prefix *ipv4-unicast-prefix* |
| Tree | source-prefix |
| Description | Commands in this context configure the source prefix used to identify traffic for NAT processing. After the traffic is diverted to the ESA-VM or vISA, its source IP address is checked to determine if it belongs to the configured prefix. If it does, the traffic is processed by NAT, otherwise, it is dropped. |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## [**ip-prefix-length**] *ipv4-unicast-prefix*

| | |
|---|---|
| Synopsis | IPv4 prefix length |
| Context | **configure** router *named-item-64* nat inside large-scale nat44 source-prefix *ipv4-unicast-prefix* |
| Tree | source-prefix |
| Notes | This element is part of a list key. |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **nat-policy** *reference*

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | AT policy associated with the source prefix |
| Context | **configure** router *named-item-64* nat inside large-scale nat44 source-prefix *ipv4-unicast-prefix* nat-policy *reference* |
| Tree | nat-policy |
| Reference | **configure** service nat nat-policy *external-named-item* |
| Notes | This element is mandatory. |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## nat64

| | |
|---|---|
| Synopsis | Enable the **nat64** context |
| Context | **configure** router *named-item-64* nat inside large-scale nat64 |
| Tree | nat64 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of NAT64 |
| Context | **configure** router *named-item-64* nat inside large-scale nat64 admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## drop-zero-ipv4-checksum *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Drop UDP datagrams with zero IPv4 checksum |
| Context | **configure** router *named-item-64* nat inside large-scale nat64 drop-zero-ipv4-checksum *boolean* |
| Tree | drop-zero-ipv4-checksum |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **insert-ipv6-fragment-header** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Include IPv6 fragment header to indicate that the sender allows fragmentation |
| Context | **configure** router *named-item-64* nat inside large-scale nat64 insert-ipv6-fragment-header *boolean* |
| Tree | insert-ipv6-fragment-header |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **ip-fragmentation** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Control fragmentation of originated downstream IPv6 traffic |
| Context | **configure** router *named-item-64* nat inside large-scale nat64 ip-fragmentation *keyword* |
| Tree | ip-fragmentation |
| Options | fragment-ipv6, fragment-ipv6-unless-ipv4-df-set |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **ipv6-mtu** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Size of the IPv6 downstream packet in NAT64 |
| Context | **configure** router *named-item-64* nat inside large-scale nat64 ipv6-mtu *number* |
| Tree | ipv6-mtu |
| Range | 1280 to 9212 |
| Default | 1520 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **prefix** *ipv6-prefix*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

| | |
|---|---|
| Synopsis | IPv6 prefix to derive the IPv6 address from the IPv4 address |
| Context | **configure** router *named-item-64* nat inside large-scale nat64 prefix *ipv6-prefix* |
| Tree | prefix |
| Default | 64:ff9b::/96 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **subscriber-prefix-length** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

| | |
|---|---|
| Synopsis | IPv6 prefix length for the NAT64 subscribers |
| Context | **configure** router *named-item-64* nat inside large-scale nat64 subscriber-prefix-length *number* |
| Tree | subscriber-prefix-length |
| Range | 32 to 64 \| 128 |
| Default | 128 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## tos

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **tos** context |
| Context | **configure** router *named-item-64* nat inside large-scale nat64 tos |
| Tree | tos |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## downstream

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **downstream** context |
| Context | **configure** router *named-item-64* nat inside large-scale nat64 tos downstream |
| Tree | downstream |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## use-ipv4 *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Copy TOS/DSCP bits from the incoming IPv4 frame to the outgoing IPv6 frame |
| Context | **configure** router *named-item-64* nat inside large-scale nat64 tos downstream use-ipv4 *boolean* |
| Tree | use-ipv4 |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## upstream

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **upstream** context |
| Context | **configure** router *named-item-64* nat inside large-scale nat64 tos upstream |
| Tree | upstream |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## set-tos *(keyword | number)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | TOS/DSCP bits in IPv4 frame in the upstream direction |
| Context | **configure** router *named-item-64* nat inside large-scale nat64 tos upstream set-tos *(keyword \| number)* |
| Tree | set-tos |
| Range | 0 to 255 |
| Options | use-ipv6 |
| Default | use-ipv6 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## redundancy

| | |
|---|---|
| Synopsis | Enter the **redundancy** context |
| Context | **configure** router *named-item-64* nat inside large-scale redundancy |
| Tree | redundancy |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **peer** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IP address of the NAT redundancy peer for this virtual router instance |
| Context | **configure** router *named-item-64* nat inside large-scale redundancy peer *ipv4-unicast-address* |
| Tree | peer |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **peer6** *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | IPv6 address of the NAT redundancy peer for this virtual router instance |
| Context | **configure** router *named-item-64* nat inside large-scale redundancy peer6 *ipv6-unicast-address* |
| Tree | peer6 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **steering-route** *ipv4-unicast-prefix*

| | |
|---|---|
| Synopsis | IP address and prefix length of the steering route |
| Context | **configure** router *named-item-64* nat inside large-scale redundancy steering-route *ipv4-unicast-prefix* |
| Tree | steering-route |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **static-port-forwards**

| | |
|---|---|
| Synopsis | Enter the **static-port-forwards** context |
| Context | **configure** router *named-item-64* nat inside large-scale static-port-forwards |
| Tree | static-port-forwards |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **spf-nat-policy** [nat-policy] *reference*

| | |
|---|---|
| Synopsis | Add a list entry for **spf-nat-policy** |
| Context | **configure** router *named-item-64* nat inside large-scale static-port-forwards spf-nat-policy *reference* |
| Tree | spf-nat-policy |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**nat-policy**] *reference*

| | |
|---|---|
| Synopsis | NAT policy |
| Context | **configure** router *named-item-64* nat inside large-scale static-port-forwards spf-nat-policy *reference* |
| Tree | spf-nat-policy |
| Reference | **configure** service nat nat-policy *external-named-item* |
| Notes | This element is part of a list key. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **subscriber-identification**

| | |
|---|---|
| Synopsis | Enter the **subscriber-identification** context |
| Context | **configure** router *named-item-64* nat inside large-scale subscriber-identification |
| Tree | subscriber-identification |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of subscriber identification |
| Context | **configure** router *named-item-64* nat inside large-scale subscriber-identification admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## attribute

| | |
|---|---|
| Synopsis | Enter the **attribute** context |
| Context | **configure** router *named-item-64* nat inside large-scale subscriber-identification attribute |
| Tree | attribute |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## type *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | RADIUS attribute used as subscriber identifier |
| Context | **configure** router *named-item-64* nat inside large-scale subscriber-identification attribute type *keyword* |
| Tree | type |
| Options | alc-sub-string, user-name, class, station-id, imsi, imei |
| Default | alc-sub-string |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## vendor *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | The RADIUS Vendor |
| Context | **configure** router *named-item-64* nat inside large-scale subscriber-identification attribute vendor *keyword* |
| Tree | vendor |
| Options | standard, nokia, 3gpp |


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| | |
|---|---|
| Default | nokia |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** router *named-item-64* nat inside large-scale subscriber-identification description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **drop-unidentified-traffic** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Drop traffic from unidentified flows |
| Context | **configure** router *named-item-64* nat inside large-scale subscriber-identification drop-unidentified-traffic *boolean* |
| Tree | drop-unidentified-traffic |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **radius-proxy-server**

| | |
|---|---|
| Synopsis | Enable the **radius-proxy-server** context |
| Context | **configure** router *named-item-64* nat inside large-scale subscriber-identification radius-proxy-server |
| Tree | radius-proxy-server |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **router-instance** *string*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Router instance |
| Context | **configure** router *named-item-64* nat inside large-scale subscriber-identification radius-proxy-server router-instance *string* |
| Tree | router-instance |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **server** *named-item*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Server name |
| Context | **configure** router *named-item-64* nat inside large-scale subscriber-identification radius-proxy-server server *named-item* |
| Tree | server |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## traffic-identification

| | |
|---|---|
| Synopsis | Enter the **traffic-identification** context |
| Context | **configure** router *named-item-64* nat inside large-scale traffic-identification |
| Tree | traffic-identification |
| Description | Commands in this context configure traffic idenification for NAT processing |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **source-prefix-only** *boolean*

| | |
|---|---|
| Synopsis | Allow traffic associated with source prefixes only |
| Context | **configure** router *named-item-64* nat inside large-scale traffic-identification source-prefix-only *boolean* |
| Tree | source-prefix-only |
| Default | false |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **map**

| | |
|---|---|
| Synopsis | Enter the **map** context |
| Context | **configure** router *named-item-64* nat map |
| Tree | map |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s, VSR |

### **map-domain** [domain-name] *reference*

| | |
|---|---|
| Synopsis | Add a list entry for **map-domain** |
| Context | **configure** router *named-item-64* nat map map-domain *reference* |
| Tree | map-domain |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s, VSR |

### [**domain-name**] *reference*

| | |
|---|---|
| Synopsis | MAP domain template name |
| Context | **configure** router *named-item-64* nat map map-domain *reference* |
| Tree | map-domain |
| Reference | **configure** service nat map-t domain *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s, VSR |


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### outside

| | |
|---|---|
| Synopsis | Enter the **outside** context |
| Context | **configure** router *named-item-64* nat outside |
| Tree | outside |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### dnat-only

| | |
|---|---|
| Synopsis | Enter the **dnat-only** context |
| Context | **configure** router *named-item-64* nat outside dnat-only |
| Tree | dnat-only |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### route-limit *number*

| | |
|---|---|
| Synopsis | Limit for internal routes for downstream traffic |
| Context | **configure** router *named-item-64* nat outside dnat-only route-limit *number* |
| Tree | route-limit |
| Range | 1 to 131072 |
| Default | 32768 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### filters

| | |
|---|---|
| Synopsis | Enter the **filters** context |
| Context | **configure** router *named-item-64* nat outside filters |
| Tree | filters |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## downstream

| | |
|---|---|
| Synopsis | Enter the **downstream** context |
| Context | **configure** router *named-item-64* nat outside filters downstream |
| Tree | downstream |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## ipv4 *reference*

| | |
|---|---|
| Synopsis | IPv4 filter policy name |
| Context | **configure** router *named-item-64* nat outside filters downstream ipv4 *reference* |
| Tree | ipv4 |
| Reference | **configure** filter ip-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## ipv6 *reference*

| | |
|---|---|
| Synopsis | IPv6 filter policy name |
| Context | **configure** router *named-item-64* nat outside filters downstream ipv6 *reference* |
| Tree | ipv6 |
| Reference | **configure** filter ipv6-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## upstream

| | |
|---|---|
| Synopsis | Enter the **upstream** context |
| Context | **configure** router *named-item-64* nat outside filters upstream |
| Tree | upstream |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **ipv4** *reference*

| | |
|---|---|
| Synopsis | IPv4 filter policy name |
| Context | **configure** router *named-item-64* nat outside filters upstream ipv4 *reference* |
| Tree | ipv4 |
| Reference | **configure** filter ip-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ipv6** *reference*

| | |
|---|---|
| Synopsis | IPv6 filter policy name |
| Context | **configure** router *named-item-64* nat outside filters upstream ipv6 *reference* |
| Tree | ipv6 |
| Reference | **configure** filter ipv6-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **mtu** *number*

| | |
|---|---|
| Synopsis | MTU for downstream traffic |
| Context | **configure** router *named-item-64* nat outside mtu *number* |
| Tree | mtu |
| Range | 512 to 9000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **pool** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **pool** list instance |
| Context | **configure** router *named-item-64* nat outside pool *named-item* |
| Tree | pool |
| Max. instances | 4096 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## [**name**] *named-item*

| | |
|---|---|
| Synopsis | NAT pool name |
| Context | **configure** router *named-item-64* nat outside pool *named-item* |
| Tree | pool |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **address-pooling** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Outside IP address allocation mode for a NAT subscriber |
| Context | **configure** router *named-item-64* nat outside pool *named-item* address-pooling *keyword* |
| Tree | address-pooling |
| Description | This command configures address pooling which defines a relationship between the NAT subscriber and its outside IP address(es).<br>The behavior in NAT, as defined in RFC 7857, strongly recommends that the NAT subscribers be mapped to a single outside IP address. If this outside IP address runs out of ports, no new ports for the subscriber are allocated. This behavior is called paired address pooling.<br>The alternative behavior is arbitrary address pooling, where a NAT subscriber is mapped to multiple IP addresses when the current outside IP address runs out of ports. This way, the subscriber becomes associated with multiple outside IP addresses. While this results in better resource utilization in NAT, it may negatively affect the behavior of some applications. |
| Options | paired, arbitrary |
| Default | paired |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **address-range** [start] *ipv4-unicast-address* end *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Enter the **address-range** list instance |
| Context | **configure** router *named-item-64* nat outside pool *named-item* address-range *ipv4-unicast-address* end *ipv4-unicast-address* |
| Tree | address-range |
| Max. instances | 4096 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**start**] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Lower bound of the NAT address range |
| Context | **configure** router *named-item-64* nat outside pool *named-item* address-range *ipv4-unicast-address* end *ipv4-unicast-address* |
| Tree | address-range |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **end** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Upper bound of the NAT address range |
| Context | **configure** router *named-item-64* nat outside pool *named-item* address-range *ipv4-unicast-address* end *ipv4-unicast-address* |
| Tree | address-range |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** router *named-item-64* nat outside pool *named-item* address-range *ipv4-unicast-address* end *ipv4-unicast-address* description *description* |


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| | |
|---|---|
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **drain** *boolean*

| | |
|---|---|
| Synopsis | Start or stop draining this NAT address range |
| Context | **configure** router *named-item-64* nat outside pool *named-item* address-range *ipv4-unicast-address* end *ipv4-unicast-address* drain *boolean* |
| Tree | drain |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the outside routing NAT pool |
| Context | **configure** router *named-item-64* nat outside pool *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **applications**

| | |
|---|---|
| Synopsis | Enter the **applications** context |
| Context | **configure** router *named-item-64* nat outside pool *named-item* applications |
| Tree | applications |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **agnostic** *boolean*

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | NAT pool to create in the outside routing context |
| Context | **configure** router *named-item-64* nat outside pool *named-item* applications agnostic *boolean* |
| Tree | agnostic |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **flexible-port-allocation** *boolean*

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Allocates individual ports per subscriber in a pool |
| Context | **configure** router *named-item-64* nat outside pool *named-item* applications flexible-port-allocation *boolean* |
| Tree | flexible-port-allocation |
| Description | When configured to **true**, the router enables LSN44 pool behavior, where a subscriber allocates ports individually and not through port blocks. The port block is removed and port logging is disabled for this application. Static port forwards can be interleaved with dynamically allocated ports when this application is enabled. A subscriber limit that is the maximum number of subscribers per outside IP address is not supported for this application. |
| Default | false |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** router *named-item-64* nat outside pool *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **icmp-echo-reply** *boolean*

| | |
|---|---|
| Synopsis | Allow NAT pool IP addresses to respond to ICMP PINGs |
| Context | **configure** router *named-item-64* nat outside pool *named-item* icmp-echo-reply *boolean* |
| Tree | icmp-echo-reply |
| Description | This command allows IP addresses in the NAT pool to respond to ICMP Echo requests (PINGs). The configuration can be toggled while the pool is in use.<br>In L2-aware NAT when port-block-extensions is disabled, the reply from an outside IP address is generated only when this IP address has at least one host (binding) behind it.<br>In L2-aware NAT when port-block-extensions is enabled, the reply from an outside IP address is generated regardless if a binding is present.<br>In LSN, the reply from an outside IP address is generated regardless if a binding is present. |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **l2-aware**

| | |
|---|---|
| Synopsis | Enter the **l2-aware** context |
| Context | **configure** router *named-item-64* nat outside pool *named-item* l2-aware |
| Tree | l2-aware |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## default-host

| | |
|---|---|
| Synopsis | Enable the **default-host** context |
| Context | **configure** router *named-item-64* nat outside pool *named-item* l2-aware default-host |
| Tree | default-host |
| Description | Commands in this context configure the default DMZ host options. A default DMZ host is a node on the inside to which all unknown traffic is redirected by changing the destination IPv4 address in the traffic header. During this operation, the checksums in the Layer 3 and Layer 4 header (UDP and TCP) are recalculated.<br>Unknown traffic in NAT represent all unmatched traffic arriving from the outside (where there is no pinhole or a matching flow record created by traffic initiated from the inside). The purpose of the default DMZ host is to capture and analyze the unknown traffic as part of threat analysis.<br>The rate of redirected unknown traffic can be restricted by configuration. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## inside-router-instance *string*

| | |
|---|---|
| Synopsis | Router instance of the DMZ |
| Context | **configure** router *named-item-64* nat outside pool *named-item* l2-aware default-host inside-router-instance *string* |
| Tree | inside-router-instance |
| Description | This command configures the router instance on the inside where the default DMZ host resides. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## ip-address *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IP address of the default DMZ host |
| Context | **configure** router *named-item-64* nat outside pool *named-item* l2-aware default-host ip-address *ipv4-unicast-address* |
| Tree | ip-address |
| Description | This command configures the IP address of the default DMZ host. Redirection to the default DMZ host is achieved by replacing the destination IP address in the traffic header in the unknown traffic initiated from the outside with the one of the default DMZ host. |


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| | |
|---|---|
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **rate-limit** *number*

| | |
|---|---|
| Synopsis | Rate limit for unknown traffic sent to default DMZ host |
| Context | **configure** router *named-item-64* nat outside pool *named-item* l2-aware default-host rate-limit *number* |
| Tree | rate-limit |
| Description | This command configures the rate limit of the unknown traffic sent to the default DMZ host.<br>Unknown traffic sent to the default DMZ host is rate limited by a configurable value expressed in mbps. The rate limit is configurable per NAT pool per ISA, vISA, or ESA-VM. |
| Range | 1 to 10000 |
| Units | megabps |
| Default | 10 |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **external-assignment** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

| | |
|---|---|
| Synopsis | External IP address for Layer-2-aware |
| Context | **configure** router *named-item-64* nat outside pool *named-item* l2-aware external-assignment *boolean* |
| Tree | external-assignment |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## port-block-extension

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable the **port-block-extension** context |
| Context | **configure** router *named-item-64* nat outside pool *named-item* l2-aware port-block-extension |
| Tree | port-block-extension |
| Description | Commands in this context configure the attributes of the port block reserved for a dynamic NAT traffic flow for each subscriber with a port forwarding entry. |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## ports *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Number of ports per dynamic port-block |
| Context | **configure** router *named-item-64* nat outside pool *named-item* l2-aware port-block-extension ports *number* |
| Tree | ports |
| Description | For Carrier Grade NAT (CGN), this command represents the size of all port blocks for NAT subscribes in the NAT pool.<br>For L2-Aware NAT, this command represents only the size of the initial port block of a subscriber in the L2-aware NAT pool. Additional port-blocks (extended port blocks) for the L2-Aware subscriber must be explicitly enabled under the **l2-aware port-block-extension** hierarchy in the NAT pool.<br>This command does not affect the size of extended port-blocks. |
| Range | 10 to 5000 |
| Notes | This element is mandatory. |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## subscriber

| | |
|---|---|
| Synopsis | Enter the **subscriber** context |
| Context | **configure** router *named-item-64* nat outside pool *named-item* l2-aware port-block-extension subscriber |
| Tree | subscriber |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## watermarks

| | |
|---|---|
| Synopsis | Enable the **watermarks** context |
| Context | **configure** router *named-item-64* nat outside pool *named-item* l2-aware port-block-extension subscriber watermarks |
| Tree | watermarks |
| Description | This command configures watermarks for NAT resources. |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## high *number*

| | |
|---|---|
| Synopsis | High watermark percentage |
| Context | **configure** router *named-item-64* nat outside pool *named-item* l2-aware port-block-extension subscriber watermarks high *number* |
| Tree | high |
| Description | This command configures the high threshold value as a percentage of the total port-block space in a NAT pool. |
| Range | 0 to 100 |
| Units | percent |
| Notes | This element is mandatory. |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## low *number*

| | |
|---|---|
| Synopsis | Low watermark percentage |


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| | |
|---|---|
| Context | **configure** router *named-item-64* nat outside pool *named-item* l2-aware port-block-extension subscriber watermarks low *number* |
| Tree | low |
| Description | This command configures the low threshold value as a percentage of the total port-block space in a NAT pool. |
| Range | 0 to 100 |
| Units | percent |
| Notes | This element is mandatory. |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **subscriber-limit** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Number of L2-Aware NAT subscribers per outside address |
| Context | **configure** router *named-item-64* nat outside pool *named-item* l2-aware port-block-extension subscriber-limit *number* |
| Tree | subscriber-limit |
| Description | When port-block extensions for the L2-Aware subscribers are enabled, the port space for an outside IP address is divided into the following:<br>• well-known port (this is a fixed and permanently allocated block of ports for all NAT types)<br>• static port-forwarding range (if enabled by configuration)<br>• port range allocated for initial port blocks of each L2-Aware subscriber<br>• port range allocated for extended port blocks for the remainder after the three previous port ranges<br>The number of L2-Aware NAT subscribers per an outside IP address multiplied by the size of the initial port-block size determines the size of the port range reserved for initial port-blocks of each subscriber.<br>The lower boundary of the extended port range is determined by adding the upper boundary of the configured port forwarding range and the size of the port range allocated for initial port blocks. |
| Range | 2 to 2000 |
| Notes | This element is mandatory. |
| Introduced | 21.7.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## watermarks

| | |
|---|---|
| Synopsis | Enable the **watermarks** context |
| Context | **configure** router *named-item-64* nat outside pool *named-item* l2-aware port-block-extension watermarks |
| Tree | watermarks |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## high *number*

| | |
|---|---|
| Synopsis | High watermark percentage |
| Context | **configure** router *named-item-64* nat outside pool *named-item* l2-aware port-block-extension watermarks high *number* |
| Tree | high |
| Description | This command configures the high threshold value as a percentage of the total port-block space in a NAT pool. |
| Range | 0 to 100 |
| Units | percent |
| Notes | This element is mandatory. |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## low *number*

| | |
|---|---|
| Synopsis | Low watermark percentage |
| Context | **configure** router *named-item-64* nat outside pool *named-item* l2-aware port-block-extension watermarks low *number* |
| Tree | low |
| Description | This command configures the low threshold value as a percentage of the total port-block space in a NAT pool. |
| Range | 0 to 100 |
| Units | percent |
| Notes | This element is mandatory. |


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| | |
|---|---|
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## large-scale

| | |
|---|---|
| Synopsis | Enter the **large-scale** context |
| Context | **configure** router *named-item-64* nat outside pool *named-item* large-scale |
| Tree | large-scale |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## default-host

| | |
|---|---|
| Synopsis | Enable the **default-host** context |
| Context | **configure** router *named-item-64* nat outside pool *named-item* large-scale default-host |
| Tree | default-host |
| Description | Commands in this context configure the default DMZ host options. A default DMZ host is a node on the inside to which all unknown traffic is redirected by changing the destination IPv4 address in the traffic header. During this operation, the checksums in the Layer 3 and Layer 4 header (UDP and TCP) are recalculated.<br>Unknown traffic in NAT represent all unmatched traffic arriving from the outside (where there is no pinhole or a matching flow record created by traffic initiated from the inside). The purpose of the default DMZ host is to capture and analyze the unknown traffic as part of threat analysis.<br>The rate of redirected unknown traffic can be restricted by configuration. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## inside-router-instance *string*

| | |
|---|---|
| Synopsis | Router instance of the DMZ |
| Context | **configure** router *named-item-64* nat outside pool *named-item* large-scale default-host inside-router-instance *string* |
| Tree | inside-router-instance |
| Description | This command configures the router instance on the inside where the default DMZ host resides. |
| Introduced | 22.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **ip-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IP address of the default DMZ host |
| Context | **configure** router *named-item-64* nat outside pool *named-item* large-scale default-host ip-address *ipv4-unicast-address* |
| Tree | ip-address |
| Description | This command configures the IP address of the default DMZ host. Redirection to the default DMZ host is achieved by replacing the destination IP address in the traffic header in the unknown traffic initiated from the outside with the one of the default DMZ host. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **rate-limit** *number*

| | |
|---|---|
| Synopsis | Rate limit for unknown traffic sent to default DMZ host |
| Context | **configure** router *named-item-64* nat outside pool *named-item* large-scale default-host rate-limit *number* |
| Tree | rate-limit |
| Description | This command configures the rate limit of the unknown traffic sent to the default DMZ host.<br><br>Unknown traffic sent to the default DMZ host is rate limited by a configurable value expressed in mbps. The rate limit is configurable per NAT pool per ISA, vISA, or ESA-VM. |
| Range | 1 to 10000 |
| Units | megabps |
| Default | 10 |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **deterministic**

| | |
|---|---|
| Synopsis | Enter the **deterministic** context |
| Context | **configure** router *named-item-64* nat outside pool *named-item* large-scale deterministic |
| Tree | deterministic |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **port-reservation** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

| | |
|---|---|
| Synopsis | Number of ports per deterministic port-block |
| Context | **configure** router *named-item-64* nat outside pool *named-item* large-scale deterministic port-reservation *number* |
| Tree | port-reservation |
| Range | 1 to 65536 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **watermarks**

| | |
|---|---|
| Synopsis | Enable the **watermarks** context |
| Context | **configure** router *named-item-64* nat outside pool *named-item* large-scale deterministic watermarks |
| Tree | watermarks |
| Description | Commands in this context monitor extended (dynamic) port-block utilization per outside IP in a NAT pool in deterministic LSN.<br>High and low thresholds are configured in percentages of total available extended port-blocks per outside IP in a pool. Both values represent extended port-block utilization or occupancy per outside IP in a pool.<br>For the system to generate those events, the NAT event instance of **tmnxNatPlMember ExtBlockUsageHigh** must be configured in the **configure log log-events** context with **generate** set to **true**. |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **high** *number*

| | |
|---|---|
| Synopsis | High watermark percentage |
| Context | **configure** router *named-item-64* nat outside pool *named-item* large-scale deterministic watermarks high *number* |
| Tree | high |
| Description | This command configures the high threshold value as a percentage of the total port-block space in a NAT pool. |
| Range | 0 to 100 |
| Units | percent |
| Notes | This element is mandatory. |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **low** *number*

| | |
|---|---|
| Synopsis | Low watermark percentage |
| Context | **configure** router *named-item-64* nat outside pool *named-item* large-scale deterministic watermarks low *number* |
| Tree | low |
| Description | This command configures the low threshold value as a percentage of the total port-block space in a NAT pool. |
| Range | 0 to 100 |
| Units | percent |
| Notes | This element is mandatory. |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **flexible-port-allocation**

| | |
|---|---|
| Synopsis | Enter the **flexible-port-allocation** context |
| Context | **configure** router *named-item-64* nat outside pool *named-item* large-scale flexible-port-allocation |
| Tree | flexible-port-allocation |
| Description | Commands in this context enable LSN44 pool behavior where a subscriber allocates ports individually instead of through port blocks. The port block concept is removed for this application. Static port forwards can be interleaved with dynamically-allocated |


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ports. Port logging in disabled when this application is enabled. A subscriber limit that is the maximum number of subscribers per outside IP address is not supported for this application.

Introduced 23.10.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR

## free-port-limit

Synopsis Enter the **free-port-limit** context

Context **configure** router *named-item-64* nat outside pool *named-item* large-scale flexible-port-allocation free-port-limit

Tree free-port-limit

Description Commands in this context configure the minimal number of ports per protocol and per outside IP address in an LSN44 pool with flexible port allocations that must be free to map new subscribers to the outside IP address. This limit avoids rapid port depletion for new subscribers in paired pooling mode, or unnecessary toggling between external IP addresses for existing subscribers in arbitrary pooling mode.

Introduced 23.10.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR

## icmp *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

Synopsis Limit of free ports for ICMP per outside IP address

Context **configure** router *named-item-64* nat outside pool *named-item* large-scale flexible-port-allocation free-port-limit icmp *number*

Tree icmp

Description This command configures the minimum number of ports for the ICMP protocol per outside IP address in an LSN44 pool with flexible port allocations that are free so that a new subscriber is mapped to the outside IP address. This limit is set to avoid rapid port depletion for new subscribers in paired pooling mode, or unnecessary toggling between external IP addresses for existing subscribers in arbitrary pooling mode.

Range 1 to 10000

Introduced 23.10.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR


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### **tcp** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Limit of free ports for TCP per outside IP address |
| Context | **configure** router *named-item-64* nat outside pool *named-item* large-scale flexible-port-allocation free-port-limit tcp *number* |
| Tree | tcp |
| Description | This command configures the minimum number of ports for TCP protocol per outside IP address in an LSN44 pool with flexible port allocations that are free so that a new subscriber is mapped to the outside IP address. This limit is set to avoid rapid port depletion for new subscribers in paired pooling mode, or unnecessary toggling between external IP addresses for existing subscribers in arbitrary pooling mode. |
| Range | 1 to 10000 |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **udp** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Limit of free ports for UDP per outside IP address |
| Context | **configure** router *named-item-64* nat outside pool *named-item* large-scale flexible-port-allocation free-port-limit udp *number* |
| Tree | udp |
| Description | This command configures the minimum number of ports for UDP protocol per outside IP address in an LSN44 pool with flexible port allocations that are free so that a new subscriber is mapped to the outside IP address. This limit is set to avoid rapid port depletion for new subscribers in paired pooling mode, or unnecessary toggling between external IP addresses for existing subscribers in arbitrary pooling mode. |
| Range | 1 to 10000 |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## redundancy

| | |
|---|---|
| Synopsis | Enter the **redundancy** context |
| Context | **configure** router *named-item-64* nat outside pool *named-item* large-scale redundancy |
| Tree | redundancy |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of NAT pool redundancy |
| Context | **configure** router *named-item-64* nat outside pool *named-item* large-scale redundancy admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Notes | The following elements are part of a choice: (**admin-state**, **export-route**, and **monitor-route**) or **follow**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## export-route *ipv4-unicast-prefix*

| | |
|---|---|
| Synopsis | Route to export to the peer |
| Context | **configure** router *named-item-64* nat outside pool *named-item* large-scale redundancy export-route *ipv4-unicast-prefix* |
| Tree | export-route |
| Notes | The following elements are part of a choice: (**admin-state**, **export-route**, and **monitor-route**) or **follow**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## follow

| | |
|---|---|
| Synopsis | Enter the **follow** context |


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| | |
|---|---|
| Context | **configure** router *named-item-64* nat outside pool *named-item* large-scale redundancy follow |
| Tree | follow |
| Notes | The following elements are part of a choice: (**admin-state**, **export-route**, and **monitor-route**) or **follow**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **name** *named-item*

| | |
|---|---|
| Synopsis | Name of the pool where activity is shared |
| Context | **configure** router *named-item-64* nat outside pool *named-item* large-scale redundancy follow name *named-item* |
| Tree | name |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **router-instance** *string*

| | |
|---|---|
| Synopsis | Router instance where the lead pool resides |
| Context | **configure** router *named-item-64* nat outside pool *named-item* large-scale redundancy follow router-instance *string* |
| Tree | router-instance |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **monitor-route** *ipv4-unicast-prefix*

| | |
|---|---|
| Synopsis | Monitor the peer route |
| Context | **configure** router *named-item-64* nat outside pool *named-item* large-scale redundancy monitor-route *ipv4-unicast-prefix* |
| Tree | monitor-route |
| Notes | The following elements are part of a choice: (**admin-state**, **export-route**, and **monitor-route**) or **follow**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **subscriber-limit** *number*

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum number of subscribers per IP address |
| Context | **configure** router *named-item-64* nat outside pool *named-item* large-scale subscriber-limit *number* |
| Tree | subscriber-limit |
| Range | 1 to 65535 \| 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **mode** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

| | |
|---|---|
| Synopsis | Mode of operation of this NAT address pool |
| Context | **configure** router *named-item-64* nat outside pool *named-item* mode *keyword* |
| Tree | mode |
| Options | auto, napt, one-to-one |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **nat-group** *reference*

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.


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| | |
|---|---|
| Synopsis | Create a NAT group |
| Context | **configure** router *named-item-64* nat outside pool *named-item* nat-group *reference* |
| Tree | nat-group |
| Reference | **configure** isa nat-group *number* |
| Notes | The following elements are part of a mandatory choice: **nat-group** or **wlan-gw-group**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## port-forwarding

| | |
|---|---|
| Synopsis | Enter the **port-forwarding** context |
| Context | **configure** router *named-item-64* nat outside pool *named-item* port-forwarding |
| Tree | port-forwarding |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## dynamic-block-reservation *boolean*

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

| | |
|---|---|
| Synopsis | Reserve dynamic block for subscriber |
| Context | **configure** router *named-item-64* nat outside pool *named-item* port-forwarding dynamic-block-reservation *boolean* |
| Tree | dynamic-block-reservation |
| Description | When configured to **true**, the system reserves dynamic port block when the first port forward for the subscriber is created. The dynamic port block allocation is logged only if the block is being used and mappings are created. Dynamic port block reservation due to the port forward creation but without any dynamic mapping, is not logged.<br>The reserved port block is released only when the last mapping in the block expires and there are no port forwards associated with the subscriber. The de-allocation log (syslog or RADIUS) is generated when the dynamic port block is completely released.<br>Dynamic port block reservations can be enabled only if the configured maximum number of subscribers per outside IP addresses are less than or equal to the maximum number of configured port blocks per outside IP address.<br>When configured to **false**, dynamic port blocks are not reserved when the first port forward for the subscriber is created. |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **range-end** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

| | |
|---|---|
| Synopsis | End of the wildcard range for port forwards |
| Context | **configure** router *named-item-64* nat outside pool *named-item* port-forwarding range-end *number* |
| Tree | range-end |
| Description | This command configures the upper boundary of the wildcard port range dedicated to port forwarding in a NAT pool, whereas the **range-start** command configures the lower boundary (the starting port) of the wildcard port range dedicated to port forwarding in a NAT pool.<br>If unconfigured, the **range-end** implicit value is set to 1023, that represents the end of the well-known port range that is always enabled.<br>Port forwards are supported only in pools in NAPT mode. Pools in 1:1 mode do not support port-forwards. |
| Range | 0 \| 1023 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **range-start** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Start of the wildcard range for port forwards |
| Context | **configure** router *named-item-64* nat outside pool *named-item* port-forwarding range-start *number* |
| Tree | range-start |
| Description | This command configures the lower boundary (the starting port) of the wildcard port range dedicated to port forwarding in a NAT pool, whereas the **range-end** command |


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configures the upper boundary of the wildcard port range dedicated to port forwarding in a NAT pool.

Port 0 is always excluded from the port forwarding range.

Port forwards are supported only in pools in Network Address and Port Translation (NAPT) mode. Pools in 1:1 mode do not support configured port forwards.

| | |
|---|---|
| Range | 0 \| 1 \| 1025 to 65535 |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## port-reservation

| | |
|---|---|
| Synopsis | Enter the **port-reservation** context |
| Context | **configure** router *named-item-64* nat outside pool *named-item* port-reservation |
| Tree | port-reservation |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## port-blocks *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

| | |
|---|---|
| Synopsis | Port block size for NAT subscribers |
| Context | **configure** router *named-item-64* nat outside pool *named-item* port-reservation port-blocks *number* |
| Tree | port-blocks |
| Description | In CGN, this command specifies the number of port-blocks per outside IP address in the NAT pool. The available ports per outside IP address (the end port minus the upper bound value of the static port-forwarding range) are divided into the number of port blocks specified in this command. This implicitly determines the size of each port block.<br><br>For L2-aware NAT, this command can be configured only if the port block extensions (extended port blocks) are disabled. You must disable the **l2-aware port-block-extension** hierarchy in the NAT pool. |
| Range | 0 to 64512 |
| Notes | The following elements are part of a choice: **port-blocks** or **ports**. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **ports** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

| | |
|---|---|
| Synopsis | Size of the port block for NAT subscribers |
| Context | **configure** router *named-item-64* nat outside pool *named-item* port-reservation ports *number* |
| Tree | ports |
| Description | For carrier-grade NAT (CGN), this command specifies the size of port blocks for NAT subscribers in the NAT pool.<br>For Layer 2 aware NAT, this command specifies the size of the initial port block of a subscriber in the pool. Additional port blocks (extended port blocks) for the Layer 2 aware subscriber must be explicitly enabled under the **l2-aware port-block-extension** hierarchy in the NAT pool.<br>This command does not affect the size of extended port blocks.<br>For deterministic pools, the port range begins with zero. However, for non-deterministic pools, the port range begins with one. |
| Range | 0 to 64512 |
| Notes | The following elements are part of a choice: **port-blocks** or **ports**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **type** *keyword*

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.


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| | |
|---|---|
| Synopsis | NAT pool type |
| Context | **configure** router *named-item-64* nat outside pool *named-item* type *keyword* |
| Tree | type |
| Options | large-scale, l2-aware, wlan-gw-anchor |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## watermarks

| | |
|---|---|
| Synopsis | Enable the **watermarks** context |
| Context | **configure** router *named-item-64* nat outside pool *named-item* watermarks |
| Tree | watermarks |
| Description | This command configures watermarks for NAT resources. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## high *number*

| | |
|---|---|
| Synopsis | High watermark percentage |
| Context | **configure** router *named-item-64* nat outside pool *named-item* watermarks high *number* |
| Tree | high |
| Description | This command configures the high threshold value as a percentage of the total port-block space in a NAT pool. |
| Range | 0 to 100 |
| Units | percent |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## low *number*

| | |
|---|---|
| Synopsis | Low watermark percentage |
| Context | **configure** router *named-item-64* nat outside pool *named-item* watermarks low *number* |
| Tree | low |


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| | |
|---|---|
| Description | This command configures the low threshold value as a percentage of the total port-block space in a NAT pool. |
| Range | 0 to 100 |
| Units | percent |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **wlan-gw-group** *reference*

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Create a WLAN GW group for NAT |
| Context | **configure** router *named-item-64* nat outside pool *named-item* wlan-gw-group *reference* |
| Tree | wlan-gw-group |
| Reference | **configure** isa wlan-gw-group *number* |
| Notes | The following elements are part of a mandatory choice: **nat-group** or **wlan-gw-group**. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **network-domains**

| | |
|---|---|
| Synopsis | Enter the **network-domains** context |
| Context | **configure** router *named-item-64* network-domains |
| Tree | network-domains |
| Introduced | 16.0.R4 |
| Platforms | All |

## **network-domain** [domain-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **network-domain** list instance |


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| | |
|---|---|
| Context | **configure** router *named-item-64* network-domains network-domain *named-item* |
| Tree | network-domain |
| Max. instances | 5 |
| Introduced | 16.0.R4 |
| Platforms | All |

### [**domain-name**] *named-item*

| | |
|---|---|
| Synopsis | Network domain name |
| Context | **configure** router *named-item-64* network-domains network-domain *named-item* |
| Tree | network-domain |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** router *named-item-64* network-domains network-domain *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **origin-validation**

| | |
|---|---|
| Synopsis | Enter the **origin-validation** context |
| Context | **configure** router *named-item-64* origin-validation |
| Tree | origin-validation |
| Description | Commands in this context configure origin validation. |
| Introduced | 19.5.R1 |
| Platforms | All |


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### **rpki-session** [ip-address] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Enter the **rpki-session** list instance |
| Context | **configure** router *named-item-64* origin-validation rpki-session *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | rpki-session |
| Description | This command configures a session with an RPKI local cache server by using the RPKI to Router (RPKI-RTR) protocol. Using these sessions, the router learns dynamic VRP entries expressing valid origin AS and prefix associations. SR OS supports the RPKI-RTR protocol over TCP/IPv4 or TCP/IPv6 transport. The router can set up an RPKI-RTR session using the base routing table (in-band) or the management router (out-of-band). Use the **configure router management** command to configure a session using the management port. |
| Introduced | 19.5.R1 |
| Platforms | All |

### [**ip-address**] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IPv4 or IPv6 address for the RPKI local cache server |
| Context | **configure** router *named-item-64* origin-validation rpki-session *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | rpki-session |
| Description | This command specifies an IPv4 address or an IPv6 address for the RPKI local cache server. If the IPv6 address is link-local, the interface name must be appended to the IPv6 address after a hyphen (-). |
| Notes | This element is part of a list key. |
| Introduced | 19.5.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the RPKI session |
| Context | **configure** router *named-item-64* origin-validation rpki-session *(ipv4-address-no-zone \| ipv6-address-no-zone)* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 19.5.R1 |


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| | |
|---|---|
| Platforms | All |

## **connect-retry** *number*

| | |
|---|---|
| Synopsis | RPKI connect retry timer value |
| Context | **configure** router *named-item-64* origin-validation rpki-session *(ipv4-address-no-zone \| ipv6-address-no-zone)* connect-retry *number* |
| Tree | connect-retry |
| Description | This command configures the time to wait between one failed TCP connection attempt and the next attempt. |
| Range | 1 to 65535 |
| Units | seconds |
| Default | 120 |
| Introduced | 19.5.R1 |
| Platforms | All |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** router *named-item-64* origin-validation rpki-session *(ipv4-address-no-zone \| ipv6-address-no-zone)* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 19.5.R1 |
| Platforms | All |

## **local-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Local address for the TCP connection setup |
| Context | **configure** router *named-item-64* origin-validation rpki-session *(ipv4-address-no-zone \| ipv6-address-no-zone)* local-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | local-address |
| Introduced | 19.5.R1 |


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| | |
|---|---|
| Platforms | All |

## **port** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Destination port used to connect to the cache server |
| Context | **configure** router *named-item-64* origin-validation rpki-session *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* |
| Tree | port |
| Description | (No description needed) |
| Range | 0 to 65535 |
| Default | 323 |
| Introduced | 19.5.R1 |
| Platforms | All |

## **refresh-time**

| | |
|---|---|
| Synopsis | Enter the **refresh-time** context |
| Context | **configure** router *named-item-64* origin-validation rpki-session *(ipv4-address-no-zone \| ipv6-address-no-zone)* refresh-time |
| Tree | refresh-time |
| Description | Commands in this context configure the refresh-time and hold-time intervals that are used for liveness detection of the RPKI-RTR session. |
| Introduced | 19.5.R1 |
| Platforms | All |

## **hold-time** *number*

| | |
|---|---|
| Synopsis | Length of time that the session is considered Up |
| Context | **configure** router *named-item-64* origin-validation rpki-session *(ipv4-address-no-zone \| ipv6-address-no-zone)* refresh-time hold-time *number* |
| Tree | hold-time |
| Description | This command specifies the length of time that the session is considered Up without any indication that the cache server is alive and reachable. The hold time must be at least twice the refresh time, otherwise the command configuration is not accepted. The timer |


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| | |
|---|---|
| | is reset when any PDU from the cache server is received. When the hold time expires, the session is considered Down and the stale timer starts. |
| Range | 60 to 65535 |
| Units | seconds |
| Default | 600 |
| Introduced | 19.5.R1 |
| Platforms | All |

### **value** *number*

| | |
|---|---|
| Synopsis | Periodic Serial Query PDUs sent for liveness detection |
| Context | **configure** router *named-item-64* origin-validation rpki-session *(ipv4-address-no-zone \| ipv6-address-no-zone)* refresh-time value *number* |
| Tree | value |
| Description | This command configures the refresh-time interval used for liveness detection of the RPKI-RTR session. The refresh time is reset when a Reset Query PDU or Serial Query PDU is sent to the cache server. When the timer expires, a new Serial Query PDU is sent with the last known serial number. |
| Range | 30 to 32767 |
| Units | seconds |
| Default | 300 |
| Introduced | 19.5.R1 |
| Platforms | All |

### **stale-time** *number*

| | |
|---|---|
| Synopsis | Maximum time prefix origin validation remains usable |
| Context | **configure** router *named-item-64* origin-validation rpki-session *(ipv4-address-no-zone \| ipv6-address-no-zone)* stale-time *number* |
| Tree | stale-time |
| Description | This command configures the maximum length of time that prefix origin validation records learned from the cache server remain usable after the RPKI-RTR session goes down. When the timer expires, all remaining stale entries associated with the session are deleted. |
| Range | 60 to 3600 |
| Units | seconds |
| Default | 3600 |


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| | |
|---|---|
| Introduced | 19.5.R1 |
| Platforms | All |

### **static-entry** [ip-prefix] *(ipv4-prefix | ipv6-prefix)* upto *number* origin-as *number*

| | |
|---|---|
| Synopsis | Enter the **static-entry** list instance |
| Context | **configure** router *named-item-64* origin-validation static-entry *(ipv4-prefix \| ipv6-prefix)* upto *number* origin-as *number* |
| Tree | static-entry |
| Description | Commands in this context configure a static VRP entry indicating that a specific origin AS is either valid or invalid for a specific IP prefix range. Static VRP entries are stored, along with dynamic VRP entries (learned from local cache servers using the RPKI-RTR protocol), in the origin validation database of the router. This database is used for determining the origin validation state of IPv4 and IPv6 BGP routes received over sessions with origin validation enabled.<br>Static entries can be configured only in the **configure router origin-validation** context of the base router. |
| Introduced | 19.5.R1 |
| Platforms | All |

### [**ip-prefix**] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | IPv4 or IPv6 address with the minimum prefix and length |
| Context | **configure** router *named-item-64* origin-validation static-entry *(ipv4-prefix \| ipv6-prefix)* upto *number* origin-as *number* |
| Tree | static-entry |
| Notes | This element is part of a list key. |
| Introduced | 19.5.R1 |
| Platforms | All |

### **upto** *number*

| | |
|---|---|
| Synopsis | Maximum prefix length |
| Context | **configure** router *named-item-64* origin-validation static-entry *(ipv4-prefix \| ipv6-prefix)* upto *number* origin-as *number* |
| Tree | static-entry |
| Range | 1 to 128 |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 19.5.R1 |
| Platforms | All |

### **origin-as** *number*

| | |
|---|---|
| Synopsis | Origin AS number |
| Context | **configure** router *named-item-64* origin-validation static-entry *(ipv4-prefix \| ipv6-prefix)* upto *number* origin-as *number* |
| Tree | static-entry |
| Max. range | 0 to 4294967295 |
| Notes | This element is part of a list key. |
| Introduced | 19.5.R1 |
| Platforms | All |

### **valid** *boolean*

| | |
|---|---|
| Synopsis | Designate mix of origin AS and prefix range as valid |
| Context | **configure** router *named-item-64* origin-validation static-entry *(ipv4-prefix \| ipv6-prefix)* upto *number* origin-as *number* valid *boolean* |
| Tree | valid |
| Description | When configured to **true**, the router considers this route entry as a valid combination of the origin AS and prefix range.<br>When configured to **false**, the router considers this route entry as an invalid combination of the origin AS and prefix range. |
| Default | true |
| Introduced | 19.5.R1 |
| Platforms | All |

### **ospf** [ospf-instance] *number*

| | |
|---|---|
| Synopsis | Enter the **ospf** list instance |
| Context | **configure** router *named-item-64* ospf *number* |
| Tree | ospf |
| Description | Commands in this context create and configure an OSPF routing instance. |
| Max. instances | 32 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ospf-instance**] *number*

| | |
|---|---|
| Synopsis | Value for the integrated OSPF instance |
| Context | **configure** router *named-item-64* ospf *number* |
| Tree | ospf |
| Range | 0 to 31 |
| MD-CLI default | 0 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the OSPF instance |
| Context | **configure** router *named-item-64* ospf *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **advertise-router-capability** *keyword*

| | |
|---|---|
| Synopsis | Allow router advertisement capabilities |
| Context | **configure** router *named-item-64* ospf *number* advertise-router-capability *keyword* |
| Tree | advertise-router-capability |
| Options | false, link, area, as |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **advertise-tunnel-link** *boolean*

| | |
|---|---|
| Synopsis | Allow router advertisement capabilities |
| Context | **configure** router *named-item-64* ospf *number* advertise-tunnel-link *boolean* |
| Tree | advertise-tunnel-link |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **area** [area-id] *ipv4-address*

| | |
|---|---|
| Synopsis | Enter the **area** list instance |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* |
| Tree | area |
| Description | Commands in this context configure an OSPF or OSPFv3 area. An area is a collection of network segments within an AS that are administratively grouped together. |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**area-id**] *ipv4-address*

| | |
|---|---|
| Synopsis | Area-ID attribute |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* |
| Tree | area |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **advertise-router-capability** *boolean*

| | |
|---|---|
| Synopsis | Allow router advertisement capabilities |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* advertise-router-capability *boolean* |
| Tree | advertise-router-capability |
| Default | true |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **area-range** [ip-prefix-mask] *ipv4-unicast-prefix*

| | |
|---|---|
| Synopsis | Enter the **area-range** list instance |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* area-range *ipv4-unicast-prefix* |
| Tree | area-range |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ip-prefix-mask**] *ipv4-unicast-prefix*

| | |
|---|---|
| Synopsis | IP prefix and subnet mask for the range used by the ABR |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* area-range *ipv4-unicast-prefix* |
| Tree | area-range |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **advertise** *boolean*

| | |
|---|---|
| Synopsis | Advertise summarized range of addresses to other areas |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* area-range *ipv4-unicast-prefix* advertise *boolean* |
| Tree | advertise |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bier**

| | |
|---|---|
| Synopsis | Enter the **bier** context |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* bier |


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| | |
|---|---|
| Tree | bier |
| Description | Commands in this context configure the administrative state of BIER and the BIER template assigned to the OSPF area. |
| Introduced | 20.5.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of BIER |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* bier admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 20.5.R1 |
| Platforms | All |

### **template** *reference*

| | |
|---|---|
| Synopsis | BIER template name |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* bier template *reference* |
| Tree | template |
| Reference | **configure** router *named-item-64* bier template *named-item* |
| Introduced | 20.5.R1 |
| Platforms | All |

### **blackhole-aggregate** *boolean*

| | |
|---|---|
| Synopsis | Install a low priority blackhole route to avoid loops |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* blackhole-aggregate *boolean* |
| Tree | blackhole-aggregate |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **database-export-exclude** *boolean*

| | |
|---|---|
| Synopsis | Exclude IGP link-state OSPF area info into TE-DB |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* database-export-exclude *boolean* |
| Tree | database-export-exclude |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **export-policy** *reference*

| | |
|---|---|
| Synopsis | Type 3 Summary-LSA/OSPFv3 inter-area-prefix-LSA route |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* export-policy *reference* |
| Tree | export-policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **import-policy** *reference*

| | |
|---|---|
| Synopsis | Route imported as Summary Type 3/Inter-Area-Prefix-LSA |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* import-policy *reference* |
| Tree | import-policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **interface** [interface-name] *interface-name*

| | |
|---|---|
| Synopsis | Enter the **interface** list instance |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* interface *interface-name* |
| Tree | interface |
| Description | Commands in this context configure the attributes of the OSPF area interface.<br>Unless they are explicitly configured, interfaces are not activated by default in any interior gateway protocol such as OSPF. |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**interface-name**] *interface-name*

| | |
|---|---|
| Synopsis | Router interface name |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* interface *interface-name* |
| Tree | interface |
| Description | This command specifies the IP interface name. Interface names must be unique within the group of defined IP interfaces for **configure router interface** and **configure service ies interface** commands. An interface name cannot be in the form of an IP address. Interface names can be a string composed of printable, 7-bit ASCII characters. If the string contains special characters (#, $, spaces, and so on), the entire string must be enclosed within double quotes.<br>If the IP interface name does not exist or does not have an IP address configured, an error message is returned.<br>If the IP interface exists in a different area it is moved to this area. |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **adjacency-set** [id] *reference*

| | |
|---|---|
| Synopsis | Add a list entry for **adjacency-set** |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* interface *interface-name* adjacency-set *reference* |
| Tree | adjacency-set |


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| | |
|---|---|
| Max. instances | 1024 |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**id**] *reference*

| | |
|---|---|
| Synopsis | Adjacency set identity |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* interface *interface-name* adjacency-set *reference* |
| Tree | adjacency-set |
| Reference | **configure** router *named-item-64* ospf *number* segment-routing adjacency-set *number* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **adjacency-sid**

| | |
|---|---|
| Synopsis | Enable the **adjacency-sid** context |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* interface *interface-name* adjacency-sid |
| Tree | adjacency-sid |
| Introduced | 16.0.R1 |
| Platforms | All |

## **label** *number*

| | |
|---|---|
| Synopsis | Adjacency SID label |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* interface *interface-name* adjacency-sid label *number* |
| Tree | label |
| Range | 1 to 1048575 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the OSPF interface |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* interface *interface-name* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **advertise-router-capability** *boolean*

| | |
|---|---|
| Synopsis | Allow router advertisement capabilities |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* interface *interface-name* advertise-router-capability *boolean* |
| Tree | advertise-router-capability |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **advertise-subnet** *boolean*

| | |
|---|---|
| Synopsis | Advertise point-to-point interfaces as subnet routes |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* interface *interface-name* advertise-subnet *boolean* |
| Tree | advertise-subnet |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **authentication-key** *encrypted-leaf*

| | |
|---|---|
| Synopsis | Authentication key |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* interface *interface-name* authentication-key *encrypted-leaf* |


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| | |
|---|---|
| Tree | authentication-key |
| String length | 1 to 38 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **authentication-keychain** *reference*

| | |
|---|---|
| Synopsis | TCP authentication keychain for the session |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* interface *interface-name* authentication-keychain *reference* |
| Tree | authentication-keychain |
| Reference | **configure** system security keychains keychain *named-item* |
| Introduced | 16.0.R3 |
| Platforms | All |

## **authentication-type** *keyword*

| | |
|---|---|
| Synopsis | Authentication type used on OSPF interface |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* interface *interface-name* authentication-type *keyword* |
| Tree | authentication-type |
| Options | password, message-digest |
| Introduced | 16.0.R1 |
| Platforms | All |

## **bfd-liveness**

| | |
|---|---|
| Synopsis | Enable the **bfd-liveness** context |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* interface *interface-name* bfd-liveness |
| Tree | bfd-liveness |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **remain-down-on-failure** *boolean*

| | |
|---|---|
| Synopsis | Force adjacency down on failure until session returns |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* interface *interface-name* bfd-liveness remain-down-on-failure *boolean* |
| Tree | remain-down-on-failure |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **strict** *boolean*

| | |
|---|---|
| Synopsis | Enable BFD strict mode |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* interface *interface-name* bfd-liveness strict *boolean* |
| Tree | strict |
| Description | When configured to **true**, the system uses BFD strict-mode. BFD strict-mode mandates that an active BFD session must exist between the OSPF neighbors before establishing a full adjacency. When configured to **true**, the router uses Link-Local Signaling (LLS) with the B-flag set to instruct the OSPF neighbors that BFD must be enabled on the link. BFD strict-mode requires both sides to have the B-flag set.<br><br>During OSPFv3 BFD strict-mode operations, the router advertises the local interface IPv4 address TLV using LLS, but the SR OS router continues to use IPv6-based BFD sessions for both the IPv4 and IPv6 address families. |
| Default | false |
| Introduced | 23.3.R1 |
| Platforms | All |

### **strict-mode-holddown** *number*

| | |
|---|---|
| Synopsis | Adjacency up time delay after BFD session establishment |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* interface *interface-name* bfd-liveness strict-mode-holddown *number* |
| Tree | strict-mode-holddown |
| Description | This command configures a delay timer before bringing up the OSPF adjacency after the BFD session establishment. Holddown helps mitigate potential routing churn when BFD sessions are unstable. The holddown timer is reset when a BFD session operationally toggles. |
| Range | 1 to 600 |


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| | |
|---|---|
| Units | seconds |
| Introduced | 23.3.R1 |
| Platforms | All |

## **dead-interval** *number*

| | |
|---|---|
| Synopsis | OSPF wait time for Hellos before neighbor declared down |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* interface *interface-name* dead-interval *number* |
| Tree | dead-interval |
| Range | 2 to 65535 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

## **delay-normalization**

| | |
|---|---|
| Synopsis | Enable the **delay-normalization** context |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* interface *interface-name* delay-normalization |
| Tree | delay-normalization |
| Description | Commands in this context configure delay normalization for the interface within the IGP instance. When configured, the normalized delay is used by the TLVs within the IGP link-state packets.<br>When unconfigured, the measured delay is used by the respective TLVs within the IGP link-state packets. |
| Introduced | 24.10.R1 |
| Platforms | All |

## **delay-tolerance-interval** *number*

| | |
|---|---|
| Synopsis | Interval between two delay values on the interface |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* interface *interface-name* delay-normalization delay-tolerance-interval *number* |
| Tree | delay-tolerance-interval |
| Description | This command defines the interval used by the IGP to differentiate between two delay values. |


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| | |
|---|---|
| Range | 1 to 10000000 |
| Units | microseconds |
| Default | 10 |
| Introduced | 24.10.R1 |
| Platforms | All |

### **minimum-delay** *number*

| | |
|---|---|
| Synopsis | Minimum delay on the interface |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* interface *interface-name* delay-normalization minimum-delay *number* |
| Tree | minimum-delay |
| Range | 1 to 10000000 |
| Units | microseconds |
| Default | 1 |
| Introduced | 24.10.R1 |
| Platforms | All |

### **flex-algo** [flex-algo-id] *number*

| | |
|---|---|
| Synopsis | Enter the **flex-algo** list instance |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* interface *interface-name* flex-algo *number* |
| Tree | flex-algo |
| Description | Commands in this context configure the attributes of OSPFv2 flexible algorithms interface. |
| Max. instances | 7 |
| Introduced | 21.7.R1 |
| Platforms | All |

### [**flex-algo-id**] *number*

| | |
|---|---|
| Synopsis | Flexible algorithm ID |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* interface *interface-name* flex-algo *number* |


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| | |
|---|---|
| Tree | flex-algo |
| Range | 128 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 21.7.R1 |
| Platforms | All |

## node-sid

| | |
|---|---|
| Synopsis | Enable the **node-sid** context |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* interface *interface-name* flex-algo *number* node-sid |
| Tree | node-sid |
| Introduced | 21.7.R1 |
| Platforms | All |

## index *number*

| | |
|---|---|
| Synopsis | Node SID index for this interface |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* interface *interface-name* flex-algo *number* node-sid index *number* |
| Tree | index |
| Range | 0 to 4294967295 |
| Notes | The following elements are part of a choice: **index** or **label**. |
| Introduced | 21.7.R1 |
| Platforms | All |

## label *number*

| | |
|---|---|
| Synopsis | Label value for the node SID |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* interface *interface-name* flex-algo *number* node-sid label *number* |
| Tree | label |
| Range | 1 to 4294967295 |
| Notes | The following elements are part of a choice: **index** or **label**. |
| Introduced | 21.7.R1 |


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| | |
|---|---|
| Platforms | All |

## **hello-interval** *number*

| | |
|---|---|
| Synopsis | Time between OSPF Hellos of this interface |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* interface *interface-name* hello-interval *number* |
| Tree | hello-interval |
| Range | 1 to 65535 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **interface-type** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Interface type |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* interface *interface-name* interface-type *keyword* |
| Tree | interface-type |
| Description | This command specifies the interface type. |

**broadcast** - Broadcast network

To significantly improve adjacency forming and network convergence, configure a network as point-to-point if only two routers are connected, even if the network is a broadcast media such as Ethernet.

**non-broadcast** - Non-broadcast network

**point-to-point** - Point-to-point link

Set the interface type of an Ethernet link to **point-to-point** to avoid having to carry the broadcast adjacency maintenance overhead if the Ethernet link provided is used as a point-to-point.

**p2mp-nbma** - Point-to-multipoint on a link without broadcast or multicast support

No designated router or backup designated router is elected on this type of interface and all OSPF neighbors connect through individual point-to-point links. Only VPRN and IES services interfaces support this interface type.

**secondary** - Multiple secondary adjacencies allowed


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A **secondary** interface allows multiple secondary adjacencies, in addition to the primary adjacency, to be established over a single IP interface. This interface type can also be applied to the system interface and to loopback interfaces to allow them to participate in multiple areas, although no adjacencies are formed over these types of interfaces.

| | |
|---|---|
| Options | broadcast, non-broadcast, point-to-point, secondary, p2mp-nbma |
| Introduced | 16.0.R1 |
| Platforms | All |

## **load-balancing-weight** *number*

| | |
|---|---|
| Synopsis | Load balancing weight for an OSPF interface |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* interface *interface-name* load-balancing-weight *number* |
| Tree | load-balancing-weight |
| Range | 1 to 4294967295 |
| Introduced | 20.2.R1 |
| Platforms | All |

## **loopfree-alternate**

| | |
|---|---|
| Synopsis | Enter the **loopfree-alternate** context |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* interface *interface-name* loopfree-alternate |
| Tree | loopfree-alternate |
| Introduced | 16.0.R3 |
| Platforms | All |

## **exclude** *boolean*

| | |
|---|---|
| Synopsis | Enable fast reroute at OSPF primary interface level |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* interface *interface-name* loopfree-alternate exclude *boolean* |
| Tree | exclude |
| Default | false |
| Introduced | 16.0.R3 |
| Platforms | All |


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### policy-map

| | |
|---|---|
| Synopsis | Enable the **policy-map** context |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* interface *interface-name* loopfree-alternate policy-map |
| Tree | policy-map |
| Introduced | 16.0.R3 |
| Platforms | All |

### route-nh-template *reference*

| | |
|---|---|
| Synopsis | Route next hop policy template name |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* interface *interface-name* loopfree-alternate policy-map route-nh-template *reference* |
| Tree | route-nh-template |
| Reference | **configure** routing-options route-next-hop-policy template *named-item* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R3 |
| Platforms | All |

### lsa-filter-out *keyword*

| | |
|---|---|
| Synopsis | LSA flooding reduction |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* interface *interface-name* lsa-filter-out *keyword* |
| Tree | lsa-filter-out |
| Options | none, all, except-own-rtrlsa, except-own-rtrlsa-and-defaults |
| Default | none |
| Introduced | 16.0.R1 |
| Platforms | All |

### message-digest-key [key-id] *number*

| | |
|---|---|
| Synopsis | Enter the **message-digest-key** list instance |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* interface *interface-name* message-digest-key *number* |


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| | |
|---|---|
| Tree | message-digest-key |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**key-id**] *number*

| | |
|---|---|
| Synopsis | Message digest index |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* interface *interface-name* message-digest-key *number* |
| Tree | message-digest-key |
| Range | 1 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **md5** *encrypted-leaf*

| | |
|---|---|
| Synopsis | MD5 hash key |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* interface *interface-name* message-digest-key *number* md5 *encrypted-leaf* |
| Tree | md5 |
| String length | 1 to 51 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **metric** *number*

| | |
|---|---|
| Synopsis | Route cost metric for the interface |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* interface *interface-name* metric *number* |
| Tree | metric |
| Range | 1 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **mtu** *number*

| | |
|---|---|
| Synopsis | MTU for the OSPF to use on the interface |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* interface *interface-name* mtu *number* |
| Tree | mtu |
| Range | 512 to 9786 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **neighbor** [address] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Add a list entry for **neighbor** |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* interface *interface-name* neighbor *ipv4-unicast-address* |
| Tree | neighbor |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**address**] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IPv4 address of the OSPFv2 neighbor |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* interface *interface-name* neighbor *ipv4-unicast-address* |
| Tree | neighbor |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **node-sid**

| | |
|---|---|
| Synopsis | Enable the **node-sid** context |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* interface *interface-name* node-sid |
| Tree | node-sid |
| Description | Commands in this context configure a node SID index or label value for the prefix representing the primary address of a network interface of type system or loopback. A |


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separate SID value can be configured for each IPv4 and IPv6 primary address of the interface. The secondary address of an IPv4 interface cannot be assigned a node SID index and does not inherit the SID of the primary IPv4 address.

In OSPFv2 and OSPFv3, the node SID is configured in the primary area but is inherited in any other area in which the interface is added as secondary.

This command fails if the network interface is not a loopback type or if the interface is defined in an IES or VPRN context. Assigning the same SID index or label value to the same interface in two different IGP instances is not allowed within the same node.

The value of the label or index SID is taken from the range configured for this IGP instance. When using the global mode of operation, the segment routing module checks that the same index or label value is not assigned to more than one loopback interface address. When using the per-instance mode of operation, this check is not required because the index and, therefore, the label ranges of IGP instances are not allowed to overlap.

The **clear-n-flag** option allows the user to clear the N-flag (node-sid flag) in an OSPF or OSPF3 prefix SID sub-TLV originated for the prefix of a loopback interface on the system. By default, the prefix SID sub-TLV for the prefix of a loopback interface is tagged as a node SID; that is, it belongs to this node only. However, to configure and advertise an anycast SID using the same loopback interface prefix on multiple nodes, the user must clear the N-flag to assure interoperability with third-party implementations. This may perform a strict check on the receive end and drop duplicate prefix SID sub-TLVs when the N-flag is set.

The SR OS implementation is relaxed on the receive end and accepts duplicate prefix SIDs with the N-flag set or clear. SR OS resolves to the closest owner, or owners if ECMP, of the prefix SID cost-wise.

Introduced 16.0.R1

Platforms All

## **clear-n-flag** *boolean*

Synopsis Clear the N-flag in an OSPF prefix

Context **configure** router *named-item-64* ospf *number* area *ipv4-address* interface *interface-name* node-sid clear-n-flag *boolean*

Tree clear-n-flag

Description When configured to **true**, this command allows the user to clear the N-flag in an OSPF prefix SID sub-TLV originated for the prefix of a loopback interface on the system.

When configured to **false**, the N-flag in an OSPF prefix SID sub-TLV originated for the prefix of a loopback interface on the system is not cleared.

When the user wants to configure and advertise an anycast SID using the same loopback interface prefix on multiple nodes, the user must clear the N-flag to assure interoperability with third-party implementations. This may perform a strict check on the receive end and drop duplicate prefix SID sub-TLVs when the N-flag is set.

Default false


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **index** *number*

| | |
|---|---|
| Synopsis | Node SID index for this interface |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* interface *interface-name* node-sid index *number* |
| Tree | index |
| Range | 0 to 4294967295 |
| Notes | The following elements are part of a choice: **index** or **label**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **label** *number*

| | |
|---|---|
| Synopsis | Label value for the node SID |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* interface *interface-name* node-sid label *number* |
| Tree | label |
| Range | 1 to 4294967295 |
| Notes | The following elements are part of a choice: **index** or **label**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **passive** *boolean*

| | |
|---|---|
| Synopsis | Advertise passive interfaces as OSPF interfaces |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* interface *interface-name* passive *boolean* |
| Tree | passive |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **poll-interval** *number*

| | |
|---|---|
| Synopsis | Interval for Hellos to non-adjacent OSPF NBMA neighbor |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* interface *interface-name* poll-interval *number* |
| Tree | poll-interval |
| Max. range | 0 to 4294967295 |
| Units | seconds |
| Default | 120 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **priority** *number*

| | |
|---|---|
| Synopsis | Interface priority in the DR election on the subnet |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* interface *interface-name* priority *number* |
| Tree | priority |
| Range | 0 to 255 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **retransmit-interval** *number*

| | |
|---|---|
| Synopsis | Time before OSPF retransmits an unacknowledged LSA |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* interface *interface-name* retransmit-interval *number* |
| Tree | retransmit-interval |
| Range | 1 to 1800 |
| Units | seconds |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **rib-priority** *keyword*

| | |
|---|---|
| Synopsis | RIB priority for OSPF |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* interface *interface-name* rib-priority *keyword* |
| Tree | rib-priority |
| Options | high |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sid-protection** *boolean*

| | |
|---|---|
| Synopsis | Allow adjacency SID protection by LFA and remote LFA |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* interface *interface-name* sid-protection *boolean* |
| Tree | sid-protection |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **transit-delay** *number*

| | |
|---|---|
| Synopsis | Required LSA transmit time |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* interface *interface-name* transit-delay *number* |
| Tree | transit-delay |
| Range | 1 to 1800 |
| Units | seconds |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **loopfree-alternate-exclude** *boolean*

| | |
|---|---|
| Synopsis | Exclude interfaces in OSPF areas in SPF LFA computation |


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| | |
|---|---|
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* loopfree-alternate-exclude *boolean* |
| Tree | loopfree-alternate-exclude |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## nssa

| | |
|---|---|
| Synopsis | Enable the **nssa** context |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* nssa |
| Tree | nssa |
| Introduced | 16.0.R1 |
| Platforms | All |

## area-range [ip-prefix-mask] *ipv4-unicast-prefix*

| | |
|---|---|
| Synopsis | Enter the **area-range** list instance |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* nssa area-range *ipv4-unicast-prefix* |
| Tree | area-range |
| Introduced | 16.0.R1 |
| Platforms | All |

## [ip-prefix-mask] *ipv4-unicast-prefix*

| | |
|---|---|
| Synopsis | IP prefix and subnet mask for the range used by the ABR |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* nssa area-range *ipv4-unicast-prefix* |
| Tree | area-range |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **advertise** *boolean*

| | |
|---|---|
| Synopsis | Advertise summarized range of addresses to other areas |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* nssa area-range *ipv4-unicast-prefix* advertise *boolean* |
| Tree | advertise |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **originate-default-route**

| | |
|---|---|
| Synopsis | Enable the **originate-default-route** context |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* nssa originate-default-route |
| Tree | originate-default-route |
| Introduced | 16.0.R1 |
| Platforms | All |

### **adjacency-check** *boolean*

| | |
|---|---|
| Synopsis | Default route to remove if there is no adjacency |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* nssa originate-default-route adjacency-check *boolean* |
| Tree | adjacency-check |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **type-nssa** *boolean*

| | |
|---|---|
| Synopsis | Generate a default route using NSSA-LSA type |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* nssa originate-default-route type-nssa *boolean* |
| Tree | type-nssa |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **redistribute-external** *boolean*

| | |
|---|---|
| Synopsis | Redistribute external routes into the NSSA |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* nssa redistribute-external *boolean* |
| Tree | redistribute-external |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **summaries** *boolean*

| | |
|---|---|
| Synopsis | Send summary (Type 3) LSAs into the NSSA on an ABR |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* nssa summaries *boolean* |
| Tree | summaries |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **stub**

| | |
|---|---|
| Synopsis | Enable the **stub** context |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* stub |
| Tree | stub |
| Introduced | 16.0.R1 |
| Platforms | All |

### **default-metric** *number*

| | |
|---|---|
| Synopsis | Metric used by ABR for default route into the stub area |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* stub default-metric *number* |


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| | |
|---|---|
| Tree | default-metric |
| Range | 1 to 16777214 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **summaries** *boolean*

| | |
|---|---|
| Synopsis | Send summary (Type 3) LSAs into the stub area on an ABR |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* stub summaries *boolean* |
| Tree | summaries |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **virtual-link** [router-id] *ipv4-address* transit-area *reference*

| | |
|---|---|
| Synopsis | Enter the **virtual-link** list instance |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* virtual-link *ipv4-address* transit-area *reference* |
| Tree | virtual-link |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**router-id**] *ipv4-address*

| | |
|---|---|
| Synopsis | Router identity of the virtual link neighbor |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* virtual-link *ipv4-address* transit-area *reference* |
| Tree | virtual-link |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **transit-area** *reference*

| | |
|---|---|
| Synopsis | Transit area linking the backbone to not-connected area |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* virtual-link *ipv4-address* transit-area *reference* |
| Tree | virtual-link |
| Reference | **configure** router *named-item-64* ospf *number* area *ipv4-address* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the OSPF interface |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* virtual-link *ipv4-address* transit-area *reference* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **authentication-key** *encrypted-leaf*

| | |
|---|---|
| Synopsis | Authentication key |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* virtual-link *ipv4-address* transit-area *reference* authentication-key *encrypted-leaf* |
| Tree | authentication-key |
| String length | 1 to 38 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **authentication-keychain** *reference*

| | |
|---|---|
| Synopsis | TCP authentication keychain for the session |


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| | |
|---|---|
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* virtual-link *ipv4-address* transit-area *reference* authentication-keychain *reference* |
| Tree | authentication-keychain |
| Reference | **configure** system security keychains keychain *named-item* |
| Introduced | 16.0.R3 |
| Platforms | All |

## **authentication-type** *keyword*

| | |
|---|---|
| Synopsis | Authentication type used on OSPF interface |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* virtual-link *ipv4-address* transit-area *reference* authentication-type *keyword* |
| Tree | authentication-type |
| Options | password, message-digest |
| Introduced | 16.0.R1 |
| Platforms | All |

## **dead-interval** *number*

| | |
|---|---|
| Synopsis | OSPF wait time for Hellos before neighbor declared down |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* virtual-link *ipv4-address* transit-area *reference* dead-interval *number* |
| Tree | dead-interval |
| Range | 2 to 65535 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

## **hello-interval** *number*

| | |
|---|---|
| Synopsis | Time between OSPF Hellos of this interface |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* virtual-link *ipv4-address* transit-area *reference* hello-interval *number* |
| Tree | hello-interval |
| Range | 1 to 65535 |
| Units | seconds |


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| | |
|---|---|
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **message-digest-key** [key-id] *number*

| | |
|---|---|
| Synopsis | Enter the **message-digest-key** list instance |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* virtual-link *ipv4-address* transit-area *reference* message-digest-key *number* |
| Tree | message-digest-key |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**key-id**] *number*

| | |
|---|---|
| Synopsis | Message digest index |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* virtual-link *ipv4-address* transit-area *reference* message-digest-key *number* |
| Tree | message-digest-key |
| Range | 1 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **md5** *encrypted-leaf*

| | |
|---|---|
| Synopsis | MD5 hash key |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* virtual-link *ipv4-address* transit-area *reference* message-digest-key *number* md5 *encrypted-leaf* |
| Tree | md5 |
| String length | 1 to 51 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **retransmit-interval** *number*

| | |
|---|---|
| Synopsis | Time before OSPF retransmits an unacknowledged LSA |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* virtual-link *ipv4-address* transit-area *reference* retransmit-interval *number* |
| Tree | retransmit-interval |
| Range | 1 to 1800 |
| Units | seconds |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **transit-delay** *number*

| | |
|---|---|
| Synopsis | Required LSA transmit time |
| Context | **configure** router *named-item-64* ospf *number* area *ipv4-address* virtual-link *ipv4-address* transit-area *reference* transit-delay *number* |
| Tree | transit-delay |
| Range | 1 to 1800 |
| Units | seconds |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **asbr**

| | |
|---|---|
| Synopsis | Enable the **asbr** context |
| Context | **configure** router *named-item-64* ospf *number* asbr |
| Tree | asbr |
| Introduced | 16.0.R1 |
| Platforms | All |

### **trace-path** *(number | keyword)*

| | |
|---|---|
| Synopsis | Domain identity |
| Context | **configure** router *named-item-64* ospf *number* asbr trace-path *(number | keyword)* |


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| | |
|---|---|
| Tree | trace-path |
| Range | 0 to 31 |
| Options | none |
| Default | none |
| Introduced | 16.0.R1 |
| Platforms | All |

## **compatible-rfc1583** *boolean*

| | |
|---|---|
| Synopsis | OSPF summary and external route calculations |
| Context | **configure** router *named-item-64* ospf *number* compatible-rfc1583 *boolean* |
| Tree | compatible-rfc1583 |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

## database-export

| | |
|---|---|
| Synopsis | Enable the **database-export** context |
| Context | **configure** router *named-item-64* ospf *number* database-export |
| Tree | database-export |
| Description | Commands in this context enable the population of the extended TE Database (TE-DB) with the link-state information from a specific IGP instance.<br>This information includes the IGP, TE, and SR information, prefix SID sub-TLV, adjacency SID sub-TLV, and router SR capability TLV. |
| Introduced | 16.0.R1 |
| Platforms | All |

## bgp-ls-identifier

| | |
|---|---|
| Synopsis | Enable the **bgp-ls-identifier** context |
| Context | **configure** router *named-item-64* ospf *number* database-export bgp-ls-identifier |
| Tree | bgp-ls-identifier |
| Description | Commands in this context correlate, along with the Autonomous System Number (ASN), the BGP-LS NLRI advertisements of multiple BGP-LS speakers of the same IGP domain. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## **value** *number*

| | |
|---|---|
| Synopsis | BGP-LS ID sent in the BGP-LS NLRI |
| Context | **configure** router *named-item-64* ospf *number* database-export bgp-ls-identifier value *number* |
| Tree | value |
| Description | This command configures the BGP-LS ID to export.<br>If an NRC-P network domain has multiple IGP domains, a user must configure BGP-LS speakers within each IGP domain with the same unique ASN, BGP-LS ID tuple. The BGP-LS identifier is optional and is only sent in a BGP-LS NLRI if configured in the IGP instance of an IGP domain.<br>**Note:** If this IGP instance participates in traffic engineering with RSVP-TE or SR-TE, the **traffic-engineering** command configuration is not strictly required because enabling the extended TE-DB populates this information automatically. However, Nokia recommends enabling the **traffic-engineering** command to make the configuration consistent with other routers in the network that do not require the enabling of the extended TE-DB. |
| Max. range | 0 to 4294967295 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **igp-identifier** *number*

| | |
|---|---|
| Synopsis | IGP instance in the BGP-LS NLRI |
| Context | **configure** router *named-item-64* ospf *number* database-export igp-identifier *number* |
| Tree | igp-identifier |
| Description | This command identifies the IGP instance in the BGP-LS NLRI when a router has interfaces participating in multiple IGP instances. The concept of an instance ID specified for OSPF is local subnet significant (RFC 6549). An IGP identifier value can be configured to be unique within a specified IGP domain when the router sends the IGP link state information using BGP-LS. |
| Max. range | 0 to 18446744073709551615 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **reachable-ls-only** *boolean*

| | |
|---|---|
| Synopsis | Encode only reachable link-state information |
| Context | **configure** router *named-item-64* ospf *number* database-export reachable-ls-only *boolean* |
| Tree | reachable-ls-only |
| Description | When configured to **true**, the router, acting as a BGP-LS producer, must withdraw all link-state objects it has advertised in BGP, in accordance with section 5.9 of RFC 9552. This withdrawal occurs when the node that originated the corresponding LSPs is determined to be unreachable in the IGP based on the failure of a reachability check for that node. This withdrawal operation assists network controllers in assessing a reachable IGP topology, even in networks with segmented areas. For backward compatibility, the default behavior remains unchanged.<br><br>When configure to **false**, the router continues to send link-state objects even for links that fail an IGP reachability check. |
| Default | false |
| Introduced | 24.10.R1 |
| Platforms | All |

### **entropy-label**

| | |
|---|---|
| Synopsis | Enter the **entropy-label** context |
| Context | **configure** router *named-item-64* ospf *number* entropy-label |
| Tree | entropy-label |
| Introduced | 16.0.R1 |
| Platforms | All |

### **override-tunnel-elc** *boolean*

| | |
|---|---|
| Synopsis | Enable override of received ELC advertisements |
| Context | **configure** router *named-item-64* ospf *number* entropy-label override-tunnel-elc *boolean* |
| Tree | override-tunnel-elc |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### export-limit

| | |
|---|---|
| Synopsis | Enable the **export-limit** context |
| Context | **configure** router *named-item-64* ospf *number* export-limit |
| Tree | export-limit |
| Introduced | 16.0.R1 |
| Platforms | All |

### log-percent *number*

| | |
|---|---|
| Synopsis | Export limit before warning and SNMP notification sent |
| Context | **configure** router *named-item-64* ospf *number* export-limit log-percent *number* |
| Tree | log-percent |
| Range | 1 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### number *number*

| | |
|---|---|
| Synopsis | Maximum routes or prefixes exported from route table |
| Context | **configure** router *named-item-64* ospf *number* export-limit number *number* |
| Tree | number |
| Range | 1 to 4294967295 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### export-policy *reference*

| | |
|---|---|
| Synopsis | Export policies that determine exported routes |
| Context | **configure** router *named-item-64* ospf *number* export-policy *reference* |
| Tree | export-policy |
| Description | This command configures export routing policies for the routes exported from the routing table to IS-IS.<br>If the export policy is undefined, the system does not export non IS-IS routes from the routing table manager to IS-IS. |


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| | |
|---|---|
| | If multiple policy names are specified, the policies are evaluated in the order they are specified. The first policy that matches is applied.<br>If the **aggregate** command is also configured in the **configure router** context, the aggregation is applied before the export policy is applied.<br>Routing policies are created in the **configure router policy-options** context. |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

## external-db-overflow

| | |
|---|---|
| Synopsis | Enable the **external-db-overflow** context |
| Context | **configure** router *named-item-64* ospf *number* external-db-overflow |
| Tree | external-db-overflow |
| Introduced | 16.0.R1 |
| Platforms | All |

## interval *number*

| | |
|---|---|
| Synopsis | Time during which the router operates in overload |
| Context | **configure** router *named-item-64* ospf *number* external-db-overflow interval *number* |
| Tree | interval |
| Range | 0 to 2147483647 |
| Units | seconds |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

## limit *number*

| | |
|---|---|
| Synopsis | Number of external LSA at which overload is triggered |
| Context | **configure** router *named-item-64* ospf *number* external-db-overflow limit *number* |
| Tree | limit |


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| | |
|---|---|
| Range | 0 to 2147483647 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **external-preference** *number*

| | |
|---|---|
| Synopsis | Preference for OSPF external routes |
| Context | **configure** router *named-item-64* ospf *number* external-preference *number* |
| Tree | external-preference |
| Range | 1 to 255 |
| Default | 150 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **flexible-algorithms**

| | |
|---|---|
| Synopsis | Enter the **flexible-algorithms** context |
| Context | **configure** router *named-item-64* ospf *number* flexible-algorithms |
| Tree | flexible-algorithms |
| Description | Commands in this context configure the OSPFv2 parameters for flexible algorithm participation. |
| Introduced | 21.7.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of flexible algorithm support |
| Context | **configure** router *named-item-64* ospf *number* flexible-algorithms admin-state *keyword* |
| Tree | admin-state |
| Description | This command specifies the administrative state of the support of flexible algorithm IGP LSDB extensions. |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.7.R1 |


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| | |
|---|---|
| Platforms | All |

### **advertise-admin-group** *keyword*

| | |
|---|---|
| Synopsis | Administrative group TLV to advertise |
| Context | **configure** router *named-item-64* ospf *number* flexible-algorithms advertise-admin-group *keyword* |
| Tree | advertise-admin-group |
| Description | This command configures the type of Administrative Group TLV the router advertises as an IGP link attribute. This command is configured for this IGP instance. |
| Options | prefer-ag, eag-only, ag-eag |
| Default | prefer-ag |
| Introduced | 23.3.R1 |
| Platforms | All |

### **flex-algo** [flex-algo-id] *number*

| | |
|---|---|
| Synopsis | Enter the **flex-algo** list instance |
| Context | **configure** router *named-item-64* ospf *number* flexible-algorithms flex-algo *number* |
| Tree | flex-algo |
| Description | Commands in this context configure the attributes of the OSPFv2 flexible algorithm.<br>The maximum unique flexible algorithms can be configured on a router across all configured OSPFv2 instances. In each OSPF flexible algorithm configuration context, the OSPFv2 instance participation can be either enabled or disabled, and it configures the advertising of a locally-configured flexible algorithm definition.<br>When flexible algorithm is enabled in an OSPF instance, it is enabled for all areas within the OSPF instance. |
| Max. instances | 7 |
| Introduced | 21.7.R1 |
| Platforms | All |

### [**flex-algo-id**] *number*

| | |
|---|---|
| Synopsis | Flexible algorithm ID |
| Context | **configure** router *named-item-64* ospf *number* flexible-algorithms flex-algo *number* |
| Tree | flex-algo |


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| | |
|---|---|
| Range | 128 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 21.7.R1 |
| Platforms | All |

## **advertise** *reference*

| | |
|---|---|
| Synopsis | Flexible Algorithm Definition advertisement |
| Context | **configure** router *named-item-64* ospf *number* flexible-algorithms flex-algo *number* advertise *reference* |
| Tree | advertise |
| Description | This command enables the advertisement of a locally configured Flexible Algorithm Definition (FAD).<br>The winning FAD that a router uses must be consistent with the winning FAD on all other routers, which avoids routing loops and traffic blackholing. The winning FAD is selected using a tiebreaker algorithm that first selects the highest advertised FAD priority followed by the highest system ID. |
| Reference | **configure** routing-options flexible-algorithm-definitions flex-algo *named-item* |
| Introduced | 21.7.R1 |
| Platforms | All |

## loopfree-alternate

| | |
|---|---|
| Synopsis | Enable the **loopfree-alternate** context |
| Context | **configure** router *named-item-64* ospf *number* flexible-algorithms flex-algo *number* loopfree-alternate |
| Tree | loopfree-alternate |
| Introduced | 21.7.R1 |
| Platforms | All |

## micro-loop-avoidance

| | |
|---|---|
| Synopsis | Enable the **micro-loop-avoidance** context |
| Context | **configure** router *named-item-64* ospf *number* flexible-algorithms flex-algo *number* micro-loop-avoidance |
| Tree | micro-loop-avoidance |


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Description When configured, the system enables micro-loop avoidance for an SR-OSPF flexible algorithm, and consequently, inherits the FIB delay timer from the SR-OSPF **configure router ospf segment-routing** context.

When this command is configured, FIB updates are delayed before the system programs new primary next hops to avoid micro-loops.

When configured, the feature applies to the following contexts:

- OSPFv2 SR-OSPF IPv4 tunnel (node SID)
- IPv4 and IPv6 SR-TE LSPs that use a node SID in their segment list
- IPv4 and IPv6 SR policies that use a node SID in their segment list

When micro-loop-avoidance is disabled (by removing this command from the configuration), the system forces any running FIB delay to expire immediately and programs the new next hops for all impacted node SIDs. When disabled, micro-loop avoidance is disabled instantaneously and will be disabled for the next SPF runs. Micro-loop avoidance remains disabled until it is re-enabled.

Introduced 24.3.R1

Platforms All

## **participate** *boolean*

Synopsis Allow participation in the Flexible Algorithm

Context **configure** router *named-item-64* ospf *number* flexible-algorithms flex-algo *number* participate *boolean*

Tree participate

Description When configured to **true**, the router advertises the capability to participate in a flexible algorithm within the IS-IS Router Capability TLV. A router only advertises participation when the winning FAD can be supported, which includes segment routing support.

When configured to **false**, flexible algorithm participation is not enabled.

Default false

Introduced 21.7.R1

Platforms All

## **graceful-restart**

Synopsis Enable the **graceful-restart** context

Context **configure** router *named-item-64* ospf *number* graceful-restart

Tree graceful-restart

Introduced 16.0.R1

Platforms All


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### **helper-mode** *boolean*

| | |
|---|---|
| Synopsis | Enable graceful restart helper for OSPF |
| Context | **configure** router *named-item-64* ospf *number* graceful-restart helper-mode *boolean* |
| Tree | helper-mode |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **strict-lsa-checking** *boolean*

| | |
|---|---|
| Synopsis | Perform strict LSA checking during graceful restart |
| Context | **configure** router *named-item-64* ospf *number* graceful-restart strict-lsa-checking *boolean* |
| Tree | strict-lsa-checking |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **igp-shortcut**

| | |
|---|---|
| Synopsis | Enter the **igp-shortcut** context |
| Context | **configure** router *named-item-64* ospf *number* igp-shortcut |
| Tree | igp-shortcut |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the IGP shortcuts |
| Context | **configure** router *named-item-64* ospf *number* igp-shortcut admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **allow-sr-over-srte** *boolean*

| | |
|---|---|
| Synopsis | Enable SR over SR-TE LSPs |
| Context | **configure** router *named-item-64* ospf *number* igp-shortcut allow-sr-over-srte *boolean* |
| Tree | allow-sr-over-srte |
| Description | When configured to **true**, the router only allows SR-MPLS SRv4 and SRv6 IGP shortcuts to use SR-TE LSPs with **allow-sr-over-srte** explicitly enabled with an adjacency SID as top SID in the SR-TE LSP. IPv4 and IPv6 addresses can use all available SR-TE LSPs as IGP shortcuts regardless of the explicit **allow-sr-over-srte** configuration.<br><br>Under ECMP, when this command is configured to **true**, preference is given to the SR-TE LSPs with **allow-sr-over-srte** explicitly configured over the LSPs that do not have **allow-sr-over-srte** configured. |
| Default | false |
| Introduced | 23.3.R1 |
| Platforms | All |

### **tunnel-next-hop**

| | |
|---|---|
| Synopsis | Enter the **tunnel-next-hop** context |
| Context | **configure** router *named-item-64* ospf *number* igp-shortcut tunnel-next-hop |
| Tree | tunnel-next-hop |
| Introduced | 16.0.R1 |
| Platforms | All |

### **family** [family-type] *keyword*

| | |
|---|---|
| Synopsis | Enter the **family** list instance |
| Context | **configure** router *named-item-64* ospf *number* igp-shortcut tunnel-next-hop family *keyword* |
| Tree | family |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**family-type**] *keyword*

| | |
|---|---|
| Synopsis | Address family type for tunnel next-hop |
| Context | **configure** router *named-item-64* ospf *number* igp-shortcut tunnel-next-hop family *keyword* |
| Tree | family |
| Options | ipv4, srv4 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **resolution** *keyword*

| | |
|---|---|
| Synopsis | Resolution state for IGP shortcut tunnels |
| Context | **configure** router *named-item-64* ospf *number* igp-shortcut tunnel-next-hop family *keyword* resolution *keyword* |
| Tree | resolution |
| Options | none, filter, any, match-family-ip |
| Default | none |
| Introduced | 16.0.R1 |
| Platforms | All |

### **resolution-filter**

| | |
|---|---|
| Synopsis | Enter the **resolution-filter** context |
| Context | **configure** router *named-item-64* ospf *number* igp-shortcut tunnel-next-hop family *keyword* resolution-filter |
| Tree | resolution-filter |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rsvp** *boolean*

| | |
|---|---|
| Synopsis | Use RSVP tunneling for next-hop resolution |
| Context | **configure** router *named-item-64* ospf *number* igp-shortcut tunnel-next-hop family *keyword* resolution-filter rsvp *boolean* |


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| | |
|---|---|
| Tree | rsvp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sr-te** *boolean*

| | |
|---|---|
| Synopsis | Use SR-TE tunneling for next-hop resolution |
| Context | **configure** router *named-item-64* ospf *number* igp-shortcut tunnel-next-hop family *keyword* resolution-filter sr-te *boolean* |
| Tree | sr-te |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **import-policy** *reference*

| | |
|---|---|
| Synopsis | Import policy names for routes from IGP to route table |
| Context | **configure** router *named-item-64* ospf *number* import-policy *reference* |
| Tree | import-policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ldp-over-rsvp** *boolean*

| | |
|---|---|
| Synopsis | Allow LSP over RSVP in this OSPF instance |
| Context | **configure** router *named-item-64* ospf *number* ldp-over-rsvp *boolean* |
| Tree | ldp-over-rsvp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **ldp-sync** *boolean*

| | |
|---|---|
| Synopsis | Configure IGP-LDP synchronization for interfaces |
| Context | **configure** router *named-item-64* ospf *number* ldp-sync *boolean* |
| Tree | ldp-sync |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **loopfree-alternate**

| | |
|---|---|
| Synopsis | Enable the **loopfree-alternate** context |
| Context | **configure** router *named-item-64* ospf *number* loopfree-alternate |
| Tree | loopfree-alternate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **augment-route-table** *boolean*

| | |
|---|---|
| Synopsis | Attach remote LFA information to RTM entries |
| Context | **configure** router *named-item-64* ospf *number* loopfree-alternate augment-route-table *boolean* |
| Tree | augment-route-table |
| Description | When configured to **true**, this command enables IS-IS to attach remote LFA-specific information to RTM entries for use by protocols such as LDP.<br>When configured to **false**, rLFA-specific information is not added to RTM entries. |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | All |

### **exclude**

| | |
|---|---|
| Synopsis | Enter the **exclude** context |
| Context | **configure** router *named-item-64* ospf *number* loopfree-alternate exclude |
| Tree | exclude |
| Introduced | 16.0.R3 |


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| | |
|---|---|
| Platforms | All |

## **prefix-policy** *reference*

| | |
|---|---|
| Synopsis | Policy to exclude prefixes from LFA SPF calculation |
| Context | **configure** router *named-item-64* ospf *number* loopfree-alternate exclude prefix-policy *reference* |
| Tree | prefix-policy |
| Description | This command specifies the name of the policy for the prefixes to exclude from the LFA SPF calculation.<br>An excluded prefix is not included in LFA calculation regardless of its priority. The prefix tag is, however, used in the main SPF. |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R3 |
| Platforms | All |

## **multi-homed-prefix**

| | |
|---|---|
| Synopsis | Enable the **multi-homed-prefix** context |
| Context | **configure** router *named-item-64* ospf *number* loopfree-alternate multi-homed-prefix |
| Tree | multi-homed-prefix |
| Description | Commands in this context configure a multihomed prefix LFA for both RTM routes (IP FRR) and SR-OSPF tunnels. SR-OSPF tunnels enable multihomed prefix extension in both algorithm 0 and flexible-algorithm numbers.<br>This feature makes use of the multihomed prefix model described in RFC 8518 to compute a backup IP next hop using an alternate ABR or ASBR for external prefixes and to an alternate router owner for local anycast prefixes.<br>This feature further enhances the multihomed prefix backup path calculation beyond RFC 8518 with the addition of repair tunnels that make use of a PQ node or a P-Q set to reach the alternate exit ABR or ASBR of external prefixes or the alternate owner router of local anycast prefixes.<br>The computed IP next-hop based backup path is added to OSPF routes of external /32 prefixes (OSPFv2 routes types 3, 4, 5, and 7) and local /32 anycast prefixes in the RTM if the prefix is not protected by base LFA or if the user set leaf preference value to all. The user must enable the ip-fast-reroute leaf to have these backup paths programmed into the FIB in datapath. |


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The computed IP next hop or repair tunnel based backup path is also programmed for SR-OSPF node SID tunnels of external /32 prefixes and to /32 prefixes in same area as the computing node S and which are advertised by multiple routers (anycast prefix) in both algorithm 0 and flexible-algorithm numbers.

| | |
|---|---|
| Introduced | 22.2.R1 |
| Platforms | All |

## **preference** *keyword*

| | |
|---|---|
| Synopsis | Multi-homed prefix LFA backup path preference |
| Context | **configure** router *named-item-64* ospf *number* loopfree-alternate multi-homed-prefix preference *keyword* |
| Tree | preference |
| Options | none, all |
| Default | none |
| Introduced | 22.2.R1 |
| Platforms | All |

## **remote-lfa**

| | |
|---|---|
| Synopsis | Enable the **remote-lfa** context |
| Context | **configure** router *named-item-64* ospf *number* loopfree-alternate remote-lfa |
| Tree | remote-lfa |
| Introduced | 16.0.R1 |
| Platforms | All |

## **max-pq-cost** *number*

| | |
|---|---|
| Synopsis | Destination max cost for reverse SPF calculation |
| Context | **configure** router *named-item-64* ospf *number* loopfree-alternate remote-lfa max-pq-cost *number* |
| Tree | max-pq-cost |
| Max. range | 0 to 4294967295 |
| Default | 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |


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## node-protect

| | |
|---|---|
| Synopsis | Enable the **node-protect** context |
| Context | **configure** router *named-item-64* ospf *number* loopfree-alternate remote-lfa node-protect |
| Tree | node-protect |
| Introduced | 16.0.R4 |
| Platforms | All |

## max-pq-nodes *number*

| | |
|---|---|
| Synopsis | Maximum number of PQ nodes found in the LFA SPFs |
| Context | **configure** router *named-item-64* ospf *number* loopfree-alternate remote-lfa node-protect max-pq-nodes *number* |
| Tree | max-pq-nodes |
| Range | 1 to 32 |
| Default | 16 |
| Introduced | 16.0.R4 |
| Platforms | All |

## ti-lfa

| | |
|---|---|
| Synopsis | Enable the **ti-lfa** context |
| Context | **configure** router *named-item-64* ospf *number* loopfree-alternate ti-lfa |
| Tree | ti-lfa |
| Description | Commands in this context configure the Topology Independent Loop-Free Alternate (TI-LFA) algorithm used in the LFA Shortest Path First (SPF) calculation for this OSPF instance. |
| Introduced | 16.0.R1 |
| Platforms | All |

## max-sr-frr-labels *number*

| | |
|---|---|
| Synopsis | Maximum number of labels the TI-LFA backup path can use |
| Context | **configure** router *named-item-64* ospf *number* loopfree-alternate ti-lfa max-sr-frr-labels *number* |
| Tree | max-sr-frr-labels |


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| | |
|---|---|
| Description | This command configures the maximum number of labels allowed in the segment list of the TI-LFA repair tunnel. A higher value results in better coverage by TI-LFA at the expense of increased packet encapsulation overhead. The TI-LFA algorithm uses this value to limit the search for the Q-node from the P-node on the post-convergence path. |
| Range | 0 to 3 |
| Default | 2 |
| Introduced | 16.0.R1 |
| Platforms | All |

## node-protect

| | |
|---|---|
| Synopsis | Enable the **node-protect** context |
| Context | **configure** router *named-item-64* ospf *number* loopfree-alternate ti-lfa node-protect |
| Tree | node-protect |
| Introduced | 16.0.R5 |
| Platforms | All |

## multi-instance *boolean*

| | |
|---|---|
| Synopsis | Enable OSPF Multi Instance Extensions |
| Context | **configure** router *named-item-64* ospf *number* multi-instance *boolean* |
| Tree | multi-instance |
| Description | When configured to **true**, the Base router supports RFC 6549, OSPFv2 Multi-Instance Extensions.<br>This support is enabled per instance and allows flexibility when migrating a particular instance from classic OSPFv2 to a multi-instance OSPFv2. |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

## multicast-import *boolean*

| | |
|---|---|
| Synopsis | Submit routes into the multicast Route Table Manager |
| Context | **configure** router *named-item-64* ospf *number* multicast-import *boolean* |
| Tree | multicast-import |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **overload** *boolean*

| | |
|---|---|
| Synopsis | Change local router state to appear overloaded |
| Context | **configure** router *named-item-64* ospf *number* overload *boolean* |
| Tree | overload |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **overload-include-ext-1** *boolean*

| | |
|---|---|
| Synopsis | Advertise routes with maximum metric value for overload |
| Context | **configure** router *named-item-64* ospf *number* overload-include-ext-1 *boolean* |
| Tree | overload-include-ext-1 |
| Default | false |
| Introduced | 19.7.R1 |
| Platforms | All |

### **overload-include-ext-2** *boolean*

| | |
|---|---|
| Synopsis | Advertise routes with maximum metric value for overload |
| Context | **configure** router *named-item-64* ospf *number* overload-include-ext-2 *boolean* |
| Tree | overload-include-ext-2 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **overload-include-stub** *boolean*

| | |
|---|---|
| Synopsis | Advertise all stub interfaces with max metric value |
| Context | **configure** router *named-item-64* ospf *number* overload-include-stub *boolean* |
| Tree | overload-include-stub |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### overload-on-boot

| | |
|---|---|
| Synopsis | Enable the **overload-on-boot** context |
| Context | **configure** router *named-item-64* ospf *number* overload-on-boot |
| Tree | overload-on-boot |
| Introduced | 16.0.R1 |
| Platforms | All |

### timeout *number*

| | |
|---|---|
| Synopsis | Time during which the router operates in overload state |
| Context | **configure** router *named-item-64* ospf *number* overload-on-boot timeout *number* |
| Tree | timeout |
| Range | 1 to 1800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### preference *number*

| | |
|---|---|
| Synopsis | Preference for OSPF internal routes |
| Context | **configure** router *named-item-64* ospf *number* preference *number* |
| Tree | preference |
| Range | 1 to 255 |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### reference-bandwidth *number*

| | |
|---|---|
| Synopsis | Bandwidth to reference default costing of interfaces |


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| | |
|---|---|
| Context | **configure** router *named-item-64* ospf *number* reference-bandwidth *number* |
| Tree | reference-bandwidth |
| Range | 1 to 18446744073709551615 |
| Units | kilobps |
| Default | 100000000 |
| Introduced | 16.0.R1 |
| Platforms | All |

## rib-priority

| | |
|---|---|
| Synopsis | Enter the **rib-priority** context |
| Context | **configure** router *named-item-64* ospf *number* rib-priority |
| Tree | rib-priority |
| Introduced | 16.0.R1 |
| Platforms | All |

## high

| | |
|---|---|
| Synopsis | Enter the **high** context |
| Context | **configure** router *named-item-64* ospf *number* rib-priority high |
| Tree | high |
| Introduced | 16.0.R1 |
| Platforms | All |

## prefix-list *reference*

| | |
|---|---|
| Synopsis | Higher priority list used during OSPF route calculation |
| Context | **configure** router *named-item-64* ospf *number* rib-priority high prefix-list *reference* |
| Tree | prefix-list |
| Reference | **configure** policy-options prefix-list *named-item-64* |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **router-id** *router-id*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Unique router ID for the OSPF instance |
| Context | **configure** router *named-item-64* ospf *number* router-id *router-id* |
| Tree | router-id |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rtr-adv-lsa-limit**

| | |
|---|---|
| Synopsis | Enable the **rtr-adv-lsa-limit** context |
| Context | **configure** router *named-item-64* ospf *number* rtr-adv-lsa-limit |
| Tree | rtr-adv-lsa-limit |
| Introduced | 16.0.R1 |
| Platforms | All |

### **log-only** *boolean*

| | |
|---|---|
| Synopsis | Log the event without triggering overload |
| Context | **configure** router *named-item-64* ospf *number* rtr-adv-lsa-limit log-only *boolean* |
| Tree | log-only |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **max-lsa-count** *number*

| | |
|---|---|
| Synopsis | Max number of LSAs one router can advertise |
| Context | **configure** router *named-item-64* ospf *number* rtr-adv-lsa-limit max-lsa-count *number* |
| Tree | max-lsa-count |
| Range | 1 to 4294967295 |
| Notes | This element is mandatory. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **overload-timeout** *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum time in overload after LSA limit is reached |
| Context | **configure** router *named-item-64* ospf *number* rtr-adv-lsa-limit overload-timeout *(number \| keyword)* |
| Tree | overload-timeout |
| Range | 1 to 1800 |
| Units | seconds |
| Options | forever |
| Default | forever |
| Introduced | 16.0.R1 |
| Platforms | All |

### **warning-threshold** *number*

| | |
|---|---|
| Synopsis | Percentage of the max LSA count that causes a warning |
| Context | **configure** router *named-item-64* ospf *number* rtr-adv-lsa-limit warning-threshold *number* |
| Tree | warning-threshold |
| Range | 0 to 100 |
| Units | percent |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **segment-routing**

| | |
|---|---|
| Synopsis | Enter the **segment-routing** context |
| Context | **configure** router *named-item-64* ospf *number* segment-routing |
| Tree | segment-routing |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **adj-sid-hold** *(number | keyword)*

Synopsis Adjacency SID hold time

Context **configure** router *named-item-64* ospf *number* segment-routing adj-sid-hold *(number | keyword)*

Tree adj-sid-hold

Description This command configures a timer to hold the ILM or LTN of an adjacency SID following a failure of the adjacency.

When an adjacency to a neighbor fails, the following procedure is followed for both an LFA protected and the LFA unprotected SID of this adjacency in SR-MPLS. An adjacency can have both types of SIDs assigned by configuration. An LFA protected adjacency SID is eligible for LFA protection, however, the following procedure applies even if an LFA backup is not programmed at the time of the failure. An LFA unprotected adjacency SID is not eligible for LFA protection.

- IGP withdraws the advertisement of the link TLV as well as its adjacency SID sub-TLV.
- The adjacency SID hold timer starts.
- The LTN and ILM records of the adjacency are kept in the datapath for as long as the adjacency SID hold time is running. This allows packets to flow over the LFA backup path, when the adjacency is protected, and allows the ingress LER or PCE time to compute a new path of the SR-TE LSP after IGP converges.
- If the adjacency is restored while the adjacency SID hold timer is running, the timer is aborted, and the adjacency SID remains programmed in the datapath with the retained SID values. However, the backup NHLFE may change if a new LFA SPF runs while the adjacency SID hold timer running. An update to the backup NHLFE is performed immediately following the LFA SPF. In all cases, the adjacency keeps its assigned SID label value.
- If the adjacency SID hold timer expires before the adjacency is restored, the SID is deprogrammed from the datapath and the label returned into the common pool where it was drawn from. Users of the adjacency (for example, SR policy and SR-TE LSP) are also informed. When the adjacency is subsequently restored, it gets assigned its allocated static-label value or a new dynamic-label value.
- A new PG-ID is assigned each time an adjacency comes back up. This PG-ID is used by the ILM and LTN of the adjacency SID and of all downstream node SIDs that resolve to a next hop over this adjacency.

Range 1 to 1800

Units seconds

Options none

Default 15

Introduced 16.0.R1

Platforms All


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### **adjacency-set** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **adjacency-set** list instance |
| Context | **configure** router *named-item-64* ospf *number* segment-routing adjacency-set *number* |
| Tree | adjacency-set |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | Non-zero identifier for a given adjacency set |
| Context | **configure** router *named-item-64* ospf *number* segment-routing adjacency-set *number* |
| Tree | adjacency-set |
| Range | 1 to 4294967295 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **advertise** *boolean*

| | |
|---|---|
| Synopsis | Advertise adjacency for links terminating on same node |
| Context | **configure** router *named-item-64* ospf *number* segment-routing adjacency-set *number* advertise *boolean* |
| Tree | advertise |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **parallel** *boolean*

| | |
|---|---|
| Synopsis | Require adjacency members to terminate on same neighbor |
| Context | **configure** router *named-item-64* ospf *number* segment-routing adjacency-set *number* parallel *boolean* |
| Tree | parallel |
| Default | true |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## sid

| | |
|---|---|
| Synopsis | Enable the **sid** context |
| Context | **configure** router *named-item-64* ospf *number* segment-routing adjacency-set *number* sid |
| Tree | sid |
| Introduced | 16.0.R1 |
| Platforms | All |

## label *number*

| | |
|---|---|
| Synopsis | Adjacency SID label |
| Context | **configure** router *named-item-64* ospf *number* segment-routing adjacency-set *number* sid label *number* |
| Tree | label |
| Range | 1 to 1048575 |
| Introduced | 16.0.R1 |
| Platforms | All |

## adjacency-sid

| | |
|---|---|
| Synopsis | Enter the **adjacency-sid** context |
| Context | **configure** router *named-item-64* ospf *number* segment-routing adjacency-sid |
| Tree | adjacency-sid |
| Introduced | 22.7.R1 |
| Platforms | All |

## allocate-dual-sids *boolean*

| | |
|---|---|
| Synopsis | Allocate dual adjacency SIDs per interface |
| Context | **configure** router *named-item-64* ospf *number* segment-routing adjacency-sid allocate-dual-sids *boolean* |
| Tree | allocate-dual-sids |
| Description | When configured to **true**, the router supports two SR-MPLS adjacency SIDs per interface. A protected and unprotected adjacency SID is instantiated and advertised. If |


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an SR-MPLS adjacency SID already exists, an additional complementary (protected or unprotected) adjacency SID is created on the interface.

When configured to **false**, the router disables the support of two SR-MPLS adjacency SIDs per interface.

| | |
|---|---|
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of segment routing |
| Context | **configure** router *named-item-64* ospf *number* segment-routing admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

## **backup-node-sid**

| | |
|---|---|
| Synopsis | Enable the **backup-node-sid** context |
| Context | **configure** router *named-item-64* ospf *number* segment-routing backup-node-sid |
| Tree | backup-node-sid |
| Introduced | 16.0.R1 |
| Platforms | All |

## **index** *number*

| | |
|---|---|
| Synopsis | Node SID index for this interface |
| Context | **configure** router *named-item-64* ospf *number* segment-routing backup-node-sid index *number* |
| Tree | index |
| Range | 0 to 4294967295 |
| Notes | The following elements are part of a choice: **index** or **label**. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **ip-prefix** *ipv4-unicast-prefix*

| | |
|---|---|
| Synopsis | IP prefix and prefix length for the backup node SID |
| Context | **configure** router *named-item-64* ospf *number* segment-routing backup-node-sid ip-prefix *ipv4-unicast-prefix* |
| Tree | ip-prefix |
| Introduced | 16.0.R1 |
| Platforms | All |

### **label** *number*

| | |
|---|---|
| Synopsis | Label value for the node SID |
| Context | **configure** router *named-item-64* ospf *number* segment-routing backup-node-sid label *number* |
| Tree | label |
| Range | 1 to 4294967295 |
| Notes | The following elements are part of a choice: **index** or **label**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **class-forwarding** *boolean*

| | |
|---|---|
| Synopsis | Allow CBF with ECMP over RSVP-TE LSPs as IGP shortcuts |
| Context | **configure** router *named-item-64* ospf *number* segment-routing class-forwarding *boolean* |
| Tree | class-forwarding |
| Description | When configured to **true**, this command enables Class-Based Forwarding (CBF) with ECMP for SR-OSPF resolved to RSVP-TE LSPs as IGP shortcuts.<br>For CBF with ECMP to be effective, a class forwarding policy must be defined, as well as FC to set associations and RSVP-TE LSPs to set associations.<br>When configured to **false**, CBF over IGP shortcuts is disabled. |
| Default | false |
| Introduced | 20.5.R1 |
| Platforms | All |


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## egress-statistics

| | |
|---|---|
| Synopsis | Enter the **egress-statistics** context |
| Context | **configure** router *named-item-64* ospf *number* segment-routing egress-statistics |
| Tree | egress-statistics |
| Introduced | 19.10.R1 |
| Platforms | All |

## adj-set *boolean*

| | |
|---|---|
| Synopsis | Enable the allocation of statistics on adjacency sets |
| Context | **configure** router *named-item-64* ospf *number* segment-routing egress-statistics adj-set *boolean* |
| Tree | adj-set |
| Description | When configured to **true**, this command enables the allocation of statistic indices to each adjacency set. All adjacencies of a set share the same statistics index. If a statistics index is not available at allocation time, the allocation fails and the system retries the allocation. The system generates a log on the first fail and a log on the final successful allocation. |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

## adj-sid *boolean*

| | |
|---|---|
| Synopsis | Enable the allocation of statistics on adjacency SIDs |
| Context | **configure** router *named-item-64* ospf *number* segment-routing egress-statistics adj-sid *boolean* |
| Tree | adj-sid |
| Description | When configured to **true**, this command enables the allocation of statistic indexes to each programmed NHLFE corresponding to Adjacency SIDs (local and received by means of IGP advertisement). All NHLFEs associated to a given SID share the same index. If a statistics index is not available at allocation time, the allocation fails and the system retries the allocation. The system generates a log on the first fail and a log on the final successful allocation. |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |


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### **node-sid** *boolean*

| | |
|---|---|
| Synopsis | Enable the allocation of statistics on node SIDs |
| Context | **configure** router *named-item-64* ospf *number* segment-routing egress-statistics node-sid *boolean* |
| Tree | node-sid |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **entropy-label** *boolean*

| | |
|---|---|
| Synopsis | Enable processing of received ELC signaled in the IGP |
| Context | **configure** router *named-item-64* ospf *number* segment-routing entropy-label *boolean* |
| Tree | entropy-label |
| Introduced | 16.0.R1 |
| Platforms | All |

### **export-tunnel-table** *keyword*

| | |
|---|---|
| Synopsis | Export tunnel table |
| Context | **configure** router *named-item-64* ospf *number* segment-routing export-tunnel-table *keyword* |
| Tree | export-tunnel-table |
| Options | ldp |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ingress-statistics**

| | |
|---|---|
| Synopsis | Enter the **ingress-statistics** context |
| Context | **configure** router *named-item-64* ospf *number* segment-routing ingress-statistics |
| Tree | ingress-statistics |
| Introduced | 19.10.R1 |
| Platforms | All |


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### **adj-set** *boolean*

| | |
|---|---|
| Synopsis | Enable the allocation of statistics on adjacency sets |
| Context | **configure** router *named-item-64* ospf *number* segment-routing ingress-statistics adj-set *boolean* |
| Tree | adj-set |
| Description | When configured to **true**, this command enables the allocation of statistic indices to each adjacency set. All adjacencies of a set share the same statistics index. If a statistics index is not available at allocation time, the allocation fails and the system retries the allocation. The system generates a log on the first fail and a log on the final successful allocation. |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **adj-sid** *boolean*

| | |
|---|---|
| Synopsis | Enable the allocation of statistics on adjacency SIDs |
| Context | **configure** router *named-item-64* ospf *number* segment-routing ingress-statistics adj-sid *boolean* |
| Tree | adj-sid |
| Description | When configured to **true**, this command enables the allocation of statistic indexes to each programmed NHLFE corresponding to Adjacency SIDs (local and received by means of IGP advertisement). All NHLFEs associated to a given SID share the same index. If a statistics index is not available at allocation time, the allocation fails and the system retries the allocation. The system generates a log on the first fail and a log on the final successful allocation. |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **node-sid** *boolean*

| | |
|---|---|
| Synopsis | Enable the allocation of statistics on node SIDs |
| Context | **configure** router *named-item-64* ospf *number* segment-routing ingress-statistics node-sid *boolean* |
| Tree | node-sid |
| Default | false |


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| | |
|---|---|
| Introduced | 19.10.R1 |
| Platforms | All |

## mapping-server

| | |
|---|---|
| Synopsis | Enter the **mapping-server** context |
| Context | **configure** router *named-item-64* ospf *number* segment-routing mapping-server |
| Tree | mapping-server |
| Introduced | 16.0.R1 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the OSPF mapping server |
| Context | **configure** router *named-item-64* ospf *number* segment-routing mapping-server admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

## node-sid-map [sid-index] *number*

| | |
|---|---|
| Synopsis | Enter the **node-sid-map** list instance |
| Context | **configure** router *named-item-64* ospf *number* segment-routing mapping-server node-sid-map *number* |
| Tree | node-sid-map |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**sid-index**] *number*

| | |
|---|---|
| Synopsis | Start SID index for the node SID mapping |
| Context | **configure** router *named-item-64* ospf *number* segment-routing mapping-server node-sid-map *number* |


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| | |
|---|---|
| Tree | node-sid-map |
| Max. range | 0 to 4294967295 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **ip-prefix** *ipv4-prefix*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Starting prefix of the mapping |
| Context | **configure** router *named-item-64* ospf *number* segment-routing mapping-server node-sid-map *number* ip-prefix *ipv4-prefix* |
| Tree | ip-prefix |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **range** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Number of prefixes mapped by Extended Range Prefix TLV |
| Context | **configure** router *named-item-64* ospf *number* segment-routing mapping-server node-sid-map *number* range *number* |
| Tree | range |
| Range | 1 to 65535 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### scope

| | |
|---|---|
| Synopsis | Enter the **scope** context |
| Context | **configure** router *named-item-64* ospf *number* segment-routing mapping-server node-sid-map *number* scope |
| Tree | scope |
| Introduced | 16.0.R1 |
| Platforms | All |

### area *reference*

| | |
|---|---|
| Synopsis | Area ID in which the advertise Extended Range TLV is advertised |
| Context | **configure** router *named-item-64* ospf *number* segment-routing mapping-server node-sid-map *number* scope area *reference* |
| Tree | area |
| Reference | **configure** router *named-item-64* ospf *number* area *ipv4-address* |
| Notes | The following elements are part of a choice: **area** or **as**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### as

| | |
|---|---|
| Synopsis | Advertise Extended Range TLV in whole autonomous system |
| Context | **configure** router *named-item-64* ospf *number* segment-routing mapping-server node-sid-map *number* scope as |
| Tree | as |
| Notes | The following elements are part of a choice: **area** or **as**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### maximum-sid-depth

| | |
|---|---|
| Synopsis | Enter the **maximum-sid-depth** context |
| Context | **configure** router *named-item-64* ospf *number* segment-routing maximum-sid-depth |
| Tree | maximum-sid-depth |
| Introduced | 20.2.R1 |


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Platforms All

## **override-bmi** *number*

Synopsis Value to override the announced node MSD-BMI value

Context **configure** router *named-item-64* ospf *number* segment-routing maximum-sid-depth override-bmi *number*

Tree override-bmi

Description This command overrides the announced MSD node Base MPLS Imposition (BMI) value. The MSD-BMI value announced by a router can be used by recipients to understand the number of MPLS labels that can be imposed inclusive of all service, transport, or special labels.

When unconfigured, the router announces the maximum supported BMI of the node assuming the most simple services and Layer 2 encapsulation.

Range 0 to 12

Introduced 20.2.R1

Platforms All

## **override-erld** *number*

Synopsis Value to override the announced node MSD-ERLD value

Context **configure** router *named-item-64* ospf *number* segment-routing maximum-sid-depth override-erld *number*

Tree override-erld

Description This command configures the override Entropy Readable Label Depth (ERLD) Maximum Sid Depth (MSD) value. Information about the capability of each intermediate LSR of reading the maximum label stack depth is used by ingress LSRs to perform EL-based load balancing.

When unconfigured, the router announces the node maximum supported ERLD assuming the most simple Layer 2 encapsulation.

Range 0 to 15

Introduced 20.2.R1

Platforms All

## **micro-loop-avoidance**

Synopsis Enable the **micro-loop-avoidance** context

Context **configure** router *named-item-64* ospf *number* segment-routing micro-loop-avoidance


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| | |
|---|---|
| Tree | micro-loop-avoidance |
| Description | Commands in this context configure micro-loop avoidance for SR-OSPF. |
| Introduced | 24.3.R1 |
| Platforms | All |

## **fib-delay** *number*

| | |
|---|---|
| Synopsis | FIB delay |
| Context | **configure** router *named-item-64* ospf *number* segment-routing micro-loop-avoidance fib-delay *number* |
| Tree | fib-delay |
| Description | This command configures the FIB delay before programming new primary next hops.<br>Configure the FIB delay timer to a value that corresponds to the worst-case IGP convergence in a network domain. The default FIB delay timer value corresponds to a network with a nominal convergence time.<br>When configured, the feature applies to the following contexts:<br>• SPFv2 SR-OSPF IPv4 tunnel (node SID)<br>• IPv4 and IPv6 SR-TE LSPs that use a node SID in their segment list<br>• IPv4 and IPv6 SR policies that use a node SID in their segment list<br>When micro-loop avoidance is disabled, the system forces any running FIB delay to expire immediately and the system programs new next hops for all impacted node SIDs. When disabled, micro-loop avoidance is disabled instantaneously and will be disabled for the next SPF runs. Micro-loop avoidance remains disabled until it is re-enabled. |
| Range | 1 to 300 |
| Units | deciseconds |
| Default | 15 |
| Introduced | 24.3.R1 |
| Platforms | All |

## **prefix-sid-range**

| | |
|---|---|
| Synopsis | Enable the **prefix-sid-range** context |
| Context | **configure** router *named-item-64* ospf *number* segment-routing prefix-sid-range |
| Tree | prefix-sid-range |
| Description | Commands in this context configure the label block BGP segment routing can use. |
| Introduced | 16.0.R1 |
| Platforms | All |


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## global

| | |
|---|---|
| Synopsis | BGP global SR range allocation |
| Context | **configure** router *named-item-64* ospf *number* segment-routing prefix-sid-range global |
| Tree | global |
| Description | When configured, the system allows BGP to allocate labels from the SRGB space, as defined under the **configure router mpls-labels sr-labels** context. |
| Notes | The following elements are part of a choice: **global** or (**max-index** and **start-label**). |
| Introduced | 16.0.R1 |
| Platforms | All |

## max-index *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Upper bound value for the local SID index |
| Context | **configure** router *named-item-64* ospf *number* segment-routing prefix-sid-range max-index *number* |
| Tree | max-index |
| Range | 0 to 1048575 |
| Default | 1 |
| Notes | The following elements are part of a choice: **global** or (**max-index** and **start-label**). |
| Introduced | 16.0.R1 |
| Platforms | All |

## start-label *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Lower bound value for the local label offset |
| Context | **configure** router *named-item-64* ospf *number* segment-routing prefix-sid-range start-label *number* |
| Tree | start-label |


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| | |
|---|---|
| Range | 0 to 1048575 |
| Default | 0 |
| Notes | The following elements are part of a choice: **global** or (**max-index** and **start-label**). |
| Introduced | 16.0.R1 |
| Platforms | All |

### **srlb** *reference*

| | |
|---|---|
| Synopsis | Segment routing local block |
| Context | **configure** router *named-item-64* ospf *number* segment-routing srlb *reference* |
| Tree | srlb |
| Reference | **configure** router *named-item-64* mpls-labels reserved-label-block *named-item-64* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **tunnel-mtu** *number*

| | |
|---|---|
| Synopsis | Tunnel MTU size |
| Context | **configure** router *named-item-64* ospf *number* segment-routing tunnel-mtu *number* |
| Tree | tunnel-mtu |
| Range | 512 to 9786 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **tunnel-table-pref** *number*

| | |
|---|---|
| Synopsis | Preference of SR tunnels created by the IGP instance |
| Context | **configure** router *named-item-64* ospf *number* segment-routing tunnel-table-pref *number* |
| Tree | tunnel-table-pref |
| Description | This command configures the TTM preference of shortest path SR tunnels created by the IGP instance. This is used for BGP shortcuts, VPRN auto-bind, or BGP transport tunnel when the tunnel binding commands are configured to the **any** value, which parses the TTM for tunnels in the protocol preference order. The user can choose to either accept the global TTM preference or explicitly list the tunnel types they want to use. If the user lists the tunnel type explicitly, the TTM preference is still used to select one type over the other. In both cases, a fallback to the next preferred tunnel type is performed if the selected type fails. A reversion to a more preferred tunnel type is performed as soon as one is available. |


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The segment routing module adds to the TTM an SR tunnel entry for each resolved remote node SID prefix and programs the data path having the corresponding LTN with the push operation pointing to the primary and LFA backup NHLFEs.

The default preference for shortest path SR tunnels in the TTM is set lower than LDP tunnels but higher than BGP tunnels to allow controlled migration of customers without disrupting their current deployment when they enable segment routing. The following is the value of the default preference for the various tunnel types. This includes the preference of SR tunnels based on shortest path (referred to as SR-ISIS and SR-OSPF).

**Note**: The preference of an SR-TE LSP is not configurable and is the second most preferred tunnel type after RSVP-TE. The preference is the same whether if the SR-TE LSP was resolved in IS-IS or OSPF.

The global default TTM preference for the tunnel types is as follows:

- ROUTE_PREF_RSVP 7
- ROUTE_PREF_SR_TE 8
- ROUTE_PREF_LDP 9
- ROUTE_PREF_OSPF_TTM 10
- ROUTE_PREF_ISIS_TTM 11
- ROUTE_PREF_BGP_TTM 12
- ROUTE_PREF_GRE 255

The default value for SR-ISIS or SR-OSPF is the same regardless if one or more IS-IS or OSPF instances programmed a tunnel for the same prefix. The selection of a SR tunnel in this case will be based on the lowest IGP instance ID. Similarly, IPv6 SR-ISIS and SR-OSPF3 tunnels are programmed into TTMv6 with the same default preference value as IPv4 SR-ISIS and IPv4 SR-OSPF respectively.

Nokia recommends not to set two or more tunnel types to the same preference value. In such a situation, the tunnel table prefers the tunnel type which was first introduced in SR OS implementation historically.

| | |
|---|---|
| Range | 1 to 255 |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

## timers

| | |
|---|---|
| Synopsis | Enter the **timers** context |
| Context | **configure** router *named-item-64* ospf *number* timers |
| Tree | timers |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **incremental-spf-wait** *number*

| | |
|---|---|
| Synopsis | Delay time before an incremental SPF calculation starts |
| Context | **configure** router *named-item-64* ospf *number* timers incremental-spf-wait *number* |
| Tree | incremental-spf-wait |
| Range | 0 to 1000 |
| Units | milliseconds |
| Default | 1000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lsa-accumulate** *number*

| | |
|---|---|
| Synopsis | Delay to gather LSAs before advertising to neighbors |
| Context | **configure** router *named-item-64* ospf *number* timers lsa-accumulate *number* |
| Tree | lsa-accumulate |
| Range | 0 to 1000 |
| Units | milliseconds |
| Default | 1000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lsa-arrival** *number*

| | |
|---|---|
| Synopsis | Min delay between receipt of same LSAs from neighbors |
| Context | **configure** router *named-item-64* ospf *number* timers lsa-arrival *number* |
| Tree | lsa-arrival |
| Range | 0 to 600000 |
| Units | milliseconds |
| Default | 1000 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### lsa-generate

| | |
|---|---|
| Synopsis | Enter the **lsa-generate** context |
| Context | **configure** router *named-item-64* ospf *number* timers lsa-generate |
| Tree | lsa-generate |
| Introduced | 16.0.R1 |
| Platforms | All |

### lsa-initial-wait *number*

| | |
|---|---|
| Synopsis | First wait period between OSPF LSA generation |
| Context | **configure** router *named-item-64* ospf *number* timers lsa-generate lsa-initial-wait *number* |
| Tree | lsa-initial-wait |
| Range | 10 to 600000 |
| Units | milliseconds |
| Default | 5000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### lsa-second-wait *number*

| | |
|---|---|
| Synopsis | Hold time between the first and second LSA generation |
| Context | **configure** router *named-item-64* ospf *number* timers lsa-generate lsa-second-wait *number* |
| Tree | lsa-second-wait |
| Range | 10 to 600000 |
| Units | milliseconds |
| Default | 5000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### max-lsa-wait *number*

| | |
|---|---|
| Synopsis | Max time between two LSAs being generated |
| Context | **configure** router *named-item-64* ospf *number* timers lsa-generate max-lsa-wait *number* |


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| | |
|---|---|
| Tree | max-lsa-wait |
| Range | 10 to 600000 |
| Units | milliseconds |
| Default | 5000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **redistribute-delay** *number*

| | |
|---|---|
| Synopsis | Hold down timer for external routes into OSPF |
| Context | **configure** router *named-item-64* ospf *number* timers redistribute-delay *number* |
| Tree | redistribute-delay |
| Range | 0 to 1000 |
| Units | milliseconds |
| Default | 1000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **spf-wait**

| | |
|---|---|
| Synopsis | Enter the **spf-wait** context |
| Context | **configure** router *named-item-64* ospf *number* timers spf-wait |
| Tree | spf-wait |
| Introduced | 16.0.R1 |
| Platforms | All |

### **spf-initial-wait** *number*

| | |
|---|---|
| Synopsis | Initial SPF calculation delay after a topology change |
| Context | **configure** router *named-item-64* ospf *number* timers spf-wait spf-initial-wait *number* |
| Tree | spf-initial-wait |
| Range | 10 to 100000 |
| Units | milliseconds |
| Default | 1000 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **spf-max-wait** *number*

| | |
|---|---|
| Synopsis | Max interval between two consecutive SPF calculations |
| Context | **configure** router *named-item-64* ospf *number* timers spf-wait spf-max-wait *number* |
| Tree | spf-max-wait |
| Range | 10 to 120000 |
| Units | milliseconds |
| Default | 10000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **spf-second-wait** *number*

| | |
|---|---|
| Synopsis | Hold time between the first and second SPF calculation |
| Context | **configure** router *named-item-64* ospf *number* timers spf-wait spf-second-wait *number* |
| Tree | spf-second-wait |
| Range | 10 to 100000 |
| Units | milliseconds |
| Default | 1000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **traffic-engineering** *boolean*

| | |
|---|---|
| Synopsis | Calculate traffic engineering route |
| Context | **configure** router *named-item-64* ospf *number* traffic-engineering *boolean* |
| Tree | traffic-engineering |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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## traffic-engineering-options

| | |
|---|---|
| Synopsis | Enter the **traffic-engineering-options** context |
| Context | **configure** router *named-item-64* ospf *number* traffic-engineering-options |
| Tree | traffic-engineering-options |
| Introduced | 20.7.R1 |
| Platforms | All |

## advertise-delay *boolean*

| | |
|---|---|
| Synopsis | Enable the advertisement of link delay for TE |
| Context | **configure** router *named-item-64* ospf *number* traffic-engineering-options advertise-delay *boolean* |
| Tree | advertise-delay |
| Description | When configured to **true**, the router advertises link delay in the IGP LSDB within the OSPF-TE TLV attribute or when the Application-Specific Link Attribute (ASLA) is enabled within SR-TE ASLA.<br><br>When the router is configured under the **configure router ospf traffic-engineering-options sr-te application-specific-link-attributes** command to generate SR-TE ASLA attributes, link delay is advertised as a legacy RFC 3630 TLV when RSVP-TE is enabled and as an ASLA RFC 8920 TLV for SR-TE when MPLS is enabled for an interface.<br><br>SR OS accepts and handles both legacy RSVP-TE TLVs and ASLAs for the RSVP application. However, SR OS only advertises RFC 3630 legacy RSVP-TE TLVs (as recommended by RFC 8920) to avoid compatibility issues.<br><br>When configured to **false**, the router disables link delay advertisement. |
| Default | false |
| Introduced | 22.10.R1 |
| Platforms | All |

## sr-te *keyword*

| | |
|---|---|
| Synopsis | Advertisement of link attributes for SR-TE |
| Context | **configure** router *named-item-64* ospf *number* traffic-engineering-options sr-te *keyword* |
| Tree | sr-te |
| Description | This command specifies the advertisement of TE attributes of each link on a per-application basis for RSVP-TE and SR-TE applications. |
| Options | false, legacy, application-specific-link-attributes |
| Default | false |


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| | |
|---|---|
| Introduced | 20.7.R1 |
| Platforms | All |

### **unicast-import** *boolean*

| | |
|---|---|
| Synopsis | Submit routes into the unicast Route Table Manager |
| Context | **configure** router *named-item-64* ospf *number* unicast-import *boolean* |
| Tree | unicast-import |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ospf3** [ospf-instance] *number*

| | |
|---|---|
| Synopsis | Enter the **ospf3** list instance |
| Context | **configure** router *named-item-64* ospf3 *number* |
| Tree | ospf3 |
| Description | Commands in this context create or edit an OSPFv3 routing instance. |
| Max. instances | 32 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ospf-instance**] *number*

| | |
|---|---|
| Synopsis | Value for the integrated OSPF instance |
| Context | **configure** router *named-item-64* ospf3 *number* |
| Tree | ospf3 |
| Range | 0 to 31 \| 64 to 95 |
| MD-CLI default | 0 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the OSPF instance |
| Context | **configure** router *named-item-64* ospf3 *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **advertise-router-capability** *keyword*

| | |
|---|---|
| Synopsis | Allow router advertisement capabilities |
| Context | **configure** router *named-item-64* ospf3 *number* advertise-router-capability *keyword* |
| Tree | advertise-router-capability |
| Options | false, link, area, as |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **area** [area-id] *ipv4-address*

| | |
|---|---|
| Synopsis | Enter the **area** list instance |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* |
| Tree | area |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**area-id**] *ipv4-address*

| | |
|---|---|
| Synopsis | Area-ID attribute |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* |
| Tree | area |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **advertise-router-capability** *boolean*

| | |
|---|---|
| Synopsis | Allow router advertisement capabilities |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* advertise-router-capability *boolean* |
| Tree | advertise-router-capability |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **area-range** [ip-prefix-mask] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Enter the **area-range** list instance |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* area-range *(ipv4-prefix | ipv6-prefix)* |
| Tree | area-range |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ip-prefix-mask**] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Address ranges to create on an ABR for route summarization or suppression |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* area-range *(ipv4-prefix | ipv6-prefix)* |
| Tree | area-range |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **advertise** *boolean*

| | |
|---|---|
| Synopsis | Advertise summarized range of addresses to other areas |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* area-range *(ipv4-prefix | ipv6-prefix)* advertise *boolean* |


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| | |
|---|---|
| Tree | advertise |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **blackhole-aggregate** *boolean*

| | |
|---|---|
| Synopsis | Install a low priority blackhole route to avoid loops |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* blackhole-aggregate *boolean* |
| Tree | blackhole-aggregate |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **database-export-exclude** *boolean*

| | |
|---|---|
| Synopsis | Exclude IGP link-state OSPF area info into TE-DB |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* database-export-exclude *boolean* |
| Tree | database-export-exclude |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **export-policy** *reference*

| | |
|---|---|
| Synopsis | Type 3 Summary-LSA/OSPFv3 inter-area-prefix-LSA route |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* export-policy *reference* |
| Tree | export-policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **extended-lsa** *keyword*

| | |
|---|---|
| Synopsis | Extended LSA format in an OSPFv3 area |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* extended-lsa *keyword* |
| Tree | extended-lsa |
| Options | only |
| Introduced | 16.0.R1 |
| Platforms | All |

### **import-policy** *reference*

| | |
|---|---|
| Synopsis | Route imported as Summary Type 3/Inter-Area-Prefix-LSA |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* import-policy *reference* |
| Tree | import-policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **interface** [interface-name] *interface-name*

| | |
|---|---|
| Synopsis | Enter the **interface** list instance |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* interface *interface-name* |
| Tree | interface |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**interface-name**] *interface-name*

| | |
|---|---|
| Synopsis | Router interface name |


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| | |
|---|---|
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* interface *interface-name* |
| Tree | interface |
| Description | This command specifies the IP interface name. Interface names must be unique within the group of defined IP interfaces for **configure router interface** and **configure service ies interface** commands. An interface name cannot be in the form of an IP address. Interface names can be a string composed of printable, 7-bit ASCII characters. If the string contains special characters (#, $, spaces, and so on), the entire string must be enclosed within double quotes.<br>If the IP interface name does not exist or does not have an IP address configured, an error message is returned.<br>If the IP interface exists in a different area it is moved to this area. |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the OSPF interface |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* interface *interface-name* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

## **advertise-router-capability** *boolean*

| | |
|---|---|
| Synopsis | Allow router advertisement capabilities |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* interface *interface-name* advertise-router-capability *boolean* |
| Tree | advertise-router-capability |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |


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## authentication

| | |
|---|---|
| Synopsis | Enable the **authentication** context |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* interface *interface-name* authentication |
| Tree | authentication |
| Introduced | 16.0.R6 |
| Platforms | All |

## inbound *reference*

| | |
|---|---|
| Synopsis | sa-name |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* interface *interface-name* authentication inbound *reference* |
| Tree | inbound |
| Reference | **configure** ipsec static-sa *named-item* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R6 |
| Platforms | All |

## outbound *reference*

| | |
|---|---|
| Synopsis | sa-name |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* interface *interface-name* authentication outbound *reference* |
| Tree | outbound |
| Reference | **configure** ipsec static-sa *named-item* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R6 |
| Platforms | All |

## bfd-liveness

| | |
|---|---|
| Synopsis | Enable the **bfd-liveness** context |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* interface *interface-name* bfd-liveness |


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| | |
|---|---|
| Tree | bfd-liveness |
| Introduced | 16.0.R1 |
| Platforms | All |

### **remain-down-on-failure** *boolean*

| | |
|---|---|
| Synopsis | Force adjacency down on failure until session returns |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* interface *interface-name* bfd-liveness remain-down-on-failure *boolean* |
| Tree | remain-down-on-failure |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **strict** *boolean*

| | |
|---|---|
| Synopsis | Enable BFD strict mode |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* interface *interface-name* bfd-liveness strict *boolean* |
| Tree | strict |
| Description | When configured to **true**, the system uses BFD strict-mode. BFD strict-mode mandates that an active BFD session must exist between the OSPF neighbors before establishing a full adjacency. When configured to **true**, the router uses Link-Local Signaling (LLS) with the B-flag set to instruct the OSPF neighbors that BFD must be enabled on the link. BFD strict-mode requires both sides to have the B-flag set.<br><br>During OSPFv3 BFD strict-mode operations, the router advertises the local interface IPv4 address TLV using LLS, but the SR OS router continues to use IPv6-based BFD sessions for both the IPv4 and IPv6 address families. |
| Default | false |
| Introduced | 23.3.R1 |
| Platforms | All |

### **strict-mode-holddown** *number*

| | |
|---|---|
| Synopsis | Adjacency up time delay after BFD session establishment |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* interface *interface-name* bfd-liveness strict-mode-holddown *number* |
| Tree | strict-mode-holddown |


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| | |
|---|---|
| Description | This command configures a delay timer before bringing up the OSPF adjacency after the BFD session establishment. Holddown helps mitigate potential routing churn when BFD sessions are unstable. The holddown timer is reset when a BFD session operationally toggles. |
| Range | 1 to 600 |
| Units | seconds |
| Introduced | 23.3.R1 |
| Platforms | All |

### **dead-interval** *number*

| | |
|---|---|
| Synopsis | OSPF wait time for Hellos before neighbor declared down |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* interface *interface-name* dead-interval *number* |
| Tree | dead-interval |
| Range | 2 to 65535 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hello-interval** *number*

| | |
|---|---|
| Synopsis | Time between OSPF Hellos of this interface |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* interface *interface-name* hello-interval *number* |
| Tree | hello-interval |
| Range | 1 to 65535 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **interface-type** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Interface type |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* interface *interface-name* interface-type *keyword* |
| Tree | interface-type |
| Description | This command specifies the interface type.<br>**broadcast** - Broadcast network<br>To significantly improve adjacency forming and network convergence, configure a network as point-to-point if only two routers are connected, even if the network is a broadcast media such as Ethernet.<br>**non-broadcast** - Non-broadcast network<br>**point-to-point** - Point-to-point link<br>Set the interface type of an Ethernet link to **point-to-point** to avoid having to carry the broadcast adjacency maintenance overhead if the Ethernet link provided is used as a point-to-point.<br>**p2mp-nbma** - Point-to-multipoint on a link without broadcast or multicast support<br>No designated router or backup designated router is elected on this type of interface and all OSPF neighbors connect through individual point-to-point links. Only VPRN and IES services interfaces support this interface type.<br>**secondary** - Multiple secondary adjacencies allowed<br>A **secondary** interface allows multiple secondary adjacencies, in addition to the primary adjacency, to be established over a single IP interface. This interface type can also be applied to the system interface and to loopback interfaces to allow them to participate in multiple areas, although no adjacencies are formed over these types of interfaces. |
| Options | broadcast, non-broadcast, point-to-point, secondary, p2mp-nbma |
| Introduced | 16.0.R1 |
| Platforms | All |

## **load-balancing-weight** *number*

| | |
|---|---|
| Synopsis | Load balancing weight for an OSPF3 interface |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* interface *interface-name* load-balancing-weight *number* |
| Tree | load-balancing-weight |


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| | |
|---|---|
| Range | 1 to 4294967295 |
| Introduced | 20.2.R1 |
| Platforms | All |

## loopfree-alternate

| | |
|---|---|
| Synopsis | Enter the **loopfree-alternate** context |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* interface *interface-name* loopfree-alternate |
| Tree | loopfree-alternate |
| Introduced | 16.0.R3 |
| Platforms | All |

## exclude *boolean*

| | |
|---|---|
| Synopsis | Enable fast reroute at OSPF primary interface level |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* interface *interface-name* loopfree-alternate exclude *boolean* |
| Tree | exclude |
| Default | false |
| Introduced | 16.0.R3 |
| Platforms | All |

## policy-map

| | |
|---|---|
| Synopsis | Enable the **policy-map** context |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* interface *interface-name* loopfree-alternate policy-map |
| Tree | policy-map |
| Introduced | 16.0.R3 |
| Platforms | All |

## route-nh-template *reference*

| | |
|---|---|
| Synopsis | Route next hop policy template name |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* interface *interface-name* loopfree-alternate policy-map route-nh-template *reference* |


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| | |
|---|---|
| Tree | route-nh-template |
| Reference | **configure** routing-options route-next-hop-policy template *named-item* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R3 |
| Platforms | All |

### **lsa-filter-out** *keyword*

| | |
|---|---|
| Synopsis | LSA flooding reduction |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* interface *interface-name* lsa-filter-out *keyword* |
| Tree | lsa-filter-out |
| Options | none, all, except-own-rtrlsa, except-own-rtrlsa-and-defaults |
| Default | none |
| Introduced | 16.0.R1 |
| Platforms | All |

### **metric** *number*

| | |
|---|---|
| Synopsis | Route cost metric for the interface |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* interface *interface-name* metric *number* |
| Tree | metric |
| Range | 1 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mtu** *number*

| | |
|---|---|
| Synopsis | MTU for the OSPF to use on the interface |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* interface *interface-name* mtu *number* |
| Tree | mtu |
| Range | 512 to 9786 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **neighbor** [address] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Add a list entry for **neighbor** |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* interface *interface-name* neighbor *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | neighbor |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**address**] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Neighbor link local address |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* interface *interface-name* neighbor *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | neighbor |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **node-sid**

| | |
|---|---|
| Synopsis | Enable the **node-sid** context |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* interface *interface-name* node-sid |
| Tree | node-sid |
| Description | Commands in this context configure a node SID index or label value for the prefix representing the primary address of a network interface of type system or loopback. A separate SID value can be configured for each IPv4 and IPv6 primary address of the interface. The secondary address of an IPv4 interface cannot be assigned a node SID index and does not inherit the SID of the primary IPv4 address.<br><br>In OSPFv2 and OSPFv3, the node SID is configured in the primary area but is inherited in any other area in which the interface is added as secondary.<br><br>This command fails if the network interface is not a loopback type or if the interface is defined in an IES or VPRN context. Assigning the same SID index or label value to the same interface in two different IGP instances is not allowed within the same node.<br><br>The value of the label or index SID is taken from the range configured for this IGP instance. When using the global mode of operation, the segment routing module checks that the same index or label value is not assigned to more than one loopback interface address. When using the per-instance mode of operation, this check is not required |


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because the index and, therefore, the label ranges of IGP instances are not allowed to overlap.

The **clear-n-flag** option allows the user to clear the N-flag (node-sid flag) in an OSPF or OSPF3 prefix SID sub-TLV originated for the prefix of a loopback interface on the system. By default, the prefix SID sub-TLV for the prefix of a loopback interface is tagged as a node SID; that is, it belongs to this node only. However, to configure and advertise an anycast SID using the same loopback interface prefix on multiple nodes, the user must clear the N-flag to assure interoperability with third-party implementations. This may perform a strict check on the receive end and drop duplicate prefix SID sub-TLVs when the N-flag is set.

The SR OS implementation is relaxed on the receive end and accepts duplicate prefix SIDs with the N-flag set or clear. SR OS resolves to the closest owner, or owners if ECMP, of the prefix SID cost-wise.

Introduced 16.0.R4

Platforms All

## **clear-n-flag** *boolean*

Synopsis Clear the N-flag in an OSPF3 prefix

Context **configure** router *named-item-64* ospf3 *number* area *ipv4-address* interface *interface-name* node-sid clear-n-flag *boolean*

Tree clear-n-flag

Description When configured to **true**, this command allows the user to clear the N-flag in an OSPF3 prefix SID sub-TLV originated for the prefix of a loopback interface on the system.

When configured to **false**, the N-flag in an OSPF3 prefix SID sub-TLV originated for the prefix of a loopback interface on the system is not cleared.

When the user wants to configure and advertise an anycast SID using the same loopback interface prefix on multiple nodes, the user must clear the N-flag to assure interoperability with third-party implementations. This may perform a strict check on the receive end and drop duplicate prefix SID sub-TLVs when the N-flag is set.

Default false

Introduced 16.0.R5

Platforms All

## **index** *number*

Synopsis Node SID index for this interface

Context **configure** router *named-item-64* ospf3 *number* area *ipv4-address* interface *interface-name* node-sid index *number*

Tree index


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| | |
|---|---|
| Range | 0 to 4294967295 |
| Notes | The following elements are part of a choice: **index** or **label**. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **label** *number*

| | |
|---|---|
| Synopsis | Label value for the node SID |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* interface *interface-name* node-sid label *number* |
| Tree | label |
| Range | 1 to 4294967295 |
| Notes | The following elements are part of a choice: **index** or **label**. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **passive** *boolean*

| | |
|---|---|
| Synopsis | Advertise passive interfaces as OSPF interfaces |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* interface *interface-name* passive *boolean* |
| Tree | passive |
| Introduced | 16.0.R1 |
| Platforms | All |

### **poll-interval** *number*

| | |
|---|---|
| Synopsis | Interval for Hellos to non-adjacent OSPF NBMA neighbor |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* interface *interface-name* poll-interval *number* |
| Tree | poll-interval |
| Max. range | 0 to 4294967295 |
| Units | seconds |
| Default | 120 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **priority** *number*

| | |
|---|---|
| Synopsis | Interface priority in the DR election on the subnet |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* interface *interface-name* priority *number* |
| Tree | priority |
| Range | 0 to 255 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **retransmit-interval** *number*

| | |
|---|---|
| Synopsis | Time before OSPF retransmits an unacknowledged LSA |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* interface *interface-name* retransmit-interval *number* |
| Tree | retransmit-interval |
| Range | 1 to 1800 |
| Units | seconds |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rib-priority** *keyword*

| | |
|---|---|
| Synopsis | RIB priority for OSPF |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* interface *interface-name* rib-priority *keyword* |
| Tree | rib-priority |
| Options | high |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sid-protection** *boolean*

| | |
|---|---|
| Synopsis | Allow adjacency SID protection by LFA and remote LFA |


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| | |
|---|---|
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* interface *interface-name* sid-protection *boolean* |
| Tree | sid-protection |
| Default | true |
| Introduced | 16.0.R4 |
| Platforms | All |

### **transit-delay** *number*

| | |
|---|---|
| Synopsis | Required LSA transmit time |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* interface *interface-name* transit-delay *number* |
| Tree | transit-delay |
| Range | 1 to 1800 |
| Units | seconds |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **key-rollover-interval** *number*

| | |
|---|---|
| Synopsis | Key rollover interval |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* key-rollover-interval *number* |
| Tree | key-rollover-interval |
| Range | 10 to 300 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **loopfree-alternate-exclude** *boolean*

| | |
|---|---|
| Synopsis | Exclude interfaces in OSPF areas in SPF LFA computation |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* loopfree-alternate-exclude *boolean* |


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| | |
|---|---|
| Tree | loopfree-alternate-exclude |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### nssa

| | |
|---|---|
| Synopsis | Enable the **nssa** context |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* nssa |
| Tree | nssa |
| Introduced | 16.0.R1 |
| Platforms | All |

### area-range [ip-prefix-mask] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Enter the **area-range** list instance |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* nssa area-range *(ipv4-prefix \| ipv6-prefix)* |
| Tree | area-range |
| Introduced | 16.0.R1 |
| Platforms | All |

### [ip-prefix-mask] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Addresses on ABR for route summarization or suppression |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* nssa area-range *(ipv4-prefix \| ipv6-prefix)* |
| Tree | area-range |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### advertise *boolean*

| | |
|---|---|
| Synopsis | Advertise summarized range of addresses to other areas |


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| | |
|---|---|
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* nssa area-range *(ipv4-prefix \| ipv6-prefix)* advertise *boolean* |
| Tree | advertise |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

## originate-default-route

| | |
|---|---|
| Synopsis | Enable the **originate-default-route** context |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* nssa originate-default-route |
| Tree | originate-default-route |
| Introduced | 16.0.R1 |
| Platforms | All |

## adjacency-check *boolean*

| | |
|---|---|
| Synopsis | Default route to remove if there is no adjacency |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* nssa originate-default-route adjacency-check *boolean* |
| Tree | adjacency-check |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

## type-nssa *boolean*

| | |
|---|---|
| Synopsis | Generate a default route using NSSA-LSA type |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* nssa originate-default-route type-nssa *boolean* |
| Tree | type-nssa |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **redistribute-external** *boolean*

| | |
|---|---|
| Synopsis | Redistribute external routes into the NSSA |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* nssa redistribute-external *boolean* |
| Tree | redistribute-external |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **summaries** *boolean*

| | |
|---|---|
| Synopsis | Send summary (Type 3) LSAs into the NSSA on an ABR |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* nssa summaries *boolean* |
| Tree | summaries |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **stub**

| | |
|---|---|
| Synopsis | Enable the **stub** context |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* stub |
| Tree | stub |
| Introduced | 16.0.R1 |
| Platforms | All |

### **default-metric** *number*

| | |
|---|---|
| Synopsis | Metric used by ABR for default route into the stub area |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* stub default-metric *number* |
| Tree | default-metric |
| Range | 1 to 16777214 |
| Default | 1 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **summaries** *boolean*

| | |
|---|---|
| Synopsis | Send summary (Type 3) LSAs into the stub area on an ABR |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* stub summaries *boolean* |
| Tree | summaries |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **virtual-link** [router-id] *ipv4-address* transit-area *reference*

| | |
|---|---|
| Synopsis | Enter the **virtual-link** list instance |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* virtual-link *ipv4-address* transit-area *reference* |
| Tree | virtual-link |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**router-id**] *ipv4-address*

| | |
|---|---|
| Synopsis | Router ID of the virtual link neighbor |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* virtual-link *ipv4-address* transit-area *reference* |
| Tree | virtual-link |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **transit-area** *reference*

| | |
|---|---|
| Synopsis | Transit area linking backbone and non-connected area |


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| | |
|---|---|
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* virtual-link *ipv4-address* transit-area *reference* |
| Tree | virtual-link |
| Reference | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the OSPF interface |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* virtual-link *ipv4-address* transit-area *reference* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

## **authentication**

| | |
|---|---|
| Synopsis | Enable the **authentication** context |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* virtual-link *ipv4-address* transit-area *reference* authentication |
| Tree | authentication |
| Introduced | 16.0.R6 |
| Platforms | All |

## **inbound** *reference*

| | |
|---|---|
| Synopsis | sa-name |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* virtual-link *ipv4-address* transit-area *reference* authentication inbound *reference* |
| Tree | inbound |
| Reference | **configure** ipsec static-sa *named-item* |
| Notes | This element is mandatory. |


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| | |
|---|---|
| Introduced | 16.0.R6 |
| Platforms | All |

### **outbound** *reference*

| | |
|---|---|
| Synopsis | sa-name |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* virtual-link *ipv4-address* transit-area *reference* authentication outbound *reference* |
| Tree | outbound |
| Reference | **configure** ipsec static-sa *named-item* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R6 |
| Platforms | All |

### **dead-interval** *number*

| | |
|---|---|
| Synopsis | OSPF wait time for Hellos before neighbor declared down |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* virtual-link *ipv4-address* transit-area *reference* dead-interval *number* |
| Tree | dead-interval |
| Range | 2 to 65535 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hello-interval** *number*

| | |
|---|---|
| Synopsis | Time between OSPF Hellos of this interface |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* virtual-link *ipv4-address* transit-area *reference* hello-interval *number* |
| Tree | hello-interval |
| Range | 1 to 65535 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **retransmit-interval** *number*

| | |
|---|---|
| Synopsis | Time before OSPF retransmits an unacknowledged LSA |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* virtual-link *ipv4-address* transit-area *reference* retransmit-interval *number* |
| Tree | retransmit-interval |
| Range | 1 to 1800 |
| Units | seconds |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **transit-delay** *number*

| | |
|---|---|
| Synopsis | Required LSA transmit time |
| Context | **configure** router *named-item-64* ospf3 *number* area *ipv4-address* virtual-link *ipv4-address* transit-area *reference* transit-delay *number* |
| Tree | transit-delay |
| Range | 1 to 1800 |
| Units | seconds |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **asbr**

| | |
|---|---|
| Synopsis | Enable the **asbr** context |
| Context | **configure** router *named-item-64* ospf3 *number* asbr |
| Tree | asbr |
| Introduced | 16.0.R1 |
| Platforms | All |

### **database-export**

| | |
|---|---|
| Synopsis | Enable the **database-export** context |
| Context | **configure** router *named-item-64* ospf3 *number* database-export |


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| | |
|---|---|
| Tree | database-export |
| Description | Commands in this context enable the population of the extended TE Database (TE-DB) with the link-state information from a specific IGP instance.<br>This information includes the IGP, TE, and the SR information, prefix SID sub-TLV, adjacency SID sub-TLV, and router SR capability TLV. |
| Introduced | 16.0.R4 |
| Platforms | All |

## bgp-ls-identifier

| | |
|---|---|
| Synopsis | Enable the **bgp-ls-identifier** context |
| Context | **configure** router *named-item-64* ospf3 *number* database-export bgp-ls-identifier |
| Tree | bgp-ls-identifier |
| Description | Commands in this context correlate, along with the Autonomous System Number (ASN), the BGP-LS NLRI advertisements of multiple BGP-LS speakers of the same IGP domain. |
| Introduced | 16.0.R4 |
| Platforms | All |

## value *number*

| | |
|---|---|
| Synopsis | BGP-LS ID sent in the BGP-LS NLRI |
| Context | **configure** router *named-item-64* ospf3 *number* database-export bgp-ls-identifier value *number* |
| Tree | value |
| Description | This command configures the BGP-LS ID to export.<br>If an NRC-P network domain has multiple IGP domains, a user must configure BGP-LS speakers within each IGP domain with the same unique ASN, BGP-LS ID tuple. The BGP-LS identifier is optional and is only sent in a BGP-LS NLRI if configured in the IGP instance of an IGP domain.<br>**Note:** If this IGP instance participates in traffic engineering with RSVP-TE or SR-TE, the **traffic-engineering** command configuration is not strictly required because enabling the extended TE-DB populates this information automatically. However, Nokia recommends enabling the **traffic-engineering** command to make the configuration consistent with other routers in the network that do not require the enabling of the extended TE-DB. |
| Max. range | 0 to 4294967295 |
| Default | 0 |
| Introduced | 16.0.R4 |


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| | |
|---|---|
| Platforms | All |

## **igp-identifier** *number*

| | |
|---|---|
| Synopsis | IGP instance in the BGP-LS NLRI |
| Context | **configure** router *named-item-64* ospf3 *number* database-export igp-identifier *number* |
| Tree | igp-identifier |
| Description | This command identifies the IGP instance in the BGP-LS NLRI when a router has interfaces participating in multiple IGP instances. The concept of an instance ID specified for OSPF is local subnet significant (RFC 6549). An IGP identifier value can be configured to be unique within a specified IGP domain when the router sends the IGP link state information using BGP-LS. |
| Max. range | 0 to 18446744073709551615 |
| Introduced | 16.0.R4 |
| Platforms | All |

## **reachable-ls-only** *boolean*

| | |
|---|---|
| Synopsis | Encode only reachable link-state information |
| Context | **configure** router *named-item-64* ospf3 *number* database-export reachable-ls-only *boolean* |
| Tree | reachable-ls-only |
| Description | When configured to **true**, the router, acting as a BGP-LS producer, must withdraw all link-state objects it has advertised in BGP, in accordance with section 5.9 of RFC 9552. This withdrawal occurs when the node that originated the corresponding LSPs is determined to be unreachable in the IGP based on the failure of a reachability check for that node. This withdrawal operation assists network controllers in assessing a reachable IGP topology, even in networks with segmented areas. For backward compatibility, the default behavior remains unchanged.<br><br>When configure to **false**, the router continues to send link-state objects even for links that fail an IGP reachability check. |
| Default | false |
| Introduced | 24.10.R1 |
| Platforms | All |

## **export-limit**

| | |
|---|---|
| Synopsis | Enable the **export-limit** context |
| Context | **configure** router *named-item-64* ospf3 *number* export-limit |


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| | |
|---|---|
| Tree | export-limit |
| Introduced | 16.0.R1 |
| Platforms | All |

### **log-percent** *number*

| | |
|---|---|
| Synopsis | Export limit before warning and SNMP notification sent |
| Context | **configure** router *named-item-64* ospf3 *number* export-limit log-percent *number* |
| Tree | log-percent |
| Range | 1 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **number** *number*

| | |
|---|---|
| Synopsis | Maximum routes or prefixes exported from route table |
| Context | **configure** router *named-item-64* ospf3 *number* export-limit number *number* |
| Tree | number |
| Range | 1 to 4294967295 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **export-policy** *reference*

| | |
|---|---|
| Synopsis | Export policies that determine exported routes |
| Context | **configure** router *named-item-64* ospf3 *number* export-policy *reference* |
| Tree | export-policy |
| Description | This command configures export routing policies for the routes exported from the routing table to IS-IS.<br>If the export policy is undefined, the system does not export non IS-IS routes from the routing table manager to IS-IS.<br>If multiple policy names are specified, the policies are evaluated in the order they are specified. The first policy that matches is applied.<br>If the **aggregate** command is also configured in the **configure router** context, the aggregation is applied before the export policy is applied. |


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| | |
|---|---|
| | Routing policies are created in the **configure router policy-options** context. |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **extended-lsa** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Extended LSA format in an OSPFv3 area |
| Context | **configure** router *named-item-64* ospf3 *number* extended-lsa *keyword* |
| Tree | extended-lsa |
| Options | sparse, only |
| Default | sparse |
| Introduced | 16.0.R1 |
| Platforms | All |

## **external-db-overflow**

| | |
|---|---|
| Synopsis | Enable the **external-db-overflow** context |
| Context | **configure** router *named-item-64* ospf3 *number* external-db-overflow |
| Tree | external-db-overflow |
| Introduced | 16.0.R1 |
| Platforms | All |

## **interval** *number*

| | |
|---|---|
| Synopsis | Time during which the router operates in overload |
| Context | **configure** router *named-item-64* ospf3 *number* external-db-overflow interval *number* |
| Tree | interval |
| Range | 0 to 2147483647 |


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| | |
|---|---|
| Units | seconds |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **limit** *number*

| | |
|---|---|
| Synopsis | Number of external LSA at which overload is triggered |
| Context | **configure** router *named-item-64* ospf3 *number* external-db-overflow limit *number* |
| Tree | limit |
| Range | 0 to 2147483647 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **external-preference** *number*

| | |
|---|---|
| Synopsis | Preference for OSPF external routes |
| Context | **configure** router *named-item-64* ospf3 *number* external-preference *number* |
| Tree | external-preference |
| Range | 1 to 255 |
| Default | 150 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **graceful-restart**

| | |
|---|---|
| Synopsis | Enable the **graceful-restart** context |
| Context | **configure** router *named-item-64* ospf3 *number* graceful-restart |
| Tree | graceful-restart |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **helper-mode** *boolean*

| | |
|---|---|
| Synopsis | Enable graceful restart helper for OSPF |
| Context | **configure** router *named-item-64* ospf3 *number* graceful-restart helper-mode *boolean* |
| Tree | helper-mode |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **strict-lsa-checking** *boolean*

| | |
|---|---|
| Synopsis | Perform strict LSA checking during graceful restart |
| Context | **configure** router *named-item-64* ospf3 *number* graceful-restart strict-lsa-checking *boolean* |
| Tree | strict-lsa-checking |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **igp-shortcut**

| | |
|---|---|
| Synopsis | Enter the **igp-shortcut** context |
| Context | **configure** router *named-item-64* ospf3 *number* igp-shortcut |
| Tree | igp-shortcut |
| Introduced | 16.0.R4 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the IGP shortcuts |
| Context | **configure** router *named-item-64* ospf3 *number* igp-shortcut admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R4 |


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| | |
|---|---|
| Platforms | All |

### tunnel-next-hop

| | |
|---|---|
| Synopsis | Enter the **tunnel-next-hop** context |
| Context | **configure** router *named-item-64* ospf3 *number* igp-shortcut tunnel-next-hop |
| Tree | tunnel-next-hop |
| Introduced | 16.0.R4 |
| Platforms | All |

### **family** [family-type] *keyword*

| | |
|---|---|
| Synopsis | Enter the **family** list instance |
| Context | **configure** router *named-item-64* ospf3 *number* igp-shortcut tunnel-next-hop family *keyword* |
| Tree | family |
| Introduced | 16.0.R4 |
| Platforms | All |

### [**family-type**] *keyword*

| | |
|---|---|
| Synopsis | Address family type for the tunnel next hop |
| Context | **configure** router *named-item-64* ospf3 *number* igp-shortcut tunnel-next-hop family *keyword* |
| Tree | family |
| Options | ipv4, ipv6, srv4, srv6 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **resolution** *keyword*

| | |
|---|---|
| Synopsis | Resolution state for IGP shortcut tunnels |
| Context | **configure** router *named-item-64* ospf3 *number* igp-shortcut tunnel-next-hop family *keyword* resolution *keyword* |
| Tree | resolution |


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| | |
|---|---|
| Options | none, filter, any, match-family-ip |
| Default | none |
| Introduced | 16.0.R4 |
| Platforms | All |

## resolution-filter

| | |
|---|---|
| Synopsis | Enter the **resolution-filter** context |
| Context | **configure** router *named-item-64* ospf3 *number* igp-shortcut tunnel-next-hop family *keyword* resolution-filter |
| Tree | resolution-filter |
| Introduced | 16.0.R4 |
| Platforms | All |

## rsvp *boolean*

| | |
|---|---|
| Synopsis | Use RSVP tunneling for next-hop resolution |
| Context | **configure** router *named-item-64* ospf3 *number* igp-shortcut tunnel-next-hop family *keyword* resolution-filter rsvp *boolean* |
| Tree | rsvp |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

## sr-te *boolean*

| | |
|---|---|
| Synopsis | Use SR-TE tunneling for next-hop resolution |
| Context | **configure** router *named-item-64* ospf3 *number* igp-shortcut tunnel-next-hop family *keyword* resolution-filter sr-te *boolean* |
| Tree | sr-te |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **import-policy** *reference*

| | |
|---|---|
| Synopsis | Import policy names for routes from IGP to route table |
| Context | **configure** router *named-item-64* ospf3 *number* import-policy *reference* |
| Tree | import-policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ldp-sync** *boolean*

| | |
|---|---|
| Synopsis | Configure IGP-LDP synchronization for interfaces |
| Context | **configure** router *named-item-64* ospf3 *number* ldp-sync *boolean* |
| Tree | ldp-sync |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **loopfree-alternate**

| | |
|---|---|
| Synopsis | Enable the **loopfree-alternate** context |
| Context | **configure** router *named-item-64* ospf3 *number* loopfree-alternate |
| Tree | loopfree-alternate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **exclude**

| | |
|---|---|
| Synopsis | Enter the **exclude** context |
| Context | **configure** router *named-item-64* ospf3 *number* loopfree-alternate exclude |
| Tree | exclude |
| Introduced | 16.0.R3 |


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| | |
|---|---|
| Platforms | All |

## **prefix-policy** *reference*

| | |
|---|---|
| Synopsis | Policy to exclude prefixes from LFA SPF calculation |
| Context | **configure** router *named-item-64* ospf3 *number* loopfree-alternate exclude prefix-policy *reference* |
| Tree | prefix-policy |
| Description | This command specifies the name of the policy for the prefixes to exclude from the LFA SPF calculation.<br>An excluded prefix is not included in LFA calculation regardless of its priority. The prefix tag is, however, used in the main SPF. |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R3 |
| Platforms | All |

## **remote-lfa**

| | |
|---|---|
| Synopsis | Enable the **remote-lfa** context |
| Context | **configure** router *named-item-64* ospf3 *number* loopfree-alternate remote-lfa |
| Tree | remote-lfa |
| Introduced | 16.0.R4 |
| Platforms | All |

## **max-pq-cost** *number*

| | |
|---|---|
| Synopsis | Destination max cost for reverse SPF calculation |
| Context | **configure** router *named-item-64* ospf3 *number* loopfree-alternate remote-lfa max-pq-cost *number* |
| Tree | max-pq-cost |
| Max. range | 0 to 4294967295 |
| Default | 65535 |
| Introduced | 16.0.R4 |


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| | |
|---|---|
| Platforms | All |

## node-protect

| | |
|---|---|
| Synopsis | Enable the **node-protect** context |
| Context | **configure** router *named-item-64* ospf3 *number* loopfree-alternate remote-lfa node-protect |
| Tree | node-protect |
| Introduced | 16.0.R6 |
| Platforms | All |

## max-pq-nodes *number*

| | |
|---|---|
| Synopsis | Maximum number of PQ nodes found in the LFA SPFs |
| Context | **configure** router *named-item-64* ospf3 *number* loopfree-alternate remote-lfa node-protect max-pq-nodes *number* |
| Tree | max-pq-nodes |
| Range | 1 to 32 |
| Default | 16 |
| Introduced | 16.0.R6 |
| Platforms | All |

## ti-lfa

| | |
|---|---|
| Synopsis | Enable the **ti-lfa** context |
| Context | **configure** router *named-item-64* ospf3 *number* loopfree-alternate ti-lfa |
| Tree | ti-lfa |
| Description | Commands in this context configure the Topology Independent Loop-Free Alternate (TI-LFA) algorithm used in the LFA Shortest Path First (SPF) calculation for this OSPFv3 instance. |
| Introduced | 16.0.R5 |
| Platforms | All |

## max-sr-frr-labels *number*

| | |
|---|---|
| Synopsis | Maximum number of labels the TI-LFA backup path can use |


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| | |
|---|---|
| Context | **configure** router *named-item-64* ospf3 *number* loopfree-alternate ti-lfa max-sr-frr-labels *number* |
| Tree | max-sr-frr-labels |
| Description | This command configures the maximum number of labels allowed in the segment list of the TI-LFA repair tunnel. A higher value results in better coverage by TI-LFA at the expense of increased packet encapsulation overhead. The TI-LFA algorithm uses this value to limit the search for the Q-node from the P-node on the post-convergence path. |
| Range | 0 to 3 |
| Default | 2 |
| Introduced | 16.0.R5 |
| Platforms | All |

## node-protect

| | |
|---|---|
| Synopsis | Enable the **node-protect** context |
| Context | **configure** router *named-item-64* ospf3 *number* loopfree-alternate ti-lfa node-protect |
| Tree | node-protect |
| Introduced | 16.0.R6 |
| Platforms | All |

## multicast-import *boolean*

| | |
|---|---|
| Synopsis | Submit routes into the multicast Route Table Manager |
| Context | **configure** router *named-item-64* ospf3 *number* multicast-import *boolean* |
| Tree | multicast-import |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## overload *boolean*

| | |
|---|---|
| Synopsis | Change local router state to appear overloaded |
| Context | **configure** router *named-item-64* ospf3 *number* overload *boolean* |
| Tree | overload |
| Default | false |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **overload-include-ext-1** *boolean*

| | |
|---|---|
| Synopsis | Advertise routes with maximum metric value for overload |
| Context | **configure** router *named-item-64* ospf3 *number* overload-include-ext-1 *boolean* |
| Tree | overload-include-ext-1 |
| Default | false |
| Introduced | 19.7.R1 |
| Platforms | All |

### **overload-include-ext-2** *boolean*

| | |
|---|---|
| Synopsis | Advertise routes with maximum metric value for overload |
| Context | **configure** router *named-item-64* ospf3 *number* overload-include-ext-2 *boolean* |
| Tree | overload-include-ext-2 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **overload-include-stub** *boolean*

| | |
|---|---|
| Synopsis | Advertise all stub interfaces with max metric value |
| Context | **configure** router *named-item-64* ospf3 *number* overload-include-stub *boolean* |
| Tree | overload-include-stub |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **overload-on-boot**

| | |
|---|---|
| Synopsis | Enable the **overload-on-boot** context |
| Context | **configure** router *named-item-64* ospf3 *number* overload-on-boot |
| Tree | overload-on-boot |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **timeout** *number*

| | |
|---|---|
| Synopsis | Router interval in overload before normal operations |
| Context | **configure** router *named-item-64* ospf3 *number* overload-on-boot timeout *number* |
| Tree | timeout |
| Range | 60 to 1800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **preference** *number*

| | |
|---|---|
| Synopsis | Preference for OSPF internal routes |
| Context | **configure** router *named-item-64* ospf3 *number* preference *number* |
| Tree | preference |
| Range | 1 to 255 |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **reference-bandwidth** *number*

| | |
|---|---|
| Synopsis | Bandwidth to reference default costing of interfaces |
| Context | **configure** router *named-item-64* ospf3 *number* reference-bandwidth *number* |
| Tree | reference-bandwidth |
| Range | 1 to 18446744073709551615 |
| Units | kilobps |
| Default | 100000000 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### rib-priority

| | |
|---|---|
| Synopsis | Enter the **rib-priority** context |
| Context | **configure** router *named-item-64* ospf3 *number* rib-priority |
| Tree | rib-priority |
| Introduced | 16.0.R1 |
| Platforms | All |

### high

| | |
|---|---|
| Synopsis | Enter the **high** context |
| Context | **configure** router *named-item-64* ospf3 *number* rib-priority high |
| Tree | high |
| Introduced | 16.0.R1 |
| Platforms | All |

### prefix-list *reference*

| | |
|---|---|
| Synopsis | Higher priority list used during OSPF route calculation |
| Context | **configure** router *named-item-64* ospf3 *number* rib-priority high prefix-list *reference* |
| Tree | prefix-list |
| Reference | **configure** policy-options prefix-list *named-item-64* |
| Introduced | 16.0.R1 |
| Platforms | All |

### router-id *router-id*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Unique router ID for the OSPF instance |
| Context | **configure** router *named-item-64* ospf3 *number* router-id *router-id* |
| Tree | router-id |
| Introduced | 16.0.R1 |
| Platforms | All |


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### rtr-adv-lsa-limit

| | |
|---|---|
| Synopsis | Enable the **rtr-adv-lsa-limit** context |
| Context | **configure** router *named-item-64* ospf3 *number* rtr-adv-lsa-limit |
| Tree | rtr-adv-lsa-limit |
| Introduced | 16.0.R1 |
| Platforms | All |

### log-only *boolean*

| | |
|---|---|
| Synopsis | Log the event without triggering overload |
| Context | **configure** router *named-item-64* ospf3 *number* rtr-adv-lsa-limit log-only *boolean* |
| Tree | log-only |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### max-lsa-count *number*

| | |
|---|---|
| Synopsis | Max number of LSAs one router can advertise |
| Context | **configure** router *named-item-64* ospf3 *number* rtr-adv-lsa-limit max-lsa-count *number* |
| Tree | max-lsa-count |
| Range | 1 to 4294967295 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### overload-timeout *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum time in overload after LSA limit is reached |
| Context | **configure** router *named-item-64* ospf3 *number* rtr-adv-lsa-limit overload-timeout *(number \| keyword)* |
| Tree | overload-timeout |
| Range | 1 to 1800 |
| Units | seconds |


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| | |
|---|---|
| Options | forever |
| Default | forever |
| Introduced | 16.0.R1 |
| Platforms | All |

### **warning-threshold** *number*

| | |
|---|---|
| Synopsis | Percentage of the max LSA count that causes a warning |
| Context | **configure** router *named-item-64* ospf3 *number* rtr-adv-lsa-limit warning-threshold *number* |
| Tree | warning-threshold |
| Range | 0 to 100 |
| Units | percent |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **segment-routing**

| | |
|---|---|
| Synopsis | Enter the **segment-routing** context |
| Context | **configure** router *named-item-64* ospf3 *number* segment-routing |
| Tree | segment-routing |
| Introduced | 16.0.R4 |
| Platforms | All |

### **adj-sid-hold** *(number | keyword)*

| | |
|---|---|
| Synopsis | Adjacency SID hold time |
| Context | **configure** router *named-item-64* ospf3 *number* segment-routing adj-sid-hold *(number \| keyword)* |
| Tree | adj-sid-hold |
| Description | This command configures a timer to hold the ILM or LTN of an adjacency SID following a failure of the adjacency.<br>When an adjacency to a neighbor fails, the following procedure is followed for both an LFA protected and the LFA unprotected SID of this adjacency in SR-MPLS. An adjacency can have both types of SIDs assigned by configuration. An LFA protected adjacency SID is eligible for LFA protection, however, the following procedure applies |


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even if an LFA backup is not programmed at the time of the failure. An LFA unprotected adjacency SID is not eligible for LFA protection.

- IGP withdraws the advertisement of the link TLV as well as its adjacency SID sub-TLV.
- The adjacency SID hold timer starts.
- The LTN and ILM records of the adjacency are kept in the datapath for as long as the adjacency SID hold time is running. This allows packets to flow over the LFA backup path, when the adjacency is protected, and allows the ingress LER or PCE time to compute a new path of the SR-TE LSP after IGP converges.
- If the adjacency is restored while the adjacency SID hold timer is running, the timer is aborted, and the adjacency SID remains programmed in the datapath with the retained SID values. However, the backup NHLFE may change if a new LFA SPF runs while the adjacency SID hold timer running. An update to the backup NHLFE is performed immediately following the LFA SPF. In all cases, the adjacency keeps its assigned SID label value.
- If the adjacency SID hold timer expires before the adjacency is restored, the SID is deprogrammed from the datapath and the label returned into the common pool where it was drawn from. Users of the adjacency (for example, SR policy and SR-TE LSP) are also informed. When the adjacency is subsequently restored, it gets assigned its allocated static-label value or a new dynamic-label value.
- A new PG-ID is assigned each time an adjacency comes back up. This PG-ID is used by the ILM and LTN of the adjacency SID and of all downstream node SIDs that resolve to a next hop over this adjacency.

| | |
|---|---|
| Range | 1 to 1800 |
| Units | seconds |
| Options | none |
| Default | 15 |
| Introduced | 16.0.R4 |
| Platforms | All |

## adjacency-sid

| | |
|---|---|
| Synopsis | Enter the **adjacency-sid** context |
| Context | **configure** router *named-item-64* ospf3 *number* segment-routing adjacency-sid |
| Tree | adjacency-sid |
| Introduced | 22.7.R1 |
| Platforms | All |


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### **allocate-dual-sids** *boolean*

| | |
|---|---|
| Synopsis | Allocate dual adjacency SIDs per interface |
| Context | **configure** router *named-item-64* ospf3 *number* segment-routing adjacency-sid allocate-dual-sids *boolean* |
| Tree | allocate-dual-sids |
| Description | When configured to **true**, the router supports two SR-MPLS adjacency SIDs per interface. A protected and unprotected adjacency SID is instantiated and advertised. If an SR-MPLS adjacency SID already exists, an additional complementary (protected or unprotected) adjacency SID is created on the interface.<br>When configured to **false**, the router disables the support of two SR-MPLS adjacency SIDs per interface. |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of segment routing |
| Context | **configure** router *named-item-64* ospf3 *number* segment-routing admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R4 |
| Platforms | All |

### **egress-statistics**

| | |
|---|---|
| Synopsis | Enter the **egress-statistics** context |
| Context | **configure** router *named-item-64* ospf3 *number* segment-routing egress-statistics |
| Tree | egress-statistics |
| Introduced | 19.10.R1 |
| Platforms | All |

### **adj-sid** *boolean*

| | |
|---|---|
| Synopsis | Enable the allocation of statistics on adjacency SIDs |


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| | |
|---|---|
| Context | **configure** router *named-item-64* ospf3 *number* segment-routing egress-statistics adj-sid *boolean* |
| Tree | adj-sid |
| Description | When configured to **true**, this command enables the allocation of statistic indexes to each programmed NHLFE corresponding to Adjacency SIDs (local and received by means of IGP advertisement). All NHLFEs associated to a given SID share the same index. If a statistics index is not available at allocation time, the allocation fails and the system retries the allocation. The system generates a log on the first fail and a log on the final successful allocation. |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

## **node-sid** *boolean*

| | |
|---|---|
| Synopsis | Enable the allocation of statistics on node SIDs |
| Context | **configure** router *named-item-64* ospf3 *number* segment-routing egress-statistics node-sid *boolean* |
| Tree | node-sid |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

## **ingress-statistics**

| | |
|---|---|
| Synopsis | Enter the **ingress-statistics** context |
| Context | **configure** router *named-item-64* ospf3 *number* segment-routing ingress-statistics |
| Tree | ingress-statistics |
| Introduced | 19.10.R1 |
| Platforms | All |

## **adj-sid** *boolean*

| | |
|---|---|
| Synopsis | Enable the allocation of statistics on adjacency SIDs |
| Context | **configure** router *named-item-64* ospf3 *number* segment-routing ingress-statistics adj-sid *boolean* |
| Tree | adj-sid |


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| | |
|---|---|
| Description | When configured to **true**, this command enables the allocation of statistic indexes to each programmed NHLFE corresponding to Adjacency SIDs (local and received by means of IGP advertisement). All NHLFEs associated to a given SID share the same index. If a statistics index is not available at allocation time, the allocation fails and the system retries the allocation. The system generates a log on the first fail and a log on the final successful allocation. |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

## **node-sid** *boolean*

| | |
|---|---|
| Synopsis | Enable the allocation of statistics on node SIDs |
| Context | **configure** router *named-item-64* ospf3 *number* segment-routing ingress-statistics node-sid *boolean* |
| Tree | node-sid |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

## **prefix-sid-range**

| | |
|---|---|
| Synopsis | Enable the **prefix-sid-range** context |
| Context | **configure** router *named-item-64* ospf3 *number* segment-routing prefix-sid-range |
| Tree | prefix-sid-range |
| Description | Commands in this context configure the label block BGP segment routing can use. |
| Introduced | 16.0.R4 |
| Platforms | All |

## **global**

| | |
|---|---|
| Synopsis | BGP global SR range allocation |
| Context | **configure** router *named-item-64* ospf3 *number* segment-routing prefix-sid-range global |
| Tree | global |
| Description | When configured, the system allows BGP to allocate labels from the SRGB space, as defined under the **configure router mpls-labels sr-labels** context. |
| Notes | The following elements are part of a choice: **global** or (**max-index** and **start-label**). |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | All |

## **max-index** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Upper bound value for the local SID index |
| Context | **configure** router *named-item-64* ospf3 *number* segment-routing prefix-sid-range max-index *number* |
| Tree | max-index |
| Range | 0 to 1048575 |
| Default | 1 |
| Notes | The following elements are part of a choice: **global** or (**max-index** and **start-label**). |
| Introduced | 16.0.R4 |
| Platforms | All |

## **start-label** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Lower bound value for the local label offset |
| Context | **configure** router *named-item-64* ospf3 *number* segment-routing prefix-sid-range start-label *number* |
| Tree | start-label |
| Range | 0 to 1048575 |
| Default | 0 |
| Notes | The following elements are part of a choice: **global** or (**max-index** and **start-label**). |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **tunnel-mtu** *number*

| | |
|---|---|
| Synopsis | Tunnel MTU size |
| Context | **configure** router *named-item-64* ospf3 *number* segment-routing tunnel-mtu *number* |
| Tree | tunnel-mtu |
| Range | 512 to 9786 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **tunnel-table-pref** *number*

| | |
|---|---|
| Synopsis | Preference of SR tunnels created by the IGP instance |
| Context | **configure** router *named-item-64* ospf3 *number* segment-routing tunnel-table-pref *number* |
| Tree | tunnel-table-pref |
| Description | This command configures the TTM preference of shortest path SR tunnels created by the IGP instance. This is used for BGP shortcuts, VPRN auto-bind, or BGP transport tunnel when the tunnel binding commands are configured to the **any** value, which parses the TTM for tunnels in the protocol preference order. The user can choose to either accept the global TTM preference or explicitly list the tunnel types they want to use. If the user lists the tunnel type explicitly, the TTM preference is still used to select one type over the other. In both cases, a fallback to the next preferred tunnel type is performed if the selected type fails. A reversion to a more preferred tunnel type is performed as soon as one is available.<br><br>The segment routing module adds to the TTM an SR tunnel entry for each resolved remote node SID prefix and programs the data path having the corresponding LTN with the push operation pointing to the primary and LFA backup NHLFEs.<br><br>The default preference for shortest path SR tunnels in the TTM is set lower than LDP tunnels but higher than BGP tunnels to allow controlled migration of customers without disrupting their current deployment when they enable segment routing. The following is the value of the default preference for the various tunnel types. This includes the preference of SR tunnels based on shortest path (referred to as SR-ISIS and SR-OSPF).<br><br>**Note**: The preference of an SR-TE LSP is not configurable and is the second most preferred tunnel type after RSVP-TE. The preference is the same whether if the SR-TE LSP was resolved in IS-IS or OSPF.<br><br>The global default TTM preference for the tunnel types is as follows:<br>• ROUTE_PREF_RSVP 7<br>• ROUTE_PREF_SR_TE 8<br>• ROUTE_PREF_LDP 9<br>• ROUTE_PREF_OSPF_TTM 10 |


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- ROUTE_PREF_ISIS_TTM 11
- ROUTE_PREF_BGP_TTM 12
- ROUTE_PREF_GRE 255

The default value for SR-ISIS or SR-OSPF is the same regardless if one or more IS-IS or OSPF instances programmed a tunnel for the same prefix. The selection of a SR tunnel in this case will be based on the lowest IGP instance ID. Similarly, IPv6 SR-ISIS and SR-OSPF3 tunnels are programmed into TTMv6 with the same default preference value as IPv4 SR-ISIS and IPv4 SR-OSPF respectively.

Nokia recommends not to set two or more tunnel types to the same preference value. In such a situation, the tunnel table prefers the tunnel type which was first introduced in SR OS implementation historically.

| | |
|---|---|
| Range | 1 to 255 |
| Default | 10 |
| Introduced | 16.0.R4 |
| Platforms | All |

## timers

| | |
|---|---|
| Synopsis | Enter the **timers** context |
| Context | **configure** router *named-item-64* ospf3 *number* timers |
| Tree | timers |
| Introduced | 16.0.R1 |
| Platforms | All |

## incremental-spf-wait *number*

| | |
|---|---|
| Synopsis | Delay time before an incremental SPF calculation starts |
| Context | **configure** router *named-item-64* ospf3 *number* timers incremental-spf-wait *number* |
| Tree | incremental-spf-wait |
| Range | 0 to 1000 |
| Units | milliseconds |
| Default | 1000 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **lsa-accumulate** *number*

| | |
|---|---|
| Synopsis | Delay to gather LSAs before advertising to neighbors |
| Context | **configure** router *named-item-64* ospf3 *number* timers lsa-accumulate *number* |
| Tree | lsa-accumulate |
| Range | 0 to 1000 |
| Units | milliseconds |
| Default | 1000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lsa-arrival** *number*

| | |
|---|---|
| Synopsis | Min delay between receipt of same LSAs from neighbors |
| Context | **configure** router *named-item-64* ospf3 *number* timers lsa-arrival *number* |
| Tree | lsa-arrival |
| Range | 0 to 600000 |
| Units | milliseconds |
| Default | 1000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lsa-generate**

| | |
|---|---|
| Synopsis | Enter the **lsa-generate** context |
| Context | **configure** router *named-item-64* ospf3 *number* timers lsa-generate |
| Tree | lsa-generate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lsa-initial-wait** *number*

| | |
|---|---|
| Synopsis | First wait period between OSPF LSA generation |
| Context | **configure** router *named-item-64* ospf3 *number* timers lsa-generate lsa-initial-wait *number* |


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| | |
|---|---|
| Tree | lsa-initial-wait |
| Range | 10 to 600000 |
| Units | milliseconds |
| Default | 5000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lsa-second-wait** *number*

| | |
|---|---|
| Synopsis | Hold time between the first and second LSA generation |
| Context | **configure** router *named-item-64* ospf3 *number* timers lsa-generate lsa-second-wait *number* |
| Tree | lsa-second-wait |
| Range | 10 to 600000 |
| Units | milliseconds |
| Default | 5000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **max-lsa-wait** *number*

| | |
|---|---|
| Synopsis | Max time between two LSAs being generated |
| Context | **configure** router *named-item-64* ospf3 *number* timers lsa-generate max-lsa-wait *number* |
| Tree | max-lsa-wait |
| Range | 10 to 600000 |
| Units | milliseconds |
| Default | 5000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **redistribute-delay** *number*

| | |
|---|---|
| Synopsis | Hold down timer for external routes into OSPF |
| Context | **configure** router *named-item-64* ospf3 *number* timers redistribute-delay *number* |
| Tree | redistribute-delay |


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| | |
|---|---|
| Range | 0 to 1000 |
| Units | milliseconds |
| Default | 1000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### spf-wait

| | |
|---|---|
| Synopsis | Enter the **spf-wait** context |
| Context | **configure** router *named-item-64* ospf3 *number* timers spf-wait |
| Tree | spf-wait |
| Introduced | 16.0.R1 |
| Platforms | All |

### spf-initial-wait *number*

| | |
|---|---|
| Synopsis | Initial SPF calculation delay after a topology change |
| Context | **configure** router *named-item-64* ospf3 *number* timers spf-wait spf-initial-wait *number* |
| Tree | spf-initial-wait |
| Range | 10 to 100000 |
| Units | milliseconds |
| Default | 1000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### spf-max-wait *number*

| | |
|---|---|
| Synopsis | Max interval between two consecutive SPF calculations |
| Context | **configure** router *named-item-64* ospf3 *number* timers spf-wait spf-max-wait *number* |
| Tree | spf-max-wait |
| Range | 10 to 120000 |
| Units | milliseconds |
| Default | 10000 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **spf-second-wait** *number*

| | |
|---|---|
| Synopsis | Hold time between the first and second SPF calculation |
| Context | **configure** router *named-item-64* ospf3 *number* timers spf-wait spf-second-wait *number* |
| Tree | spf-second-wait |
| Range | 10 to 100000 |
| Units | milliseconds |
| Default | 1000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **unicast-import** *boolean*

| | |
|---|---|
| Synopsis | Submit routes into the unicast Route Table Manager |
| Context | **configure** router *named-item-64* ospf3 *number* unicast-import *boolean* |
| Tree | unicast-import |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **p2mp-sr-tree**

| | |
|---|---|
| Synopsis | Enable the **p2mp-sr-tree** context |
| Context | **configure** router *named-item-64* p2mp-sr-tree |
| Tree | p2mp-sr-tree |
| Introduced | 21.5.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the P2MP SR tree |
| Context | **configure** router *named-item-64* p2mp-sr-tree admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |


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| | |
|---|---|
| Introduced | 21.5.R1 |
| Platforms | All |

### **bfd-liveness** *keyword*

| | |
|---|---|
| Synopsis | BFD tracking |
| Context | **configure** router *named-item-64* p2mp-sr-tree bfd-liveness *keyword* |
| Tree | bfd-liveness |
| Description | This command specifies the type of BFD tracking at the P2MP SR tree level, which means that all next hops of the replication segments that use a BFD-enabled Layer 3 interface register with the BFD module. |
| Options | ipv4, ipv6 |
| Max. instances | 2 |
| Introduced | 21.5.R1 |
| Platforms | All |

### **p2mp-policy** [p2mp-policy-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **p2mp-policy** list instance |
| Context | **configure** router *named-item-64* p2mp-sr-tree p2mp-policy *named-item* |
| Tree | p2mp-policy |
| Introduced | 21.5.R1 |
| Platforms | All |

### [**p2mp-policy-name**] *named-item*

| | |
|---|---|
| Synopsis | P2MP policy name |
| Context | **configure** router *named-item-64* p2mp-sr-tree p2mp-policy *named-item* |
| Tree | p2mp-policy |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 21.5.R1 |
| Platforms | All |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the P2MP policy |
| Context | **configure** router *named-item-64* p2mp-sr-tree p2mp-policy *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.5.R1 |
| Platforms | All |

### **candidate-path** [candidate-path-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **candidate-path** list instance |
| Context | **configure** router *named-item-64* p2mp-sr-tree p2mp-policy *named-item* candidate-path *named-item* |
| Tree | candidate-path |
| Description | Commands in this context configure a candidate path in the P2MP policy entry for the P2MP SR tree.<br>A P2MP SR policy can contain multiple candidate paths, which are redundant trees. Each candidate path represents a P2MP SR tree with its own traffic engineering constraints. Each candidate path has its own preference and the candidate path with the highest preference is the active P2MP SR tunnel. |
| Introduced | 21.5.R1 |
| Platforms | All |

### [**candidate-path-name**] *named-item*

| | |
|---|---|
| Synopsis | Candidate path name |
| Context | **configure** router *named-item-64* p2mp-sr-tree p2mp-policy *named-item* candidate-path *named-item* |
| Tree | candidate-path |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 21.5.R1 |
| Platforms | All |


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### **active-instance** *reference*

| | |
|---|---|
| Synopsis | Candidate path active instance |
| Context | **configure** router *named-item-64* p2mp-sr-tree p2mp-policy *named-item* candidate-path *named-item* active-instance *reference* |
| Tree | active-instance |
| Description | This command specifies the active instance of a P2MP candidate path for the P2MP SR tree as a primary or a secondary instance. |
| Reference | **configure** router *named-item-64* p2mp-sr-tree p2mp-policy *named-item* candidate-path *named-item* path-instances *number* |
| Introduced | 21.5.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the candidate path |
| Context | **configure** router *named-item-64* p2mp-sr-tree p2mp-policy *named-item* candidate-path *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.5.R1 |
| Platforms | All |

### **path-instances** [index] *number*

| | |
|---|---|
| Synopsis | Enter the **path-instances** list instance |
| Context | **configure** router *named-item-64* p2mp-sr-tree p2mp-policy *named-item* candidate-path *named-item* path-instances *number* |
| Tree | path-instances |
| Description | Commands in this context configure the instance entries of the candidate path as primary or secondary.<br>Multiple path instances can exist in a candidate path for the P2MP SR tree. Each path instance is a P2MP LSP and has an instance ID. Path instances can be used for global optimization of the active candidate path. |
| Introduced | 21.5.R1 |
| Platforms | All |


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### [**index**] *number*

| | |
|---|---|
| Synopsis | Instance index |
| Context | **configure** router *named-item-64* p2mp-sr-tree p2mp-policy *named-item* candidate-path *named-item* path-instances *number* |
| Tree | path-instances |
| Range | 1 to 2 |
| Notes | This element is part of a list key. |
| Introduced | 21.5.R1 |
| Platforms | All |

### **instance-id** *number*

| | |
|---|---|
| Synopsis | Path instance identifier |
| Context | **configure** router *named-item-64* p2mp-sr-tree p2mp-policy *named-item* candidate-path *named-item* path-instances *number* instance-id *number* |
| Tree | instance-id |
| Max. range | 0 to 4294967295 |
| Introduced | 21.5.R1 |
| Platforms | All |

### **preference** *number*

| | |
|---|---|
| Synopsis | Candidate path preference |
| Context | **configure** router *named-item-64* p2mp-sr-tree p2mp-policy *named-item* candidate-path *named-item* preference *number* |
| Tree | preference |
| Description | This command configures the candidate path preference for the P2MP SR tree. The candidate path with the highest preference is the active candidate path. |
| Range | 0 to 1024 |
| Default | 100 |
| Introduced | 21.5.R1 |
| Platforms | All |


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### **root-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Root node address for the P2MP policy |
| Context | **configure** router *named-item-64* p2mp-sr-tree p2mp-policy *named-item* root-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | root-address |
| Default | 0.0.0.0 |
| Introduced | 21.5.R1 |
| Platforms | All |

### **tree-id** *number*

| | |
|---|---|
| Synopsis | Tree ID for the P2MP policy |
| Context | **configure** router *named-item-64* p2mp-sr-tree p2mp-policy *named-item* tree-id *number* |
| Tree | tree-id |
| Description | This command configures the P2MP SR tree ID on the root node of the P2MP policy.<br>The root tree ID and the root address uniquely identify the P2MP policy on the root node. |
| Range | 0 \| 8193 to 16286 |
| Default | 0 |
| Introduced | 21.5.R1 |
| Platforms | All |

### **replication-segment** [policy-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **replication-segment** list instance |
| Context | **configure** router *named-item-64* p2mp-sr-tree replication-segment *named-item* |
| Tree | replication-segment |
| Introduced | 21.5.R1 |
| Platforms | All |

### [**policy-name**] *named-item*

| | |
|---|---|
| Synopsis | P2MP policy name |
| Context | **configure** router *named-item-64* p2mp-sr-tree replication-segment *named-item* |
| Tree | replication-segment |


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| | |
|---|---|
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 21.5.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the replication segment |
| Context | **configure** router *named-item-64* p2mp-sr-tree replication-segment *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.5.R1 |
| Platforms | All |

### **instance-id** *number*

| | |
|---|---|
| Synopsis | Replication segment instance identifier |
| Context | **configure** router *named-item-64* p2mp-sr-tree replication-segment *named-item* instance-id *number* |
| Tree | instance-id |
| Max. range | 0 to 4294967295 |
| Default | 0 |
| Introduced | 21.5.R1 |
| Platforms | All |

### **root-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Root node address for the replication segment |
| Context | **configure** router *named-item-64* p2mp-sr-tree replication-segment *named-item* root-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | root-address |
| Introduced | 21.5.R1 |
| Platforms | All |


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### segment-routing-mpls

| | |
|---|---|
| Synopsis | Enter the **segment-routing-mpls** context |
| Context | **configure** router *named-item-64* p2mp-sr-tree replication-segment *named-item* segment-routing-mpls |
| Tree | segment-routing-mpls |
| Description | Commands in this context configure the SR-MPLS options for the P2MP tree. |
| Introduced | 24.3.R1 |
| Platforms | All |

### downstream-nodes [downstream-index] *number*

| | |
|---|---|
| Synopsis | Enter the **downstream-nodes** list instance |
| Context | **configure** router *named-item-64* p2mp-sr-tree replication-segment *named-item* segment-routing-mpls downstream-nodes *number* |
| Tree | downstream-nodes |
| Introduced | 24.3.R1 |
| Platforms | All |

### [**downstream-index**] *number*

| | |
|---|---|
| Synopsis | Downstream node index entry |
| Context | **configure** router *named-item-64* p2mp-sr-tree replication-segment *named-item* segment-routing-mpls downstream-nodes *number* |
| Tree | downstream-nodes |
| Range | 1 to 4096 |
| Notes | This element is part of a list key. |
| Introduced | 24.3.R1 |
| Platforms | All |

### admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the downstream node |
| Context | **configure** router *named-item-64* p2mp-sr-tree replication-segment *named-item* segment-routing-mpls downstream-nodes *number* admin-state *keyword* |
| Tree | admin-state |


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| | |
|---|---|
| Options | enable, disable |
| Default | disable |
| Introduced | 24.3.R1 |
| Platforms | All |

## label

| | |
|---|---|
| Synopsis | Enter the **label** context |
| Context | **configure** router *named-item-64* p2mp-sr-tree replication-segment *named-item* segment-routing-mpls downstream-nodes *number* label |
| Tree | label |
| Description | Commands in this context configure the segment identifiers for the downstream node in the replication segment. |
| Introduced | 24.3.R1 |
| Platforms | All |

## **sid-list** [index] *number*

| | |
|---|---|
| Synopsis | Enter the **sid-list** list instance |
| Context | **configure** router *named-item-64* p2mp-sr-tree replication-segment *named-item* segment-routing-mpls downstream-nodes *number* label sid-list *number* |
| Tree | sid-list |
| Introduced | 24.3.R1 |
| Platforms | All |

## [**index**] *number*

| | |
|---|---|
| Synopsis | SID list index |
| Context | **configure** router *named-item-64* p2mp-sr-tree replication-segment *named-item* segment-routing-mpls downstream-nodes *number* label sid-list *number* |
| Tree | sid-list |
| Range | 1 to 11 |
| Notes | This element is part of a list key. |
| Introduced | 24.3.R1 |
| Platforms | All |


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### **replication-sid** *number*

| | |
|---|---|
| Synopsis | Segment ID for the SID list entry |
| Context | **configure** router *named-item-64* p2mp-sr-tree replication-segment *named-item* segment-routing-mpls downstream-nodes *number* label sid-list *number* replication-sid *number* |
| Tree | replication-sid |
| Range | 3 \| 16 to 1048575 \| 4294967295 |
| Notes | This element is mandatory. |
| Introduced | 24.3.R1 |
| Platforms | All |

### **next-hop-address** *(ipv4-address-with-zone | ipv6-address-with-zone)*

| | |
|---|---|
| Synopsis | Next-hop address for replication segment next hop |
| Context | **configure** router *named-item-64* p2mp-sr-tree replication-segment *named-item* segment-routing-mpls downstream-nodes *number* next-hop-address *(ipv4-address-with-zone \| ipv6-address-with-zone)* |
| Tree | next-hop-address |
| Default | 0.0.0.0 |
| Introduced | 24.3.R1 |
| Platforms | All |

### **next-hop-interface-name** *interface-name*

| | |
|---|---|
| Synopsis | Interface name for replication segment next hop |
| Context | **configure** router *named-item-64* p2mp-sr-tree replication-segment *named-item* segment-routing-mpls downstream-nodes *number* next-hop-interface-name *interface-name* |
| Tree | next-hop-interface-name |
| String length | 1 to 32 |
| Introduced | 24.3.R1 |
| Platforms | All |

### **protect-nexthop-id** *reference*

| | |
|---|---|
| Synopsis | ID of the protection next hop used for FRR |


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| | |
|---|---|
| Context | **configure** router *named-item-64* p2mp-sr-tree replication-segment *named-item* segment-routing-mpls downstream-nodes *number* protect-nexthop-id *reference* |
| Tree | protect-nexthop-id |
| Reference | **configure** router *named-item-64* p2mp-sr-tree replication-segment *named-item* segment-routing-mpls downstream-nodes *number* |
| Introduced | 24.3.R1 |
| Platforms | All |

## **incoming-sid** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Incoming MPLS label as the replication SID |
| Context | **configure** router *named-item-64* p2mp-sr-tree replication-segment *named-item* segment-routing-mpls incoming-sid *number* |
| Tree | incoming-sid |
| Max. range | 0 to 4294967295 |
| Default | 0 |
| Introduced | 24.3.R1 |
| Platforms | All |

## **sid-action** *keyword*

| | |
|---|---|
| Synopsis | SID action for the replication segment |
| Context | **configure** router *named-item-64* p2mp-sr-tree replication-segment *named-item* segment-routing-mpls sid-action *keyword* |
| Tree | sid-action |
| Options | none, push, pop, swap |
| Default | none |
| Introduced | 24.3.R1 |
| Platforms | All |

## **segment-routing-v6**

| | |
|---|---|
| Synopsis | Enter the **segment-routing-v6** context |


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| | |
|---|---|
| Context | **configure** router *named-item-64* p2mp-sr-tree replication-segment *named-item* segment-routing-v6 |
| Tree | segment-routing-v6 |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **downstream-nodes** [downstream-node-index] *number*

| | |
|---|---|
| Synopsis | Enter the **downstream-nodes** list instance |
| Context | **configure** router *named-item-64* p2mp-sr-tree replication-segment *named-item* segment-routing-v6 downstream-nodes *number* |
| Tree | downstream-nodes |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## [**downstream-node-index**] *number*

| | |
|---|---|
| Synopsis | Downstream node index |
| Context | **configure** router *named-item-64* p2mp-sr-tree replication-segment *named-item* segment-routing-v6 downstream-nodes *number* |
| Tree | downstream-nodes |
| Range | 1 to 4096 |
| Notes | This element is part of a list key. |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state for next-hop entries |
| Context | **configure** router *named-item-64* p2mp-sr-tree replication-segment *named-item* segment-routing-v6 downstream-nodes *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |


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### **replication-sid** *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Replication SID for next-hop entries |
| Context | **configure** router *named-item-64* p2mp-sr-tree replication-segment *named-item* segment-routing-v6 downstream-nodes *number* replication-sid *ipv6-unicast-address* |
| Tree | replication-sid |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **incoming-sid**

| | |
|---|---|
| Synopsis | Enter the **incoming-sid** context |
| Context | **configure** router *named-item-64* p2mp-sr-tree replication-segment *named-item* segment-routing-v6 incoming-sid |
| Tree | incoming-sid |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **locator**

| | |
|---|---|
| Synopsis | Enter the **locator** context |
| Context | **configure** router *named-item-64* p2mp-sr-tree replication-segment *named-item* segment-routing-v6 incoming-sid locator |
| Tree | locator |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **function** *keyword*

| | |
|---|---|
| Synopsis | Incoming SID locator function |
| Context | **configure** router *named-item-64* p2mp-sr-tree replication-segment *named-item* segment-routing-v6 incoming-sid locator function *keyword* |
| Tree | function |
| Options | end-replicate |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |


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### **function-value** *number*

| | |
|---|---|
| Synopsis | Incoming SID locator function value |
| Context | **configure** router *named-item-64* p2mp-sr-tree replication-segment *named-item* segment-routing-v6 incoming-sid locator function-value *number* |
| Tree | function-value |
| Range | 1 to 1048575 |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **locator-name** *reference*

| | |
|---|---|
| Synopsis | Incoming SID locator name |
| Context | **configure** router *named-item-64* p2mp-sr-tree replication-segment *named-item* segment-routing-v6 incoming-sid locator locator-name *reference* |
| Tree | locator-name |
| Reference | **configure** router *named-item-64* segment-routing segment-routing-v6 locator *named-item-64* |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **role** *keyword*

| | |
|---|---|
| Synopsis | Role for SRv6 replication segment entries |
| Context | **configure** router *named-item-64* p2mp-sr-tree replication-segment *named-item* segment-routing-v6 role *keyword* |
| Tree | role |
| Options | none, root, leaf, transit |
| Default | none |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **tree-id** *number*

| | |
|---|---|
| Synopsis | Tree ID for the replication segment of the P2MP SR tree |
| Context | **configure** router *named-item-64* p2mp-sr-tree replication-segment *named-item* tree-id *number* |


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| | |
|---|---|
| Tree | tree-id |
| Range | 0 \| 8193 to 16286 |
| Default | 0 |
| Introduced | 21.5.R1 |
| Platforms | All |

### **reserved-label-block** *reference*

| | |
|---|---|
| Synopsis | Reserved label block name for the P2MP SR tree |
| Context | **configure** router *named-item-64* p2mp-sr-tree reserved-label-block *reference* |
| Tree | reserved-label-block |
| Reference | **configure** router *named-item-64* mpls-labels reserved-label-block *named-item-64* |
| Introduced | 21.5.R1 |
| Platforms | All |

### **pcep**

| | |
|---|---|
| Synopsis | Enter the **pcep** context |
| Context | **configure** router *named-item-64* pcep |
| Tree | pcep |
| Introduced | 16.0.R4 |
| Platforms | All |

### **pcc**

| | |
|---|---|
| Synopsis | Enable the **pcc** context |
| Context | **configure** router *named-item-64* pcep pcc |
| Tree | pcc |
| Introduced | 16.0.R4 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the PCEP session element |
| Context | **configure** router *named-item-64* pcep pcc admin-state *keyword* |


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| | |
|---|---|
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R4 |
| Platforms | All |

## **dead-timer** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Configure dead timer |
| Context | **configure** router *named-item-64* pcep pcc dead-timer *number* |
| Tree | dead-timer |
| Range | 1 to 255 |
| Units | seconds |
| Default | 120 |
| Introduced | 16.0.R4 |
| Platforms | All |

## **keepalive** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Configure keepalive |
| Context | **configure** router *named-item-64* pcep pcc keepalive *number* |
| Tree | keepalive |
| Range | 1 to 255 |
| Units | seconds |
| Default | 30 |
| Introduced | 16.0.R4 |
| Platforms | All |


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## **local-address** *ipv4-unicast-address*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Local IPv4 address of the PCEP speaker |
| Context | **configure** router *named-item-64* pcep pcc local-address *ipv4-unicast-address* |
| Tree | local-address |
| Description | This command configures the local IPv4 address of the PCEP speaker.<br>See "PCEP session establishment and maintenance" in the *7750 SR and 7950 XRS Segment Routing and PCE User Guide* for more information about configuring a PCEP local IPv4 address to establish a PCEP session. |
| Introduced | 16.0.R4 |
| Platforms | All |

## **local-address-ipv6** *ipv6-unicast-address*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Local IPv6 address of the PCEP speaker |
| Context | **configure** router *named-item-64* pcep pcc local-address-ipv6 *ipv6-unicast-address* |
| Tree | local-address-ipv6 |
| Description | This command configures the local IPv6 address of the PCEP speaker.<br>See "PCEP session establishment and maintenance" in the *7750 SR and 7950 XRS Segment Routing and PCE User Guide* for more information about configuring a PCEP local IPv6 address to establish a PCEP session. |
| Introduced | 20.2.R1 |
| Platforms | All |

## **max-srte-pce-init-lsps** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Configure max sr te pce init LSP |


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| | |
|---|---|
| Context | **configure** router *named-item-64* pcep pcc max-srte-pce-init-lsps *number* |
| Tree | max-srte-pce-init-lsps |
| Range | 0 to 8191 |
| Default | 8191 |
| Introduced | 16.0.R5 |
| Platforms | All |

## pce-associations

| | |
|---|---|
| Synopsis | Enter the **pce-associations** context |
| Context | **configure** router *named-item-64* pcep pcc pce-associations |
| Tree | pce-associations |
| Description | Commands in this context configure PCE association groups. |
| Introduced | 22.5.R1 |
| Platforms | All |

## **diversity** [assoc-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **diversity** list instance |
| Context | **configure** router *named-item-64* pcep pcc pce-associations diversity *named-item* |
| Tree | diversity |
| Description | Commands in this context create a named diversity association from which the parameters for the specified diversity association are configured. |
| Introduced | 22.5.R1 |
| Platforms | All |

## [**assoc-name**] *named-item*

| | |
|---|---|
| Synopsis | Name of the association group |
| Context | **configure** router *named-item-64* pcep pcc pce-associations diversity *named-item* |
| Tree | diversity |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 22.5.R1 |
| Platforms | All |


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### **association-id** *number*

| | |
|---|---|
| Synopsis | Association ID for the diversity association group |
| Context | **configure** router *named-item-64* pcep pcc pce-associations diversity *named-item* association-id *number* |
| Tree | association-id |
| Description | This command configures the diversity association ID. The user must specify an association ID. |
| Range | 0 to 65535 |
| Default | 0 |
| Introduced | 22.5.R1 |
| Platforms | All |

### **association-source** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source IP address of the diversity association |
| Context | **configure** router *named-item-64* pcep pcc pce-associations diversity *named-item* association-source *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | association-source |
| Introduced | 22.5.R1 |
| Platforms | All |

### **disjointness-reference** *boolean*

| | |
|---|---|
| Synopsis | Configure P-flag in the disjointness configuration TLV |
| Context | **configure** router *named-item-64* pcep pcc pce-associations diversity *named-item* disjointness-reference *boolean* |
| Tree | disjointness-reference |
| Description | When configured to **true**, the router sets the P-flag in the disjointness configuration TLV. When the P-flag is set, it indicates that this LSP path is the reference path for the disjoint set of paths. The PCE must first compute the path of this LSP and then apply the requested disjointness type to compute the path of all other paths in the same diversity association ID.<br><br>When configured to **false**, the router does not set the P-flag in the disjointness configuration TLV. |
| Default | false |
| Introduced | 22.5.R1 |


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| | |
|---|---|
| Platforms | All |

## **disjointness-type** *keyword*

| | |
|---|---|
| Synopsis | Disjointness type for the association group |
| Context | **configure** router *named-item-64* pcep pcc pce-associations diversity *named-item* disjointness-type *keyword* |
| Tree | disjointness-type |
| Options | strict, loose |
| Default | loose |
| Introduced | 22.5.R1 |
| Platforms | All |

## **diversity-type** *keyword*

| | |
|---|---|
| Synopsis | Diversity type for the association group |
| Context | **configure** router *named-item-64* pcep pcc pce-associations diversity *named-item* diversity-type *keyword* |
| Tree | diversity-type |
| Description | This command configures the diversity type for the association group. |
| Options | none, link, node, srlg-link, srlg-node |
| Default | none |
| Introduced | 22.5.R1 |
| Platforms | All |

## **policy** [assoc-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **policy** list instance |
| Context | **configure** router *named-item-64* pcep pcc pce-associations policy *named-item* |
| Tree | policy |
| Description | Commands in this context create a named policy association from which the parameters for the specified policy association are configured. |
| Introduced | 22.5.R1 |
| Platforms | All |


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### [**assoc-name**] *named-item*

| | |
|---|---|
| Synopsis | Name of the association group |
| Context | **configure** router *named-item-64* pcep pcc pce-associations policy *named-item* |
| Tree | policy |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 22.5.R1 |
| Platforms | All |

### **association-id** *number*

| | |
|---|---|
| Synopsis | Association ID for the policy association group |
| Context | **configure** router *named-item-64* pcep pcc pce-associations policy *named-item* association-id *number* |
| Tree | association-id |
| Description | This command configures the policy association ID. The user must specify an association ID. |
| Range | 0 to 65535 |
| Default | 0 |
| Introduced | 22.5.R1 |
| Platforms | All |

### **association-source** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source IP address for the association |
| Context | **configure** router *named-item-64* pcep pcc pce-associations policy *named-item* association-source *(ipv4-address-no-zone | ipv6-address-no-zone)* |
| Tree | association-source |
| Description | This command configures the source IP address of the policy association. |
| Introduced | 22.5.R1 |
| Platforms | All |

### **peer** [ip-address] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Enter the **peer** list instance |


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| | |
|---|---|
| Context | **configure** router *named-item-64* pcep pcc peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | peer |
| Max. instances | 2 |
| Introduced | 16.0.R4 |
| Platforms | All |

### [**ip-address**] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Destination IP address of a PCE peer in a PCEP session |
| Context | **configure** router *named-item-64* pcep pcc peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | peer |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the PCC peer |
| Context | **configure** router *named-item-64* pcep pcc peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R4 |
| Platforms | All |

### **authentication-keychain** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Keychain for TCP-AO authentication between PCC and PCE |


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| | |
|---|---|
| Context | **configure** router *named-item-64* pcep pcc peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* authentication-keychain *reference* |
| Tree | authentication-keychain |
| Reference | **configure** system security keychains keychain *named-item* |
| Introduced | 23.7.R1 |
| Platforms | All |

## **preference** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Preference value of the peer |
| Context | **configure** router *named-item-64* pcep pcc peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* preference *number* |
| Tree | preference |
| Range | 0 to 100 |
| Default | 0 |
| Introduced | 16.0.R4 |
| Platforms | All |

## **route-preference** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Route preference to reach the PCE server |
| Context | **configure** router *named-item-64* pcep pcc peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* route-preference *keyword* |
| Tree | route-preference |
| Description | This command specifies the routing preference to reach the PCE server. If the configured option is to use both in-band and out-of-band routes, the out-of-band routes in the management routing instance are used to reach the PCE server before the in-band routes in the Base routing instance. |
| Options | inband, outband, both |
| Default | both |


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| | |
|---|---|
| Introduced | 21.10.R1 |
| Platforms | All |

## **tls-client-profile** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | TLS client profile name assigned to this PCC peer |
| Context | **configure** router *named-item-64* pcep pcc peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* tls-client-profile *reference* |
| Tree | tls-client-profile |
| Reference | **configure** system security tls client-tls-profile *named-item* |
| Introduced | 21.10.R1 |
| Platforms | All |

## **tls-wait-timer** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Time the PCC waits until declaring handshake failure |
| Context | **configure** router *named-item-64* pcep pcc peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* tls-wait-timer *number* |
| Tree | tls-wait-timer |
| Range | 60 to 255 |
| Units | seconds |
| Default | 60 |
| Introduced | 21.10.R1 |
| Platforms | All |

## **redelegation-timer** *number*

| | |
|---|---|
| Synopsis | Configure redelegation-timer |
| Context | **configure** router *named-item-64* pcep pcc redelegation-timer *number* |


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| | |
|---|---|
| Tree | redelegation-timer |
| Range | 1 to 3600 |
| Units | seconds |
| Default | 90 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **report-path-constraints** *boolean*

| | |
|---|---|
| Synopsis | Include LSP path constraints in PCE report messages |
| Context | **configure** router *named-item-64* pcep pcc report-path-constraints *boolean* |
| Tree | report-path-constraints |
| Default | true |
| Introduced | 16.0.R4 |
| Platforms | All |

### **state-timer**

| | |
|---|---|
| Synopsis | Enter the **state-timer** context |
| Context | **configure** router *named-item-64* pcep pcc state-timer |
| Tree | state-timer |
| Introduced | 16.0.R4 |
| Platforms | All |

### **timer** *number*

| | |
|---|---|
| Synopsis | Configure state-timer |
| Context | **configure** router *named-item-64* pcep pcc state-timer timer *number* |
| Tree | timer |
| Range | 1 to 3600 |
| Units | seconds |
| Default | 180 |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **timer-action** *keyword*

| | |
|---|---|
| Synopsis | State timer action remove/none |
| Context | **configure** router *named-item-64* pcep pcc state-timer timer-action *keyword* |
| Tree | timer-action |
| Options | none, remove |
| Default | remove |
| Introduced | 16.0.R4 |
| Platforms | All |

### **unknown-message-rate** *number*

| | |
|---|---|
| Synopsis | Configure unknown message rate |
| Context | **configure** router *named-item-64* pcep pcc unknown-message-rate *number* |
| Tree | unknown-message-rate |
| Range | 1 to 255 |
| Default | 10 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **pce**

| | |
|---|---|
| Synopsis | Enable the **pce** context |
| Context | **configure** router *named-item-64* pcep pce |
| Tree | pce |
| Introduced | 16.0.R4 |
| Platforms | VSR-NRC |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the PCEP session element |
| Context | **configure** router *named-item-64* pcep pce admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | VSR-NRC |

## **authentication-keychain** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Keychain for TCP-AO authentication between PCC and PCE |
| Context | **configure** router *named-item-64* pcep pce authentication-keychain *reference* |
| Tree | authentication-keychain |
| Reference | **configure** system security keychains keychain *named-item* |
| Introduced | 23.10.R1 |
| Platforms | VSR-NRC |

## **dead-timer** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Configure dead timer |
| Context | **configure** router *named-item-64* pcep pce dead-timer *number* |
| Tree | dead-timer |
| Range | 1 to 255 |
| Units | seconds |
| Default | 120 |
| Introduced | 16.0.R4 |
| Platforms | VSR-NRC |

## **keepalive** *number*

**WARNING:**
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| | |
|---|---|
| Synopsis | Configure keepalive |
| Context | **configure** router *named-item-64* pcep pce keepalive *number* |
| Tree | keepalive |
| Range | 1 to 255 |
| Units | seconds |
| Default | 30 |
| Introduced | 16.0.R4 |
| Platforms | VSR-NRC |

## **local-address** *ipv4-unicast-address*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Local IPv4 address of the PCEP speaker |
| Context | **configure** router *named-item-64* pcep pce local-address *ipv4-unicast-address* |
| Tree | local-address |
| Description | This command configures the local IPv4 address of the PCEP speaker.<br>See "PCEP session establishment and maintenance" in the *7750 SR and 7950 XRS Segment Routing and PCE User Guide* for more information about configuring a PCEP local IPv4 address to establish a PCEP session. |
| Introduced | 16.0.R4 |
| Platforms | VSR-NRC |

## **local-address-ipv6** *ipv6-unicast-address*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Local IPv6 address of the PCEP speaker |
| Context | **configure** router *named-item-64* pcep pce local-address-ipv6 *ipv6-unicast-address* |
| Tree | local-address-ipv6 |
| Description | This command configures the local IPv6 address of the PCEP speaker.<br>See "PCEP session establishment and maintenance" in the *7750 SR and 7950 XRS Segment Routing and PCE User Guide* for more information about configuring a PCEP local IPv6 address to establish a PCEP session. |


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| | |
|---|---|
| Introduced | 20.2.R1 |
| Platforms | VSR-NRC |

## **tls-server-profile** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | TLS server profile name assigned to this PCE |
| Context | **configure** router *named-item-64* pcep pce tls-server-profile *reference* |
| Tree | tls-server-profile |
| Reference | **configure** system security tls server-tls-profile *named-item* |
| Introduced | 21.10.R1 |
| Platforms | VSR-NRC |

## **tls-wait-timer** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Configure tls-wait-timer |
| Context | **configure** router *named-item-64* pcep pce tls-wait-timer *number* |
| Tree | tls-wait-timer |
| Range | 60 to 255 |
| Units | seconds |
| Default | 60 |
| Introduced | 21.10.R1 |
| Platforms | VSR-NRC |

## **unknown-message-rate** *number*

| | |
|---|---|
| Synopsis | Configure unknown message rate |
| Context | **configure** router *named-item-64* pcep pce unknown-message-rate *number* |
| Tree | unknown-message-rate |
| Range | 1 to 255 |


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| | |
|---|---|
| Default | 10 |
| Introduced | 16.0.R4 |
| Platforms | VSR-NRC |

## pcp

| | |
|---|---|
| Synopsis | Enter the **pcp** context |
| Context | **configure** router *named-item-64* pcp |
| Tree | pcp |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **server** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **server** list instance |
| Context | **configure** router *named-item-64* pcp server *named-item* |
| Tree | server |
| Max. instances | 8 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## [**name**] *named-item*

| | |
|---|---|
| Synopsis | PCP server name |
| Context | **configure** router *named-item-64* pcp server *named-item* |
| Tree | server |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the PCP server |


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| | |
|---|---|
| Context | **configure** router *named-item-64* pcp server *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** router *named-item-64* pcp server *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **dual-stack-lite-address** *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Inside Dual Stack Lite AFTR address |
| Context | **configure** router *named-item-64* pcp server *named-item* dual-stack-lite-address *ipv6-unicast-address* |
| Tree | dual-stack-lite-address |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **fwd-inside-router** *string*

| | |
|---|---|
| Synopsis | PCP forwarding inside virtual router instance |
| Context | **configure** router *named-item-64* pcp server *named-item* fwd-inside-router *string* |
| Tree | fwd-inside-router |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **interface** [name] *reference*

| | |
|---|---|
| Synopsis | Add a list entry for **interface** |


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| | |
|---|---|
| Context | **configure** router *named-item-64* pcp server *named-item* interface *reference* |
| Tree | interface |
| Max. instances | 32 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *reference*

| | |
|---|---|
| Synopsis | Interface name |
| Context | **configure** router *named-item-64* pcp server *named-item* interface *reference* |
| Tree | interface |
| Reference | **configure** router *named-item-64* interface *interface-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **policy** *reference*

| | |
|---|---|
| Synopsis | PCP server policy |
| Context | **configure** router *named-item-64* pcp server *named-item* policy *reference* |
| Tree | policy |
| Reference | **configure** service nat pcp-server-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **pim**

| | |
|---|---|
| Synopsis | Enable the **pim** context |
| Context | **configure** router *named-item-64* pim |
| Tree | pim |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of PIM |
| Context | **configure** router *named-item-64* pim admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **apply-to** *keyword*

| | |
|---|---|
| Synopsis | IES and non-IES interfaces to create in PIM |
| Context | **configure** router *named-item-64* pim apply-to *keyword* |
| Tree | apply-to |
| Options | ies, non-ies, all, none |
| Default | none |
| Introduced | 16.0.R1 |
| Platforms | All |

### **import**

| | |
|---|---|
| Synopsis | Enter the **import** context |
| Context | **configure** router *named-item-64* pim import |
| Tree | import |
| Introduced | 16.0.R1 |
| Platforms | All |

### **join-policy** *reference*

| | |
|---|---|
| Synopsis | Character limit for policy name |
| Context | **configure** router *named-item-64* pim import join-policy *reference* |
| Tree | join-policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |


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| | |
|---|---|
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **register-policy** *reference*

| | |
|---|---|
| Synopsis | Character limit for policy name |
| Context | **configure** router *named-item-64* pim import register-policy *reference* |
| Tree | register-policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **interface** [interface-name] *interface-name*

| | |
|---|---|
| Synopsis | Enter the **interface** list instance |
| Context | **configure** router *named-item-64* pim interface *interface-name* |
| Tree | interface |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**interface-name**] *interface-name*

| | |
|---|---|
| Synopsis | Router interface name |
| Context | **configure** router *named-item-64* pim interface *interface-name* |
| Tree | interface |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the PIM interface |
| Context | **configure** router *named-item-64* pim interface *interface-name* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **assert-period** *number*

| | |
|---|---|
| Synopsis | Time for periodic refreshes of PIM Assert messages on an interface |
| Context | **configure** router *named-item-64* pim interface *interface-name* assert-period *number* |
| Tree | assert-period |
| Range | 1 to 300 |
| Default | 60 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bfd-liveness**

| | |
|---|---|
| Synopsis | Enter the **bfd-liveness** context |
| Context | **configure** router *named-item-64* pim interface *interface-name* bfd-liveness |
| Tree | bfd-liveness |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv4** *boolean*

| | |
|---|---|
| Synopsis | Use Bidirectional Forwarding Detection for IPv4 on PIM interface |
| Context | **configure** router *named-item-64* pim interface *interface-name* bfd-liveness ipv4 *boolean* |
| Tree | ipv4 |
| Default | false |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **ipv6** *boolean*

| | |
|---|---|
| Synopsis | Use Bidirectional Forwarding Detection for IPv6 on PIM interface |
| Context | **configure** router *named-item-64* pim interface *interface-name* bfd-liveness ipv6 *boolean* |
| Tree | ipv6 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bier-signaling-type**

| | |
|---|---|
| Synopsis | Enter the **bier-signaling-type** context |
| Context | **configure** router *named-item-64* pim interface *interface-name* bier-signaling-type |
| Tree | bier-signaling-type |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ipv4** *boolean*

| | |
|---|---|
| Synopsis | Enable PIM IPv4 signaling through a BIER domain |
| Context | **configure** router *named-item-64* pim interface *interface-name* bier-signaling-type ipv4 *boolean* |
| Tree | ipv4 |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ipv6** *boolean*

| | |
|---|---|
| Synopsis | Enable PIM IPv6 signaling through a BIER domain |
| Context | **configure** router *named-item-64* pim interface *interface-name* bier-signaling-type ipv6 *boolean* |
| Tree | ipv6 |
| Default | false |


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| | |
|---|---|
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **bsm-check-rtr-alert** *boolean*

| | |
|---|---|
| Synopsis | Check router alert option in bootstrap messages received |
| Context | **configure** router *named-item-64* pim interface *interface-name* bsm-check-rtr-alert *boolean* |
| Tree | bsm-check-rtr-alert |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hello-interval** *number*

| | |
|---|---|
| Synopsis | Frequency at which PIM Hello messages are sent over this interface |
| Context | **configure** router *named-item-64* pim interface *interface-name* hello-interval *number* |
| Tree | hello-interval |
| Range | 0 to 255 |
| Default | 30 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hello-multiplier** *number*

| | |
|---|---|
| Synopsis | Multiplier to determine the hold time for PIM neighbor |
| Context | **configure** router *named-item-64* pim interface *interface-name* hello-multiplier *number* |
| Tree | hello-multiplier |
| Range | 20 to 100 |
| Default | 35 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **improved-assert** *boolean*

| | |
|---|---|
| Synopsis | Allow improved assert processing on interface |


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| | |
|---|---|
| Context | **configure** router *named-item-64* pim interface *interface-name* improved-assert *boolean* |
| Tree | improved-assert |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

## **instant-prune-echo** *boolean*

| | |
|---|---|
| Synopsis | Allow PIM to send an instant prune echo when router starts the prune pending timer for PIM interface |
| Context | **configure** router *named-item-64* pim interface *interface-name* instant-prune-echo *boolean* |
| Tree | instant-prune-echo |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **ipv4**

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |
| Context | **configure** router *named-item-64* pim interface *interface-name* ipv4 |
| Tree | ipv4 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **monitor-oper-group**

| | |
|---|---|
| Synopsis | Enter the **monitor-oper-group** context |
| Context | **configure** router *named-item-64* pim interface *interface-name* ipv4 monitor-oper-group |
| Tree | monitor-oper-group |
| Introduced | 16.0.R1 |
| Platforms | All |

## **name** *reference*

| | |
|---|---|
| Synopsis | Operational group identifier |


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| | |
|---|---|
| Context | **configure** router *named-item-64* pim interface *interface-name* ipv4 monitor-oper-group name *reference* |
| Tree | name |
| Reference | **configure** service oper-group *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **operation** *keyword*

| | |
|---|---|
| Synopsis | Operation performed when operational group is active |
| Context | **configure** router *named-item-64* pim interface *interface-name* ipv4 monitor-oper-group operation *keyword* |
| Tree | operation |
| Options | add, subtract, set |
| Introduced | 16.0.R1 |
| Platforms | All |

## **priority-delta** *number*

| | |
|---|---|
| Synopsis | Delta priority with operation when operational group is active |
| Context | **configure** router *named-item-64* pim interface *interface-name* ipv4 monitor-oper-group priority-delta *number* |
| Tree | priority-delta |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **multicast** *boolean*

| | |
|---|---|
| Synopsis | Enable PIM interface operation |
| Context | **configure** router *named-item-64* pim interface *interface-name* ipv4 multicast *boolean* |
| Tree | multicast |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |


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### ipv6

| | |
|---|---|
| Synopsis | Enter the **ipv6** context |
| Context | **configure** router *named-item-64* pim interface *interface-name* ipv6 |
| Tree | ipv6 |
| Introduced | 16.0.R1 |
| Platforms | All |

### monitor-oper-group

| | |
|---|---|
| Synopsis | Enter the **monitor-oper-group** context |
| Context | **configure** router *named-item-64* pim interface *interface-name* ipv6 monitor-oper-group |
| Tree | monitor-oper-group |
| Introduced | 16.0.R1 |
| Platforms | All |

### name *reference*

| | |
|---|---|
| Synopsis | Operational group identifier |
| Context | **configure** router *named-item-64* pim interface *interface-name* ipv6 monitor-oper-group name *reference* |
| Tree | name |
| Reference | **configure** service oper-group *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### operation *keyword*

| | |
|---|---|
| Synopsis | Operation performed when operational group is active |
| Context | **configure** router *named-item-64* pim interface *interface-name* ipv6 monitor-oper-group operation *keyword* |
| Tree | operation |
| Options | add, subtract, set |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **priority-delta** *number*

| | |
|---|---|
| Synopsis | Delta priority with operation when operational group is active |
| Context | **configure** router *named-item-64* pim interface *interface-name* ipv6 monitor-oper-group priority-delta *number* |
| Tree | priority-delta |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **multicast** *boolean*

| | |
|---|---|
| Synopsis | Enable PIM interface operation |
| Context | **configure** router *named-item-64* pim interface *interface-name* ipv6 multicast *boolean* |
| Tree | multicast |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **max-groups** *number*

| | |
|---|---|
| Synopsis | Maximum number of groups for the interface |
| Context | **configure** router *named-item-64* pim interface *interface-name* max-groups *number* |
| Tree | max-groups |
| Range | 0 \| 1 to 16000 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mcac**

| | |
|---|---|
| Synopsis | Enter the **mcac** context |
| Context | **configure** router *named-item-64* pim interface *interface-name* mcac |
| Tree | mcac |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## bandwidth

| | |
|---|---|
| Synopsis | Enter the **bandwidth** context |
| Context | **configure** router *named-item-64* pim interface *interface-name* mcac bandwidth |
| Tree | bandwidth |
| Introduced | 16.0.R1 |
| Platforms | All |

## mandatory *(number | keyword)*

| | |
|---|---|
| Synopsis | Pre-reserved bandwidth for all mandatory channels |
| Context | **configure** router *named-item-64* pim interface *interface-name* mcac bandwidth mandatory *(number | keyword)* |
| Tree | mandatory |
| Range | 0 to 2147483647 |
| Options | unlimited |
| Default | unlimited |
| Introduced | 16.0.R1 |
| Platforms | All |

## total *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum allowed bandwidth |
| Context | **configure** router *named-item-64* pim interface *interface-name* mcac bandwidth total *(number | keyword)* |
| Tree | total |
| Range | 0 to 2147483647 |
| Options | unlimited |
| Default | unlimited |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **interface-policy** *reference*

| | |
|---|---|
| Synopsis | Name of multicast CAC interface policy |
| Context | **configure** router *named-item-64* pim interface *interface-name* mcac interface-policy *reference* |
| Tree | interface-policy |
| Reference | **configure** mcac interface-policy *string* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mc-constraints**

| | |
|---|---|
| Synopsis | Enter the **mc-constraints** context |
| Context | **configure** router *named-item-64* pim interface *interface-name* mcac mc-constraints |
| Tree | mc-constraints |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the multicast CAC constraints |
| Context | **configure** router *named-item-64* pim interface *interface-name* mcac mc-constraints admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **level** [level-id] *number*

| | |
|---|---|
| Synopsis | Enter the **level** list instance |
| Context | **configure** router *named-item-64* pim interface *interface-name* mcac mc-constraints level *number* |
| Tree | level |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### [**level-id**] *number*

| | |
|---|---|
| Synopsis | Bandwidth level ID for an MCAC constraint |
| Context | **configure** router *named-item-64* pim interface *interface-name* mcac mc-constraints level *number* |
| Tree | level |
| Range | 1 to 8 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bandwidth** *number*

| | |
|---|---|
| Synopsis | Bandwidth available for this level |
| Context | **configure** router *named-item-64* pim interface *interface-name* mcac mc-constraints level *number* bandwidth *number* |
| Tree | bandwidth |
| Range | 0 to 2147483647 |
| Units | kilobps |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **number-down** [number-lag-port-down] *number*

| | |
|---|---|
| Synopsis | Enter the **number-down** list instance |
| Context | **configure** router *named-item-64* pim interface *interface-name* mcac mc-constraints number-down *number* |
| Tree | number-down |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**number-lag-port-down**] *number*

| | |
|---|---|
| Synopsis | Number of ports that are down in this LAG link |
| Context | **configure** router *named-item-64* pim interface *interface-name* mcac mc-constraints number-down *number* |
| Tree | number-down |
| Range | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **level** *number*

| | |
|---|---|
| Synopsis | Level ID to associate with number of down LAG ports |
| Context | **configure** router *named-item-64* pim interface *interface-name* mcac mc-constraints number-down *number* level *number* |
| Tree | level |
| Description | This command specifies the bandwidth for a given level. Level 1 has the highest priority and level 8 has the lowest priority. |
| Range | 1 to 8 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **use-lag-port-weight** *boolean*

| | |
|---|---|
| Synopsis | Use LAG port weight in calculating MCAC constraints |
| Context | **configure** router *named-item-64* pim interface *interface-name* mcac mc-constraints use-lag-port-weight *boolean* |
| Tree | use-lag-port-weight |
| Description | When configured to **true**, port weight is used when determining available bandwidth per level when LAG ports go down or come up. This command is required for proper operation on mixed port-speed LAGs and can also be used for unmixed port-speed LAGs. |
| Default | false |
| Introduced | 16.0.R1 |


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Platforms All

## **policy** *reference*

Synopsis Multicast CAC policy name

Context **configure** router *named-item-64* pim interface *interface-name* mcac policy *reference*

Tree policy

Description This command configures the name of the global channel bandwidth definition policy that is used for (H)MCAC and HQoS adjustment.

Within the scope of HQoS adjustment, the channel definition policy under the group interface is used if redirection is unconfigured. In this case, the HQoS adjustment can be applied to IPoE subscribers in per-SAP replication mode.

If redirection is configured, the channel bandwidth definition policy applied under the Layer 3 redirected interface is in effect.

Hierarchical MCAC (HMCAC) is supported on two levels simultaneously:

- subscriber level and redirected interface when redirection is configured
- subscriber level and group-interface level when redirection is unconfigured

In HMCAC, the subscriber is checked against its bandwidth limits first, then against the bandwidth limits of the redirected or group interface. If redirection is configured but the policy is referenced only under the group interface, no admission control is executed (HMCAC or MCAC).

Reference **configure** mcac policy *string*

Introduced 16.0.R1

Platforms All

## **multicast-senders** *keyword*

Synopsis Subnet matching for the incoming data packets

Context **configure** router *named-item-64* pim interface *interface-name* multicast-senders *keyword*

Tree multicast-senders

Options auto, always, never

Default auto

Introduced 16.0.R1

Platforms All


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## p2mp-ldp-tree-join

| | |
|---|---|
| Synopsis | Enter the **p2mp-ldp-tree-join** context |
| Context | **configure** router *named-item-64* pim interface *interface-name* p2mp-ldp-tree-join |
| Tree | p2mp-ldp-tree-join |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## ipv4 *boolean*

| | |
|---|---|
| Synopsis | Allow dynamic mLDP in-band signaling for IPv4 PIM joins |
| Context | **configure** router *named-item-64* pim interface *interface-name* p2mp-ldp-tree-join ipv4 *boolean* |
| Tree | ipv4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## ipv6 *boolean*

| | |
|---|---|
| Synopsis | Allow dynamic mLDP in-band signaling for IPv6 PIM joins |
| Context | **configure** router *named-item-64* pim interface *interface-name* p2mp-ldp-tree-join ipv6 *boolean* |
| Tree | ipv6 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## priority *number*

| | |
|---|---|
| Synopsis | DR election priority for this interface |
| Context | **configure** router *named-item-64* pim interface *interface-name* priority *number* |
| Tree | priority |
| Range | 1 to 4294967295 |
| Default | 1 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### sticky-dr

| | |
|---|---|
| Synopsis | Enable the **sticky-dr** context |
| Context | **configure** router *named-item-64* pim interface *interface-name* sticky-dr |
| Tree | sticky-dr |
| Introduced | 16.0.R1 |
| Platforms | All |

### priority *number*

| | |
|---|---|
| Synopsis | DR election priority for this interface |
| Context | **configure** router *named-item-64* pim interface *interface-name* sticky-dr priority *number* |
| Tree | priority |
| Range | 1 to 4294967295 |
| Default | 1024 |
| Introduced | 16.0.R1 |
| Platforms | All |

### three-way-hello *boolean*

| | |
|---|---|
| Synopsis | Allow three-way hello compatibility mode |
| Context | **configure** router *named-item-64* pim interface *interface-name* three-way-hello *boolean* |
| Tree | three-way-hello |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### tracking-support *boolean*

| | |
|---|---|
| Synopsis | Allow upstream routers to explicitly track join membership |
| Context | **configure** router *named-item-64* pim interface *interface-name* tracking-support *boolean* |
| Tree | tracking-support |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## ipv4

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |
| Context | **configure** router *named-item-64* pim ipv4 |
| Tree | ipv4 |
| Introduced | 16.0.R1 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of PIM operation for IPv4 |
| Context | **configure** router *named-item-64* pim ipv4 admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

## gtm

| | |
|---|---|
| Synopsis | Enter the **gtm** context |
| Context | **configure** router *named-item-64* pim ipv4 gtm |
| Tree | gtm |
| Introduced | 16.0.R1 |
| Platforms | All |

## auto-discovery *keyword*

| | |
|---|---|
| Synopsis | Method for multicast VPN membership auto-discovery |
| Context | **configure** router *named-item-64* pim ipv4 gtm auto-discovery *keyword* |
| Tree | auto-discovery |
| Options | bgp |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **multicast-fast-failover** *boolean*

| | |
|---|---|
| Synopsis | Use Multicast-Only Fast Reroute (MoFRR) functionality |
| Context | **configure** router *named-item-64* pim ipv4 multicast-fast-failover *boolean* |
| Tree | multicast-fast-failover |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rpf-table** *keyword*

| | |
|---|---|
| Synopsis | Route tables for RPF lookup |
| Context | **configure** router *named-item-64* pim ipv4 rpf-table *keyword* |
| Tree | rpf-table |
| Options | rtable-m, rtable-u, both |
| Default | rtable-u |
| Introduced | 16.0.R1 |
| Platforms | All |

### **source-address**

| | |
|---|---|
| Synopsis | Enter the **source-address** context |
| Context | **configure** router *named-item-64* pim ipv4 source-address |
| Tree | source-address |
| Description | Commands in this context configure the source IP address for PIM messages. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **register-message** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Source IPv4 address for PIM register messages |


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| | |
|---|---|
| Context | **configure** router *named-item-64* pim ipv4 source-address register-message *ipv4-unicast-address* |
| Tree | register-message |
| Description | This command configures the source IPv4 address for register messages in this PIM instance. The IP address can be set to any unicast address, regardless of whether it resides on the node. Ensure that the specified IP address is configured on the router as a loopback or interface IP address.<br>When unconfigured, the source IP address for register messages is selected by choosing the smallest IP address from available interfaces on the node. |
| Introduced | 23.3.R1 |
| Platforms | All |

## ssm-assert-compatible-mode *boolean*

| | |
|---|---|
| Synopsis | Enable SSM assert compatible mode |
| Context | **configure** router *named-item-64* pim ipv4 ssm-assert-compatible-mode *boolean* |
| Tree | ssm-assert-compatible-mode |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## ssm-default-range *boolean*

| | |
|---|---|
| Synopsis | SSM default range |
| Context | **configure** router *named-item-64* pim ipv4 ssm-default-range *boolean* |
| Tree | ssm-default-range |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

## ipv6

| | |
|---|---|
| Synopsis | Enter the **ipv6** context |
| Context | **configure** router *named-item-64* pim ipv6 |
| Tree | ipv6 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of PIM operation for IPv6 |
| Context | **configure** router *named-item-64* pim ipv6 admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **multicast-fast-failover** *boolean*

| | |
|---|---|
| Synopsis | Use Multicast-Only Fast Reroute (MoFRR) functionality |
| Context | **configure** router *named-item-64* pim ipv6 multicast-fast-failover *boolean* |
| Tree | multicast-fast-failover |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rpf-table** *keyword*

| | |
|---|---|
| Synopsis | Route tables for RPF lookup |
| Context | **configure** router *named-item-64* pim ipv6 rpf-table *keyword* |
| Tree | rpf-table |
| Options | rtable-m, rtable-u, both |
| Default | rtable-u |
| Introduced | 16.0.R1 |
| Platforms | All |

### **source-address**

| | |
|---|---|
| Synopsis | Enter the **source-address** context |
| Context | **configure** router *named-item-64* pim ipv6 source-address |


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| | |
|---|---|
| Tree | source-address |
| Description | Commands in this context configure the source IP address for PIM messages. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **register-message** *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Source IPv6 address for PIM register messages |
| Context | **configure** router *named-item-64* pim ipv6 source-address register-message *ipv6-unicast-address* |
| Tree | register-message |
| Description | This command configures the source IPv6 address for register messages in this PIM instance. The IP address can be set to any unicast address, regardless of whether it resides on the node. Ensure that the specified IP address is configured on the router as a loopback or interface IP address.<br>When unconfigured, the source IP address for register messages is selected by choosing the smallest IP address from available interfaces on the node. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **ssm-default-range** *boolean*

| | |
|---|---|
| Synopsis | SSM default range |
| Context | **configure** router *named-item-64* pim ipv6 ssm-default-range *boolean* |
| Tree | ssm-default-range |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lag-usage-optimization** *boolean*

| | |
|---|---|
| Synopsis | Optimize LAG usage |
| Context | **configure** router *named-item-64* pim lag-usage-optimization *boolean* |
| Tree | lag-usage-optimization |
| Default | false |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **mc-ecmp-balance** *boolean*

| | |
|---|---|
| Synopsis | Enable multicast balancing of traffic over ECMP links |
| Context | **configure** router *named-item-64* pim mc-ecmp-balance *boolean* |
| Tree | mc-ecmp-balance |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mc-ecmp-balance-hold** *number*

| | |
|---|---|
| Synopsis | Hold time for multicast balancing over ECMP links |
| Context | **configure** router *named-item-64* pim mc-ecmp-balance-hold *number* |
| Tree | mc-ecmp-balance-hold |
| Range | 2 to 600 |
| Units | minutes |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mc-ecmp-hashing**

| | |
|---|---|
| Synopsis | Enable the **mc-ecmp-hashing** context |
| Context | **configure** router *named-item-64* pim mc-ecmp-hashing |
| Tree | mc-ecmp-hashing |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rebalance** *boolean*

| | |
|---|---|
| Synopsis | Rebalance flows to newly added links immediately instead of waiting until they are pruned |
| Context | **configure** router *named-item-64* pim mc-ecmp-hashing rebalance *boolean* |
| Tree | rebalance |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **mdt-spt** *boolean*

| | |
|---|---|
| Synopsis | Use SPT switchover for default MDT |
| Context | **configure** router *named-item-64* pim mdt-spt *boolean* |
| Tree | mdt-spt |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **non-dr-attract-traffic** *boolean*

| | |
|---|---|
| Synopsis | Attract traffic when the router is not the designated one |
| Context | **configure** router *named-item-64* pim non-dr-attract-traffic *boolean* |
| Tree | non-dr-attract-traffic |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **pim-ssm-scaling** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable PIM-SSM scaling |
| Context | **configure** router *named-item-64* pim pim-ssm-scaling *boolean* |
| Tree | pim-ssm-scaling |
| Description | When configured to **true**, this command enables an increase of PIM SSM (S,G) scaling to a maximum of 256000 per system. The total maximum multicast capacity is, however, constrained by the lowest-performance FP.<br><br>When the maximum link capacity from the fabric to the lowest-performance FP is reached, the link to that FP is overloaded, resulting in packet loss for all FPs. This capacity constraint is independent of whether the lowest-performance FP has a receiver on it or not. If the multicast management chassis per-plane total capacity is configured to an explicit value larger than that supported by the lowest-performance FP, then IMPM |


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| | |
|---|---|
| | believes that there is more plane capacity available than there actually is and the result is (S,G) packet loss instead of blackholing. By setting the multicast management chassis per-plane total capacity to **dynamic**, the system automatically sets the switch fabric multicast plane capacity to the minimum value supported by the fabric and all line cards in the system.<br>When PIM SSM scaling is enabled, the following multicast features are disabled:• DM• MoFRR• JP policy• SSM groups• InBand features (BIER and MLDP)• Extranet• ASM<br>When configured to **false**, there is no increase of PIM SSM (S,G) scaling. |
| Default | false |
| Introduced | 19.7.R1 |
| Platforms | All |

## rp

| | |
|---|---|
| Synopsis | Enter the **rp** context |
| Context | **configure** router *named-item-64* pim rp |
| Tree | rp |
| Introduced | 16.0.R1 |
| Platforms | All |

## bootstrap

| | |
|---|---|
| Synopsis | Enter the **bootstrap** context |
| Context | **configure** router *named-item-64* pim rp bootstrap |
| Tree | bootstrap |
| Introduced | 16.0.R1 |
| Platforms | All |

## export *reference*

| | |
|---|---|
| Synopsis | Character limit for policy name |
| Context | **configure** router *named-item-64* pim rp bootstrap export *reference* |
| Tree | export |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **import** *reference*

| | |
|---|---|
| Synopsis | Character limit for policy name |
| Context | **configure** router *named-item-64* pim rp bootstrap import *reference* |
| Tree | import |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv4**

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |
| Context | **configure** router *named-item-64* pim rp ipv4 |
| Tree | ipv4 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **anycast** [ipv4-address] *ipv4-unicast-address* rp-set-peer *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Add a list entry for **anycast** |
| Context | **configure** router *named-item-64* pim rp ipv4 anycast *ipv4-unicast-address* rp-set-peer *ipv4-unicast-address* |
| Tree | anycast |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ipv4-address**] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Loopback IP address shared by routes in RP set |


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| | |
|---|---|
| Context | **configure** router *named-item-64* pim rp ipv4 anycast *ipv4-unicast-address* rp-set-peer *ipv4-unicast-address* |
| Tree | anycast |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **rp-set-peer** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Peer in the anycast RP-set |
| Context | **configure** router *named-item-64* pim rp ipv4 anycast *ipv4-unicast-address* rp-set-peer *ipv4-unicast-address* |
| Tree | anycast |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **auto-rp-discovery** *boolean*

| | |
|---|---|
| Synopsis | Enable auto-RP discovery mode and auto-RP listener |
| Context | **configure** router *named-item-64* pim rp ipv4 auto-rp-discovery *boolean* |
| Tree | auto-rp-discovery |
| Description | When configured to **true**, the system enables the auto-RP protocol in discovery mode and the auto-RP listener functionality.<br>See "Automatic discovery of group-to-RP mappings (auto-RP)" in the *7450 ESS, 7750 SR, 7950 XRS, and VSR Multicast Routing Protocols Guide* for more information about the auto-RP protocol and configuration guidelines. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **bsr-candidate**

| | |
|---|---|
| Synopsis | Enter the **bsr-candidate** context |
| Context | **configure** router *named-item-64* pim rp ipv4 bsr-candidate |
| Tree | bsr-candidate |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Candidate BSR IP address for Bootstrap Router election |
| Context | **configure** router *named-item-64* pim rp ipv4 bsr-candidate address *ipv4-unicast-address* |
| Tree | address |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the Candidate BSR |
| Context | **configure** router *named-item-64* pim rp ipv4 bsr-candidate admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hash-mask-len** *number*

| | |
|---|---|
| Synopsis | Length for bootstrap hash mask |
| Context | **configure** router *named-item-64* pim rp ipv4 bsr-candidate hash-mask-len *number* |
| Tree | hash-mask-len |
| Range | 0 to 32 |
| Default | 30 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **priority** *number*

| | |
|---|---|
| Synopsis | Bootstrap priority of the router |
| Context | **configure** router *named-item-64* pim rp ipv4 bsr-candidate priority *number* |


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| | |
|---|---|
| Tree | priority |
| Range | 0 to 255 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **candidate** *boolean*

| | |
|---|---|
| Synopsis | Enable auto-RP to advertise candidate RP information |
| Context | **configure** router *named-item-64* pim rp ipv4 candidate *boolean* |
| Tree | candidate |
| Description | When configured to **true**, the auto-RP is enabled to advertise the candidate RP information. The auto-RP candidate RP announces the candidate RP messages on the 224.0.1.39 multicast address. This functionality is in addition to the listener functionality enabled by the auto RP discovery.<br>When configured to **false**, the candidate RP information is not specified. |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | All |

## **mapping-agent** *boolean*

| | |
|---|---|
| Synopsis | Enable the mapping agent on the node |
| Context | **configure** router *named-item-64* pim rp ipv4 mapping-agent *boolean* |
| Tree | mapping-agent |
| Description | When configured to **true**, the mapping agent is enabled on the node. The auto-RP MA observes the **auto-rp-announcement** messages, selects the RP and generates the RP discovery 224.0.1.40 messages. This functionality is in addition to the auto-RP discovery functionality. |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | All |

## **rp-candidate**

| | |
|---|---|
| Synopsis | Enter the **rp-candidate** context |
| Context | **configure** router *named-item-64* pim rp ipv4 rp-candidate |


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| | |
|---|---|
| Tree | rp-candidate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Local RP address |
| Context | **configure** router *named-item-64* pim rp ipv4 rp-candidate address *ipv4-unicast-address* |
| Tree | address |
| Description | This command specifies the local RP address that is sent in the RP candidate advertisements to the Bootstrap Router. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the Candidate RP |
| Context | **configure** router *named-item-64* pim rp ipv4 rp-candidate admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **group-range** [ipv4-prefix] *ipv4-multicast-prefix*

| | |
|---|---|
| Synopsis | Add a list entry for **group-range** |
| Context | **configure** router *named-item-64* pim rp ipv4 rp-candidate group-range *ipv4-multicast-prefix* |
| Tree | group-range |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ipv4-prefix**] *ipv4-multicast-prefix*

| | |
|---|---|
| Synopsis | IPv4 address and prefix length |


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| | |
|---|---|
| Context | **configure** router *named-item-64* pim rp ipv4 rp-candidate group-range *ipv4-multicast-prefix* |
| Tree | group-range |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **holdtime** *number*

| | |
|---|---|
| Synopsis | Time during which the neighboring router considers this router to be up |
| Context | **configure** router *named-item-64* pim rp ipv4 rp-candidate holdtime *number* |
| Tree | holdtime |
| Range | 5 to 255 |
| Units | seconds |
| Default | 150 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **priority** *number*

| | |
|---|---|
| Synopsis | Candidate RP priority |
| Context | **configure** router *named-item-64* pim rp ipv4 rp-candidate priority *number* |
| Tree | priority |
| Range | 0 to 255 |
| Default | 192 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **static**

| | |
|---|---|
| Synopsis | Enter the **static** context |
| Context | **configure** router *named-item-64* pim rp ipv4 static |
| Tree | static |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **address** [ipv4-address] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Enter the **address** list instance |
| Context | **configure** router *named-item-64* pim rp ipv4 static address *ipv4-unicast-address* |
| Tree | address |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ipv4-address**] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IPv4 address for the static RP |
| Context | **configure** router *named-item-64* pim rp ipv4 static address *ipv4-unicast-address* |
| Tree | address |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **group-prefix** [ipv4-prefix] *ipv4-multicast-prefix*

| | |
|---|---|
| Synopsis | Add a list entry for **group-prefix** |
| Context | **configure** router *named-item-64* pim rp ipv4 static address *ipv4-unicast-address* group-prefix *ipv4-multicast-prefix* |
| Tree | group-prefix |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ipv4-prefix**] *ipv4-multicast-prefix*

| | |
|---|---|
| Synopsis | IPv4 address and prefix length |
| Context | **configure** router *named-item-64* pim rp ipv4 static address *ipv4-unicast-address* group-prefix *ipv4-multicast-prefix* |
| Tree | group-prefix |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **override** *boolean*

| | |
|---|---|
| Synopsis | Change the precedence for static RP over dynamically learnt RP |
| Context | **configure** router *named-item-64* pim rp ipv4 static address *ipv4-unicast-address* override *boolean* |
| Tree | override |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv6**

| | |
|---|---|
| Synopsis | Enter the **ipv6** context |
| Context | **configure** router *named-item-64* pim rp ipv6 |
| Tree | ipv6 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **anycast** [ipv6-address] *ipv6-unicast-address* rp-set-peer *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Add a list entry for **anycast** |
| Context | **configure** router *named-item-64* pim rp ipv6 anycast *ipv6-unicast-address* rp-set-peer *ipv6-unicast-address* |
| Tree | anycast |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ipv6-address**] *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Loopback IP address shared by routes in RP set |
| Context | **configure** router *named-item-64* pim rp ipv6 anycast *ipv6-unicast-address* rp-set-peer *ipv6-unicast-address* |
| Tree | anycast |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **rp-set-peer** *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Peer in the anycast RP set |
| Context | **configure** router *named-item-64* pim rp ipv6 anycast *ipv6-unicast-address* rp-set-peer *ipv6-unicast-address* |
| Tree | anycast |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bsr-candidate**

| | |
|---|---|
| Synopsis | Enter the **bsr-candidate** context |
| Context | **configure** router *named-item-64* pim rp ipv6 bsr-candidate |
| Tree | bsr-candidate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **address** *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Candidate BSR IP address for Bootstrap Router election |
| Context | **configure** router *named-item-64* pim rp ipv6 bsr-candidate address *ipv6-unicast-address* |
| Tree | address |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the Candidate BSR |
| Context | **configure** router *named-item-64* pim rp ipv6 bsr-candidate admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **hash-mask-len** *number*

| | |
|---|---|
| Synopsis | Length for bootstrap hash mask |
| Context | **configure** router *named-item-64* pim rp ipv6 bsr-candidate hash-mask-len *number* |
| Tree | hash-mask-len |
| Range | 0 to 128 |
| Default | 126 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **priority** *number*

| | |
|---|---|
| Synopsis | Bootstrap priority of the router |
| Context | **configure** router *named-item-64* pim rp ipv6 bsr-candidate priority *number* |
| Tree | priority |
| Range | 0 to 255 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **embedded-rp**

| | |
|---|---|
| Synopsis | Enable the **embedded-rp** context |
| Context | **configure** router *named-item-64* pim rp ipv6 embedded-rp |
| Tree | embedded-rp |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of embedded RP |
| Context | **configure** router *named-item-64* pim rp ipv6 embedded-rp admin-state *keyword* |
| Tree | admin-state |


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| | |
|---|---|
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **group-range** [ipv6-prefix] *ipv6-multicast-prefix*

| | |
|---|---|
| Synopsis | Add a list entry for **group-range** |
| Context | **configure** router *named-item-64* pim rp ipv6 embedded-rp group-range *ipv6-multicast-prefix* |
| Tree | group-range |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ipv6-prefix**] *ipv6-multicast-prefix*

| | |
|---|---|
| Synopsis | IPv6 address and prefix length |
| Context | **configure** router *named-item-64* pim rp ipv6 embedded-rp group-range *ipv6-multicast-prefix* |
| Tree | group-range |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rp-candidate**

| | |
|---|---|
| Synopsis | Enter the **rp-candidate** context |
| Context | **configure** router *named-item-64* pim rp ipv6 rp-candidate |
| Tree | rp-candidate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **address** *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Local RP address |
| Context | **configure** router *named-item-64* pim rp ipv6 rp-candidate address *ipv6-unicast-address* |


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| | |
|---|---|
| Tree | address |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the Candidate RP |
| Context | **configure** router *named-item-64* pim rp ipv6 rp-candidate admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **group-range** [ipv6-prefix] *ipv6-multicast-prefix*

| | |
|---|---|
| Synopsis | Add a list entry for **group-range** |
| Context | **configure** router *named-item-64* pim rp ipv6 rp-candidate group-range *ipv6-multicast-prefix* |
| Tree | group-range |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ipv6-prefix**] *ipv6-multicast-prefix*

| | |
|---|---|
| Synopsis | IPv6 address and prefix length |
| Context | **configure** router *named-item-64* pim rp ipv6 rp-candidate group-range *ipv6-multicast-prefix* |
| Tree | group-range |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **holdtime** *number*

| | |
|---|---|
| Synopsis | Time during which the neighboring router considers this router to be up |


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| | |
|---|---|
| Context | **configure** router *named-item-64* pim rp ipv6 rp-candidate holdtime *number* |
| Tree | holdtime |
| Range | 5 to 255 |
| Units | seconds |
| Default | 150 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **priority** *number*

| | |
|---|---|
| Synopsis | Candidate RP priority |
| Context | **configure** router *named-item-64* pim rp ipv6 rp-candidate priority *number* |
| Tree | priority |
| Range | 0 to 255 |
| Default | 192 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **static**

| | |
|---|---|
| Synopsis | Enter the **static** context |
| Context | **configure** router *named-item-64* pim rp ipv6 static |
| Tree | static |
| Introduced | 16.0.R1 |
| Platforms | All |

### **address** [ipv6-address] *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Enter the **address** list instance |
| Context | **configure** router *named-item-64* pim rp ipv6 static address *ipv6-unicast-address* |
| Tree | address |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**ipv6-address**] *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Static IP address of the RP |
| Context | **configure** router *named-item-64* pim rp ipv6 static address *ipv6-unicast-address* |
| Tree | address |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **group-prefix** [ipv6-prefix] *ipv6-multicast-prefix*

| | |
|---|---|
| Synopsis | Add a list entry for **group-prefix** |
| Context | **configure** router *named-item-64* pim rp ipv6 static address *ipv6-unicast-address* group-prefix *ipv6-multicast-prefix* |
| Tree | group-prefix |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ipv6-prefix**] *ipv6-multicast-prefix*

| | |
|---|---|
| Synopsis | IPv6 address and prefix length |
| Context | **configure** router *named-item-64* pim rp ipv6 static address *ipv6-unicast-address* group-prefix *ipv6-multicast-prefix* |
| Tree | group-prefix |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **override** *boolean*

| | |
|---|---|
| Synopsis | Change the precedence for static RP over dynamically learnt RP |
| Context | **configure** router *named-item-64* pim rp ipv6 static address *ipv6-unicast-address* override *boolean* |
| Tree | override |
| Default | false |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## rpfv

| | |
|---|---|
| Synopsis | Enter the **rpfv** context |
| Context | **configure** router *named-item-64* pim rpfv |
| Tree | rpfv |
| Introduced | 16.0.R1 |
| Platforms | All |

## core *boolean*

| | |
|---|---|
| Synopsis | Include proxy RPF vector for core |
| Context | **configure** router *named-item-64* pim rpfv core *boolean* |
| Tree | core |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## mvpn *boolean*

| | |
|---|---|
| Synopsis | Include proxy RPF vector for Inter-AS Rosen MVPN |
| Context | **configure** router *named-item-64* pim rpfv mvpn *boolean* |
| Tree | mvpn |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## spt-switchover [ip-prefix] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Enter the **spt-switchover** list instance |
| Context | **configure** router *named-item-64* pim spt-switchover *(ipv4-prefix | ipv6-prefix)* |
| Tree | spt-switchover |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**ip-prefix**] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | IP address and mask length |
| Context | **configure** router *named-item-64* pim spt-switchover *(ipv4-prefix \| ipv6-prefix)* |
| Tree | spt-switchover |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **threshold** *(number | keyword)*

| | |
|---|---|
| Synopsis | SPT switchover threshold |
| Context | **configure** router *named-item-64* pim spt-switchover *(ipv4-prefix \| ipv6-prefix)* threshold *(number \| keyword)* |
| Tree | threshold |
| Range | 1 to 4294967294 |
| Units | kilobps |
| Options | infinity |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ssm-groups**

| | |
|---|---|
| Synopsis | Enter the **ssm-groups** context |
| Context | **configure** router *named-item-64* pim ssm-groups |
| Tree | ssm-groups |
| Introduced | 16.0.R1 |
| Platforms | All |

### **group-range** [ip-prefix] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Add a list entry for **group-range** |
| Context | **configure** router *named-item-64* pim ssm-groups group-range *(ipv4-prefix \| ipv6-prefix)* |
| Tree | group-range |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ip-prefix**] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | IP address and mask length |
| Context | **configure** router *named-item-64* pim ssm-groups group-range *(ipv4-prefix | ipv6-prefix)* |
| Tree | group-range |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **radius**

| | |
|---|---|
| Synopsis | Enter the **radius** context |
| Context | **configure** router *named-item-64* radius |
| Tree | radius |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **proxy** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **proxy** list instance |
| Context | **configure** router *named-item-64* radius proxy *named-item* |
| Tree | proxy |
| Max. instances | 8 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | RADIUS proxy name |
| Context | **configure** router *named-item-64* radius proxy *named-item* |
| Tree | proxy |


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| | |
|---|---|
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of RADIUS proxy |
| Context | **configure** router *named-item-64* radius proxy *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **attribute-matching**

| | |
|---|---|
| Synopsis | Enter the **attribute-matching** context |
| Context | **configure** router *named-item-64* radius proxy *named-item* attribute-matching |
| Tree | attribute-matching |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **entry** [index] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** router *named-item-64* radius proxy *named-item* attribute-matching entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**index**] *number*

| | |
|---|---|
| Synopsis | Index of this entry |


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| | |
|---|---|
| Context | **configure** router *named-item-64* radius proxy *named-item* attribute-matching entry *number* |
| Tree | entry |
| Range | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **accounting-server-policy** *named-item*

| | |
|---|---|
| Synopsis | Accounting server policy |
| Context | **configure** router *named-item-64* radius proxy *named-item* attribute-matching entry *number* accounting-server-policy *named-item* |
| Tree | accounting-server-policy |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **authentication-server-policy** *named-item*

| | |
|---|---|
| Synopsis | Authentication server policy |
| Context | **configure** router *named-item-64* radius proxy *named-item* attribute-matching entry *number* authentication-server-policy *named-item* |
| Tree | authentication-server-policy |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **prefix-string** *display-string*

| | |
|---|---|
| Synopsis | Prefix string |
| Context | **configure** router *named-item-64* radius proxy *named-item* attribute-matching entry *number* prefix-string *display-string* |
| Tree | prefix-string |
| String length | 1 to 128 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **suffix-string** *display-string*

| | |
|---|---|
| Synopsis | Prefix string |
| Context | **configure** router *named-item-64* radius proxy *named-item* attribute-matching entry *number* suffix-string *display-string* |
| Tree | suffix-string |
| String length | 1 to 128 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **type** *number*

| | |
|---|---|
| Synopsis | Matching attribute type to RADIUS server policy |
| Context | **configure** router *named-item-64* radius proxy *named-item* attribute-matching type *number* |
| Tree | type |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **vendor** *(number | keyword)*

| | |
|---|---|
| Synopsis | Matching Vendor ID to RADIUS server policy |
| Context | **configure** router *named-item-64* radius proxy *named-item* attribute-matching vendor *(number | keyword)* |
| Tree | vendor |
| Range | 1 to 16777215 |
| Options | nokia |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **cache**

| | |
|---|---|
| Synopsis | Enter the **cache** context |


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| | |
|---|---|
| Context | **configure** router *named-item-64* radius proxy *named-item* cache |
| Tree | cache |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the RADIUS proxy cache |
| Context | **configure** router *named-item-64* radius proxy *named-item* cache admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **key**

| | |
|---|---|
| Synopsis | Enable the **key** context |
| Context | **configure** router *named-item-64* radius proxy *named-item* cache key |
| Tree | key |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **attribute-type** *number*

| | |
|---|---|
| Synopsis | RADIUS attribute type to cache for this RADIUS proxy server |
| Context | **configure** router *named-item-64* radius proxy *named-item* cache key attribute-type *number* |
| Tree | attribute-type |
| Range | 1 to 255 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **packet-type** *keyword*

| | |
|---|---|
| Synopsis | Packet type of the RADIUS messages |
| Context | **configure** router *named-item-64* radius proxy *named-item* cache key packet-type *keyword* |
| Tree | packet-type |
| Options | access-request, access-accept |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **vendor** *(number | keyword)*

| | |
|---|---|
| Synopsis | RADIUS Vendor ID |
| Context | **configure** router *named-item-64* radius proxy *named-item* cache key vendor *(number | keyword)* |
| Tree | vendor |
| Range | 1 to 16777215 |
| Options | nokia |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **timeout** *number*

| | |
|---|---|
| Synopsis | Idle timeout value |
| Context | **configure** router *named-item-64* radius proxy *named-item* cache timeout *number* |
| Tree | timeout |
| Range | 60 to 3600 |
| Units | seconds |
| Default | 300 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **track-accounting**

| | |
|---|---|
| Synopsis | Enter the **track-accounting** context |


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| | |
|---|---|
| Context | **configure** router *named-item-64* radius proxy *named-item* cache track-accounting |
| Tree | track-accounting |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **accounting-off** *boolean*

| | |
|---|---|
| Synopsis | Remove all ESM hosts associated with the RADIUS client |
| Context | **configure** router *named-item-64* radius proxy *named-item* cache track-accounting accounting-off *boolean* |
| Tree | accounting-off |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **accounting-on** *boolean*

| | |
|---|---|
| Synopsis | Remove all ESM hosts associated with the RADIUS client |
| Context | **configure** router *named-item-64* radius proxy *named-item* cache track-accounting accounting-on *boolean* |
| Tree | accounting-on |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **interim-update** *boolean*

| | |
|---|---|
| Synopsis | Update the ESM host with the RADIUS client that generated the interim update |
| Context | **configure** router *named-item-64* radius proxy *named-item* cache track-accounting interim-update *boolean* |
| Tree | interim-update |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **start** *boolean*

| | |
|---|---|
| Synopsis | Update host with client that generated accounting-start |
| Context | **configure** router *named-item-64* radius proxy *named-item* cache track-accounting start *boolean* |
| Tree | start |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **stop** *boolean*

| | |
|---|---|
| Synopsis | Remove ESM host and forward accounting-stop packet |
| Context | **configure** router *named-item-64* radius proxy *named-item* cache track-accounting stop *boolean* |
| Tree | stop |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **track-authentication**

| | |
|---|---|
| Synopsis | Enter the **track-authentication** context |
| Context | **configure** router *named-item-64* radius proxy *named-item* cache track-authentication |
| Tree | track-authentication |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **accept** *boolean*

| | |
|---|---|
| Synopsis | Track Access-Accept message for mobility |
| Context | **configure** router *named-item-64* radius proxy *named-item* cache track-authentication accept *boolean* |
| Tree | accept |
| Default | true |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **track-delete-hold-time** *number*

| | |
|---|---|
| Synopsis | Delete hold time |
| Context | **configure** router *named-item-64* radius proxy *named-item* cache track-delete-hold-time *number* |
| Tree | track-delete-hold-time |
| Range | 0 to 6000 |
| Units | seconds |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **defaults**

| | |
|---|---|
| Synopsis | Enter the **defaults** context |
| Context | **configure** router *named-item-64* radius proxy *named-item* defaults |
| Tree | defaults |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **accounting-server-policy** *named-item*

| | |
|---|---|
| Synopsis | Default accounting RADIUS server policy |
| Context | **configure** router *named-item-64* radius proxy *named-item* defaults accounting-server-policy *named-item* |
| Tree | accounting-server-policy |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **authentication-server-policy** *named-item*

| | |
|---|---|
| Synopsis | Default authentication RADIUS server policy |


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| | |
|---|---|
| Context | **configure** router *named-item-64* radius proxy *named-item* defaults authentication-server-policy *named-item* |
| Tree | authentication-server-policy |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** router *named-item-64* radius proxy *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **interface** [interface-name] *interface-name*

| | |
|---|---|
| Synopsis | Add a list entry for **interface** |
| Context | **configure** router *named-item-64* radius proxy *named-item* interface *interface-name* |
| Tree | interface |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**interface-name**] *interface-name*

| | |
|---|---|
| Synopsis | IP interface name |
| Context | **configure** router *named-item-64* radius proxy *named-item* interface *interface-name* |
| Tree | interface |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## load-balance-key

| | |
|---|---|
| Synopsis | Enter the **load-balance-key** context |
| Context | **configure** router *named-item-64* radius proxy *named-item* load-balance-key |
| Tree | load-balance-key |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## attribute-1

| | |
|---|---|
| Synopsis | Enter the **attribute-1** context |
| Context | **configure** router *named-item-64* radius proxy *named-item* load-balance-key attribute-1 |
| Tree | attribute-1 |
| Notes | The following elements are part of a choice: (**attribute-1**, **attribute-2**, **attribute-3**, **attribute-4**, and **attribute-5**) or **source-ip-udp**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## type *number*

| | |
|---|---|
| Synopsis | Attribute type to cache for this RADIUS Proxy server |
| Context | **configure** router *named-item-64* radius proxy *named-item* load-balance-key attribute-1 type *number* |
| Tree | type |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## vendor *(number | keyword)*

| | |
|---|---|
| Synopsis | Vendor-Id attribute |
| Context | **configure** router *named-item-64* radius proxy *named-item* load-balance-key attribute-1 vendor *(number | keyword)* |
| Tree | vendor |
| Range | 1 to 16777215 |
| Options | nokia |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## attribute-2

| | |
|---|---|
| Synopsis | Enter the **attribute-2** context |
| Context | **configure** router *named-item-64* radius proxy *named-item* load-balance-key attribute-2 |
| Tree | attribute-2 |
| Notes | The following elements are part of a choice: (**attribute-1**, **attribute-2**, **attribute-3**, **attribute-4**, and **attribute-5**) or **source-ip-udp**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## type *number*

| | |
|---|---|
| Synopsis | Attribute type to cache for this RADIUS Proxy server |
| Context | **configure** router *named-item-64* radius proxy *named-item* load-balance-key attribute-2 type *number* |
| Tree | type |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## vendor *(number | keyword)*

| | |
|---|---|
| Synopsis | Vendor-Id attribute |
| Context | **configure** router *named-item-64* radius proxy *named-item* load-balance-key attribute-2 vendor *(number | keyword)* |
| Tree | vendor |
| Range | 1 to 16777215 |
| Options | nokia |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## attribute-3

| | |
|---|---|
| Synopsis | Enter the **attribute-3** context |
| Context | **configure** router *named-item-64* radius proxy *named-item* load-balance-key attribute-3 |
| Tree | attribute-3 |
| Notes | The following elements are part of a choice: (**attribute-1**, **attribute-2**, **attribute-3**, **attribute-4**, and **attribute-5**) or **source-ip-udp**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## type *number*

| | |
|---|---|
| Synopsis | Attribute type to cache for this RADIUS Proxy server |
| Context | **configure** router *named-item-64* radius proxy *named-item* load-balance-key attribute-3 type *number* |
| Tree | type |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## vendor *(number | keyword)*

| | |
|---|---|
| Synopsis | Vendor-Id attribute |
| Context | **configure** router *named-item-64* radius proxy *named-item* load-balance-key attribute-3 vendor *(number \| keyword)* |
| Tree | vendor |
| Range | 1 to 16777215 |
| Options | nokia |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## attribute-4

| | |
|---|---|
| Synopsis | Enter the **attribute-4** context |
| Context | **configure** router *named-item-64* radius proxy *named-item* load-balance-key attribute-4 |
| Tree | attribute-4 |


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| | |
|---|---|
| Notes | The following elements are part of a choice: (**attribute-1**, **attribute-2**, **attribute-3**, **attribute-4**, and **attribute-5**) or **source-ip-udp**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **type** *number*

| | |
|---|---|
| Synopsis | Attribute type to cache for this RADIUS Proxy server |
| Context | **configure** router *named-item-64* radius proxy *named-item* load-balance-key attribute-4 type *number* |
| Tree | type |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **vendor** *(number | keyword)*

| | |
|---|---|
| Synopsis | Vendor-Id attribute |
| Context | **configure** router *named-item-64* radius proxy *named-item* load-balance-key attribute-4 vendor *(number | keyword)* |
| Tree | vendor |
| Range | 1 to 16777215 |
| Options | nokia |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **attribute-5**

| | |
|---|---|
| Synopsis | Enter the **attribute-5** context |
| Context | **configure** router *named-item-64* radius proxy *named-item* load-balance-key attribute-5 |
| Tree | attribute-5 |
| Notes | The following elements are part of a choice: (**attribute-1**, **attribute-2**, **attribute-3**, **attribute-4**, and **attribute-5**) or **source-ip-udp**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **type** *number*

| | |
|---|---|
| Synopsis | Attribute type to cache for this RADIUS Proxy server |
| Context | **configure** router *named-item-64* radius proxy *named-item* load-balance-key attribute-5 type *number* |
| Tree | type |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **vendor** *(number | keyword)*

| | |
|---|---|
| Synopsis | Vendor-Id attribute |
| Context | **configure** router *named-item-64* radius proxy *named-item* load-balance-key attribute-5 vendor *(number | keyword)* |
| Tree | vendor |
| Range | 1 to 16777215 |
| Options | nokia |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **source-ip-udp**

| | |
|---|---|
| Synopsis | Key to consist of the source IP address and source UDP port of the RADIUS message |
| Context | **configure** router *named-item-64* radius proxy *named-item* load-balance-key source-ip-udp |
| Tree | source-ip-udp |
| Notes | The following elements are part of a choice: (**attribute-1**, **attribute-2**, **attribute-3**, **attribute-4**, and **attribute-5**) or **source-ip-udp**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **purpose** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Purpose of the RADIUS proxy |
| Context | **configure** router *named-item-64* radius proxy *named-item* purpose *keyword* |
| Tree | purpose |
| Options | accounting, authentication, accounting-authentication |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **python-policy** *reference*

| | |
|---|---|
| Synopsis | Python policy |
| Context | **configure** router *named-item-64* radius proxy *named-item* python-policy *reference* |
| Tree | python-policy |
| Reference | **configure** python python-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **secret** *encrypted-leaf*

| | |
|---|---|
| Synopsis | Format of the secret key to access the RADIUS proxy server |
| Context | **configure** router *named-item-64* radius proxy *named-item* secret *encrypted-leaf* |
| Tree | secret |
| String length | 1 to 115 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **send-accounting-response** *boolean*

| | |
|---|---|
| Synopsis | Allow RADIUS proxy server to respond to Accounting-Response messages |


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| | |
|---|---|
| Context | **configure** router *named-item-64* radius proxy *named-item* send-accounting-response *boolean* |
| Tree | send-accounting-response |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## wlan-gw

| | |
|---|---|
| Synopsis | Enter the **wlan-gw** context |
| Context | **configure** router *named-item-64* radius proxy *named-item* wlan-gw |
| Tree | wlan-gw |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## address *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IPv4 address of the distributed RADIUS proxy server |
| Context | **configure** router *named-item-64* radius proxy *named-item* wlan-gw address *ipv4-unicast-address* |
| Tree | address |
| Description | This command configures the IPv4 address of the distributed RADIUS proxy server for use by the access points. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## ipv6-address *ipv6-unicast-without-local-address*

| | |
|---|---|
| Synopsis | IPv6 address of the distributed RADIUS proxy server |
| Context | **configure** router *named-item-64* radius proxy *named-item* wlan-gw ipv6-address *ipv6-unicast-without-local-address* |
| Tree | ipv6-address |
| Description | This command configures the IPv6 address of the distributed RADIUS proxy server for use by the access points. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **wlan-gw-group** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | ISA WLAN gateway group |
| Context | **configure** router *named-item-64* radius proxy *named-item* wlan-gw-group *reference* |
| Tree | wlan-gw-group |
| Reference | **configure** isa wlan-gw-group *number* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **server** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **server** list instance |
| Context | **configure** router *named-item-64* radius server *named-item* |
| Tree | server |
| Max. instances | 64 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | External RADIUS server name |
| Context | **configure** router *named-item-64* radius server *named-item* |
| Tree | server |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **accept-coa** *boolean*

| | |
|---|---|
| Synopsis | Process Change of Authorization (CoA) messages |


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| | |
|---|---|
| Context | **configure** router *named-item-64* radius server *named-item* accept-coa *boolean* |
| Tree | accept-coa |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **acct-port** *number*

| | |
|---|---|
| Synopsis | UDP port number of the RADIUS for accounting events |
| Context | **configure** router *named-item-64* radius server *named-item* acct-port *number* |
| Tree | acct-port |
| Range | 1 to 65535 |
| Default | 1813 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the RADIUS server |
| Context | **configure** router *named-item-64* radius server *named-item* address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | address |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **auth-port** *number*

| | |
|---|---|
| Synopsis | UDP port number of the RADIUS to be used as match criteria |
| Context | **configure** router *named-item-64* radius server *named-item* auth-port *number* |
| Tree | auth-port |
| Range | 1 to 65535 |
| Default | 1812 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** router *named-item-64* radius server *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **pending-requests-limit** *number*

| | |
|---|---|
| Synopsis | Limit of the number for pending RADIUS requests |
| Context | **configure** router *named-item-64* radius server *named-item* pending-requests-limit *number* |
| Tree | pending-requests-limit |
| Range | 1 to 4096 |
| Default | 4096 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **python-policy** *reference*

| | |
|---|---|
| Synopsis | Python script policy to modify CoA messages |
| Context | **configure** router *named-item-64* radius server *named-item* python-policy *reference* |
| Tree | python-policy |
| Reference | **configure** python python-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **secret** *encrypted-leaf*

| | |
|---|---|
| Synopsis | Secret key associated with this RADIUS server |
| Context | **configure** router *named-item-64* radius server *named-item* secret *encrypted-leaf* |
| Tree | secret |
| String length | 1 to 115 |


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| | |
|---|---|
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## reassembly

| | |
|---|---|
| Synopsis | Enable the **reassembly** context |
| Context | **configure** router *named-item-64* reassembly |
| Tree | reassembly |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## nat-group *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | NAT group (including WLAN Gateway group) that executes the reassembly |
| Context | **configure** router *named-item-64* reassembly nat-group *number* |
| Tree | nat-group |
| Max. range | 0 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## to-base-network *boolean*

| | |
|---|---|
| Synopsis | Allow reassembled traffic sent to network interface |
| Context | **configure** router *named-item-64* reassembly to-base-network *boolean* |
| Tree | to-base-network |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## rib-api

| | |
|---|---|
| Synopsis | Enter the **rib-api** context |
| Context | **configure** router *named-item-64* rib-api |
| Tree | rib-api |
| Introduced | 16.0.R4 |
| Platforms | All |

## mpls

| | |
|---|---|
| Synopsis | Enter the **mpls** context |
| Context | **configure** router *named-item-64* rib-api mpls |
| Tree | mpls |
| Introduced | 16.0.R4 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of MPLS for RIB-API gRPC service |
| Context | **configure** router *named-item-64* rib-api mpls admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R4 |
| Platforms | All |

## label-name *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Reserved label block |
| Context | **configure** router *named-item-64* rib-api mpls label-name *reference* |
| Tree | label-name |
| Reference | **configure** router *named-item-64* mpls-labels reserved-label-block *named-item-64* |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | All |

## rip

| | |
|---|---|
| Synopsis | Enable the **rip** context |
| Context | **configure** router *named-item-64* rip |
| Tree | rip |
| Introduced | 16.0.R4 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the RIP instance |
| Context | **configure** router *named-item-64* rip admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R4 |
| Platforms | All |

## authentication-key *encrypted-leaf*

| | |
|---|---|
| Synopsis | Authentication password passed between RIP neighbors |
| Context | **configure** router *named-item-64* rip authentication-key *encrypted-leaf* |
| Tree | authentication-key |
| Description | This command sets the authentication password to be passed between RIP neighbors. If the string contains special characters (#, $, spaces, and so on), the entire string must be enclosed within double quotes.<br>The authentication type and authentication key must match exactly for the RIP message to be considered authentic and processed.<br>When unconfigured, this command removes the authentication password from the configuration and disables authentication. |
| String length | 1 to 51 |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **authentication-type** *keyword*

| | |
|---|---|
| Synopsis | Authentication type used between RIP neighbors |
| Context | **configure** router *named-item-64* rip authentication-type *keyword* |
| Tree | authentication-type |
| Description | This command sets the type of authentication to be used between RIP neighbors.<br>The authentication type and authentication key must match exactly for the RIP message to be considered authentic and processed.<br>When unconfigured, this command removes the authentication type from the configuration and effectively disables authentication. |
| Options | none, password, md5, md20 |
| Default | none |
| Introduced | 16.0.R4 |
| Platforms | All |

### **bfd-liveness** *boolean*

| | |
|---|---|
| Synopsis | Enable BFD to control the state of protocol adjacency |
| Context | **configure** router *named-item-64* rip bfd-liveness *boolean* |
| Tree | bfd-liveness |
| Description | When configured to **true**, this command enables BFD to control the state of the associated protocol adjacency.<br>When configured to **false**, this command removes BFD from the associated protocol adjacency. |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **check-zero** *boolean*

| | |
|---|---|
| Synopsis | Enable checking of mandatory zero fields |
| Context | **configure** router *named-item-64* rip check-zero *boolean* |
| Tree | check-zero |
| Description | When configured to **true**, this command enables checking of the mandatory zero fields in the RIPv1 and RIPv2 specifications and rejecting non-compliant RIP messages.<br>When configured to **false**, this command disables the check and allows the receipt of RIP messages even if the mandatory zero fields are non-zero. |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** router *named-item-64* rip description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **export-limit**

| | |
|---|---|
| Synopsis | Enable the **export-limit** context |
| Context | **configure** router *named-item-64* rip export-limit |
| Tree | export-limit |
| Introduced | 16.0.R4 |
| Platforms | All |

### **log-percent** *number*

| | |
|---|---|
| Synopsis | Export limit before warning and SNMP notification sent |
| Context | **configure** router *named-item-64* rip export-limit log-percent *number* |
| Tree | log-percent |
| Range | 1 to 100 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **number** *number*

| | |
|---|---|
| Synopsis | Maximum routes or prefixes exported from route table |
| Context | **configure** router *named-item-64* rip export-limit number *number* |
| Tree | number |


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| | |
|---|---|
| Range | 1 to 4294967295 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **export-policy** *reference*

| | |
|---|---|
| Synopsis | Policies to determine exported routes |
| Context | **configure** router *named-item-64* rip export-policy *reference* |
| Tree | export-policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **group** [group-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **group** list instance |
| Context | **configure** router *named-item-64* rip group *named-item* |
| Tree | group |
| Introduced | 16.0.R4 |
| Platforms | All |

### [**group-name**] *named-item*

| | |
|---|---|
| Synopsis | RIP group name |
| Context | **configure** router *named-item-64* rip group *named-item* |
| Tree | group |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of RIP neighbor interface group |
| Context | **configure** router *named-item-64* rip group *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R4 |
| Platforms | All |

### **authentication-key** *encrypted-leaf*

| | |
|---|---|
| Synopsis | Authentication password passed between RIP neighbors |
| Context | **configure** router *named-item-64* rip group *named-item* authentication-key *encrypted-leaf* |
| Tree | authentication-key |
| Description | This command sets the authentication password to be passed between RIP neighbors. If the string contains special characters (#, $, spaces, and so on), the entire string must be enclosed within double quotes.<br>The authentication type and authentication key must match exactly for the RIP message to be considered authentic and processed.<br>When unconfigured, the authentication password is removed from the configuration and authentication is disabled. |
| String length | 1 to 51 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **authentication-type** *keyword*

| | |
|---|---|
| Synopsis | Authentication type |
| Context | **configure** router *named-item-64* rip group *named-item* authentication-type *keyword* |
| Tree | authentication-type |
| Description | This command configures the type of authentication to be used.<br>The authentication type and authentication key must match exactly for the RIP message to be considered authentic and processed.<br>When unconfigured, this command removes the authentication type from the configuration and effectively disables authentication. |


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| | |
|---|---|
| Options | none, password, md5, md20 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **bfd-liveness** *boolean*

| | |
|---|---|
| Synopsis | Enable BFD to control the state of protocol adjacency |
| Context | **configure** router *named-item-64* rip group *named-item* bfd-liveness *boolean* |
| Tree | bfd-liveness |
| Description | When configured to **true**, this command enables BFD to control the state of the associated protocol adjacency.<br>When configured to **false**, this command removes BFD from the associated protocol adjacency. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **check-zero** *boolean*

| | |
|---|---|
| Synopsis | Enable checking of mandatory zero fields |
| Context | **configure** router *named-item-64* rip group *named-item* check-zero *boolean* |
| Tree | check-zero |
| Description | When configured to **true**, this command enables checking of the mandatory zero fields in the RIPv1 and RIPv2 specifications and rejecting non-compliant RIP messages.<br>When configured to **false**, this command disables the check and allows the receipt of RIP messages even if the mandatory zero fields are non-zero. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** router *named-item-64* rip group *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R4 |
| Platforms | All |


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## **export-policy** *reference*

| | |
|---|---|
| Synopsis | Policies used to rule which routes are exported to RIP |
| Context | **configure** router *named-item-64* rip group *named-item* export-policy *reference* |
| Tree | export-policy |
| Description | This command specifies the export route policies used to determine which routes are exported to RIP.<br>If multiple policy names are specified, the policies are evaluated in the order they are specified. The first policy that matches is applied. |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R4 |
| Platforms | All |

## **import-policy** *reference*

| | |
|---|---|
| Synopsis | Policies to decide routes accepted from RIP neighbors |
| Context | **configure** router *named-item-64* rip group *named-item* import-policy *reference* |
| Tree | import-policy |
| Description | This command configures import route policies to determine which routes are accepted from RIP neighbors.<br>If multiple policy names are specified, the policies are evaluated in the order they are specified. The first policy that matches is applied. |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R4 |
| Platforms | All |

## **message-size** *number*

| | |
|---|---|
| Synopsis | Maximum number of routes per RIP update message |
| Context | **configure** router *named-item-64* rip group *named-item* message-size *number* |


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| | |
|---|---|
| Tree | message-size |
| Range | 25 to 255 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **metric-in** *number*

| | |
|---|---|
| Synopsis | Metric added to routes received from a RIP neighbor |
| Context | **configure** router *named-item-64* rip group *named-item* metric-in *number* |
| Tree | metric-in |
| Range | 1 to 16 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **metric-out** *number*

| | |
|---|---|
| Synopsis | Metric added to routes exported into RIP |
| Context | **configure** router *named-item-64* rip group *named-item* metric-out *number* |
| Tree | metric-out |
| Range | 1 to 16 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **neighbor** [interface-name] *interface-name*

| | |
|---|---|
| Synopsis | Enter the **neighbor** list instance |
| Context | **configure** router *named-item-64* rip group *named-item* neighbor *interface-name* |
| Tree | neighbor |
| Introduced | 16.0.R4 |
| Platforms | All |

### [**interface-name**] *interface-name*

| | |
|---|---|
| Synopsis | Neighbor added through the interface to the RIP group |
| Context | **configure** router *named-item-64* rip group *named-item* neighbor *interface-name* |


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| | |
|---|---|
| Tree | neighbor |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the RIP neighbor interface |
| Context | **configure** router *named-item-64* rip group *named-item* neighbor *interface-name* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R4 |
| Platforms | All |

## **authentication-key** *encrypted-leaf*

| | |
|---|---|
| Synopsis | Authentication password passed between RIP neighbors |
| Context | **configure** router *named-item-64* rip group *named-item* neighbor *interface-name* authentication-key *encrypted-leaf* |
| Tree | authentication-key |
| Description | This command sets the authentication password to be passed between RIP neighbors. If the string contains special characters (#, $, spaces, and so on), the entire string must be enclosed within double quotes.<br><br>The authentication type and authentication key must match exactly for the RIP message to be considered authentic and processed.<br><br>When unconfigured, this command removes the authentication password from the configuration and disables authentication. |
| String length | 1 to 51 |
| Introduced | 16.0.R4 |
| Platforms | All |

## **authentication-type** *keyword*

| | |
|---|---|
| Synopsis | Authentication type |


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| | |
|---|---|
| Context | **configure** router *named-item-64* rip group *named-item* neighbor *interface-name* authentication-type *keyword* |
| Tree | authentication-type |
| Description | This command configures the type of authentication to be used.<br>The authentication type and authentication key must match exactly for the RIP message to be considered authentic and processed.<br>When unconfigured, this command removes the authentication type from the configuration and effectively disables authentication. |
| Options | none, password, md5, md20 |
| Introduced | 16.0.R4 |
| Platforms | All |

## **bfd-liveness** *boolean*

| | |
|---|---|
| Synopsis | Enable BFD to control the state of protocol adjacency |
| Context | **configure** router *named-item-64* rip group *named-item* neighbor *interface-name* bfd-liveness *boolean* |
| Tree | bfd-liveness |
| Description | When configured to **true**, this command enables BFD to control the state of the associated protocol adjacency.<br>When configured to **false**, this command removes BFD from the associated protocol adjacency. |
| Introduced | 16.0.R4 |
| Platforms | All |

## **check-zero** *boolean*

| | |
|---|---|
| Synopsis | Enable checking of mandatory zero fields |
| Context | **configure** router *named-item-64* rip group *named-item* neighbor *interface-name* check-zero *boolean* |
| Tree | check-zero |
| Description | When configured to **true**, this command enables checking of the mandatory zero fields in the RIPv1 and RIPv2 specifications and rejecting non-compliant RIP messages.<br>When configured to **false**, this command disables the check and allows the receipt of RIP messages even if the mandatory zero fields are non-zero. |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** router *named-item-64* rip group *named-item* neighbor *interface-name* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **export-policy** *reference*

| | |
|---|---|
| Synopsis | Policies used to rule which routes are exported to RIP |
| Context | **configure** router *named-item-64* rip group *named-item* neighbor *interface-name* export-policy *reference* |
| Tree | export-policy |
| Description | This command specifies the export route policies used to determine which routes are exported to RIP.<br>If multiple policy names are specified, the policies are evaluated in the order they are specified. The first policy that matches is applied. |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **import-policy** *reference*

| | |
|---|---|
| Synopsis | Policies to decide routes accepted from RIP neighbors |
| Context | **configure** router *named-item-64* rip group *named-item* neighbor *interface-name* import-policy *reference* |
| Tree | import-policy |
| Description | This command configures import route policies to determine which routes are accepted from RIP neighbors.<br>If multiple policy names are specified, the policies are evaluated in the order they are specified. The first policy that matches is applied. |


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| | |
|---|---|
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R4 |
| Platforms | All |

## **message-size** *number*

| | |
|---|---|
| Synopsis | Maximum number of routes per RIP update message |
| Context | **configure** router *named-item-64* rip group *named-item* neighbor *interface-name* message-size *number* |
| Tree | message-size |
| Range | 25 to 255 |
| Introduced | 16.0.R4 |
| Platforms | All |

## **metric-in** *number*

| | |
|---|---|
| Synopsis | Metric added to routes received from a RIP neighbor |
| Context | **configure** router *named-item-64* rip group *named-item* neighbor *interface-name* metric-in *number* |
| Tree | metric-in |
| Range | 1 to 16 |
| Introduced | 16.0.R4 |
| Platforms | All |

## **metric-out** *number*

| | |
|---|---|
| Synopsis | Metric added to routes exported into RIP |
| Context | **configure** router *named-item-64* rip group *named-item* neighbor *interface-name* metric-out *number* |
| Tree | metric-out |
| Range | 1 to 16 |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **preference** *number*

| | |
|---|---|
| Synopsis | Route preference |
| Context | **configure** router *named-item-64* rip group *named-item* neighbor *interface-name* preference *number* |
| Tree | preference |
| Range | 1 to 255 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **receive** *keyword*

| | |
|---|---|
| Synopsis | Accepted version on received packets |
| Context | **configure** router *named-item-64* rip group *named-item* neighbor *interface-name* receive *keyword* |
| Tree | receive |
| Options | version-1, version-2, both, none |
| Introduced | 16.0.R4 |
| Platforms | All |

### **send** *keyword*

| | |
|---|---|
| Synopsis | RIP version and method used to send RIP updates |
| Context | **configure** router *named-item-64* rip group *named-item* neighbor *interface-name* send *keyword* |
| Tree | send |
| Options | none, version-1, broadcast, multicast, unicast |
| Introduced | 16.0.R4 |
| Platforms | All |

### **split-horizon** *boolean*

| | |
|---|---|
| Synopsis | Enable split horizon and poison reverse |
| Context | **configure** router *named-item-64* rip group *named-item* neighbor *interface-name* split-horizon *boolean* |
| Tree | split-horizon |


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| | |
|---|---|
| Description | When configured to **true**, this command enables the use of split horizon with poison reverse. Split-horizon with poison reverse means that routes learned from a neighbor through a given interface are advertised in updates out of the same interface but with a metric of 16 (infinity).<br>When configured to **false**. this command enables split horizon without poison reverse. This allows the routes to be re-advertised on interfaces other than the interface that learned the route, with the advertised metric equaling an increment of the metric-in value. |
| Introduced | 16.0.R4 |
| Platforms | All |

## timers

| | |
|---|---|
| Synopsis | Enable the **timers** context |
| Context | **configure** router *named-item-64* rip group *named-item* neighbor *interface-name* timers |
| Tree | timers |
| Introduced | 16.0.R4 |
| Platforms | All |

## flush *number*

| | |
|---|---|
| Synopsis | RIP flush timer |
| Context | **configure** router *named-item-64* rip group *named-item* neighbor *interface-name* timers flush *number* |
| Tree | flush |
| Description | This command specifies the time a route is maintained in the RIP database after it has been declared invalid. When the timer expires, the route is flushed from the RIP database completely. |
| Range | 1 to 1200 |
| Units | seconds |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

## timeout *number*

| | |
|---|---|
| Synopsis | RIP timeout timer |


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| | |
|---|---|
| Context | **configure** router *named-item-64* rip group *named-item* neighbor *interface-name* timers timeout *number* |
| Tree | timeout |
| Description | This command specifies the RIP timeout timer. If a route is not updated by the time the timer expires, the route is declared invalid, but the route is maintained in the RIP database. |
| Range | 1 to 1200 |
| Units | seconds |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **update** *number*

| | |
|---|---|
| Synopsis | Timer that controls the frequency of updates |
| Context | **configure** router *named-item-64* rip group *named-item* neighbor *interface-name* timers update *number* |
| Tree | update |
| Range | 1 to 600 |
| Units | seconds |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **unicast-address** [address] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Add a list entry for **unicast-address** |
| Context | **configure** router *named-item-64* rip group *named-item* neighbor *interface-name* unicast-address *ipv4-unicast-address* |
| Tree | unicast-address |
| Introduced | 16.0.R4 |
| Platforms | All |

### [**address**] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Unicast address for the neighbor |


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| | |
|---|---|
| Context | **configure** router *named-item-64* rip group *named-item* neighbor *interface-name* unicast-address *ipv4-unicast-address* |
| Tree | unicast-address |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

## **preference** *number*

| | |
|---|---|
| Synopsis | Route preference |
| Context | **configure** router *named-item-64* rip group *named-item* preference *number* |
| Tree | preference |
| Range | 1 to 255 |
| Introduced | 16.0.R4 |
| Platforms | All |

## **receive** *keyword*

| | |
|---|---|
| Synopsis | Accepted version on received packets |
| Context | **configure** router *named-item-64* rip group *named-item* receive *keyword* |
| Tree | receive |
| Options | version-1, version-2, both, none |
| Introduced | 16.0.R4 |
| Platforms | All |

## **send** *keyword*

| | |
|---|---|
| Synopsis | RIP version and method used to send RIP updates |
| Context | **configure** router *named-item-64* rip group *named-item* send *keyword* |
| Tree | send |
| Options | none, version-1, broadcast, multicast |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **split-horizon** *boolean*

| | |
|---|---|
| Synopsis | Enable split horizon and poison reverse |
| Context | **configure** router *named-item-64* rip group *named-item* split-horizon *boolean* |
| Tree | split-horizon |
| Description | When configured to **true**, this command enables the use of split horizon with poison reverse. Split-horizon with poison reverse means that routes learned from a neighbor through a given interface are advertised in updates out of the same interface but with a metric of 16 (infinity).<br>When configured to **false**. this command enables split horizon without poison reverse. This allows the routes to be re-advertised on interfaces other than the interface that learned the route, with the advertised metric equaling an increment of the metric-in value. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **timers**

| | |
|---|---|
| Synopsis | Enable the **timers** context |
| Context | **configure** router *named-item-64* rip group *named-item* timers |
| Tree | timers |
| Introduced | 16.0.R4 |
| Platforms | All |

### **flush** *number*

| | |
|---|---|
| Synopsis | RIP flush timer |
| Context | **configure** router *named-item-64* rip group *named-item* timers flush *number* |
| Tree | flush |
| Description | This command specifies the time a route is maintained in the RIP database after it has been declared invalid. When the timer expires, the route is flushed from the RIP database completely. |
| Range | 1 to 1200 |
| Units | seconds |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **timeout** *number*

| | |
|---|---|
| Synopsis | RIP timeout timer |
| Context | **configure** router *named-item-64* rip group *named-item* timers timeout *number* |
| Tree | timeout |
| Description | This command specifies the RIP timeout timer. If a route is not updated by the time the timer expires, the route is declared invalid, but the route is maintained in the RIP database. |
| Range | 1 to 1200 |
| Units | seconds |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **update** *number*

| | |
|---|---|
| Synopsis | Timer that controls the frequency of updates |
| Context | **configure** router *named-item-64* rip group *named-item* timers update *number* |
| Tree | update |
| Range | 1 to 600 |
| Units | seconds |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **import-policy** *reference*

| | |
|---|---|
| Synopsis | Import policies to decide routes for routing table |
| Context | **configure** router *named-item-64* rip import-policy *reference* |
| Tree | import-policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R4 |


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| | |
|---|---|
| Platforms | All |

### **message-size** *number*

| | |
|---|---|
| Synopsis | Maximum number of routes in the RIP message |
| Context | **configure** router *named-item-64* rip message-size *number* |
| Tree | message-size |
| Range | 25 to 255 |
| Default | 25 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **metric-in** *number*

| | |
|---|---|
| Synopsis | Metric added to routes received from a RIP neighbor |
| Context | **configure** router *named-item-64* rip metric-in *number* |
| Tree | metric-in |
| Range | 1 to 16 |
| Default | 1 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **metric-out** *number*

| | |
|---|---|
| Synopsis | Metric added to routes exported into RIP |
| Context | **configure** router *named-item-64* rip metric-out *number* |
| Tree | metric-out |
| Range | 1 to 16 |
| Default | 1 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **preference** *number*

| | |
|---|---|
| Synopsis | Route preference |


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| | |
|---|---|
| Context | **configure** router *named-item-64* rip preference *number* |
| Tree | preference |
| Range | 1 to 255 |
| Default | 100 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **receive** *keyword*

| | |
|---|---|
| Synopsis | Accepted version on received packets |
| Context | **configure** router *named-item-64* rip receive *keyword* |
| Tree | receive |
| Options | version-1, version-2, both, none |
| Default | both |
| Introduced | 16.0.R4 |
| Platforms | All |

### **send** *keyword*

| | |
|---|---|
| Synopsis | RIP version and method used to send RIP updates |
| Context | **configure** router *named-item-64* rip send *keyword* |
| Tree | send |
| Options | none, version-1, broadcast, multicast |
| Default | broadcast |
| Introduced | 16.0.R4 |
| Platforms | All |

### **split-horizon** *boolean*

| | |
|---|---|
| Synopsis | Enable split horizon and poison reverse |
| Context | **configure** router *named-item-64* rip split-horizon *boolean* |
| Tree | split-horizon |
| Description | When configured to **true**, this command enables the use of split horizon with poison reverse. Split-horizon with poison reverse means that routes learned from a neighbor through a given interface are advertised in updates out of the same interface but with a metric of 16 (infinity). |


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| | |
|---|---|
| | When configured to **false**. this command enables split horizon without poison reverse. This allows the routes to be re-advertised on interfaces other than the interface that learned the route, with the advertised metric equaling an increment of the metric-in value. |
| Default | true |
| Introduced | 16.0.R4 |
| Platforms | All |

## timers

| | |
|---|---|
| Synopsis | Enable the **timers** context |
| Context | **configure** router *named-item-64* rip timers |
| Tree | timers |
| Introduced | 16.0.R4 |
| Platforms | All |

## flush *number*

| | |
|---|---|
| Synopsis | RIP flush timer |
| Context | **configure** router *named-item-64* rip timers flush *number* |
| Tree | flush |
| Description | This command specifies the time a route is maintained in the RIP database after it has been declared invalid. When the timer expires, the route is flushed from the RIP database completely. |
| Range | 1 to 1200 |
| Units | seconds |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

## timeout *number*

| | |
|---|---|
| Synopsis | RIP timeout timer |
| Context | **configure** router *named-item-64* rip timers timeout *number* |
| Tree | timeout |


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| | |
|---|---|
| Description | This command specifies the RIP timeout timer. If a route is not updated by the time the timer expires, the route is declared invalid, but the route is maintained in the RIP database. |
| Range | 1 to 1200 |
| Units | seconds |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **update** *number*

| | |
|---|---|
| Synopsis | Timer that controls the frequency of updates |
| Context | **configure** router *named-item-64* rip timers update *number* |
| Tree | update |
| Range | 1 to 600 |
| Units | seconds |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **ripng**

| | |
|---|---|
| Synopsis | Enable the **ripng** context |
| Context | **configure** router *named-item-64* ripng |
| Tree | ripng |
| Introduced | 16.0.R4 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the RIPng instance |
| Context | **configure** router *named-item-64* ripng admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | All |

### **bfd-liveness** *boolean*

| | |
|---|---|
| Synopsis | Enable BFD to control the state of protocol adjacency |
| Context | **configure** router *named-item-64* ripng bfd-liveness *boolean* |
| Tree | bfd-liveness |
| Description | When configured to **true**, this command enables BFD to control the state of the associated protocol adjacency.<br>When configured to **false**, this command removes BFD from the associated protocol adjacency. |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **check-zero** *boolean*

| | |
|---|---|
| Synopsis | Enable checking of mandatory zero fields |
| Context | **configure** router *named-item-64* ripng check-zero *boolean* |
| Tree | check-zero |
| Description | When configured to **true**, this command enables checking of the mandatory zero fields in the RIPv1 and RIPv2 specifications and rejecting non-compliant RIP messages.<br>When configured to **false**, this command disables the check and allows the receipt of RIP messages even if the mandatory zero fields are non-zero. |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** router *named-item-64* ripng description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R4 |


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| | |
|---|---|
| Platforms | All |

## export-limit

| | |
|---|---|
| Synopsis | Enable the **export-limit** context |
| Context | **configure** router *named-item-64* ripng export-limit |
| Tree | export-limit |
| Introduced | 16.0.R4 |
| Platforms | All |

## log-percent *number*

| | |
|---|---|
| Synopsis | Export limit before warning and SNMP notification sent |
| Context | **configure** router *named-item-64* ripng export-limit log-percent *number* |
| Tree | log-percent |
| Range | 1 to 100 |
| Introduced | 16.0.R4 |
| Platforms | All |

## number *number*

| | |
|---|---|
| Synopsis | Maximum routes or prefixes exported from route table |
| Context | **configure** router *named-item-64* ripng export-limit number *number* |
| Tree | number |
| Range | 1 to 4294967295 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

## export-policy *reference*

| | |
|---|---|
| Synopsis | Policies to determine exported routes |
| Context | **configure** router *named-item-64* ripng export-policy *reference* |
| Tree | export-policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |


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| | |
|---|---|
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **group** [group-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **group** list instance |
| Context | **configure** router *named-item-64* ripng group *named-item* |
| Tree | group |
| Introduced | 16.0.R4 |
| Platforms | All |

### [**group-name**] *named-item*

| | |
|---|---|
| Synopsis | RIP group name |
| Context | **configure** router *named-item-64* ripng group *named-item* |
| Tree | group |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of RIPng neighbor interface group |
| Context | **configure** router *named-item-64* ripng group *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **bfd-liveness** *boolean*

| | |
|---|---|
| Synopsis | Enable BFD to control the state of protocol adjacency |
| Context | **configure** router *named-item-64* ripng group *named-item* bfd-liveness *boolean* |
| Tree | bfd-liveness |
| Description | When configured to **true**, this command enables BFD to control the state of the associated protocol adjacency.<br>When configured to **false**, this command removes BFD from the associated protocol adjacency. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **check-zero** *boolean*

| | |
|---|---|
| Synopsis | Enable checking of mandatory zero fields |
| Context | **configure** router *named-item-64* ripng group *named-item* check-zero *boolean* |
| Tree | check-zero |
| Description | When configured to **true**, this command enables checking of the mandatory zero fields in the RIPv1 and RIPv2 specifications and rejecting non-compliant RIP messages.<br>When configured to **false**, this command disables the check and allows the receipt of RIP messages even if the mandatory zero fields are non-zero. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** router *named-item-64* ripng group *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **export-policy** *reference*

| | |
|---|---|
| Synopsis | Policies used to rule which routes are exported to RIP |


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| | |
|---|---|
| Context | **configure** router *named-item-64* ripng group *named-item* export-policy *reference* |
| Tree | export-policy |
| Description | This command specifies the export route policies used to determine which routes are exported to RIP.<br>If multiple policy names are specified, the policies are evaluated in the order they are specified. The first policy that matches is applied. |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R4 |
| Platforms | All |

## **import-policy** *reference*

| | |
|---|---|
| Synopsis | Policies to decide routes accepted from RIP neighbors |
| Context | **configure** router *named-item-64* ripng group *named-item* import-policy *reference* |
| Tree | import-policy |
| Description | This command configures import route policies to determine which routes are accepted from RIP neighbors.<br>If multiple policy names are specified, the policies are evaluated in the order they are specified. The first policy that matches is applied. |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R4 |
| Platforms | All |

## **message-size** *number*

| | |
|---|---|
| Synopsis | Maximum number of routes in the message |
| Context | **configure** router *named-item-64* ripng group *named-item* message-size *number* |
| Tree | message-size |
| Range | 25 to 255 |
| Introduced | 16.0.R4 |


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| | |
|---|---|
| Platforms | All |

### **metric-in** *number*

| | |
|---|---|
| Synopsis | Metric added to routes received from the neighbor |
| Context | **configure** router *named-item-64* ripng group *named-item* metric-in *number* |
| Tree | metric-in |
| Range | 1 to 16 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **metric-out** *number*

| | |
|---|---|
| Synopsis | Metric added to routes exported into RIPng |
| Context | **configure** router *named-item-64* ripng group *named-item* metric-out *number* |
| Tree | metric-out |
| Range | 1 to 16 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **neighbor** [interface-name] *interface-name*

| | |
|---|---|
| Synopsis | Enter the **neighbor** list instance |
| Context | **configure** router *named-item-64* ripng group *named-item* neighbor *interface-name* |
| Tree | neighbor |
| Introduced | 16.0.R4 |
| Platforms | All |

### [**interface-name**] *interface-name*

| | |
|---|---|
| Synopsis | Neighbor added to the RIPng group through the interface |
| Context | **configure** router *named-item-64* ripng group *named-item* neighbor *interface-name* |
| Tree | neighbor |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the RIPng neighbor |
| Context | **configure** router *named-item-64* ripng group *named-item* neighbor *interface-name* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R4 |
| Platforms | All |

### **bfd-liveness** *boolean*

| | |
|---|---|
| Synopsis | Enable BFD to control the state of protocol adjacency |
| Context | **configure** router *named-item-64* ripng group *named-item* neighbor *interface-name* bfd-liveness *boolean* |
| Tree | bfd-liveness |
| Description | When configured to **true**, this command enables BFD to control the state of the associated protocol adjacency.<br>When configured to **false**, this command removes BFD from the associated protocol adjacency. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **check-zero** *boolean*

| | |
|---|---|
| Synopsis | Enable checking of mandatory zero fields |
| Context | **configure** router *named-item-64* ripng group *named-item* neighbor *interface-name* check-zero *boolean* |
| Tree | check-zero |
| Description | When configured to **true**, this command enables checking of the mandatory zero fields in the RIPv1 and RIPv2 specifications and rejecting non-compliant RIP messages.<br>When configured to **false**, this command disables the check and allows the receipt of RIP messages even if the mandatory zero fields are non-zero. |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | All |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** router *named-item-64* ripng group *named-item* neighbor *interface-name* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R4 |
| Platforms | All |

## **export-policy** *reference*

| | |
|---|---|
| Synopsis | Policies used to rule which routes are exported to RIP |
| Context | **configure** router *named-item-64* ripng group *named-item* neighbor *interface-name* export-policy *reference* |
| Tree | export-policy |
| Description | This command specifies the export route policies used to determine which routes are exported to RIP.<br>If multiple policy names are specified, the policies are evaluated in the order they are specified. The first policy that matches is applied. |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R4 |
| Platforms | All |

## **import-policy** *reference*

| | |
|---|---|
| Synopsis | Policies to decide routes accepted from RIP neighbors |
| Context | **configure** router *named-item-64* ripng group *named-item* neighbor *interface-name* import-policy *reference* |
| Tree | import-policy |


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| | |
|---|---|
| Description | This command configures import route policies to determine which routes are accepted from RIP neighbors.<br>If multiple policy names are specified, the policies are evaluated in the order they are specified. The first policy that matches is applied. |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R4 |
| Platforms | All |

## **message-size** *number*

| | |
|---|---|
| Synopsis | Maximum number of routes in the message |
| Context | **configure** router *named-item-64* ripng group *named-item* neighbor *interface-name* message-size *number* |
| Tree | message-size |
| Range | 25 to 255 |
| Introduced | 16.0.R4 |
| Platforms | All |

## **metric-in** *number*

| | |
|---|---|
| Synopsis | Metric added to routes received from the neighbor |
| Context | **configure** router *named-item-64* ripng group *named-item* neighbor *interface-name* metric-in *number* |
| Tree | metric-in |
| Range | 1 to 16 |
| Introduced | 16.0.R4 |
| Platforms | All |

## **metric-out** *number*

| | |
|---|---|
| Synopsis | Metric added to routes exported into RIPng |
| Context | **configure** router *named-item-64* ripng group *named-item* neighbor *interface-name* metric-out *number* |
| Tree | metric-out |


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| | |
|---|---|
| Range | 1 to 16 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **preference** *number*

| | |
|---|---|
| Synopsis | Route preference |
| Context | **configure** router *named-item-64* ripng group *named-item* neighbor *interface-name* preference *number* |
| Tree | preference |
| Range | 1 to 255 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **receive** *keyword*

| | |
|---|---|
| Synopsis | Accepted version on received packets |
| Context | **configure** router *named-item-64* ripng group *named-item* neighbor *interface-name* receive *keyword* |
| Tree | receive |
| Options | none, ripng |
| Introduced | 16.0.R4 |
| Platforms | All |

### **send** *keyword*

| | |
|---|---|
| Synopsis | RIPng version and method used to send RIPng updates |
| Context | **configure** router *named-item-64* ripng group *named-item* neighbor *interface-name* send *keyword* |
| Tree | send |
| Options | none, ripng, unicast |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **split-horizon** *boolean*

| | |
|---|---|
| Synopsis | Enable split horizon and poison reverse |
| Context | **configure** router *named-item-64* ripng group *named-item* neighbor *interface-name* split-horizon *boolean* |
| Tree | split-horizon |
| Description | When configured to **true**, this command enables the use of split horizon with poison reverse. Split-horizon with poison reverse means that routes learned from a neighbor through a given interface are advertised in updates out of the same interface but with a metric of 16 (infinity).<br><br>When configured to **false**. this command enables split horizon without poison reverse. This allows the routes to be re-advertised on interfaces other than the interface that learned the route, with the advertised metric equaling an increment of the metric-in value. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **timers**

| | |
|---|---|
| Synopsis | Enable the **timers** context |
| Context | **configure** router *named-item-64* ripng group *named-item* neighbor *interface-name* timers |
| Tree | timers |
| Introduced | 16.0.R4 |
| Platforms | All |

### **flush** *number*

| | |
|---|---|
| Synopsis | RIP flush timer |
| Context | **configure** router *named-item-64* ripng group *named-item* neighbor *interface-name* timers flush *number* |
| Tree | flush |
| Description | This command specifies the time a route is maintained in the RIP database after it has been declared invalid. When the timer expires, the route is flushed from the RIP database completely. |
| Range | 1 to 1200 |
| Units | seconds |
| Notes | This element is mandatory. |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | All |

### **timeout** *number*

| | |
|---|---|
| Synopsis | RIP timeout timer |
| Context | **configure** router *named-item-64* ripng group *named-item* neighbor *interface-name* timers timeout *number* |
| Tree | timeout |
| Description | This command specifies the RIP timeout timer. If a route is not updated by the time the timer expires, the route is declared invalid, but the route is maintained in the RIP database. |
| Range | 1 to 1200 |
| Units | seconds |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **update** *number*

| | |
|---|---|
| Synopsis | Timer that controls the frequency of updates |
| Context | **configure** router *named-item-64* ripng group *named-item* neighbor *interface-name* timers update *number* |
| Tree | update |
| Range | 1 to 600 |
| Units | seconds |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **unicast-address** [address] *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Add a list entry for **unicast-address** |
| Context | **configure** router *named-item-64* ripng group *named-item* neighbor *interface-name* unicast-address *ipv6-unicast-address* |
| Tree | unicast-address |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | All |

### [**address**] *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Unicast address for the neighbor |
| Context | **configure** router *named-item-64* ripng group *named-item* neighbor *interface-name* unicast-address *ipv6-unicast-address* |
| Tree | unicast-address |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **preference** *number*

| | |
|---|---|
| Synopsis | Route preference |
| Context | **configure** router *named-item-64* ripng group *named-item* preference *number* |
| Tree | preference |
| Range | 1 to 255 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **receive** *keyword*

| | |
|---|---|
| Synopsis | Accepted version on received packets |
| Context | **configure** router *named-item-64* ripng group *named-item* receive *keyword* |
| Tree | receive |
| Options | none, ripng |
| Introduced | 16.0.R4 |
| Platforms | All |

### **send** *keyword*

| | |
|---|---|
| Synopsis | RIPng version and method used to send RIPng updates |
| Context | **configure** router *named-item-64* ripng group *named-item* send *keyword* |


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| | |
|---|---|
| Tree | send |
| Options | none, ripng |
| Introduced | 16.0.R4 |
| Platforms | All |

### **split-horizon** *boolean*

| | |
|---|---|
| Synopsis | Enable split horizon and poison reverse |
| Context | **configure** router *named-item-64* ripng group *named-item* split-horizon *boolean* |
| Tree | split-horizon |
| Description | When configured to **true**, this command enables the use of split horizon with poison reverse. Split-horizon with poison reverse means that routes learned from a neighbor through a given interface are advertised in updates out of the same interface but with a metric of 16 (infinity).<br>When configured to **false**. this command enables split horizon without poison reverse. This allows the routes to be re-advertised on interfaces other than the interface that learned the route, with the advertised metric equaling an increment of the metric-in value. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **timers**

| | |
|---|---|
| Synopsis | Enable the **timers** context |
| Context | **configure** router *named-item-64* ripng group *named-item* timers |
| Tree | timers |
| Introduced | 16.0.R4 |
| Platforms | All |

### **flush** *number*

| | |
|---|---|
| Synopsis | RIP flush timer |
| Context | **configure** router *named-item-64* ripng group *named-item* timers flush *number* |
| Tree | flush |
| Description | This command specifies the time a route is maintained in the RIP database after it has been declared invalid. When the timer expires, the route is flushed from the RIP database completely. |


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| | |
|---|---|
| Range | 1 to 1200 |
| Units | seconds |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **timeout** *number*

| | |
|---|---|
| Synopsis | RIP timeout timer |
| Context | **configure** router *named-item-64* ripng group *named-item* timers timeout *number* |
| Tree | timeout |
| Description | This command specifies the RIP timeout timer. If a route is not updated by the time the timer expires, the route is declared invalid, but the route is maintained in the RIP database. |
| Range | 1 to 1200 |
| Units | seconds |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **update** *number*

| | |
|---|---|
| Synopsis | Timer that controls the frequency of updates |
| Context | **configure** router *named-item-64* ripng group *named-item* timers update *number* |
| Tree | update |
| Range | 1 to 600 |
| Units | seconds |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **import-policy** *reference*

| | |
|---|---|
| Synopsis | Import policies to decide routes for routing table |
| Context | **configure** router *named-item-64* ripng import-policy *reference* |


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| | |
|---|---|
| Tree | import-policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **message-size** *number*

| | |
|---|---|
| Synopsis | Maximum number of routes in the message |
| Context | **configure** router *named-item-64* ripng message-size *number* |
| Tree | message-size |
| Range | 25 to 255 |
| Default | 25 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **metric-in** *number*

| | |
|---|---|
| Synopsis | Metric added to routes received from the neighbor |
| Context | **configure** router *named-item-64* ripng metric-in *number* |
| Tree | metric-in |
| Range | 1 to 16 |
| Default | 1 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **metric-out** *number*

| | |
|---|---|
| Synopsis | Metric added to routes exported into RIPng |
| Context | **configure** router *named-item-64* ripng metric-out *number* |
| Tree | metric-out |
| Range | 1 to 16 |
| Default | 1 |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | All |

### **preference** *number*

| | |
|---|---|
| Synopsis | Route preference |
| Context | **configure** router *named-item-64* ripng preference *number* |
| Tree | preference |
| Range | 1 to 255 |
| Default | 100 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **receive** *keyword*

| | |
|---|---|
| Synopsis | Accepted version on received packets |
| Context | **configure** router *named-item-64* ripng receive *keyword* |
| Tree | receive |
| Options | none, ripng |
| Default | ripng |
| Introduced | 16.0.R4 |
| Platforms | All |

### **send** *keyword*

| | |
|---|---|
| Synopsis | RIPng version and method used to send RIPng updates |
| Context | **configure** router *named-item-64* ripng send *keyword* |
| Tree | send |
| Options | none, ripng |
| Default | ripng |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **split-horizon** *boolean*

| | |
|---|---|
| Synopsis | Enable split horizon and poison reverse |
| Context | **configure** router *named-item-64* ripng split-horizon *boolean* |
| Tree | split-horizon |
| Description | When configured to **true**, this command enables the use of split horizon with poison reverse. Split-horizon with poison reverse means that routes learned from a neighbor through a given interface are advertised in updates out of the same interface but with a metric of 16 (infinity).<br>When configured to **false**, this command enables split horizon without poison reverse. This allows the routes to be re-advertised on interfaces other than the interface that learned the route, with the advertised metric equaling an increment of the metric-in value. |
| Default | true |
| Introduced | 16.0.R4 |
| Platforms | All |

### **timers**

| | |
|---|---|
| Synopsis | Enable the **timers** context |
| Context | **configure** router *named-item-64* ripng timers |
| Tree | timers |
| Introduced | 16.0.R4 |
| Platforms | All |

### **flush** *number*

| | |
|---|---|
| Synopsis | RIP flush timer |
| Context | **configure** router *named-item-64* ripng timers flush *number* |
| Tree | flush |
| Description | This command specifies the time a route is maintained in the RIP database after it has been declared invalid. When the timer expires, the route is flushed from the RIP database completely. |
| Range | 1 to 1200 |
| Units | seconds |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |


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| | |
|---|---|
| Platforms | All |

### **timeout** *number*

| | |
|---|---|
| Synopsis | RIP timeout timer |
| Context | **configure** router *named-item-64* ripng timers timeout *number* |
| Tree | timeout |
| Description | This command specifies the RIP timeout timer. If a route is not updated by the time the timer expires, the route is declared invalid, but the route is maintained in the RIP database. |
| Range | 1 to 1200 |
| Units | seconds |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **update** *number*

| | |
|---|---|
| Synopsis | Timer that controls the frequency of updates |
| Context | **configure** router *named-item-64* ripng timers update *number* |
| Tree | update |
| Range | 1 to 600 |
| Units | seconds |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **router-id** *router-id*

| | |
|---|---|
| Synopsis | Unique router ID for the router in the AS |
| Context | **configure** router *named-item-64* router-id *router-id* |
| Tree | router-id |
| Introduced | 16.0.R1 |
| Platforms | All |


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## rsvp

| | |
|---|---|
| Synopsis | Enable the **rsvp** context |
| Context | **configure** router *named-item-64* rsvp |
| Tree | rsvp |
| Introduced | 16.0.R1 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of RSVP |
| Context | **configure** router *named-item-64* rsvp admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

## authentication-over-bypass *boolean*

| | |
|---|---|
| Synopsis | Enable MD5 authentication over bypass LSP of PLR and MP |
| Context | **configure** router *named-item-64* rsvp authentication-over-bypass *boolean* |
| Tree | authentication-over-bypass |
| Description | When configured to **true**, this command configures the MD5 authentication over the bypass LSP of all Point of Local Repairs (PLRs) and Merge Points (MPs) on the router. Only enable this command when the TE interfaces in the RSVP-TE network use the same MD5 authentication parameters.<br><br>When a Point of Local Repair (PLR) activates a bypass LSP towards a Merge Point (MP), by default, the INTEGRITY object corresponding to the bypass LSP interface is not added to a transmitted RSVP message except for packets of routed RSVP messages (Resv, Srefresh, and ACK), and only when the packet is intended for a bypass LSP endpoint (PLR or MP) that is a directly connected neighbor.<br><br>When this command is enabled, the INTEGRITY object of the interface corresponding to the bypass LSP is added to a transmitted RSVP message regardless of whether the bypass LSP endpoint (PLR or MP) is a directly connected RSVP neighbor. The INTEGRITY object is included with the following RSVP messages: Path, PathTear, Path Err, Resv, ResvTear, ResvErr, Srefresh, and ACK.<br><br>In all cases, an RSVP message received from a PLR or a MP (sender address in the SenderTemplate oe FilterSpec is different from an Extended Tunnel Id in a Session |


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Object), and which includes the INTEGRITY object is authenticated against the bypass LSP interface. An RSVP message received from a PLR or MP without the INTEGRITY object is also accepted.

When configured to **false**, the router disables MD5 authentication over bypass LSP of the PLRs and MPs.

| | |
|---|---|
| Default | false |
| Introduced | 22.10.R1 |
| Platforms | All |

## dbw-accounting

| | |
|---|---|
| Synopsis | Enable the **dbw-accounting** context |
| Context | **configure** router *named-item-64* rsvp dbw-accounting |
| Tree | dbw-accounting |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## dbw-multiplier *number*

| | |
|---|---|
| Synopsis | Dark Bandwidth multiplier |
| Context | **configure** router *named-item-64* rsvp dbw-accounting dbw-multiplier *number* |
| Tree | dbw-multiplier |
| Range | 0 to 1000 |
| Units | percent |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## down-threshold

| | |
|---|---|
| Synopsis | Enter the **down-threshold** context |
| Context | **configure** router *named-item-64* rsvp dbw-accounting down-threshold |
| Tree | down-threshold |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-s, 7950 XRS, VSR |


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### **bw** *number*

| | |
|---|---|
| Synopsis | Minimum difference in MRLB or MRB to trigger an update |
| Context | **configure** router *named-item-64* rsvp dbw-accounting down-threshold bw *number* |
| Tree | bw |
| Range | 0 to 1000000 |
| Units | megabps |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **percent** *number*

| | |
|---|---|
| Synopsis | Minimum difference in percent between dark bandwidth and sampled data rate, to trigger IGP-TE update |
| Context | **configure** router *named-item-64* rsvp dbw-accounting down-threshold percent *number* |
| Tree | percent |
| Range | 0 to 100 |
| Units | percent |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **sample-interval** *number*

| | |
|---|---|
| Synopsis | Dark Bandwidth sample interval |
| Context | **configure** router *named-item-64* rsvp dbw-accounting sample-interval *number* |
| Tree | sample-interval |
| Range | 10 to 600 |
| Units | seconds |
| Default | 30 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-s, 7950 XRS, VSR |


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### **sample-multiplier** *number*

| | |
|---|---|
| Synopsis | Dark Bandwidth sample multiplier |
| Context | **configure** router *named-item-64* rsvp dbw-accounting sample-multiplier *number* |
| Tree | sample-multiplier |
| Range | 1 to 10 |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **up-threshold**

| | |
|---|---|
| Synopsis | Enter the **up-threshold** context |
| Context | **configure** router *named-item-64* rsvp dbw-accounting up-threshold |
| Tree | up-threshold |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **bw** *number*

| | |
|---|---|
| Synopsis | Minimum difference in MRLB or MRB to trigger an update |
| Context | **configure** router *named-item-64* rsvp dbw-accounting up-threshold bw *number* |
| Tree | bw |
| Range | 0 to 1000000 |
| Units | megabps |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **percent** *number*

| | |
|---|---|
| Synopsis | Minimum difference in percent between dark bandwidth and sampled data rate, to trigger IGP-TE update |
| Context | **configure** router *named-item-64* rsvp dbw-accounting up-threshold percent *number* |
| Tree | percent |
| Range | 0 to 100 |


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| | |
|---|---|
| Units | percent |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## diffserv-te

| | |
|---|---|
| Synopsis | Enable the **diffserv-te** context |
| Context | **configure** router *named-item-64* rsvp diffserv-te |
| Tree | diffserv-te |
| Introduced | 16.0.R1 |
| Platforms | All |

## admission-control-model *keyword*

| | |
|---|---|
| Synopsis | Parameters for the DiffServ TE node |
| Context | **configure** router *named-item-64* rsvp diffserv-te admission-control-model *keyword* |
| Tree | admission-control-model |
| Options | mam, rdm |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## class-type-bw

| | |
|---|---|
| Synopsis | Enter the **class-type-bw** context |
| Context | **configure** router *named-item-64* rsvp diffserv-te class-type-bw |
| Tree | class-type-bw |
| Introduced | 16.0.R1 |
| Platforms | All |

## ct0 *number*

| | |
|---|---|
| Synopsis | RSVP interface bandwidth percentage for class type 0 |
| Context | **configure** router *named-item-64* rsvp diffserv-te class-type-bw ct0 *number* |


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| | |
|---|---|
| Tree | ct0 |
| Range | 0 to 100 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ct1** *number*

| | |
|---|---|
| Synopsis | RSVP interface bandwidth percentage for class type 1 |
| Context | **configure** router *named-item-64* rsvp diffserv-te class-type-bw ct1 *number* |
| Tree | ct1 |
| Range | 0 to 100 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ct2** *number*

| | |
|---|---|
| Synopsis | RSVP interface bandwidth percentage for class type 2 |
| Context | **configure** router *named-item-64* rsvp diffserv-te class-type-bw ct2 *number* |
| Tree | ct2 |
| Range | 0 to 100 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ct3** *number*

| | |
|---|---|
| Synopsis | RSVP interface bandwidth percentage for class type 3 |
| Context | **configure** router *named-item-64* rsvp diffserv-te class-type-bw ct3 *number* |
| Tree | ct3 |
| Range | 0 to 100 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **ct4** *number*

| | |
|---|---|
| Synopsis | RSVP interface bandwidth percentage for class type 4 |
| Context | **configure** router *named-item-64* rsvp diffserv-te class-type-bw ct4 *number* |
| Tree | ct4 |
| Range | 0 to 100 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ct5** *number*

| | |
|---|---|
| Synopsis | RSVP interface bandwidth percentage for class type 5 |
| Context | **configure** router *named-item-64* rsvp diffserv-te class-type-bw ct5 *number* |
| Tree | ct5 |
| Range | 0 to 100 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ct6** *number*

| | |
|---|---|
| Synopsis | RSVP interface bandwidth percentage for class type 6 |
| Context | **configure** router *named-item-64* rsvp diffserv-te class-type-bw ct6 *number* |
| Tree | ct6 |
| Range | 0 to 100 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ct7** *number*

| | |
|---|---|
| Synopsis | RSVP interface bandwidth percentage for class type 7 |
| Context | **configure** router *named-item-64* rsvp diffserv-te class-type-bw ct7 *number* |
| Tree | ct7 |


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| | |
|---|---|
| Range | 0 to 100 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **fc** [fc-name] *keyword*

| | |
|---|---|
| Synopsis | Enter the **fc** list instance |
| Context | **configure** router *named-item-64* rsvp diffserv-te fc *keyword* |
| Tree | fc |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**fc-name**] *keyword*

| | |
|---|---|
| Synopsis | Forwarding class for this mapping |
| Context | **configure** router *named-item-64* rsvp diffserv-te fc *keyword* |
| Tree | fc |
| Options | be – Best effort<br>l2 – Low 2 (best effort)<br>af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority)<br>ef – Expedited forwarding (high priority)<br>h1 – High 1 (high priority)<br>nc – Network control (high priority) |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **class-type** *number*

| | |
|---|---|
| Synopsis | Diff-Serv Class Type (CT) for an LSP |
| Context | **configure** router *named-item-64* rsvp diffserv-te fc *keyword* class-type *number* |
| Tree | class-type |
| Range | 0 to 7 |
| Notes | This element is mandatory. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **te-class** [te-class-number] *number*

| | |
|---|---|
| Synopsis | Enter the **te-class** list instance |
| Context | **configure** router *named-item-64* rsvp diffserv-te te-class *number* |
| Tree | te-class |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**te-class-number**] *number*

| | |
|---|---|
| Synopsis | TE class number |
| Context | **configure** router *named-item-64* rsvp diffserv-te te-class *number* |
| Tree | te-class |
| Range | 0 to 7 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R2 |
| Platforms | All |

### **class-type** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Class type (CT) associated with the TE class |
| Context | **configure** router *named-item-64* rsvp diffserv-te te-class *number* class-type *number* |
| Tree | class-type |
| Range | 0 to 7 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **priority** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | TE class priority |
| Context | **configure** router *named-item-64* rsvp diffserv-te te-class *number* priority *number* |
| Tree | priority |
| Range | 0 to 7 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **entropy-label-capability** *boolean*

| | |
|---|---|
| Synopsis | Allow receiving and processing of the entropy label and ELI on incoming packets of RSVP LSPs |
| Context | **configure** router *named-item-64* rsvp entropy-label-capability *boolean* |
| Tree | entropy-label-capability |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **graceful-restart**

| | |
|---|---|
| Synopsis | Enter the **graceful-restart** context |
| Context | **configure** router *named-item-64* rsvp graceful-restart |
| Tree | graceful-restart |
| Introduced | 16.0.R1 |
| Platforms | All |

### **max-recovery** *number*

| | |
|---|---|
| Synopsis | Maximum time to wait before a graceful helper recovers the session |
| Context | **configure** router *named-item-64* rsvp graceful-restart max-recovery *number* |


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| | |
|---|---|
| Tree | max-recovery |
| Range | 1 to 1800 |
| Units | seconds |
| Default | 300 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **max-restart** *number*

| | |
|---|---|
| Synopsis | Maximum time that a graceful helper waits for session restart after the neighbor is considered down |
| Context | **configure** router *named-item-64* rsvp graceful-restart max-restart *number* |
| Tree | max-restart |
| Range | 1 to 300 |
| Units | seconds |
| Default | 120 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **graceful-shutdown** *boolean*

| | |
|---|---|
| Synopsis | Initiate a graceful shutdown of all RSVP interfaces on the node |
| Context | **configure** router *named-item-64* rsvp graceful-shutdown *boolean* |
| Tree | graceful-shutdown |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **implicit-null-label** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Signal the implicit null option for all RSVP LSPs |
| Context | **configure** router *named-item-64* rsvp implicit-null-label *boolean* |


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| | |
|---|---|
| Tree | implicit-null-label |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **include-node-id-in-rro** *boolean*

| | |
|---|---|
| Synopsis | Include the node-id sub-object in the RRO (Record Route Object) on the RSVP instance |
| Context | **configure** router *named-item-64* rsvp include-node-id-in-rro *boolean* |
| Tree | include-node-id-in-rro |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **interface** [interface-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **interface** list instance |
| Context | **configure** router *named-item-64* rsvp interface *reference* |
| Tree | interface |
| Description | Commands in this context configure the attributes of the RSVP protocol support on an IP interface. RSVP commands are not executed on an IP interface if RSVP is not enabled.<br>The RSVP interface must be administratively disabled before it can be deleted.<br>A corresponding MPLS interface must also be configured. The RSVP interface cannot be deleted without also deleting the MPLS interface. |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**interface-name**] *reference*

| | |
|---|---|
| Synopsis | Index for router RSVP interface |
| Context | **configure** router *named-item-64* rsvp interface *reference* |
| Tree | interface |
| Reference | **configure** router *named-item-64* interface *interface-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |


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Platforms All

## **admin-state** *keyword*

Synopsis Administrative state of RSVP on the IP interface

Context **configure** router *named-item-64* rsvp interface *reference* admin-state *keyword*

Tree admin-state

Options enable, disable

Default enable

Introduced 16.0.R1

Platforms All

## **authentication-key** *encrypted-leaf*

Synopsis Authentication or hash key string

Context **configure** router *named-item-64* rsvp interface *reference* authentication-key *encrypted-leaf*

Tree authentication-key

Description This command configures the authentication key for use between RSVP neighbors to authenticate RSVP messages. Authentication uses the MD5 message-based digest.

When enabled on an RSVP interface, authentication of RSVP messages operates in both directions of the interface. A router maintains a security association using one authentication key for each interface to an RSVP neighbor.

An RSVP neighbor transmits an authenticating digest of the RSVP message that is computed using the shared authentication key and a keyed-hash algorithm. The message digest is included in an INTEGRITY object, which also contains a flags field, a key identifier field, and a sequence number field. An RSVP neighbor uses the key together with the authentication algorithm to process received RSVP messages. The RSVP MD5 authentication complies to the procedures for RSVP message generation in RFC 2747, *RSVP Cryptographic Authentication*.

The MD5 implementation does not support the authentication challenge procedures in RFC 2747.

String length 1 to 51

Introduced 16.0.R1

Platforms All

## **authentication-keychain** *reference*

Synopsis TCP authentication keychain for the session


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| | |
|---|---|
| Context | **configure** router *named-item-64* rsvp interface *reference* authentication-keychain *reference* |
| Tree | authentication-keychain |
| Reference | **configure** system security keychains keychain *named-item* |
| Introduced | 16.0.R3 |
| Platforms | All |

## **bfd-liveness** *boolean*

| | |
|---|---|
| Synopsis | Enable BFD |
| Context | **configure** router *named-item-64* rsvp interface *reference* bfd-liveness *boolean* |
| Tree | bfd-liveness |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **class-type-bw**

| | |
|---|---|
| Synopsis | Enable the **class-type-bw** context |
| Context | **configure** router *named-item-64* rsvp interface *reference* class-type-bw |
| Tree | class-type-bw |
| Introduced | 16.0.R1 |
| Platforms | All |

## **ct0** *number*

| | |
|---|---|
| Synopsis | Percentage of link bandwidth for class type (CT) 0 |
| Context | **configure** router *named-item-64* rsvp interface *reference* class-type-bw ct0 *number* |
| Tree | ct0 |
| Range | 0 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **ct1** *number*

| | |
|---|---|
| Synopsis | Percentage of link bandwidth for class type (CT) 1 |
| Context | **configure** router *named-item-64* rsvp interface *reference* class-type-bw ct1 *number* |
| Tree | ct1 |
| Range | 0 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ct2** *number*

| | |
|---|---|
| Synopsis | Percentage of link bandwidth for class type (CT) 2 |
| Context | **configure** router *named-item-64* rsvp interface *reference* class-type-bw ct2 *number* |
| Tree | ct2 |
| Range | 0 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ct3** *number*

| | |
|---|---|
| Synopsis | Percentage of link bandwidth for class type (CT) 3 |
| Context | **configure** router *named-item-64* rsvp interface *reference* class-type-bw ct3 *number* |
| Tree | ct3 |
| Range | 0 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ct4** *number*

| | |
|---|---|
| Synopsis | Percentage of link bandwidth for class type (CT) 4 |
| Context | **configure** router *named-item-64* rsvp interface *reference* class-type-bw ct4 *number* |
| Tree | ct4 |
| Range | 0 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **ct5** *number*

| | |
|---|---|
| Synopsis | Percentage of link bandwidth for class type (CT) 5 |
| Context | **configure** router *named-item-64* rsvp interface *reference* class-type-bw ct5 *number* |
| Tree | ct5 |
| Range | 0 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ct6** *number*

| | |
|---|---|
| Synopsis | Percentage of link bandwidth for class type (CT) 6 |
| Context | **configure** router *named-item-64* rsvp interface *reference* class-type-bw ct6 *number* |
| Tree | ct6 |
| Range | 0 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ct7** *number*

| | |
|---|---|
| Synopsis | Percentage of link bandwidth for class type (CT) 7 |
| Context | **configure** router *named-item-64* rsvp interface *reference* class-type-bw ct7 *number* |
| Tree | ct7 |
| Range | 0 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **dbw-down-threshold**

| | |
|---|---|
| Synopsis | Enable the **dbw-down-threshold** context |
| Context | **configure** router *named-item-64* rsvp interface *reference* dbw-down-threshold |
| Tree | dbw-down-threshold |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-s, 7950 XRS, VSR |


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### **bw** *number*

| | |
|---|---|
| Synopsis | Minimum difference in MRLB or MRB to trigger an update |
| Context | **configure** router *named-item-64* rsvp interface *reference* dbw-down-threshold bw *number* |
| Tree | bw |
| Range | 0 to 1000000 |
| Units | megabps |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **percent** *number*

| | |
|---|---|
| Synopsis | Minimum difference in percent between dark bandwidth and sampled data rate, to trigger IGP-TE update |
| Context | **configure** router *named-item-64* rsvp interface *reference* dbw-down-threshold percent *number* |
| Tree | percent |
| Range | 0 to 100 |
| Units | percent |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **dbw-multiplier** *number*

| | |
|---|---|
| Synopsis | Dark bandwidth multiplier |
| Context | **configure** router *named-item-64* rsvp interface *reference* dbw-multiplier *number* |
| Tree | dbw-multiplier |
| Range | 0 to 1000 |
| Units | percent |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **dbw-up-threshold**

| | |
|---|---|
| Synopsis | Enable the **dbw-up-threshold** context |


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| | |
|---|---|
| Context | **configure** router *named-item-64* rsvp interface *reference* dbw-up-threshold |
| Tree | dbw-up-threshold |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **bw** *number*

| | |
|---|---|
| Synopsis | Minimum difference in MRLB or MRB to trigger an update |
| Context | **configure** router *named-item-64* rsvp interface *reference* dbw-up-threshold bw *number* |
| Tree | bw |
| Range | 0 to 1000000 |
| Units | megabps |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **percent** *number*

| | |
|---|---|
| Synopsis | Minimum difference in percent between dark bandwidth and sampled data rate, to trigger IGP-TE update |
| Context | **configure** router *named-item-64* rsvp interface *reference* dbw-up-threshold percent *number* |
| Tree | percent |
| Range | 0 to 100 |
| Units | percent |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **graceful-restart-helper-mode** *boolean*

| | |
|---|---|
| Synopsis | Enable graceful restart helper for the RSVP interface |
| Context | **configure** router *named-item-64* rsvp interface *reference* graceful-restart-helper-mode *boolean* |
| Tree | graceful-restart-helper-mode |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **graceful-shutdown** *boolean*

| | |
|---|---|
| Synopsis | Initiate a graceful shutdown of RSVP interface |
| Context | **configure** router *named-item-64* rsvp interface *reference* graceful-shutdown *boolean* |
| Tree | graceful-shutdown |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hello-interval** *number*

| | |
|---|---|
| Synopsis | Time between RSVP Hello messages |
| Context | **configure** router *named-item-64* rsvp interface *reference* hello-interval *number* |
| Tree | hello-interval |
| Range | 0 to 60 |
| Units | seconds |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **implicit-null-label** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Signal the implicit null label value for all LSPs |
| Context | **configure** router *named-item-64* rsvp interface *reference* implicit-null-label *boolean* |
| Tree | implicit-null-label |
| Introduced | 16.0.R1 |
| Platforms | All |

### **refresh-reduction**

| | |
|---|---|
| Synopsis | Enable the **refresh-reduction** context |
| Context | **configure** router *named-item-64* rsvp interface *reference* refresh-reduction |


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| | |
|---|---|
| Tree | refresh-reduction |
| Introduced | 16.0.R1 |
| Platforms | All |

### **reliable-delivery** *boolean*

| | |
|---|---|
| Synopsis | Reliable delivery of RSVP messages over the RSVP interface |
| Context | **configure** router *named-item-64* rsvp interface *reference* refresh-reduction reliable-delivery *boolean* |
| Tree | reliable-delivery |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **subscription** *number*

| | |
|---|---|
| Synopsis | Percentage of the link bandwidth to use for reservation |
| Context | **configure** router *named-item-64* rsvp interface *reference* subscription *number* |
| Tree | subscription |
| Range | 0 to 1000 |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **te-down-threshold**

| | |
|---|---|
| Synopsis | Enable the **te-down-threshold** context |
| Context | **configure** router *named-item-64* rsvp interface *reference* te-down-threshold |
| Tree | te-down-threshold |
| Introduced | 16.0.R1 |
| Platforms | All |

### **value** *number*

| | |
|---|---|
| Synopsis | Threshold level per interface |


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| | |
|---|---|
| Context | **configure** router *named-item-64* rsvp interface *reference* te-down-threshold value *number* |
| Tree | value |
| Range | 0 to 100 |
| Max. instances | 16 |
| Min. instances | 1 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R2 |
| Platforms | All |

## te-up-threshold

| | |
|---|---|
| Synopsis | Enable the **te-up-threshold** context |
| Context | **configure** router *named-item-64* rsvp interface *reference* te-up-threshold |
| Tree | te-up-threshold |
| Introduced | 16.0.R1 |
| Platforms | All |

## **value** *number*

| | |
|---|---|
| Synopsis | Threshold level per interface |
| Context | **configure** router *named-item-64* rsvp interface *reference* te-up-threshold value *number* |
| Tree | value |
| Range | 0 to 100 |
| Max. instances | 16 |
| Min. instances | 1 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R2 |
| Platforms | All |


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### **keep-multiplier** *number*

| | |
|---|---|
| Synopsis | Value for the keep-multiplier to declare a reservation or neighbor as down |
| Context | **configure** router *named-item-64* rsvp keep-multiplier *number* |
| Tree | keep-multiplier |
| Range | 1 to 255 |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **msg-pacing**

| | |
|---|---|
| Synopsis | Enable the **msg-pacing** context |
| Context | **configure** router *named-item-64* rsvp msg-pacing |
| Tree | msg-pacing |
| Introduced | 16.0.R1 |
| Platforms | All |

### **max-burst** *number*

| | |
|---|---|
| Synopsis | Maximum RSVP messages that are sent over a specified period when message pacing is enabled |
| Context | **configure** router *named-item-64* rsvp msg-pacing max-burst *number* |
| Tree | max-burst |
| Range | 100 to 1000 |
| Default | 650 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **period** *number*

| | |
|---|---|
| Synopsis | Time for RSVP message pacing |
| Context | **configure** router *named-item-64* rsvp msg-pacing period *number* |
| Tree | period |
| Range | 100 to 1000 |


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| | |
|---|---|
| Units | milliseconds |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **p2mp-merge-point-abort-timer** *number*

| | |
|---|---|
| Synopsis | Merge pointer timer for abort timer |
| Context | **configure** router *named-item-64* rsvp p2mp-merge-point-abort-timer *number* |
| Tree | p2mp-merge-point-abort-timer |
| Range | 1 to 65535 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **p2p-merge-point-abort-timer** *number*

| | |
|---|---|
| Synopsis | Merge pointer timer for P2P paths |
| Context | **configure** router *named-item-64* rsvp p2p-merge-point-abort-timer *number* |
| Tree | p2p-merge-point-abort-timer |
| Range | 1 to 65535 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **preemption-timer** *number*

| | |
|---|---|
| Synopsis | Preemption timer for the MPLS instance |
| Context | **configure** router *named-item-64* rsvp preemption-timer *number* |
| Tree | preemption-timer |
| Range | 0 to 1800 |
| Units | seconds |
| Default | 300 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **rapid-retransmit-time** *number*

| | |
|---|---|
| Synopsis | Rapid retransmission interval to reliably deliver RSVP messages |
| Context | **configure** router *named-item-64* rsvp rapid-retransmit-time *number* |
| Tree | rapid-retransmit-time |
| Range | 1 to 100 |
| Units | deciseconds |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rapid-retry-limit** *number*

| | |
|---|---|
| Synopsis | Rapid retry limit to reliably deliver RSVP messages |
| Context | **configure** router *named-item-64* rsvp rapid-retry-limit *number* |
| Tree | rapid-retry-limit |
| Range | 1 to 6 |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **refresh-reduction-over-bypass** *boolean*

| | |
|---|---|
| Synopsis | Enable refresh reduction capabilities over tunnels |
| Context | **configure** router *named-item-64* rsvp refresh-reduction-over-bypass *boolean* |
| Tree | refresh-reduction-over-bypass |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **refresh-time** *number*

| | |
|---|---|
| Synopsis | Interval between refresh messages |
| Context | **configure** router *named-item-64* rsvp refresh-time *number* |
| Tree | refresh-time |


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| | |
|---|---|
| Range | 1 to 65535 |
| Units | seconds |
| Default | 30 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **te-down-threshold** *number*

| | |
|---|---|
| Synopsis | Value for the te-down-threshold |
| Context | **configure** router *named-item-64* rsvp te-down-threshold *number* |
| Tree | te-down-threshold |
| Range | 0 to 100 |
| Max. instances | 16 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **te-threshold-update**

| | |
|---|---|
| Synopsis | Enable the **te-threshold-update** context |
| Context | **configure** router *named-item-64* rsvp te-threshold-update |
| Tree | te-threshold-update |
| Introduced | 16.0.R1 |
| Platforms | All |

### **on-cac-failure** *boolean*

| | |
|---|---|
| Synopsis | CAC (Call Admission Control) failure-triggered IGP update |
| Context | **configure** router *named-item-64* rsvp te-threshold-update on-cac-failure *boolean* |
| Tree | on-cac-failure |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **update-timer** *number*

| | |
|---|---|
| Synopsis | Timer-based IGP updates |
| Context | **configure** router *named-item-64* rsvp te-threshold-update update-timer *number* |
| Tree | update-timer |
| Range | 1 to 300 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **te-up-threshold** *number*

| | |
|---|---|
| Synopsis | Value for the te-up-threshold |
| Context | **configure** router *named-item-64* rsvp te-up-threshold *number* |
| Tree | te-up-threshold |
| Range | 0 to 100 |
| Max. instances | 16 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **segment-routing**

| | |
|---|---|
| Synopsis | Enter the **segment-routing** context |
| Context | **configure** router *named-item-64* segment-routing |
| Tree | segment-routing |
| Introduced | 16.0.R1 |
| Platforms | All |

### **maintenance-policy** [policy-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **maintenance-policy** list instance |
| Context | **configure** router *named-item-64* segment-routing maintenance-policy *named-item* |
| Tree | maintenance-policy |


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| | |
|---|---|
| Description | Commands in this context configure a named maintenance policy that can be applied to SR policy candidate paths that are either statically configured or imported via BGP. |
| Introduced | 20.10.R1 |
| Platforms | All |

## [**policy-name**] *named-item*

| | |
|---|---|
| Synopsis | Maintenance policy name |
| Context | **configure** router *named-item-64* segment-routing maintenance-policy *named-item* |
| Tree | maintenance-policy |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the maintenance policy |
| Context | **configure** router *named-item-64* segment-routing maintenance-policy *named-item* admin-state *keyword* |
| Tree | admin-state |
| Description | This command sets the administrative state of the maintenance policy.<br>A maintenance policy must be administratively disabled to change any of the parameters.<br>When a maintenance template is administratively disabled, all applicable candidate paths are removed from the data path. |
| Options | enable, disable |
| Default | disable |
| Introduced | 20.10.R1 |
| Platforms | All |

## **bfd-liveness** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.


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| | |
|---|---|
| Synopsis | Enable seamless BFD for segment lists of candidate path |
| Context | **configure** router *named-item-64* segment-routing maintenance-policy *named-item* bfd-liveness *boolean* |
| Tree | bfd-liveness |
| Description | When configured to **true**, this command enables seamless BFD on every segment list of an SR policy candidate path to which the maintenance policy is applied. The BFD template configures the parameters for the BFD session.<br>When configured to **false**, seamless BFD is disabled. |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | All |

## **bfd-template** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | BFD template to be used by seamless BFD |
| Context | **configure** router *named-item-64* segment-routing maintenance-policy *named-item* bfd-template *reference* |
| Tree | bfd-template |
| Description | This command references a named BFD template to be used by seamless BFD. A BFD template must exist on the system before being referenced from a maintenance policy. The template specifies parameters that are used by the BFD session, such as the minimum transmit and receive control packet timer intervals. |
| Reference | **configure** bfd bfd-template *named-item* |
| Introduced | 20.10.R1 |
| Platforms | All |

## **hold-down-timer** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Hold down timer for SR policy candidate paths |
| Context | **configure** router *named-item-64* segment-routing maintenance-policy *named-item* hold-down-timer *number* |


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| | |
|---|---|
| Tree | hold-down-timer |
| Description | This command configures the hold down timer for the maintenance policy. The purpose of the timer is to prevent bouncing of the SR policy path state if S-BFD sessions associated with the segment lists flap, causing the threshold to be repeatedly crossed in a short period of time.<br>The timer is started when the number of up S-BFD sessions drops below the threshold. The SR policy path is not considered to be up again until the hold down timer has expired and the number of up S-BFD sessions reaches or exceeds the threshold and the internal hold timer is not running.<br>If the revert timer is also configured, the revert timer is not started until after the number of up S-BFD sessions equals or exceeds the threshold and the hold down timer for the primary candidate path has expired. |
| Range | 0 to 5000 |
| Units | deciseconds |
| Default | 0 |
| Introduced | 20.10.R1 |
| Platforms | All |

## **mode** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Protection mode for SR policy candidate paths |
| Context | **configure** router *named-item-64* segment-routing maintenance-policy *named-item* mode *keyword* |
| Tree | mode |
| Description | This command specifies the data path programming and protection mechanism for SR policy candidate paths to which the maintenance policy is applied. |
| Options | none, ecmp-protected, linear |
| Default | none |
| Introduced | 20.10.R1 |
| Platforms | All |


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## **return-path-label** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | S-BFD return-path label |
| Context | **configure** router *named-item-64* segment-routing maintenance-policy *named-item* return-path-label *number* |
| Tree | return-path-label |
| Description | This command configures the S-BFD session to echo mode and adds an additional MPLS label to the bottom of the label stack for the S-BFD packet.<br>The command applies to the initiator of the S-BFD sessions. The return-path label may be a binding SID for an SR policy or other MPLS path configured on the reflector router. Instead of being routed through the IGP path, the S-BFD packet returns to the initiator through this MPLS return path.<br>If the command is deleted, S-BFD returns to asynchronous mode and no return-path label is pushed by the initiator node. Any S-BFD packets for this LSP or path that the reflector receives are routed through the IGP path. |
| Range | 32 to 1048575 |
| Introduced | 22.10.R1 |
| Platforms | All |

## **revert-timer** *number*

| | |
|---|---|
| Synopsis | Revert timer for SR policy candidate paths |
| Context | **configure** router *named-item-64* segment-routing maintenance-policy *named-item* revert-timer *number* |
| Tree | revert-timer |
| Description | This command configures the revert timer for SR Policy candidate paths.<br>The revert timer is started when the primary path recovers (the number of S-BFD sessions that are up equals or exceeds the threshold value and the hold down timer has expired). When the timer expires, the system reverts to the primary path. |
| Range | 0 to 4320 |
| Units | minutes |
| Introduced | 20.10.R1 |
| Platforms | All |


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## **threshold** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Minimum number of up S-BFD sessions for up path status |
| Context | **configure** router *named-item-64* segment-routing maintenance-policy *named-item* threshold *number* |
| Tree | threshold |
| Description | This command configures the minimum number of S-BFD sessions that must be up for the SR policy candidate path to be considered up. If the number of up sessions is below this threshold value, the policy candidate path is marked as BFD degraded by the system.<br>This command is only valid in the **ecmp-protected** mode. |
| Range | 1 to 32 |
| Default | 1 |
| Introduced | 20.10.R1 |
| Platforms | All |

## **segment-routing-v6**

| | |
|---|---|
| Synopsis | Enable the **segment-routing-v6** context |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 |
| Tree | segment-routing-v6 |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **base-routing-instance**

| | |
|---|---|
| Synopsis | Enter the **base-routing-instance** context |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 base-routing-instance |
| Tree | base-routing-instance |
| Description | Commands in this context configure SRv6 SID functions for End, End.X, and service SIDs for IPv4 and IPv6 prefixes in the base routing instance. |
| Introduced | 21.5.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **locator** [locator-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **locator** list instance |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 base-routing-instance locator *reference* |
| Tree | locator |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## [**locator-name**] *reference*

| | |
|---|---|
| Synopsis | SRv6 locator name |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 base-routing-instance locator *reference* |
| Tree | locator |
| Reference | **configure** router *named-item-64* segment-routing segment-routing-v6 locator *named-item-64* |
| Notes | This element is part of a list key. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **function**

| | |
|---|---|
| Synopsis | Enter the **function** context |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 base-routing-instance locator *reference* function |
| Tree | function |
| Description | Commands in this context configure the function value of SRv6 SIDs.<br>The **end-dt46** command is mutually exclusive with the **end-dt4** and e**nd-dt6** commands. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |


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### **end** [value] *number*

| | |
|---|---|
| Synopsis | Enter the **end** list instance |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 base-routing-instance locator *reference* function end *number* |
| Tree | end |
| Description | Commands in this context configure the attributes of SRv6 End SID function. The End SID functions for each SRH mode must be statically allocated. The value is not automatically allocated by default for a locator. |
| Max. instances | 8 |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### [**value**] *number*

| | |
|---|---|
| Synopsis | SRv6 SID function value |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 base-routing-instance locator *reference* function end *number* |
| Tree | end |
| Range | 1 to 1048575 |
| Notes | This element is part of a list key. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **srh-mode** *keyword*

| | |
|---|---|
| Synopsis | Segment Routing Header (SRH) mode |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 base-routing-instance locator *reference* function end *number* srh-mode *keyword* |
| Tree | srh-mode |
| Description | This command configures the popping mode for the SID. |
| Options | psp, usp, psp-usd, usp-usd, psp-usp-usd |
| Default | psp |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |


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## end-dt4

| | |
|---|---|
| Synopsis | Enable the **end-dt4** context |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 base-routing-instance locator *reference* function end-dt4 |
| Tree | end-dt4 |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## value *number*

| | |
|---|---|
| Synopsis | SRv6 function value |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 base-routing-instance locator *reference* function end-dt4 value *number* |
| Tree | value |
| Range | 1 to 1048575 |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## end-dt46

| | |
|---|---|
| Synopsis | Enable the **end-dt46** context |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 base-routing-instance locator *reference* function end-dt46 |
| Tree | end-dt46 |
| Description | Commands in this context assign a value for IPv4 and IPV6 routes in the VPRN service instance.<br>This command and the **end-dt4** command are mutually exclusive.<br>This command and the **end-dt6** command are mutually exclusive. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## value *number*

| | |
|---|---|
| Synopsis | SRv6 function value |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 base-routing-instance locator *reference* function end-dt46 value *number* |


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| | |
|---|---|
| Tree | value |
| Range | 1 to 1048575 |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## end-dt6

| | |
|---|---|
| Synopsis | Enable the **end-dt6** context |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 base-routing-instance locator *reference* function end-dt6 |
| Tree | end-dt6 |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## value *number*

| | |
|---|---|
| Synopsis | SRv6 function value |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 base-routing-instance locator *reference* function end-dt6 value *number* |
| Tree | value |
| Range | 1 to 1048575 |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## end-x [value] *number*

| | |
|---|---|
| Synopsis | Enter the **end-x** list instance |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 base-routing-instance locator *reference* function end-x *number* |
| Tree | end-x |
| Description | Commands in this context configure the attributes of the End.X SID function associated with a P2P interface.<br>A static function value can be configured for each combination of SRH mode and protection type. For a specific interface, the static function value associated with the same combination of protection type and SRH mode overrides any corresponding function value that is automatically allocated (**end.x-auto-allocate** list configuration).<br>If more than one value is configured for an interface and combination of SRH mode and protection type, they are all advertised in IS-IS. |


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When used in remote TI-LFA repair tunnel programming, IS-IS uses rules to select one End.X value from the multiple values received in IS-IS link advertisements.

Values assigned to loopback and system interfaces are not advertised in IS-IS.

End.X SID functions for adjacencies over broadcast interfaces are always automatically allocated based on the configuration of the **end.x-auto-allocate** list.

| | |
|---|---|
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### [**value**] *number*

| | |
|---|---|
| Synopsis | SRv6 SID function value |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 base-routing-instance locator *reference* function end-x *number* |
| Tree | end-x |
| Range | 1 to 1048575 |
| Notes | This element is part of a list key. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **interface-name** *reference*

| | |
|---|---|
| Synopsis | Interface name |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 base-routing-instance locator *reference* function end-x *number* interface-name *reference* |
| Tree | interface-name |
| Reference | **configure** router *named-item-64* interface *interface-name* |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **protection** *keyword*

| | |
|---|---|
| Synopsis | Adjacency protection type for the SID function |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 base-routing-instance locator *reference* function end-x *number* protection *keyword* |
| Tree | protection |
| Options | unprotected, protected |
| Default | protected |


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| | |
|---|---|
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **srh-mode** *keyword*

| | |
|---|---|
| Synopsis | Segment Routing Header (SRH) mode |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 base-routing-instance locator *reference* function end-x *number* srh-mode *keyword* |
| Tree | srh-mode |
| Description | This command configures the popping mode for the SID. |
| Options | psp, usp, psp-usd, usp-usd, psp-usp-usd |
| Default | psp |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **end-x-auto-allocate** [srh-mode] *keyword* protection *keyword*

| | |
|---|---|
| Synopsis | Add a list entry for **end-x-auto-allocate** |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 base-routing-instance locator *reference* function end-x-auto-allocate *keyword* protection *keyword* |
| Tree | end-x-auto-allocate |
| Description | This command adds a list entry for the automatic allocation of the End.X SID function for all adjacencies over all network interfaces on the router (P2P and broadcast interfaces).<br>A list entry is a combination of the protection type and the SRH mode. Any combinations in addition to the maximum supported by this command must be allocated statically under each P2P interface (**end.x** configuration).<br>When no list entries are configured, no End.X function values are automatically allocated by default for a locator. |
| Max. instances | 2 |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### [**srh-mode**] *keyword*

| | |
|---|---|
| Synopsis | Segment Routing Header (SRH) mode |


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| | |
|---|---|
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 base-routing-instance locator *reference* function end-x-auto-allocate *keyword* protection *keyword* |
| Tree | end-x-auto-allocate |
| Description | This command specifies the popping mode for the automatically allocated SID. |
| Options | psp, usp, psp-usd, usp-usd, psp-usp-usd |
| Notes | This element is part of a list key. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **protection** *keyword*

| | |
|---|---|
| Synopsis | Adjacency protection for automatic SID function |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 base-routing-instance locator *reference* function end-x-auto-allocate *keyword* protection *keyword* |
| Tree | end-x-auto-allocate |
| Description | This command specifies the adjacency protection for the automatically allocated SID function. |
| Options | unprotected, protected |
| Notes | This element is part of a list key. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **micro-segment-locator** [locator-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **micro-segment-locator** list instance |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 base-routing-instance micro-segment-locator *reference* |
| Tree | micro-segment-locator |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## [**locator-name**] *reference*

| | |
|---|---|
| Synopsis | SRv6 micro-segment locator name |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 base-routing-instance micro-segment-locator *reference* |


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| | |
|---|---|
| Tree | micro-segment-locator |
| Description | This command references a micro-segment locator name defined in the **configure router segment-routing segment-routing-v6** context. This command assigns a micro-segment locator to BGP for use with Base router routes. |
| Reference | **configure** router *named-item-64* segment-routing segment-routing-v6 micro-segment-locator *named-item-64* |
| Notes | This element is part of a list key. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## function

| | |
|---|---|
| Synopsis | Enter the **function** context |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 base-routing-instance micro-segment-locator *reference* function |
| Tree | function |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **ua** [value] *number*

| | |
|---|---|
| Synopsis | Enter the **ua** list instance |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 base-routing-instance micro-segment-locator *reference* function ua *number* |
| Tree | ua |
| Description | Commands in this context configure the attributes of the uA micro-SID function associated with a P2P interface. The uA micro-SID function encodes the behavior of an adjacency SID. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## [**value**] *number*

| | |
|---|---|
| Synopsis | SRv6 SID function value |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 base-routing-instance micro-segment-locator *reference* function ua *number* |
| Tree | ua |


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| | |
|---|---|
| Range | 1 to 1048575 |
| Notes | This element is part of a list key. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **interface-name** *reference*

| | |
|---|---|
| Synopsis | Interface name |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 base-routing-instance micro-segment-locator *reference* function ua *number* interface-name *reference* |
| Tree | interface-name |
| Reference | **configure** router *named-item-64* interface *interface-name* |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **protection** *keyword*

| | |
|---|---|
| Synopsis | Adjacency protection type for the SID function |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 base-routing-instance micro-segment-locator *reference* function ua *number* protection *keyword* |
| Tree | protection |
| Options | unprotected, protected |
| Default | protected |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **srh-mode** *keyword*

| | |
|---|---|
| Synopsis | Segment Routing Header (SRH) mode |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 base-routing-instance micro-segment-locator *reference* function ua *number* srh-mode *keyword* |
| Tree | srh-mode |
| Description | This command configures the popping mode for the SID. |
| Options | psp, usp, psp-usd, usp-usd, psp-usp-usd |
| Default | psp |
| Introduced | 22.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **ua-auto-allocate** [srh-mode] *keyword* protection *keyword*

| | |
|---|---|
| Synopsis | Add a list entry for **ua-auto-allocate** |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 base-routing-instance micro-segment-locator *reference* function ua-auto-allocate *keyword* protection *keyword* |
| Tree | ua-auto-allocate |
| Description | Commands in this context define a list entry for the automatic allocation of the uA micro-SID function for all adjacencies over all network interfaces on the router (P2P and broadcast interfaces). |
| Max. instances | 2 |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## [**srh-mode**] *keyword*

| | |
|---|---|
| Synopsis | Segment Routing Header (SRH) mode |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 base-routing-instance micro-segment-locator *reference* function ua-auto-allocate *keyword* protection *keyword* |
| Tree | ua-auto-allocate |
| Description | This command specifies the popping mode for the automatically allocated SID. |
| Options | psp, usp, psp-usd, usp-usd, psp-usp-usd |
| Notes | This element is part of a list key. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **protection** *keyword*

| | |
|---|---|
| Synopsis | Adjacency protection for automatic SID function |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 base-routing-instance micro-segment-locator *reference* function ua-auto-allocate *keyword* protection *keyword* |
| Tree | ua-auto-allocate |


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| | |
|---|---|
| Description | This command specifies the adjacency protection for the automatically allocated SID function. |
| Options | unprotected, protected |
| Notes | This element is part of a list key. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## udt4

| | |
|---|---|
| Synopsis | Enable the **udt4** context |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 base-routing-instance micro-segment-locator *reference* function udt4 |
| Tree | udt4 |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## value *number*

| | |
|---|---|
| Synopsis | SRv6 function value |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 base-routing-instance micro-segment-locator *reference* function udt4 value *number* |
| Tree | value |
| Range | 1 to 1048575 |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## udt46

| | |
|---|---|
| Synopsis | Enable the **udt46** context |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 base-routing-instance micro-segment-locator *reference* function udt46 |
| Tree | udt46 |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |


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### **value** *number*

| | |
|---|---|
| Synopsis | SRv6 function value |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 base-routing-instance micro-segment-locator *reference* function udt46 value *number* |
| Tree | value |
| Range | 1 to 1048575 |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **udt6**

| | |
|---|---|
| Synopsis | Enable the **udt6** context |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 base-routing-instance micro-segment-locator *reference* function udt6 |
| Tree | udt6 |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **value** *number*

| | |
|---|---|
| Synopsis | SRv6 function value |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 base-routing-instance micro-segment-locator *reference* function udt6 value *number* |
| Tree | value |
| Range | 1 to 1048575 |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **locator** [locator-name] *named-item-64*

| | |
|---|---|
| Synopsis | Enter the **locator** list instance |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 locator *named-item-64* |
| Tree | locator |
| Max. instances | 16 |


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| | |
|---|---|
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### [**locator-name**] *named-item-64*

| | |
|---|---|
| Synopsis | SRv6 locator name |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 locator *named-item-64* |
| Tree | locator |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the locator |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 locator *named-item-64* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **algorithm** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IGP flexible algorithm ID |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 locator *named-item-64* algorithm *number* |
| Tree | algorithm |
| Description | This command configures an IGP flexible algorithm for a locator. A locator can only be part of one algorithm but it can be used in multiple IGP instances. |


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| | |
|---|---|
| Range | 128 to 255 |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **argument-length** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | SRv6 locator argument length |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 locator *named-item-64* argument-length *number* |
| Tree | argument-length |
| Description | This command configures the SRv6 locator argument length.<br>The sum of the function length, argument length, and the locator prefix length must not exceed 128 bits.<br>The following commands are used to configure the function length and locator prefix length:<br>• **configure router segment-routing segment-routing-v6 locator function-length**<br>• **configure router segment-routing segment-routing-v6 locator prefix ip-prefix** |
| Range | 0 \| 16 |
| Default | 0 |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **block-length** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | SRv6 locator block address length |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 locator *named-item-64* block-length *number* |
| Tree | block-length |
| Range | 0 to 96 |
| Default | 0 |


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| | |
|---|---|
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **function-length** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Function length |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 locator *named-item-64* function-length *number* |
| Tree | function-length |
| Description | This command configures the size of the function length. The sum of the function length and the locator prefix length must not exceed 128 bits. Operators can configure the locator level **label-block** command before they configure a function length of 16. If the function length is configured as 16, the locator level **label-block** must be configured rather than the static-function level **label-block**. The validation occurs when committed. |
| Range | 16 \| 20 to 96 |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **label-block** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Reserved label block name for service termination |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 locator *named-item-64* label-block *reference* |
| Tree | label-block |
| Reference | **configure** router *named-item-64* mpls-labels reserved-label-block *named-item-64* |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |


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## prefix

| | |
|---|---|
| Synopsis | Enter the **prefix** context |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 locator *named-item-64* prefix |
| Tree | prefix |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## ip-prefix *ipv6-unicast-prefix*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | SRv6 locator prefix |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 locator *named-item-64* prefix ip-prefix *ipv6-unicast-prefix* |
| Tree | ip-prefix |
| Description | This command configures the IPv6 prefix for the locator.<br>For regular SRv6, the locator prefix length range is the sum of the length of the block field and the length of the node ID field. For micro-segment SRv6, the locator prefix length must be equal to the micro-SID block length. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## static-function

| | |
|---|---|
| Synopsis | Enter the **static-function** context |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 locator *named-item-64* static-function |
| Tree | static-function |
| Description | Commands in this context configure the attributes of the function field range reserved for static End.d, End.X, and service SID assignment. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |


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## **label-block** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Label block for the service SIDs of the SRv6 locator |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 locator *named-item-64* static-function label-block *reference* |
| Tree | label-block |
| Reference | **configure** router *named-item-64* mpls-labels reserved-label-block *named-item-64* |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **max-entries** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum number of static SID functions |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 locator *named-item-64* static-function max-entries *number* |
| Tree | max-entries |
| Description | This command configures the maximum number of values that are reserved from the function field to assign to static SID functions. |
| Range | 1 to 1048575 |
| Default | 1 |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **termination-fpe** *reference*

| | |
|---|---|
| Synopsis | List of the SRv6 termination FPE |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 locator *named-item-64* termination-fpe *reference* |
| Tree | termination-fpe |


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| | |
|---|---|
| Description | This command associates the Forwarding Path Extension (FPE) with the locator for terminating SRv6 in local services. Multiple locators can share the same FPE or each locator can use a different FPE. The FPE can be the same or different from the origination FPE. |
| Reference | **configure** fwd-path-ext fpe *number* |
| Max. instances | 1 |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## micro-segment

| | |
|---|---|
| Synopsis | Enable the **micro-segment** context |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 micro-segment |
| Tree | micro-segment |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## argument-length *number*

| | |
|---|---|
| Synopsis | Micro-segment argument length |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 micro-segment argument-length *number* |
| Tree | argument-length |
| Description | This command configures the micro-segment argument length.<br>The sum of the function length, argument length, and the locator prefix length must not exceed 128 bits.<br>The following commands are used to configure the function length and locator prefix length:<br>• **configure router segment-routing segment-routing-v6 locator function-length**<br>• **configure router segment-routing segment-routing-v6 locator prefix ip-prefix** |
| Range | 0 \| 16 |
| Default | 0 |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |


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### **block** [block-name] *named-item-64*

| | |
|---|---|
| Synopsis | Enter the **block** list instance |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 micro-segment block *named-item-64* |
| Tree | block |
| Max. instances | 16 |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### [**block-name**] *named-item-64*

| | |
|---|---|
| Synopsis | Micro-SID block name |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 micro-segment block *named-item-64* |
| Tree | block |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of micro-SID block |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 micro-segment block *named-item-64* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |


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## **label-block** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Reserved label block |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 micro-segment block *named-item-64* label-block *reference* |
| Tree | label-block |
| Description | This command associates a pre-configured reserved label block with the micro-SID block. |
| Reference | **configure** router *named-item-64* mpls-labels reserved-label-block *named-item-64* |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **prefix**

| | |
|---|---|
| Synopsis | Enter the **prefix** context |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 micro-segment block *named-item-64* prefix |
| Tree | prefix |
| Description | Commands in this context configure the IPv6 prefix for an SRv6 micro-segment locator. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **ip-prefix** *ipv6-unicast-prefix*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | SRv6 locator prefix |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 micro-segment block *named-item-64* prefix ip-prefix *ipv6-unicast-prefix* |
| Tree | ip-prefix |
| Description | This command configures the IPv6 prefix for the locator. |


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For regular SRv6, the locator prefix length range is the sum of the length of the block field and the length of the node ID field. For micro-segment SRv6, the locator prefix length must be equal to the micro-SID block length.

Introduced 22.10.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR

## static-function

Synopsis Enter the **static-function** context

Context **configure** router *named-item-64* segment-routing segment-routing-v6 micro-segment block *named-item-64* static-function

Tree static-function

Description Commands in this context configure the function field parameters of a static uA or service micro-SID assignment.

Introduced 22.10.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR

## max-entries *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

Synopsis Maximum number of static SID functions

Context **configure** router *named-item-64* segment-routing segment-routing-v6 micro-segment block *named-item-64* static-function max-entries *number*

Tree max-entries

Description This command configures the maximum number of values that are reserved from the function field to assign to static SID functions.

Range 1 to 1048575

Default 1

Introduced 22.10.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR

## termination-fpe *reference*

Synopsis FPE ID for SRv6 termination


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| | |
|---|---|
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 micro-segment block *named-item-64* termination-fpe *reference* |
| Tree | termination-fpe |
| Description | This command associates the FPE ID with the locator for SRv6 termination in local services. |
| Reference | **configure** fwd-path-ext fpe *number* |
| Max. instances | 1 |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **block-length** *number*

| | |
|---|---|
| Synopsis | Micro-SID block length |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 micro-segment block-length *number* |
| Tree | block-length |
| Range | 8 \| 16 \| 24 \| 32 \| 40 \| 48 \| 56 \| 64 |
| Default | 32 |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **global-sid-entries** *number*

| | |
|---|---|
| Synopsis | Maximum number of micro-segment locators network wide |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 micro-segment global-sid-entries *number* |
| Tree | global-sid-entries |
| Description | This command defines the maximum number of unique micro-segment locators that can be configured network wide. The value is expressed in multiples of 1024 and must be the same on every platform network wide. |
| Range | 4 to 60 |
| Default | 16 |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |


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### **sid-length** *number*

| | |
|---|---|
| Synopsis | Micro-SID length |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 micro-segment sid-length *number* |
| Tree | sid-length |
| Description | This command configures the length of the micro-SIDs. |
| Range | 16 |
| Default | 16 |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **micro-segment-locator** [locator-name] *named-item-64*

| | |
|---|---|
| Synopsis | Enter the **micro-segment-locator** list instance |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 micro-segment-locator *named-item-64* |
| Tree | micro-segment-locator |
| Max. instances | 16 |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### [**locator-name**] *named-item-64*

| | |
|---|---|
| Synopsis | SRv6 locator name |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 micro-segment-locator *named-item-64* |
| Tree | micro-segment-locator |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the locator |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 micro-segment-locator *named-item-64* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **algorithm** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IGP flexible algorithm ID |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 micro-segment-locator *named-item-64* algorithm *number* |
| Tree | algorithm |
| Description | This command configures an IGP flexible algorithm for a locator. A locator can only be part of one algorithm but it can be used in multiple IGP instances. |
| Range | 128 to 255 |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **block** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Pre-defined micro-SID block |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 micro-segment-locator *named-item-64* block *reference* |
| Tree | block |


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| | |
|---|---|
| Description | This command associates a pre-defined micro-SID block with the micro-segment SRv6 locator. |
| Reference | **configure** router *named-item-64* segment-routing segment-routing-v6 micro-segment block *named-item-64* |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## un

| | |
|---|---|
| Synopsis | Enter the **un** context |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 micro-segment-locator *named-item-64* un |
| Tree | un |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## srh-mode *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Segment Routing Header (SRH) mode |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 micro-segment-locator *named-item-64* un srh-mode *keyword* |
| Tree | srh-mode |
| Description | This command configures the popping mode for the SID. |
| Options | psp, usp, psp-usd, usp-usd, psp-usp-usd |
| Default | psp |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## value *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.


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| | |
|---|---|
| Synopsis | SRv6 function value |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 micro-segment-locator *named-item-64* un value *number* |
| Tree | value |
| Range | 1 to 1048575 |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **origination-fpe** *reference*

| | |
|---|---|
| Synopsis | List of the SRv6 origination FPEs |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 origination-fpe *reference* |
| Tree | origination-fpe |
| Description | This command configures the origination Forwarding Path Extension (FPE) for SRv6 tunnels on local services. The origination FPE must be different from any of the SRv6 termination FPEs. |
| Reference | **configure** fwd-path-ext fpe *number* |
| Max. instances | 1 |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **source-address** *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Source address used in the SRv6 packet |
| Context | **configure** router *named-item-64* segment-routing segment-routing-v6 source-address *ipv6-unicast-address* |
| Tree | source-address |
| Description | This command specifies the global default source IPv6 address used in the SA field of the outerIPv6 header of the SRv6 encapsulated packet.<br><br>The value is inherited in the BGP and services contexts (for example, **configure router "base" bgp segment-routing-v6 source-address** and **configure service vprn bgp-ipvpn segment-routing-v6 source-address**), but is overwritten by the value configured in those contexts.<br><br>A source IPv6 address must be configured in the global context or in the BGP or services context.<br><br>The system does not check if the entered address is a valid local address. |


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| | |
|---|---|
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### sr-mpls

| | |
|---|---|
| Synopsis | Enter the **sr-mpls** context |
| Context | **configure** router *named-item-64* segment-routing sr-mpls |
| Tree | sr-mpls |
| Introduced | 21.10.R1 |
| Platforms | All |

### **prefix-sids** [interface-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **prefix-sids** list instance |
| Context | **configure** router *named-item-64* segment-routing sr-mpls prefix-sids *reference* |
| Tree | prefix-sids |
| Description | Commands in this context configure the prefix SIDs for an interface. |
| Introduced | 21.10.R1 |
| Platforms | All |

### [**interface-name**] *reference*

| | |
|---|---|
| Synopsis | Loopback interface name that owns prefix to advertise |
| Context | **configure** router *named-item-64* segment-routing sr-mpls prefix-sids *reference* |
| Tree | prefix-sids |
| Reference | **configure** router *named-item-64* interface *interface-name* |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | All |

### ipv4-sid

| | |
|---|---|
| Synopsis | Enable the **ipv4-sid** context |
| Context | **configure** router *named-item-64* segment-routing sr-mpls prefix-sids *reference* ipv4-sid |
| Tree | ipv4-sid |


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| | |
|---|---|
| Introduced | 21.10.R1 |
| Platforms | All |

## **index** *number*

| | |
|---|---|
| Synopsis | Node SID index for the interface |
| Context | **configure** router *named-item-64* segment-routing sr-mpls prefix-sids *reference* ipv4-sid index *number* |
| Tree | index |
| Range | 0 to 4294967295 |
| Notes | The following elements are part of a choice: **index** or **label**. |
| Introduced | 21.10.R1 |
| Platforms | All |

## **label** *number*

| | |
|---|---|
| Synopsis | Label value for the node SID |
| Context | **configure** router *named-item-64* segment-routing sr-mpls prefix-sids *reference* ipv4-sid label *number* |
| Tree | label |
| Range | 32 to 1048575 |
| Notes | The following elements are part of a choice: **index** or **label**. |
| Introduced | 21.10.R1 |
| Platforms | All |

## **ipv6-sid**

| | |
|---|---|
| Synopsis | Enable the **ipv6-sid** context |
| Context | **configure** router *named-item-64* segment-routing sr-mpls prefix-sids *reference* ipv6-sid |
| Tree | ipv6-sid |
| Introduced | 21.10.R1 |
| Platforms | All |

## **index** *number*

| | |
|---|---|
| Synopsis | Node SID index for the interface |


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| | |
|---|---|
| Context | **configure** router *named-item-64* segment-routing sr-mpls prefix-sids *reference* ipv6-sid index *number* |
| Tree | index |
| Range | 0 to 4294967295 |
| Notes | The following elements are part of a choice: **index** or **label**. |
| Introduced | 21.10.R1 |
| Platforms | All |

## **label** *number*

| | |
|---|---|
| Synopsis | Label value for the node SID |
| Context | **configure** router *named-item-64* segment-routing sr-mpls prefix-sids *reference* ipv6-sid label *number* |
| Tree | label |
| Range | 32 to 1048575 |
| Notes | The following elements are part of a choice: **index** or **label**. |
| Introduced | 21.10.R1 |
| Platforms | All |

## **node-sid** *boolean*

| | |
|---|---|
| Synopsis | Assign a node SID to the prefix referencing the router |
| Context | **configure** router *named-item-64* segment-routing sr-mpls prefix-sids *reference* node-sid *boolean* |
| Tree | node-sid |
| Default | true |
| Introduced | 21.10.R1 |
| Platforms | All |

## **sr-policies**

| | |
|---|---|
| Synopsis | Enter the **sr-policies** context |
| Context | **configure** router *named-item-64* segment-routing sr-policies |
| Tree | sr-policies |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of segment routing policies |
| Context | **configure** router *named-item-64* segment-routing sr-policies admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **egress-statistics**

| | |
|---|---|
| Synopsis | Enable the **egress-statistics** context |
| Context | **configure** router *named-item-64* segment-routing sr-policies egress-statistics |
| Tree | egress-statistics |
| Description | Commands in this context configure the collection of egress traffic statistics for all segment routing policies. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **accounting-policy** *reference*

| | |
|---|---|
| Synopsis | Accounting policy ID |
| Context | **configure** router *named-item-64* segment-routing sr-policies egress-statistics accounting-policy *reference* |
| Tree | accounting-policy |
| Reference | **configure** log accounting-policy *number* |
| Introduced | 23.7.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the traffic statistics |
| Context | **configure** router *named-item-64* segment-routing sr-policies egress-statistics admin-state *keyword* |
| Tree | admin-state |


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| | |
|---|---|
| Options | enable, disable |
| Default | disable |
| Introduced | 19.10.R1 |
| Platforms | All |

### **collect-stats** *boolean*

| | |
|---|---|
| Synopsis | Collect accounting and statistical data |
| Context | **configure** router *named-item-64* segment-routing sr-policies egress-statistics collect-stats *boolean* |
| Tree | collect-stats |
| Default | false |
| Introduced | 23.7.R1 |
| Platforms | All |

### **ingress-statistics**

| | |
|---|---|
| Synopsis | Enable the **ingress-statistics** context |
| Context | **configure** router *named-item-64* segment-routing sr-policies ingress-statistics |
| Tree | ingress-statistics |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the traffic statistics |
| Context | **configure** router *named-item-64* segment-routing sr-policies ingress-statistics admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **reserved-label-block** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Reserved local block for segment routing policies |
| Context | **configure** router *named-item-64* segment-routing sr-policies reserved-label-block *reference* |
| Tree | reserved-label-block |
| Reference | **configure** router *named-item-64* mpls-labels reserved-label-block *named-item-64* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **static-policy** [name] *named-item-64*

| | |
|---|---|
| Synopsis | Enter the **static-policy** list instance |
| Context | **configure** router *named-item-64* segment-routing sr-policies static-policy *named-item-64* |
| Tree | static-policy |
| Max. instances | 32768 |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**name**] *named-item-64*

| | |
|---|---|
| Synopsis | Name for the segment routing static policy |
| Context | **configure** router *named-item-64* segment-routing sr-policies static-policy *named-item-64* |
| Tree | static-policy |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of segment routing static policy |
| Context | **configure** router *named-item-64* segment-routing sr-policies static-policy *named-item-64* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **binding-sid** *number*

| | |
|---|---|
| Synopsis | Segment ID that opaquely represents an SR policy to upstream routers |
| Context | **configure** router *named-item-64* segment-routing sr-policies static-policy *named-item-64* binding-sid *number* |
| Tree | binding-sid |
| Range | 32 to 1048575 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **color** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Traffic flows to be steered by this policy |
| Context | **configure** router *named-item-64* segment-routing sr-policies static-policy *named-item-64* color *number* |
| Tree | color |
| Range | 0 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **distinguisher** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Unique value for a policy |
| Context | **configure** router *named-item-64* segment-routing sr-policies static-policy *named-item-64* distinguisher *number* |
| Tree | distinguisher |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **endpoint** *(ipv4-address-no-zone | ipv6-address-no-zone)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Destination of the source-routed path |
| Context | **configure** router *named-item-64* segment-routing sr-policies static-policy *named-item-64* endpoint *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | endpoint |
| Introduced | 16.0.R1 |
| Platforms | All |

### **head-end** *(ipv4-address-no-zone | ipv6-address-no-zone | keyword)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Head end address for this static policy |
| Context | **configure** router *named-item-64* segment-routing sr-policies static-policy *named-item-64* head-end *(ipv4-address-no-zone \| ipv6-address-no-zone \| keyword)* |
| Tree | head-end |
| Options | local |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## **maintenance-policy** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Policy name |
| Context | **configure** router *named-item-64* segment-routing sr-policies static-policy *named-item-64* maintenance-policy *reference* |
| Tree | maintenance-policy |
| Reference | **configure** router *named-item-64* segment-routing maintenance-policy *named-item* |
| Introduced | 20.10.R1 |
| Platforms | All |

## **preference** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Preference value of this static policy |
| Context | **configure** router *named-item-64* segment-routing sr-policies static-policy *named-item-64* preference *number* |
| Tree | preference |
| Max. range | 0 to 4294967295 |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **segment-list** [seg-list-index] *number*

| | |
|---|---|
| Synopsis | Enter the **segment-list** list instance |
| Context | **configure** router *named-item-64* segment-routing sr-policies static-policy *named-item-64* segment-list *number* |
| Tree | segment-list |


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| | |
|---|---|
| Description | Commands in this context configure a segment list for the statically defined segment routing policy. |
| Max. instances | 32 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**seg-list-index**] *number*

| | |
|---|---|
| Synopsis | Index for identifying a specific segment list |
| Context | **configure** router *named-item-64* segment-routing sr-policies static-policy *named-item-64* segment-list *number* |
| Tree | segment-list |
| Description | (no long description required) |
| Range | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of segment list for static policy |
| Context | **configure** router *named-item-64* segment-routing sr-policies static-policy *named-item-64* segment-list *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **segment** [segment-index] *number*

| | |
|---|---|
| Synopsis | Enter the **segment** list instance |
| Context | **configure** router *named-item-64* segment-routing sr-policies static-policy *named-item-64* segment-list *number* segment *number* |
| Tree | segment |


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| | |
|---|---|
| Description | Commands in this context configure a segment inside a segment-list of a statically-defined segment routing policy candidate path.<br>A segment list of a statically-defined SR policy candidate path of type **sr-mpls** can only accept a segment of type **mpls-label**.<br>A segment list of a statically-defined SR policy candidate path of type **srv6** can only accept a segment of type **srv6-sid**. However, you can mix SRv6 segments derived from both classic SRv6 and micro-segment SRv6 locators. |
| Max. instances | 24 |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**segment-index**] *number*

| | |
|---|---|
| Synopsis | Index for identifying a segment in a segment list |
| Context | **configure** router *named-item-64* segment-routing sr-policies static-policy *named-item-64* segment-list *number* segment *number* |
| Tree | segment |
| Description | This command configures the index for identifying a segment in a segment list.<br>Each segment list can have up to 11 segments for SR-MPLS policies, and 24 segments for an SRv6 segment list which only includes micro-segments. For an SRv6 segment list that mixes regular and micro-segments, up to 7 regular segments can be configured. |
| Range | 1 to 24 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## behavior-and-structure

| | |
|---|---|
| Synopsis | Enable the **behavior-and-structure** context |
| Context | **configure** router *named-item-64* segment-routing sr-policies static-policy *named-item-64* segment-list *number* segment *number* behavior-and-structure |
| Tree | behavior-and-structure |
| Description | Commands in this context configure the behavior and structure of the SRv6 policy micro-segment.<br>Behavior and structure are necessary (but not sufficient) for the SRv6 policy micro-segment to be compressed by a head-end. |
| Introduced | 23.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **behavior** *keyword*

| | |
|---|---|
| Synopsis | Behavior of the SRv6 uSID |
| Context | **configure** router *named-item-64* segment-routing sr-policies static-policy *named-item-64* segment-list *number* segment *number* behavior-and-structure behavior *keyword* |
| Tree | behavior |
| Description | This command configures the behavior of the SRv6 policy micro-segment (uSID).<br>The only allowed values are flavorless behaviors of NEXT-CSID. The compression algorithm however supports all flavors.<br>Although END.T with NEXT-CSID is a configurable value, SR OS does not support this behavior for locally-instantiated SIDs. However, configuring this value allows a traffic-engineered path to be built that includes nodes that would support such behavior. |
| Options | end-next-csid, end-x-next-csid, end-t-next-csid, end-b6-encaps-next-csid, end-b6-encaps-red-next-csid |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **block-length** *number*

| | |
|---|---|
| Synopsis | Locator block length of the SRv6 uSID |
| Context | **configure** router *named-item-64* segment-routing sr-policies static-policy *named-item-64* segment-list *number* segment *number* behavior-and-structure block-length *number* |
| Tree | block-length |
| Range | 8 \| 16 \| 24 \| 32 \| 40 \| 48 \| 56 \| 64 |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **function-length** *number*

| | |
|---|---|
| Synopsis | Function length of the SRv6 uSID |
| Context | **configure** router *named-item-64* segment-routing sr-policies static-policy *named-item-64* segment-list *number* segment *number* behavior-and-structure function-length *number* |
| Tree | function-length |


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| | |
|---|---|
| Range | 0 \| 16 |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **node-length** *number*

| | |
|---|---|
| Synopsis | Length of the node part of the SRv6 uSID |
| Context | **configure** router *named-item-64* segment-routing sr-policies static-policy *named-item-64* segment-list *number* segment *number* behavior-and-structure node-length *number* |
| Tree | node-length |
| Range | 0 \| 16 |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **mpls-label** *number*

| | |
|---|---|
| Synopsis | Value for the MPLS label |
| Context | **configure** router *named-item-64* segment-routing sr-policies static-policy *named-item-64* segment-list *number* segment *number* mpls-label *number* |
| Tree | mpls-label |
| Range | 0 to 1048575 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **srv6-sid** *ipv6-address*

| | |
|---|---|
| Synopsis | Segment ID for segment routing IPv6 |
| Context | **configure** router *named-item-64* segment-routing sr-policies static-policy *named-item-64* segment-list *number* segment *number* srv6-sid *ipv6-address* |
| Tree | srv6-sid |
| Description | This command defines the 128-bit SRv6 SID for the segment. |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |


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## **weight** *number*

**WARNING:**
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| | |
|---|---|
| Synopsis | Weight of the segment list |
| Context | **configure** router *named-item-64* segment-routing sr-policies static-policy *named-item-64* segment-list *number* weight *number* |
| Tree | weight |
| Description | This command associates an optional weight value with a segment list of a statically defined segment routing policy to achieve weighted ECMP behavior.<br>When any segment list in the active policy has a weight greater than 1, traffic matching the policy is load-balanced across the segment lists according to their relative weight values. |
| Max. range | 0 to 4294967295 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **segment-routing-v6**

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable the **segment-routing-v6** context |
| Context | **configure** router *named-item-64* segment-routing sr-policies static-policy *named-item-64* segment-routing-v6 |
| Tree | segment-routing-v6 |
| Description | Commands in this context configure a static SRv6 policy. |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **binding-sid** [index] *number*

| | |
|---|---|
| Synopsis | Enter the **binding-sid** list instance |


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| | |
|---|---|
| Context | **configure** router *named-item-64* segment-routing sr-policies static-policy *named-item-64* segment-routing-v6 binding-sid *number* |
| Tree | binding-sid |
| Max. instances | 1 |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## [**index**] *number*

| | |
|---|---|
| Synopsis | Binding SID index |
| Context | **configure** router *named-item-64* segment-routing sr-policies static-policy *named-item-64* segment-routing-v6 binding-sid *number* |
| Tree | binding-sid |
| Range | 1 |
| Notes | This element is part of a list key. |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **ip-address** *ipv6-address*

| | |
|---|---|
| Synopsis | Remote SRv6 binding SID |
| Context | **configure** router *named-item-64* segment-routing sr-policies static-policy *named-item-64* segment-routing-v6 binding-sid *number* ip-address *ipv6-address* |
| Tree | ip-address |
| Description | This command configures an SRv6 binding SID for a remote SRv6 policy. The command cannot be used with a local head-end location (**configure router segment-routing sr-policies static-policy head-end local**).<br><br>This command and the **configure router segment-routing sr-policies static-policy segment-routing-v6 binding-sid locator** command or the **configure router segment-routing sr-policies static-policy segment-routing-v6 binding-sid micro-segment-locator** command are mutually exclusive.<br><br>If the remote head-end is an SR OS system, the binding SID can either be a regular SID or uSID. If it is a uSID, it must be configured with a node ID in the following format: <block><uN><uB6>::)<br><br>The format of the binding SID is a 128-bit IPv6 address. |
| Notes | The following elements are part of a choice: **ip-address** or (**locator** and **micro-segment-locator**). |


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| | |
|---|---|
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## locator

| | |
|---|---|
| Synopsis | Enable the **locator** context |
| Context | **configure** router *named-item-64* segment-routing sr-policies static-policy *named-item-64* segment-routing-v6 binding-sid *number* locator |
| Tree | locator |
| Description | Commands in this context configure a binding SID locator for a local SRv6 policy. This command and the **configure router segment-routing sr-policies static-policy segment-routing-v6 binding-sid ip-address** command for a non-local SRv6 policy are mutually exclusive. |
| Notes | The following elements are part of a choice: **ip-address** or (**locator** and **micro-segment-locator**). |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## function *keyword*

| | |
|---|---|
| Synopsis | Behavior of the local SRv6 regular binding SID |
| Context | **configure** router *named-item-64* segment-routing sr-policies static-policy *named-item-64* segment-routing-v6 binding-sid *number* locator function *keyword* |
| Tree | function |
| Options | end-b6-encaps-red |
| Notes | This element is mandatory. |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## function-value *number*

| | |
|---|---|
| Synopsis | Value of the local SRv6 regular binding SID |
| Context | **configure** router *named-item-64* segment-routing sr-policies static-policy *named-item-64* segment-routing-v6 binding-sid *number* locator function-value *number* |
| Tree | function-value |
| Description | This command configures the function value of the local SRv6 regular binding SID. |


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If this command is not configured, the system automatically selects a value within the range of the dynamic SID function values.

The value must be within the range of static SID function values, and must be available.

| | |
|---|---|
| Range | 1 to 1048575 |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **locator-name** *reference*

| | |
|---|---|
| Synopsis | Name of the locator of the local SRv6 regular binding SID |
| Context | **configure** router *named-item-64* segment-routing sr-policies static-policy *named-item-64* segment-routing-v6 binding-sid *number* locator locator-name *reference* |
| Tree | locator-name |
| Description | This command configures the name of the locator of the local SRv6 regular binding SID.<br>The locator must exist on the system. |
| Reference | **configure** router *named-item-64* segment-routing segment-routing-v6 locator *named-item-64* |
| Notes | This element is mandatory. |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **micro-segment-locator**

| | |
|---|---|
| Synopsis | Enable the **micro-segment-locator** context |
| Context | **configure** router *named-item-64* segment-routing sr-policies static-policy *named-item-64* segment-routing-v6 binding-sid *number* micro-segment-locator |
| Tree | micro-segment-locator |
| Description | Commands in this context configure the local SRv6 microbinding SID. This command and the **configure router segment-routing sr-policies static-policy segment-routing-v6 binding-sid ip-address** command for a non-local SRv6 policy are mutually exclusive. |
| Notes | The following elements are part of a choice: **ip-address** or (**locator** and **micro-segment-locator**). |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |


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## **function** *keyword*

| | |
|---|---|
| Synopsis | Behavior of the local SRv6 microbinding SID |
| Context | **configure** router *named-item-64* segment-routing sr-policies static-policy *named-item-64* segment-routing-v6 binding-sid *number* micro-segment-locator function *keyword* |
| Tree | function |
| Options | end-b6-encaps-red-next-csid |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **function-value** *number*

| | |
|---|---|
| Synopsis | Value of the local SRv6 microbinding SID |
| Context | **configure** router *named-item-64* segment-routing sr-policies static-policy *named-item-64* segment-routing-v6 binding-sid *number* micro-segment-locator function-value *number* |
| Tree | function-value |
| Description | This command configures the function value of the local SRv6 microbinding SID.<br>If this command is not configured, the system automatically selects a value within the range of local and dynamic SID function values.<br>The value must be within the range of local and static SID function values, and must be available. |
| Range | 1 to 65535 |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **locator-name** *reference*

| | |
|---|---|
| Synopsis | Name of the locator of the local SRv6 microbinding SID |
| Context | **configure** router *named-item-64* segment-routing sr-policies static-policy *named-item-64* segment-routing-v6 binding-sid *number* micro-segment-locator locator-name *reference* |
| Tree | locator-name |
| Description | This command configures the name of the locator of the local SRv6 microbinding SID.<br>The locator must be a micro-segment locator and must exist on the system. |


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| | |
|---|---|
| Reference | **configure** router *named-item-64* segment-routing segment-routing-v6 micro-segment-locator *named-item-64* |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **return-path-bfd-sid** *ipv6-address*

| | |
|---|---|
| Synopsis | BFD controlled return path for SRv6 |
| Context | **configure** router *named-item-64* segment-routing sr-policies static-policy *named-item-64* segment-routing-v6 return-path-bfd-sid *ipv6-address* |
| Tree | return-path-bfd-sid |
| Description | This command configures the Seamless Bidirectional Forwarding Detection (S-BFD) session to echo mode and pushes an additional SRv6 SID in the SRH on S-BFD packets only. |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **type** *keyword*

| | |
|---|---|
| Synopsis | Static policy type |
| Context | **configure** router *named-item-64* segment-routing sr-policies static-policy *named-item-64* type *keyword* |
| Tree | type |
| Description | This command configures the type of static policy. Only commands relevant to the type of the static policy can be executed. The type of the static policy can only be changed to a new type if there is no configuration present for the old type, or if all configuration for the old type is deleted. |
| Options | sr-mpls, srv6 |
| Default | sr-mpls |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **selective-fib** *boolean*

| | |
|---|---|
| Synopsis | Enable selective FIB |
| Context | **configure** router *named-item-64* selective-fib *boolean* |


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| | |
|---|---|
| Tree | selective-fib |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## sfm-overload

| | |
|---|---|
| Synopsis | Enable the **sfm-overload** context |
| Context | **configure** router *named-item-64* sfm-overload |
| Tree | sfm-overload |
| Introduced | 16.0.R2 |
| Platforms | 7450 ESS, 7750 SR-1, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s, 7950 XRS, VSR |

## holdoff-time *number*

| | |
|---|---|
| Synopsis | Delay in detecting SFM failures and setting overload |
| Context | **configure** router *named-item-64* sfm-overload holdoff-time *number* |
| Tree | holdoff-time |
| Range | 1 to 600 |
| Units | seconds |
| Introduced | 16.0.R2 |
| Platforms | 7450 ESS, 7750 SR-1, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s, 7950 XRS, VSR |

## sgt-qos

| | |
|---|---|
| Synopsis | Enter the **sgt-qos** context |
| Context | **configure** router *named-item-64* sgt-qos |
| Tree | sgt-qos |
| Introduced | 16.0.R1 |
| Platforms | All |

## dot1p

| | |
|---|---|
| Synopsis | Enter the **dot1p** context |


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| | |
|---|---|
| Context | **configure** router *named-item-64* sgt-qos dot1p |
| Tree | dot1p |
| Introduced | 16.0.R1 |
| Platforms | All |

### **application** [dot1p-app-name] *keyword*

| | |
|---|---|
| Synopsis | Enter the **application** list instance |
| Context | **configure** router *named-item-64* sgt-qos dot1p application *keyword* |
| Tree | application |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**dot1p-app-name**] *keyword*

| | |
|---|---|
| Synopsis | Dot1p application ID that generates control traffic |
| Context | **configure** router *named-item-64* sgt-qos dot1p application *keyword* |
| Tree | application |
| Options | arp, isis, pppoe |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **dot1p** *(keyword | number)*

| | |
|---|---|
| Synopsis | Dot1p value to the traffic generated by this application |
| Context | **configure** router *named-item-64* sgt-qos dot1p application *keyword* dot1p *(keyword \| number)* |
| Tree | dot1p |
| Range | 0 to 7 |
| Options | be – Best effort<br>l2 – Low 2 (best effort)<br>af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority)<br>ef – Expedited forwarding (high priority)<br>h1 – High 1 (high priority) |


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| | |
|---|---|
| | nc – Network control (high priority) |
| Introduced | 16.0.R1 |
| Platforms | All |

## dscp

| | |
|---|---|
| Synopsis | Enter the **dscp** context |
| Context | **configure** router *named-item-64* sgt-qos dscp |
| Tree | dscp |
| Introduced | 16.0.R1 |
| Platforms | All |

## **application** [dscp-app-name] *keyword*

| | |
|---|---|
| Synopsis | Enter the **application** list instance |
| Context | **configure** router *named-item-64* sgt-qos dscp application *keyword* |
| Tree | application |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**dscp-app-name**] *keyword*

| | |
|---|---|
| Synopsis | DSCP application identifier on the NOKIA SR OS router that generates control traffic over IP |
| Context | **configure** router *named-item-64* sgt-qos dscp application *keyword* |
| Tree | application |
| Options | bgp, cflowd, dhcp, dns, ftp, icmp, igmp, l2tp, ldp, mld, msdp, ndis, ntp, ospf, pim, radius, rip, rsvp, snmp, snmp-notification, srrp, ssh, syslog, tacplus, telnet, tftp, traceroute, vrrp, ptp, igmp-reporter, gtp, sflow, diameter, pcep, call-trace, bmp, grpc, mtrace2, http, mpls-udp-return, pfcp, ibcp, bfd |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **dscp** *(keyword* | *number)*

| | |
|---|---|
| Synopsis | DSCP value to the traffic generated by this application |


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| | |
|---|---|
| Context | **configure** router *named-item-64* sgt-qos dscp application *keyword* dscp *(keyword \| number)* |
| Tree | dscp |
| Range | 0 to 63 |
| Options | be, cp1, cp2, cp3, cp4, cp5, cp6, cp7, cs1, cp9, af11, cp11, af12, cp13, af13, cp15, cs2, cp17, af21, cp19, af22, cp21, af23, cp23, cs3, cp25, af31, cp27, af32, cp29, af33, cp31, cs4, cp33, af41, cp35, af42, cp37, af43, cp39, cs5, cp41, cp42, cp43, cp44, cp45, ef, cp47, nc1, cp49, cp50, cp51, cp52, cp53, cp54, cp55, nc2, cp57, cp58, cp59, cp60, cp61, cp62, cp63 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **dscp-map** [dscp-name] *keyword*

| | |
|---|---|
| Synopsis | Enter the **dscp-map** list instance |
| Context | **configure** router *named-item-64* sgt-qos dscp dscp-map *keyword* |
| Tree | dscp-map |
| Introduced | 16.0.R2 |
| Platforms | All |

## [**dscp-name**] *keyword*

| | |
|---|---|
| Synopsis | DSCP name mapped to forwarding class |
| Context | **configure** router *named-item-64* sgt-qos dscp dscp-map *keyword* |
| Tree | dscp-map |
| Options | be, cp1, cp2, cp3, cp4, cp5, cp6, cp7, cs1, cp9, af11, cp11, af12, cp13, af13, cp15, cs2, cp17, af21, cp19, af22, cp21, af23, cp23, cs3, cp25, af31, cp27, af32, cp29, af33, cp31, cs4, cp33, af41, cp35, af42, cp37, af43, cp39, cs5, cp41, cp42, cp43, cp44, cp45, ef, cp47, nc1, cp49, cp50, cp51, cp52, cp53, cp54, cp55, nc2, cp57, cp58, cp59, cp60, cp61, cp62, cp63 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R2 |
| Platforms | All |

## **fc** *keyword*

| | |
|---|---|
| Synopsis | Value for the forwarding class for this mapping |
| Context | **configure** router *named-item-64* sgt-qos dscp dscp-map *keyword* fc *keyword* |


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| | |
|---|---|
| Tree | fc |
| Options | be – Best effort<br>l2 – Low 2 (best effort)<br>af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority)<br>ef – Expedited forwarding (high priority)<br>h1 – High 1 (high priority)<br>nc – Network control (high priority) |
| Introduced | 16.0.R2 |
| Platforms | All |

## static-routes

| | |
|---|---|
| Synopsis | Enter the **static-routes** context |
| Context | **configure** router *named-item-64* static-routes |
| Tree | static-routes |
| Introduced | 16.0.R1 |
| Platforms | All |

## hold-down

| | |
|---|---|
| Synopsis | Enable the **hold-down** context |
| Context | **configure** router *named-item-64* static-routes hold-down |
| Tree | hold-down |
| Description | Commands in this context enable the hold-down time feature globally for static routes in the system.<br>The static route hold-down time is a mechanism to protect from rapid, fluctuating state changes of static routes resulting from issues with reachability because of link flap.<br>The commands in this context apply to all static routes in the VPRN and the base router instance in which this hold-down time is configured in. |
| Introduced | 16.0.R1 |
| Platforms | All |

## initial *number*

| | |
|---|---|
| Synopsis | Value for the initial hold-down time |
| Context | **configure** router *named-item-64* static-routes hold-down initial *number* |


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| | |
|---|---|
| Tree | initial |
| Description | This command specifies the initial value of the hold-down time globally for static routes in the system.<br>When a static route is ready to become active, it remains inactive for the hold-down time before activating the static-route. If, during this hold-down period, the static route becomes inactive again because of factors such as interface failure, the hold-down timer is reset, effectively postponing the activation of the route until the next opportunity. |
| Range | 1 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **max-value** *number*

| | |
|---|---|
| Synopsis | Maximum value of the hold-down time |
| Context | **configure** router *named-item-64* static-routes hold-down max-value *number* |
| Tree | max-value |
| Description | This command specifies the maximum value of the hold-down time globally for static routes in the system. |
| Range | 1 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **multiplier** *number*

| | |
|---|---|
| Synopsis | Multiplier of the previous hold-down time |
| Context | **configure** router *named-item-64* static-routes hold-down multiplier *number* |
| Tree | multiplier |
| Description | This command specifies the multiplier value by which the previous hold-down time is multiplied to calculate the new one. This value applies globally for static routes in the system. |
| Range | 1 to 10 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **route** [ip-prefix] *(ipv4-prefix | ipv6-prefix)* route-type *keyword*

| | |
|---|---|
| Synopsis | Enter the **route** list instance |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* |
| Tree | route |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ip-prefix**] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | IP prefix and prefix length for the static routes |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* |
| Tree | route |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **route-type** *keyword*

| | |
|---|---|
| Synopsis | Static route type for unicast or multicast RPF |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* |
| Tree | route |
| Options | unicast, multicast |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **backup-tag** *number*

| | |
|---|---|
| Synopsis | Static route backup tag |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* backup-tag *number* |
| Tree | backup-tag |


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| | |
|---|---|
| Description | This command associates a 4-byte backup route tag with the static route when the backup next-hop functionality is activated. The tag value is used in route policies to control distribution of the static route into other protocols when the backup next-hop function is activated for the associated static route.<br>The tag specified at this level of the static route causes the tag values that are configured under the **next-hop**, **black-hole**, and **indirect** contexts of the static route to be ignored. |
| Range | 1 to 4294967295 |
| Introduced | 21.2.R1 |
| Platforms | All |

## blackhole

| | |
|---|---|
| Synopsis | Enable the **blackhole** context |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* blackhole |
| Tree | blackhole |
| Introduced | 16.0.R1 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the static route operation |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* blackhole admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Introduced | 16.0.R1 |
| Platforms | All |

## community *community*

| | |
|---|---|
| Synopsis | Community ID associated with the static route |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* blackhole community *community* |
| Tree | community |
| String length | 1 to 72 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **description** *description-allow-all-white-spaces*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* blackhole description *description-allow-all-white-spaces* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **dynamic-bgp** *boolean*

| | |
|---|---|
| Synopsis | Derive static route next hop from BGP next hop value |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* blackhole dynamic-bgp *boolean* |
| Tree | dynamic-bgp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **generate-icmp** *boolean*

| | |
|---|---|
| Synopsis | Send ICMP unreachable messages when received packets match a static route with black-hole next-hop |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* blackhole generate-icmp *boolean* |
| Tree | generate-icmp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **metric** *number*

| | |
|---|---|
| Synopsis | Static route metric |


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| | |
|---|---|
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* blackhole metric *number* |
| Tree | metric |
| Range | 0 to 65535 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **preference** *number*

| | |
|---|---|
| Synopsis | Priority of this static route over the routes from different sources |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* blackhole preference *number* |
| Tree | preference |
| Range | 1 to 255 |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **prefix-list**

| | |
|---|---|
| Synopsis | Enter the **prefix-list** context |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* blackhole prefix-list |
| Tree | prefix-list |
| Introduced | 16.0.R1 |
| Platforms | All |

## **flag** *keyword*

| | |
|---|---|
| Synopsis | Static route match condition from prefix list |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* blackhole prefix-list flag *keyword* |
| Tree | flag |
| Options | any, all, none |
| Default | any |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **name** *reference*

| | |
|---|---|
| Synopsis | Prefix list name |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* blackhole prefix-list name *reference* |
| Tree | name |
| Reference | **configure** policy-options prefix-list *named-item-64* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **tag** *number*

| | |
|---|---|
| Synopsis | Static route tag |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* blackhole tag *number* |
| Tree | tag |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **community** *community*

| | |
|---|---|
| Synopsis | Community ID associated with the static route |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* community *community* |
| Tree | community |
| String length | 1 to 72 |
| Max. instances | 12 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **indirect** [ip-address] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Enter the **indirect** list instance |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix | ipv6-prefix)* route-type *keyword* indirect *(ipv4-address-no-zone | ipv6-address-no-zone)* |
| Tree | indirect |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ip-address**] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Next-hop IP address used to reach the destination |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix | ipv6-prefix)* route-type *keyword* indirect *(ipv4-address-no-zone | ipv6-address-no-zone)* |
| Tree | indirect |
| Description | This command specifies the next-hop IP address used to reach the destination. The specified IP address can be either on the network side or the access side and is typically at least one hop away from the node. |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the static route operation |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix | ipv6-prefix)* route-type *keyword* indirect *(ipv4-address-no-zone | ipv6-address-no-zone)* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **community** *community*

| | |
|---|---|
| Synopsis | Community ID associated with the static route |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix | ipv6-prefix)* route-type *keyword* indirect *(ipv4-address-no-zone | ipv6-address-no-zone)* community *community* |


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| | |
|---|---|
| Tree | community |
| String length | 1 to 72 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **cpe-check** [address] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Enter the **cpe-check** list instance |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* indirect *(ipv4-address-no-zone \| ipv6-address-no-zone)* cpe-check *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | cpe-check |
| Description | When configured, this command enables the Customer Premises Equipment (CPE) check feature and specifies the IP address of the target CPE device.<br><br>This option initiates a background ICMP ping test to the configured target IP address. The IP address can either be an IPv4 address for IPv4 static routes or an IPv6 address for IPv6 static routes. To avoid possible circular references, the target IP address cannot exist in the same subnet as the static route subnet. This command is mutually exclusive with BFD support on a specific static route.<br><br>**Note**: A node that is sourcing CPE-check packets waits an additional full interval before taking action, which gives the CPE time to respond. For example, with a drop-count of 3 and an interval of 1s, three CPE-check packets are sent out and the node waits for the duration of another interval before acting on the loss. Failure declaration may take extra time depending on the load, interval, and other factors. In line with multitasking, multi-priority operating principles of the node, and the relative priority of **cpe-ping**, the node paces these minor events. |
| Max. instances | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**address**] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the target CPE device |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* indirect *(ipv4-address-no-zone \| ipv6-address-no-zone)* cpe-check *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | cpe-check |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## **drop-count** *number*

| | |
|---|---|
| Synopsis | Consecutive ping replies missed before CPE deemed down |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* indirect *(ipv4-address-no-zone \| ipv6-address-no-zone)* cpe-check *(ipv4-address-no-zone \| ipv6-address-no-zone)* drop-count *number* |
| Tree | drop-count |
| Range | 1 to 255 |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **interval** *number*

| | |
|---|---|
| Synopsis | Interval between ICMP pings to target CPE IP address |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* indirect *(ipv4-address-no-zone \| ipv6-address-no-zone)* cpe-check *(ipv4-address-no-zone \| ipv6-address-no-zone)* interval *number* |
| Tree | interval |
| Range | 1 to 255 |
| Units | seconds |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **log** *boolean*

| | |
|---|---|
| Synopsis | Log CPE connectivity checks transitions |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* indirect *(ipv4-address-no-zone \| ipv6-address-no-zone)* cpe-check *(ipv4-address-no-zone \| ipv6-address-no-zone)* log *boolean* |
| Tree | log |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **padding-size** *number*

| | |
|---|---|
| Synopsis | Padding size for CPE connectivity checks |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* indirect *(ipv4-address-no-zone \| ipv6-address-no-zone)* cpe-check *(ipv4-address-no-zone \| ipv6-address-no-zone)* padding-size *number* |
| Tree | padding-size |
| Range | 0 to 16384 |
| Units | bytes |
| Default | 56 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description-allow-all-white-spaces*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* indirect *(ipv4-address-no-zone \| ipv6-address-no-zone)* description *description-allow-all-white-spaces* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **destination-class** *number*

| | |
|---|---|
| Synopsis | Destination class for this static route |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* indirect *(ipv4-address-no-zone \| ipv6-address-no-zone)* destination-class *number* |
| Tree | destination-class |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |


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### **metric** *number*

| | |
|---|---|
| Synopsis | Static route metric |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* indirect *(ipv4-address-no-zone \| ipv6-address-no-zone)* metric *number* |
| Tree | metric |
| Range | 0 to 65535 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **preference** *number*

| | |
|---|---|
| Synopsis | Priority of this static route over the routes from different sources |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* indirect *(ipv4-address-no-zone \| ipv6-address-no-zone)* preference *number* |
| Tree | preference |
| Range | 1 to 255 |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **prefix-list**

| | |
|---|---|
| Synopsis | Enter the **prefix-list** context |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* indirect *(ipv4-address-no-zone \| ipv6-address-no-zone)* prefix-list |
| Tree | prefix-list |
| Introduced | 16.0.R1 |
| Platforms | All |

### **flag** *keyword*

| | |
|---|---|
| Synopsis | Static route match condition from prefix list |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* indirect *(ipv4-address-no-zone \| ipv6-address-no-zone)* prefix-list flag *keyword* |


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| | |
|---|---|
| Tree | flag |
| Options | any, all, none |
| Default | any |
| Introduced | 16.0.R1 |
| Platforms | All |

### **name** *reference*

| | |
|---|---|
| Synopsis | Prefix list name |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* indirect *(ipv4-address-no-zone \| ipv6-address-no-zone)* prefix-list name *reference* |
| Tree | name |
| Reference | **configure** policy-options prefix-list *named-item-64* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **qos**

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* indirect *(ipv4-address-no-zone \| ipv6-address-no-zone)* qos |
| Tree | qos |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **forwarding-class** *keyword*

| | |
|---|---|
| Synopsis | Forwarding class associated with the static route |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* indirect *(ipv4-address-no-zone \| ipv6-address-no-zone)* qos forwarding-class *keyword* |
| Tree | forwarding-class |
| Options | be – Best effort<br>l2 – Low 2 (best effort)<br>af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority) |


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| | |
|---|---|
| | ef – Expedited forwarding (high priority)<br>h1 – High 1 (high priority)<br>nc – Network control (high priority) |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **priority** *keyword*

| | |
|---|---|
| Synopsis | Static route priority |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* indirect *(ipv4-address-no-zone \| ipv6-address-no-zone)* qos priority *keyword* |
| Tree | priority |
| Options | low, high |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **source-class** *number*

| | |
|---|---|
| Synopsis | Source class for the static route |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* indirect *(ipv4-address-no-zone \| ipv6-address-no-zone)* source-class *number* |
| Tree | source-class |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### **tag** *number*

| | |
|---|---|
| Synopsis | Static route tag |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* indirect *(ipv4-address-no-zone \| ipv6-address-no-zone)* tag *number* |
| Tree | tag |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |


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## tunnel-next-hop

| | |
|---|---|
| Synopsis | Enter the **tunnel-next-hop** context |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* indirect *(ipv4-address-no-zone \| ipv6-address-no-zone)* tunnel-next-hop |
| Tree | tunnel-next-hop |
| Introduced | 16.0.R1 |
| Platforms | All |

## disallow-igp *boolean*

| | |
|---|---|
| Synopsis | Do not resolve indirect static routes using IGP next-hops in RTM if no tunnel next-hops found in TTM |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* indirect *(ipv4-address-no-zone \| ipv6-address-no-zone)* tunnel-next-hop disallow-igp *boolean* |
| Tree | disallow-igp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## flex-algo *number*

| | |
|---|---|
| Synopsis | Flexible Algorithm ID |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* indirect *(ipv4-address-no-zone \| ipv6-address-no-zone)* tunnel-next-hop flex-algo *number* |
| Tree | flex-algo |
| Range | 128 to 255 |
| Introduced | 20.7.R1 |
| Platforms | All |

## resolution *keyword*

| | |
|---|---|
| Synopsis | Tunnel next hop resolution to resolve indirect static route |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* indirect *(ipv4-address-no-zone \| ipv6-address-no-zone)* tunnel-next-hop resolution *keyword* |


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| | |
|---|---|
| Tree | resolution |
| Options | none, filter, any |
| Default | none |
| Introduced | 16.0.R1 |
| Platforms | All |

## resolution-filter

| | |
|---|---|
| Synopsis | Enter the **resolution-filter** context |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* indirect *(ipv4-address-no-zone \| ipv6-address-no-zone)* tunnel-next-hop resolution-filter |
| Tree | resolution-filter |
| Introduced | 16.0.R1 |
| Platforms | All |

## ldp *boolean*

| | |
|---|---|
| Synopsis | Use LDP Route Forwarding Equivalence Class (FEC) tunneling for next-hop resolution |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* indirect *(ipv4-address-no-zone \| ipv6-address-no-zone)* tunnel-next-hop resolution-filter ldp *boolean* |
| Tree | ldp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## mpls-fwd-policy *boolean*

| | |
|---|---|
| Synopsis | Use MPLS forwarding policy for tunnel-next-hop |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* indirect *(ipv4-address-no-zone \| ipv6-address-no-zone)* tunnel-next-hop resolution-filter mpls-fwd-policy *boolean* |
| Tree | mpls-fwd-policy |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **rib-api** *boolean*

| | |
|---|---|
| Synopsis | Set RIB API type for use with tunnel next-hop |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* indirect *(ipv4-address-no-zone \| ipv6-address-no-zone)* tunnel-next-hop resolution-filter rib-api *boolean* |
| Tree | rib-api |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **rsvp-te**

| | |
|---|---|
| Synopsis | Enable the **rsvp-te** context |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* indirect *(ipv4-address-no-zone \| ipv6-address-no-zone)* tunnel-next-hop resolution-filter rsvp-te |
| Tree | rsvp-te |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lsp** [lsp-name] *named-item-64*

| | |
|---|---|
| Synopsis | Add a list entry for **lsp** |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* indirect *(ipv4-address-no-zone \| ipv6-address-no-zone)* tunnel-next-hop resolution-filter rsvp-te lsp *named-item-64* |
| Tree | lsp |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**lsp-name**] *named-item-64*

| | |
|---|---|
| Synopsis | Labeled Switch Path name |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* indirect *(ipv4-address-no-zone \| ipv6-address-no-zone)* tunnel-next-hop resolution-filter rsvp-te lsp *named-item-64* |
| Tree | lsp |


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| | |
|---|---|
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sr-isis** *boolean*

| | |
|---|---|
| Synopsis | Use the SR ISIS tunneling mechanism to resolve next hop for the static route |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* indirect *(ipv4-address-no-zone \| ipv6-address-no-zone)* tunnel-next-hop resolution-filter sr-isis *boolean* |
| Tree | sr-isis |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sr-ospf** *boolean*

| | |
|---|---|
| Synopsis | Use SR OSPF tunneling for next-hop resolution |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* indirect *(ipv4-address-no-zone \| ipv6-address-no-zone)* tunnel-next-hop resolution-filter sr-ospf *boolean* |
| Tree | sr-ospf |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sr-ospf3** *boolean*

| | |
|---|---|
| Synopsis | Use SR OSPFv3 tunneling mechanism to resolve next-hop |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* indirect *(ipv4-address-no-zone \| ipv6-address-no-zone)* tunnel-next-hop resolution-filter sr-ospf3 *boolean* |
| Tree | sr-ospf3 |
| Default | false |
| Introduced | 16.0.R6 |
| Platforms | All |


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### sr-te

| | |
|---|---|
| Synopsis | Enable the **sr-te** context |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* indirect *(ipv4-address-no-zone \| ipv6-address-no-zone)* tunnel-next-hop resolution-filter sr-te |
| Tree | sr-te |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lsp** [lsp-name] *named-item-64*

| | |
|---|---|
| Synopsis | Add a list entry for **lsp** |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* indirect *(ipv4-address-no-zone \| ipv6-address-no-zone)* tunnel-next-hop resolution-filter sr-te lsp *named-item-64* |
| Tree | lsp |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**lsp-name**] *named-item-64*

| | |
|---|---|
| Synopsis | Labeled Switch Path name |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* indirect *(ipv4-address-no-zone \| ipv6-address-no-zone)* tunnel-next-hop resolution-filter sr-te lsp *named-item-64* |
| Tree | lsp |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **interface** [interface-name] *interface-name*

| | |
|---|---|
| Synopsis | Enter the **interface** list instance |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* interface *interface-name* |


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| | |
|---|---|
| Tree | interface |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**interface-name**] *interface-name*

| | |
|---|---|
| Synopsis | Router interface name |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* interface *interface-name* |
| Tree | interface |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the static route operation |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* interface *interface-name* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **community** *community*

| | |
|---|---|
| Synopsis | Community ID associated with the static route |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* interface *interface-name* community *community* |
| Tree | community |
| String length | 1 to 72 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **cpe-check** [address] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Enter the **cpe-check** list instance |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* interface *interface-name* cpe-check *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | cpe-check |
| Max. instances | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**address**] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the target CPE device |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* interface *interface-name* cpe-check *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | cpe-check |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **drop-count** *number*

| | |
|---|---|
| Synopsis | Consecutive ping replies missed before CPE deemed down |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* interface *interface-name* cpe-check *(ipv4-address-no-zone \| ipv6-address-no-zone)* drop-count *number* |
| Tree | drop-count |
| Range | 1 to 255 |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **interval** *number*

| | |
|---|---|
| Synopsis | Interval between ICMP pings to target CPE IP address |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* interface *interface-name* cpe-check *(ipv4-address-no-zone \| ipv6-address-no-zone)* interval *number* |
| Tree | interval |
| Range | 1 to 255 |
| Units | seconds |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **log** *boolean*

| | |
|---|---|
| Synopsis | Log CPE connectivity checks transitions |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* interface *interface-name* cpe-check *(ipv4-address-no-zone \| ipv6-address-no-zone)* log *boolean* |
| Tree | log |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **padding-size** *number*

| | |
|---|---|
| Synopsis | Padding size for CPE connectivity checks |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* interface *interface-name* cpe-check *(ipv4-address-no-zone \| ipv6-address-no-zone)* padding-size *number* |
| Tree | padding-size |
| Range | 0 to 16384 |
| Units | bytes |
| Default | 56 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **description** *description-allow-all-white-spaces*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* interface *interface-name* description *description-allow-all-white-spaces* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **destination-class** *number*

| | |
|---|---|
| Synopsis | Destination class for this static route |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* interface *interface-name* destination-class *number* |
| Tree | destination-class |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### **load-balancing-weight** *number*

| | |
|---|---|
| Synopsis | Load-balancing weight for all of the ECMP next hops |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* interface *interface-name* load-balancing-weight *number* |
| Tree | load-balancing-weight |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **metric** *number*

| | |
|---|---|
| Synopsis | Static route metric |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* interface *interface-name* metric *number* |
| Tree | metric |


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| | |
|---|---|
| Range | 0 to 65535 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **preference** *number*

| | |
|---|---|
| Synopsis | Priority of this static route over the routes from different sources |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* interface *interface-name* preference *number* |
| Tree | preference |
| Range | 1 to 255 |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **prefix-list**

| | |
|---|---|
| Synopsis | Enter the **prefix-list** context |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* interface *interface-name* prefix-list |
| Tree | prefix-list |
| Introduced | 16.0.R1 |
| Platforms | All |

## **flag** *keyword*

| | |
|---|---|
| Synopsis | Static route match condition from prefix list |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* interface *interface-name* prefix-list flag *keyword* |
| Tree | flag |
| Options | any, all, none |
| Default | any |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **name** *reference*

| | |
|---|---|
| Synopsis | Prefix list name |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* interface *interface-name* prefix-list name *reference* |
| Tree | name |
| Reference | **configure** policy-options prefix-list *named-item-64* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **qos**

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* interface *interface-name* qos |
| Tree | qos |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **forwarding-class** *keyword*

| | |
|---|---|
| Synopsis | Forwarding class associated with the static route |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* interface *interface-name* qos forwarding-class *keyword* |
| Tree | forwarding-class |
| Options | be – Best effort<br>l2 – Low 2 (best effort)<br>af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority)<br>ef – Expedited forwarding (high priority)<br>h1 – High 1 (high priority)<br>nc – Network control (high priority) |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **priority** *keyword*

| | |
|---|---|
| Synopsis | Static route priority |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* interface *interface-name* qos priority *keyword* |
| Tree | priority |
| Options | low, high |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **source-class** *number*

| | |
|---|---|
| Synopsis | Source class for the static route |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* interface *interface-name* source-class *number* |
| Tree | source-class |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### **tag** *number*

| | |
|---|---|
| Synopsis | Static route tag |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* interface *interface-name* tag *number* |
| Tree | tag |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipsec-tunnel** [ipsec-tunnel-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **ipsec-tunnel** list instance |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* ipsec-tunnel *named-item* |
| Tree | ipsec-tunnel |


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| | |
|---|---|
| Introduced | 22.7.R1 |
| Platforms | VSR |

### [**ipsec-tunnel-name**] *named-item*

| | |
|---|---|
| Synopsis | IPsec tunnel name |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* ipsec-tunnel *named-item* |
| Tree | ipsec-tunnel |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the static route operation |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* ipsec-tunnel *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Introduced | 22.7.R1 |
| Platforms | VSR |

### **community** *community*

| | |
|---|---|
| Synopsis | Community ID associated with the static route |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* ipsec-tunnel *named-item* community *community* |
| Tree | community |
| String length | 1 to 72 |
| Introduced | 22.7.R1 |
| Platforms | VSR |


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### **description** *description-allow-all-white-spaces*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* ipsec-tunnel *named-item* description *description-allow-all-white-spaces* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 22.7.R1 |
| Platforms | VSR |

### **metric** *number*

| | |
|---|---|
| Synopsis | Static route metric |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* ipsec-tunnel *named-item* metric *number* |
| Tree | metric |
| Range | 0 to 65535 |
| Default | 1 |
| Introduced | 22.7.R1 |
| Platforms | VSR |

### **preference** *number*

| | |
|---|---|
| Synopsis | Priority of this static route over the routes from different sources |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* ipsec-tunnel *named-item* preference *number* |
| Tree | preference |
| Range | 1 to 255 |
| Default | 5 |
| Introduced | 22.7.R1 |
| Platforms | VSR |

### **tag** *number*

| | |
|---|---|
| Synopsis | Static route tag |


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| | |
|---|---|
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* ipsec-tunnel *named-item* tag *number* |
| Tree | tag |
| Range | 1 to 4294967295 |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## leak-destination

| | |
|---|---|
| Synopsis | Enter the **leak-destination** context |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* leak-destination |
| Tree | leak-destination |
| Introduced | 24.10.R1 |
| Platforms | All |

## **router-instance** [service-name] *reference*

| | |
|---|---|
| Synopsis | Add a list entry for **router-instance** |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* leak-destination router-instance *reference* |
| Tree | router-instance |
| Introduced | 24.10.R1 |
| Platforms | All |

## [**service-name**] *reference*

| | |
|---|---|
| Synopsis | VPRN service name |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* leak-destination router-instance *reference* |
| Tree | router-instance |
| Reference | **configure** service vprn *service-name* |
| Notes | This element is part of a list key. |
| Introduced | 24.10.R1 |
| Platforms | All |


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### **next-hop** [ip-address] *(ipv4-address-with-zone | ipv6-address-with-zone)*

| | |
|---|---|
| Synopsis | Enter the **next-hop** list instance |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* next-hop *(ipv4-address-with-zone \| ipv6-address-with-zone)* |
| Tree | next-hop |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ip-address**] *(ipv4-address-with-zone | ipv6-address-with-zone)*

| | |
|---|---|
| Synopsis | IP address of the directly-connected next hop |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* next-hop *(ipv4-address-with-zone \| ipv6-address-with-zone)* |
| Tree | next-hop |
| Description | This command specifies the IP address of the directly-connected next hop. The IP address can either be on the network side or the access side on the node. The address must be associated with a network directly connected to a network configured on the node. |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the static route operation |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* next-hop *(ipv4-address-with-zone \| ipv6-address-with-zone)* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **backup-next-hop**

| | |
|---|---|
| Synopsis | Enter the **backup-next-hop** context |


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| | |
|---|---|
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* next-hop *(ipv4-address-with-zone \| ipv6-address-with-zone)* backup-next-hop |
| Tree | backup-next-hop |
| Description | Commands in this context configure static route entry fast failover. |
| Introduced | 21.2.R1 |
| Platforms | All |

## **address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Backup next-hop IP address |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* next-hop *(ipv4-address-with-zone \| ipv6-address-with-zone)* backup-next-hop address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | address |
| Description | This command specifies the backup IP forwarding address that is used for static route Fast ReRoute (FRR). The configured address, if reachable, acts as pre-installed backup forwarding information that can be used when the primary IP next-hop suddenly fails.<br><br>The configured backup next-hop IP address can be directly or indirectly connected (using an IGP or tunnel) to the node. The backup next-hop forwarding information or the Next-hop Label Forwarding Entry (NHLFE) tunnel forwarding information from the IP Routing Table Manager (RTM) is used to preconfigure an IP fast-reroute backup path.<br><br>One backup next-hop address can protect a single primary static route entry next-hop address without ECMP and it is only activated when the primary next-hop has no active ECMP.<br><br>The configured IP address can be either on the network or the access side. |
| Introduced | 21.2.R1 |
| Platforms | All |

## **bfd-liveness** *boolean*

| | |
|---|---|
| Synopsis | Use Bidirectional Forwarding Detection on this static route |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* next-hop *(ipv4-address-with-zone \| ipv6-address-with-zone)* bfd-liveness *boolean* |
| Tree | bfd-liveness |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **community** *community*

| | |
|---|---|
| Synopsis | Community ID associated with the static route |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* next-hop *(ipv4-address-with-zone \| ipv6-address-with-zone)* community *community* |
| Tree | community |
| String length | 1 to 72 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cpe-check** [address] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Enter the **cpe-check** list instance |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* next-hop *(ipv4-address-with-zone \| ipv6-address-with-zone)* cpe-check *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | cpe-check |
| Description | When configured, this command enables the Customer Premises Equipment (CPE) check feature and specifies the IP address of the target CPE device.<br><br>This option initiates a background ICMP ping test to the configured target IP address. The IP address can either be an IPv4 address for IPv4 static routes or an IPv6 address for IPv6 static routes. To avoid possible circular references, the target IP address cannot exist in the same subnet as the static route subnet. This command is mutually exclusive with BFD support on a specific static route.<br><br>**Note**: A node that is sourcing CPE-check packets waits an additional full interval before taking action, which gives the CPE time to respond. For example, with a drop-count of 3 and an interval of 1s, three CPE-check packets are sent out and the node waits for the duration of another interval before acting on the loss. Failure declaration may take extra time depending on the load, interval, and other factors. In line with multitasking, multi-priority operating principles of the node, and the relative priority of **cpe-ping**, the node paces these minor events. |
| Max. instances | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**address**] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the target CPE device |


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| | |
|---|---|
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* next-hop *(ipv4-address-with-zone \| ipv6-address-with-zone)* cpe-check *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | cpe-check |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **drop-count** *number*

| | |
|---|---|
| Synopsis | Consecutive ping replies missed before CPE deemed down |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* next-hop *(ipv4-address-with-zone \| ipv6-address-with-zone)* cpe-check *(ipv4-address-no-zone \| ipv6-address-no-zone)* drop-count *number* |
| Tree | drop-count |
| Range | 1 to 255 |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **interval** *number*

| | |
|---|---|
| Synopsis | Interval between ICMP pings to target CPE IP address |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* next-hop *(ipv4-address-with-zone \| ipv6-address-with-zone)* cpe-check *(ipv4-address-no-zone \| ipv6-address-no-zone)* interval *number* |
| Tree | interval |
| Range | 1 to 255 |
| Units | seconds |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **log** *boolean*

| | |
|---|---|
| Synopsis | Log CPE connectivity checks transitions |


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| | |
|---|---|
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* next-hop *(ipv4-address-with-zone \| ipv6-address-with-zone)* cpe-check *(ipv4-address-no-zone \| ipv6-address-no-zone)* log *boolean* |
| Tree | log |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **padding-size** *number*

| | |
|---|---|
| Synopsis | Padding size for CPE connectivity checks |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* next-hop *(ipv4-address-with-zone \| ipv6-address-with-zone)* cpe-check *(ipv4-address-no-zone \| ipv6-address-no-zone)* padding-size *number* |
| Tree | padding-size |
| Range | 0 to 16384 |
| Units | bytes |
| Default | 56 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **description** *description-allow-all-white-spaces*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* next-hop *(ipv4-address-with-zone \| ipv6-address-with-zone)* description *description-allow-all-white-spaces* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **destination-class** *number*

| | |
|---|---|
| Synopsis | Destination class for this static route |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* next-hop *(ipv4-address-with-zone \| ipv6-address-with-zone)* destination-class *number* |


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| | |
|---|---|
| Tree | destination-class |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### **ldp-sync** *boolean*

| | |
|---|---|
| Synopsis | Use LDP synchronization feature for a static route |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* next-hop *(ipv4-address-with-zone \| ipv6-address-with-zone)* ldp-sync *boolean* |
| Tree | ldp-sync |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **load-balancing-weight** *number*

| | |
|---|---|
| Synopsis | Load-balancing weight for all of the ECMP next hops |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* next-hop *(ipv4-address-with-zone \| ipv6-address-with-zone)* load-balancing-weight *number* |
| Tree | load-balancing-weight |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **metric** *number*

| | |
|---|---|
| Synopsis | Static route metric |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* next-hop *(ipv4-address-with-zone \| ipv6-address-with-zone)* metric *number* |
| Tree | metric |
| Range | 0 to 65535 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **preference** *number*

| | |
|---|---|
| Synopsis | Priority of this static route over the routes from different sources |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* next-hop *(ipv4-address-with-zone \| ipv6-address-with-zone)* preference *number* |
| Tree | preference |
| Range | 1 to 255 |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **prefix-list**

| | |
|---|---|
| Synopsis | Enter the **prefix-list** context |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* next-hop *(ipv4-address-with-zone \| ipv6-address-with-zone)* prefix-list |
| Tree | prefix-list |
| Introduced | 16.0.R1 |
| Platforms | All |

### **flag** *keyword*

| | |
|---|---|
| Synopsis | Static route match condition from prefix list |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* next-hop *(ipv4-address-with-zone \| ipv6-address-with-zone)* prefix-list flag *keyword* |
| Tree | flag |
| Options | any, all, none |
| Default | any |
| Introduced | 16.0.R1 |
| Platforms | All |

### **name** *reference*

| | |
|---|---|
| Synopsis | Prefix list name |


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| | |
|---|---|
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* next-hop *(ipv4-address-with-zone \| ipv6-address-with-zone)* prefix-list name *reference* |
| Tree | name |
| Reference | **configure** policy-options prefix-list *named-item-64* |
| Introduced | 16.0.R1 |
| Platforms | All |

## qos

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* next-hop *(ipv4-address-with-zone \| ipv6-address-with-zone)* qos |
| Tree | qos |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## forwarding-class *keyword*

| | |
|---|---|
| Synopsis | Forwarding class associated with the static route |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* next-hop *(ipv4-address-with-zone \| ipv6-address-with-zone)* qos forwarding-class *keyword* |
| Tree | forwarding-class |
| Options | be – Best effort<br>l2 – Low 2 (best effort)<br>af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority)<br>ef – Expedited forwarding (high priority)<br>h1 – High 1 (high priority)<br>nc – Network control (high priority) |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## priority *keyword*

| | |
|---|---|
| Synopsis | Static route priority |


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| | |
|---|---|
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* next-hop *(ipv4-address-with-zone \| ipv6-address-with-zone)* qos priority *keyword* |
| Tree | priority |
| Options | low, high |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **source-class** *number*

| | |
|---|---|
| Synopsis | Source class for the static route |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* next-hop *(ipv4-address-with-zone \| ipv6-address-with-zone)* source-class *number* |
| Tree | source-class |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### **tag** *number*

| | |
|---|---|
| Synopsis | Static route tag |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* next-hop *(ipv4-address-with-zone \| ipv6-address-with-zone)* tag *number* |
| Tree | tag |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **validate-next-hop** *boolean*

| | |
|---|---|
| Synopsis | Track the state of the next hop in the IPv4 ARP Cache or the IPv6 Neighbor Cache |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* next-hop *(ipv4-address-with-zone \| ipv6-address-with-zone)* validate-next-hop *boolean* |
| Tree | validate-next-hop |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **tag** *number*

| | |
|---|---|
| Synopsis | Static route tag |
| Context | **configure** router *named-item-64* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* tag *number* |
| Tree | tag |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **subscriber-mgmt**

| | |
|---|---|
| Synopsis | Enter the **subscriber-mgmt** context |
| Context | **configure** router *named-item-64* subscriber-mgmt |
| Tree | subscriber-mgmt |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **dhcpv4**

| | |
|---|---|
| Synopsis | Enter the **dhcpv4** context |
| Context | **configure** router *named-item-64* subscriber-mgmt dhcpv4 |
| Tree | dhcpv4 |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **routed-subnet-transparent-forward** *boolean*

| | |
|---|---|
| Synopsis | Transparently forward DHCPv4 from CPE LAN over IPoE |
| Context | **configure** router *named-item-64* subscriber-mgmt dhcpv4 routed-subnet-transparent-forward *boolean* |
| Tree | routed-subnet-transparent-forward |


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| | |
|---|---|
| Description | When configured to **true**, the router transparently forwards DHCPv4 packets received on a subscriber interface with a source IP in a routed subnet that is associated with a routed IPoE session or host.<br>Supported routed subnets are:<br>• RADIUS and NASREQ framed routes<br>• routes learned via an ESM dynamic BGP peer<br>• managed routes that are associated with a static IPv4 host<br>When configured to **false**, the system disables transparent forwarding of DHCPv4 packets. |
| Default | false |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **triggered-policy** *boolean*

| | |
|---|---|
| Synopsis | Trigger route policy re-evaluation |
| Context | **configure** router *named-item-64* triggered-policy *boolean* |
| Tree | triggered-policy |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **ttl-propagate**

| | |
|---|---|
| Synopsis | Enter the **ttl-propagate** context |
| Context | **configure** router *named-item-64* ttl-propagate |
| Tree | ttl-propagate |
| Description | Commands in this context configure TTL propagation for transit and locally generated packets in the Global Routing Table (GRT) and VPRN routing contexts. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **label-route-local** *keyword*

| | |
|---|---|
| Synopsis | TTL propagation from IP header into label stack for local packets |
| Context | **configure** router *named-item-64* ttl-propagate label-route-local *keyword* |


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| | |
|---|---|
| Tree | label-route-local |
| Options | none – Do not propagate TTL or hop-limit field value<br>all – Propagate TTL or hop-limit field value |
| Default | none |
| Introduced | 16.0.R1 |
| Platforms | All |

### **label-route-transit** *keyword*

| | |
|---|---|
| Synopsis | TTL propagation from IP header into label stack for transit packets |
| Context | **configure** router *named-item-64* ttl-propagate label-route-transit *keyword* |
| Tree | label-route-transit |
| Options | none – Do not propagate TTL or hop-limit field value<br>all – Propagate TTL or hop-limit field value |
| Default | none |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lsr-label-route** *keyword*

| | |
|---|---|
| Synopsis | TTL propagation from IP header into label stack |
| Context | **configure** router *named-item-64* ttl-propagate lsr-label-route *keyword* |
| Tree | lsr-label-route |
| Options | none – Do not propagate TTL or hop-limit field value<br>all – Propagate TTL or hop-limit field value |
| Default | none |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sr-mpls-local** *keyword*

| | |
|---|---|
| Synopsis | TTL propagation for local CPM generated IP packets |
| Context | **configure** router *named-item-64* ttl-propagate sr-mpls-local *keyword* |
| Tree | sr-mpls-local |
| Description | This command configures TTL or hop-limit propagation for all segment routing MPLS tunnels carrying IPv4 or IPv6 packets. This applies to IPv4 and IPv6 packets of IGP, BGP unlabelled (except 6PE), and static routes in the base router whose next hop is |


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resolved to a Segment Routing MPLS (SR-MPLS) tunnel of any of the following types: SR-ISIS, SR-OSPF, SR-OSPF3, SR-TE LSP, and SR policy.

This command enables or disables propagation of the TTL or hop-limit field value of CPM originated IP packet to all labels in the segment routing transport label stack. Use the **sr-mpls-transit** command to configure TTL or hop-limit propagation for transit IP packets.

Options none – Do not propagate TTL or hop-limit field value
all – Propagate TTL or hop-limit field value

Default all

Introduced 24.7.R1

Platforms All

## **sr-mpls-transit** *keyword*

Synopsis TTL propagation for in-transit user IP packets

Context **configure** router *named-item-64* ttl-propagate sr-mpls-transit *keyword*

Tree sr-mpls-transit

Description This command configures TTL or hop-limit propagation for all segment routing MPLS tunnels carrying IPv4 or IPv6 packets. This applies to IPv4 and IPv6 packets of IGP, BGP unlabelled (except 6PE), and static routes in the base router whose next hop is resolved to a Segment Routing MPLS (SR-MPLS) tunnel of any of the following types: SR-ISIS, SR-OSPF, SR-OSPF3, SR-TE LSP, and SR policy.

This command enables or disables propagation of the TTL or hop-limit field value for transit IP packets to all labels in the segment routing transport label stack. Transit IP packets are packets of base router prefixes received on an access interface or a network interface (with or without tunnel encapsulation) and whose FIB lookup results in forwarding them over an SR-MPLS tunnel. Use the **sr-mpls-local** command to configure TTL or hop-limit propagation for CPM originated IP packets.

Options none – Do not propagate TTL or hop-limit field value
all – Propagate TTL or hop-limit field value

Default all

Introduced 24.7.R1

Platforms All

## **vprn-local** *keyword*

Synopsis TTL propagation from IP header into label stack for VPRN local packets

Context **configure** router *named-item-64* ttl-propagate vprn-local *keyword*

Tree vprn-local

Options none, all, vc-only


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| | |
|---|---|
| Default | vc-only |
| Introduced | 16.0.R1 |
| Platforms | All |

### **vprn-transit** *keyword*

| | |
|---|---|
| Synopsis | TTL propagation from IP header into label stack for VPRN transit packets |
| Context | **configure** router *named-item-64* ttl-propagate vprn-transit *keyword* |
| Tree | vprn-transit |
| Options | none, all, vc-only |
| Default | vc-only |
| Introduced | 16.0.R1 |
| Platforms | All |

### **tunnel-interface**

| | |
|---|---|
| Synopsis | Enter the **tunnel-interface** context |
| Context | **configure** router *named-item-64* tunnel-interface |
| Tree | tunnel-interface |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ldp-p2mp-leaf** [p2mp-id] *number* sender-address *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Enter the **ldp-p2mp-leaf** list instance |
| Context | **configure** router *named-item-64* tunnel-interface ldp-p2mp-leaf *number* sender-address *ipv4-unicast-address* |
| Tree | ldp-p2mp-leaf |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**p2mp-id**] *number*

| | |
|---|---|
| Synopsis | Identifier used for signaling MLDP P2MP LSP |
| Context | **configure** router *named-item-64* tunnel-interface ldp-p2mp-leaf *number* sender-address *ipv4-unicast-address* |


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| | |
|---|---|
| Tree | ldp-p2mp-leaf |
| Max. range | 0 to 4294967295 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sender-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Address of an LDP sender for the P2MP RSVP tunnel interface instance |
| Context | **configure** router *named-item-64* tunnel-interface ldp-p2mp-leaf *number* sender-address *ipv4-unicast-address* |
| Tree | ldp-p2mp-leaf |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** router *named-item-64* tunnel-interface ldp-p2mp-leaf *number* sender-address *ipv4-unicast-address* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ldp-p2mp-root** [p2mp-id] *number* sender-address *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Enter the **ldp-p2mp-root** list instance |
| Context | **configure** router *named-item-64* tunnel-interface ldp-p2mp-root *number* sender-address *ipv4-unicast-address* |
| Tree | ldp-p2mp-root |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**p2mp-id**] *number*

| | |
|---|---|
| Synopsis | Identifier used for signaling MLDP P2MP LSP |
| Context | **configure** router *named-item-64* tunnel-interface ldp-p2mp-root *number* sender-address *ipv4-unicast-address* |
| Tree | ldp-p2mp-root |
| Range | 1 to 8192 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sender-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Address of an LDP sender for the P2MP RSVP tunnel interface instance |
| Context | **configure** router *named-item-64* tunnel-interface ldp-p2mp-root *number* sender-address *ipv4-unicast-address* |
| Tree | ldp-p2mp-root |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** router *named-item-64* tunnel-interface ldp-p2mp-root *number* sender-address *ipv4-unicast-address* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rsvp-p2mp-leaf** [lsp-name] *named-item* sender-address *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Enter the **rsvp-p2mp-leaf** list instance |
| Context | **configure** router *named-item-64* tunnel-interface rsvp-p2mp-leaf *named-item* sender-address *ipv4-unicast-address* |


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| | |
|---|---|
| Tree | rsvp-p2mp-leaf |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**lsp-name**] *named-item*

| | |
|---|---|
| Synopsis | LSP name of the P2MP RSVP tunnel interface |
| Context | **configure** router *named-item-64* tunnel-interface rsvp-p2mp-leaf *named-item* sender-address *ipv4-unicast-address* |
| Tree | rsvp-p2mp-leaf |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sender-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Address of a sender for the P2MP RSVP tunnel interface instance |
| Context | **configure** router *named-item-64* tunnel-interface rsvp-p2mp-leaf *named-item* sender-address *ipv4-unicast-address* |
| Tree | rsvp-p2mp-leaf |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** router *named-item-64* tunnel-interface rsvp-p2mp-leaf *named-item* sender-address *ipv4-unicast-address* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **rsvp-p2mp-root** [lsp-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **rsvp-p2mp-root** list instance |
| Context | **configure** router *named-item-64* tunnel-interface rsvp-p2mp-root *named-item* |
| Tree | rsvp-p2mp-root |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**lsp-name**] *named-item*

| | |
|---|---|
| Synopsis | LSP name of the P2MP RSVP tunnel interface |
| Context | **configure** router *named-item-64* tunnel-interface rsvp-p2mp-root *named-item* |
| Tree | rsvp-p2mp-root |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** router *named-item-64* tunnel-interface rsvp-p2mp-root *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **twamp-light**

| | |
|---|---|
| Synopsis | Enter the **twamp-light** context |
| Context | **configure** router *named-item-64* twamp-light |
| Tree | twamp-light |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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## reflector

| | |
|---|---|
| Synopsis | Enable the **reflector** context |
| Context | **configure** router *named-item-64* twamp-light reflector |
| Tree | reflector |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of TWAMP Light functionality |
| Context | **configure** router *named-item-64* twamp-light reflector admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## allow-ipv6-udp-checksum-zero *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Process IPv6 packets with a zero UDP checksum |
| Context | **configure** router *named-item-64* twamp-light reflector allow-ipv6-udp-checksum-zero *boolean* |
| Tree | allow-ipv6-udp-checksum-zero |
| Description | When configured to **true**, this command allows the processing of IPv6 packets that arrive with a UDP checksum of zero. The destination UDP ports that are registered as TWAMP Test packets as part of this template allow this behavior.<br>When configured to **false**, IPv6 packets that arrive with a UDP checksum of zero are discarded. |
| Default | false |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** router *named-item-64* twamp-light reflector description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **lag-ip-measurement** *boolean*

| | |
|---|---|
| Synopsis | Process the TWAMP-Light packet fields |
| Context | **configure** router *named-item-64* twamp-light reflector lag-ip-measurement *boolean* |
| Tree | lag-ip-measurement |
| Description | When configured to **true**, the reflector processes the TWAMP-light packet fields used to test LAG member links, as defined in RFC 9533.<br>When configured to **false**, the reflector does not process the RFC 9533 sender micro-session ID or reflector micro-session ID required for TWAMP-Light on each LAG member port for an IP interface. |
| Default | false |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **prefix** [ip-prefix] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Enter the **prefix** list instance |
| Context | **configure** router *named-item-64* twamp-light reflector prefix *(ipv4-prefix | ipv6-prefix)* |
| Tree | prefix |
| Max. instances | 50 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### [**ip-prefix**] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Source prefix for the TWAMP-Light reflector |


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| | |
|---|---|
| Context | **configure** router *named-item-64* twamp-light reflector prefix *(ipv4-prefix \| ipv6-prefix)* |
| Tree | prefix |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** router *named-item-64* twamp-light reflector prefix *(ipv4-prefix \| ipv6-prefix)* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **type** *keyword*

| | |
|---|---|
| Synopsis | Processing behavior type for the reflector |
| Context | **configure** router *named-item-64* twamp-light reflector type *keyword* |
| Tree | type |
| Description | This command configures the processing behavior of the TWAMP Light reflector. When the value is **twamp-light** the reflector does not check the received PDU as a traditional base TWAMP Light packet without TLV processing. When the value is **stamp**, the reflector attempts to find and process supported STAMP TLVs that follow the base STAMP packet.<br><br>In mixed environments where different types of Session-Senders may be targeting a common TWAMP Light reflector, set the value to **stamp**. When the reflector is operating in **stamp** mode, the primary parsing is based on STAMP, checking and processing known TLVs, or determining if the arriving PDU is a TWAMP Light PDU. A Session-Sender launching a TWAMP Light-based packet must use all zeros padding pattern when the pad size is non zero. |
| Options | stamp, twamp-light |
| Default | twamp-light |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **udp-port** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | UDP port on which the specified TWAMP-Light reflector listens for TWAMP PDUs |
| Context | **configure** router *named-item-64* twamp-light reflector udp-port *number* |
| Tree | udp-port |
| Range | 862 \| 64364 to 64373 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **vrgw**

| | |
|---|---|
| Synopsis | Enter the **vrgw** context |
| Context | **configure** router *named-item-64* vrgw |
| Tree | vrgw |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **lanext**

| | |
|---|---|
| Synopsis | Enable the **lanext** context |
| Context | **configure** router *named-item-64* vrgw lanext |
| Tree | lanext |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of Home LAN Extension |
| Context | **configure** router *named-item-64* vrgw lanext admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |


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| | |
|---|---|
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **vxlan-port** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | UDP port to be used by local or remote VXLAN VTEP |
| Context | **configure** router *named-item-64* vrgw lanext vxlan-port *number* |
| Tree | vxlan-port |
| Range | 4789 \| 8472 |
| Default | 4789 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **vxlan-vtep-range**

| | |
|---|---|
| Synopsis | Enter the **vxlan-vtep-range** context |
| Context | **configure** router *named-item-64* vrgw lanext vxlan-vtep-range |
| Tree | vxlan-vtep-range |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **end** *(ipv4-address-no-zone | ipv6-address-no-zone)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Upper bound of the VXLAN VTEP range |
| Context | **configure** router *named-item-64* vrgw lanext vxlan-vtep-range end *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | end |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **start** *(ipv4-address-no-zone | ipv6-address-no-zone)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Lower bound of the VXLAN VTEP range |
| Context | **configure** router *named-item-64* vrgw lanext vxlan-vtep-range start *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | start |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **wlan-gw-group** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | WLAN-GW group used for Home LAN Extension |
| Context | **configure** router *named-item-64* vrgw lanext wlan-gw-group *reference* |
| Tree | wlan-gw-group |
| Reference | **configure** isa wlan-gw-group *number* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **weighted-ecmp** *keyword*

| | |
|---|---|
| Synopsis | Weighted load-balancing capability for ECMP routes |
| Context | **configure** router *named-item-64* weighted-ecmp *keyword* |
| Tree | weighted-ecmp |
| Options | false, true, strict |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## wlan-gw

| | |
|---|---|
| Synopsis | Enable the **wlan-gw** context |
| Context | **configure** router *named-item-64* wlan-gw |
| Tree | wlan-gw |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## distributed-subscriber-mgmt

| | |
|---|---|
| Synopsis | Enter the **distributed-subscriber-mgmt** context |
| Context | **configure** router *named-item-64* wlan-gw distributed-subscriber-mgmt |
| Tree | distributed-subscriber-mgmt |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## ipv6-tcp-mss-adjust *number*

| | |
|---|---|
| Synopsis | TCP-MSS adjustment value in upstream direction for DSM |
| Context | **configure** router *named-item-64* wlan-gw distributed-subscriber-mgmt ipv6-tcp-mss-adjust *number* |
| Tree | ipv6-tcp-mss-adjust |
| Range | 160 to 10240 |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## mobility-triggered-accounting

| | |
|---|---|
| Synopsis | Enter the **mobility-triggered-accounting** context |
| Context | **configure** router *named-item-64* wlan-gw mobility-triggered-accounting |
| Tree | mobility-triggered-accounting |
| Introduced | 16.0.R4 |


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| | |
|---|---|
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of mobility triggered accounting |
| Context | **configure** router *named-item-64* wlan-gw mobility-triggered-accounting admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **hold-down** *number*

| | |
|---|---|
| Synopsis | Hold additional mobility-triggered update until this timer expires |
| Context | **configure** router *named-item-64* wlan-gw mobility-triggered-accounting hold-down *number* |
| Tree | hold-down |
| Range | 60 to 86400 |
| Units | seconds |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **include-counters** *boolean*

| | |
|---|---|
| Synopsis | Include counters in interim updates |
| Context | **configure** router *named-item-64* wlan-gw mobility-triggered-accounting include-counters *boolean* |
| Tree | include-counters |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## xconnect

| | |
|---|---|
| Synopsis | Enter the **xconnect** context |
| Context | **configure** router *named-item-64* wlan-gw xconnect |
| Tree | xconnect |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the WLAN-GW cross-connect |
| Context | **configure** router *named-item-64* wlan-gw xconnect admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## tunnel-source-ip *ipv6-prefix*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IPv6 address and prefix for the tunnel source |
| Context | **configure** router *named-item-64* wlan-gw xconnect tunnel-source-ip *ipv6-prefix* |
| Tree | tunnel-source-ip |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## wlan-gw-group *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | ISA WLAN-GW Group |


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| | |
|---|---|
| Context | **configure** router *named-item-64* wlan-gw xconnect wlan-gw-group *reference* |
| Tree | wlan-gw-group |
| Reference | **configure** isa wlan-gw-group *number* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### wpp

| | |
|---|---|
| Synopsis | Enable the **wpp** context |
| Context | **configure** router *named-item-64* wpp |
| Tree | wpp |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of WPP |
| Context | **configure** router *named-item-64* wpp admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **portal** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **portal** list instance |
| Context | **configure** router *named-item-64* wpp portal *named-item* |
| Tree | portal |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | Web portal name |


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| | |
|---|---|
| Context | **configure** router *named-item-64* wpp portal *named-item* |
| Tree | portal |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ack-auth-retry-count** *number*

| | |
|---|---|
| Synopsis | Number of retransmissions of an ACK_OUT message |
| Context | **configure** router *named-item-64* wpp portal *named-item* ack-auth-retry-count *number* |
| Tree | ack-auth-retry-count |
| Range | 0 to 5 |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | WPP portal address |
| Context | **configure** router *named-item-64* wpp portal *named-item* address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | address |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the WPP portal server |
| Context | **configure** router *named-item-64* wpp portal *named-item* admin-state *keyword* |
| Tree | admin-state |


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| | |
|---|---|
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ntf-logout-retry-count** *number*

| | |
|---|---|
| Synopsis | Number of retransmissions of an NTF_LOGOUT message |
| Context | **configure** router *named-item-64* wpp portal *named-item* ntf-logout-retry-count *number* |
| Tree | ntf-logout-retry-count |
| Range | 0 to 5 |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **port-format** *keyword*

| | |
|---|---|
| Synopsis | Format of the port in the ACK_INO message |
| Context | **configure** router *named-item-64* wpp portal *named-item* port-format *keyword* |
| Tree | port-format |
| Options | standard, vendor-specific |
| Default | standard |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **retry-interval** *number*

| | |
|---|---|
| Synopsis | Time between two consecutive retransmissions |
| Context | **configure** router *named-item-64* wpp portal *named-item* retry-interval *number* |
| Tree | retry-interval |
| Range | 10 to 2000 |
| Units | milliseconds |
| Default | 2000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **secret** *encrypted-leaf*

| | |
|---|---|
| Synopsis | Message authentication between portal and BRAS by applying the secret used by WPPv2 |
| Context | **configure** router *named-item-64* wpp portal *named-item* secret *encrypted-leaf* |
| Tree | secret |
| String length | 1 to 115 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **version** *number*

| | |
|---|---|
| Synopsis | Protocol version to be expected by the WPP portal |
| Context | **configure** router *named-item-64* wpp portal *named-item* version *number* |
| Tree | version |
| Range | 1 \| 2 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## 4.40 routing-options commands

```
configure
   –  routing-options
      –  admin-tags
         –  admin-tag string
         –  route-admin-tag-policy string
            –  apply-groups reference
            –  apply-groups-exclude reference
            –  exclude reference
            –  include reference
      –  apply-groups reference
      –  apply-groups-exclude reference
      –  flexible-algorithm-definitions
         –  apply-groups reference
         –  apply-groups-exclude reference
         –  flex-algo named-item
            –  admin-state keyword
            –  apply-groups reference
            –  apply-groups-exclude reference
            –  description description
            –  exclude
               –  admin-group reference
            –  flags-tlv boolean
            –  include-all
               –  admin-group reference
            –  include-any
               –  admin-group reference
            –  metric-type keyword
            –  priority number
      –  if-attribute
         –  admin-group named-item
            –  apply-groups reference
            –  apply-groups-exclude reference
            –  value number
         –  apply-groups reference
         –  apply-groups-exclude reference
         –  srlg-group named-item
            –  apply-groups reference
            –  apply-groups-exclude reference
            –  penalty-weight number
            –  value number
      –  ip-fast-reroute boolean
      –  policy-accounting
         –  apply-groups reference
         –  apply-groups-exclude reference
         –  policy-acct-template named-item
            –  apply-groups reference
            –  apply-groups-exclude reference
            –  destination-class number
               –  apply-groups reference
               –  apply-groups-exclude reference
               –  policer reference
            –  policer number
               –  apply-groups reference
               –  apply-groups-exclude reference
               –  max-burst-size (number | keyword)
               –  peak-rate (number | keyword)
            –  source-class number
      –  route-next-hop-policy
         –  apply-groups reference
```


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configure routing-options route-next-hop-policy apply-groups-exclude

```
        - apply-groups-exclude reference
        - template named-item
          - apply-groups reference
          - apply-groups-exclude reference
          - description description
          - exclude-group reference
          - include-group reference
            - apply-groups reference
            - apply-groups-exclude reference
            - preference number
          - nh-type keyword
          - protection-type keyword
          - srlg boolean
```


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## 4.40.1 routing-options command descriptions

### routing-options

| | |
|---|---|
| Synopsis | Enter the **routing-options** context |
| Context | **configure** routing-options |
| Tree | routing-options |
| Introduced | 16.0.R1 |
| Platforms | All |

### admin-tags

| | |
|---|---|
| Synopsis | Enter the **admin-tags** context |
| Context | **configure** routing-options admin-tags |
| Tree | admin-tags |
| Introduced | 16.0.R1 |
| Platforms | All |

### admin-tag [tag] *string*

| | |
|---|---|
| Synopsis | Add a list entry for **admin-tag** |
| Context | **configure** routing-options admin-tags admin-tag *string* |
| Tree | admin-tag |
| Max. instances | 256 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**tag**] *string*

| | |
|---|---|
| Synopsis | Administrative tag value |
| Context | **configure** routing-options admin-tags admin-tag *string* |
| Tree | admin-tag |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **route-admin-tag-policy** [policy-name] *string*

| | |
|---|---|
| Synopsis | Enter the **route-admin-tag-policy** list instance |
| Context | **configure** routing-options admin-tags route-admin-tag-policy *string* |
| Tree | route-admin-tag-policy |
| Max. instances | 2048 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**policy-name**] *string*

| | |
|---|---|
| Synopsis | Name of the route admin tag policy |
| Context | **configure** routing-options admin-tags route-admin-tag-policy *string* |
| Tree | route-admin-tag-policy |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **exclude** [tag] *reference*

| | |
|---|---|
| Synopsis | Add a list entry for **exclude** |
| Context | **configure** routing-options admin-tags route-admin-tag-policy *string* exclude *reference* |
| Tree | exclude |
| Max. instances | 8 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**tag**] *reference*

| | |
|---|---|
| Synopsis | Administrative tag value |


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| | |
|---|---|
| Context | **configure** routing-options admin-tags route-admin-tag-policy *string* exclude *reference* |
| Tree | exclude |
| Reference | **configure** routing-options admin-tags admin-tag *string* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **include** [tag] *reference*

| | |
|---|---|
| Synopsis | Add a list entry for **include** |
| Context | **configure** routing-options admin-tags route-admin-tag-policy *string* include *reference* |
| Tree | include |
| Max. instances | 8 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**tag**] *reference*

| | |
|---|---|
| Synopsis | Administrative tag value |
| Context | **configure** routing-options admin-tags route-admin-tag-policy *string* include *reference* |
| Tree | include |
| Reference | **configure** routing-options admin-tags admin-tag *string* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **flexible-algorithm-definitions**

| | |
|---|---|
| Synopsis | Enter the **flexible-algorithm-definitions** context |
| Context | **configure** routing-options flexible-algorithm-definitions |
| Tree | flexible-algorithm-definitions |
| Description | Commands in this context enable locally-configured algorithm definitions and configure administrative groups. |
| Introduced | 20.7.R1 |


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| | |
|---|---|
| Platforms | All |

### **flex-algo** [flex-algo-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **flex-algo** list instance |
| Context | **configure** routing-options flexible-algorithm-definitions flex-algo *named-item* |
| Tree | flex-algo |
| Description | Commands in this context configure the definition context for a Flexible Algorithm Definition (FAD). |
| Max. instances | 256 |
| Introduced | 20.7.R1 |
| Platforms | All |

### [**flex-algo-name**] *named-item*

| | |
|---|---|
| Synopsis | Flexible Algorithm Definition (FAD) name |
| Context | **configure** routing-options flexible-algorithm-definitions flex-algo *named-item* |
| Tree | flex-algo |
| Description | This command specifies the name of the flexible algorithm definition that is used as a reference anchor for the configuration. |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 20.7.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the FAD |
| Context | **configure** routing-options flexible-algorithm-definitions flex-algo *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 20.7.R1 |
| Platforms | All |


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### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** routing-options flexible-algorithm-definitions flex-algo *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 20.7.R1 |
| Platforms | All |

### **exclude**

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **exclude** context |
| Context | **configure** routing-options flexible-algorithm-definitions flex-algo *named-item* exclude |
| Tree | exclude |
| Description | Commands in this context define administrative groups that are used to exclude links from the Flexible Algorithm topology graph.<br>Administrative groups, also known as link colors, are attributes associated with a link. The exclude rule that is part of the FAD specifies that links with the named administrative groups set are to be excluded from the topology graph. |
| Introduced | 20.7.R1 |
| Platforms | All |

### **admin-group** [group-name] *reference*

| | |
|---|---|
| Synopsis | Add a list entry for **admin-group** |
| Context | **configure** routing-options flexible-algorithm-definitions flex-algo *named-item* exclude admin-group *reference* |
| Tree | admin-group |
| Introduced | 20.7.R1 |
| Platforms | All |


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### [**group-name**] *reference*

| | |
|---|---|
| Synopsis | Administrative group name |
| Context | **configure** routing-options flexible-algorithm-definitions flex-algo *named-item* exclude admin-group *reference* |
| Tree | admin-group |
| Reference | **configure** routing-options if-attribute admin-group *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 20.7.R1 |
| Platforms | All |

### **flags-tlv** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Advertise the FAD Flags TLV |
| Context | **configure** routing-options flexible-algorithm-definitions flex-algo *named-item* flags-tlv *boolean* |
| Tree | flags-tlv |
| Description | When configured to **true**, the router advertises the FAD Flags TLV within the FAD. The M-flag within the TLV is set to 1, specifying the use of a Flex-Algorithm specific prefix metric. A router receiving the TLV modifies the constrained SPF (cSPF) based on the M-flag status.<br>When configured to **false**, the FAD Flags TLV is not included with the FAD advertisement. |
| Default | true |
| Introduced | 20.10.R1 |
| Platforms | All |

### **include-all**

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **include-all** context |


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| | |
|---|---|
| Context | **configure** routing-options flexible-algorithm-definitions flex-algo *named-item* include-all |
| Tree | include-all |
| Description | Commands in this context define administrative groups that are used to include links from the Flexible Algorithm topology graph.<br>Administrative groups, also known as link colors, are attributes associated with a link. The include-all rule that is part of the FAD specifies that all named administrative groups must be present in a link to be included in the topology graph. |
| Introduced | 20.7.R1 |
| Platforms | All |

## **admin-group** [group-name] *reference*

| | |
|---|---|
| Synopsis | Add a list entry for **admin-group** |
| Context | **configure** routing-options flexible-algorithm-definitions flex-algo *named-item* include-all admin-group *reference* |
| Tree | admin-group |
| Introduced | 20.7.R1 |
| Platforms | All |

## [**group-name**] *reference*

| | |
|---|---|
| Synopsis | Administrative group name |
| Context | **configure** routing-options flexible-algorithm-definitions flex-algo *named-item* include-all admin-group *reference* |
| Tree | admin-group |
| Reference | **configure** routing-options if-attribute admin-group *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 20.7.R1 |
| Platforms | All |

## **include-any**

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **include-any** context |


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| | |
|---|---|
| Context | **configure** routing-options flexible-algorithm-definitions flex-algo *named-item* include-any |
| Tree | include-any |
| Description | Commands in this context define administrative groups that are used to include links from the Flexible Algorithm topology graph.<br>Administrative groups, also known as link colors, are attributes associated with a link. The include-all rule that is part of the FAD specifies that any link with the named administrative groups is included in the topology graph. |
| Introduced | 20.7.R1 |
| Platforms | All |

### **admin-group** [group-name] *reference*

| | |
|---|---|
| Synopsis | Add a list entry for **admin-group** |
| Context | **configure** routing-options flexible-algorithm-definitions flex-algo *named-item* include-any admin-group *reference* |
| Tree | admin-group |
| Introduced | 20.7.R1 |
| Platforms | All |

### [**group-name**] *reference*

| | |
|---|---|
| Synopsis | Administrative group name |
| Context | **configure** routing-options flexible-algorithm-definitions flex-algo *named-item* include-any admin-group *reference* |
| Tree | admin-group |
| Reference | **configure** routing-options if-attribute admin-group *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 20.7.R1 |
| Platforms | All |

### **metric-type** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | FAD metric type |


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| | |
|---|---|
| Context | **configure** routing-options flexible-algorithm-definitions flex-algo *named-item* metric-type *keyword* |
| Tree | metric-type |
| Options | igp, delay, te-metric |
| Default | igp |
| Introduced | 20.7.R1 |
| Platforms | All |

## **priority** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | FAD priority |
| Context | **configure** routing-options flexible-algorithm-definitions flex-algo *named-item* priority *number* |
| Tree | priority |
| Description | This command configures the priority of the FAD. The priority is used as a tie-breaker when the router has received multiple FADs for the same flexible algorithm. |
| Range | 0 to 255 |
| Default | 100 |
| Introduced | 20.7.R1 |
| Platforms | All |

## **if-attribute**

| | |
|---|---|
| Synopsis | Enter the **if-attribute** context |
| Context | **configure** routing-options if-attribute |
| Tree | if-attribute |
| Introduced | 16.0.R1 |
| Platforms | All |

## **admin-group** [group-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **admin-group** list instance |
| Context | **configure** routing-options if-attribute admin-group *named-item* |


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| | |
|---|---|
| Tree | admin-group |
| Max. instances | 256 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**group-name**] *named-item*

| | |
|---|---|
| Synopsis | Interface group name |
| Context | **configure** routing-options if-attribute admin-group *named-item* |
| Tree | admin-group |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **value** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Integer value associated with the group |
| Context | **configure** routing-options if-attribute admin-group *named-item* value *number* |
| Tree | value |
| Range | 0 to 255 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **srlg-group** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **srlg-group** list instance |
| Context | **configure** routing-options if-attribute srlg-group *named-item* |
| Tree | srlg-group |


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| | |
|---|---|
| Max. instances | 1024 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | SRLG name |
| Context | **configure** routing-options if-attribute srlg-group *named-item* |
| Tree | srlg-group |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **penalty-weight** *number*

| | |
|---|---|
| Synopsis | Integer value of the penalty weight assigned to SRLG |
| Context | **configure** routing-options if-attribute srlg-group *named-item* penalty-weight *number* |
| Tree | penalty-weight |
| Description | This command specifies the penalty weight associated with a SRLG. The higher the penalty weight, the less desirable it is to use the link with a given SRLG. |
| Range | 0 to 65535 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **value** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Integer value associated with the SRLG |
| Context | **configure** routing-options if-attribute srlg-group *named-item* value *number* |
| Tree | value |


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| | |
|---|---|
| Range | 0 to 4294967295 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ip-fast-reroute** *boolean*

| | |
|---|---|
| Synopsis | Enable IP fast reroute capability |
| Context | **configure** routing-options ip-fast-reroute *boolean* |
| Tree | ip-fast-reroute |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **policy-accounting**

| | |
|---|---|
| Synopsis | Enter the **policy-accounting** context |
| Context | **configure** routing-options policy-accounting |
| Tree | policy-accounting |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### **policy-acct-template** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **policy-acct-template** list instance |
| Context | **configure** routing-options policy-accounting policy-acct-template *named-item* |
| Tree | policy-acct-template |
| Max. instances | 1024 |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | Policy accounting template name |


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| | |
|---|---|
| Context | **configure** routing-options policy-accounting policy-acct-template *named-item* |
| Tree | policy-acct-template |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### **destination-class** [index] *number*

| | |
|---|---|
| Synopsis | Enter the **destination-class** list instance |
| Context | **configure** routing-options policy-accounting policy-acct-template *named-item* destination-class *number* |
| Tree | destination-class |
| Max. instances | 255 |
| Introduced | 21.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### [**index**] *number*

| | |
|---|---|
| Synopsis | Destination class index |
| Context | **configure** routing-options policy-accounting policy-acct-template *named-item* destination-class *number* |
| Tree | destination-class |
| Range | 1 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 21.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### **policer** *reference*

| | |
|---|---|
| Synopsis | Policer ID |
| Context | **configure** routing-options policy-accounting policy-acct-template *named-item* destination-class *number* policer *reference* |
| Tree | policer |


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| | |
|---|---|
| Reference | **configure** routing-options policy-accounting policy-acct-template *named-item* policer *number* |
| Introduced | 21.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## **policer** [policer-id] *number*

| | |
|---|---|
| Synopsis | Enter the **policer** list instance |
| Context | **configure** routing-options policy-accounting policy-acct-template *named-item* policer *number* |
| Tree | policer |
| Description | Commands in this context configure the policer definition for the instance.<br>Policing by action of a policy accounting template is only supported by cards and systems that are FP4 and later. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## [**policer-id**] *number*

| | |
|---|---|
| Synopsis | Policer ID |
| Context | **configure** routing-options policy-accounting policy-acct-template *named-item* policer *number* |
| Tree | policer |
| Range | 1 to 63 |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## **max-burst-size** *(number | keyword)*

| | |
|---|---|
| Synopsis | Exceed threshold to drop packets from PIR leaky bucket |
| Context | **configure** routing-options policy-accounting policy-acct-template *named-item* policer *number* max-burst-size *(number | keyword)* |
| Tree | max-burst-size |
| Description | This command specifies the maximum burst size for the policer. When this value is exceeded, packets are considered violating and are dropped. |
| Range | 0 to 16777216 |


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| | |
|---|---|
| Units | bytes |
| Options | auto |
| Default | auto |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### **peak-rate** *(number | keyword)*

| | |
|---|---|
| Synopsis | Peak rate of the policy accounting policer |
| Context | **configure** routing-options policy-accounting policy-acct-template *named-item* policer *number* peak-rate *(number \| keyword)* |
| Tree | peak-rate |
| Description | This command configures the peak rate of the policy accounting policer, which is the fill or drain rate of the bucket. |
| Range | 1 to 6400000000 |
| Options | max |
| Default | max |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### **source-class** [index] *number*

| | |
|---|---|
| Synopsis | Add a list entry for **source-class** |
| Context | **configure** routing-options policy-accounting policy-acct-template *named-item* source-class *number* |
| Tree | source-class |
| Max. instances | 255 |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### [**index**] *number*

| | |
|---|---|
| Synopsis | Source-class index |
| Context | **configure** routing-options policy-accounting policy-acct-template *named-item* source-class *number* |


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| | |
|---|---|
| Tree | source-class |
| Range | 1 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### **route-next-hop-policy**

| | |
|---|---|
| Synopsis | Enter the **route-next-hop-policy** context |
| Context | **configure** routing-options route-next-hop-policy |
| Tree | route-next-hop-policy |
| Introduced | 16.0.R1 |
| Platforms | All |

### **template** [template-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **template** list instance |
| Context | **configure** routing-options route-next-hop-policy template *named-item* |
| Tree | template |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**template-name**] *named-item*

| | |
|---|---|
| Synopsis | Template name |
| Context | **configure** routing-options route-next-hop-policy template *named-item* |
| Tree | template |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |


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| | |
|---|---|
| Context | **configure** routing-options route-next-hop-policy template *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **exclude-group** [group-name] *reference*

| | |
|---|---|
| Synopsis | Add a list entry for **exclude-group** |
| Context | **configure** routing-options route-next-hop-policy template *named-item* exclude-group *reference* |
| Tree | exclude-group |
| Max. instances | 32 |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**group-name**] *reference*

| | |
|---|---|
| Synopsis | Administrative group name |
| Context | **configure** routing-options route-next-hop-policy template *named-item* exclude-group *reference* |
| Tree | exclude-group |
| Description | This command specifies the name of the administrative group.<br>If the same group name is part of both include and exclude statements, the exclude statement wins. In other words, the exclude statement can be viewed as having an implicit preference value of 0. |
| Reference | **configure** routing-options if-attribute admin-group *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **include-group** [group-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **include-group** list instance |


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| | |
|---|---|
| Context | **configure** routing-options route-next-hop-policy template *named-item* include-group *reference* |
| Tree | include-group |
| Max. instances | 32 |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**group-name**] *reference*

| | |
|---|---|
| Synopsis | Administrative group name |
| Context | **configure** routing-options route-next-hop-policy template *named-item* include-group *reference* |
| Tree | include-group |
| Description | This command specifies the name of the administrative group.<br>If the same group name is part of both include and exclude statements, the exclude statement wins. In other words, the exclude statement can be viewed as having an implicit preference value of 0. |
| Reference | **configure** routing-options if-attribute admin-group *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **preference** *number*

| | |
|---|---|
| Synopsis | Preference number for the admin group |
| Context | **configure** routing-options route-next-hop-policy template *named-item* include-group *reference* preference *number* |
| Tree | preference |
| Range | 1 to 255 |
| Default | 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **nh-type** *keyword*

| | |
|---|---|
| Synopsis | Preferred next hop |


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| | |
|---|---|
| Context | **configure** routing-options route-next-hop-policy template *named-item* nh-type *keyword* |
| Tree | nh-type |
| Options | ip, tunnel |
| Default | ip |
| Introduced | 16.0.R1 |
| Platforms | All |

### **protection-type** *keyword*

| | |
|---|---|
| Synopsis | Protection type used |
| Context | **configure** routing-options route-next-hop-policy template *named-item* protection-type *keyword* |
| Tree | protection-type |
| Options | link, node |
| Default | node |
| Introduced | 16.0.R1 |
| Platforms | All |

### **srlg** *boolean*

| | |
|---|---|
| Synopsis | Select next hops from the SRLG |
| Context | **configure** routing-options route-next-hop-policy template *named-item* srlg *boolean* |
| Tree | srlg |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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## 4.41 saa commands

```
configure
   - saa
      - apply-groups reference
      - apply-groups-exclude reference
      - owner named-item test named-item
         - accounting-policy reference
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - continuous boolean
         - description description
         - jitter-event keyword threshold-type keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - threshold number
         - latency-event keyword threshold-type keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - threshold number
         - loss-event keyword threshold-type keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - threshold number
         - probe-history keyword
         - type
            - dns
               - apply-groups reference
               - apply-groups-exclude reference
               - count number
               - interval number
               - name-server (ipv4-address-no-zone | ipv6-address-no-zone)
               - record-type keyword
               - router-instance string
               - source-address (ipv4-address-no-zone | ipv6-address-no-zone)
               - target-address string-not-all-spaces
               - timeout number
               - trap-generation
                  - probe-fail boolean
                  - probe-fail-threshold number
                  - test-complete boolean
                  - test-fail boolean
                  - test-fail-threshold number
            - eth-cfm-loopback
               - apply-groups reference
               - apply-groups-exclude reference
               - count number
               - destination (mac-unicast-address-no-zero | number)
               - interval number
               - ma-admin-name (named-item-64 | admin-name)
               - md-admin-name (named-item-64 | admin-name)
               - mep number
               - qos
                  - fc keyword
                  - profile keyword
               - size number
               - timeout number
               - trap-generation
                  - probe-fail boolean
                  - probe-fail-threshold number
```


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configure saa owner type eth-cfm-loopback trap-generation test-complete

```
                  - test-complete boolean
                  - test-fail boolean
                  - test-fail-threshold number
            - icmp-ping
               - apply-groups reference
               - apply-groups-exclude reference
               - bypass-routing boolean
               - count number
               - destination-address (ipv4-address-no-zone | ipv6-address-no-zone | string-
not-all-spaces)
               - do-not-fragment boolean
               - interface interface-name
               - interval (number | decimal-number)
               - next-hop-address (ipv4-address-no-zone | ipv6-address-no-zone)
               - pattern (keyword | number)
               - qos
                  - fc keyword
                  - tos number
               - router-instance string
               - size number
               - source-address (ipv4-address-no-zone | ipv6-address-no-zone)
               - timeout number
               - trap-generation
                  - probe-fail boolean
                  - probe-fail-threshold number
                  - test-complete boolean
                  - test-fail boolean
                  - test-fail-threshold number
               - ttl number
            - lsp-ping
               - apply-groups reference
               - apply-groups-exclude reference
               - interval number
               - qos
                  - fc keyword
                  - profile keyword
               - send-count number
               - size number
               - source-ip-address (ipv4-address-no-zone | ipv6-address-no-zone)
               - sub-type
                  - bgp-label
                     - path-destination
                        - interface interface-name
                        - ip-address (ipv4-address-no-zone | ipv6-address-no-zone)
                        - next-hop (ipv4-address-no-zone | ipv6-address-no-zone)
                     - prefix (ipv4-prefix | ipv6-prefix)
                  - ldp
                     - path-destination
                        - interface interface-name
                        - ip-address (ipv4-address-no-zone | ipv6-address-no-zone)
                        - next-hop (ipv4-address-no-zone | ipv6-address-no-zone)
                     - prefix (ipv4-prefix | ipv6-prefix)
                  - rsvp-te
                     - lsp-name named-item-64
                     - path named-item-64
                  - sr-isis
                     - igp-instance number
                     - path-destination
                        - interface interface-name
                        - ip-address (ipv4-address-no-zone | ipv6-address-no-zone)
                        - next-hop (ipv4-address-no-zone | ipv6-address-no-zone)
                     - prefix (ipv4-prefix | ipv6-prefix)
                  - sr-ospf
                     - igp-instance number
```


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configure saa owner type lsp-ping sub-type sr-ospf path-destination

```
                    - path-destination
                      - interface interface-name
                      - ip-address (ipv4-address-no-zone | ipv6-address-no-zone)
                      - next-hop (ipv4-address-no-zone | ipv6-address-no-zone)
                    - prefix (ipv4-prefix | ipv6-prefix)
                  - sr-ospf3
                    - igp-instance number
                    - path-destination
                      - interface interface-name
                      - ip-address (ipv4-address-no-zone | ipv6-address-no-zone)
                      - next-hop (ipv4-address-no-zone | ipv6-address-no-zone)
                    - prefix (ipv4-prefix | ipv6-prefix)
                  - sr-policy
                    - color number
                    - endpoint (ipv4-address-no-zone | ipv6-address-no-zone)
                    - path-destination
                      - interface interface-name
                      - ip-address (ipv4-address-no-zone | ipv6-address-no-zone)
                      - next-hop (ipv4-address-no-zone | ipv6-address-no-zone)
                    - segment-list number
                  - sr-te
                    - lsp-name named-item-64
                    - path named-item-64
                    - path-destination
                      - interface interface-name
                      - ip-address (ipv4-address-no-zone | ipv6-address-no-zone)
                      - next-hop (ipv4-address-no-zone | ipv6-address-no-zone)
                - timeout number
                - trap-generation
                  - probe-fail boolean
                  - probe-fail-threshold number
                  - test-complete boolean
                  - test-fail boolean
                  - test-fail-threshold number
                - ttl number
              - sdp-ping
                - apply-groups reference
                - apply-groups-exclude reference
                - count number
                - interval number
                - originating-sdp-identifier number
                - qos
                  - fc keyword
                  - profile keyword
                - responder-sdp-identifier number
                - size number
                - timeout number
                - trap-generation
                  - probe-fail boolean
                  - probe-fail-threshold number
                  - test-complete boolean
                  - test-fail boolean
                  - test-fail-threshold number
              - vccv-ping
                - apply-groups reference
                - apply-groups-exclude reference
                - count number
                - interval number
                - qos
                  - fc keyword
                  - profile keyword
                - size number
                - sub-type
                  - fec-128
```


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configure saa owner type vccv-ping sub-type fec-128 pseudowire

```
                    – pseudowire
                      – destination-ip-address ipv4-address
                      – pw-id number
                      – source-ip-address ipv4-address
                    – reply-mode keyword
                    – sdp-bind-id sdp-bind-id
            – timeout number
            – trap-generation
              – probe-fail boolean
              – probe-fail-threshold number
              – test-complete boolean
              – test-fail boolean
              – test-fail-threshold number
            – ttl number
```


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## 4.41.1 saa command descriptions

### saa

| | |
|---|---|
| Synopsis | Enter the **saa** context |
| Context | **configure** saa |
| Tree | saa |
| Description | Commands in this context configure the Service Assurance Agent (SAA) tests. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **owner** [owner-name] *named-item* test *named-item*

| | |
|---|---|
| Synopsis | Enter the **owner** list instance |
| Context | **configure** saa owner *named-item* test *named-item* |
| Tree | owner |
| Introduced | 16.0.R4 |
| Platforms | All |

### [**owner-name**] *named-item*

| | |
|---|---|
| Synopsis | Optional owner name of the SAA operation |
| Context | **configure** saa owner *named-item* test *named-item* |
| Tree | owner |
| Description | This command configures the owner associated with the SAA operation. |
| String length | 1 to 32 |
| MD-CLI default | TiMOS CLI |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **test** *named-item*

| | |
|---|---|
| Synopsis | SAA test name |


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| | |
|---|---|
| Context | **configure** saa owner *named-item* test *named-item* |
| Tree | owner |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

## **accounting-policy** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Accounting policy associated with the SAA test |
| Context | **configure** saa owner *named-item* test *named-item* accounting-policy *reference* |
| Tree | accounting-policy |
| Reference | **configure** log accounting-policy *number* |
| Introduced | 16.0.R4 |
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the SAA test |
| Context | **configure** saa owner *named-item* test *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R4 |
| Platforms | All |

## **continuous** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.


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| | |
|---|---|
| Synopsis | Execute the SAA tests as continuous |
| Context | **configure** saa owner *named-item* test *named-item* continuous *boolean* |
| Tree | continuous |
| Description | When configured to **true**, the SAA test execution is continuous, that is, it cannot be started or stopped with the **oam saa test start** or **stop** commands.<br>The SAA test types supported by this command include the following:<br>• **cpe-ping**<br>• **dns**<br>• **eth-cfm-loopback**<br>• **eth-cfm-two-way-delay**<br>• **eth-cfm-two-way-slm**<br>• **icmp-ping** (not applicable to **rapid** type)<br>• **lsp-ping**<br>• **mac-ping**<br>• **sdp-ping**<br>• **vccv-ping**<br>• **vprn-ping** |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** saa owner *named-item* test *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **jitter-event** [direction] *keyword* threshold-type *keyword*

| | |
|---|---|
| Synopsis | Enter the **jitter-event** list instance |
| Context | **configure** saa owner *named-item* test *named-item* jitter-event *keyword* threshold-type *keyword* |
| Tree | jitter-event |


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| | |
|---|---|
| Description | Commands in this context configure the jitter event thresholds used to evaluate the jitter event value at the termination of an SAA test probe. The system generates SAA threshold events as required. |
| Introduced | 16.0.R4 |
| Platforms | All |

### [**direction**] *keyword*

| | |
|---|---|
| Synopsis | Direction for OAM ping responses for OAM ping test run |
| Context | **configure** saa owner *named-item* test *named-item* jitter-event *keyword* threshold-type *keyword* |
| Tree | jitter-event |
| Options | inbound, outbound, round-trip |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **threshold-type** *keyword*

| | |
|---|---|
| Synopsis | Threshold type |
| Context | **configure** saa owner *named-item* test *named-item* jitter-event *keyword* threshold-type *keyword* |
| Tree | jitter-event |
| Options | rising, falling |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **threshold** *number*

| | |
|---|---|
| Synopsis | Threshold jitter value |
| Context | **configure** saa owner *named-item* test *named-item* jitter-event *keyword* threshold-type *keyword* threshold *number* |
| Tree | threshold |
| Description | This command specifies the threshold jitter value. The system generates an SAA threshold event when the jitter value of the test run crosses the threshold value. |


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| | |
|---|---|
| Range | 0 to 2147483647 |
| Units | microseconds |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **latency-event** [direction] *keyword* threshold-type *keyword*

| | |
|---|---|
| Synopsis | Enter the **latency-event** list instance |
| Context | **configure** saa owner *named-item* test *named-item* latency-event *keyword* threshold-type *keyword* |
| Tree | latency-event |
| Description | Commands in this context configure the latency event thresholds used to evaluate the latency event value at the termination of an SAA test probe. The system generates SAA threshold events as required. |
| Introduced | 16.0.R4 |
| Platforms | All |

### [**direction**] *keyword*

| | |
|---|---|
| Synopsis | Direction for OAM ping responses for OAM ping test run |
| Context | **configure** saa owner *named-item* test *named-item* latency-event *keyword* threshold-type *keyword* |
| Tree | latency-event |
| Options | inbound, outbound, round-trip |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **threshold-type** *keyword*

| | |
|---|---|
| Synopsis | Threshold type |
| Context | **configure** saa owner *named-item* test *named-item* latency-event *keyword* threshold-type *keyword* |
| Tree | latency-event |
| Options | rising, falling |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **threshold** *number*

| | |
|---|---|
| Synopsis | Threshold latency value |
| Context | **configure** saa owner *named-item* test *named-item* latency-event *keyword* threshold-type *keyword* threshold *number* |
| Tree | threshold |
| Description | This command specifies the threshold latency value. The system generates an SAA threshold event when the latency value of the test run crosses the threshold value. |
| Range | 0 to 2147483647 |
| Units | microseconds |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **loss-event** [direction] *keyword* threshold-type *keyword*

| | |
|---|---|
| Synopsis | Enter the **loss-event** list instance |
| Context | **configure** saa owner *named-item* test *named-item* loss-event *keyword* threshold-type *keyword* |
| Tree | loss-event |
| Description | Commands in this context configure the loss event thresholds used to evaluate the loss event value at the termination of an SAA test probe. The system generates SAA threshold events as required. |
| Introduced | 16.0.R4 |
| Platforms | All |

### [**direction**] *keyword*

| | |
|---|---|
| Synopsis | Direction for OAM ping responses for OAM ping test run |
| Context | **configure** saa owner *named-item* test *named-item* loss-event *keyword* threshold-type *keyword* |
| Tree | loss-event |


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| | |
|---|---|
| Options | inbound, outbound, round-trip |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **threshold-type** *keyword*

| | |
|---|---|
| Synopsis | Threshold type |
| Context | **configure** saa owner *named-item* test *named-item* loss-event *keyword* threshold-type *keyword* |
| Tree | loss-event |
| Options | rising, falling |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **threshold** *number*

| | |
|---|---|
| Synopsis | Threshold loss event value |
| Context | **configure** saa owner *named-item* test *named-item* loss-event *keyword* threshold-type *keyword* threshold *number* |
| Tree | threshold |
| Description | This command specifies the threshold loss value. The system generates an SAA threshold event when the loss value of the test run crosses the threshold value. |
| Range | 0 to 2147483647 |
| Units | packets |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **probe-history** *keyword*

**WARNING:**
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| | |
|---|---|
| Synopsis | History probe behavior |
| Context | **configure** saa owner *named-item* test *named-item* probe-history *keyword* |
| Tree | probe-history |
| Options | keep, drop, auto |
| Default | auto |
| Introduced | 16.0.R4 |
| Platforms | All |

## type

| | |
|---|---|
| Synopsis | Enter the **type** context |
| Context | **configure** saa owner *named-item* test *named-item* type |
| Tree | type |
| Introduced | 16.0.R4 |
| Platforms | All |

## dns

| | |
|---|---|
| Synopsis | Enable the **dns** context |
| Context | **configure** saa owner *named-item* test *named-item* type dns |
| Tree | dns |
| Notes | The following elements are part of a choice: **dns**, **eth-cfm-loopback**, **icmp-ping**, **lsp-ping**, **sdp-ping**, or **vccv-ping**. |
| Introduced | 22.10.R1 |
| Platforms | All |

## count *number*

| | |
|---|---|
| Synopsis | Number of messages to send in a sample window |
| Context | **configure** saa owner *named-item* test *named-item* type dns count *number* |
| Tree | count |
| Description | This command specifies the number of messages to send. Each message request must either time out or receive a reply before the next message request is sent. |
| Range | 1 to 100 |
| Units | packets |


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| | |
|---|---|
| Default | 1 |
| Introduced | 22.10.R1 |
| Platforms | All |

### **interval** *number*

| | |
|---|---|
| Synopsis | Minimum time before the next message request is sent |
| Context | **configure** saa owner *named-item* test *named-item* type dns interval *number* |
| Tree | interval |
| Range | 1 to 10 |
| Units | seconds |
| Default | 1 |
| Introduced | 22.10.R1 |
| Platforms | All |

### **name-server** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the DNS name server used for the test |
| Context | **configure** saa owner *named-item* test *named-item* type dns name-server *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | name-server |
| Notes | This element is mandatory. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **record-type** *keyword*

| | |
|---|---|
| Synopsis | Record type |
| Context | **configure** saa owner *named-item* test *named-item* type dns record-type *keyword* |
| Tree | record-type |
| Options | ipv4-a-record, ipv6-aaaa-record |
| Default | ipv4-a-record |
| Introduced | 22.10.R1 |
| Platforms | All |


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### **router-instance** *string*

| | |
|---|---|
| Synopsis | Router name or VPRN service name |
| Context | **configure** saa owner *named-item* test *named-item* type dns router-instance *string* |
| Tree | router-instance |
| Default | _Base_and_management |
| Introduced | 22.10.R1 |
| Platforms | All |

### **source-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address on the local system |
| Context | **configure** saa owner *named-item* test *named-item* type dns source-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | source-address |
| Description | This command configures the IP address on the local system.<br>If unconfigured, the router uses a system selected local IP address. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **target-address** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | DNS name to be resolved to an IP address |
| Context | **configure** saa owner *named-item* test *named-item* type dns target-address *string-not-all-spaces* |
| Tree | target-address |
| String length | 1 to 255 |
| Notes | This element is mandatory. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **timeout** *number*

| | |
|---|---|
| Synopsis | Maximum time to wait for a reply message |
| Context | **configure** saa owner *named-item* test *named-item* type dns timeout *number* |


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| | |
|---|---|
| Tree | timeout |
| Description | This command specifies the maximum time the router waits for a message response after sending the message request. When the timeout expires, the requesting router assumes the message response is not received. Any response received after the request times out is silently discarded. |
| Range | 1 to 120 |
| Units | seconds |
| Default | 5 |
| Introduced | 22.10.R1 |
| Platforms | All |

## trap-generation

| | |
|---|---|
| Synopsis | Enter the **trap-generation** context |
| Context | **configure** saa owner *named-item* test *named-item* type dns trap-generation |
| Tree | trap-generation |
| Introduced | 22.10.R1 |
| Platforms | All |

## probe-fail *boolean*

| | |
|---|---|
| Synopsis | Enable the generation of probe fail notifications |
| Context | **configure** saa owner *named-item* test *named-item* type dns trap-generation probe-fail *boolean* |
| Tree | probe-fail |
| Description | When configured to **true**, the system generates an SNMP trap if the consecutive probe failure threshold is reached during the execution of the SAA ping test.<br>This command is not applicable to SAA traceroute tests. |
| Default | false |
| Introduced | 22.10.R1 |
| Platforms | All |

## probe-fail-threshold *number*

| | |
|---|---|
| Synopsis | Consecutive probe failure count |
| Context | **configure** saa owner *named-item* test *named-item* type dns trap-generation probe-fail-threshold *number* |


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| | |
|---|---|
| Tree | probe-fail-threshold |
| Description | This command configures the number of consecutive ping probe failures required to generate a trap.<br>This command has no effect if the **probe-fail** command is set to **false**.<br>This command is not applicable to SAA traceroute tests. |
| Range | 0 to 15 |
| Default | 1 |
| Introduced | 22.10.R1 |
| Platforms | All |

### **test-complete** *boolean*

| | |
|---|---|
| Synopsis | Enable generation of test complete notifications |
| Context | **configure** saa owner *named-item* test *named-item* type dns trap-generation test-complete *boolean* |
| Tree | test-complete |
| Default | false |
| Introduced | 22.10.R1 |
| Platforms | All |

### **test-fail** *boolean*

| | |
|---|---|
| Synopsis | Enable the generation of test fail notifications |
| Context | **configure** saa owner *named-item* test *named-item* type dns trap-generation test-fail *boolean* |
| Tree | test-fail |
| Description | When configured to **true**, the system generates a trap if a test fails. In the case of a ping test, the test is considered to have failed (for trap generation) if the number of failed probes is at least the value of the **test-fail-threshold** setting. |
| Default | false |
| Introduced | 22.10.R1 |
| Platforms | All |

### **test-fail-threshold** *number*

| | |
|---|---|
| Synopsis | Total probe failures for trap generation |


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| | |
|---|---|
| Context | **configure** saa owner *named-item* test *named-item* type dns trap-generation test-fail-threshold *number* |
| Tree | test-fail-threshold |
| Description | This command configures the number of consecutive test failures required to generate a trap.<br>This command has no effect when **test-fail** is set to **false**.<br>This command is not applicable to SAA traceroute tests. |
| Range | 0 to 15 |
| Default | 1 |
| Introduced | 22.10.R1 |
| Platforms | All |

## eth-cfm-loopback

| | |
|---|---|
| Synopsis | Enable the **eth-cfm-loopback** context |
| Context | **configure** saa owner *named-item* test *named-item* type eth-cfm-loopback |
| Tree | eth-cfm-loopback |
| Description | Commands in this context configure an Ethernet CFM loopback test in SAA. |
| Notes | The following elements are part of a choice: **dns**, **eth-cfm-loopback**, **icmp-ping**, **lsp-ping**, **sdp-ping**, or **vccv-ping**. |
| Introduced | 24.10.R1 |
| Platforms | All |

## count *number*

| | |
|---|---|
| Synopsis | Number of packets to send |
| Context | **configure** saa owner *named-item* test *named-item* type eth-cfm-loopback count *number* |
| Tree | count |
| Range | 1 to 100 |
| Units | packets |
| Default | 1 |
| Introduced | 24.10.R1 |
| Platforms | All |


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### **destination** *(mac-unicast-address-no-zero | number)*

| | |
|---|---|
| Synopsis | Destination MAC address or remote MEP ID of the peer |
| Context | **configure** saa owner *named-item* test *named-item* type eth-cfm-loopback destination *(mac-unicast-address-no-zero \| number)* |
| Tree | destination |
| Description | This command specifies the Layer 2 unicast MAC address of the destination MEP or, alternatively, the remote MEP ID. When the remote MEP ID option is used instead of the MAC address, the domain and association information of the source MEP for the test is used to check for a locally stored unicast MAC address for the peer. The local MEP must be administratively enabled. |
| Range | 1 to 8191 |
| Notes | This element is mandatory. |
| Introduced | 24.10.R1 |
| Platforms | All |

### **interval** *number*

| | |
|---|---|
| Synopsis | Interval between packets sent |
| Context | **configure** saa owner *named-item* test *named-item* type eth-cfm-loopback interval *number* |
| Tree | interval |
| Range | 1 to 10 |
| Units | seconds |
| Default | 5 |
| Introduced | 24.10.R1 |
| Platforms | All |

### **ma-admin-name** *(named-item-64 | admin-name)*

| | |
|---|---|
| Synopsis | Source Ethernet Maintenance Association (MA) name |
| Context | **configure** saa owner *named-item* test *named-item* type eth-cfm-loopback ma-admin-name *(named-item-64 \| admin-name)* |
| Tree | ma-admin-name |
| String length | 1 to 64 |
| Notes | This element is mandatory. |
| Introduced | 24.10.R1 |


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| | |
|---|---|
| Platforms | All |

### **md-admin-name** *(named-item-64 | admin-name)*

| | |
|---|---|
| Synopsis | Source Ethernet Maintenance Domain (MD) name |
| Context | **configure** saa owner *named-item* test *named-item* type eth-cfm-loopback md-admin-name *(named-item-64 \| admin-name)* |
| Tree | md-admin-name |
| String length | 1 to 64 |
| Notes | This element is mandatory. |
| Introduced | 24.10.R1 |
| Platforms | All |

### **mep** *number*

| | |
|---|---|
| Synopsis | Source Ethernet MEP ID |
| Context | **configure** saa owner *named-item* test *named-item* type eth-cfm-loopback mep *number* |
| Tree | mep |
| Range | 1 to 8191 |
| Notes | This element is mandatory. |
| Introduced | 24.10.R1 |
| Platforms | All |

### **qos**

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** saa owner *named-item* test *named-item* type eth-cfm-loopback qos |
| Tree | qos |
| Introduced | 24.10.R1 |
| Platforms | All |

### **fc** *keyword*

| | |
|---|---|
| Synopsis | FC for the sent echo request packets |
| Context | **configure** saa owner *named-item* test *named-item* type eth-cfm-loopback qos fc *keyword* |


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| | |
|---|---|
| Tree | fc |
| Options | be – Best effort<br>l2 – Low 2 (best effort)<br>af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority)<br>ef – Expedited forwarding (high priority)<br>h1 – High 1 (high priority)<br>nc – Network control (high priority) |
| Default | nc |
| Introduced | 24.10.R1 |
| Platforms | All |

## **profile** *keyword*

| | |
|---|---|
| Synopsis | QoS profile for the sent echo request packets |
| Context | **configure** saa owner *named-item* test *named-item* type eth-cfm-loopback qos profile *keyword* |
| Tree | profile |
| Options | in – In profile<br>out – Out of profile |
| Default | in |
| Introduced | 24.10.R1 |
| Platforms | All |

## **size** *number*

| | |
|---|---|
| Synopsis | Size of the value field in the sent frames |
| Context | **configure** saa owner *named-item* test *named-item* type eth-cfm-loopback size *number* |
| Tree | size |
| Range | 0 to 1500 |
| Units | bytes |
| Default | 0 |
| Introduced | 24.10.R1 |
| Platforms | All |


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### **timeout** *number*

| | |
|---|---|
| Synopsis | Maximum time to wait for a reply packet |
| Context | **configure** saa owner *named-item* test *named-item* type eth-cfm-loopback timeout *number* |
| Tree | timeout |
| Description | This command configures the maximum time the router waits for a reply packet after sending the last probe for the test. When the timeout expires, the test is marked complete and no more packets are processed. |
| Range | 1 to 10 |
| Units | seconds |
| Default | 5 |
| Introduced | 24.10.R1 |
| Platforms | All |

### **trap-generation**

| | |
|---|---|
| Synopsis | Enter the **trap-generation** context |
| Context | **configure** saa owner *named-item* test *named-item* type eth-cfm-loopback trap-generation |
| Tree | trap-generation |
| Introduced | 24.10.R1 |
| Platforms | All |

### **probe-fail** *boolean*

| | |
|---|---|
| Synopsis | Enable the generation of probe fail notifications |
| Context | **configure** saa owner *named-item* test *named-item* type eth-cfm-loopback trap-generation probe-fail *boolean* |
| Tree | probe-fail |
| Description | When configured to **true**, the system generates an SNMP trap if the consecutive probe failure threshold is reached during the execution of the SAA ping test.<br>This command is not applicable to SAA traceroute tests. |
| Default | false |
| Introduced | 24.10.R1 |
| Platforms | All |


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### **probe-fail-threshold** *number*

| | |
|---|---|
| Synopsis | Consecutive probe failure count |
| Context | **configure** saa owner *named-item* test *named-item* type eth-cfm-loopback trap-generation probe-fail-threshold *number* |
| Tree | probe-fail-threshold |
| Description | This command configures the number of consecutive ping probe failures required to generate a trap.<br>This command has no effect if the **probe-fail** command is set to **false**.<br>This command is not applicable to SAA traceroute tests. |
| Range | 0 to 15 |
| Default | 1 |
| Introduced | 24.10.R1 |
| Platforms | All |

### **test-complete** *boolean*

| | |
|---|---|
| Synopsis | Enable generation of test complete notifications |
| Context | **configure** saa owner *named-item* test *named-item* type eth-cfm-loopback trap-generation test-complete *boolean* |
| Tree | test-complete |
| Default | false |
| Introduced | 24.10.R1 |
| Platforms | All |

### **test-fail** *boolean*

| | |
|---|---|
| Synopsis | Enable the generation of test fail notifications |
| Context | **configure** saa owner *named-item* test *named-item* type eth-cfm-loopback trap-generation test-fail *boolean* |
| Tree | test-fail |
| Description | When configured to **true**, the system generates a trap if a test fails. In the case of a ping test, the test is considered to have failed (for trap generation) if the number of failed probes is at least the value of the **test-fail-threshold** setting. |
| Default | false |
| Introduced | 24.10.R1 |


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| | |
|---|---|
| Platforms | All |

## **test-fail-threshold** *number*

| | |
|---|---|
| Synopsis | Total probe failures for trap generation |
| Context | **configure** saa owner *named-item* test *named-item* type eth-cfm-loopback trap-generation test-fail-threshold *number* |
| Tree | test-fail-threshold |
| Description | This command configures the number of consecutive test failures required to generate a trap.<br>This command has no effect when **test-fail** is set to **false**.<br>This command is not applicable to SAA traceroute tests. |
| Range | 0 to 15 |
| Default | 1 |
| Introduced | 24.10.R1 |
| Platforms | All |

## **icmp-ping**

| | |
|---|---|
| Synopsis | Enable the **icmp-ping** context |
| Context | **configure** saa owner *named-item* test *named-item* type icmp-ping |
| Tree | icmp-ping |
| Description | Commands in this context configure an ICMP ping test. |
| Notes | The following elements are part of a choice: **dns**, **eth-cfm-loopback**, **icmp-ping**, **lsp-ping**, **sdp-ping**, or **vccv-ping**. |
| Introduced | 16.0.R4 |
| Platforms | All |

## **bypass-routing** *boolean*

| | |
|---|---|
| Synopsis | Bypass routing table for directly connected interfaces |
| Context | **configure** saa owner *named-item* test *named-item* type icmp-ping bypass-routing *boolean* |
| Tree | bypass-routing |
| Default | false |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **bypass-routing**, **interface**, or **next-hop-address**. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **count** *number*

| | |
|---|---|
| Synopsis | ICMP Echo Request packets to send in a sample window |
| Context | **configure** saa owner *named-item* test *named-item* type icmp-ping count *number* |
| Tree | count |
| Range | 1 to 100000 |
| Units | packets |
| Default | 5 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **destination-address** *(ipv4-address-no-zone | ipv6-address-no-zone | string-not-all-spaces)*

| | |
|---|---|
| Synopsis | Destination IP address or DNS name to send ping request |
| Context | **configure** saa owner *named-item* test *named-item* type icmp-ping destination-address *(ipv4-address-no-zone \| ipv6-address-no-zone \| string-not-all-spaces)* |
| Tree | destination-address |
| String length | 1 to 128 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **do-not-fragment** *boolean*

| | |
|---|---|
| Synopsis | Do not fragment echo request packets (valid for IPv4) |
| Context | **configure** saa owner *named-item* test *named-item* type icmp-ping do-not-fragment *boolean* |
| Tree | do-not-fragment |
| Description | This command sets the Do Not Fragment (DF) bit in the IPv4 header. This prevents packet fragmentation along the path when there is an MTU mismatch. |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **interface** *interface-name*

| | |
|---|---|
| Synopsis | Interface name |
| Context | **configure** saa owner *named-item* test *named-item* type icmp-ping interface *interface-name* |
| Tree | interface |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **bypass-routing**, **interface**, or **next-hop-address**. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **interval** *(number | decimal-number)*

| | |
|---|---|
| Synopsis | Minimum time to expire before message request is sent |
| Context | **configure** saa owner *named-item* test *named-item* type icmp-ping interval *(number | decimal-number)* |
| Tree | interval |
| Range | 1 to 10000 |
| Units | seconds |
| Default | 1 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **next-hop-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Next-hop IP address to reach destination |
| Context | **configure** saa owner *named-item* test *named-item* type icmp-ping next-hop-address *(ipv4-address-no-zone | ipv6-address-no-zone)* |
| Tree | next-hop-address |
| Notes | The following elements are part of a choice: **bypass-routing**, **interface**, or **next-hop-address**. |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | All |

### **pattern** *(keyword | number)*

| | |
|---|---|
| Synopsis | Pattern to fill the data portion in a ping packet |
| Context | **configure** saa owner *named-item* test *named-item* type icmp-ping pattern *(keyword \| number)* |
| Tree | pattern |
| Range | 0 to 65535 |
| Options | sequential |
| Default | sequential |
| Introduced | 16.0.R4 |
| Platforms | All |

### **qos**

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** saa owner *named-item* test *named-item* type icmp-ping qos |
| Tree | qos |
| Introduced | 16.0.R4 |
| Platforms | All |

### **fc** *keyword*

| | |
|---|---|
| Synopsis | Forwarding class |
| Context | **configure** saa owner *named-item* test *named-item* type icmp-ping qos fc *keyword* |
| Tree | fc |
| Options | be – Best effort<br>l2 – Low 2 (best effort)<br>af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority)<br>ef – Expedited forwarding (high priority)<br>h1 – High 1 (high priority)<br>nc – Network control (high priority) |
| Default | nc |
| Introduced | 16.0.R4 |


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| | |
|---|---|
| Platforms | All |

### **tos** *number*

| | |
|---|---|
| Synopsis | Type of service |
| Context | **configure** saa owner *named-item* test *named-item* type icmp-ping qos tos *number* |
| Tree | tos |
| Range | 0 to 255 |
| Default | 0 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **router-instance** *string*

| | |
|---|---|
| Synopsis | Router name or VPRN service name |
| Context | **configure** saa owner *named-item* test *named-item* type icmp-ping router-instance *string* |
| Tree | router-instance |
| Default | Base |
| Introduced | 16.0.R4 |
| Platforms | All |

### **size** *number*

| | |
|---|---|
| Synopsis | Packet padding size |
| Context | **configure** saa owner *named-item* test *named-item* type icmp-ping size *number* |
| Tree | size |
| Description | This command configures the number of bytes in the combined ICMP Header (8 bytes) and ICMP Payload (variable size) of the ICMP Echo Request packets. |
| Range | 0 to 16384 |
| Units | bytes |
| Default | 56 |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **source-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source IP address |
| Context | **configure** saa owner *named-item* test *named-item* type icmp-ping source-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | source-address |
| Description | This command configures the source IP address to be loaded into the IP header of the ICMP Echo Request packet.<br>If unconfigured, the router uses a system-selected local address. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **timeout** *number*

| | |
|---|---|
| Synopsis | Time router waits for a reply after sending last probe |
| Context | **configure** saa owner *named-item* test *named-item* type icmp-ping timeout *number* |
| Tree | timeout |
| Range | 1 to 10 |
| Units | seconds |
| Default | 5 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **trap-generation**

| | |
|---|---|
| Synopsis | Enter the **trap-generation** context |
| Context | **configure** saa owner *named-item* test *named-item* type icmp-ping trap-generation |
| Tree | trap-generation |
| Introduced | 22.10.R1 |
| Platforms | All |

### **probe-fail** *boolean*

| | |
|---|---|
| Synopsis | Enable the generation of probe fail notifications |
| Context | **configure** saa owner *named-item* test *named-item* type icmp-ping trap-generation probe-fail *boolean* |


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| | |
|---|---|
| Tree | probe-fail |
| Description | When configured to **true**, the system generates an SNMP trap if the consecutive probe failure threshold is reached during the execution of the SAA ping test.<br>This command is not applicable to SAA traceroute tests. |
| Default | false |
| Introduced | 22.10.R1 |
| Platforms | All |

## **probe-fail-threshold** *number*

| | |
|---|---|
| Synopsis | Consecutive probe failure count |
| Context | **configure** saa owner *named-item* test *named-item* type icmp-ping trap-generation probe-fail-threshold *number* |
| Tree | probe-fail-threshold |
| Description | This command configures the number of consecutive ping probe failures required to generate a trap.<br>This command has no effect if the **probe-fail** command is set to **false**.<br>This command is not applicable to SAA traceroute tests. |
| Range | 0 to 15 |
| Default | 1 |
| Introduced | 22.10.R1 |
| Platforms | All |

## **test-complete** *boolean*

| | |
|---|---|
| Synopsis | Enable generation of test complete notifications |
| Context | **configure** saa owner *named-item* test *named-item* type icmp-ping trap-generation test-complete *boolean* |
| Tree | test-complete |
| Default | false |
| Introduced | 22.10.R1 |
| Platforms | All |

## **test-fail** *boolean*

| | |
|---|---|
| Synopsis | Enable the generation of test fail notifications |


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| | |
|---|---|
| Context | **configure** saa owner *named-item* test *named-item* type icmp-ping trap-generation test-fail *boolean* |
| Tree | test-fail |
| Description | When configured to **true**, the system generates a trap if a test fails. In the case of a ping test, the test is considered to have failed (for trap generation) if the number of failed probes is at least the value of the **test-fail-threshold** setting. |
| Default | false |
| Introduced | 22.10.R1 |
| Platforms | All |

## **test-fail-threshold** *number*

| | |
|---|---|
| Synopsis | Total probe failures for trap generation |
| Context | **configure** saa owner *named-item* test *named-item* type icmp-ping trap-generation test-fail-threshold *number* |
| Tree | test-fail-threshold |
| Description | This command configures the number of consecutive test failures required to generate a trap.<br>This command has no effect when **test-fail** is set to **false**.<br>This command is not applicable to SAA traceroute tests. |
| Range | 0 to 15 |
| Default | 1 |
| Introduced | 22.10.R1 |
| Platforms | All |

## **ttl** *number*

| | |
|---|---|
| Synopsis | Time to live in the IP header |
| Context | **configure** saa owner *named-item* test *named-item* type icmp-ping ttl *number* |
| Tree | ttl |
| Range | 1 to 128 |
| Default | 64 |
| Introduced | 16.0.R4 |
| Platforms | All |


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## lsp-ping

| | |
|---|---|
| Synopsis | Enable the **lsp-ping** context |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping |
| Tree | lsp-ping |
| Description | Commands in this context configure the command options to perform in-band LSP connectivity tests.<br>LSP ping uses the protocol and data structures defined in RFC 8029, *Detecting Multiprotocol Label Switched (MPLS) Data-Plane Failures*. |
| Notes | The following elements are part of a choice: **dns**, **eth-cfm-loopback**, **icmp-ping**, **lsp-ping**, **sdp-ping**, or **vccv-ping**. |
| Introduced | 22.10.R1 |
| Platforms | All |

## interval *number*

| | |
|---|---|
| Synopsis | Minimum time before the next lsp-ping request is sent |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping interval *number* |
| Tree | interval |
| Range | 1 to 10 |
| Units | seconds |
| Default | 1 |
| Introduced | 22.10.R1 |
| Platforms | All |

## qos

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping qos |
| Tree | qos |
| Introduced | 22.10.R1 |
| Platforms | All |

## fc *keyword*

| | |
|---|---|
| Synopsis | Forwarding class |


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| | |
|---|---|
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping qos fc *keyword* |
| Tree | fc |
| Options | be – Best effort<br>l2 – Low 2 (best effort)<br>af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority)<br>ef – Expedited forwarding (high priority)<br>h1 – High 1 (high priority)<br>nc – Network control (high priority) |
| Default | be |
| Introduced | 22.10.R1 |
| Platforms | All |

## **profile** *keyword*

| | |
|---|---|
| Synopsis | Profile |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping qos profile *keyword* |
| Tree | profile |
| Options | in – In profile<br>out – Out of profile |
| Default | out |
| Introduced | 22.10.R1 |
| Platforms | All |

## **send-count** *number*

| | |
|---|---|
| Synopsis | Number of request packets to send in a sample window |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping send-count *number* |
| Tree | send-count |
| Range | 1 to 100 |
| Units | packets |
| Default | 1 |
| Introduced | 22.10.R1 |
| Platforms | All |


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### **size** *number*

| | |
|---|---|
| Synopsis | Packet pad size |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping size *number* |
| Tree | size |
| Range | 1 to 9786 |
| Units | bytes |
| Default | 1 |
| Introduced | 22.10.R1 |
| Platforms | All |

### **source-ip-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source IP address |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping source-ip-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | source-ip-address |
| Introduced | 22.10.R1 |
| Platforms | All |

### **sub-type**

| | |
|---|---|
| Synopsis | Enter the **sub-type** context |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping sub-type |
| Tree | sub-type |
| Introduced | 22.10.R1 |
| Platforms | All |

### **bgp-label**

| | |
|---|---|
| Synopsis | Enable the **bgp-label** context |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping sub-type bgp-label |
| Tree | bgp-label |
| Notes | The following elements are part of a choice: **bgp-label**, **ldp**, **rsvp-te**, **sr-isis**, **sr-ospf**, **sr-ospf3**, **sr-policy**, or **sr-te**. |
| Introduced | 22.10.R1 |


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| | |
|---|---|
| Platforms | All |

## path-destination

| | |
|---|---|
| Synopsis | Enter the **path-destination** context |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping sub-type bgp-label path-destination |
| Tree | path-destination |
| Introduced | 22.10.R1 |
| Platforms | All |

## interface *interface-name*

| | |
|---|---|
| Synopsis | Egress router interface used with the path destination |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping sub-type bgp-label path-destination interface *interface-name* |
| Tree | interface |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **interface** or **next-hop**. |
| Introduced | 22.10.R1 |
| Platforms | All |

## ip-address *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the path destination |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping sub-type bgp-label path-destination ip-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | ip-address |
| Introduced | 22.10.R1 |
| Platforms | All |

## next-hop *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Egress IP next hop address used with path destination |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping sub-type bgp-label path-destination next-hop *(ipv4-address-no-zone \| ipv6-address-no-zone)* |


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| | |
|---|---|
| Tree | next-hop |
| Notes | The following elements are part of a choice: **interface** or **next-hop**. |
| Introduced | 22.10.R1 |
| Platforms | All |

## **prefix** *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Destination IP prefix for the test |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping sub-type bgp-label prefix *(ipv4-prefix \| ipv6-prefix)* |
| Tree | prefix |
| Notes | This element is mandatory. |
| Introduced | 22.10.R1 |
| Platforms | All |

## ldp

| | |
|---|---|
| Synopsis | Enable the **ldp** context |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping sub-type ldp |
| Tree | ldp |
| Notes | The following elements are part of a choice: **bgp-label**, **ldp**, **rsvp-te**, **sr-isis**, **sr-ospf**, **sr-ospf3**, **sr-policy**, or **sr-te**. |
| Introduced | 22.10.R1 |
| Platforms | All |

## path-destination

| | |
|---|---|
| Synopsis | Enter the **path-destination** context |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping sub-type ldp path-destination |
| Tree | path-destination |
| Introduced | 22.10.R1 |
| Platforms | All |


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### **interface** *interface-name*

| | |
|---|---|
| Synopsis | Egress router interface used with the path destination |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping sub-type ldp path-destination interface *interface-name* |
| Tree | interface |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **interface** or **next-hop**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **ip-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the path destination |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping sub-type ldp path-destination ip-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | ip-address |
| Introduced | 22.10.R1 |
| Platforms | All |

### **next-hop** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Egress IP next hop address used with path destination |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping sub-type ldp path-destination next-hop *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | next-hop |
| Notes | The following elements are part of a choice: **interface** or **next-hop**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **prefix** *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Destination IP prefix for the test |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping sub-type ldp prefix *(ipv4-prefix \| ipv6-prefix)* |
| Tree | prefix |


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| | |
|---|---|
| Notes | This element is mandatory. |
| Introduced | 22.10.R1 |
| Platforms | All |

## rsvp-te

| | |
|---|---|
| Synopsis | Enable the **rsvp-te** context |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping sub-type rsvp-te |
| Tree | rsvp-te |
| Notes | The following elements are part of a choice: **bgp-label**, **ldp**, **rsvp-te**, **sr-isis**, **sr-ospf**, **sr-ospf3**, **sr-policy**, or **sr-te**. |
| Introduced | 22.10.R1 |
| Platforms | All |

## lsp-name *named-item-64*

| | |
|---|---|
| Synopsis | Name of the LSP to be tested |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping sub-type rsvp-te lsp-name *named-item-64* |
| Tree | lsp-name |
| String length | 1 to 64 |
| Notes | This element is mandatory. |
| Introduced | 22.10.R1 |
| Platforms | All |

## path *named-item-64*

| | |
|---|---|
| Synopsis | Name of the MPLS path to be tested |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping sub-type rsvp-te path *named-item-64* |
| Tree | path |
| String length | 1 to 64 |
| Introduced | 22.10.R1 |
| Platforms | All |


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## sr-isis

| | |
|---|---|
| Synopsis | Enable the **sr-isis** context |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping sub-type sr-isis |
| Tree | sr-isis |
| Notes | The following elements are part of a choice: **bgp-label**, **ldp**, **rsvp-te**, **sr-isis**, **sr-ospf**, **sr-ospf3**, **sr-policy**, or **sr-te**. |
| Introduced | 22.10.R1 |
| Platforms | All |

## igp-instance *number*

| | |
|---|---|
| Synopsis | IGP instance for the SR IS-IS test |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping sub-type sr-isis igp-instance *number* |
| Tree | igp-instance |
| Range | 0 to 127 |
| Default | 0 |
| Introduced | 22.10.R1 |
| Platforms | All |

## path-destination

| | |
|---|---|
| Synopsis | Enter the **path-destination** context |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping sub-type sr-isis path-destination |
| Tree | path-destination |
| Introduced | 22.10.R1 |
| Platforms | All |

## interface *interface-name*

| | |
|---|---|
| Synopsis | Egress router interface used with the path destination |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping sub-type sr-isis path-destination interface *interface-name* |
| Tree | interface |


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| | |
|---|---|
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **interface** or **next-hop**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **ip-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the path destination |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping sub-type sr-isis path-destination ip-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | ip-address |
| Introduced | 22.10.R1 |
| Platforms | All |

### **next-hop** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Egress IP next hop address used with path destination |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping sub-type sr-isis path-destination next-hop *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | next-hop |
| Notes | The following elements are part of a choice: **interface** or **next-hop**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **prefix** *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Destination IP prefix for the test |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping sub-type sr-isis prefix *(ipv4-prefix \| ipv6-prefix)* |
| Tree | prefix |
| Notes | This element is mandatory. |
| Introduced | 22.10.R1 |
| Platforms | All |


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## sr-ospf

| | |
|---|---|
| Synopsis | Enable the **sr-ospf** context |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping sub-type sr-ospf |
| Tree | sr-ospf |
| Notes | The following elements are part of a choice: **bgp-label**, **ldp**, **rsvp-te**, **sr-isis**, **sr-ospf**, **sr-ospf3**, **sr-policy**, or **sr-te**. |
| Introduced | 22.10.R1 |
| Platforms | All |

## igp-instance *number*

| | |
|---|---|
| Synopsis | IGP instance for the SR OSPF test |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping sub-type sr-ospf igp-instance *number* |
| Tree | igp-instance |
| Range | 0 to 31 |
| Default | 0 |
| Introduced | 22.10.R1 |
| Platforms | All |

## path-destination

| | |
|---|---|
| Synopsis | Enter the **path-destination** context |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping sub-type sr-ospf path-destination |
| Tree | path-destination |
| Introduced | 22.10.R1 |
| Platforms | All |

## interface *interface-name*

| | |
|---|---|
| Synopsis | Egress router interface used with the path destination |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping sub-type sr-ospf path-destination interface *interface-name* |
| Tree | interface |


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| | |
|---|---|
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **interface** or **next-hop**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **ip-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the path destination |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping sub-type sr-ospf path-destination ip-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | ip-address |
| Introduced | 22.10.R1 |
| Platforms | All |

### **next-hop** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Egress IP next hop address used with path destination |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping sub-type sr-ospf path-destination next-hop *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | next-hop |
| Notes | The following elements are part of a choice: **interface** or **next-hop**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **prefix** *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Destination IP prefix for the test |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping sub-type sr-ospf prefix *(ipv4-prefix \| ipv6-prefix)* |
| Tree | prefix |
| Notes | This element is mandatory. |
| Introduced | 22.10.R1 |
| Platforms | All |


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## sr-ospf3

| | |
|---|---|
| Synopsis | Enable the **sr-ospf3** context |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping sub-type sr-ospf3 |
| Tree | sr-ospf3 |
| Notes | The following elements are part of a choice: **bgp-label**, **ldp**, **rsvp-te**, **sr-isis**, **sr-ospf**, **sr-ospf3**, **sr-policy**, or **sr-te**. |
| Introduced | 22.10.R1 |
| Platforms | All |

## igp-instance *number*

| | |
|---|---|
| Synopsis | IGP instance for the SR OSPFv3 test |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping sub-type sr-ospf3 igp-instance *number* |
| Tree | igp-instance |
| Range | 0 to 31 \| 64 to 95 |
| Default | 0 |
| Introduced | 22.10.R1 |
| Platforms | All |

## path-destination

| | |
|---|---|
| Synopsis | Enter the **path-destination** context |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping sub-type sr-ospf3 path-destination |
| Tree | path-destination |
| Introduced | 22.10.R1 |
| Platforms | All |

## interface *interface-name*

| | |
|---|---|
| Synopsis | Egress router interface used with the path destination |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping sub-type sr-ospf3 path-destination interface *interface-name* |
| Tree | interface |


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| | |
|---|---|
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **interface** or **next-hop**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **ip-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the path destination |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping sub-type sr-ospf3 path-destination ip-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | ip-address |
| Introduced | 22.10.R1 |
| Platforms | All |

### **next-hop** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Egress IP next hop address used with path destination |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping sub-type sr-ospf3 path-destination next-hop *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | next-hop |
| Notes | The following elements are part of a choice: **interface** or **next-hop**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **prefix** *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Destination IP prefix for the test |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping sub-type sr-ospf3 prefix *(ipv4-prefix \| ipv6-prefix)* |
| Tree | prefix |
| Notes | This element is mandatory. |
| Introduced | 22.10.R1 |
| Platforms | All |


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## sr-policy

| | |
|---|---|
| Synopsis | Enable the **sr-policy** context |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping sub-type sr-policy |
| Tree | sr-policy |
| Notes | The following elements are part of a choice: **bgp-label**, **ldp**, **rsvp-te**, **sr-isis**, **sr-ospf**, **sr-ospf3**, **sr-policy**, or **sr-te**. |
| Introduced | 22.10.R1 |
| Platforms | All |

## color *number*

| | |
|---|---|
| Synopsis | Segment Routing color for the test |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping sub-type sr-policy color *number* |
| Tree | color |
| Range | 0 to 4294967295 |
| Notes | This element is mandatory. |
| Introduced | 22.10.R1 |
| Platforms | All |

## endpoint *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Segment Routing endpoint for the test |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping sub-type sr-policy endpoint *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | endpoint |
| Notes | This element is mandatory. |
| Introduced | 22.10.R1 |
| Platforms | All |

## path-destination

| | |
|---|---|
| Synopsis | Enter the **path-destination** context |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping sub-type sr-policy path-destination |


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| | |
|---|---|
| Tree | path-destination |
| Introduced | 22.10.R1 |
| Platforms | All |

### **interface** *interface-name*

| | |
|---|---|
| Synopsis | Egress router interface used with the path destination |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping sub-type sr-policy path-destination interface *interface-name* |
| Tree | interface |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **interface** or **next-hop**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **ip-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the path destination |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping sub-type sr-policy path-destination ip-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | ip-address |
| Introduced | 22.10.R1 |
| Platforms | All |

### **next-hop** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Egress IP next hop address used with path destination |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping sub-type sr-policy path-destination next-hop *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | next-hop |
| Notes | The following elements are part of a choice: **interface** or **next-hop**. |
| Introduced | 22.10.R1 |
| Platforms | All |


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### **segment-list** *number*

| | |
|---|---|
| Synopsis | Segment Routing segment list for the test |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping sub-type sr-policy segment-list *number* |
| Tree | segment-list |
| Range | 1 to 32 |
| Introduced | 22.10.R1 |
| Platforms | All |

### **sr-te**

| | |
|---|---|
| Synopsis | Enable the **sr-te** context |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping sub-type sr-te |
| Tree | sr-te |
| Notes | The following elements are part of a choice: **bgp-label**, **ldp**, **rsvp-te**, **sr-isis**, **sr-ospf**, **sr-ospf3**, **sr-policy**, or **sr-te**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **lsp-name** *named-item-64*

| | |
|---|---|
| Synopsis | Name of the LSP to be tested |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping sub-type sr-te lsp-name *named-item-64* |
| Tree | lsp-name |
| String length | 1 to 64 |
| Notes | This element is mandatory. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **path** *named-item-64*

| | |
|---|---|
| Synopsis | Name of the MPLS path to be tested |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping sub-type sr-te path *named-item-64* |


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| | |
|---|---|
| Tree | path |
| String length | 1 to 64 |
| Introduced | 22.10.R1 |
| Platforms | All |

## path-destination

| | |
|---|---|
| Synopsis | Enter the **path-destination** context |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping sub-type sr-te path-destination |
| Tree | path-destination |
| Introduced | 22.10.R1 |
| Platforms | All |

## interface *interface-name*

| | |
|---|---|
| Synopsis | Egress router interface used with the path destination |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping sub-type sr-te path-destination interface *interface-name* |
| Tree | interface |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **interface** or **next-hop**. |
| Introduced | 22.10.R1 |
| Platforms | All |

## ip-address *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the path destination |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping sub-type sr-te path-destination ip-address *(ipv4-address-no-zone | ipv6-address-no-zone)* |
| Tree | ip-address |
| Introduced | 22.10.R1 |
| Platforms | All |


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### **next-hop** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Egress IP next hop address used with path destination |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping sub-type sr-te path-destination next-hop *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | next-hop |
| Notes | The following elements are part of a choice: **interface** or **next-hop**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **timeout** *number*

| | |
|---|---|
| Synopsis | Time router waits for a reply to an echo request |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping timeout *number* |
| Tree | timeout |
| Range | 1 to 10 |
| Units | seconds |
| Default | 5 |
| Introduced | 22.10.R1 |
| Platforms | All |

### **trap-generation**

| | |
|---|---|
| Synopsis | Enter the **trap-generation** context |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping trap-generation |
| Tree | trap-generation |
| Introduced | 22.10.R1 |
| Platforms | All |

### **probe-fail** *boolean*

| | |
|---|---|
| Synopsis | Enable the generation of probe fail notifications |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping trap-generation probe-fail *boolean* |
| Tree | probe-fail |


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| | |
|---|---|
| Description | When configured to **true**, the system generates an SNMP trap if the consecutive probe failure threshold is reached during the execution of the SAA ping test.<br>This command is not applicable to SAA traceroute tests. |
| Default | false |
| Introduced | 22.10.R1 |
| Platforms | All |

### **probe-fail-threshold** *number*

| | |
|---|---|
| Synopsis | Consecutive probe failure count |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping trap-generation probe-fail-threshold *number* |
| Tree | probe-fail-threshold |
| Description | This command configures the number of consecutive ping probe failures required to generate a trap.<br>This command has no effect if the **probe-fail** command is set to **false**.<br>This command is not applicable to SAA traceroute tests. |
| Range | 0 to 15 |
| Default | 1 |
| Introduced | 22.10.R1 |
| Platforms | All |

### **test-complete** *boolean*

| | |
|---|---|
| Synopsis | Enable generation of test complete notifications |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping trap-generation test-complete *boolean* |
| Tree | test-complete |
| Default | false |
| Introduced | 22.10.R1 |
| Platforms | All |

### **test-fail** *boolean*

| | |
|---|---|
| Synopsis | Enable the generation of test fail notifications |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping trap-generation test-fail *boolean* |


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| | |
|---|---|
| Tree | test-fail |
| Description | When configured to **true**, the system generates a trap if a test fails. In the case of a ping test, the test is considered to have failed (for trap generation) if the number of failed probes is at least the value of the **test-fail-threshold** setting. |
| Default | false |
| Introduced | 22.10.R1 |
| Platforms | All |

## **test-fail-threshold** *number*

| | |
|---|---|
| Synopsis | Total probe failures for trap generation |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping trap-generation test-fail-threshold *number* |
| Tree | test-fail-threshold |
| Description | This command configures the number of consecutive test failures required to generate a trap.<br>This command has no effect when **test-fail** is set to **false**.<br>This command is not applicable to SAA traceroute tests. |
| Range | 0 to 15 |
| Default | 1 |
| Introduced | 22.10.R1 |
| Platforms | All |

## **ttl** *number*

| | |
|---|---|
| Synopsis | TTL value for the echo request MPLS label |
| Context | **configure** saa owner *named-item* test *named-item* type lsp-ping ttl *number* |
| Tree | ttl |
| Range | 1 to 255 |
| Default | 255 |
| Introduced | 22.10.R1 |
| Platforms | All |

## **sdp-ping**

| | |
|---|---|
| Synopsis | Enable the **sdp-ping** context |


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| | |
|---|---|
| Context | **configure** saa owner *named-item* test *named-item* type sdp-ping |
| Tree | sdp-ping |
| Description | Commands in this context configure tests on SDPs for unidirectional or round-trip connectivity, as well as for performing SDP MTU path tests. |
| Notes | The following elements are part of a choice: **dns**, **eth-cfm-loopback**, **icmp-ping**, **lsp-ping**, **sdp-ping**, or **vccv-ping**. |
| Introduced | 24.10.R1 |
| Platforms | All |

## **count** *number*

| | |
|---|---|
| Synopsis | Number of SDP echo request packets to send |
| Context | **configure** saa owner *named-item* test *named-item* type sdp-ping count *number* |
| Tree | count |
| Description | This command specifies the number of echo request packets to send. Each request must either time out or receive a reply before the next message request is sent. The **interval** value must expire before the next message request is sent. |
| Range | 1 to 100 |
| Units | packets |
| Default | 1 |
| Introduced | 24.10.R1 |
| Platforms | All |

## **interval** *number*

| | |
|---|---|
| Synopsis | Interval between SDP echo request packets sent |
| Context | **configure** saa owner *named-item* test *named-item* type sdp-ping interval *number* |
| Tree | interval |
| Range | 1 to 10 |
| Units | seconds |
| Default | 1 |
| Introduced | 24.10.R1 |
| Platforms | All |


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### **originating-sdp-identifier** *number*

| | |
|---|---|
| Synopsis | SDP ID used to send packets |
| Context | **configure** saa owner *named-item* test *named-item* type sdp-ping originating-sdp-identifier *number* |
| Tree | originating-sdp-identifier |
| Description | This command specifies the SDP ID that is used by SDP ping.<br>The far-end address of the specified SDP ID is the expected responder ID within each reply received. The SDP ID defines the SDP tunnel encapsulation used to reach the far end. This can be IP/GRE or MPLS. If this ID is invalid, administratively down, or otherwise unavailable, the SDP echo request message is not sent, and an error message is displayed. After the interval timer expires, the SDP ping attempts to send the next request, if required. |
| Range | 1 to 32767 |
| Notes | This element is mandatory. |
| Introduced | 24.10.R1 |
| Platforms | All |

### **qos**

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** saa owner *named-item* test *named-item* type sdp-ping qos |
| Tree | qos |
| Introduced | 24.10.R1 |
| Platforms | All |

### **fc** *keyword*

| | |
|---|---|
| Synopsis | FC for the transmitted SDP echo request packets |
| Context | **configure** saa owner *named-item* test *named-item* type sdp-ping qos fc *keyword* |
| Tree | fc |
| Options | be – Best effort<br>l2 – Low 2 (best effort)<br>af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority)<br>ef – Expedited forwarding (high priority)<br>h1 – High 1 (high priority)<br>nc – Network control (high priority) |


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| | |
|---|---|
| Default | be |
| Introduced | 24.10.R1 |
| Platforms | All |

## **profile** *keyword*

| | |
|---|---|
| Synopsis | QoS profile for transmitted SDP echo request packets |
| Context | **configure** saa owner *named-item* test *named-item* type sdp-ping qos profile *keyword* |
| Tree | profile |
| Options | in – In profile<br>out – Out of profile |
| Default | out |
| Introduced | 24.10.R1 |
| Platforms | All |

## **responder-sdp-identifier** *number*

| | |
|---|---|
| Synopsis | SDP ID used by the far-end to reply to the request |
| Context | **configure** saa owner *named-item* test *named-item* type sdp-ping responder-sdp-identifier *number* |
| Tree | responder-sdp-identifier |
| Description | This command configures the return SDP ID to be used by the far-end router for the message reply for round-trip SDP connectivity testing.<br>If this ID does not exist on the far-end router, or terminates on a different router from the originating router, or another issue prevents the far-end router from using this ID, the SDP echo reply is sent using generic IP or GRE OAM encapsulation. The received FC (as mapped on the ingress network interface for the far end) defines the FC encapsulation for the reply message. |
| Range | 1 to 32767 |
| Introduced | 24.10.R1 |
| Platforms | All |

## **size** *number*

| | |
|---|---|
| Synopsis | Size of the SDP echo request packets |
| Context | **configure** saa owner *named-item* test *named-item* type sdp-ping size *number* |
| Tree | size |


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| | |
|---|---|
| Description | This command configures the size of the SDP echo request packets, which includes the SDP header and payload. The size does not include the SDP encapsulation, VC label (if applied), or any DLC headers or trailers. |
| Range | 72 to 9786 |
| Units | bytes |
| Default | 72 |
| Introduced | 24.10.R1 |
| Platforms | All |

### **timeout** *number*

| | |
|---|---|
| Synopsis | Maximum time to wait for SDP echo reply packets |
| Context | **configure** saa owner *named-item* test *named-item* type sdp-ping timeout *number* |
| Tree | timeout |
| Description | This command configures the time the router waits for a message reply after sending the last probe for a specific test. When the timeout expires, the test is marked complete and no more packets are processed. |
| Range | 1 to 10 |
| Units | seconds |
| Default | 5 |
| Introduced | 24.10.R1 |
| Platforms | All |

### **trap-generation**

| | |
|---|---|
| Synopsis | Enter the **trap-generation** context |
| Context | **configure** saa owner *named-item* test *named-item* type sdp-ping trap-generation |
| Tree | trap-generation |
| Introduced | 24.10.R1 |
| Platforms | All |

### **probe-fail** *boolean*

| | |
|---|---|
| Synopsis | Enable the generation of probe fail notifications |
| Context | **configure** saa owner *named-item* test *named-item* type sdp-ping trap-generation probe-fail *boolean* |


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| | |
|---|---|
| Tree | probe-fail |
| Description | When configured to **true**, the system generates an SNMP trap if the consecutive probe failure threshold is reached during the execution of the SAA ping test.<br>This command is not applicable to SAA traceroute tests. |
| Default | false |
| Introduced | 24.10.R1 |
| Platforms | All |

## **probe-fail-threshold** *number*

| | |
|---|---|
| Synopsis | Consecutive probe failure count |
| Context | **configure** saa owner *named-item* test *named-item* type sdp-ping trap-generation probe-fail-threshold *number* |
| Tree | probe-fail-threshold |
| Description | This command configures the number of consecutive ping probe failures required to generate a trap.<br>This command has no effect if the **probe-fail** command is set to **false**.<br>This command is not applicable to SAA traceroute tests. |
| Range | 0 to 15 |
| Default | 1 |
| Introduced | 24.10.R1 |
| Platforms | All |

## **test-complete** *boolean*

| | |
|---|---|
| Synopsis | Enable generation of test complete notifications |
| Context | **configure** saa owner *named-item* test *named-item* type sdp-ping trap-generation test-complete *boolean* |
| Tree | test-complete |
| Default | false |
| Introduced | 24.10.R1 |
| Platforms | All |

## **test-fail** *boolean*

| | |
|---|---|
| Synopsis | Enable the generation of test fail notifications |


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| | |
|---|---|
| Context | **configure** saa owner *named-item* test *named-item* type sdp-ping trap-generation test-fail *boolean* |
| Tree | test-fail |
| Description | When configured to **true**, the system generates a trap if a test fails. In the case of a ping test, the test is considered to have failed (for trap generation) if the number of failed probes is at least the value of the **test-fail-threshold** setting. |
| Default | false |
| Introduced | 24.10.R1 |
| Platforms | All |

## **test-fail-threshold** *number*

| | |
|---|---|
| Synopsis | Total probe failures for trap generation |
| Context | **configure** saa owner *named-item* test *named-item* type sdp-ping trap-generation test-fail-threshold *number* |
| Tree | test-fail-threshold |
| Description | This command configures the number of consecutive test failures required to generate a trap.<br>This command has no effect when **test-fail** is set to **false**.<br>This command is not applicable to SAA traceroute tests. |
| Range | 0 to 15 |
| Default | 1 |
| Introduced | 24.10.R1 |
| Platforms | All |

## **vccv-ping**

| | |
|---|---|
| Synopsis | Enable the **vccv-ping** context |
| Context | **configure** saa owner *named-item* test *named-item* type vccv-ping |
| Tree | vccv-ping |
| Description | Commands in this context configure a Virtual Circuit Connectivity Verification (VCCV) ping test.<br>A VCCV-ping test checks connectivity of a VLL inband. It verifies that the destination (target) PE is the egress for the Layer 2 FEC and provides for a cross-check between the data plane and the control plane. Because it is inband, the VCCV-ping message is sent using the same encapsulation and along the same path as user packets in that VLL. The VCCV-ping test is the equivalent of the LSP-ping test for a VLL service. The |


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| | |
|---|---|
| | VCCV-ping test reuses an LSP-ping message format and can be used to test a VLL configured over both an MPLS and a GRE SDP. |
| Notes | The following elements are part of a choice: **dns**, **eth-cfm-loopback**, **icmp-ping**, **lsp-ping**, **sdp-ping**, or **vccv-ping**. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **count** *number*

| | |
|---|---|
| Synopsis | Number of echo request packets to send |
| Context | **configure** saa owner *named-item* test *named-item* type vccv-ping count *number* |
| Tree | count |
| Range | 1 to 100 |
| Units | packets |
| Default | 1 |
| Introduced | 23.10.R1 |
| Platforms | All |

### **interval** *number*

| | |
|---|---|
| Synopsis | Interval between packets sent |
| Context | **configure** saa owner *named-item* test *named-item* type vccv-ping interval *number* |
| Tree | interval |
| Range | 1 to 10 |
| Units | seconds |
| Default | 1 |
| Introduced | 23.10.R1 |
| Platforms | All |

### **qos**

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** saa owner *named-item* test *named-item* type vccv-ping qos |
| Tree | qos |
| Introduced | 23.10.R1 |


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| | |
|---|---|
| Platforms | All |

## **fc** *keyword*

| | |
|---|---|
| Synopsis | QoS FC for the sent echo request packets |
| Context | **configure** saa owner *named-item* test *named-item* type vccv-ping qos fc *keyword* |
| Tree | fc |
| Options | be – Best effort<br>l2 – Low 2 (best effort)<br>af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority)<br>ef – Expedited forwarding (high priority)<br>h1 – High 1 (high priority)<br>nc – Network control (high priority) |
| Default | be |
| Introduced | 23.10.R1 |
| Platforms | All |

## **profile** *keyword*

| | |
|---|---|
| Synopsis | QoS profile for the sent echo request packets |
| Context | **configure** saa owner *named-item* test *named-item* type vccv-ping qos profile *keyword* |
| Tree | profile |
| Options | in – In profile<br>out – Out of profile |
| Default | out |
| Introduced | 23.10.R1 |
| Platforms | All |

## **size** *number*

| | |
|---|---|
| Synopsis | Echo request packet pad size |
| Context | **configure** saa owner *named-item* test *named-item* type vccv-ping size *number* |
| Tree | size |
| Range | 1 to 9786 |
| Units | bytes |
| Default | 1 |


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| | |
|---|---|
| Introduced | 23.10.R1 |
| Platforms | All |

## sub-type

| | |
|---|---|
| Synopsis | Enter the **sub-type** context |
| Context | **configure** saa owner *named-item* test *named-item* type vccv-ping sub-type |
| Tree | sub-type |
| Description | Commands in this context configure the FEC type for a remote PW segment targeted by a VCCV-ping echo request. |
| Introduced | 23.10.R1 |
| Platforms | All |

## fec-128

| | |
|---|---|
| Synopsis | Enable the **fec-128** context |
| Context | **configure** saa owner *named-item* test *named-item* type vccv-ping sub-type fec-128 |
| Tree | fec-128 |
| Description | Commands in this context configure the FEC-128 sub-type. |
| Introduced | 23.10.R1 |
| Platforms | All |

## pseudowire

| | |
|---|---|
| Synopsis | Enable the **pseudowire** context |
| Context | **configure** saa owner *named-item* test *named-item* type vccv-ping sub-type fec-128 pseudowire |
| Tree | pseudowire |
| Description | Commands in this context configure the PW that is used for performing a VCCV-ping operation. |
| Introduced | 23.10.R1 |
| Platforms | All |

## destination-ip-address *ipv4-address*

| | |
|---|---|
| Synopsis | PW destination IP address |


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| | |
|---|---|
| Context | **configure** saa owner *named-item* test *named-item* type vccv-ping sub-type fec-128 pseudowire destination-ip-address *ipv4-address* |
| Tree | destination-ip-address |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **pw-id** *number*

| | |
|---|---|
| Synopsis | PW identifier |
| Context | **configure** saa owner *named-item* test *named-item* type vccv-ping sub-type fec-128 pseudowire pw-id *number* |
| Tree | pw-id |
| Range | 1 to 4294967295 |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **source-ip-address** *ipv4-address*

| | |
|---|---|
| Synopsis | PW source IP address |
| Context | **configure** saa owner *named-item* test *named-item* type vccv-ping sub-type fec-128 pseudowire source-ip-address *ipv4-address* |
| Tree | source-ip-address |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **reply-mode** *keyword*

| | |
|---|---|
| Synopsis | In-band or out-of-band reply |
| Context | **configure** saa owner *named-item* test *named-item* type vccv-ping sub-type fec-128 reply-mode *keyword* |
| Tree | reply-mode |
| Options | ip-routed, control-channel |
| Default | control-channel |


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| | |
|---|---|
| Introduced | 23.10.R1 |
| Platforms | All |

### **sdp-bind-id** *sdp-bind-id*

| | |
|---|---|
| Synopsis | SDP bind ID to test |
| Context | **configure** saa owner *named-item* test *named-item* type vccv-ping sub-type fec-128 sdp-bind-id *sdp-bind-id* |
| Tree | sdp-bind-id |
| String length | 3 to 16 |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **timeout** *number*

| | |
|---|---|
| Synopsis | Wait time for a reply after sending an echo request |
| Context | **configure** saa owner *named-item* test *named-item* type vccv-ping timeout *number* |
| Tree | timeout |
| Range | 1 to 10 |
| Units | seconds |
| Default | 5 |
| Introduced | 23.10.R1 |
| Platforms | All |

### **trap-generation**

| | |
|---|---|
| Synopsis | Enter the **trap-generation** context |
| Context | **configure** saa owner *named-item* test *named-item* type vccv-ping trap-generation |
| Tree | trap-generation |
| Introduced | 23.10.R1 |
| Platforms | All |


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### **probe-fail** *boolean*

| | |
|---|---|
| Synopsis | Enable the generation of probe fail notifications |
| Context | **configure** saa owner *named-item* test *named-item* type vccv-ping trap-generation probe-fail *boolean* |
| Tree | probe-fail |
| Description | When configured to **true**, the system generates an SNMP trap if the consecutive probe failure threshold is reached during the execution of the SAA ping test.<br>This command is not applicable to SAA traceroute tests. |
| Default | false |
| Introduced | 23.10.R1 |
| Platforms | All |

### **probe-fail-threshold** *number*

| | |
|---|---|
| Synopsis | Consecutive probe failure count |
| Context | **configure** saa owner *named-item* test *named-item* type vccv-ping trap-generation probe-fail-threshold *number* |
| Tree | probe-fail-threshold |
| Description | This command configures the number of consecutive ping probe failures required to generate a trap.<br>This command has no effect if the **probe-fail** command is set to **false**.<br>This command is not applicable to SAA traceroute tests. |
| Range | 0 to 15 |
| Default | 1 |
| Introduced | 23.10.R1 |
| Platforms | All |

### **test-complete** *boolean*

| | |
|---|---|
| Synopsis | Enable generation of test complete notifications |
| Context | **configure** saa owner *named-item* test *named-item* type vccv-ping trap-generation test-complete *boolean* |
| Tree | test-complete |
| Default | false |
| Introduced | 23.10.R1 |


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| | |
|---|---|
| Platforms | All |

### **test-fail** *boolean*

| | |
|---|---|
| Synopsis | Enable the generation of test fail notifications |
| Context | **configure** saa owner *named-item* test *named-item* type vccv-ping trap-generation test-fail *boolean* |
| Tree | test-fail |
| Description | When configured to **true**, the system generates a trap if a test fails. In the case of a ping test, the test is considered to have failed (for trap generation) if the number of failed probes is at least the value of the **test-fail-threshold** setting. |
| Default | false |
| Introduced | 23.10.R1 |
| Platforms | All |

### **test-fail-threshold** *number*

| | |
|---|---|
| Synopsis | Total probe failures for trap generation |
| Context | **configure** saa owner *named-item* test *named-item* type vccv-ping trap-generation test-fail-threshold *number* |
| Tree | test-fail-threshold |
| Description | This command configures the number of consecutive test failures required to generate a trap.<br>This command has no effect when **test-fail** is set to **false**.<br>This command is not applicable to SAA traceroute tests. |
| Range | 0 to 15 |
| Default | 1 |
| Introduced | 23.10.R1 |
| Platforms | All |

### **ttl** *number*

| | |
|---|---|
| Synopsis | TTL value for the echo request MPLS label |
| Context | **configure** saa owner *named-item* test *named-item* type vccv-ping ttl *number* |
| Tree | ttl |
| Range | 1 to 255 |


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| | |
|---|---|
| Default | 1 |
| Introduced | 23.10.R1 |
| Platforms | All |


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## 4.42 satellite commands

```
configure
   - satellite
      - apply-groups reference
      - apply-groups-exclude reference
      - ethernet-satellite number
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - central-frequency-clock
            - apply-groups reference
            - apply-groups-exclude reference
            - ref1
               - admin-state keyword
               - quality-level-override keyword
               - source-port port
            - ref2
               - admin-state keyword
               - quality-level-override keyword
               - source-port port
         - client-down-delay number
         - console-access keyword
         - description description
         - dynamic-uplink boolean
         - feature keyword
         - mac-address mac-unicast-address-no-zero
         - port-map reference
            - apply-groups reference
            - apply-groups-exclude reference
            - primary reference
            - secondary reference
         - port-template named-item
         - ptp-ip
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - ipv4-address ipv4-address
            - ipv6-address ipv6-address
         - ptp-tc boolean
         - sat-type keyword
         - software-repository reference
         - sync-e boolean
         - uplink-distribution keyword
      - file-transfer
         - apply-groups reference
         - apply-groups-exclude reference
         - ftp boolean
         - scp boolean
      - port-template named-item
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - description description
         - port string
            - apply-groups reference
            - apply-groups-exclude reference
            - role keyword
            - uplink reference
         - sat-type keyword
      - port-topology reference
```


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```
        - apply-groups reference
        - apply-groups-exclude reference
        - far-end-port-id reference
```


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## 4.42.1 satellite command descriptions

### satellite

| | |
|---|---|
| Synopsis | Enter the **satellite** context |
| Context | **configure** satellite |
| Tree | satellite |
| Description | Commands in this context configure a satellite chassis hosted by the associated local system. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ethernet-satellite** [satellite-id] *number*

| | |
|---|---|
| Synopsis | Enter the **ethernet-satellite** list instance |
| Context | **configure** satellite ethernet-satellite *number* |
| Tree | ethernet-satellite |
| Description | Commands in this context configure an Ethernet satellite. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### [**satellite-id**] *number*

| | |
|---|---|
| Synopsis | Ethernet satellite ID |
| Context | **configure** satellite ethernet-satellite *number* |
| Tree | ethernet-satellite |
| Range | 1 to 40 |
| Notes | This element is part of a list key. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the satellite |
| Context | **configure** satellite ethernet-satellite *number* admin-state *keyword* |


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| | |
|---|---|
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## central-frequency-clock

| | |
|---|---|
| Synopsis | Enter the **central-frequency-clock** context |
| Context | **configure** satellite ethernet-satellite *number* central-frequency-clock |
| Tree | central-frequency-clock |
| Description | Commands in this context configure frequency references used in the Ethernet satellite.<br>The **configure satellite ethernet-satellite sync-e** command must be configured to **true** before being committed. Otherwise, an error message is generated. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## ref1

| | |
|---|---|
| Synopsis | Enter the **ref1** context |
| Context | **configure** satellite ethernet-satellite *number* central-frequency-clock ref1 |
| Tree | ref1 |
| Description | Commands in this context configure options for the first timing reference used in the Ethernet satellite.<br>The source ports for ref1 can be either uplinks or client ports. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the satellite timing reference |
| Context | **configure** satellite ethernet-satellite *number* central-frequency-clock ref1 admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |


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| | |
|---|---|
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **quality-level-override** *keyword*

| | |
|---|---|
| Synopsis | Quality level of the satellite timing reference |
| Context | **configure** satellite ethernet-satellite *number* central-frequency-clock ref1 quality-level-override *keyword* |
| Tree | quality-level-override |
| Options | unused, prs, stu, st2, tnc, st3e, st3, prc, ssua, ssub, sec, eec1, eec2 |
| Default | unused |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **source-port** *port*

| | |
|---|---|
| Synopsis | Source port for timing reference within satellite |
| Context | **configure** satellite ethernet-satellite *number* central-frequency-clock ref1 source-port *port* |
| Tree | source-port |
| Description | This command configures the source port used for the input reference to the frequency clock.<br>The port can be any port of the Ethernet satellite. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **ref2**

| | |
|---|---|
| Synopsis | Enter the **ref2** context |
| Context | **configure** satellite ethernet-satellite *number* central-frequency-clock ref2 |
| Tree | ref2 |
| Description | Commands in this context configure options for the second timing reference used in the Ethernet satellite.<br>The source ports for ref2 can be either uplinks or client ports. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the satellite timing reference |
| Context | **configure** satellite ethernet-satellite *number* central-frequency-clock ref2 admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **quality-level-override** *keyword*

| | |
|---|---|
| Synopsis | Quality level of the satellite timing reference |
| Context | **configure** satellite ethernet-satellite *number* central-frequency-clock ref2 quality-level-override *keyword* |
| Tree | quality-level-override |
| Options | unused, prs, stu, st2, tnc, st3e, st3, prc, ssua, ssub, sec, eec1, eec2 |
| Default | unused |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **source-port** *port*

| | |
|---|---|
| Synopsis | Source port for timing reference within satellite |
| Context | **configure** satellite ethernet-satellite *number* central-frequency-clock ref2 source-port *port* |
| Tree | source-port |
| Description | This command configures the source port used for the input reference to the frequency clock.<br>The port can be any port of the Ethernet satellite. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **client-down-delay** *number*

| | |
|---|---|
| Synopsis | Delay between uplink as unavailable and disabling ports |
| Context | **configure** satellite ethernet-satellite *number* client-down-delay *number* |
| Tree | client-down-delay |
| Range | 0 to 1800 |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **console-access** *keyword*

| | |
|---|---|
| Synopsis | Satellite console interface access |
| Context | **configure** satellite ethernet-satellite *number* console-access *keyword* |
| Tree | console-access |
| Options | enable, disable |
| Default | disable |
| Introduced | 20.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** satellite ethernet-satellite *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **dynamic-uplink** *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable dynamic uplink resilience for Ethernet satellite |
| Context | **configure** satellite ethernet-satellite *number* dynamic-uplink *boolean* |


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| | |
|---|---|
| Tree | dynamic-uplink |
| Default | false |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **feature** *keyword*

| | |
|---|---|
| Synopsis | Functionality to enable |
| Context | **configure** satellite ethernet-satellite *number* feature *keyword* |
| Tree | feature |
| Options | local-forward, ptp-tc |
| Max. instances | 2 |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **mac-address** *mac-unicast-address-no-zero*

| | |
|---|---|
| Synopsis | MAC address for the satellite chassis |
| Context | **configure** satellite ethernet-satellite *number* mac-address *mac-unicast-address-no-zero* |
| Tree | mac-address |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **port-map** [client-port-id] *reference*

| | |
|---|---|
| Synopsis | Enter the **port-map** list instance |
| Context | **configure** satellite ethernet-satellite *number* port-map *reference* |
| Tree | port-map |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### [**client-port-id**] *reference*

| | |
|---|---|
| Synopsis | Satellite client port associated with the port mapping |
| Context | **configure** satellite ethernet-satellite *number* port-map *reference* |


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| | |
|---|---|
| Tree | port-map |
| Reference | **configure** port *port* |
| Notes | This element is part of a list key. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **primary** *reference*

| | |
|---|---|
| Synopsis | Primary satellite uplink for the associate client port |
| Context | **configure** satellite ethernet-satellite *number* port-map *reference* primary *reference* |
| Tree | primary |
| Reference | **configure** port *port* |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **secondary** *reference*

| | |
|---|---|
| Synopsis | Secondary satellite uplink for associate client port |
| Context | **configure** satellite ethernet-satellite *number* port-map *reference* secondary *reference* |
| Tree | secondary |
| Reference | **configure** port *port* |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **port-template** *named-item*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Port template name |
| Context | **configure** satellite ethernet-satellite *number* port-template *named-item* |
| Tree | port-template |
| String length | 1 to 32 |
| Introduced | 19.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## ptp-ip

| | |
|---|---|
| Synopsis | Enter the **ptp-ip** context |
| Context | **configure** satellite ethernet-satellite *number* ptp-ip |
| Tree | ptp-ip |
| Description | Commands in this context configure the Precision Time Protocol over IP (PTP over IP) transparent clock functionality. To allow this command to function, first configure the **ptp-tc** option for the **configure satellite ethernet-satellite feature** command. |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of PTP over IP transparent clock |
| Context | **configure** satellite ethernet-satellite *number* ptp-ip admin-state *keyword* |
| Tree | admin-state |
| Description | This command configures the administrative state of the PTP over IP transparent clock functionality. To allow this command to function, first configure the **ptp-tc** option for the **configure satellite ethernet-satellite feature** command. |
| Options | enable, disable |
| Default | disable |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## ipv4-address *ipv4-address*

| | |
|---|---|
| Synopsis | IPv4 destination address of PTP messages |
| Context | **configure** satellite ethernet-satellite *number* ptp-ip ipv4-address *ipv4-address* |
| Tree | ipv4-address |
| Description | This command configures the IPv4 destination address of PTP messages received into the satellite client ports. Use the same IPv4 address used for the PTP process on the host system. Only unicast addresses can be used. |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |


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### **ipv6-address** *ipv6-address*

| | |
|---|---|
| Synopsis | IPv6 destination address of PTP messages |
| Context | **configure** satellite ethernet-satellite *number* ptp-ip ipv6-address *ipv6-address* |
| Tree | ipv6-address |
| Description | This command configures the IPv6 destination address of PTP messages received into the satellite client ports. Use the same IPv6 address used for the PTP process on the host system. Only unicast addresses can be used. |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### **ptp-tc** *boolean*

| | |
|---|---|
| Synopsis | Enable the 1EEE 1588 transparent clock function |
| Context | **configure** satellite ethernet-satellite *number* ptp-tc *boolean* |
| Tree | ptp-tc |
| Default | false |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **sat-type** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Type of satellite variant for the associated chassis |
| Context | **configure** satellite ethernet-satellite *number* sat-type *keyword* |
| Tree | sat-type |
| Options | es48-1gb-sfp, es24-1gb-sfp, es48-1gb-tx, es24-1gb-tx, es64-10gb-sfpp+4-100gb-cfp4, es24-sass-1gb-sfp, es48-sass-1gb-sfp, es24-sasmxp-1gb-sfp, es64-10gb-sfpp+4-100gb-qsfp28, es24-sfpp+8-sfp28+2-qsfp28, es32-qsfp28+4-qsfpdd, es6-qsfpdd+48-sfp56, es48-sfpp+6-qsfp28 |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **software-repository** *reference*

| | |
|---|---|
| Synopsis | Software repository bound to the associated satellite |
| Context | **configure** satellite ethernet-satellite *number* software-repository *reference* |
| Tree | software-repository |
| Reference | **configure** system software-repository *named-item* |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **sync-e** *boolean*

| | |
|---|---|
| Synopsis | Enable the synchronous Ethernet operation |
| Context | **configure** satellite ethernet-satellite *number* sync-e *boolean* |
| Tree | sync-e |
| Description | When configured to **true**, this command enables the Ethernet satellite for synchronous Ethernet operation so that the transmit timing of the satellite access ports use the frequency of the central clock of the host router.<br>To enable this functionality, both host ports on the router that connect to the U1 and U2 ports of the satellite must be synchronous Ethernet-capable ports.<br>When configured to **false**, the command disables the Ethernet satellite for synchronous Ethernet operation. |
| Default | false |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **uplink-distribution** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Forwarding complex type for uplink distribution |
| Context | **configure** satellite ethernet-satellite *number* uplink-distribution *keyword* |
| Tree | uplink-distribution |
| Description | This command specifies the forwarding complex used for the satellite uplink association to the ports.<br>With **single-complex**, all uplinks for the associated satellite must be connected to ports using a single forwarding complex. |


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| | |
|---|---|
| | With **dual-complex**, all uplinks for the associated satellite must be connected to ports using a double forwarding complex. This option optimizes the resources across the two complexes. |
| Options | single-complex, dual-complex |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## file-transfer

| | |
|---|---|
| Synopsis | Enter the **file-transfer** context |
| Context | **configure** satellite file-transfer |
| Tree | file-transfer |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## ftp *boolean*

| | |
|---|---|
| Synopsis | Use FTP between host and satellite |
| Context | **configure** satellite file-transfer ftp *boolean* |
| Tree | ftp |
| Description | When configured to **true**, the file transfer FTP is used between 7750 SR or 7950 XRS host and the 7210 SAS Ethernet satellite. |
| Default | true |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## scp *boolean*

| | |
|---|---|
| Synopsis | Use FTP between host and satellite |
| Context | **configure** satellite file-transfer scp *boolean* |
| Tree | scp |
| Description | When configured to **true**, the file transfer SCP protocol is used between 7750 SR or 7950 XRS host and the 7210 SAS Ethernet satellite.<br>When configured to **false**, the file transfer FTP protocol is used between 7750 SR or 7950 XRS host and the 7210 SAS Ethernet satellite. |
| Default | false |


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| | |
|---|---|
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **port-template** [template-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **port-template** list instance |
| Context | **configure** satellite port-template *named-item* |
| Tree | port-template |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### [**template-name**] *named-item*

| | |
|---|---|
| Synopsis | Associated port template name |
| Context | **configure** satellite port-template *named-item* |
| Tree | port-template |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the port template |
| Context | **configure** satellite port-template *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** satellite port-template *named-item* description *description* |


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| | |
|---|---|
| Tree | description |
| String length | 1 to 80 |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **port** [sat-phys-port-id] *string*

| | |
|---|---|
| Synopsis | Enter the **port** list instance |
| Context | **configure** satellite port-template *named-item* port *string* |
| Tree | port |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### [**sat-phys-port-id**] *string*

| | |
|---|---|
| Synopsis | Satellite physical port ID |
| Context | **configure** satellite port-template *named-item* port *string* |
| Tree | port |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **role** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Satellite port role |
| Context | **configure** satellite port-template *named-item* port *string* role *keyword* |
| Tree | role |
| Options | none, uplink, client |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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## **uplink** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Uplink association used for associated satellite port |
| Context | **configure** satellite port-template *named-item* port *string* uplink *reference* |
| Tree | uplink |
| Reference | **configure** satellite port-template *named-item* port *string* |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **sat-type** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Satellite type for use with the port template |
| Context | **configure** satellite port-template *named-item* sat-type *keyword* |
| Tree | sat-type |
| Options | es48-1gb-sfp, es24-1gb-sfp, es48-1gb-tx, es24-1gb-tx, es64-10gb-sfpp+4-100gb-cfp4, es24-sass-1gb-sfp, es48-sass-1gb-sfp, es24-sasmxp-1gb-sfp, es64-10gb-sfpp+4-100gb-qsfp28, es24-sfpp+8-sfp28+2-qsfp28, es32-qsfp28+4-qsfpdd, es6-qsfpdd+48-sfp56, es48-sfpp+6-qsfp28 |
| Notes | This element is mandatory. |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **port-topology** [local-port-id] *reference*

| | |
|---|---|
| Synopsis | Enter the **port-topology** list instance |
| Context | **configure** satellite port-topology *reference* |


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| | |
|---|---|
| Tree | port-topology |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### [**local-port-id**] *reference*

| | |
|---|---|
| Synopsis | Local port identifier |
| Context | **configure** satellite port-topology *reference* |
| Tree | port-topology |
| Reference | **configure** port *port* |
| Notes | This element is part of a list key. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **far-end-port-id** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Far end port ID |
| Context | **configure** satellite port-topology *reference* far-end-port-id *reference* |
| Tree | far-end-port-id |
| Reference | **configure** port *port* |
| Notes | This element is mandatory. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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## 4.43 service commands

```
configure
   –  service
      –  apply-groups reference
      –  apply-groups-exclude reference
      –  cpipe service-name
         –  admin-state keyword
         –  apply-groups reference
         –  apply-groups-exclude reference
         –  customer reference
         –  description description
         –  endpoint named-item
            –  apply-groups reference
            –  apply-groups-exclude reference
            –  description description
            –  hold-time-active number
            –  revert-time (number | keyword)
         –  sap sap
            –  accounting-policy reference
            –  admin-state keyword
            –  apply-groups reference
            –  apply-groups-exclude reference
            –  cem
               –  packet
                  –  jitter-buffer number
                  –  payload-size number
               –  report-alarm
                  –  buffer-overrun boolean
                  –  buffer-underrun boolean
                  –  malformed-packets boolean
                  –  packet-loss boolean
                  –  remote-fault boolean
                  –  remote-packet-loss boolean
                  –  remote-rdi boolean
                  –  stray-packets boolean
               –  rtp-header boolean
            –  collect-stats boolean
            –  description long-description
            –  dist-cpu-protection reference
            –  egress
               –  agg-rate
                  –  adaptation-rule keyword
                  –  burst-limit (number | keyword)
                  –  limit-unused-bandwidth boolean
                  –  rate number
               –  qos
                  –  policer-control-policy
                     –  overrides
                        –  apply-groups reference
                        –  apply-groups-exclude reference
                        –  root
                           –  max-rate (number | keyword)
                           –  priority-mbs-thresholds
                              –  min-thresh-separation (number | keyword)
                              –  priority number
                                 –  apply-groups reference
                                 –  apply-groups-exclude reference
                                 –  mbs-contribution (number | keyword)
                     –  policy-name reference
                  –  sap-egress
```


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configure service cpipe sap egress qos sap-egress overrides

```
                    - overrides
                      - policer reference
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - cbs (number | keyword)
                        - mbs (number | keyword)
                        - packet-byte-offset number
                        - percent-rate
                          - cir decimal-number
                          - pir decimal-number
                        - rate
                          - cir (number | keyword)
                          - pir (number | keyword)
                        - stat-mode keyword
                      - queue reference
                        - adaptation-rule
                          - cir keyword
                          - pir keyword
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - avg-frame-overhead decimal-number
                        - burst-limit (number | keyword)
                        - cbs (number | keyword)
                        - drop-tail
                          - low
                            - percent-reduction-from-mbs (number | keyword)
                        - hs-class-weight number
                        - hs-wred-queue
                          - policy reference
                        - hs-wrr-weight number
                        - mbs (number | keyword)
                        - monitor-queue-depth
                          - fast-polling boolean
                          - violation-threshold decimal-number
                        - parent
                          - cir-weight number
                          - weight number
                        - percent-rate
                          - cir decimal-number
                          - pir decimal-number
                        - rate
                          - cir (number | keyword)
                          - pir (number | keyword)
                    - policy-name reference
                  - scheduler-policy
                    - overrides
                      - scheduler named-item
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - parent
                          - cir-weight number
                          - weight number
                        - rate
                          - cir (number | keyword)
                          - pir (number | keyword)
                    - policy-name reference
                - virtual-port
                  - vport-name reference
            - endpoint reference
            - ingress
              - qos
                - policer-control-policy
                  - overrides
                    - apply-groups reference
```


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configure service cpipe sap ingress qos policer-control-policy overrides apply-groups-exclude

```
                    - apply-groups-exclude reference
                    - root
                      - max-rate (number | keyword)
                      - priority-mbs-thresholds
                        - min-thresh-separation (number | keyword)
                        - priority number
                          - apply-groups reference
                          - apply-groups-exclude reference
                          - mbs-contribution (number | keyword)
                - policy-name reference
            - sap-ingress
                - overrides
                    - ip-criteria
                      - activate-entry-tag number
                    - ipv6-criteria
                      - activate-entry-tag number
                    - policer reference
                      - apply-groups reference
                      - apply-groups-exclude reference
                      - cbs (number | keyword)
                      - mbs (number | keyword)
                      - packet-byte-offset number
                      - percent-rate
                        - cir decimal-number
                        - pir decimal-number
                      - rate
                        - cir (number | keyword)
                        - pir (number | keyword)
                      - stat-mode keyword
                    - queue reference
                      - adaptation-rule
                        - cir keyword
                        - pir keyword
                      - apply-groups reference
                      - apply-groups-exclude reference
                      - cbs (number | keyword)
                      - drop-tail
                        - low
                          - percent-reduction-from-mbs (number | keyword)
                      - mbs (number | keyword)
                      - monitor-queue-depth
                        - fast-polling boolean
                      - parent
                        - cir-weight number
                        - weight number
                      - percent-rate
                        - cir decimal-number
                        - pir decimal-number
                      - rate
                        - cir (number | keyword)
                        - pir (number | keyword)
                - policy-name reference
                - queuing-type keyword
            - scheduler-policy
                - overrides
                    - scheduler named-item
                      - apply-groups reference
                      - apply-groups-exclude reference
                      - parent
                        - cir-weight number
                        - weight number
                      - rate
                        - cir (number | keyword)
                        - pir (number | keyword)
```


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configure service cpipe sap ingress qos scheduler-policy policy-name

```
                    -  policy-name reference
            -  lag
            -  multi-service-site reference
         -  service-id number
         -  service-mtu number
         -  spoke-sdp sdp-bind-id
            -  admin-state keyword
            -  apply-groups reference
            -  apply-groups-exclude reference
            -  bandwidth (number | keyword)
            -  bfd
               -  bfd-liveness
                  -  encap keyword
               -  bfd-template reference
            -  control-word boolean
            -  description description
            -  egress
               -  qos
                  -  network
                     -  policy-name reference
                     -  port-redirect-group
                        -  group-name reference
                        -  instance number
               -  vc-label number
            -  endpoint
               -  icb boolean
               -  name reference
               -  precedence (number | keyword)
            -  ingress
               -  qos
                  -  network
                     -  fp-redirect-group
                        -  group-name reference
                        -  instance number
                     -  policy-name reference
               -  vc-label number
         -  test boolean
         -  vc-switching boolean
         -  vc-type keyword
         -  vpn-id number
      -  customer customer-name
         -  apply-groups reference
         -  apply-groups-exclude reference
         -  contact description
         -  customer-id number
         -  description description
         -  multi-service-site named-item
            -  apply-groups reference
            -  apply-groups-exclude reference
            -  assignment
               -  card number
               -  fpe reference
               -  port port-named
            -  description description
            -  egress
               -  agg-rate
                  -  limit-unused-bandwidth boolean
                  -  queue-frame-based-accounting boolean
                  -  rate number
               -  policer-control-policy reference
               -  scheduler-policy
                  -  overrides
                     -  scheduler named-item
                        -  apply-groups reference
```


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configure service customer multi-service-site egress scheduler-policy overrides scheduler apply-groups-exclude

```
                        - apply-groups-exclude reference
                        - parent
                           - cir-weight number
                           - weight number
                        - rate
                           - cir (number | keyword)
                           - pir (number | keyword)
                     - policy-name reference
            - ingress
               - policer-control-policy reference
               - scheduler-policy
                  - overrides
                     - scheduler named-item
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - parent
                           - cir-weight number
                           - weight number
                        - rate
                           - cir (number | keyword)
                           - pir (number | keyword)
                     - policy-name reference
         - phone description
      - epipe service-name
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - bgp number
            - adv-service-mtu number
            - apply-groups reference
            - apply-groups-exclude reference
            - pw-template-binding reference
               - apply-groups reference
               - apply-groups-exclude reference
               - bfd-liveness boolean
               - bfd-template reference
               - endpoint reference
               - import-rt route-target
            - route-distinguisher (keyword | vpn-route-distinguisher)
            - route-target
               - export route-target
               - import route-target
            - vsi-export reference
            - vsi-import reference
         - bgp-evpn
            - apply-groups reference
            - apply-groups-exclude reference
            - evi number
            - local-attachment-circuit named-item
               - apply-groups reference
               - apply-groups-exclude reference
               - bgp number
               - endpoint reference
               - eth-tag number
               - vlan-signaled-flexible-cross-connect boolean
            - mpls number
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - auto-bind-tunnel
                  - allow-flex-algo-fallback boolean
                  - ecmp number
                  - enforce-strict-tunnel-tagging boolean
                  - enforce-untagged-route keyword
```


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configure service epipe bgp-evpn mpls auto-bind-tunnel resolution

```
                  - resolution keyword
                  - resolution-filter
                     - bgp boolean
                     - ldp boolean
                     - mpls-fwd-policy boolean
                     - rib-api boolean
                     - rsvp boolean
                     - sr-isis boolean
                     - sr-ospf boolean
                     - sr-ospf3 boolean
                     - sr-policy boolean
                     - sr-te boolean
                     - udp boolean
                  - weighted-ecmp boolean
               - control-word boolean
               - default-route-tag one-byte-value
               - domain-id domain-id
               - dynamic-egress-label-limit boolean
               - ecmp number
               - entropy-label boolean
               - evi-three-byte-auto-rt boolean
               - force-vc-forwarding keyword
               - hash-label boolean
               - mh-mode keyword
               - oper-group reference
               - route-next-hop
                  - ip-address (ipv4-address-no-zone | ipv6-address-no-zone)
                  - system-ipv4
                  - system-ipv6
               - send-tunnel-encap
                  - mpls boolean
                  - mpls-over-udp boolean
            - remote-attachment-circuit named-item
               - apply-groups reference
               - apply-groups-exclude reference
               - bgp number
               - endpoint reference
               - eth-tag number
            - segment-routing-v6 number
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - default-route-tag one-byte-value
               - domain-id domain-id
               - ecmp number
               - evi-three-byte-auto-rt boolean
               - force-vc-forwarding keyword
               - mh-mode keyword
               - oper-group reference
               - resolution keyword
               - route-next-hop
                  - ip-address (ipv4-address-no-zone | ipv6-address-no-zone)
                  - system-ipv4
                  - system-ipv6
               - source-address ipv6-unicast-address
               - srv6
                  - default-locator string
                  - instance reference
            - vxlan number
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - default-route-tag one-byte-value
               - ecmp number
```


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configure service epipe bgp-evpn vxlan evi-three-byte-auto-rt

```
            - evi-three-byte-auto-rt boolean
            - send-tunnel-encap boolean
            - vxlan-instance reference
      - bgp-mh-site named-item
         - activation-timer number
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - boot-timer number
         - id number
         - min-down-timer number
         - preference number
         - sap sap
      - bgp-vpws
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - local-ve
            - id number
            - name named-item
         - remote-ve named-item
            - apply-groups reference
            - apply-groups-exclude reference
            - id number
      - customer reference
      - description description
      - endpoint named-item
         - apply-groups reference
         - apply-groups-exclude reference
         - description description
         - hold-time-active number
         - revert-time (number | keyword)
         - standby-signaling keyword
      - eth-cfm
         - apply-groups reference
         - apply-groups-exclude reference
      - flexible-cross-connect boolean
      - ignore-l2vpn-mtu-mismatch boolean
      - load-balancing
         - lbl-eth-or-ip-l4-teid boolean
         - per-service-hashing boolean
      - nat-outside number
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
      - oper-group reference
      - pbb
         - force-qtag-forwarding boolean
         - local-switch-service-state keyword
         - tunnel
            - apply-groups reference
            - apply-groups-exclude reference
            - backbone-dest-mac mac-unicast-address-no-zero
            - backbone-dest-mac-name reference
            - backbone-vpls-service-name reference
            - isid number
      - sap sap
         - aarp
            - id reference
            - type keyword
         - accounting-policy reference
         - admin-state keyword
         - app-profile reference
         - apply-groups reference
```


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configure service epipe sap apply-groups-exclude

```
            - apply-groups-exclude reference
            - bandwidth number
            - cflowd boolean
            - collect-stats boolean
            - cpu-protection
              - eth-cfm-monitoring
                - aggregate
                - car
              - mac-monitoring
              - policy-id reference
            - description long-description
            - dist-cpu-protection reference
            - egress
              - agg-rate
                - adaptation-rule keyword
                - burst-limit (number | keyword)
                - limit-unused-bandwidth boolean
                - queue-frame-based-accounting boolean
                - rate number
              - filter
                - ip reference
                - ipv6 reference
                - mac reference
              - qos
                - latency-budget number
                - policer-control-policy
                  - overrides
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - root
                      - max-rate (number | keyword)
                      - priority-mbs-thresholds
                        - min-thresh-separation (number | keyword)
                        - priority number
                          - apply-groups reference
                          - apply-groups-exclude reference
                          - mbs-contribution (number | keyword)
                  - policy-name reference
                - qinq-mark-top-only boolean
                - sap-egress
                  - overrides
                    - hs-secondary-shaper named-item
                    - hs-wrr-group reference
                      - apply-groups reference
                      - apply-groups-exclude reference
                      - hs-class-weight number
                      - percent-rate decimal-number
                      - rate (number | keyword)
                    - policer reference
                      - apply-groups reference
                      - apply-groups-exclude reference
                      - cbs (number | keyword)
                      - mbs (number | keyword)
                      - packet-byte-offset number
                      - percent-rate
                        - cir decimal-number
                        - pir decimal-number
                      - rate
                        - cir (number | keyword)
                        - pir (number | keyword)
                      - stat-mode keyword
                    - queue reference
                      - adaptation-rule
                        - cir keyword
```


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configure service epipe sap egress qos sap-egress overrides queue adaptation-rule pir

```
                        - pir keyword
                     - apply-groups reference
                     - apply-groups-exclude reference
                     - avg-frame-overhead decimal-number
                     - burst-limit (number | keyword)
                     - cbs (number | keyword)
                     - drop-tail
                        - low
                           - percent-reduction-from-mbs (number | keyword)
                     - hs-class-weight number
                     - hs-wred-queue
                        - policy reference
                     - hs-wrr-weight number
                     - mbs (number | keyword)
                     - monitor-queue-depth
                        - fast-polling boolean
                        - violation-threshold decimal-number
                     - parent
                        - cir-weight number
                        - weight number
                     - percent-rate
                        - cir decimal-number
                        - pir decimal-number
                     - rate
                        - cir (number | keyword)
                        - pir (number | keyword)
                  - policy-name reference
                  - port-redirect-group
                     - group-name reference
                     - instance number
               - scheduler-policy
                  - overrides
                     - scheduler named-item
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - parent
                           - cir-weight number
                           - weight number
                        - rate
                           - cir (number | keyword)
                           - pir (number | keyword)
                  - policy-name reference
            - virtual-port
               - vport-name reference
         - endpoint reference
         - eth-cfm
            - ais boolean
            - apply-groups reference
            - apply-groups-exclude reference
            - collect-lmm-fc-stats
               - fc keyword
               - fc-in-profile keyword
            - collect-lmm-stats boolean
            - mep md-admin-name reference ma-admin-name reference mep-id number
               - admin-state keyword
               - ais
                  - client-meg-level number
                  - interface-support boolean
                  - interval number
                  - low-priority-defect keyword
                  - priority number
               - alarm-notification
                  - fng-alarm-time number
                  - fng-reset-time number
```


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configure service epipe sap eth-cfm mep apply-groups

```
                - apply-groups reference
                - apply-groups-exclude reference
                - ccm boolean
                - ccm-ltm-priority number
                - ccm-padding-size number
                - cfm-vlan-tag one-or-two-vlan-tags
                - csf
                  - multiplier decimal-number
                - description description
                - direction keyword
                - eth-test
                  - bit-error-threshold number
                  - test-pattern
                    - crc-tlv boolean
                    - pattern keyword
                - fault-propagation keyword
                - grace
                  - eth-ed
                    - max-rx-defect-window number
                    - priority number
                    - rx-eth-ed boolean
                    - tx-eth-ed boolean
                  - eth-vsm-grace
                    - rx-eth-vsm-grace boolean
                    - tx-eth-vsm-grace boolean
                - lbm-svc-act-responder boolean
                - low-priority-defect keyword
                - mac-address mac-unicast-address-no-zero
                - monitor-oper-group reference
                - one-way-delay-threshold number
                - primary-vlan boolean
              - mip primary-vlan (number | keyword)
                - apply-groups reference
                - apply-groups-exclude reference
                - cfm-vlan-tag one-or-two-vlan-tags
                - mac-address mac-unicast-address-no-zero
              - squelch-ingress-ctag-levels number
              - squelch-ingress-levels number
          - ethernet
            - llf
              - admin-state keyword
          - ignore-oper-down boolean
          - ingress
            - filter
              - ip reference
              - ipv6 reference
              - mac reference
            - qos
              - match-qinq-dot1p keyword
              - policer-control-policy
                - overrides
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - root
                    - max-rate (number | keyword)
                    - priority-mbs-thresholds
                      - min-thresh-separation (number | keyword)
                      - priority number
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - mbs-contribution (number | keyword)
                - policy-name reference
              - sap-ingress
                - fp-redirect-group
```


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configure service epipe sap ingress qos sap-ingress fp-redirect-group group-name

```
                    - group-name reference
                    - instance number
                - overrides
                    - ip-criteria
                        - activate-entry-tag number
                    - ipv6-criteria
                        - activate-entry-tag number
                    - policer reference
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - cbs (number | keyword)
                        - mbs (number | keyword)
                        - packet-byte-offset number
                        - percent-rate
                            - cir decimal-number
                            - pir decimal-number
                        - rate
                            - cir (number | keyword)
                            - pir (number | keyword)
                        - stat-mode keyword
                    - queue reference
                        - adaptation-rule
                            - cir keyword
                            - pir keyword
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - cbs (number | keyword)
                        - drop-tail
                            - low
                                - percent-reduction-from-mbs (number | keyword)
                        - mbs (number | keyword)
                        - monitor-queue-depth
                            - fast-polling boolean
                        - parent
                            - cir-weight number
                            - weight number
                        - percent-rate
                            - cir decimal-number
                            - pir decimal-number
                        - rate
                            - cir (number | keyword)
                            - pir (number | keyword)
                - policy-name reference
                - queuing-type keyword
            - scheduler-policy
                - overrides
                    - scheduler named-item
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - parent
                            - cir-weight number
                            - weight number
                        - rate
                            - cir (number | keyword)
                            - pir (number | keyword)
                - policy-name reference
        - qtag-manipulation
            - c-tag (number | keyword)
            - push-dot1q-vlan (number | keyword)
            - s-tag number
    - l2tpv3-session
        - admin-state keyword
        - apply-groups reference
        - apply-groups-exclude reference
```


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configure service epipe sap l2tpv3-session pseudo-wire

```
            - pseudo-wire
               - ethernet
               - ethernet-vlan-id number
            - router
               - group named-item
               - router-instance router-instance-base-vprn-loose
            - vc-id number
         - lag
            - link-map-profile number
            - per-link-hash
               - class number
               - weight number
         - mc-ring
            - apply-groups reference
            - apply-groups-exclude reference
            - ring-node named-item
         - monitor-oper-group reference
         - multi-service-site reference
         - oper-group reference
         - qtag-normalization
            - double-tag
               - c-tag number
               - s-tag number
            - single-tag
               - tag number
         - transit-policy
            - ip reference
            - prefix reference
      - segment-routing-v6 number
         - apply-groups reference
         - apply-groups-exclude reference
         - locator reference
            - apply-groups reference
            - apply-groups-exclude reference
            - function
               - end-dx2
                  - value number
         - micro-segment-locator reference
            - apply-groups reference
            - apply-groups-exclude reference
            - function
               - udx2
                  - value number
      - service-id number
      - service-mtu number
      - spoke-sdp sdp-bind-id
         - aarp
            - id reference
            - type keyword
         - accounting-policy reference
         - admin-state keyword
         - adv-service-mtu number
         - app-profile reference
         - apply-groups reference
         - apply-groups-exclude reference
         - bandwidth (number | keyword)
         - bfd
            - bfd-liveness
               - encap keyword
            - bfd-template reference
            - failure-action keyword
            - wait-for-up-timer number
         - collect-stats boolean
         - control-word boolean
```


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```
            - cpu-protection
              - eth-cfm-monitoring
                - aggregate
                - car
              - mac-monitoring
              - policy-id reference
            - description description
            - egress
              - filter
                - ip reference
                - ipv6 reference
                - mac reference
              - l2tpv3
                - cookie cookie-value
              - qos
                - network
                  - policy-name reference
                  - port-redirect-group
                    - group-name reference
                    - instance number
              - vc-label number
            - endpoint
              - icb boolean
              - name reference
              - precedence (number | keyword)
            - entropy-label
            - eth-cfm
              - apply-groups reference
              - apply-groups-exclude reference
              - collect-lmm-fc-stats
                - fc keyword
                - fc-in-profile keyword
              - collect-lmm-stats boolean
              - mep md-admin-name reference ma-admin-name reference mep-id number
                - admin-state keyword
                - ais
                  - client-meg-level number
                  - interface-support boolean
                  - interval number
                  - low-priority-defect keyword
                  - priority number
                - alarm-notification
                  - fng-alarm-time number
                  - fng-reset-time number
                - apply-groups reference
                - apply-groups-exclude reference
                - ccm boolean
                - ccm-ltm-priority number
                - ccm-padding-size number
                - cfm-vlan-tag one-or-two-vlan-tags
                - csf
                  - multiplier decimal-number
                - description description
                - direction keyword
                - eth-test
                  - bit-error-threshold number
                  - test-pattern
                    - crc-tlv boolean
                    - pattern keyword
                - fault-propagation keyword
                - grace
                  - eth-ed
                    - max-rx-defect-window number
                    - priority number
```


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configure service epipe spoke-sdp eth-cfm mep grace eth-ed rx-eth-ed

```
                        - rx-eth-ed boolean
                        - tx-eth-ed boolean
                     - eth-vsm-grace
                        - rx-eth-vsm-grace boolean
                        - tx-eth-vsm-grace boolean
                  - lbm-svc-act-responder boolean
                  - low-priority-defect keyword
                  - mac-address mac-unicast-address-no-zero
                  - one-way-delay-threshold number
                  - primary-vlan boolean
               - mip primary-vlan (number | keyword)
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - cfm-vlan-tag one-or-two-vlan-tags
                  - mac-address mac-unicast-address-no-zero
               - squelch-ingress-ctag-levels number
               - squelch-ingress-levels number
            - force-vc-forwarding keyword
            - hash-label
               - signal-capability
            - ingress
               - filter
                  - ip reference
                  - ipv6 reference
                  - mac reference
               - l2tpv3
                  - cookie
                     - cookie1 cookie-value
                     - cookie2 cookie-value
               - qos
                  - network
                     - fp-redirect-group
                        - group-name reference
                        - instance number
                     - policy-name reference
               - vc-label number
            - monitor-oper-group reference
            - oper-group reference
            - pw-status
               - block-on-peer-fault boolean
               - signaling boolean
               - standby-signaling-slave boolean
            - source-bmac
               - use-sdp-bmac-lsb boolean
            - transit-policy
               - ip reference
               - prefix reference
            - vc-type keyword
            - vlan-vc-tag number
         - test boolean
         - vc-switching boolean
         - vpn-id number
         - vxlan
            - instance number
               - apply-groups reference
               - apply-groups-exclude reference
               - egress-vtep
                  - ip-address (ipv4-address-no-zone | ipv6-address-no-zone)
                  - oper-group reference
               - vni number
            - source-vtep (ipv4-address-no-zone | ipv6-address-no-zone)
      - ies service-name
         - aa-interface interface-name
            - admin-state keyword
```


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```
            - apply-groups reference
            - apply-groups-exclude reference
            - description very-long-description
            - ip-mtu number
            - ipv4
               - primary
                  - address ipv4-unicast-address
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - prefix-length number
            - sap sap
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - description long-description
               - egress
                  - filter
                     - ip reference
                  - qos
                     - sap-egress
                        - policy-name reference
                  - virtual-port
                     - vport-name reference
               - fwd-wholesale
                  - pppoe-service reference
               - ingress
                  - qos
                     - sap-ingress
                        - overrides
                        - policy-name reference
               - lag
         - aarp-interface interface-name
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - description very-long-description
            - ip-mtu number
            - spoke-sdp sdp-bind-id
               - aarp
                  - id reference
                  - type keyword
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - description description
               - egress
                  - filter
                     - ip reference
                  - vc-label number
               - ingress
                  - filter
                     - ip reference
                  - vc-label number
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - customer reference
         - description description
         - eth-cfm
            - apply-groups reference
            - apply-groups-exclude reference
         - igmp-host-tracking
            - admin-state keyword
            - apply-groups reference
```


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configure service ies igmp-host-tracking apply-groups-exclude

```
            - apply-groups-exclude reference
            - expiry-time number
         - interface interface-name
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - cflowd-parameters
               - sampling keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - direction keyword
                  - sample-profile (keyword | number)
                  - type keyword
            - cpu-protection reference
            - description very-long-description
            - dynamic-tunnel-redundant-nexthop ipv4-unicast-address
            - hold-time
               - ipv4
                  - down
                     - init-only boolean
                     - seconds number
                  - up
                     - seconds number
               - ipv6
                  - down
                     - init-only boolean
                     - seconds number
                  - up
                     - seconds number
            - if-attribute
               - admin-group reference
               - srlg-group reference
            - ingress
               - destination-class-lookup boolean
               - policy-accounting reference
            - ingress-stats boolean
            - ip-mtu number
            - ip-tunnel-interface boolean
            - ipsec
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - ip-exception reference
               - ipsec-tunnel named-item
                  - admin-state keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - bfd
                     - bfd-designate boolean
                     - bfd-liveness
                        - dest-ip ipv4-unicast-address
                        - interface interface-name
                        - service-name service-name
                  - clear-df-bit boolean
                  - copy-traffic-class-upon-decapsulation boolean
                  - description description
                  - encapsulated-ip-mtu number
                  - icmp-generation
                     - frag-required
                        - admin-state keyword
                        - interval number
                        - message-count number
                  - icmp6-generation
                     - packet-too-big
```


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configure service ies interface ipsec ipsec-tunnel icmp6-generation packet-too-big admin-state

```
                        – admin-state keyword
                        – interval number
                        – message-count number
                  – ip-mtu number
                  – key-exchange
                     – dynamic
                        – auto-establish boolean
                        – cert
                           – cert-profile reference
                           – status-verify
                              – default-result keyword
                              – primary keyword
                              – secondary keyword
                           – trust-anchor-profile reference
                        – id
                           – fqdn fully-qualified-domain-name
                           – ipv4 ipv4-unicast-address
                           – ipv6 (ipv4-address-no-zone | ipv6-address-no-zone)
                        – ike-policy reference
                        – ipsec-transform reference
                        – ppk
                           – id reference
                           – list reference
                        – pre-shared-key encrypted-leaf
                     – manual
                        – keys number direction keyword
                           – apply-groups reference
                           – apply-groups-exclude reference
                           – authentication-key hex-string
                           – encryption-key hex-string
                           – ipsec-transform reference
                           – spi number
                  – local-gateway-address-override (ipv4-address-no-zone | ipv6-address-no-
zone)
                  – max-history-key-records
                     – esp number
                     – ike number
                  – pmtu-discovery-aging number
                  – private-sap number
                  – private-service service-name
                  – private-tcp-mss-adjust number
                  – propagate-pmtu-v4 boolean
                  – propagate-pmtu-v6 boolean
                  – public-tcp-mss-adjust (number | keyword)
                  – remote-gateway-address (ipv4-address-no-zone | ipv6-address-no-zone)
                  – replay-window number
                  – security-policy
                     – id number
                     – strict-match boolean
               – ipv6-exception reference
               – public-sap number
               – tunnel-group reference
            – ipv4
               – addresses
                  – address ipv4-unicast-address
                     – apply-groups reference
                     – apply-groups-exclude reference
                     – prefix-length number
               – allow-directed-broadcasts boolean
               – bfd
                  – admin-state keyword
                  – echo-receive number
                  – multiplier number
                  – receive number
```


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configure service ies interface ipv4 bfd transmit-interval

```
                  - transmit-interval number
                  - type keyword
               - dhcp
                  - admin-state keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - description description
                  - gi-address ipv4-unicast-address
                  - lease-populate
                     - max-leases number
                  - option-82
                     - action keyword
                     - circuit-id
                        - ascii-tuple
                        - ifindex
                        - none
                        - sap-id
                        - vlan-ascii-tuple
                     - remote-id
                        - ascii-string string-not-all-spaces
                        - mac
                        - none
                     - vendor-specific-option
                        - client-mac-address boolean
                        - pool-name boolean
                        - sap-id boolean
                        - service-id boolean
                        - string string-not-all-spaces
                        - system-id boolean
                  - proxy-server
                     - admin-state keyword
                     - emulated-server ipv4-unicast-address
                     - lease-time
                        - radius-override boolean
                        - value number
                  - python-policy reference
                  - relay-plain-bootp boolean
                  - relay-proxy
                     - release-update-src-ip boolean
                     - siaddr-override ipv4-unicast-address
                  - release-include-gi-address boolean
                  - server ipv4-unicast-address
                  - src-ip-addr keyword
                  - trusted boolean
                  - use-arp boolean
               - icmp
                  - mask-reply boolean
                  - param-problem
                     - admin-state keyword
                     - number number
                     - seconds number
                  - redirects
                     - admin-state keyword
                     - number number
                     - seconds number
                  - ttl-expired
                     - admin-state keyword
                     - number number
                     - seconds number
                  - unreachables
                     - admin-state keyword
                     - number number
                     - seconds number
               - ip-helper-address ipv4-unicast-address
```


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```
                - local-dhcp-server reference
                - neighbor-discovery
                  - host-route
                    - populate keyword
                      - apply-groups reference
                      - apply-groups-exclude reference
                      - route-tag number
                  - learn-unsolicited boolean
                  - limit
                    - log-only boolean
                    - max-entries number
                    - threshold number
                  - local-proxy-arp boolean
                  - populate boolean
                  - proactive-refresh boolean
                  - proxy-arp-policy reference
                  - remote-proxy-arp boolean
                  - retry-timer number
                  - static-neighbor ipv4-address
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - mac-address mac-address
                  - static-neighbor-unnumbered
                    - mac-address mac-address
                  - timeout number
                - primary
                  - address ipv4-unicast-address
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - broadcast keyword
                  - prefix-length number
                  - track-srrp number
                - qos-route-lookup keyword
                - secondary ipv4-unicast-address
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - broadcast keyword
                  - igp-inhibit boolean
                  - prefix-length number
                  - track-srrp number
                - tcp-mss number
                - unnumbered
                  - ip-address ipv4-unicast-address
                  - ip-int-name interface-name
                  - system
                - urpf-check
                  - ignore-default boolean
                  - mode keyword
                - vrrp number
                  - admin-state keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - authentication-key encrypted-leaf
                  - backup ipv4-unicast-address
                  - bfd-liveness
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - dest-ip ipv4-address
                    - interface-name interface-name
                    - service-name service-name
                  - init-delay number
                  - mac mac-unicast-address
                  - master-int-inherit boolean
                  - message-interval number
```


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```
                  - monitor-oper-group reference
                  - ntp-reply boolean
                  - oper-group reference
                  - owner boolean
                  - passive boolean
                  - ping-reply boolean
                  - policy reference
                  - preempt boolean
                  - priority number
                  - ssh-reply boolean
                  - standby-forwarding boolean
                  - telnet-reply boolean
                  - traceroute-reply boolean
            - ipv6
               - address ipv6-address
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - duplicate-address-detection boolean
                  - eui-64 boolean
                  - prefix-length number
                  - primary-preference number
                  - track-srrp number
               - bfd
                  - admin-state keyword
                  - echo-receive number
                  - multiplier number
                  - receive number
                  - transmit-interval number
                  - type keyword
               - dhcp6
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - relay
                     - admin-state keyword
                     - apply-groups reference
                     - apply-groups-exclude reference
                     - description description
                     - lease-populate
                        - max-nbr-of-leases number
                        - route-populate
                           - na boolean
                           - pd
                              - exclude boolean
                           - ta boolean
                     - link-address ipv6-address
                     - neighbor-resolution boolean
                     - option
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - interface-id
                           - ascii-tuple
                           - if-index
                           - sap-id
                           - string string-not-all-spaces
                        - remote-id boolean
                     - python-policy reference
                     - server ipv6-address-with-zone
                     - source-address ipv6-unicast-or-linklocal-address
                     - user-db reference
                  - server
                     - apply-groups reference
                     - apply-groups-exclude reference
                     - max-nbr-of-leases number
                     - prefix-delegation
```


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configure service ies interface ipv6 dhcp6 server prefix-delegation admin-state

```
                    – admin-state keyword
                    – prefix ipv6-prefix
                       – apply-groups reference
                       – apply-groups-exclude reference
                       – client-id
                          – duid string
                          – iaid number
                       – preferred-lifetime (number | keyword)
                       – valid-lifetime (number | keyword)
             – duplicate-address-detection boolean
             – forward-ipv4-packets boolean
             – icmp6
                – packet-too-big
                   – admin-state keyword
                   – number number
                   – seconds number
                – param-problem
                   – admin-state keyword
                   – number number
                   – seconds number
                – redirects
                   – admin-state keyword
                   – number number
                   – seconds number
                – time-exceeded
                   – admin-state keyword
                   – number number
                   – seconds number
                – unreachables
                   – admin-state keyword
                   – number number
                   – seconds number
             – link-local-address
                – address ipv6-address
                – duplicate-address-detection boolean
             – local-dhcp-server reference
             – neighbor-discovery
                – host-route
                   – populate keyword
                      – apply-groups reference
                      – apply-groups-exclude reference
                      – route-tag number
                – learn-unsolicited keyword
                – limit
                   – log-only boolean
                   – max-entries number
                   – threshold number
                – local-proxy-nd boolean
                – proactive-refresh keyword
                – proxy-nd-policy reference
                – reachable-time number
                – secure-nd
                   – admin-state keyword
                   – allow-unsecured-msgs boolean
                   – public-key-min-bits number
                   – security-parameter number
                – stale-time number
                – static-neighbor ipv6-address
                   – apply-groups reference
                   – apply-groups-exclude reference
                   – mac-address mac-address
             – qos-route-lookup keyword
             – tcp-mss number
             – urpf-check
```


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configure service ies interface ipv6 urpf-check ignore-default

```
                - ignore-default boolean
                - mode keyword
            - vrrp number
                - admin-state keyword
                - apply-groups reference
                - apply-groups-exclude reference
                - backup ipv6-address
                - bfd-liveness
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - dest-ip (ipv4-address-no-zone | ipv6-address-no-zone)
                    - interface-name interface-name
                    - service-name service-name
                - init-delay number
                - mac mac-unicast-address
                - master-int-inherit boolean
                - message-interval number
                - monitor-oper-group reference
                - ntp-reply boolean
                - oper-group reference
                - owner boolean
                - passive boolean
                - ping-reply boolean
                - policy reference
                - preempt boolean
                - priority number
                - standby-forwarding boolean
                - telnet-reply boolean
                - traceroute-reply boolean
        - load-balancing
            - flow-label-load-balancing boolean
            - ip-load-balancing keyword
            - spi-load-balancing boolean
            - teid-load-balancing boolean
        - loopback boolean
        - mac mac-unicast-address
        - mac-accounting boolean
        - monitor-oper-group reference
        - multi-chassis-shunting-profile reference
        - multicast-network-domain reference
        - ping-template
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - destination-address ipv4-unicast-address
            - name reference
        - ptp-hw-assist
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
        - radius-auth-policy reference
        - sap sap
            - aarp
                - id reference
                - type keyword
            - accounting-policy reference
            - admin-state keyword
            - anti-spoof keyword
            - app-profile reference
            - apply-groups reference
            - apply-groups-exclude reference
            - bandwidth number
            - calling-station-id string-not-all-spaces
            - collect-stats boolean
```


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configure service ies interface sap cpu-protection

```
                - cpu-protection
                  - eth-cfm-monitoring
                    - aggregate
                    - car
                  - ip-src-monitoring
                  - mac-monitoring
                  - policy-id reference
                - description long-description
                - dist-cpu-protection reference
                - egress
                  - agg-rate
                    - adaptation-rule keyword
                    - burst-limit (number | keyword)
                    - limit-unused-bandwidth boolean
                    - queue-frame-based-accounting boolean
                    - rate number
                  - filter
                    - ip reference
                    - ipv6 reference
                  - qos
                    - latency-budget number
                    - policer-control-policy
                      - overrides
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - root
                          - max-rate (number | keyword)
                          - priority-mbs-thresholds
                            - min-thresh-separation (number | keyword)
                            - priority number
                              - apply-groups reference
                              - apply-groups-exclude reference
                              - mbs-contribution (number | keyword)
                      - policy-name reference
                    - qinq-mark-top-only boolean
                    - sap-egress
                      - overrides
                        - hs-secondary-shaper named-item
                        - hs-wrr-group reference
                          - apply-groups reference
                          - apply-groups-exclude reference
                          - hs-class-weight number
                          - percent-rate decimal-number
                          - rate (number | keyword)
                        - policer reference
                          - apply-groups reference
                          - apply-groups-exclude reference
                          - cbs (number | keyword)
                          - mbs (number | keyword)
                          - packet-byte-offset number
                          - percent-rate
                            - cir decimal-number
                            - pir decimal-number
                          - rate
                            - cir (number | keyword)
                            - pir (number | keyword)
                          - stat-mode keyword
                        - queue reference
                          - adaptation-rule
                            - cir keyword
                            - pir keyword
                          - apply-groups reference
                          - apply-groups-exclude reference
                          - avg-frame-overhead decimal-number
```


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configure service ies interface sap egress qos sap-egress overrides queue burst-limit

```
                        - burst-limit (number | keyword)
                        - cbs (number | keyword)
                        - drop-tail
                          - low
                            - percent-reduction-from-mbs (number | keyword)
                        - hs-class-weight number
                        - hs-wred-queue
                          - policy reference
                        - hs-wrr-weight number
                        - mbs (number | keyword)
                        - monitor-queue-depth
                          - fast-polling boolean
                          - violation-threshold decimal-number
                        - parent
                          - cir-weight number
                          - weight number
                        - percent-rate
                          - cir decimal-number
                          - pir decimal-number
                        - rate
                          - cir (number | keyword)
                          - pir (number | keyword)
                    - policy-name reference
                    - port-redirect-group
                      - group-name reference
                      - instance number
                - scheduler-policy
                    - overrides
                      - scheduler named-item
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - parent
                          - cir-weight number
                          - weight number
                        - rate
                          - cir (number | keyword)
                          - pir (number | keyword)
                    - policy-name reference
            - queue-group-redirect-list reference
            - virtual-port
                - vport-name reference
        - eth-cfm
            - apply-groups reference
            - apply-groups-exclude reference
            - collect-lmm-fc-stats
                - fc keyword
                - fc-in-profile keyword
            - collect-lmm-stats boolean
            - mep md-admin-name reference ma-admin-name reference mep-id number
                - admin-state keyword
                - ais boolean
                - alarm-notification
                  - fng-alarm-time number
                  - fng-reset-time number
                - apply-groups reference
                - apply-groups-exclude reference
                - ccm boolean
                - ccm-ltm-priority number
                - ccm-padding-size number
                - csf
                  - multiplier decimal-number
                - description description
                - eth-test
                  - bit-error-threshold number
```


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configure service ies interface sap eth-cfm mep eth-test test-pattern

```
                    - test-pattern
                      - crc-tlv boolean
                      - pattern keyword
                - fault-propagation keyword
                - grace
                    - eth-ed
                      - max-rx-defect-window number
                      - priority number
                      - rx-eth-ed boolean
                      - tx-eth-ed boolean
                    - eth-vsm-grace
                      - rx-eth-vsm-grace boolean
                      - tx-eth-vsm-grace boolean
                - low-priority-defect keyword
                - monitor-oper-group reference
                - one-way-delay-threshold number
            - squelch-ingress-levels number
        - fwd-wholesale
            - pppoe-service reference
        - host-admin-state keyword
        - host-lockout-policy reference
        - ingress
            - filter
                - ip reference
                - ipv6 reference
            - qos
                - match-qinq-dot1p keyword
                - policer-control-policy
                    - overrides
                      - apply-groups reference
                      - apply-groups-exclude reference
                      - root
                        - max-rate (number | keyword)
                        - priority-mbs-thresholds
                          - min-thresh-separation (number | keyword)
                          - priority number
                            - apply-groups reference
                            - apply-groups-exclude reference
                            - mbs-contribution (number | keyword)
                    - policy-name reference
                - sap-ingress
                    - fp-redirect-group
                      - group-name reference
                      - instance number
                    - overrides
                      - ip-criteria
                        - activate-entry-tag number
                      - ipv6-criteria
                        - activate-entry-tag number
                      - policer reference
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - cbs (number | keyword)
                        - mbs (number | keyword)
                        - packet-byte-offset number
                        - percent-rate
                          - cir decimal-number
                          - pir decimal-number
                        - rate
                          - cir (number | keyword)
                          - pir (number | keyword)
                        - stat-mode keyword
                      - queue reference
                        - adaptation-rule
```


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configure service ies interface sap ingress qos sap-ingress overrides queue adaptation-rule cir

```
                                  - cir keyword
                                  - pir keyword
                              - apply-groups reference
                              - apply-groups-exclude reference
                              - cbs (number | keyword)
                              - drop-tail
                                  - low
                                      - percent-reduction-from-mbs (number | keyword)
                              - mbs (number | keyword)
                              - monitor-queue-depth
                                  - fast-polling boolean
                              - parent
                                  - cir-weight number
                                  - weight number
                              - percent-rate
                                  - cir decimal-number
                                  - pir decimal-number
                              - rate
                                  - cir (number | keyword)
                                  - pir (number | keyword)
                          - policy-name reference
                          - queuing-type keyword
                      - scheduler-policy
                          - overrides
                              - scheduler named-item
                                  - apply-groups reference
                                  - apply-groups-exclude reference
                                  - parent
                                      - cir-weight number
                                      - weight number
                                  - rate
                                      - cir (number | keyword)
                                      - pir (number | keyword)
                          - policy-name reference
                  - queue-group-redirect-list reference
              - ip-tunnel interface-name
                  - admin-state keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - backup-remote-ip-address (ipv4-address-no-zone | ipv6-address-no-zone)
                  - clear-df-bit boolean
                  - delivery-service service-name
                  - description description
                  - dest-ip (ipv4-address-no-zone | ipv6-address-no-zone)
                  - dscp keyword
                  - encapsulated-ip-mtu number
                  - gre-header
                      - admin-state keyword
                      - key
                          - admin-state keyword
                          - receive number
                          - send number
                  - icmp-generation
                      - frag-required
                          - admin-state keyword
                          - interval number
                          - message-count number
                  - icmp6-generation
                      - packet-too-big
                          - admin-state keyword
                          - number number
                          - seconds number
                  - ip-mtu number
                  - ipsec-transport-mode-profile reference
```


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configure service ies interface sap ip-tunnel local-ip-address

```
                - local-ip-address (ipv4-address-no-zone | ipv6-address-no-zone)
                - pmtu-discovery-aging number
                - private-tcp-mss-adjust number
                - propagate-pmtu-v4 boolean
                - propagate-pmtu-v6 boolean
                - public-tcp-mss-adjust (number | keyword)
                - reassembly (number | keyword)
                - remote-ip-address (ipv4-address-no-zone | ipv6-address-no-zone)
            - ipsec-gateway named-item
                - admin-state keyword
                - apply-groups reference
                - apply-groups-exclude reference
                - cert
                    - cert-profile reference
                    - status-verify
                        - default-result keyword
                        - primary keyword
                        - secondary keyword
                    - trust-anchor-profile reference
                - client-db
                    - fallback boolean
                    - name reference
                - default-secure-service
                    - interface interface-name
                    - service-name service-name
                - default-tunnel-template reference
                - dhcp-address-assignment
                    - dhcpv4
                        - admin-state keyword
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - gi-address ipv4-unicast-address
                        - send-release boolean
                        - server
                            - address ipv4-unicast-address
                            - router-instance router-instance-base-vprn-loose
                    - dhcpv6
                        - admin-state keyword
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - link-address ipv6-unicast-address
                        - send-release boolean
                        - server
                            - address ipv6-unicast-address
                            - router-instance router-instance-base-vprn-loose
                - ike-policy reference
                - local
                    - address-assignment
                        - admin-state keyword
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - ipv4
                            - dhcp-server named-item
                            - pool named-item
                            - router-instance router-instance-base-vprn-loose
                            - secondary-pool named-item
                        - ipv6
                            - dhcp-server named-item
                            - pool named-item
                            - router-instance router-instance-base-vprn-loose
                    - gateway-address (ipv4-address-no-zone | ipv6-address-no-zone)
                    - id
                        - auto
                        - fqdn fully-qualified-domain-name
```


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configure service ies interface sap ipsec-gateway local id ipv4

```
                    - ipv4 ipv4-unicast-address
                    - ipv6 (ipv4-address-no-zone | ipv6-address-no-zone)
                - max-history-key-records
                  - esp number
                  - ike number
                - pre-shared-key encrypted-leaf
                - radius
                  - accounting-policy reference
                  - authentication-policy reference
                - ts-list reference
              - lag
                - link-map-profile number
                - per-link-hash
                  - class number
                  - weight number
              - multi-service-site reference
              - static-host
                - ipv4 ipv4-address mac mac-unicast-address
                  - admin-state keyword
                  - ancp-string ancp-string
                  - app-profile
                    - profile reference
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - int-dest-id int-dest-id
                  - sla-profile reference
                  - sub-profile reference
                  - subscriber-id
                    - string subscriber-id
                    - use-sap-id
              - transit-policy
                - ip reference
                - prefix reference
            - shcv-policy-ipv4 reference
            - spoke-sdp sdp-bind-id
              - aarp
                - id reference
                - type keyword
              - accounting-policy reference
              - admin-state keyword
              - app-profile reference
              - apply-groups reference
              - apply-groups-exclude reference
              - bfd
                - bfd-liveness
                  - encap keyword
                - bfd-template reference
                - failure-action keyword
                - wait-for-up-timer number
              - collect-stats boolean
              - control-word boolean
              - cpu-protection
                - eth-cfm-monitoring
                  - aggregate
                  - car
                - ip-src-monitoring
                - mac-monitoring
                - policy-id reference
              - description description
              - egress
                - filter
                  - ip reference
                  - ipv6 reference
                - qos
```


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configure service ies interface spoke-sdp egress qos network

```
                    - network
                      - policy-name reference
                      - port-redirect-group
                        - group-name reference
                        - instance number
                  - vc-label number
               - entropy-label
               - eth-cfm
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - collect-lmm-fc-stats
                    - fc keyword
                    - fc-in-profile keyword
                  - collect-lmm-stats boolean
                  - mep md-admin-name reference ma-admin-name reference mep-id number
                    - admin-state keyword
                    - ais boolean
                    - alarm-notification
                      - fng-alarm-time number
                      - fng-reset-time number
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - ccm boolean
                    - ccm-ltm-priority number
                    - ccm-padding-size number
                    - csf
                      - multiplier decimal-number
                    - description description
                    - eth-test
                      - bit-error-threshold number
                      - test-pattern
                        - crc-tlv boolean
                        - pattern keyword
                    - fault-propagation keyword
                    - grace
                      - eth-ed
                        - max-rx-defect-window number
                        - priority number
                        - rx-eth-ed boolean
                        - tx-eth-ed boolean
                      - eth-vsm-grace
                        - rx-eth-vsm-grace boolean
                        - tx-eth-vsm-grace boolean
                    - low-priority-defect keyword
                    - one-way-delay-threshold number
                  - squelch-ingress-levels number
               - hash-label
                  - signal-capability
               - ingress
                  - filter
                    - ip reference
                    - ipv6 reference
                  - qos
                    - network
                      - fp-redirect-group
                        - group-name reference
                        - instance number
                      - policy-name reference
                  - vc-label number
               - transit-policy
                  - ip reference
                  - prefix reference
               - vc-type keyword
            - static-tunnel-redundant-nexthop ipv4-unicast-address
```


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```
            - tos-marking-state keyword
            - tunnel boolean
            - vas-if-type keyword
            - vpls named-item-64
               - apply-groups reference
               - apply-groups-exclude reference
               - egress
                  - reclassify-using-qos reference
                  - routed-override-filter
                     - ip reference
                     - ipv6 reference
               - evpn
                  - arp
                     - advertise keyword
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - route-tag number
                     - flood-garp-and-unknown-req boolean
                     - learn-dynamic boolean
                  - nd
                     - advertise keyword
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - route-tag number
                     - learn-dynamic boolean
               - ingress
                  - routed-override-filter
                     - ip reference
                     - ipv6 reference
         - redundant-interface interface-name
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - description very-long-description
            - hold-time
               - ipv4
                  - down
                     - init-only boolean
                     - seconds number
                  - up
                     - seconds number
            - ip-mtu number
            - ipv4
               - primary
                  - address ipv4-unicast-address
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - prefix-length number
                  - remote-ip ipv4-unicast-address
            - spoke-sdp sdp-bind-id
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - control-word boolean
               - description description
               - egress
                  - filter
                     - ip reference
                  - vc-label number
               - ingress
                  - filter
                     - ip reference
                  - vc-label number
         - service-id number
```


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```
        - subscriber-interface interface-name
          - admin-state keyword
          - apply-groups reference
          - apply-groups-exclude reference
          - description very-long-description
          - fwd-service reference
          - fwd-subscriber-interface reference
          - group-interface interface-name
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - bonding-parameters
              - admin-state keyword
              - apply-groups reference
              - apply-groups-exclude reference
              - connection number
                - apply-groups reference
                - apply-groups-exclude reference
                - service service-name
              - fpe reference
              - multicast
                - connection (number | keyword)
            - brg
              - admin-state keyword
              - apply-groups reference
              - apply-groups-exclude reference
              - authenticated-brg-only boolean
              - default-brg-profile reference
            - cflowd-parameters
              - sampling keyword
                - apply-groups reference
                - apply-groups-exclude reference
                - direction keyword
                - sample-profile (keyword | number)
                - type keyword
            - data-trigger
              - accept-ipv6-link-local-address boolean
              - admin-state keyword
              - apply-groups reference
              - apply-groups-exclude reference
            - description very-long-description
            - dynamic-routes-track-srrp
              - hold-time number
            - gtp-parameters
              - admin-state keyword
              - apply-groups reference
              - apply-groups-exclude reference
              - fpe reference
            - gx-policy reference
            - ingress
              - policy-accounting reference
            - ingress-stats boolean
            - ip-mtu number
            - ipoe-linking
              - admin-state keyword
              - apply-groups reference
              - apply-groups-exclude reference
              - gratuitous-router-advertisement boolean
              - shared-circuit-id boolean
            - ipoe-session
              - admin-state keyword
              - apply-groups reference
              - apply-groups-exclude reference
              - description description
```


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configure service ies subscriber-interface group-interface ipoe-session force-auth

```
                  - force-auth
                    - cid-change boolean
                    - rid-change boolean
                  - ipoe-session-policy reference
                  - min-auth-interval (keyword | number)
                  - radius-session-timeout keyword
                  - sap-session-limit number
                  - session-limit number
                  - stateless-redundancy boolean
                  - user-db reference
               - ipv4
                  - arp-host
                    - admin-state keyword
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - host-limit number
                    - min-auth-interval number
                    - sap-host-limit number
                  - dhcp
                    - admin-state keyword
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - client-applications
                      - dhcp boolean
                      - ppp boolean
                    - description description
                    - filter reference
                    - gi-address ipv4-unicast-address
                    - lease-populate
                      - l2-header
                        - mac mac-unicast-address
                      - max-leases number
                    - match-circuit-id boolean
                    - offer-selection
                      - client-mac
                        - discover-delay number
                        - mac-address keyword
                      - discover-delay number
                      - server ipv4-unicast-address
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - discover-delay number
                    - option-82
                      - action keyword
                      - circuit-id
                        - ascii-tuple
                        - ifindex
                        - none
                        - sap-id
                        - vlan-ascii-tuple
                      - remote-id
                        - ascii-string string-not-all-spaces
                        - mac
                        - none
                      - vendor-specific-option
                        - client-mac-address boolean
                        - pool-name boolean
                        - sap-id boolean
                        - service-id boolean
                        - string string-not-all-spaces
                        - system-id boolean
                    - proxy-server
                      - admin-state keyword
                      - emulated-server ipv4-unicast-address
```


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configure service ies subscriber-interface group-interface ipv4 dhcp proxy-server lease-time

```
                    - lease-time
                      - radius-override boolean
                      - value number
                - python-policy reference
                - relay-proxy
                    - release-update-src-ip boolean
                    - siaddr-override ipv4-unicast-address
                - release-include-gi-address boolean
                - server ipv4-unicast-address
                - src-ip-addr keyword
                - trusted boolean
                - user-db reference
            - icmp
                - mask-reply boolean
                - param-problem
                    - admin-state keyword
                    - number number
                    - seconds number
                - redirects
                    - admin-state keyword
                    - number number
                    - seconds number
                - ttl-expired
                    - admin-state keyword
                    - number number
                    - seconds number
                    - use-matching-address boolean
                - unreachables
                    - admin-state keyword
                    - number number
                    - seconds number
            - ignore-df-bit boolean
            - neighbor-discovery
                - local-proxy-arp boolean
                - populate boolean
                - proxy-arp-policy reference
                - remote-proxy-arp boolean
                - timeout number
            - qos-route-lookup keyword
            - urpf-check
                - mode keyword
        - ipv6
            - allow-multiple-wan-addresses boolean
            - auto-reply
                - neighbor-solicitation boolean
                - router-solicitation boolean
            - dhcp6
                - allow-client-id-change boolean
                - apply-groups reference
                - apply-groups-exclude reference
                - filter reference
                - option
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - interface-id
                      - ascii-tuple
                      - if-index
                      - sap-id
                      - string string-not-all-spaces
                    - remote-id boolean
                - override-slaac boolean
                - pd-managed-route
                    - next-hop keyword
                - proxy-server
```


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configure service ies subscriber-interface group-interface ipv6 dhcp6 proxy-server admin-state

```
                    - admin-state keyword
                    - client-applications
                      - dhcp boolean
                      - ppp boolean
                    - preferred-lifetime (number | keyword)
                    - rebind-timer number
                    - renew-timer number
                    - server-id
                      - apply-groups reference
                      - apply-groups-exclude reference
                      - duid-en-ascii string-not-all-spaces
                      - duid-en-hex string
                      - duid-ll
                    - valid-lifetime (number | keyword)
                  - python-policy reference
                  - relay
                    - admin-state keyword
                    - advertise-selection
                      - client-mac
                        - mac-address keyword
                        - preference-option
                          - value number
                        - solicit-delay number
                      - preference-option
                        - value number
                      - server ipv6-address
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - preference-option
                          - value number
                        - solicit-delay number
                      - solicit-delay number
                    - client-applications
                      - dhcp boolean
                      - ppp boolean
                    - description description
                    - lease-split
                      - admin-state keyword
                      - valid-lifetime number
                    - link-address ipv6-address
                    - server ipv6-address-with-zone
                    - source-address ipv6-unicast-address
                  - snooping
                    - admin-state keyword
                  - user-db reference
                  - user-ident keyword
                - ipoe-bridged-mode boolean
                - neighbor-discovery
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - dad-snooping boolean
                  - neighbor-limit number
                - qos-route-lookup keyword
                - router-advertisements
                  - admin-state keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - force-mcast keyword
                  - max-advertisement-interval number
                  - min-advertisement-interval number
                  - options
                    - current-hop-limit number
                    - dns
                      - include-rdnss boolean
```


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configure service ies subscriber-interface group-interface ipv6 router-advertisements options dns rdnss-lifetime

```
                    - rdnss-lifetime (number | keyword)
                - managed-configuration boolean
                - mtu (number | keyword)
                - other-stateful-configuration boolean
                - reachable-time number
                - retransmit-timer number
                - router-lifetime (number | keyword)
            - prefix-options
                - autonomous boolean
                - on-link boolean
                - preferred-lifetime (number | keyword)
                - valid-lifetime (number | keyword)
        - router-solicit
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - inactivity-timer (number | keyword)
            - min-auth-interval number
            - user-db reference
        - urpf-check
            - mode keyword
    - local-address-assignment
        - admin-state keyword
        - apply-groups reference
        - apply-groups-exclude reference
        - ipv4
            - client-applications
                - ipoe boolean
                - ppp boolean
            - default-pool named-item
            - server reference
        - ipv6
            - client-applications
                - ipoe-slaac boolean
                - ipoe-wan boolean
                - ppp-slaac boolean
            - server reference
    - mac mac-unicast-address
    - nasreq-auth-policy reference
    - oper-up-while-empty boolean
    - pppoe
        - admin-state keyword
        - anti-spoof keyword
        - apply-groups reference
        - apply-groups-exclude reference
        - description description
        - dhcp-client
            - client-id keyword
        - policy reference
        - python-policy reference
        - sap-session-limit number
        - session-limit number
        - user-db reference
    - radius-auth-policy reference
    - redundant-interface reference
    - sap sap
        - accounting-policy reference
        - admin-state keyword
        - anti-spoof keyword
        - app-profile reference
        - apply-groups reference
        - apply-groups-exclude reference
        - calling-station-id string-not-all-spaces
        - collect-stats boolean
```


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configure service ies subscriber-interface group-interface sap cpu-protection

```
                    - cpu-protection
                      - eth-cfm-monitoring
                        - aggregate
                        - car
                      - ip-src-monitoring
                      - mac-monitoring
                      - policy-id reference
                    - default-host
                      - ipv4 reference prefix-length number
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - next-hop ipv4-unicast-address
                      - ipv6 ipv6-unicast-address prefix-length number
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - next-hop ipv6-unicast-address
                    - description long-description
                    - dist-cpu-protection reference
                    - egress
                      - agg-rate
                        - adaptation-rule keyword
                        - burst-limit (number | keyword)
                        - limit-unused-bandwidth boolean
                        - queue-frame-based-accounting boolean
                        - rate number
                      - filter
                        - ip reference
                        - ipv6 reference
                      - qos
                        - latency-budget number
                        - policer-control-policy
                          - policy-name reference
                        - qinq-mark-top-only boolean
                        - sap-egress
                          - policy-name reference
                        - scheduler-policy
                          - policy-name reference
                      - virtual-port
                        - vport-name reference
                    - eth-cfm
                      - apply-groups reference
                      - apply-groups-exclude reference
                      - collect-lmm-fc-stats
                        - fc keyword
                        - fc-in-profile keyword
                      - collect-lmm-stats boolean
                      - mep md-admin-name reference ma-admin-name reference mep-id number
                        - admin-state keyword
                        - ais boolean
                        - alarm-notification
                          - fng-alarm-time number
                          - fng-reset-time number
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - ccm boolean
                        - ccm-ltm-priority number
                        - ccm-padding-size number
                        - csf
                          - multiplier decimal-number
                        - description description
                        - eth-test
                          - bit-error-threshold number
                          - test-pattern
                            - crc-tlv boolean
```


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configure service ies subscriber-interface group-interface sap eth-cfm mep eth-test test-pattern pattern

```
                        - pattern keyword
                    - fault-propagation keyword
                    - grace
                        - eth-ed
                            - max-rx-defect-window number
                            - priority number
                            - rx-eth-ed boolean
                            - tx-eth-ed boolean
                        - eth-vsm-grace
                            - rx-eth-vsm-grace boolean
                            - tx-eth-vsm-grace boolean
                    - low-priority-defect keyword
                    - one-way-delay-threshold number
                - squelch-ingress-levels number
            - fwd-wholesale
                - pppoe-service reference
            - host-admin-state keyword
            - host-lockout-policy reference
            - igmp-host-tracking
                - apply-groups reference
                - apply-groups-exclude reference
                - expiry-time number
                - import-policy reference
                - maximum-number-group-sources number
                - maximum-number-groups number
                - maximum-number-sources number
                - router-alert-check boolean
            - ingress
                - filter
                    - ip reference
                    - ipv6 reference
                - qos
                    - match-qinq-dot1p keyword
                    - policer-control-policy
                        - policy-name reference
                    - sap-ingress
                        - policy-name reference
                        - queuing-type keyword
                    - scheduler-policy
                        - policy-name reference
            - lag
                - link-map-profile number
                - per-link-hash
                    - class number
                    - weight number
            - monitor-oper-group reference
            - multi-service-site reference
            - oper-group reference
            - qtag-normalization
                - double-tag
                    - c-tag number
                    - s-tag number
                - single-tag
                    - tag number
            - static-host
                - ipv4 ipv4-unicast-address mac mac-unicast-address
                    - admin-state keyword
                    - ancp-string ancp-string
                    - app-profile
                        - profile reference
                        - scope keyword
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - int-dest-id int-dest-id
```


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configure service ies subscriber-interface group-interface sap static-host ipv4 managed-route

```
                        - managed-route ipv4-unicast-prefix
                          - apply-groups reference
                          - apply-groups-exclude reference
                          - cpe-check
                            - apply-groups reference
                            - apply-groups-exclude reference
                            - destination-ip-address (ipv4-address-no-zone | ipv6-address-
no-zone)
                            - drop-count number
                            - failed-action
                              - metric number
                              - preference number
                              - tag number
                              - withdraw boolean
                            - interval number
                            - log boolean
                            - padding-size number
                            - source-ip-address (ipv4-address-no-zone | ipv6-address-no-
zone)
                            - timeout number
                          - metric number
                          - preference number
                          - tag number
                        - rip-policy reference
                        - shcv
                        - sla-profile reference
                        - sub-profile reference
                        - subscriber-id
                          - string subscriber-id
                          - use-sap-id
                    - ipv6 ipv6-unicast-prefix mac mac-unicast-address
                        - admin-state keyword
                        - ancp-string ancp-string
                        - app-profile
                          - profile reference
                          - scope keyword
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - int-dest-id int-dest-id
                        - mac-linking ipv4-unicast-address
                        - managed-route ipv6-unicast-prefix
                          - apply-groups reference
                          - apply-groups-exclude reference
                          - cpe-check
                            - apply-groups reference
                            - apply-groups-exclude reference
                            - destination-ip-address (ipv4-address-no-zone | ipv6-address-
no-zone)
                            - drop-count number
                            - failed-action
                              - metric number
                              - preference number
                              - tag number
                              - withdraw boolean
                            - interval number
                            - log boolean
                            - padding-size number
                            - source-ip-address (ipv4-address-no-zone | ipv6-address-no-
zone)
                            - timeout number
                          - metric number
                          - preference number
                          - tag number
                        - retail-svc-id number
```


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configure service ies subscriber-interface group-interface sap static-host ipv6 shcv

```
                    - shcv
                    - sla-profile reference
                    - sub-profile reference
                    - subscriber-id
                      - string subscriber-id
                      - use-sap-id
                 - mac-learning
                    - data-triggered boolean
                    - single-mac boolean
              - sub-sla-mgmt
                 - admin-state keyword
                 - defaults
                    - app-profile reference
                    - int-dest-id
                      - string int-dest-id
                      - top-q-tag
                    - sla-profile reference
                    - sub-profile reference
                    - subscriber-id
                      - auto-id
                      - sap-id
                      - string subscriber-id
                 - single-sub-parameters
                    - non-sub-traffic
                      - app-profile reference
                      - sla-profile reference
                      - sub-profile reference
                      - subscriber-id subscriber-id
                    - profiled-traffic-only boolean
                 - sub-ident-policy reference
                 - subscriber-limit (keyword | number)
           - sap-parameters
              - anti-spoof keyword
              - apply-groups reference
              - apply-groups-exclude reference
              - description description
              - sub-sla-mgmt
                 - defaults
                    - app-profile reference
                    - sla-profile reference
                    - sub-profile reference
                    - subscriber-id
                      - auto-id
                      - string subscriber-id
                 - sub-ident-policy reference
           - shcv-policy reference
           - shcv-policy-ipv4 reference
           - shcv-policy-ipv6 reference
           - srrp number
              - admin-state keyword
              - apply-groups reference
              - apply-groups-exclude reference
              - bfd-liveness
                 - apply-groups reference
                 - apply-groups-exclude reference
                 - dest-ip ipv4-address
                 - interface-name interface-name
                 - service-name service-name
              - description description
              - gw-mac mac-unicast-address
              - keep-alive-interval number
              - message-path reference
              - monitor-oper-group
                 - group-name reference
```


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configure service ies subscriber-interface group-interface srrp monitor-oper-group priority-step

```
                    - priority-step number
                 - one-garp-per-sap boolean
                 - policy reference
                 - preempt boolean
                 - priority number
                 - send-fib-population-packets keyword
              - suppress-aa-sub boolean
              - tos-marking-state keyword
              - type keyword
              - wlan-gw
                 - admin-state keyword
                 - apply-groups reference
                 - apply-groups-exclude reference
                 - gateway-address (ipv4-address-no-zone | ipv6-address-no-zone)
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - purpose
                       - xconnect boolean
                 - gateway-router string
                 - group-encryption
                    - encryption-keygroup-inbound reference
                    - encryption-keygroup-outbound reference
                 - l2-ap
                    - access-point sap
                       - admin-state keyword
                       - apply-groups reference
                       - apply-groups-exclude reference
                       - encap-type keyword
                       - epipe-sap-template reference
                    - auto-sub-id-fmt keyword
                    - default-encap-type keyword
                 - lanext
                    - max-bd number
                 - learn-ap-mac
                    - delay-auth boolean
                 - mcs-peer
                    - address reference
                    - sync-tag named-item
                 - mobility
                    - hold-time number
                    - inter-tunnel-type boolean
                    - inter-vlan boolean
                    - trigger
                       - control boolean
                       - data boolean
                       - iapp boolean
                 - oper-down-on-group-degrade boolean
                 - promiscuous-mode boolean
                 - tcp-mss-adjust number
                 - tunnel-egress-qos
                    - admin-state keyword
                    - agg-rate-limit (number | keyword)
                    - granularity keyword
                    - hold-time (number | keyword)
                    - multi-client-only boolean
                    - qos reference
                    - scheduler-policy reference
                 - tunnel-encaps
                    - learn-l2tp-cookie (keyword | hex-string)
                 - vlan-range string
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - authentication
                       - hold-time number
```


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configure service ies subscriber-interface group-interface wlan-gw vlan-range authentication local

```
                    - local
                      - coa-policy reference
                      - default-ue-state keyword
                    - on-control-plane boolean
                    - policy reference
                    - vlan-mismatch-timeout number
                - data-triggered-ue-creation
                    - admin-state keyword
                    - arp boolean
                    - create-proxy-cache-entry
                      - mac-format mac-specification
                      - proxy-server
                        - name named-item
                        - router-instance string
                    - ospf boolean
                - dhcp4
                    - admin-state keyword
                    - dns ipv4-unicast-address
                    - l2-aware-ip-address (ipv4-unicast-address | keyword)
                    - lease-time
                      - active number
                      - initial number
                    - nbns ipv4-unicast-address
                - dhcp6
                    - admin-state keyword
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - preferred-lifetime
                      - active number
                      - initial number
                    - valid-lifetime
                      - active number
                      - initial number
                - dsm
                    - accounting-policy reference
                    - accounting-update
                      - interval number
                    - admin-state keyword
                    - application-assurance
                      - accounting-statistics boolean
                      - profile reference
                      - url-parameter aa-http-url-param
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - captive-portal-api-url one-time-http-redirect-url
                    - egress
                      - policer reference
                    - ingress
                      - ip-filter reference
                      - policer reference
                      - soft-quota-exhausted-filter reference
                    - one-time-redirect
                      - port number
                      - url one-time-http-redirect-url
                    - send-unrestricted-portal-url boolean
                    - volume-quota-direction keyword
                - dynamic-service boolean
                - extension string
                - http-redirect-policy reference
                - idle-timeout-action keyword
                - l2-service
                    - admin-state keyword
                    - description description
                    - service reference
```


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configure service ies subscriber-interface group-interface wlan-gw vlan-range nat-policy

```
                  - nat-policy reference
                  - retail-service service-name
                  - slaac
                     - admin-state keyword
                     - apply-groups reference
                     - apply-groups-exclude reference
                     - preferred-lifetime
                        - active number
                        - initial number
                     - valid-lifetime
                        - active number
                        - initial number
                  - vrgw
                     - admin-state keyword
                     - apply-groups reference
                     - apply-groups-exclude reference
                     - brg
                        - authenticated-brg-only boolean
                        - default-brg-profile reference
                     - lanext
                        - access
                           - max-mac number
                           - multi-access boolean
                           - policer reference
                        - admin-state keyword
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - assistive-address-resolution boolean
                        - bd-mac-prefix string
                        - mac-translation boolean
                        - network
                           - admin-state keyword
                           - max-mac number
                           - policer reference
                  - xconnect
                     - accounting
                        - mobility-updates boolean
                        - policy reference
                        - update-interval number
                     - admin-state keyword
                     - apply-groups reference
                     - apply-groups-exclude reference
               - wlan-gw-group reference
            - wpp
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - initial
                  - app-profile reference
                  - sla-profile reference
                  - sub-profile reference
               - lease-time number
               - portal
                  - name named-item
                  - portal-group reference
                  - router-instance string
               - restore-to-initial-on-disconnect boolean
               - triggered-hosts boolean
               - user-db reference
         - hold-time
            - ipv4
               - down
                  - init-only boolean
                  - seconds number
```


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configure service ies subscriber-interface hold-time ipv4 up

```
                  - up
                     - seconds number
               - ipv6
                  - down
                     - init-only boolean
                     - seconds number
                  - up
                     - seconds number
            - ipoe-linking
               - apply-groups reference
               - apply-groups-exclude reference
               - gratuitous-router-advertisement boolean
            - ipoe-session
               - apply-groups reference
               - apply-groups-exclude reference
               - session-limit number
            - ipv4
               - address ipv4-unicast-address
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - gateway ipv4-unicast-address
                  - holdup-time number
                  - populate-host-routes boolean
                  - prefix-length number
                  - track-srrp number
               - allow-unmatching-subnets boolean
               - default-dns ipv4-unicast-address
               - dhcp
                  - admin-state keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - client-applications
                     - dhcp boolean
                     - ppp boolean
                  - description description
                  - gi-address ipv4-unicast-address
                  - lease-populate
                     - max-leases number
                  - option-82
                     - vendor-specific-option
                        - client-mac-address boolean
                        - sap-id boolean
                        - service-id boolean
                        - string string-not-all-spaces
                        - system-id boolean
                  - proxy-server
                     - admin-state keyword
                     - emulated-server ipv4-unicast-address
                     - lease-time
                        - radius-override boolean
                        - value number
                  - python-policy reference
                  - relay-proxy
                     - release-update-src-ip boolean
                     - siaddr-override ipv4-unicast-address
                  - release-include-gi-address boolean
                  - server ipv4-unicast-address
                  - src-ip-addr keyword
                  - virtual-subnet boolean
               - export-host-routes boolean
               - unnumbered
                  - ip-address ipv4-unicast-address
                  - ip-int-name interface-name
            - ipv6
```


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configure service ies subscriber-interface ipv6 address

```
                - address ipv6-address
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - host-type keyword
                  - prefix-length number
                - allow-multiple-wan-addresses boolean
                - allow-unmatching-prefixes boolean
                - default-dns ipv6-unicast-address
                - delegated-prefix-length (number | keyword)
                - dhcp6
                  - allow-client-id-change boolean
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - override-slaac boolean
                  - pd-managed-route
                    - next-hop keyword
                  - proxy-server
                    - admin-state keyword
                    - client-applications
                      - dhcp boolean
                      - ppp boolean
                    - preferred-lifetime (number | keyword)
                    - rebind-timer number
                    - renew-timer number
                    - server-id
                      - apply-groups reference
                      - apply-groups-exclude reference
                      - duid-en-ascii string-not-all-spaces
                      - duid-en-hex string
                      - duid-ll
                    - valid-lifetime (number | keyword)
                  - python-policy reference
                  - relay
                    - admin-state keyword
                    - client-applications
                      - dhcp boolean
                      - ppp boolean
                    - description description
                    - lease-split
                      - admin-state keyword
                      - valid-lifetime number
                    - link-address ipv6-address
                    - server ipv6-address-with-zone
                    - source-address ipv6-unicast-address
                - ipoe-bridged-mode boolean
                - link-local-address
                  - address ipv6-address
                - prefix ipv6-prefix
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - holdup-time number
                  - host-type keyword
                  - track-srrp number
                - router-advertisements
                  - admin-state keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - force-mcast keyword
                  - max-advertisement-interval number
                  - min-advertisement-interval number
                  - options
                    - current-hop-limit number
                    - dns
                      - include-rdnss boolean
```


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configure service ies subscriber-interface ipv6 router-advertisements options dns rdnss-lifetime

```
                    - rdnss-lifetime (number | keyword)
                - managed-configuration boolean
                - mtu (number | keyword)
                - other-stateful-configuration boolean
                - reachable-time number
                - retransmit-timer number
                - router-lifetime (number | keyword)
            - prefix-options
                - autonomous boolean
                - on-link boolean
                - preferred-lifetime (number | keyword)
                - valid-lifetime (number | keyword)
        - router-solicit
            - apply-groups reference
            - apply-groups-exclude reference
            - inactivity-timer (number | keyword)
    - local-address-assignment
        - admin-state keyword
        - apply-groups reference
        - apply-groups-exclude reference
        - ipv4
            - client-applications
                - ppp boolean
            - default-pool named-item
            - server reference
        - ipv6
            - client-applications
                - ipoe-slaac boolean
                - ipoe-wan boolean
                - ppp-slaac boolean
            - server reference
    - pppoe
        - apply-groups reference
        - apply-groups-exclude reference
        - description description
        - session-limit number
    - wan-mode keyword
    - wlan-gw
        - apply-groups reference
        - apply-groups-exclude reference
        - pool-manager
            - apply-groups reference
            - apply-groups-exclude reference
            - dhcp6-client
                - dhcpv4-nat
                    - admin-state keyword
                    - link-address ipv6-address
                    - pool-name named-item
                - ia-na
                    - admin-state keyword
                    - link-address ipv6-address
                    - pool-name named-item
                - lease-query
                    - max-retries number
                - servers ipv6-unicast-address
                - slaac
                    - admin-state keyword
                    - link-address ipv6-address
                    - pool-name named-item
                - source-ip (keyword | ipv6-address)
            - watermarks
                - high number
                - low number
            - wlan-gw-group reference
```


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configure service ies subscriber-interface wlan-gw redundancy

```
            - redundancy
                - admin-state keyword
                - export ipv4-unicast-prefix
                - monitor ipv4-unicast-prefix
        - subscriber-mgmt
            - apply-groups reference
            - apply-groups-exclude reference
            - multi-chassis-shunt-id number
            - up-resiliency
                - monitor-oper-group reference
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - health-drop number
        - video-interface interface-name
            - accounting-policy reference
            - address ipv4-prefix-with-host-bits
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - channel ipv4-multicast-address source ipv4-unicast-address
                - apply-groups reference
                - apply-groups-exclude reference
                - channel-name named-item
                - description description
                - scte35-action keyword
                - zone-channel ipv4-multicast-address zone-source ipv4-unicast-address
                    - adi-channel-name named-item
                    - apply-groups reference
                    - apply-groups-exclude reference
            - cpu-protection reference
            - description description
            - multicast-service number
            - output-format keyword
            - video-sap
                - apply-groups reference
                - apply-groups-exclude reference
                - egress
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - filter
                        - ip reference
                    - qos
                        - policy-name reference
                - ingress
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - filter
                        - ip reference
                    - qos
                        - policy-name reference
                - video-group-id reference
            - vpn-id number
    - ipfix
        - apply-groups reference
        - apply-groups-exclude reference
        - export-policy named-item
            - apply-groups reference
            - apply-groups-exclude reference
            - collector router-instance string ip-address ipv4-unicast-address
                - admin-state keyword
                - apply-groups reference
                - apply-groups-exclude reference
                - mtu number
                - refresh-timeout number
```


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configure service ipfix export-policy collector source-ip-address

```
            - source-ip-address ipv4-unicast-address
         - description description
         - template-format keyword
      - ipipe service-name
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - ce-address-discovery
         - customer reference
         - description description
         - endpoint named-item
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - hold-time-active number
            - revert-time (number | keyword)
            - standby-signaling keyword
         - sap sap
            - accounting-policy reference
            - admin-state keyword
            - app-profile reference
            - apply-groups reference
            - apply-groups-exclude reference
            - bandwidth number
            - ce-address (ipv4-address-no-zone | ipv6-address-no-zone)
            - collect-stats boolean
            - cpu-protection
               - mac-monitoring
               - policy-id reference
            - description long-description
            - dist-cpu-protection reference
            - egress
               - agg-rate
                  - adaptation-rule keyword
                  - burst-limit (number | keyword)
                  - limit-unused-bandwidth boolean
                  - rate number
               - filter
                  - ip reference
                  - ipv6 reference
               - qos
                  - policer-control-policy
                     - overrides
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - root
                           - max-rate (number | keyword)
                           - priority-mbs-thresholds
                              - min-thresh-separation (number | keyword)
                              - priority number
                                 - apply-groups reference
                                 - apply-groups-exclude reference
                                 - mbs-contribution (number | keyword)
                     - policy-name reference
                  - qinq-mark-top-only boolean
                  - sap-egress
                     - overrides
                        - hs-secondary-shaper named-item
                        - hs-wrr-group reference
                           - apply-groups reference
                           - apply-groups-exclude reference
                           - hs-class-weight number
                           - percent-rate decimal-number
                           - rate (number | keyword)
```


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configure service ipipe sap egress qos sap-egress overrides policer

```
                    - policer reference
                      - apply-groups reference
                      - apply-groups-exclude reference
                      - cbs (number | keyword)
                      - mbs (number | keyword)
                      - packet-byte-offset number
                      - percent-rate
                        - cir decimal-number
                        - pir decimal-number
                      - rate
                        - cir (number | keyword)
                        - pir (number | keyword)
                      - stat-mode keyword
                    - queue reference
                      - adaptation-rule
                        - cir keyword
                        - pir keyword
                      - apply-groups reference
                      - apply-groups-exclude reference
                      - avg-frame-overhead decimal-number
                      - burst-limit (number | keyword)
                      - cbs (number | keyword)
                      - drop-tail
                        - low
                          - percent-reduction-from-mbs (number | keyword)
                      - hs-class-weight number
                      - hs-wred-queue
                        - policy reference
                      - hs-wrr-weight number
                      - mbs (number | keyword)
                      - monitor-queue-depth
                        - fast-polling boolean
                        - violation-threshold decimal-number
                      - parent
                        - cir-weight number
                        - weight number
                      - percent-rate
                        - cir decimal-number
                        - pir decimal-number
                      - rate
                        - cir (number | keyword)
                        - pir (number | keyword)
                  - policy-name reference
                  - port-redirect-group
                    - group-name reference
                    - instance number
              - scheduler-policy
                  - overrides
                    - scheduler named-item
                      - apply-groups reference
                      - apply-groups-exclude reference
                      - parent
                        - cir-weight number
                        - weight number
                      - rate
                        - cir (number | keyword)
                        - pir (number | keyword)
                  - policy-name reference
            - virtual-port
                - vport-name reference
        - endpoint reference
        - ingress
            - filter
                - ip reference
```


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configure service ipipe sap ingress filter ipv6

```
                  - ipv6 reference
               - qos
                  - match-qinq-dot1p keyword
                  - policer-control-policy
                     - overrides
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - root
                           - max-rate (number | keyword)
                           - priority-mbs-thresholds
                              - min-thresh-separation (number | keyword)
                              - priority number
                                 - apply-groups reference
                                 - apply-groups-exclude reference
                                 - mbs-contribution (number | keyword)
                     - policy-name reference
                  - sap-ingress
                     - fp-redirect-group
                        - group-name reference
                        - instance number
                     - overrides
                        - policer reference
                           - apply-groups reference
                           - apply-groups-exclude reference
                           - cbs (number | keyword)
                           - mbs (number | keyword)
                           - packet-byte-offset number
                           - percent-rate
                              - cir decimal-number
                              - pir decimal-number
                           - rate
                              - cir (number | keyword)
                              - pir (number | keyword)
                           - stat-mode keyword
                        - queue reference
                           - adaptation-rule
                              - cir keyword
                              - pir keyword
                           - apply-groups reference
                           - apply-groups-exclude reference
                           - cbs (number | keyword)
                           - drop-tail
                              - low
                                 - percent-reduction-from-mbs (number | keyword)
                           - mbs (number | keyword)
                           - monitor-queue-depth
                              - fast-polling boolean
                           - parent
                              - cir-weight number
                              - weight number
                           - percent-rate
                              - cir decimal-number
                              - pir decimal-number
                           - rate
                              - cir (number | keyword)
                              - pir (number | keyword)
                     - policy-name reference
                     - queuing-type keyword
                  - scheduler-policy
                     - overrides
                        - scheduler named-item
                           - apply-groups reference
                           - apply-groups-exclude reference
                           - parent
```


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configure service ipipe sap ingress qos scheduler-policy overrides scheduler parent cir-weight

```
                        - cir-weight number
                        - weight number
                     - rate
                        - cir (number | keyword)
                        - pir (number | keyword)
                  - policy-name reference
         - lag
            - link-map-profile number
            - per-link-hash
               - class number
               - weight number
         - mac mac-address
         - mac-refresh number
         - multi-service-site reference
         - transit-policy
            - prefix reference
         - use-broadcast-mac boolean
      - service-id number
      - service-mtu number
      - spoke-sdp sdp-bind-id
         - aarp
            - id reference
            - type keyword
         - admin-state keyword
         - app-profile reference
         - apply-groups reference
         - apply-groups-exclude reference
         - bandwidth (number | keyword)
         - bfd
            - bfd-liveness
               - encap keyword
            - bfd-template reference
         - ce-address (ipv4-address-no-zone | ipv6-address-no-zone)
         - control-word boolean
         - description description
         - egress
            - filter
               - ip reference
               - ipv6 reference
            - qos
               - network
                  - policy-name reference
                  - port-redirect-group
                     - group-name reference
                     - instance number
            - vc-label number
         - endpoint
            - name reference
            - precedence (number | keyword)
         - entropy-label
         - hash-label
            - signal-capability
         - ingress
            - filter
               - ip reference
               - ipv6 reference
            - qos
               - network
                  - fp-redirect-group
                     - group-name reference
                     - instance number
                  - policy-name reference
            - vc-label number
         - transit-policy
```


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```
                - prefix reference
            - vc-switching boolean
            - vpn-id number
        - mac-list named-item
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - mac mac-address
                - apply-groups reference
                - apply-groups-exclude reference
                - mask mac-address
        - md-auto-id
            - customer-id-range
                - apply-groups reference
                - apply-groups-exclude reference
                - end number
                - start number
            - pw-template-id-range
                - apply-groups reference
                - apply-groups-exclude reference
                - end number
                - start number
            - service-id-range
                - apply-groups reference
                - apply-groups-exclude reference
                - end number
                - start number
        - mrp
            - policy named-item
                - apply-groups reference
                - apply-groups-exclude reference
                - default-action keyword
                - description description
                - entry number
                    - action keyword
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - description description
                    - match
                        - isid number
                            - apply-groups reference
                            - apply-groups-exclude reference
                            - higher-value number
                - scope keyword
        - nat
            - apply-groups reference
            - apply-groups-exclude reference
            - classifier named-item
                - apply-groups reference
                - apply-groups-exclude reference
                - default
                    - action
                        - destination-nat
                            - ip-address ipv4-unicast-address
                        - forward
                    - dnat-ip-address ipv4-unicast-address
                - description description
                - entry number
                    - action
                        - destination-nat
                            - ip-address ipv4-unicast-address
                        - forward
                    - apply-groups reference
                    - apply-groups-exclude reference
```


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configure service nat classifier entry description

```
            - description description
            - match
               - dst-port-range
                  - end number
                  - start number
               - foreign-ip-address ipv4-unicast-address
               - protocol keyword
      - deterministic-script
         - location ftp-tftp-url
      - firewall-policy external-named-item
         - alg
            - ftp boolean
            - rtsp boolean
            - sip boolean
         - apply-groups reference
         - apply-groups-exclude reference
         - description description
         - domain
            - name named-item
            - router-instance string
         - filtering keyword
         - l2-outside
         - port-limits
            - forwarding number
         - priority-sessions
            - fc
               - af boolean
               - be boolean
               - ef boolean
               - h1 boolean
               - h2 boolean
               - l1 boolean
               - l2 boolean
               - nc boolean
         - session-limits
            - max number
            - reserved number
            - watermarks
               - high number
               - low number
         - tcp
            - mss-adjust number
         - timeouts
            - icmp6-query number
            - sip number
            - tcp
               - established number
               - rst number
               - syn number
               - time-wait number
               - transitory number
            - udp
               - dns number
               - initial number
               - normal number
            - unknown-protocol number
         - udp
            - inbound-refresh boolean
         - unknown-protocols
            - all
            - protocol number
      - map-t
         - domain named-item
            - admin-state keyword
```


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configure service nat map-t domain apply-groups

```
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - dmr-prefix ipv6-prefix
            - fpe reference
            - ip-fragmentation
              - v6-frag-header boolean
            - map-t-group reference
            - mapping-rule named-item
              - admin-state keyword
              - apply-groups reference
              - apply-groups-exclude reference
              - description description
              - ea-length number
              - ipv4-prefix ipv4-prefix
              - psid-offset number
              - rule-prefix ipv6-prefix
              - statistics-collection boolean
            - mtu number
            - tcp-mss-adjust number
      - nat-policy external-named-item
         - alg
            - ftp boolean
            - pptp boolean
            - rtsp boolean
            - sip boolean
         - apply-groups reference
         - apply-groups-exclude reference
         - block-limit number
         - description description
         - dnat
            - classifier reference
         - dnat-only
            - nat-group reference
            - router-instance string
            - wlan-gw-group reference
         - filtering keyword
         - flow-log-policy
            - ipfix reference
            - syslog reference
         - l2-outside
         - pool
            - name named-item
            - router-instance string
         - port-forwarding-range-end number
         - port-limits
            - dynamic-ports number
            - forwarding number
            - reserved number
            - watermarks
              - high number
              - low number
         - priority-sessions
            - fc
              - af boolean
              - be boolean
              - ef boolean
              - h1 boolean
              - h2 boolean
              - l1 boolean
              - l2 boolean
              - nc boolean
         - session-limits
            - max number
```


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configure service nat nat-policy session-limits reserved

```
            - reserved number
            - watermarks
               - high number
               - low number
         - tcp
            - mss-adjust number
            - reset-unknown boolean
         - timeouts
            - icmp-query number
            - sip number
            - subscriber-retention number
            - tcp
               - established number
               - rst number
               - syn number
               - time-wait number
               - transitory number
            - udp
               - dns number
               - initial number
               - normal number
         - udp
            - inbound-refresh boolean
      - pcp-server-policy named-item
         - apply-groups reference
         - apply-groups-exclude reference
         - description description
         - lifetime
            - maximum number
            - minimum number
         - max-description-size number
         - opcode
            - announce boolean
            - get boolean
            - map boolean
         - option
            - description boolean
            - next boolean
            - port-reservation boolean
            - port-set boolean
            - prefer-failure boolean
            - third-party boolean
         - reuse-external-ip-address boolean
         - version
            - maximum number
            - minimum number
      - prefix-list named-item
         - application keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - prefix ipv4-prefix
            - apply-groups reference
            - apply-groups-exclude reference
            - nat-policy reference
      - syslog
         - export-policy named-item
            - apply-groups reference
            - apply-groups-exclude reference
            - collector router-instance string ip-address ipv4-unicast-address
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - destination-port number
               - ipv4-source-address ipv4-unicast-address
```


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configure service nat syslog export-policy description

```
            - description description
            - facility keyword
            - include
               - destination-ip boolean
               - foreign-ip boolean
               - foreign-port boolean
               - nat-policy-name boolean
               - sub-id boolean
            - log-prefix named-item
            - max-tx-delay number
            - mtu number
            - rate-limit number
            - severity-level keyword
      - up-nat-policy external-named-item
         - alg
            - ftp boolean
            - pptp boolean
            - rtsp boolean
            - sip boolean
         - apply-groups reference
         - apply-groups-exclude reference
         - block-limit number
         - default-host
            - inside-router-instance string
            - ip-address ipv4-unicast-address
            - rate-limit number
         - description description
         - filtering keyword
         - flow-log-policy
            - ipfix reference
         - icmp-echo-reply boolean
         - port-block-extension
            - ports number
            - watermarks
               - high number
               - low number
         - port-limits
            - dynamic-ports number
            - reserved number
            - watermarks
               - high number
               - low number
         - priority-sessions
            - fc
               - af boolean
               - be boolean
               - ef boolean
               - h1 boolean
               - h2 boolean
               - l1 boolean
               - l2 boolean
               - nc boolean
         - session-limits
            - max number
            - reserved number
            - watermarks
               - high number
               - low number
         - tcp
            - mss-adjust number
            - reset-unknown boolean
         - timeouts
            - icmp-query number
            - sip number
```


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configure service nat up-nat-policy timeouts subscriber-retention

```
            - subscriber-retention number
            - tcp
               - established number
               - rst number
               - syn number
               - time-wait number
               - transitory number
            - udp
               - dns number
               - initial number
               - normal number
         - udp
            - inbound-refresh boolean
   - oper-group named-item
      - apply-groups reference
      - apply-groups-exclude reference
      - bfd-liveness
         - apply-groups reference
         - apply-groups-exclude reference
         - dest-ip ipv4-unicast-address
         - interface-name interface-name
         - router-instance string
      - hold-time
         - down number
         - up number
   - pbb
      - apply-groups reference
      - apply-groups-exclude reference
      - mac named-item
         - address mac-unicast-address-no-zero
         - apply-groups reference
         - apply-groups-exclude reference
      - mac-notification
         - apply-groups reference
         - apply-groups-exclude reference
         - count number
         - interval number
      - source-bmac
         - address mac-unicast-address-no-zero
         - evpn-etree-leaf-address mac-unicast-address-no-zero
   - proxy-arp-nd
      - mac-list
         - list named-item
            - apply-groups reference
            - apply-groups-exclude reference
            - mac mac-unicast-address-no-zero
   - pw-template pw-template-name
      - accounting-policy number
      - allow-fragmentation boolean
      - apply-groups reference
      - apply-groups-exclude reference
      - auto-gre-sdp boolean
      - block-on-peer-fault boolean
      - collect-stats boolean
      - control-word boolean
      - egress
         - filter
            - ip named-item-64
            - ipv6 named-item-64
            - mac named-item-64
         - mfib-allowed-mda-destinations
            - mda slot-mda
         - qos
            - network
```


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configure service pw-template egress qos network policy-name

```
                  - policy-name named-item-64
                  - port-redirect-group
                     - group-name named-item
                     - instance number
         - encryption-keygroup
            - inbound number
            - outbound number
         - entropy-label
         - fdb
            - auto-learn-mac-protect boolean
            - auto-learn-mac-protect-exclude-list named-item
            - discard-unknown-source boolean
            - limit-mac-move keyword
            - mac-learning
               - aging boolean
               - learning boolean
            - mac-pinning boolean
            - maximum-mac-addresses number
            - protected-src-mac-violation-action keyword
         - force-vc-forwarding keyword
         - hash-label
            - signal-capability
         - igmp-snooping
            - fast-leave boolean
            - import-policy named-item
            - maximum-number-groups number
            - query-interval number
            - query-last-member-interval number
            - query-response-interval number
            - robust-count number
            - send-queries boolean
            - version keyword
         - ingress
            - filter
               - ip named-item-64
               - ipv6 named-item-64
               - mac named-item-64
            - qos
               - network
                  - fp-redirect-group
                     - group-name named-item
                     - instance number
                  - policy-name named-item-64
         - l2pt
            - termination
               - protocols
                  - cdp boolean
                  - dtp boolean
                  - pagp boolean
                  - stp boolean
                  - udld boolean
                  - vtp boolean
         - path-mtu number
         - provisioned-sdp keyword
         - pw-template-id number
         - sdp-exclude reference
         - sdp-include reference
         - split-horizon-group
            - description description
            - fdb
               - saps
                  - auto-learn-mac-protect boolean
                  - discard-unprotected-dest-mac boolean
                  - protected-src-mac-violation-action keyword
```


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configure service pw-template split-horizon-group name

```
            - name named-item
         - stp
            - admin-state keyword
            - auto-edge boolean
            - edge-port boolean
            - link-type keyword
            - path-cost number
            - priority number
            - root-guard boolean
         - vc-type keyword
         - vlan-vc-tag number
      - sdp number
         - accounting-policy reference
         - admin-state keyword
         - adv-mtu-override boolean
         - allow-fragmentation boolean
         - apply-groups reference
         - apply-groups-exclude reference
         - bgp-tunnel boolean
         - booking-factor number
         - class-forwarding
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - default-lsp reference
            - enforce-diffserv-lsp-fc boolean
            - fc keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - lsp reference
            - multicast-lsp reference
         - collect-stats boolean
         - delivery-type keyword
         - description description
         - far-end
            - ip-address (ipv4-address-no-zone | ipv6-address-no-zone)
         - keep-alive
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - hello-time number
            - hold-down-time number
            - maximum-drop-count number
            - message-length number
            - timeout number
         - ldp boolean
         - local-end (ipv4-address-no-zone | ipv6-address-no-zone)
         - lsp named-item-64
         - metric number
         - mixed-lsp-mode
            - revert-time (number | keyword)
         - network-domain reference
         - path-mtu number
         - pbb-etype etype-value
         - pw-port
            - binding-port port-named
         - sdp-group reference
         - signaling keyword
         - source-bmac-lsb
            - control-pw-vc-id number
            - value bmac-lsb-no-zero
         - sr-isis boolean
         - sr-ospf boolean
         - tunnel-far-end (ipv4-address-no-zone | ipv6-address-no-zone)
```


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configure service sdp vlan-vc-etype

```
        - vlan-vc-etype etype-value
        - weighted-ecmp boolean
    - sdp-group
        - apply-groups reference
        - apply-groups-exclude reference
        - group-name named-item
            - apply-groups reference
            - apply-groups-exclude reference
            - value number
    - system
        - apply-groups reference
        - apply-groups-exclude reference
        - bgp
            - evpn
                - ad-per-es-route
                    - extended-evi-range boolean
                    - route-distinguisher-ip-address ipv4-address
                    - route-target-type keyword
                - ad-per-evi-routes
                    - attribute-propagation boolean
                    - bgp-path-selection boolean
                    - d-path-ignore boolean
                - ethernet-segment named-item
                    - ac-df-capability keyword
                    - admin-state keyword
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - association
                        - lag reference
                            - apply-groups reference
                            - apply-groups-exclude reference
                            - virtual-ranges
                                - dot1q
                                    - q-tag (number | keyword)
                                        - apply-groups reference
                                        - apply-groups-exclude reference
                                        - end (number | keyword)
                                - qinq
                                    - s-tag (number | keyword)
                                        - apply-groups reference
                                        - apply-groups-exclude reference
                                        - end (number | keyword)
                                    - s-tag-c-tag (number | keyword) c-tag-start (number | keyword)
                                        - apply-groups reference
                                        - apply-groups-exclude reference
                                        - c-tag-end (number | keyword)
                        - network-interconnect-vxlan number
                            - apply-groups reference
                            - apply-groups-exclude reference
                            - virtual-ranges
                                - service-id number
                                    - apply-groups reference
                                    - apply-groups-exclude reference
                                    - end number
                        - port reference
                            - apply-groups reference
                            - apply-groups-exclude reference
                            - virtual-ranges
                                - dot1q
                                    - q-tag (number | keyword)
                                        - apply-groups reference
                                        - apply-groups-exclude reference
                                        - end (number | keyword)
                                - qinq
```


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configure service system bgp evpn ethernet-segment association port virtual-ranges qinq s-tag

```
                        - s-tag (number | keyword)
                          - apply-groups reference
                          - apply-groups-exclude reference
                          - end (number | keyword)
                        - s-tag-c-tag (number | keyword) c-tag-start (number | keyword)
                          - apply-groups reference
                          - apply-groups-exclude reference
                          - c-tag-end (number | keyword)
                - pw-port reference
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - pw-port-headend boolean
                  - virtual-ranges
                    - dot1q
                      - q-tag (number | keyword)
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - end (number | keyword)
                    - qinq
                      - s-tag (number | keyword)
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - end (number | keyword)
                      - s-tag-c-tag (number | keyword) c-tag-start (number | keyword)
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - c-tag-end (number | keyword)
                - sdp reference
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - virtual-ranges
                    - vc-id number
                      - apply-groups reference
                      - apply-groups-exclude reference
                      - end number
                - vprn-next-hop (ipv4-address-no-zone | ipv6-address-no-zone)
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - virtual-ranges
                    - evi number
              - auto-esi keyword
              - df-election
                - es-activation-timer number
                - manual
                  - evi number
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - end number
                  - isid number
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - end number
                  - preference
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - mode keyword
                    - value number
                - service-carving-mode keyword
              - esi ethernet-segment-id-mac-based
              - multi-homing-mode keyword
              - oper-group reference
              - orig-ip (ipv4-address-no-zone | ipv6-address-no-zone)
              - pbb
                - es-bmac-table-size number
```


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configure service system bgp evpn ethernet-segment pbb source-bmac-lsb

```
                    - source-bmac-lsb bmac-lsb-no-zero
                  - route-next-hop (ipv4-address-no-zone | ipv6-address-no-zone)
                  - type keyword
               - etree-leaf-label boolean
               - etree-leaf-label-value (number | keyword)
               - ip-prefix-routes
                  - interface-ful
                     - attribute-uniform-propagation boolean
                     - bgp-path-selection boolean
                     - d-path-length-ignore boolean
                  - interface-less
                     - vxlan-router-mac mac-unicast-address-no-zero
               - multicast-leave-sync-propagation number
               - route-distinguisher vpn-route-distinguisher
         - bgp-auto-rd-range
            - apply-groups reference
            - apply-groups-exclude reference
            - community-value
               - end number
               - start number
            - ip-address ipv4-address
         - extended-default-qinq-sap-lookup boolean
         - fdb
            - apply-groups reference
            - apply-groups-exclude reference
            - table-size number
         - gre-eth-bridged
            - tunnel-termination (ipv4-address-no-zone | ipv6-address-no-zone)
               - apply-groups reference
               - apply-groups-exclude reference
               - fpe-id reference
         - pw-port-list
            - port port
         - vpn-gre-source-ip ipv4-unicast-address
         - vxlan
            - assisted-replication
               - apply-groups reference
               - apply-groups-exclude reference
               - ip-address ipv4-unicast-address
            - tunnel-termination (ipv4-address-no-zone | ipv6-address-no-zone)
               - apply-groups reference
               - apply-groups-exclude reference
               - fpe-id reference
      - template
         - epipe-sap-template named-item
            - apply-groups reference
            - apply-groups-exclude reference
            - egress
               - filter
                  - ip reference
                  - ipv6 reference
                  - mac reference
               - qos
                  - policy-name reference
            - ingress
               - filter
                  - ip reference
                  - ipv6 reference
                  - mac reference
               - qos
                  - policy-name reference
                  - queuing-type keyword
      - upnp
         - policy external-named-item
```


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```
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - mapping-limit number
            - port number
            - strict-mode boolean
      - vpls service-name
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - bgp number
            - adv-service-mtu number
            - apply-groups reference
            - apply-groups-exclude reference
            - pw-template-binding reference
               - apply-groups reference
               - apply-groups-exclude reference
               - bfd-liveness boolean
               - bfd-template reference
               - import-rt route-target
               - monitor-oper-group reference
               - oper-group reference
               - split-horizon-group named-item
            - route-distinguisher (keyword | vpn-route-distinguisher)
            - route-target
               - export route-target
               - import route-target
            - vsi-export reference
            - vsi-import reference
         - bgp-ad
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - vpls-id vpls-id
            - vsi-id-prefix ipv4-address
         - bgp-evpn
            - accept-ivpls-evpn-flush boolean
            - apply-groups reference
            - apply-groups-exclude reference
            - evi number
            - ignore-mtu-mismatch boolean
            - incl-mcast-orig-ip ipv4-unicast-address
            - isid-route-target
               - range number
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - end number
                  - route-target route-target
                  - type keyword
            - mac-duplication
               - blackhole boolean
               - detect
                  - num-moves number
                  - trusted-mac-move-factor number
                  - window number
               - retry (number | keyword)
               - trusted-mac-time number
            - mpls number
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - auto-bind-tunnel
                  - allow-flex-algo-fallback boolean
                  - ecmp number
```


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configure service vpls bgp-evpn mpls auto-bind-tunnel enforce-strict-tunnel-tagging

```
                  - enforce-strict-tunnel-tagging boolean
                  - enforce-untagged-route keyword
                  - resolution keyword
                  - resolution-filter
                     - bgp boolean
                     - ldp boolean
                     - mpls-fwd-policy boolean
                     - rib-api boolean
                     - rsvp boolean
                     - sr-isis boolean
                     - sr-ospf boolean
                     - sr-ospf3 boolean
                     - sr-policy boolean
                     - sr-te boolean
                     - udp boolean
                  - weighted-ecmp boolean
               - control-word boolean
               - default-route-tag one-byte-value
               - dynamic-egress-label-limit boolean
               - ecmp number
               - entropy-label boolean
               - evi-three-byte-auto-rt boolean
               - fdb
                  - protected-src-mac-violation-action keyword
               - force-vc-forwarding keyword
               - hash-label boolean
               - ingress-replication-bum-label boolean
               - mh-mode keyword
               - oper-group reference
               - route-next-hop
                  - ip-address (ipv4-address-no-zone | ipv6-address-no-zone)
                  - system-ipv4
                  - system-ipv6
               - send-tunnel-encap
                  - mpls boolean
                  - mpls-over-udp boolean
               - split-horizon-group reference
            - routes
               - incl-mcast
                  - advertise-ingress-replication boolean
                  - advertise-l2-attributes boolean
               - ip-prefix
                  - advertise boolean
                  - domain-id domain-id
                  - include-direct-interface-host boolean
                  - link-bandwidth
                     - advertise
                        - max-dynamic-weight number
                        - weight (number | keyword)
                     - weighted-ecmp boolean
               - mac-ip
                  - advertise boolean
                  - arp-nd-extended-community boolean
                  - arp-nd-only-with-fdb-advertisement boolean
                  - cfm-mac boolean
                  - unknown-mac boolean
               - sel-mcast
                  - advertise boolean
               - vlan-aware-bundle-eth-tag number
            - segment-routing-v6 number
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - default-route-tag one-byte-value
```


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```
            - ecmp number
            - evi-three-byte-auto-rt boolean
            - fdb
               - protected-src-mac-violation-action keyword
            - force-vc-forwarding keyword
            - mh-mode keyword
            - oper-group reference
            - resolution keyword
            - route-next-hop
               - ip-address (ipv4-address-no-zone | ipv6-address-no-zone)
               - system-ipv4
               - system-ipv6
            - source-address ipv6-unicast-address
            - split-horizon-group reference
            - srv6
               - default-locator string
               - instance reference
         - vlan-aware-bundle named-item
         - vxlan number
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - default-route-tag one-byte-value
            - ecmp number
            - evi-three-byte-auto-rt boolean
            - mh-mode keyword
            - oper-group reference
            - routes
               - auto-disc
                  - advertise boolean
            - send-incl-mcast-ir-on-ndf boolean
            - send-tunnel-encap boolean
            - vxlan-instance reference
      - bgp-mh-site named-item
         - activation-timer number
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - boot-timer number
         - failed-threshold (number | keyword)
         - id number
         - mesh-sdp-binds
         - min-down-timer number
         - monitor-oper-group reference
         - sap sap
         - shg-name named-item
         - spoke-sdp sdp-bind-id
      - bgp-vpls
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - maximum-ve-id number
         - ve
            - id number
            - name named-item
      - capture-sap sap
         - admin-state keyword
         - allow-dot1q-msaps boolean
         - apply-groups reference
         - apply-groups-exclude reference
         - bandwidth number
         - cpu-protection
            - mac-monitoring
            - policy-id reference
```


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```
            - description long-description
            - dhcp
              - python-policy reference
              - user-db reference
            - dhcp6
              - python-policy reference
              - user-db reference
            - dist-cpu-protection reference
            - host-lockout-policy reference
            - ingress
              - filter
                - mac reference
            - ipoe-session
              - admin-state keyword
              - apply-groups reference
              - apply-groups-exclude reference
              - description description
              - ipoe-session-policy reference
              - user-db reference
            - msap-defaults
              - group-interface interface-name
              - policy reference
              - service-name service-name
            - nasreq-auth-policy reference
            - pfcp
              - apply-groups reference
              - apply-groups-exclude reference
              - association reference
              - l2-access-id-alias string
              - up-resiliency
                - monitor-oper-group reference
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - health-drop number
            - pppoe
              - policy reference
              - python-policy reference
              - user-db reference
            - radius-auth-policy reference
            - router-solicit
              - user-db reference
            - track-srrp number
            - trigger-packet
              - arp boolean
              - data boolean
              - dhcp boolean
              - dhcp6 boolean
              - pppoe boolean
              - rtr-solicit boolean
        - customer reference
        - description description
        - endpoint named-item
            - apply-groups reference
            - apply-groups-exclude reference
            - block-on-mesh-failure boolean
            - description description
            - fdb
              - auto-learn-mac-protect boolean
              - mac-pinning boolean
              - maximum-mac-addresses number
              - protected-src-mac-violation-action keyword
            - ignore-standby-signaling boolean
            - mc-endpoint number
              - apply-groups reference
```


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configure service vpls endpoint mc-endpoint apply-groups-exclude

```
            - apply-groups-exclude reference
            - mc-ep-peer
               - name named-item
               - peer-address reference
         - revert-time (number | keyword)
         - suppress-standby-signaling boolean
      - eth-cfm
         - apply-groups reference
         - apply-groups-exclude reference
         - mep md-admin-name reference ma-admin-name reference mep-id number
            - admin-state keyword
            - alarm-notification
               - fng-alarm-time number
               - fng-reset-time number
            - apply-groups reference
            - apply-groups-exclude reference
            - ccm boolean
            - ccm-ltm-priority number
            - ccm-padding-size number
            - cfm-vlan-tag one-or-two-vlan-tags
            - description description
            - eth-test
               - bit-error-threshold number
               - test-pattern
                  - crc-tlv boolean
                  - pattern keyword
            - grace
               - eth-ed
                  - max-rx-defect-window number
                  - priority number
                  - rx-eth-ed boolean
                  - tx-eth-ed boolean
               - eth-vsm-grace
                  - rx-eth-vsm-grace boolean
                  - tx-eth-vsm-grace boolean
            - low-priority-defect keyword
            - mac-address mac-unicast-address-no-zero
            - one-way-delay-threshold number
      - etree boolean
      - fdb
         - discard-unknown boolean
         - mac-learning
            - aging boolean
            - learning boolean
            - local-age-time number
            - remote-age-time number
         - mac-move
            - admin-state keyword
            - hold-down-time number
            - move-frequency number
            - primary-cumulative-factor number
            - retry-count (number | keyword)
            - sap reference
               - apply-groups reference
               - apply-groups-exclude reference
               - level keyword
            - secondary-cumulative-factor number
            - spoke-sdp reference
               - apply-groups reference
               - apply-groups-exclude reference
               - level keyword
         - mac-subnet-length number
         - selective-learning boolean
         - static-mac
```


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configure service vpls fdb static-mac mac

```
            - mac mac-unicast-address-no-zero
              - apply-groups reference
              - apply-groups-exclude reference
              - blackhole
              - endpoint reference
              - mesh-sdp reference
              - monitor keyword
              - sap reference
              - spoke-sdp reference
         - table
            - high-wmark number
            - low-wmark number
            - size number
      - gsmp
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - group named-item
            - admin-state keyword
            - ancp
              - dynamic-topology-discovery boolean
              - oam boolean
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - hold-multiplier number
            - idle-filter boolean
            - keepalive number
            - neighbor ipv4-unicast-address
              - admin-state keyword
              - apply-groups reference
              - apply-groups-exclude reference
              - description description
              - local-address ipv4-unicast-address
              - priority-marking
                - dscp keyword
                - prec number
            - persistency boolean
      - igmp-host-tracking
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - expiry-time number
      - igmp-snooping
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - evpn-proxy
            - admin-state keyword
         - mvr
            - admin-state keyword
            - description description
            - group-policy named-item
         - query-interval number
         - query-source-address (keyword | ipv4-address)
         - report-source-address ipv4-address
         - robust-count number
      - ignore-l2vpn-mtu-mismatch boolean
      - interface interface-name
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - description very-long-description
         - hold-time
```


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```
            - ipv4
              - down
                - init-only boolean
                - seconds number
              - up
                - seconds number
        - ipv4
          - neighbor-discovery
            - static-neighbor ipv4-address
              - apply-groups reference
              - apply-groups-exclude reference
              - mac-address mac-address
            - timeout number
          - primary
            - address ipv4-address
            - apply-groups reference
            - apply-groups-exclude reference
            - prefix-length number
        - mac mac-unicast-address
    - isid-policy
      - entry number
        - advertise-local boolean
        - apply-groups reference
        - apply-groups-exclude reference
        - range
          - end number
          - start number
        - use-def-mcast boolean
    - load-balancing
      - lbl-eth-or-ip-l4-teid boolean
      - per-service-hashing boolean
      - spi-load-balancing boolean
      - teid-load-balancing boolean
    - m-vpls boolean
    - mac-flush
      - tldp
        - propagate boolean
        - send-on-failure boolean
    - mac-protect
      - mac mac-address
    - mcast-ipv6-snooping-scope keyword
    - mcr-default-gtw
      - apply-groups reference
      - apply-groups-exclude reference
      - ip ipv4-unicast-address
      - mac mac-address
    - mesh-sdp sdp-bind-id
      - accounting-policy reference
      - admin-state keyword
      - adv-service-mtu number
      - apply-groups reference
      - apply-groups-exclude reference
      - bfd
        - bfd-liveness
          - encap keyword
        - bfd-template reference
      - collect-stats boolean
      - control-word boolean
      - cpu-protection
        - eth-cfm-monitoring
          - aggregate
          - car
        - mac-monitoring
        - policy-id reference
```


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```
            - description description
            - dhcp
              - apply-groups reference
              - apply-groups-exclude reference
              - description description
              - snoop boolean
            - egress
              - filter
                - ip reference
                - ipv6 reference
                - mac reference
              - mfib-allowed-mda-destinations
                - mda slot-mda
              - qos
                - network
                  - policy-name reference
                  - port-redirect-group
                    - group-name reference
                    - instance number
              - vc-label number
            - entropy-label
            - eth-cfm
              - apply-groups reference
              - apply-groups-exclude reference
              - collect-lmm-fc-stats
                - fc keyword
                - fc-in-profile keyword
              - collect-lmm-stats boolean
              - mep md-admin-name reference ma-admin-name reference mep-id number
                - admin-state keyword
                - ais
                  - client-meg-level number
                  - interface-support boolean
                  - interval number
                  - low-priority-defect keyword
                  - priority number
                - alarm-notification
                  - fng-alarm-time number
                  - fng-reset-time number
                - apply-groups reference
                - apply-groups-exclude reference
                - ccm boolean
                - ccm-ltm-priority number
                - ccm-padding-size number
                - cfm-vlan-tag one-or-two-vlan-tags
                - csf
                  - multiplier decimal-number
                - description description
                - direction keyword
                - eth-test
                  - bit-error-threshold number
                  - test-pattern
                    - crc-tlv boolean
                    - pattern keyword
                - fault-propagation keyword
                - grace
                  - eth-ed
                    - max-rx-defect-window number
                    - priority number
                    - rx-eth-ed boolean
                    - tx-eth-ed boolean
                  - eth-vsm-grace
                    - rx-eth-vsm-grace boolean
                    - tx-eth-vsm-grace boolean
```


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configure service vpls mesh-sdp eth-cfm mep lbm-svc-act-responder

```
                  - lbm-svc-act-responder boolean
                  - low-priority-defect keyword
                  - mac-address mac-unicast-address-no-zero
                  - one-way-delay-threshold number
                  - primary-vlan boolean
               - mip primary-vlan (number | keyword)
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - cfm-vlan-tag one-or-two-vlan-tags
                  - mac-address mac-unicast-address-no-zero
               - squelch-ingress-ctag-levels number
               - squelch-ingress-levels number
               - vmep-filter boolean
            - etree-leaf boolean
            - etree-root-leaf-tag boolean
            - fdb
               - auto-learn-mac-protect boolean
               - auto-learn-mac-protect-exclude-list reference
               - mac-pinning boolean
               - protected-src-mac-violation-action keyword
            - force-vc-forwarding keyword
            - hash-label
               - signal-capability
            - igmp-snooping
               - apply-groups reference
               - apply-groups-exclude reference
               - fast-leave boolean
               - import-policy reference
               - maximum-number-group-sources number
               - maximum-number-groups number
               - maximum-number-sources number
               - mcac
                  - bandwidth
                     - mandatory (number | keyword)
                     - total (number | keyword)
                  - interface-policy reference
                  - policy reference
               - mrouter-port boolean
               - query-interval number
               - query-last-member-interval number
               - query-response-interval number
               - robust-count number
               - router-alert-check boolean
               - send-queries boolean
               - static
                  - group ipv4-multicast-address
                     - apply-groups reference
                     - apply-groups-exclude reference
                     - source ipv4-unicast-address
                     - starg
               - version keyword
            - ingress
               - filter
                  - ip reference
                  - ipv6 reference
                  - mac reference
               - qos
                  - network
                     - fp-redirect-group
                        - group-name reference
                        - instance number
                     - policy-name reference
               - vc-label number
            - mld-snooping
```


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configure service vpls mesh-sdp mld-snooping apply-groups

```
                - apply-groups reference
                - apply-groups-exclude reference
                - fast-leave boolean
                - import-policy reference
                - maximum-number-groups number
                - mrouter-port boolean
                - query-interval number
                - query-last-member-interval number
                - query-response-interval number
                - robust-count number
                - router-alert-check boolean
                - send-queries boolean
                - static
                  - group ipv6-multicast-address
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - source ipv6-unicast-address
                    - starg
                - version keyword
            - mrp
                - apply-groups reference
                - apply-groups-exclude reference
                - join-time number
                - leave-all-time number
                - leave-time number
                - periodic-time number
                - periodic-timer boolean
                - policy reference
            - pbb
                - fault-propagation
                  - backbone-mac-address mac-unicast-address-no-zero
                  - backbone-mac-name reference
            - vc-type keyword
            - vlan-vc-tag number
        - mfib
            - table
                - high-wmark number
                - low-wmark number
                - size number
        - mld-snooping
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - evpn-proxy
                - admin-state keyword
            - mvr
                - admin-state keyword
                - description description
                - group-policy named-item
            - query-interval number
            - query-source-address (keyword | ipv6-address)
            - report-source-address ipv6-address
            - robust-count number
        - mrp
            - admin-state keyword
            - mmrp
                - admin-state keyword
                - attribute-table
                  - high-wmark number
                  - low-wmark number
                  - size number
                - end-station-only boolean
                - flood-time number
        - multicast-info-policy reference
```


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```
        - pbb
          - backbone-vpls reference
            - apply-groups reference
            - apply-groups-exclude reference
            - fdb
              - protected-src-mac-violation-action keyword
            - igmp-snooping
              - mrouter-destination reference
            - isid number
            - mesh-sdp reference
              - apply-groups reference
              - apply-groups-exclude reference
              - igmp-snooping
                - mrouter-port boolean
              - mld-snooping
                - mrouter-port boolean
            - mld-snooping
              - mrouter-destination reference
            - sap reference
              - apply-groups reference
              - apply-groups-exclude reference
              - igmp-snooping
                - mrouter-port boolean
              - mld-snooping
                - mrouter-port boolean
            - spoke-sdp reference
              - apply-groups reference
              - apply-groups-exclude reference
              - igmp-snooping
                - mrouter-port boolean
              - mld-snooping
                - mrouter-port boolean
          - force-qtag-forwarding boolean
          - i-vpls-mac-flush
            - bgp-evpn
              - send-to-bvpls boolean
            - tldp
              - propagate-from-bvpls boolean
              - send-on-bvpls-failure boolean
              - send-to-bvpls
                - all-but-mine boolean
                - all-from-me boolean
          - mac-notification
            - admin-state keyword
            - count number
            - interval number
            - renotify (number | keyword)
          - source-bmac
            - address mac-unicast-address-no-zero
            - use-es-bmac-lsb boolean
            - use-mclag-bmac-lsb boolean
        - pbb-type keyword
        - pim-snooping
          - apply-groups reference
          - apply-groups-exclude reference
          - group-policy display-string
          - hold-time number
          - ipv4
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
          - ipv6
            - admin-state keyword
            - apply-groups reference
```


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```
            - apply-groups-exclude reference
        - provider-tunnel
            - apply-groups reference
            - apply-groups-exclude reference
            - inclusive
                - admin-state keyword
                - data-delay-interval number
                - mldp
                - owner keyword
                - root-and-leaf boolean
                - rsvp
                    - lsp-template reference
            - selective
                - admin-state keyword
                - data-delay-interval number
                - data-threshold
                    - group-prefix (ipv4-prefix | ipv6-prefix)
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - pe-threshold-add number
                        - pe-threshold-delete number
                        - threshold number
                - maximum-p2mp-spmsi number
                - mldp boolean
                - owner keyword
                - wildcard-spmsi boolean
        - proxy-arp
            - admin-state keyword
            - age-time (number | keyword)
            - apply-groups reference
            - apply-groups-exclude reference
            - duplicate-detect
                - anti-spoof-mac mac-unicast-address-no-zero
                - hold-down-time (number | keyword)
                - num-moves number
                - static-blackhole boolean
                - window number
            - dynamic-arp
                - ip-address ipv4-unicast-address
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - mac-list reference
                    - resolve-retry-time number
                    - sap reference
            - dynamic-populate boolean
            - evpn
                - flood
                    - gratuitous-arp boolean
                    - unknown-arp-req boolean
                - route-tag number
            - flood
                - received-gratuitous-arp boolean
                - received-unknown-arp-req boolean
            - process-arp-probes boolean
            - restrict-non-configured-ip-address
                - sponge-mac mac-unicast-address-no-zero
            - send-refresh (number | keyword)
            - static-arp
                - ip-address ipv4-unicast-address
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - mac mac-unicast-address-no-zero
            - table-size number
        - proxy-nd
```


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```
            - admin-state keyword
            - age-time (number | keyword)
            - apply-groups reference
            - apply-groups-exclude reference
            - duplicate-detect
               - anti-spoof-mac mac-unicast-address-no-zero
               - hold-down-time (number | keyword)
               - num-moves number
               - static-blackhole boolean
               - window number
            - dynamic-neighbor
               - ip-address ipv6-address
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - mac-list reference
                  - resolve-retry-time number
                  - sap reference
            - dynamic-populate boolean
            - evpn
               - advertise-neighbor-type keyword
               - flood
                  - unknown-neighbor-advertise-host boolean
                  - unknown-neighbor-advertise-router boolean
                  - unknown-neighbor-solicitation boolean
               - route-tag number
            - flood
               - received-unknown-neighbor-advertise-host boolean
               - received-unknown-neighbor-advertise-router boolean
               - received-unknown-neighbor-solicitation boolean
            - process-dad-neighbor-solicitations boolean
            - restrict-non-configured-ip-address
               - sponge-mac mac-unicast-address-no-zero
            - send-refresh (number | keyword)
            - static-neighbor
               - ip-address ipv6-address
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - mac mac-unicast-address-no-zero
                  - type keyword
            - table-size number
         - routed-vpls
            - evpn-mpls-ecmp boolean
            - multicast
               - apply-groups reference
               - apply-groups-exclude reference
               - evpn-gateway
                  - admin-state keyword
                  - advertise keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - dr-activation-timer number
                  - non-dr-attract-traffic keyword
               - ip-multicast-ecmp boolean
               - ipv4
                  - forward-to-ip-interface boolean
                  - igmp-snooping
                     - mrouter-port boolean
               - ipv6
                  - forward-to-ip-interface boolean
                  - mld-snooping
                     - mrouter-port boolean
            - vxlan-ipv4-tep-ecmp boolean
         - sap sap
            - accounting-policy reference
```


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```
            - admin-state keyword
            - anti-spoof keyword
            - app-profile reference
            - apply-groups reference
            - apply-groups-exclude reference
            - arp-host
              - admin-state keyword
              - apply-groups reference
              - apply-groups-exclude reference
              - host-limit number
              - min-auth-interval number
            - arp-reply-agent keyword
            - bandwidth number
            - bgp-vpls-mh-veid number
            - bpdu-translation keyword
            - calling-station-id string-not-all-spaces
            - cflowd boolean
            - collect-stats boolean
            - cpu-protection
              - eth-cfm-monitoring
                - aggregate
                - car
              - mac-monitoring
              - policy-id reference
            - description long-description
            - dhcp
              - admin-state keyword
              - apply-groups reference
              - apply-groups-exclude reference
              - description description
              - lease-populate
                - max-leases number
              - option-82
                - action keyword
                - circuit-id
                  - ascii-tuple
                  - hex-string hex-string
                  - none
                  - vlan-ascii-tuple
                - remote-id
                  - ascii-string string-not-all-spaces
                  - hex-string hex-string
                  - mac
                  - none
                - vendor-specific-option
                  - client-mac-address boolean
                  - sap-id boolean
                  - service-id boolean
                  - string string-not-all-spaces
                  - system-id boolean
              - proxy-server
                - admin-state keyword
                - emulated-server ipv4-unicast-address
                - lease-time
                  - radius-override boolean
                  - value number
              - snoop boolean
            - dhcp6
              - apply-groups reference
              - apply-groups-exclude reference
              - description description
              - ldra
                - interface-type keyword
                - options
```


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configure service vpls sap dhcp6 ldra options interface-id

```
                  - interface-id
                     - ascii-tuple
                     - vlan-ascii-tuple
                  - remote-id
                     - mac
                     - string string
         - dist-cpu-protection reference
         - egress
            - agg-rate
               - adaptation-rule keyword
               - burst-limit (number | keyword)
               - limit-unused-bandwidth boolean
               - queue-frame-based-accounting boolean
               - rate number
            - dest-mac-rewrite mac-unicast-address-no-zero
            - filter
               - ip reference
               - ipv6 reference
               - mac reference
            - qos
               - latency-budget number
               - policer-control-policy
                  - overrides
                     - apply-groups reference
                     - apply-groups-exclude reference
                     - root
                        - max-rate (number | keyword)
                        - priority-mbs-thresholds
                           - min-thresh-separation (number | keyword)
                           - priority number
                              - apply-groups reference
                              - apply-groups-exclude reference
                              - mbs-contribution (number | keyword)
                  - policy-name reference
               - qinq-mark-top-only boolean
               - sap-egress
                  - overrides
                     - hs-secondary-shaper named-item
                     - hs-wrr-group reference
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - hs-class-weight number
                        - percent-rate decimal-number
                        - rate (number | keyword)
                     - policer reference
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - cbs (number | keyword)
                        - mbs (number | keyword)
                        - packet-byte-offset number
                        - percent-rate
                           - cir decimal-number
                           - pir decimal-number
                        - rate
                           - cir (number | keyword)
                           - pir (number | keyword)
                        - stat-mode keyword
                     - queue reference
                        - adaptation-rule
                           - cir keyword
                           - pir keyword
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - avg-frame-overhead decimal-number
```


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configure service vpls sap egress qos sap-egress overrides queue burst-limit

```
                        - burst-limit (number | keyword)
                        - cbs (number | keyword)
                        - drop-tail
                          - low
                            - percent-reduction-from-mbs (number | keyword)
                        - hs-class-weight number
                        - hs-wred-queue
                          - policy reference
                        - hs-wrr-weight number
                        - mbs (number | keyword)
                        - monitor-queue-depth
                          - fast-polling boolean
                          - violation-threshold decimal-number
                        - parent
                          - cir-weight number
                          - weight number
                        - percent-rate
                          - cir decimal-number
                          - pir decimal-number
                        - rate
                          - cir (number | keyword)
                          - pir (number | keyword)
                    - policy-name reference
                    - port-redirect-group
                      - group-name reference
                      - instance number
                - scheduler-policy
                    - overrides
                      - scheduler named-item
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - parent
                          - cir-weight number
                          - weight number
                        - rate
                          - cir (number | keyword)
                          - pir (number | keyword)
                    - policy-name reference
            - virtual-port
                - vport-name reference
        - eth-cfm
            - apply-groups reference
            - apply-groups-exclude reference
            - collect-lmm-fc-stats
                - fc keyword
                - fc-in-profile keyword
            - collect-lmm-stats boolean
            - mep md-admin-name reference ma-admin-name reference mep-id number
                - admin-state keyword
                - ais
                    - client-meg-level number
                    - interface-support boolean
                    - interval number
                    - low-priority-defect keyword
                    - priority number
                - alarm-notification
                    - fng-alarm-time number
                    - fng-reset-time number
                - apply-groups reference
                - apply-groups-exclude reference
                - ccm boolean
                - ccm-ltm-priority number
                - ccm-padding-size number
                - cfm-vlan-tag one-or-two-vlan-tags
```


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configure service vpls sap eth-cfm mep csf

```
                  - csf
                     - multiplier decimal-number
                  - description description
                  - direction keyword
                  - eth-test
                     - bit-error-threshold number
                     - test-pattern
                        - crc-tlv boolean
                        - pattern keyword
                  - fault-propagation keyword
                  - grace
                     - eth-ed
                        - max-rx-defect-window number
                        - priority number
                        - rx-eth-ed boolean
                        - tx-eth-ed boolean
                     - eth-vsm-grace
                        - rx-eth-vsm-grace boolean
                        - tx-eth-vsm-grace boolean
                  - lbm-svc-act-responder boolean
                  - low-priority-defect keyword
                  - mac-address mac-unicast-address-no-zero
                  - monitor-oper-group reference
                  - one-way-delay-threshold number
                  - primary-vlan boolean
               - mip primary-vlan (number | keyword)
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - cfm-vlan-tag one-or-two-vlan-tags
                  - mac-address mac-unicast-address-no-zero
               - squelch-ingress-ctag-levels number
               - squelch-ingress-levels number
               - vmep-filter boolean
            - eth-ring number
            - etree-leaf boolean
            - etree-root-leaf-tag
               - leaf number
            - fdb
               - auto-learn-mac-protect boolean
               - auto-learn-mac-protect-exclude-list reference
               - discard-unknown-source boolean
               - discard-unprotected-dest-mac boolean
               - limit-mac-move keyword
               - mac-learning
                  - aging boolean
                  - learning boolean
               - mac-pinning boolean
               - maximum-mac-addresses number
               - protected-src-mac-violation-action keyword
            - host-admin-state keyword
            - host-lockout-policy reference
            - i-vpls-mac-flush
               - bgp-evpn
                  - send-to-bvpls boolean
            - igmp-host-tracking
               - apply-groups reference
               - apply-groups-exclude reference
               - expiry-time number
               - import-policy reference
               - maximum-number-group-sources number
               - maximum-number-groups number
               - maximum-number-sources number
               - router-alert-check boolean
            - igmp-snooping
```


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configure service vpls sap igmp-snooping apply-groups

```
                - apply-groups reference
                - apply-groups-exclude reference
                - fast-leave boolean
                - import-policy reference
                - maximum-number-group-sources number
                - maximum-number-groups number
                - maximum-number-sources number
                - mcac
                  - bandwidth
                    - mandatory (number | keyword)
                    - total (number | keyword)
                  - interface-policy reference
                  - mc-constraints
                    - level number
                      - apply-groups reference
                      - apply-groups-exclude reference
                      - bandwidth number
                    - number-down number
                      - apply-groups reference
                      - apply-groups-exclude reference
                      - level number
                    - use-lag-port-weight boolean
                  - policy reference
                - mrouter-port boolean
                - mvr
                  - from-vpls reference
                  - to-sap sap
                - query-interval number
                - query-last-member-interval number
                - query-response-interval number
                - robust-count number
                - router-alert-check boolean
                - send-queries boolean
                - static
                  - group ipv4-multicast-address
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - source ipv4-unicast-address
                    - starg
                - version keyword
            - ingress
                - filter
                  - ip reference
                  - ipv6 reference
                  - mac reference
                - qos
                  - match-qinq-dot1p keyword
                  - policer-control-policy
                    - overrides
                      - apply-groups reference
                      - apply-groups-exclude reference
                      - root
                        - max-rate (number | keyword)
                        - priority-mbs-thresholds
                          - min-thresh-separation (number | keyword)
                          - priority number
                            - apply-groups reference
                            - apply-groups-exclude reference
                            - mbs-contribution (number | keyword)
                    - policy-name reference
                  - sap-ingress
                    - fp-redirect-group
                      - group-name reference
                      - instance number
```


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configure service vpls sap ingress qos sap-ingress overrides

```
                  - overrides
                     - ip-criteria
                        - activate-entry-tag number
                     - ipv6-criteria
                        - activate-entry-tag number
                     - policer reference
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - cbs (number | keyword)
                        - mbs (number | keyword)
                        - packet-byte-offset number
                        - percent-rate
                           - cir decimal-number
                           - pir decimal-number
                        - rate
                           - cir (number | keyword)
                           - pir (number | keyword)
                        - stat-mode keyword
                     - queue reference
                        - adaptation-rule
                           - cir keyword
                           - pir keyword
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - cbs (number | keyword)
                        - drop-tail
                           - low
                              - percent-reduction-from-mbs (number | keyword)
                        - mbs (number | keyword)
                        - monitor-queue-depth
                           - fast-polling boolean
                        - parent
                           - cir-weight number
                           - weight number
                        - percent-rate
                           - cir decimal-number
                           - pir decimal-number
                        - rate
                           - cir (number | keyword)
                           - pir (number | keyword)
                  - policy-name reference
                  - queuing-type keyword
               - scheduler-policy
                  - overrides
                     - scheduler named-item
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - parent
                           - cir-weight number
                           - weight number
                        - rate
                           - cir (number | keyword)
                           - pir (number | keyword)
                  - policy-name reference
            - qtag-manipulation
               - c-tag (number | keyword)
               - push-dot1q-vlan (number | keyword)
               - s-tag number
         - l2pt
            - force-boundary
               - protocols
                  - cdp boolean
                  - dtp boolean
                  - pagp boolean
```


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configure service vpls sap l2pt force-boundary protocols stp

```
                  - stp boolean
                  - udld boolean
                  - vtp boolean
               - termination
                  - protocols
                     - cdp boolean
                     - dtp boolean
                     - pagp boolean
                     - stp boolean
                     - udld boolean
                     - vtp boolean
            - l2tpv3-session
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - pseudo-wire
                  - ethernet
                  - ethernet-vlan-id number
               - router
                  - group named-item
                  - router-instance router-instance-base-vprn-loose
               - vc-id number
            - lag
               - link-map-profile number
               - per-link-hash
                  - class number
                  - weight number
            - managed-vlan-list
               - range string
            - mc-ring
               - apply-groups reference
               - apply-groups-exclude reference
               - ring-node named-item
            - mld-snooping
               - apply-groups reference
               - apply-groups-exclude reference
               - fast-leave boolean
               - import-policy reference
               - maximum-number-groups number
               - mrouter-port boolean
               - mvr
                  - from-vpls reference
                  - to-sap sap
               - query-interval number
               - query-last-member-interval number
               - query-response-interval number
               - robust-count number
               - router-alert-check boolean
               - send-queries boolean
               - static
                  - group ipv6-multicast-address
                     - apply-groups reference
                     - apply-groups-exclude reference
                     - source ipv6-unicast-address
                     - starg
               - version keyword
            - monitor-oper-group reference
            - mrp
               - join-time number
               - leave-all-time number
               - leave-time number
               - periodic-time number
               - periodic-timer boolean
               - policy reference
```


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```
            - multi-service-site reference
            - oper-group reference
            - pbb
              - fault-propagation
                - backbone-mac-address mac-unicast-address-no-zero
                - backbone-mac-name reference
            - pim-snooping
              - apply-groups reference
              - apply-groups-exclude reference
              - maximum-number-groups number
            - process-cpm-traffic-on-sap-down boolean
            - qtag-normalization
              - double-tag
                - c-tag number
                - s-tag number
              - single-tag
                - tag number
            - radius-auth-policy reference
            - shcv-policy-ipv4 reference
            - spb
              - admin-state keyword
              - apply-groups reference
              - apply-groups-exclude reference
              - level number
                - apply-groups reference
                - apply-groups-exclude reference
                - hello-interval number
                - hello-multiplier number
                - metric number
              - lsp-pacing-interval number
              - retransmit-interval number
            - split-horizon-group reference
            - static-host
              - ipv4 ipv4-address mac mac-unicast-address
                - admin-state keyword
                - ancp-string ancp-string
                - app-profile
                  - profile reference
                - apply-groups reference
                - apply-groups-exclude reference
                - int-dest-id int-dest-id
                - shcv
                - sla-profile reference
                - sub-profile reference
                - subscriber-id
                  - string subscriber-id
                  - use-sap-id
            - static-isid
              - range number
                - apply-groups reference
                - apply-groups-exclude reference
                - end number
                - start number
            - stp
              - admin-state keyword
              - auto-edge boolean
              - edge-port boolean
              - link-type keyword
              - mst-instance number
                - apply-groups reference
                - apply-groups-exclude reference
                - mst-path-cost number
                - mst-port-priority number
              - path-cost number
```


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```
            - port-num number
            - priority number
            - root-guard boolean
         - sub-sla-mgmt
            - admin-state keyword
            - defaults
               - app-profile reference
               - int-dest-id
                  - string int-dest-id
                  - top-q-tag
               - sla-profile reference
               - sub-profile reference
               - subscriber-id
                  - auto-id
                  - sap-id
                  - string subscriber-id
            - mac-da-hashing boolean
            - single-sub-parameters
               - non-sub-traffic
                  - app-profile reference
                  - sla-profile reference
                  - sub-profile reference
                  - subscriber-id subscriber-id
               - profiled-traffic-only boolean
            - sub-ident-policy reference
            - subscriber-limit (keyword | number)
         - transit-policy
            - ip reference
            - prefix reference
      - segment-routing-v6 number
         - apply-groups reference
         - apply-groups-exclude reference
         - locator reference
            - apply-groups reference
            - apply-groups-exclude reference
            - function
               - end-dt2m
                  - value number
               - end-dt2u
                  - value number
         - micro-segment-locator reference
            - apply-groups reference
            - apply-groups-exclude reference
            - function
               - udt2m
                  - value number
               - udt2u
                  - value number
      - service-id number
      - service-mtu number
      - shcv-policy-ipv4 reference
      - spb
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - fid number
         - isis-instance number
         - level number
            - apply-groups reference
            - apply-groups-exclude reference
            - bridge-priority number
            - ect-high-path-fid number
            - forwarding-tree
               - topology keyword
```


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```
            - lsp-lifetime number
            - lsp-refresh-interval
               - half-lifetime boolean
               - interval number
            - overload
               - timeout number
            - overload-on-boot
               - timeout number
            - timers
               - lsp-wait
                  - initial-wait number
                  - max-wait number
                  - second-wait number
               - spf-wait
                  - initial-wait number
                  - max-wait number
                  - second-wait number
         - spbm-control-vpls
            - fid number
            - service-name service-name
         - split-horizon-group named-item
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - fdb
               - saps
                  - auto-learn-mac-protect boolean
                  - auto-learn-mac-protect-exclude-list reference
                  - discard-unprotected-dest-mac boolean
                  - protected-src-mac-violation-action keyword
            - residential boolean
         - spoke-sdp sdp-bind-id
            - accounting-policy reference
            - admin-state keyword
            - adv-service-mtu number
            - app-profile reference
            - apply-groups reference
            - apply-groups-exclude reference
            - bfd
               - bfd-liveness
                  - encap keyword
               - bfd-template reference
               - failure-action keyword
               - wait-for-up-timer number
            - block-on-mesh-failure boolean
            - bpdu-translation keyword
            - collect-stats boolean
            - control-word boolean
            - cpu-protection
               - eth-cfm-monitoring
                  - aggregate
                  - car
               - mac-monitoring
               - policy-id reference
            - description description
            - dhcp
               - apply-groups reference
               - apply-groups-exclude reference
               - description description
               - snoop boolean
            - egress
               - filter
                  - ip reference
                  - ipv6 reference
```


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configure service vpls spoke-sdp egress filter mac

```
                  - mac reference
               - mfib-allowed-mda-destinations
                  - mda slot-mda
               - qos
                  - network
                     - policy-name reference
                     - port-redirect-group
                        - group-name reference
                        - instance number
               - vc-label number
            - endpoint
               - name reference
               - precedence (number | keyword)
            - entropy-label
            - eth-cfm
               - apply-groups reference
               - apply-groups-exclude reference
               - collect-lmm-fc-stats
                  - fc keyword
                  - fc-in-profile keyword
               - collect-lmm-stats boolean
               - mep md-admin-name reference ma-admin-name reference mep-id number
                  - admin-state keyword
                  - ais
                     - client-meg-level number
                     - interface-support boolean
                     - interval number
                     - low-priority-defect keyword
                     - priority number
                  - alarm-notification
                     - fng-alarm-time number
                     - fng-reset-time number
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - ccm boolean
                  - ccm-ltm-priority number
                  - ccm-padding-size number
                  - cfm-vlan-tag one-or-two-vlan-tags
                  - csf
                     - multiplier decimal-number
                  - description description
                  - direction keyword
                  - eth-test
                     - bit-error-threshold number
                     - test-pattern
                        - crc-tlv boolean
                        - pattern keyword
                  - fault-propagation keyword
                  - grace
                     - eth-ed
                        - max-rx-defect-window number
                        - priority number
                        - rx-eth-ed boolean
                        - tx-eth-ed boolean
                     - eth-vsm-grace
                        - rx-eth-vsm-grace boolean
                        - tx-eth-vsm-grace boolean
                  - lbm-svc-act-responder boolean
                  - low-priority-defect keyword
                  - mac-address mac-unicast-address-no-zero
                  - one-way-delay-threshold number
                  - primary-vlan boolean
               - mip primary-vlan (number | keyword)
                  - apply-groups reference
```


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configure service vpls spoke-sdp eth-cfm mip apply-groups-exclude

```
                  - apply-groups-exclude reference
                  - cfm-vlan-tag one-or-two-vlan-tags
                  - mac-address mac-unicast-address-no-zero
               - squelch-ingress-ctag-levels number
               - squelch-ingress-levels number
               - vmep-filter boolean
            - etree-leaf boolean
            - etree-root-leaf-tag boolean
            - fdb
               - auto-learn-mac-protect boolean
               - auto-learn-mac-protect-exclude-list reference
               - discard-unknown-source boolean
               - limit-mac-move keyword
               - mac-learning
                  - aging boolean
                  - learning boolean
               - mac-pinning boolean
               - maximum-mac-addresses number
               - protected-src-mac-violation-action keyword
            - force-vc-forwarding keyword
            - hash-label
               - signal-capability
            - i-vpls-mac-flush
               - bgp-evpn
                  - send-to-bvpls boolean
            - igmp-snooping
               - apply-groups reference
               - apply-groups-exclude reference
               - fast-leave boolean
               - import-policy reference
               - maximum-number-group-sources number
               - maximum-number-groups number
               - maximum-number-sources number
               - mcac
                  - bandwidth
                     - mandatory (number | keyword)
                     - total (number | keyword)
                  - interface-policy reference
                  - policy reference
               - mrouter-port boolean
               - query-interval number
               - query-last-member-interval number
               - query-response-interval number
               - robust-count number
               - router-alert-check boolean
               - send-queries boolean
               - static
                  - group ipv4-multicast-address
                     - apply-groups reference
                     - apply-groups-exclude reference
                     - source ipv4-unicast-address
                     - starg
               - version keyword
            - ignore-standby-signaling boolean
            - ingress
               - filter
                  - ip reference
                  - ipv6 reference
                  - mac reference
               - qos
                  - network
                     - fp-redirect-group
                        - group-name reference
                        - instance number
```


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configure service vpls spoke-sdp ingress qos network policy-name

```
                    - policy-name reference
                - vc-label number
            - l2pt
                - termination
                    - protocols
                        - cdp boolean
                        - dtp boolean
                        - pagp boolean
                        - stp boolean
                        - udld boolean
                        - vtp boolean
            - mld-snooping
                - apply-groups reference
                - apply-groups-exclude reference
                - fast-leave boolean
                - import-policy reference
                - maximum-number-groups number
                - mrouter-port boolean
                - query-interval number
                - query-last-member-interval number
                - query-response-interval number
                - robust-count number
                - router-alert-check boolean
                - send-queries boolean
                - static
                    - group ipv6-multicast-address
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - source ipv6-unicast-address
                        - starg
                - version keyword
            - monitor-oper-group reference
            - mrp
                - apply-groups reference
                - apply-groups-exclude reference
                - join-time number
                - leave-all-time number
                - leave-time number
                - periodic-time number
                - periodic-timer boolean
                - policy reference
            - oper-group reference
            - pbb
                - fault-propagation
                    - backbone-mac-address mac-unicast-address-no-zero
                    - backbone-mac-name reference
            - pim-snooping
                - apply-groups reference
                - apply-groups-exclude reference
                - maximum-number-groups number
            - pw-status
                - signaling boolean
            - spb
                - admin-state keyword
                - apply-groups reference
                - apply-groups-exclude reference
                - level number
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - hello-interval number
                    - hello-multiplier number
                    - metric number
                - lsp-pacing-interval number
                - retransmit-interval number
```


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configure service vpls spoke-sdp split-horizon-group

```
            - split-horizon-group reference
            - static-isid
               - range number
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - end number
                  - start number
            - stp
               - admin-state keyword
               - auto-edge boolean
               - edge-port boolean
               - link-type keyword
               - path-cost number
               - port-num number
               - priority number
               - root-guard boolean
            - transit-policy
               - prefix reference
            - vc-type keyword
            - vlan-vc-tag number
         - stp
            - admin-state keyword
            - forward-delay number
            - hello-time number
            - hold-count number
            - maximum-age number
            - mode keyword
            - mst-instance number
               - apply-groups reference
               - apply-groups-exclude reference
               - mst-priority number
               - vlan-range string
            - mst-maximum-hops number
            - mst-name named-item
            - mst-revision number
            - priority number
         - temp-flooding number
         - tunnel-elmi boolean
         - vpn-id number
         - vxlan
            - instance number
               - apply-groups reference
               - apply-groups-exclude reference
               - assisted-replication
                  - leaf
                     - acttime number
                  - replicator
               - egress-vtep (ipv4-address-no-zone | ipv6-address-no-zone)
               - fdb
                  - discard-unknown-source boolean
                  - mac-learning
                     - aging boolean
                     - learning boolean
                  - maximum-mac-addresses number
                  - protected-src-mac-violation-action keyword
               - igmp-snooping
                  - mrouter-port boolean
               - mld-snooping
                  - mrouter-port boolean
               - network
                  - ingress
                     - qos
                        - network
                           - fp-redirect-group
```


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configure service vpls vxlan instance network ingress qos network fp-redirect-group group-name

```
                              – group-name reference
                              – instance number
                           – policy-name reference
                – rx-discard-on-ndf keyword
                – source-vtep-security boolean
                – vni number
             – source-vtep (ipv4-address-no-zone | ipv6-address-no-zone)
          – wlan-gw
             – admin-state keyword
             – apply-groups reference
             – apply-groups-exclude reference
             – description description
             – wlan-gw-group reference
       – vprn service-name
          – aa-interface interface-name
             – admin-state keyword
             – apply-groups reference
             – apply-groups-exclude reference
             – description very-long-description
             – ip-mtu number
             – ipv4
                – primary
                   – address ipv4-unicast-address
                   – apply-groups reference
                   – apply-groups-exclude reference
                   – prefix-length number
             – sap sap
                – admin-state keyword
                – apply-groups reference
                – apply-groups-exclude reference
                – description long-description
                – egress
                   – filter
                      – ip reference
                   – qos
                      – sap-egress
                         – policy-name reference
                   – virtual-port
                      – vport-name reference
                – fwd-wholesale
                   – pppoe-service reference
                – ingress
                   – qos
                      – sap-ingress
                         – overrides
                         – policy-name reference
                – lag
          – aaa
             – remote-servers
                – radius
                   – access-algorithm keyword
                   – accounting boolean
                   – accounting-port number
                   – admin-state keyword
                   – apply-groups reference
                   – apply-groups-exclude reference
                   – authorization boolean
                   – interactive-authentication boolean
                   – port number
                   – server number
                      – address (ipv4-address-no-zone | ipv6-address-no-zone)
                      – apply-groups reference
                      – apply-groups-exclude reference
                      – authenticator keyword
```


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configure service vprn aaa remote-servers radius server secret

```
                    - secret encrypted-leaf
                    - tls-client-profile reference
                 - server-retry number
                 - server-timeout number
                 - use-default-template boolean
              - tacplus
                 - accounting
                    - record-type keyword
                 - admin-state keyword
                 - apply-groups reference
                 - apply-groups-exclude reference
                 - authorization
                    - request-format
                       - access-operation-cmd keyword
                    - use-priv-lvl boolean
                 - interactive-authentication boolean
                 - priv-lvl-map
                    - priv-lvl number
                       - apply-groups reference
                       - apply-groups-exclude reference
                       - user-profile-name reference
                 - server number
                    - address (ipv4-address-no-zone | ipv6-address-no-zone)
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - port number
                    - secret encrypted-leaf
                 - server-timeout number
                 - service-request
                    - nokia-grpc-rpc-authorization boolean
                    - nokia-netconf-base-op-authorization boolean
                    - nokia-user boolean
                 - use-default-template boolean
        - aarp-interface interface-name
           - admin-state keyword
           - apply-groups reference
           - apply-groups-exclude reference
           - description very-long-description
           - ip-mtu number
           - spoke-sdp sdp-bind-id
              - aarp
                 - id reference
                 - type keyword
              - admin-state keyword
              - apply-groups reference
              - apply-groups-exclude reference
              - description description
              - egress
                 - filter
                    - ip reference
                 - vc-label number
              - ingress
                 - filter
                    - ip reference
                 - vc-label number
        - admin-state keyword
        - aggregates
           - aggregate (ipv4-prefix | ipv6-prefix)
              - aggregator
                 - address ipv4-unicast-address
                 - as-number number
              - apply-groups reference
              - apply-groups-exclude reference
              - as-set boolean
```


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configure service vprn aggregates aggregate blackhole

```
                - blackhole
                  - generate-icmp boolean
                - community community
                - description description
                - discard-component-communities boolean
                - indirect (ipv4-address-no-zone | ipv6-address-no-zone)
                - local-preference number
                - policy reference
                - summary-only boolean
                - tunnel-group number
            - apply-groups reference
            - apply-groups-exclude reference
        - allow-export-bgp-vpn boolean
        - apply-groups reference
        - apply-groups-exclude reference
        - autonomous-system number
        - bgp
            - admin-state keyword
            - advertise-inactive boolean
            - advertise-ipv6-next-hops
                - ipv4 boolean
            - aggregator-id-zero boolean
            - apply-groups reference
            - apply-groups-exclude reference
            - asn-4-byte boolean
            - attribute-set
                - remove boolean
            - authentication-key encrypted-leaf
            - authentication-keychain reference
            - backup-path
                - ipv4 boolean
                - ipv6 boolean
                - label-ipv4 boolean
                - label-ipv6 boolean
            - best-path-selection
                - always-compare-med
                  - med-value keyword
                  - strict-as boolean
                - as-path-ignore
                  - ipv4 boolean
                  - ipv6 boolean
                  - label-ipv4 boolean
                  - label-ipv6 boolean
                - compare-origin-validation-state boolean
                - d-path-length-ignore boolean
                - deterministic-med boolean
                - ebgp-ibgp-equal
                  - ipv4 boolean
                  - ipv6 boolean
                  - label-ipv4 boolean
                  - label-ipv6 boolean
                - ignore-nh-metric boolean
                - ignore-router-id
                - origin-invalid-unusable boolean
            - bfd-liveness boolean
            - bfd-strict-mode
                - advertise
                  - holdtime number
                - next-hop-reachability boolean
            - client-reflect boolean
            - cluster
                - cluster-id ipv4-address
            - connect-retry number
            - convergence
```


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```
                - family keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - max-wait-to-advertise number
                - min-wait-to-advertise number
            - damp-peer-oscillations
                - error-interval number
                - idle-hold-time
                  - initial-wait number
                  - max-wait number
                  - second-wait number
            - damping boolean
            - default-label-preference
                - ebgp number
                - ibgp number
            - default-preference
                - ebgp number
                - ibgp number
            - description description
            - domain-id domain-id
            - dynamic-neighbor-limit number
            - ebgp-default-reject-policy
                - export boolean
                - import boolean
            - eibgp-loadbalance boolean
            - enforce-first-as boolean
            - error-handling
                - legacy-mode boolean
                - update-fault-tolerance boolean
            - export
                - apply-groups reference
                - apply-groups-exclude reference
                - policy (policy-expr-string | string)
            - extended-nh-encoding
                - ipv4 boolean
            - family
                - flow-ipv4 boolean
                - flow-ipv6 boolean
                - ipv4 boolean
                - ipv6 boolean
                - label-ipv4 boolean
                - mcast-ipv4 boolean
                - mcast-ipv6 boolean
            - fast-external-failover boolean
            - flowspec
                - validate-dest-prefix boolean
                - validate-redirect-ip boolean
            - graceful-restart
                - gr-notification boolean
                - long-lived
                  - advertise-stale-to-all-neighbors boolean
                  - advertised-stale-time number
                  - family keyword
                    - advertised-stale-time number
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - helper-override-stale-time number
                  - forwarding-bits-set keyword
                  - helper-override-restart-time number
                  - helper-override-stale-time number
                  - without-no-export boolean
                - restart-time number
                - stale-routes-time number
            - group named-item-64
```


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```
                - admin-state keyword
                - advertise-inactive boolean
                - advertise-ipv6-next-hops
                  - ipv4 boolean
                - aggregator-id-zero boolean
                - apply-groups reference
                - apply-groups-exclude reference
                - as-override boolean
                - asn-4-byte boolean
                - authentication-key encrypted-leaf
                - authentication-keychain reference
                - bfd-liveness boolean
                - bfd-strict-mode
                  - advertise
                    - holdtime number
                  - next-hop-reachability boolean
                - capability-negotiation boolean
                - client-reflect boolean
                - cluster
                  - cluster-id ipv4-address
                - connect-retry number
                - damp-peer-oscillations
                  - error-interval number
                  - idle-hold-time
                    - initial-wait number
                    - max-wait number
                    - second-wait number
                - damping boolean
                - default-label-preference
                  - ebgp number
                  - ibgp number
                - default-preference
                  - ebgp number
                  - ibgp number
                - description description
                - dynamic-neighbor
                  - interface reference
                    - allowed-peer-as string
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - max-sessions number
                  - match
                    - prefix (ipv4-prefix | ipv6-prefix)
                      - allowed-peer-as string
                      - apply-groups reference
                      - apply-groups-exclude reference
                - dynamic-neighbor-limit number
                - ebgp-default-reject-policy
                  - export boolean
                  - import boolean
                - enforce-first-as boolean
                - error-handling
                  - update-fault-tolerance boolean
                - evpn-link-bandwidth
                  - add-to-received-bgp number
                - export
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - policy (policy-expr-string | string)
                - extended-nh-encoding
                  - ipv4 boolean
                - family
                  - flow-ipv4 boolean
                  - flow-ipv6 boolean
```


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```
                  - ipv4 boolean
                  - ipv6 boolean
                  - label-ipv4 boolean
                  - mcast-ipv4 boolean
                  - mcast-ipv6 boolean
               - fast-external-failover boolean
               - graceful-restart
                  - gr-notification boolean
                  - long-lived
                     - advertise-stale-to-all-neighbors boolean
                     - advertised-stale-time number
                     - family keyword
                        - advertised-stale-time number
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - helper-override-stale-time number
                     - forwarding-bits-set keyword
                     - helper-override-restart-time number
                     - helper-override-stale-time number
                     - without-no-export boolean
                  - restart-time number
                  - stale-routes-time number
               - hold-time
                  - minimum-hold-time number
                  - seconds number
               - import
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - policy (policy-expr-string | string)
               - initial-send-delay-zero boolean
               - keepalive number
               - label-preference number
               - link-bandwidth
                  - accept-from-ebgp
                     - ipv4 boolean
                     - ipv6 boolean
                     - label-ipv4 boolean
                  - add-to-received-ebgp
                     - ipv4 boolean
                     - ipv6 boolean
                     - label-ipv4 boolean
                  - aggregate-used-paths
                     - ipv4 boolean
                     - ipv6 boolean
                     - label-ipv4 boolean
                  - send-to-ebgp
                     - ipv4 boolean
                     - ipv6 boolean
                     - label-ipv4 boolean
               - local-address (ipv4-address-no-zone | ipv6-address-no-zone | interface-name)
               - local-as
                  - as-number number
                  - prepend-global-as boolean
                  - private boolean
               - local-preference number
               - loop-detect keyword
               - loop-detect-threshold number
               - med-out (number | keyword)
               - min-route-advertisement number
               - monitor
                  - admin-state keyword
                  - all-stations boolean
                  - apply-groups reference
                  - apply-groups-exclude reference
```


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configure service vprn bgp group monitor route-monitoring

```
                  - route-monitoring
                     - post-policy boolean
                     - pre-policy boolean
                  - station reference
               - multihop number
               - multipath-eligible boolean
               - next-hop-self boolean
               - origin-validation
                  - ipv4 boolean
                  - ipv6 boolean
                  - label-ipv4 boolean
               - passive boolean
               - path-mtu-discovery boolean
               - peer-as number
               - peer-ip-tracking boolean
               - preference number
               - prefix-limit keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - hold-excess number
                  - idle-timeout number
                  - log-only boolean
                  - maximum number
                  - post-import boolean
                  - threshold number
               - remove-private
                  - limited boolean
                  - replace boolean
                  - skip-peer-as boolean
               - send-communities
                  - extended boolean
                  - large boolean
                  - standard boolean
               - send-default
                  - export-policy reference
                  - ipv4 boolean
                  - ipv6 boolean
               - split-horizon boolean
               - static-group boolean
               - tcp-mss (number | keyword)
               - third-party-nexthop boolean
               - ttl-security number
               - type keyword
            - hold-time
               - minimum-hold-time number
               - seconds number
            - ibgp-multipath boolean
            - import
               - apply-groups reference
               - apply-groups-exclude reference
               - policy (policy-expr-string | string)
            - initial-send-delay-zero boolean
            - keepalive number
            - label-preference number
            - local-as
               - as-number number
               - prepend-global-as boolean
               - private boolean
            - local-preference number
            - loop-detect keyword
            - loop-detect-threshold number
            - med-out (number | keyword)
            - min-route-advertisement number
            - monitor
```


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```
                - admin-state keyword
                - all-stations boolean
                - apply-groups reference
                - apply-groups-exclude reference
                - route-monitoring
                  - post-policy boolean
                  - pre-policy boolean
                - station reference
            - multihop number
            - multipath
                - ebgp number
                - family keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - ebgp number
                  - ibgp number
                  - max-paths number
                  - restrict keyword
                  - unequal-cost boolean
                - ibgp number
                - max-paths number
                - restrict keyword
                - unequal-cost boolean
            - neighbor (ipv4-address-with-zone | ipv6-address-with-zone)
                - admin-state keyword
                - advertise-inactive boolean
                - advertise-ipv6-next-hops
                  - ipv4 boolean
                - aggregator-id-zero boolean
                - apply-groups reference
                - apply-groups-exclude reference
                - as-override boolean
                - asn-4-byte boolean
                - authentication-key encrypted-leaf
                - authentication-keychain reference
                - bfd-liveness boolean
                - bfd-strict-mode
                  - advertise
                    - holdtime number
                  - next-hop-reachability boolean
                - capability-negotiation boolean
                - client-reflect boolean
                - cluster
                  - cluster-id ipv4-address
                - connect-retry number
                - damp-peer-oscillations
                  - error-interval number
                  - idle-hold-time
                    - initial-wait number
                    - max-wait number
                    - second-wait number
                - damping boolean
                - default-label-preference
                  - ebgp number
                  - ibgp number
                - default-preference
                  - ebgp number
                  - ibgp number
                - description description
                - ebgp-default-reject-policy
                  - export boolean
                  - import boolean
                - enforce-first-as boolean
                - error-handling
```


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```
                    - update-fault-tolerance boolean
                - evpn-link-bandwidth
                    - add-to-received-bgp number
                - export
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - policy (policy-expr-string | string)
                - extended-nh-encoding
                    - ipv4 boolean
                - family
                    - flow-ipv4 boolean
                    - flow-ipv6 boolean
                    - ipv4 boolean
                    - ipv6 boolean
                    - label-ipv4 boolean
                    - mcast-ipv4 boolean
                    - mcast-ipv6 boolean
                - fast-external-failover boolean
                - graceful-restart
                    - gr-notification boolean
                    - long-lived
                        - advertise-stale-to-all-neighbors boolean
                        - advertised-stale-time number
                        - family keyword
                            - advertised-stale-time number
                            - apply-groups reference
                            - apply-groups-exclude reference
                            - helper-override-stale-time number
                        - forwarding-bits-set keyword
                        - helper-override-restart-time number
                        - helper-override-stale-time number
                        - without-no-export boolean
                    - restart-time number
                    - stale-routes-time number
                - group reference
                - hold-time
                    - minimum-hold-time number
                    - seconds number
                - import
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - policy (policy-expr-string | string)
                - initial-send-delay-zero boolean
                - keepalive number
                - label-preference number
                - link-bandwidth
                    - accept-from-ebgp
                        - ipv4 boolean
                        - ipv6 boolean
                        - label-ipv4 boolean
                    - add-to-received-ebgp
                        - ipv4 boolean
                        - ipv6 boolean
                        - label-ipv4 boolean
                    - aggregate-used-paths
                        - ipv4 boolean
                        - ipv6 boolean
                        - label-ipv4 boolean
                    - send-to-ebgp
                        - ipv4 boolean
                        - ipv6 boolean
                        - label-ipv4 boolean
                - local-address (ipv4-address-no-zone | ipv6-address-no-zone | interface-name)
                - local-as
```


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configure service vprn bgp neighbor local-as as-number

```
                  - as-number number
                  - prepend-global-as boolean
                  - private boolean
               - local-preference number
               - loop-detect keyword
               - loop-detect-threshold number
               - med-out (number | keyword)
               - min-route-advertisement number
               - monitor
                  - admin-state keyword
                  - all-stations boolean
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - route-monitoring
                     - post-policy boolean
                     - pre-policy boolean
                  - station reference
               - multihop number
               - multipath-eligible boolean
               - next-hop-self boolean
               - origin-validation
                  - ipv4 boolean
                  - ipv6 boolean
                  - label-ipv4 boolean
               - passive boolean
               - path-mtu-discovery boolean
               - peer-as number
               - peer-creation-type keyword
               - peer-ip-tracking boolean
               - preference number
               - prefix-limit keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - hold-excess number
                  - idle-timeout number
                  - log-only boolean
                  - maximum number
                  - post-import boolean
                  - threshold number
               - remove-private
                  - limited boolean
                  - replace boolean
                  - skip-peer-as boolean
               - send-communities
                  - extended boolean
                  - large boolean
                  - standard boolean
               - send-default
                  - export-policy reference
                  - ipv4 boolean
                  - ipv6 boolean
               - split-horizon boolean
               - tcp-mss (number | keyword)
               - third-party-nexthop boolean
               - ttl-security number
               - type keyword
            - next-hop-resolution
               - policy reference
               - use-bgp-routes boolean
               - use-leaked-routes
                  - static boolean
            - path-mtu-discovery boolean
            - peer-ip-tracking boolean
            - peer-tracking-policy reference
```


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```
            - preference number
            - rapid-withdrawal boolean
            - remove-private
               - limited boolean
               - replace boolean
               - skip-peer-as boolean
            - rib-management
               - ipv4
                  - leak-import
                     - apply-groups reference
                     - apply-groups-exclude reference
                     - policy (policy-expr-string | string)
                  - route-table-import
                     - apply-groups reference
                     - apply-groups-exclude reference
                     - policy-name reference
               - ipv6
                  - leak-import
                     - apply-groups reference
                     - apply-groups-exclude reference
                     - policy (policy-expr-string | string)
                  - route-table-import
                     - apply-groups reference
                     - apply-groups-exclude reference
                     - policy-name reference
               - label-ipv4
                  - leak-import
                     - apply-groups reference
                     - apply-groups-exclude reference
                     - policy (policy-expr-string | string)
                  - route-table-import
                     - apply-groups reference
                     - apply-groups-exclude reference
                     - policy-name reference
               - label-ipv6
                  - leak-import
                     - apply-groups reference
                     - apply-groups-exclude reference
                     - policy (policy-expr-string | string)
            - router-id ipv4-address
            - send-communities
               - extended boolean
               - large boolean
               - standard boolean
            - send-default
               - export-policy reference
               - ipv4 boolean
               - ipv6 boolean
            - split-horizon boolean
            - tcp-mss number
            - third-party-nexthop boolean
         - bgp-evpn
            - mpls number
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - auto-bind-tunnel
                  - allow-flex-algo-fallback boolean
                  - ecmp number
                  - enforce-strict-tunnel-tagging boolean
                  - enforce-untagged-route keyword
                  - resolution keyword
                  - resolution-filter
                     - bgp boolean
```


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configure service vprn bgp-evpn mpls auto-bind-tunnel resolution-filter ldp

```
                    - ldp boolean
                    - mpls-fwd-policy boolean
                    - rib-api boolean
                    - rsvp boolean
                    - sr-isis boolean
                    - sr-ospf boolean
                    - sr-ospf3 boolean
                    - sr-policy boolean
                    - sr-te boolean
                    - udp boolean
                - default-route-tag one-byte-value
                - domain-id domain-id
                - dynamic-egress-label-limit boolean
                - evi number
                - evpn-link-bandwidth
                    - advertise
                        - max-dynamic-weight number
                        - weight (number | keyword)
                    - weighted-ecmp boolean
                - route-distinguisher (string | keyword)
                - send-tunnel-encap
                    - mpls boolean
                    - mpls-over-udp boolean
                - vrf-export
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - policy (policy-expr-string | string)
                - vrf-import
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - policy (policy-expr-string | string)
                - vrf-target
                    - community route-target
                    - export-community route-target
                    - import-community route-target
            - segment-routing-v6 number
                - admin-state keyword
                - apply-groups reference
                - apply-groups-exclude reference
                - default-route-tag one-byte-value
                - domain-id domain-id
                - evi number
                - evpn-link-bandwidth
                    - advertise
                        - max-dynamic-weight number
                        - weight (number | keyword)
                    - weighted-ecmp boolean
                - resolution keyword
                - route-distinguisher (string | keyword)
                - source-address ipv6-unicast-address
                - srv6
                    - default-locator string
                    - instance reference
                - vrf-export
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - policy (policy-expr-string | string)
                - vrf-import
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - policy (policy-expr-string | string)
                - vrf-target
                    - community route-target
                    - export-community route-target
```


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configure service vprn bgp-evpn segment-routing-v6 vrf-target import-community

```
                - import-community route-target
            - vxlan number
                - admin-state keyword
                - apply-groups reference
                - apply-groups-exclude reference
                - default-route-tag one-byte-value
                - domain-id domain-id
                - evi number
                - evpn-link-bandwidth
                    - advertise
                        - max-dynamic-weight number
                        - weight (number | keyword)
                    - weighted-ecmp boolean
                - route-distinguisher (string | keyword)
                - vrf-export
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - policy (policy-expr-string | string)
                - vrf-import
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - policy (policy-expr-string | string)
                - vrf-target
                    - community route-target
                    - export-community route-target
                    - import-community route-target
                - vxlan-instance reference
        - bgp-ipvpn
            - attribute-set
                - export boolean
                - import keyword
            - mpls
                - admin-state keyword
                - auto-bind-tunnel
                    - allow-flex-algo-fallback boolean
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - ecmp number
                    - enforce-strict-tunnel-tagging boolean
                    - enforce-untagged-route keyword
                    - resolution keyword
                    - resolution-filter
                        - bgp boolean
                        - gre boolean
                        - ldp boolean
                        - mpls-fwd-policy boolean
                        - rib-api boolean
                        - rsvp boolean
                        - sr-isis boolean
                        - sr-ospf boolean
                        - sr-ospf3 boolean
                        - sr-policy boolean
                        - sr-te boolean
                        - udp boolean
                    - static-blackhole-first boolean
                    - weighted-ecmp boolean
                - domain-id domain-id
                - dynamic-egress-label-limit boolean
                - route-distinguisher (string | keyword)
                - vrf-export
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - policy (policy-expr-string | string)
                - vrf-import
```


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configure service vprn bgp-ipvpn mpls vrf-import apply-groups

```
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - policy (policy-expr-string | string)
               - vrf-target
                  - community route-target
                  - export-community route-target
                  - import-community route-target
            - segment-routing-v6 number
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - default-route-tag one-byte-value
               - domain-id domain-id
               - resolution keyword
               - route-distinguisher (string | keyword)
               - source-address ipv6-unicast-address
               - srv6
                  - default-locator string
                  - instance reference
               - upa-trigger
                  - next-hop keyword
               - vrf-export
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - policy (policy-expr-string | string)
               - vrf-import
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - policy (policy-expr-string | string)
               - vrf-target
                  - community route-target
                  - export-community route-target
                  - import-community route-target
         - bgp-shared-queue
            - cir (number | keyword)
            - pir (number | keyword)
         - bgp-vpn-backup
            - ipv4 boolean
            - ipv6 boolean
         - carrier-carrier-vpn boolean
         - class-forwarding boolean
         - confederation
            - confed-as-num number
            - members number
         - customer reference
         - d-path-length-ignore boolean
         - description description
         - dhcp-server
            - apply-groups reference
            - apply-groups-exclude reference
            - dhcpv4 named-item
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - description description
               - failover
                  - admin-state keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - ignore-mclt-on-takeover boolean
                  - maximum-client-lead-time number
                  - partner-down-delay number
                  - peer reference
                     - apply-groups reference
```


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configure service vprn dhcp-server dhcpv4 failover peer apply-groups-exclude

```
                    - apply-groups-exclude reference
                    - sync-tag named-item
                 - startup-wait-time number
              - force-renews boolean
              - lease-hold
                 - additional-scenarios
                    - internal-lease-ipsec boolean
                    - solicited-release boolean
                 - time number
              - pool named-item
                 - apply-groups reference
                 - apply-groups-exclude reference
                 - description description
                 - failover
                    - admin-state keyword
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - ignore-mclt-on-takeover boolean
                    - maximum-client-lead-time number
                    - partner-down-delay number
                    - peer reference
                       - apply-groups reference
                       - apply-groups-exclude reference
                       - sync-tag named-item
                    - startup-wait-time number
                 - max-lease-time number
                 - min-lease-time number
                 - minimum-free
                    - absolute number
                    - event-when-depleted boolean
                    - percent number
                 - nak-non-matching-subnet boolean
                 - offer-time number
                 - options
                    - option (number | keyword)
                       - apply-groups reference
                       - apply-groups-exclude reference
                       - ascii-string string-not-all-spaces
                       - duration number
                       - empty
                       - hex-string hex-string
                       - ipv4-address ipv4-address
                       - netbios-node-type keyword
                 - subnet ipv4-unicast-prefix
                    - address-range ipv4-unicast-address end ipv4-unicast-address
                       - apply-groups reference
                       - apply-groups-exclude reference
                       - failover-control-type keyword
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - drain boolean
                    - exclude-addresses ipv4-unicast-address end ipv4-unicast-address
                    - maximum-declined number
                    - minimum-free
                       - absolute number
                       - event-when-depleted boolean
                       - percent number
                    - options
                       - option (number | keyword)
                          - apply-groups reference
                          - apply-groups-exclude reference
                          - ascii-string string-not-all-spaces
                          - duration number
                          - empty
```


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configure service vprn dhcp-server dhcpv4 pool subnet options option hex-string

```
                        - hex-string hex-string
                        - ipv4-address ipv4-address
                        - netbios-node-type keyword
                - pool-selection
                  - use-gi-address
                    - scope keyword
                  - use-pool-from-client
                    - delimiter string-not-all-spaces
                - user-db reference
                - user-identification keyword
            - dhcpv6 named-item
                - admin-state keyword
                - apply-groups reference
                - apply-groups-exclude reference
                - auto-provisioned boolean
                - defaults
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - options
                    - option (number | keyword)
                      - apply-groups reference
                      - apply-groups-exclude reference
                      - ascii-string string-not-all-spaces
                      - domain-string string
                      - duration number
                      - empty
                      - hex-string hex-string
                      - ipv6-address ipv6-address
                  - preferred-lifetime number
                  - rebind-time number
                  - renew-time number
                  - valid-lifetime number
                - description description
                - failover
                  - admin-state keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - ignore-mclt-on-takeover boolean
                  - maximum-client-lead-time number
                  - partner-down-delay number
                  - peer reference
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - sync-tag named-item
                  - startup-wait-time number
                - ignore-rapid-commit boolean
                - interface-id-mapping boolean
                - lease-hold
                  - additional-scenarios
                    - internal-lease-ipsec boolean
                    - solicited-release boolean
                  - time number
                - lease-query boolean
                - pool named-item
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - delegated-prefix
                    - length number
                    - maximum number
                    - minimum number
                  - description description
                  - exclude-prefix ipv6-prefix
                  - failover
                    - admin-state keyword
```


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configure service vprn dhcp-server dhcpv6 pool failover apply-groups

```
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - ignore-mclt-on-takeover boolean
                    - maximum-client-lead-time number
                    - partner-down-delay number
                    - peer reference
                      - apply-groups reference
                      - apply-groups-exclude reference
                      - sync-tag named-item
                    - startup-wait-time number
                  - options
                    - option (number | keyword)
                      - apply-groups reference
                      - apply-groups-exclude reference
                      - ascii-string string-not-all-spaces
                      - domain-string string
                      - duration number
                      - empty
                      - hex-string hex-string
                      - ipv6-address ipv6-address
                  - prefix ipv6-prefix
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - drain boolean
                    - failover-control-type keyword
                    - options
                      - option (number | keyword)
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - ascii-string string-not-all-spaces
                        - domain-string string
                        - duration number
                        - empty
                        - hex-string hex-string
                        - ipv6-address ipv6-address
                    - preferred-lifetime number
                    - prefix-length-threshold number
                      - absolute number
                      - apply-groups reference
                      - apply-groups-exclude reference
                      - event-when-depleted boolean
                      - percent number
                    - prefix-type
                      - pd boolean
                      - wan-host boolean
                    - rebind-time number
                    - renew-time number
                    - valid-lifetime number
                  - prefix-length-threshold number
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - event-when-depleted boolean
                    - minimum-free-percent number
              - pool-selection
                - use-link-address
                  - scope keyword
                - use-pool-from-client
                  - delimiter string-not-all-spaces
              - server-id
                - apply-groups reference
                - apply-groups-exclude reference
                - duid-enterprise
                  - ascii-string string-not-all-spaces
                  - hex-string hex-string
```


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configure service vprn dhcp-server dhcpv6 server-id duid-link-local

```
                - duid-link-local
            - user-db reference
            - user-identification keyword
        - dns
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - default-domain fully-qualified-domain-name
            - ipv4-source-address (keyword | ipv4-unicast-address)
            - ipv6-source-address (keyword | ipv6-unicast-address)
            - server (ipv4-address-no-zone | ipv6-address-no-zone)
        - ecmp number
        - ecmp-unequal-cost boolean
        - entropy-label boolean
        - eth-cfm
            - apply-groups reference
            - apply-groups-exclude reference
        - export-inactive-bgp boolean
        - export-inactive-bgp-enhanced boolean
        - fib-priority keyword
        - firewall
            - apply-groups reference
            - apply-groups-exclude reference
            - domain named-item
                - admin-state keyword
                - apply-groups reference
                - apply-groups-exclude reference
                - dhcpv6-server
                    - name named-item
                    - router-instance string
                - nat-group reference
                - prefix ipv6-unicast-prefix
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - description description
                - wlan-gw-group reference
        - flowspec
            - apply-groups reference
            - apply-groups-exclude reference
            - filter-cam-type keyword
            - ip-filter-max-size number
            - ipv6-filter-max-size number
        - grt-leaking
            - allow-local-management boolean
            - apply-groups reference
            - apply-groups-exclude reference
            - export-grt
                - policy-name (policy-expr-string | string)
            - export-limit number
            - export-v6-limit number
            - grt-lookup boolean
            - import-grt
                - policy-name (policy-expr-string | string)
        - gsmp
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - group named-item
                - admin-state keyword
                - ancp
                    - dynamic-topology-discovery boolean
                    - oam boolean
                - apply-groups reference
                - apply-groups-exclude reference
```


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configure service vprn gsmp group description

```
                - description description
                - hold-multiplier number
                - idle-filter boolean
                - keepalive number
                - neighbor ipv4-unicast-address
                  - admin-state keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - description description
                  - local-address ipv4-unicast-address
                  - priority-marking
                    - dscp keyword
                    - prec number
                - persistency boolean
          - gtp
            - s11
                - interface reference
                  - apn-policy reference
                  - apply-groups reference
                  - apply-groups-exclude reference
                - peer-profile-map
                  - prefix (ipv4-prefix | ipv6-prefix)
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - peer-profile reference
            - upf-data-endpoint
                - apply-groups reference
                - apply-groups-exclude reference
                - fpe reference
                - interface reference
                - secondary-interface reference
            - uplink
                - apn string
                - apply-groups reference
                - apply-groups-exclude reference
                - pdn-type keyword
                - peer-profile-map
                  - prefix (ipv4-prefix | ipv6-prefix)
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - peer-profile reference
          - hash-label boolean
          - igmp
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - forwarding-group-interface forwarding-service service-name group-interface-
name reference
                - admin-state keyword
                - apply-groups reference
                - apply-groups-exclude reference
                - import-policy reference
                - maximum-number-group-sources number
                - maximum-number-groups number
                - maximum-number-sources number
                - mcac
                  - bandwidth
                    - mandatory (number | keyword)
                    - total (number | keyword)
                  - interface-policy reference
                  - policy reference
                - query-interval number
                - query-last-member-interval number
                - query-response-interval number
```


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```
            - query-source-address ipv4-unicast-address
            - router-alert-check boolean
            - sub-hosts-only boolean
            - subnet-check boolean
            - version keyword
         - group-if-query-source-address ipv4-unicast-address
         - group-interface reference
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - import-policy reference
            - maximum-number-group-sources number
            - maximum-number-groups number
            - maximum-number-sources number
            - mcac
               - bandwidth
                  - mandatory (number | keyword)
                  - total (number | keyword)
               - interface-policy reference
               - policy reference
            - query-interval number
            - query-last-member-interval number
            - query-response-interval number
            - query-source-address ipv4-unicast-address
            - router-alert-check boolean
            - sub-hosts-only boolean
            - subnet-check boolean
            - version keyword
         - interface interface-name
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - import-policy reference
            - maximum-number-group-sources number
            - maximum-number-groups number
            - maximum-number-sources number
            - mcac
               - bandwidth
                  - mandatory (number | keyword)
                  - total (number | keyword)
               - interface-policy reference
               - mc-constraints
                  - level number
                     - apply-groups reference
                     - apply-groups-exclude reference
                     - bandwidth number
                  - number-down number
                     - apply-groups reference
                     - apply-groups-exclude reference
                     - level number
                  - use-lag-port-weight boolean
               - policy reference
            - query-interval number
            - query-last-member-interval number
            - query-response-interval number
            - redundant-mcast boolean
            - router-alert-check boolean
            - ssm-translate
               - group-range start ipv4-multicast-address end ipv4-multicast-address
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - source ipv4-unicast-address
            - static
               - group ipv4-multicast-address
```


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configure service vprn igmp interface static group apply-groups

```
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - source ipv4-unicast-address
                    - starg
                  - group-range start ipv4-multicast-address end ipv4-multicast-
address step ipv4-address
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - source ipv4-unicast-address
                    - starg
               - subnet-check boolean
               - version keyword
            - query-interval number
            - query-last-member-interval number
            - query-response-interval number
            - robust-count number
            - ssm-translate
               - group-range start ipv4-multicast-address end ipv4-multicast-address
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - source ipv4-unicast-address
         - igmp-host-tracking
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - expiry-time number
         - ignore-nh-metric boolean
         - interface interface-name
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - cflowd-parameters
               - sampling keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - direction keyword
                  - sample-profile (keyword | number)
                  - type keyword
            - cpu-protection reference
            - description very-long-description
            - dynamic-tunnel-redundant-nexthop ipv4-unicast-address
            - external-reference
               - openconfig
                  - subinterface number
            - hold-time
               - ipv4
                  - down
                     - init-only boolean
                     - seconds number
                  - up
                     - seconds number
               - ipv6
                  - down
                     - init-only boolean
                     - seconds number
                  - up
                     - seconds number
            - if-attribute
               - admin-group reference
               - srlg-group reference
            - ingress
               - destination-class-lookup boolean
               - policy-accounting reference
            - ingress-stats boolean
```


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configure service vprn interface ip-mtu

```
            – ip-mtu number
            – ip-tunnel-interface boolean
            – ipsec
               – admin-state keyword
               – apply-groups reference
               – apply-groups-exclude reference
               – ip-exception reference
               – ipsec-tunnel named-item
                  – admin-state keyword
                  – apply-groups reference
                  – apply-groups-exclude reference
                  – bfd
                     – bfd-designate boolean
                     – bfd-liveness
                        – dest-ip ipv4-unicast-address
                        – interface interface-name
                        – service-name service-name
                  – clear-df-bit boolean
                  – copy-traffic-class-upon-decapsulation boolean
                  – description description
                  – encapsulated-ip-mtu number
                  – icmp-generation
                     – frag-required
                        – admin-state keyword
                        – interval number
                        – message-count number
                  – icmp6-generation
                     – packet-too-big
                        – admin-state keyword
                        – interval number
                        – message-count number
                  – ip-mtu number
                  – key-exchange
                     – dynamic
                        – auto-establish boolean
                        – cert
                           – cert-profile reference
                           – status-verify
                              – default-result keyword
                              – primary keyword
                              – secondary keyword
                           – trust-anchor-profile reference
                        – id
                           – fqdn fully-qualified-domain-name
                           – ipv4 ipv4-unicast-address
                           – ipv6 (ipv4-address-no-zone | ipv6-address-no-zone)
                        – ike-policy reference
                        – ipsec-transform reference
                        – ppk
                           – id reference
                           – list reference
                        – pre-shared-key encrypted-leaf
                     – manual
                        – keys number direction keyword
                           – apply-groups reference
                           – apply-groups-exclude reference
                           – authentication-key hex-string
                           – encryption-key hex-string
                           – ipsec-transform reference
                           – spi number
                  – local-gateway-address-override (ipv4-address-no-zone | ipv6-address-no-
zone)
                  – max-history-key-records
                     – esp number
```


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configure service vprn interface ipsec ipsec-tunnel max-history-key-records ike

```
                    - ike number
                  - pmtu-discovery-aging number
                  - private-sap number
                  - private-service service-name
                  - private-tcp-mss-adjust number
                  - propagate-pmtu-v4 boolean
                  - propagate-pmtu-v6 boolean
                  - public-tcp-mss-adjust (number | keyword)
                  - remote-gateway-address (ipv4-address-no-zone | ipv6-address-no-zone)
                  - replay-window number
                  - security-policy
                    - id number
                    - strict-match boolean
               - ipv6-exception reference
               - public-sap number
               - tunnel-group reference
            - ipv4
               - addresses
                  - address ipv4-unicast-address
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - prefix-length number
               - allow-directed-broadcasts boolean
               - bfd
                  - admin-state keyword
                  - echo-receive number
                  - multiplier number
                  - receive number
                  - transmit-interval number
                  - type keyword
               - dhcp
                  - admin-state keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - description description
                  - gi-address ipv4-unicast-address
                  - lease-populate
                    - max-leases number
                  - option-82
                    - action keyword
                    - circuit-id
                      - ascii-tuple
                      - ifindex
                      - none
                      - sap-id
                      - vlan-ascii-tuple
                    - remote-id
                      - ascii-string string-not-all-spaces
                      - mac
                      - none
                    - vendor-specific-option
                      - client-mac-address boolean
                      - pool-name boolean
                      - sap-id boolean
                      - service-id boolean
                      - string string-not-all-spaces
                      - system-id boolean
                  - proxy-server
                    - admin-state keyword
                    - emulated-server ipv4-unicast-address
                    - lease-time
                      - radius-override boolean
                      - value number
                  - python-policy reference
```


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configure service vprn interface ipv4 dhcp relay-plain-bootp

```
                  - relay-plain-bootp boolean
                  - relay-proxy
                     - release-update-src-ip boolean
                     - siaddr-override ipv4-unicast-address
                  - release-include-gi-address boolean
                  - server ipv4-unicast-address
                  - src-ip-addr keyword
                  - trusted boolean
                  - use-arp boolean
               - icmp
                  - mask-reply boolean
                  - param-problem
                     - admin-state keyword
                     - number number
                     - seconds number
                  - redirects
                     - admin-state keyword
                     - number number
                     - seconds number
                  - ttl-expired
                     - admin-state keyword
                     - number number
                     - seconds number
                  - unreachables
                     - admin-state keyword
                     - number number
                     - seconds number
               - ip-helper-address ipv4-unicast-address
               - local-dhcp-server reference
               - neighbor-discovery
                  - host-route
                     - populate keyword
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - route-tag number
                  - learn-unsolicited boolean
                  - limit
                     - log-only boolean
                     - max-entries number
                     - threshold number
                  - local-proxy-arp boolean
                  - populate boolean
                  - proactive-refresh boolean
                  - proxy-arp-policy reference
                  - remote-proxy-arp boolean
                  - retry-timer number
                  - static-neighbor ipv4-address
                     - apply-groups reference
                     - apply-groups-exclude reference
                     - mac-address mac-address
                  - static-neighbor-unnumbered
                     - mac-address mac-address
                  - timeout number
               - primary
                  - address ipv4-unicast-address
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - broadcast keyword
                  - prefix-length number
                  - track-srrp number
               - qos-route-lookup keyword
               - secondary ipv4-unicast-address
                  - apply-groups reference
                  - apply-groups-exclude reference
```


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configure service vprn interface ipv4 secondary broadcast

```
                  - broadcast keyword
                  - igp-inhibit boolean
                  - prefix-length number
                  - track-srrp number
               - tcp-mss number
               - unnumbered
                  - ip-address ipv4-unicast-address
                  - ip-int-name interface-name
               - urpf-check
                  - ignore-default boolean
                  - mode keyword
               - vrrp number
                  - admin-state keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - authentication-key encrypted-leaf
                  - backup ipv4-unicast-address
                  - bfd-liveness
                     - apply-groups reference
                     - apply-groups-exclude reference
                     - dest-ip ipv4-address
                     - interface-name interface-name
                     - service-name service-name
                  - init-delay number
                  - mac mac-unicast-address
                  - master-int-inherit boolean
                  - message-interval number
                  - monitor-oper-group reference
                  - ntp-reply boolean
                  - oper-group reference
                  - owner boolean
                  - passive boolean
                  - ping-reply boolean
                  - policy reference
                  - preempt boolean
                  - priority number
                  - ssh-reply boolean
                  - standby-forwarding boolean
                  - telnet-reply boolean
                  - traceroute-reply boolean
            - ipv6
               - address ipv6-address
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - duplicate-address-detection boolean
                  - eui-64 boolean
                  - prefix-length number
                  - primary-preference number
                  - track-srrp number
               - bfd
                  - admin-state keyword
                  - echo-receive number
                  - multiplier number
                  - receive number
                  - transmit-interval number
                  - type keyword
               - dhcp6
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - relay
                     - admin-state keyword
                     - apply-groups reference
                     - apply-groups-exclude reference
                     - description description
```


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configure service vprn interface ipv6 dhcp6 relay lease-populate

```
                  - lease-populate
                     - max-nbr-of-leases number
                     - route-populate
                        - na boolean
                        - pd
                           - exclude boolean
                        - ta boolean
                  - link-address ipv6-address
                  - neighbor-resolution boolean
                  - option
                     - apply-groups reference
                     - apply-groups-exclude reference
                     - interface-id
                        - ascii-tuple
                        - if-index
                        - sap-id
                        - string string-not-all-spaces
                     - remote-id boolean
                  - python-policy reference
                  - server ipv6-address-with-zone
                  - source-address ipv6-unicast-or-linklocal-address
                  - user-db reference
               - server
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - max-nbr-of-leases number
                  - prefix-delegation
                     - admin-state keyword
                     - prefix ipv6-prefix
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - client-id
                           - duid string
                           - iaid number
                        - preferred-lifetime (number | keyword)
                        - valid-lifetime (number | keyword)
            - duplicate-address-detection boolean
            - forward-ipv4-packets boolean
            - icmp6
               - packet-too-big
                  - admin-state keyword
                  - number number
                  - seconds number
               - param-problem
                  - admin-state keyword
                  - number number
                  - seconds number
               - redirects
                  - admin-state keyword
                  - number number
                  - seconds number
               - time-exceeded
                  - admin-state keyword
                  - number number
                  - seconds number
               - unreachables
                  - admin-state keyword
                  - number number
                  - seconds number
            - link-local-address
               - address ipv6-address
               - duplicate-address-detection boolean
            - local-dhcp-server reference
            - neighbor-discovery
```


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```
                  - host-route
                     - populate keyword
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - route-tag number
                  - learn-unsolicited keyword
                  - limit
                     - log-only boolean
                     - max-entries number
                     - threshold number
                  - local-proxy-nd boolean
                  - proactive-refresh keyword
                  - proxy-nd-policy reference
                  - reachable-time number
                  - secure-nd
                     - admin-state keyword
                     - allow-unsecured-msgs boolean
                     - public-key-min-bits number
                     - security-parameter number
                  - stale-time number
                  - static-neighbor ipv6-address
                     - apply-groups reference
                     - apply-groups-exclude reference
                     - mac-address mac-address
               - qos-route-lookup keyword
               - tcp-mss number
               - urpf-check
                  - ignore-default boolean
                  - mode keyword
               - vrrp number
                  - admin-state keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - backup ipv6-address
                  - bfd-liveness
                     - apply-groups reference
                     - apply-groups-exclude reference
                     - dest-ip (ipv4-address-no-zone | ipv6-address-no-zone)
                     - interface-name interface-name
                     - service-name service-name
                  - init-delay number
                  - mac mac-unicast-address
                  - master-int-inherit boolean
                  - message-interval number
                  - monitor-oper-group reference
                  - ntp-reply boolean
                  - oper-group reference
                  - owner boolean
                  - passive boolean
                  - ping-reply boolean
                  - policy reference
                  - preempt boolean
                  - priority number
                  - standby-forwarding boolean
                  - telnet-reply boolean
                  - traceroute-reply boolean
            - load-balancing
               - flow-label-load-balancing boolean
               - ip-load-balancing keyword
               - spi-load-balancing boolean
               - teid-load-balancing boolean
            - loopback boolean
            - mac mac-unicast-address
            - mac-accounting boolean
```


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```
            - monitor-oper-group reference
            - multi-chassis-shunting-profile reference
            - ping-template
              - admin-state keyword
              - apply-groups reference
              - apply-groups-exclude reference
              - destination-address ipv4-unicast-address
              - name reference
            - ptp-hw-assist
              - admin-state keyword
              - apply-groups reference
              - apply-groups-exclude reference
            - radius-auth-policy reference
            - sap sap
              - aarp
                - id reference
                - type keyword
              - accounting-policy reference
              - admin-state keyword
              - anti-spoof keyword
              - app-profile reference
              - apply-groups reference
              - apply-groups-exclude reference
              - bandwidth number
              - calling-station-id string-not-all-spaces
              - collect-stats boolean
              - cpu-protection
                - eth-cfm-monitoring
                  - aggregate
                  - car
                - ip-src-monitoring
                - mac-monitoring
                - policy-id reference
              - description long-description
              - dist-cpu-protection reference
              - egress
                - agg-rate
                  - adaptation-rule keyword
                  - burst-limit (number | keyword)
                  - limit-unused-bandwidth boolean
                  - queue-frame-based-accounting boolean
                  - rate number
                - filter
                  - ip reference
                  - ipv6 reference
                - qos
                  - latency-budget number
                  - policer-control-policy
                    - overrides
                      - apply-groups reference
                      - apply-groups-exclude reference
                      - root
                        - max-rate (number | keyword)
                        - priority-mbs-thresholds
                          - min-thresh-separation (number | keyword)
                          - priority number
                            - apply-groups reference
                            - apply-groups-exclude reference
                            - mbs-contribution (number | keyword)
                    - policy-name reference
                  - qinq-mark-top-only boolean
                  - sap-egress
                    - overrides
                      - hs-secondary-shaper named-item
```


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configure service vprn interface sap egress qos sap-egress overrides hs-wrr-group

```
                    - hs-wrr-group reference
                      - apply-groups reference
                      - apply-groups-exclude reference
                      - hs-class-weight number
                      - percent-rate decimal-number
                      - rate (number | keyword)
                    - policer reference
                      - apply-groups reference
                      - apply-groups-exclude reference
                      - cbs (number | keyword)
                      - mbs (number | keyword)
                      - packet-byte-offset number
                      - percent-rate
                        - cir decimal-number
                        - pir decimal-number
                      - rate
                        - cir (number | keyword)
                        - pir (number | keyword)
                      - stat-mode keyword
                    - queue reference
                      - adaptation-rule
                        - cir keyword
                        - pir keyword
                      - apply-groups reference
                      - apply-groups-exclude reference
                      - avg-frame-overhead decimal-number
                      - burst-limit (number | keyword)
                      - cbs (number | keyword)
                      - drop-tail
                        - low
                          - percent-reduction-from-mbs (number | keyword)
                      - hs-class-weight number
                      - hs-wred-queue
                        - policy reference
                      - hs-wrr-weight number
                      - mbs (number | keyword)
                      - monitor-queue-depth
                        - fast-polling boolean
                        - violation-threshold decimal-number
                      - parent
                        - cir-weight number
                        - weight number
                      - percent-rate
                        - cir decimal-number
                        - pir decimal-number
                      - rate
                        - cir (number | keyword)
                        - pir (number | keyword)
                  - policy-name reference
                  - port-redirect-group
                    - group-name reference
                    - instance number
              - scheduler-policy
                  - overrides
                    - scheduler named-item
                      - apply-groups reference
                      - apply-groups-exclude reference
                      - parent
                        - cir-weight number
                        - weight number
                      - rate
                        - cir (number | keyword)
                        - pir (number | keyword)
                  - policy-name reference
```


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configure service vprn interface sap egress queue-group-redirect-list

```
                  - queue-group-redirect-list reference
                  - virtual-port
                     - vport-name reference
               - eth-cfm
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - collect-lmm-fc-stats
                     - fc keyword
                     - fc-in-profile keyword
                  - collect-lmm-stats boolean
                  - mep md-admin-name reference ma-admin-name reference mep-id number
                     - admin-state keyword
                     - ais boolean
                     - alarm-notification
                        - fng-alarm-time number
                        - fng-reset-time number
                     - apply-groups reference
                     - apply-groups-exclude reference
                     - ccm boolean
                     - ccm-ltm-priority number
                     - ccm-padding-size number
                     - csf
                        - multiplier decimal-number
                     - description description
                     - eth-test
                        - bit-error-threshold number
                        - test-pattern
                           - crc-tlv boolean
                           - pattern keyword
                     - fault-propagation keyword
                     - grace
                        - eth-ed
                           - max-rx-defect-window number
                           - priority number
                           - rx-eth-ed boolean
                           - tx-eth-ed boolean
                        - eth-vsm-grace
                           - rx-eth-vsm-grace boolean
                           - tx-eth-vsm-grace boolean
                     - low-priority-defect keyword
                     - monitor-oper-group reference
                     - one-way-delay-threshold number
                  - squelch-ingress-levels number
               - fwd-wholesale
                  - pppoe-service reference
               - host-admin-state keyword
               - host-lockout-policy reference
               - ingress
                  - filter
                     - ip reference
                     - ipv6 reference
                  - qos
                     - match-qinq-dot1p keyword
                     - policer-control-policy
                        - overrides
                           - apply-groups reference
                           - apply-groups-exclude reference
                           - root
                              - max-rate (number | keyword)
                              - priority-mbs-thresholds
                                 - min-thresh-separation (number | keyword)
                                 - priority number
                                    - apply-groups reference
                                    - apply-groups-exclude reference
```


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configure service vprn interface sap ingress qos policer-control-policy overrides root priority-mbs-thresholds priority mbs-contribution

```
                                    – mbs-contribution (number | keyword)
                              – policy-name reference
                           – sap-ingress
                              – fp-redirect-group
                                 – group-name reference
                                 – instance number
                              – overrides
                                 – ip-criteria
                                    – activate-entry-tag number
                                 – ipv6-criteria
                                    – activate-entry-tag number
                                 – policer reference
                                    – apply-groups reference
                                    – apply-groups-exclude reference
                                    – cbs (number | keyword)
                                    – mbs (number | keyword)
                                    – packet-byte-offset number
                                    – percent-rate
                                       – cir decimal-number
                                       – pir decimal-number
                                    – rate
                                       – cir (number | keyword)
                                       – pir (number | keyword)
                                    – stat-mode keyword
                                 – queue reference
                                    – adaptation-rule
                                       – cir keyword
                                       – pir keyword
                                    – apply-groups reference
                                    – apply-groups-exclude reference
                                    – cbs (number | keyword)
                                    – drop-tail
                                       – low
                                          – percent-reduction-from-mbs (number | keyword)
                                    – mbs (number | keyword)
                                    – monitor-queue-depth
                                       – fast-polling boolean
                                    – parent
                                       – cir-weight number
                                       – weight number
                                    – percent-rate
                                       – cir decimal-number
                                       – pir decimal-number
                                    – rate
                                       – cir (number | keyword)
                                       – pir (number | keyword)
                              – policy-name reference
                              – queuing-type keyword
                           – scheduler-policy
                              – overrides
                                 – scheduler named-item
                                    – apply-groups reference
                                    – apply-groups-exclude reference
                                    – parent
                                       – cir-weight number
                                       – weight number
                                    – rate
                                       – cir (number | keyword)
                                       – pir (number | keyword)
                              – policy-name reference
                        – queue-group-redirect-list reference
                     – ip-tunnel interface-name
                        – admin-state keyword
                        – apply-groups reference
```


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configure service vprn interface sap ip-tunnel apply-groups-exclude

```
                    - apply-groups-exclude reference
                    - backup-remote-ip-address (ipv4-address-no-zone | ipv6-address-no-zone)
                    - clear-df-bit boolean
                    - delivery-service service-name
                    - description description
                    - dest-ip (ipv4-address-no-zone | ipv6-address-no-zone)
                    - dscp keyword
                    - encapsulated-ip-mtu number
                    - gre-header
                      - admin-state keyword
                      - key
                        - admin-state keyword
                        - receive number
                        - send number
                    - icmp-generation
                      - frag-required
                        - admin-state keyword
                        - interval number
                        - message-count number
                    - icmp6-generation
                      - packet-too-big
                        - admin-state keyword
                        - number number
                        - seconds number
                    - ip-mtu number
                    - ipsec-transport-mode-profile reference
                    - local-ip-address (ipv4-address-no-zone | ipv6-address-no-zone)
                    - pmtu-discovery-aging number
                    - private-tcp-mss-adjust number
                    - propagate-pmtu-v4 boolean
                    - propagate-pmtu-v6 boolean
                    - public-tcp-mss-adjust (number | keyword)
                    - reassembly (number | keyword)
                    - remote-ip-address (ipv4-address-no-zone | ipv6-address-no-zone)
                  - ipsec-gateway named-item
                    - admin-state keyword
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - cert
                      - cert-profile reference
                      - status-verify
                        - default-result keyword
                        - primary keyword
                        - secondary keyword
                      - trust-anchor-profile reference
                    - client-db
                      - fallback boolean
                      - name reference
                    - default-secure-service
                      - interface interface-name
                      - service-name service-name
                    - default-tunnel-template reference
                    - dhcp-address-assignment
                      - dhcpv4
                        - admin-state keyword
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - gi-address ipv4-unicast-address
                        - send-release boolean
                        - server
                          - address ipv4-unicast-address
                          - router-instance router-instance-base-vprn-loose
                      - dhcpv6
                        - admin-state keyword
```


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configure service vprn interface sap ipsec-gateway dhcp-address-assignment dhcpv6 apply-groups

```
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - link-address ipv6-unicast-address
                    - send-release boolean
                    - server
                      - address ipv6-unicast-address
                      - router-instance router-instance-base-vprn-loose
                - ike-policy reference
                - local
                  - address-assignment
                    - admin-state keyword
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - ipv4
                      - dhcp-server named-item
                      - pool named-item
                      - router-instance router-instance-base-vprn-loose
                      - secondary-pool named-item
                    - ipv6
                      - dhcp-server named-item
                      - pool named-item
                      - router-instance router-instance-base-vprn-loose
                  - gateway-address (ipv4-address-no-zone | ipv6-address-no-zone)
                  - id
                    - auto
                    - fqdn fully-qualified-domain-name
                    - ipv4 ipv4-unicast-address
                    - ipv6 (ipv4-address-no-zone | ipv6-address-no-zone)
                - max-history-key-records
                  - esp number
                  - ike number
                - pre-shared-key encrypted-leaf
                - radius
                  - accounting-policy reference
                  - authentication-policy reference
                - ts-list reference
              - ipsec-tunnel named-item
                - admin-state keyword
                - apply-groups reference
                - apply-groups-exclude reference
                - bfd
                  - bfd-designate boolean
                  - bfd-liveness
                    - dest-ip ipv4-unicast-address
                    - interface interface-name
                    - service-name service-name
                - clear-df-bit boolean
                - copy-traffic-class-upon-decapsulation boolean
                - description description
                - dest-ip (ipv4-address-no-zone | ipv6-address-no-zone)
                - encapsulated-ip-mtu number
                - icmp-generation
                  - frag-required
                    - admin-state keyword
                    - interval number
                    - message-count number
                - icmp6-generation
                  - packet-too-big
                    - admin-state keyword
                    - interval number
                    - message-count number
                - ip-mtu number
                - key-exchange
                  - dynamic
```


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configure service vprn interface sap ipsec-tunnel key-exchange dynamic auto-establish

```
                    - auto-establish boolean
                    - cert
                      - cert-profile reference
                      - status-verify
                        - default-result keyword
                        - primary keyword
                        - secondary keyword
                      - trust-anchor-profile reference
                    - id
                      - fqdn fully-qualified-domain-name
                      - ipv4 ipv4-unicast-address
                      - ipv6 (ipv4-address-no-zone | ipv6-address-no-zone)
                    - ike-policy reference
                    - ipsec-transform reference
                    - ppk
                      - id reference
                      - list reference
                    - pre-shared-key encrypted-leaf
                  - manual
                    - keys number direction keyword
                      - apply-groups reference
                      - apply-groups-exclude reference
                      - authentication-key hex-string
                      - encryption-key hex-string
                      - ipsec-transform reference
                      - spi number
                - max-history-key-records
                  - esp number
                  - ike number
                - pmtu-discovery-aging number
                - private-tcp-mss-adjust number
                - propagate-pmtu-v4 boolean
                - propagate-pmtu-v6 boolean
                - public-tcp-mss-adjust (number | keyword)
                - replay-window number
                - security-policy
                  - id reference
                  - strict-match boolean
                - tunnel-endpoint
                  - delivery-service service-name
                  - local-gateway-address (ipv4-address-no-zone | ipv6-address-no-zone)
                  - remote-ip-address (ipv4-address-no-zone | ipv6-address-no-zone)
              - lag
                - link-map-profile number
                - per-link-hash
                  - class number
                  - weight number
              - multi-service-site reference
              - static-host
                - ipv4 ipv4-address mac mac-unicast-address
                  - admin-state keyword
                  - ancp-string ancp-string
                  - app-profile
                    - profile reference
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - int-dest-id int-dest-id
                  - sla-profile reference
                  - sub-profile reference
                  - subscriber-id
                    - string subscriber-id
                    - use-sap-id
              - transit-policy
                - ip reference
```


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```
                - prefix reference
            - shcv-policy-ipv4 reference
            - spoke-sdp sdp-bind-id
                - aarp
                    - id reference
                    - type keyword
                - accounting-policy reference
                - admin-state keyword
                - app-profile reference
                - apply-groups reference
                - apply-groups-exclude reference
                - bfd
                    - bfd-liveness
                        - encap keyword
                    - bfd-template reference
                    - failure-action keyword
                    - wait-for-up-timer number
                - collect-stats boolean
                - control-word boolean
                - cpu-protection
                    - eth-cfm-monitoring
                        - aggregate
                        - car
                    - ip-src-monitoring
                    - mac-monitoring
                    - policy-id reference
                - description description
                - egress
                    - filter
                        - ip reference
                        - ipv6 reference
                    - qos
                        - network
                            - policy-name reference
                            - port-redirect-group
                                - group-name reference
                                - instance number
                    - vc-label number
                - entropy-label
                - eth-cfm
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - collect-lmm-fc-stats
                        - fc keyword
                        - fc-in-profile keyword
                    - collect-lmm-stats boolean
                    - mep md-admin-name reference ma-admin-name reference mep-id number
                        - admin-state keyword
                        - ais boolean
                        - alarm-notification
                            - fng-alarm-time number
                            - fng-reset-time number
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - ccm boolean
                        - ccm-ltm-priority number
                        - ccm-padding-size number
                        - csf
                            - multiplier decimal-number
                        - description description
                        - eth-test
                            - bit-error-threshold number
                            - test-pattern
                                - crc-tlv boolean
```


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configure service vprn interface spoke-sdp eth-cfm mep eth-test test-pattern pattern

```
                        - pattern keyword
                    - fault-propagation keyword
                    - grace
                        - eth-ed
                            - max-rx-defect-window number
                            - priority number
                            - rx-eth-ed boolean
                            - tx-eth-ed boolean
                        - eth-vsm-grace
                            - rx-eth-vsm-grace boolean
                            - tx-eth-vsm-grace boolean
                    - low-priority-defect keyword
                    - one-way-delay-threshold number
                - squelch-ingress-levels number
            - hash-label
                - signal-capability
            - ingress
                - filter
                    - ip reference
                    - ipv6 reference
                - qos
                    - network
                        - fp-redirect-group
                            - group-name reference
                            - instance number
                        - policy-name reference
                - vc-label number
            - transit-policy
                - ip reference
                - prefix reference
            - vc-type keyword
        - static-tunnel-redundant-nexthop ipv4-unicast-address
        - tos-marking-state keyword
        - tunnel boolean
        - vas-if-type keyword
        - vpls named-item-64
            - apply-groups reference
            - apply-groups-exclude reference
            - egress
                - reclassify-using-qos reference
                - routed-override-filter
                    - ip reference
                    - ipv6 reference
            - evpn
                - arp
                    - advertise keyword
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - interface-less-routing
                            - bgp-evpn-instance number
                        - route-tag number
                    - flood-garp-and-unknown-req boolean
                    - learn-dynamic boolean
                - nd
                    - advertise keyword
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - interface-less-routing
                            - bgp-evpn-instance number
                        - route-tag number
                    - learn-dynamic boolean
            - evpn-tunnel
                - allow-bfd boolean
                - ipv6-gateway-address keyword
```


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configure service vprn interface vpls evpn-tunnel supplementary-broadcast-domain

```
                - supplementary-broadcast-domain boolean
            - ingress
                - routed-override-filter
                    - ip reference
                    - ipv6 reference
    - ip-mirror-interface interface-name
        - admin-state keyword
        - apply-groups reference
        - apply-groups-exclude reference
        - description very-long-description
        - spoke-sdp sdp-bind-id
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - ingress
                - filter
                    - ip reference
                - vc-label number
    - ipsec
        - allow-reverse-route-override-type keyword
        - multi-chassis-shunt-interface reference
            - apply-groups reference
            - apply-groups-exclude reference
            - next-hop
                - address (ipv4-address-no-zone | ipv6-address-no-zone)
        - multi-chassis-shunting-profile named-item
            - apply-groups reference
            - apply-groups-exclude reference
            - peer reference
                - apply-groups reference
                - apply-groups-exclude reference
                - multi-chassis-shunt-interface reference
        - overlapping-reverse-route boolean
        - security-policy number
            - apply-groups reference
            - apply-groups-exclude reference
            - entry number
                - apply-groups reference
                - apply-groups-exclude reference
                - local-ip
                    - address ipv4-prefix
                    - any boolean
                - local-ipv6
                    - address ipv6-prefix
                    - any boolean
                - remote-ip
                    - address ipv4-prefix
                    - any boolean
                - remote-ipv6
                    - address ipv6-prefix
                    - any boolean
    - ipv6
        - neighbor-discovery
            - reachable-time number
            - stale-time number
        - router-advertisement
            - apply-groups reference
            - apply-groups-exclude reference
            - dns-options
                - apply-groups reference
                - apply-groups-exclude reference
                - rdnss-lifetime (keyword | number)
                - server ipv6-address
```


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configure service vprn ipv6 router-advertisement interface

```
            - interface reference
              - admin-state keyword
              - apply-groups reference
              - apply-groups-exclude reference
              - current-hop-limit number
              - dns-options
                - apply-groups reference
                - apply-groups-exclude reference
                - include-rdnss boolean
                - rdnss-lifetime (number | keyword)
                - server ipv6-address
              - managed-configuration boolean
              - max-advertisement-interval number
              - min-advertisement-interval number
              - mtu number
              - nd-router-preference keyword
              - other-stateful-configuration boolean
              - prefix ipv6-prefix
                - apply-groups reference
                - apply-groups-exclude reference
                - autonomous boolean
                - on-link boolean
                - preferred-lifetime (keyword | number)
                - valid-lifetime (keyword | number)
              - reachable-time number
              - retransmit-time number
              - router-lifetime number
              - use-virtual-mac boolean
        - isis number
          - admin-state keyword
          - advertise-passive-only boolean
          - advertise-router-capability keyword
          - all-l1isis mac-address
          - all-l2isis mac-address
          - apply-groups reference
          - apply-groups-exclude reference
          - area-address area-address
          - authentication-check boolean
          - authentication-key encrypted-leaf
          - authentication-keychain reference
          - authentication-type keyword
          - csnp-authentication boolean
          - csnp-on-p2p boolean
          - default-route-tag number
          - export-limit
            - log-percent number
            - number number
          - export-policy reference
          - graceful-restart
            - helper-mode boolean
          - hello-authentication boolean
          - hello-padding keyword
          - ignore-attached-bit boolean
          - ignore-lsp-errors boolean
          - ignore-narrow-metric boolean
          - iid-tlv boolean
          - import-policy reference
          - interface interface-name
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - bfd-liveness
              - ipv4
                - include-bfd-tlv boolean
```


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configure service vprn isis interface bfd-liveness ipv6

```
                    - ipv6
                      - include-bfd-tlv boolean
                - csnp-interval number
                - default-instance boolean
                - hello-authentication boolean
                - hello-authentication-key encrypted-leaf
                - hello-authentication-keychain reference
                - hello-authentication-type keyword
                - hello-padding keyword
                - interface-type keyword
                - ipv4-multicast boolean
                - ipv6-unicast boolean
                - level keyword
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - hello-authentication-key encrypted-leaf
                    - hello-authentication-keychain reference
                    - hello-authentication-type keyword
                    - hello-interval number
                    - hello-multiplier number
                    - hello-padding keyword
                    - ipv4-multicast-metric number
                    - ipv6-unicast-metric number
                    - metric number
                    - passive boolean
                    - priority number
                    - sd-offset number
                    - sf-offset number
                - level-capability keyword
                - load-balancing-weight number
                - loopfree-alternate
                    - exclude boolean
                    - policy-map
                      - route-nh-template reference
                - lsp-pacing-interval number
                - mesh-group
                    - blocked
                    - value number
                - passive boolean
                - retransmit-interval number
                - tag number
            - ipv4-multicast-routing keyword
            - ipv4-routing boolean
            - ipv6-routing keyword
            - level keyword
                - advertise-router-capability boolean
                - apply-groups reference
                - apply-groups-exclude reference
                - authentication-key encrypted-leaf
                - authentication-keychain reference
                - authentication-type keyword
                - csnp-authentication boolean
                - default-ipv4-multicast-metric number
                - default-ipv6-unicast-metric number
                - default-metric number
                - external-preference number
                - hello-authentication boolean
                - hello-padding keyword
                - loopfree-alternate-exclude boolean
                - lsp-mtu-size number
                - preference number
                - psnp-authentication boolean
                - wide-metrics-only boolean
            - level-capability keyword
```


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```
            - link-group named-item
              - apply-groups reference
              - apply-groups-exclude reference
              - description very-long-description
              - level keyword
                - apply-groups reference
                - apply-groups-exclude reference
                - ipv4-multicast-metric-offset number
                - ipv4-unicast-metric-offset number
                - ipv6-unicast-metric-offset number
                - member reference
                - oper-members number
                - revert-members number
            - loopfree-alternate
              - exclude
                - prefix-policy reference
            - lsp-lifetime number
            - lsp-minimum-remaining-lifetime number
            - lsp-mtu-size number
            - lsp-refresh
              - half-lifetime boolean
              - interval number
            - mru-mismatch-detection boolean
            - multi-topology
              - ipv4-multicast boolean
              - ipv6-unicast boolean
            - multicast-import
              - ipv4 boolean
            - overload
              - max-metric boolean
            - overload-export-external boolean
            - overload-export-interlevel boolean
            - overload-fib-error-notify-only
              - retry number
            - overload-on-boot
              - max-metric boolean
              - timeout number
            - poi-tlv boolean
            - prefix-attributes-tlv boolean
            - prefix-limit
              - limit number
              - log-only boolean
              - overload-timeout (number | keyword)
              - warning-threshold number
            - psnp-authentication boolean
            - reference-bandwidth number
            - rib-priority
              - high
                - prefix-list reference
                - tag number
            - router-id router-id
            - standard-multi-instance boolean
            - strict-adjacency-check boolean
            - summary-address (ipv4-prefix | ipv6-prefix)
              - apply-groups reference
              - apply-groups-exclude reference
              - level-capability keyword
              - route-tag number
            - suppress-attached-bit boolean
            - system-id system-id
            - timers
              - lsp-wait
                - lsp-initial-wait number
                - lsp-max-wait number
```


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configure service vprn isis timers lsp-wait lsp-second-wait

```
                  - lsp-second-wait number
               - spf-wait
                  - spf-initial-wait number
                  - spf-max-wait number
                  - spf-second-wait number
            - unicast-import
               - ipv4 boolean
               - ipv6 boolean
         - l2tp
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - avp-hiding keyword
            - challenge boolean
            - destruct-timeout number
            - ethernet-tunnel
               - reconnect-timeout (number | keyword)
            - exclude-avps
               - calling-number boolean
               - initial-rx-lcp-conf-req boolean
            - failover
               - recovery-max-session-lifetime number
               - recovery-method keyword
               - recovery-time number
               - track-srrp reference
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - peer reference
                  - sync-tag named-item
            - group named-item-64
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - avp-hiding keyword
               - challenge keyword
               - description description
               - destruct-timeout number
               - ethernet-tunnel
                  - reconnect-timeout (number | keyword)
               - failover
                  - recovery-method keyword
                  - recovery-time number
               - hello-interval (number | keyword)
               - idle-timeout (number | keyword)
               - l2tpv3
                  - cookie-length (number | keyword)
                  - digest-type keyword
                  - nonce-length number
                  - password encrypted-leaf
                  - private-tcp-mss-adjust (number | keyword)
                  - public-tcp-mss-adjust (number | keyword)
                  - pw-cap-list
                     - ethernet boolean
                     - ethernet-vlan boolean
                  - rem-router-id ipv4-address
                  - track-password-change boolean
               - lac
                  - df-bit keyword
               - lns
                  - lns-group reference
                  - load-balance-method keyword
                  - mlppp
                     - admin-state keyword
                     - apply-groups reference
```


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configure service vprn l2tp group lns mlppp apply-groups-exclude

```
                    - apply-groups-exclude reference
                    - endpoint
                      - ip (ipv4-address | keyword)
                      - mac (mac-address | keyword)
                    - interleave boolean
                    - max-fragment-delay (number | keyword)
                    - max-links number
                    - reassembly-timeout number
                    - short-sequence-numbers boolean
                  - ppp
                    - authentication keyword
                    - authentication-policy named-item
                    - chap-challenge-length
                      - end number
                      - start number
                    - default-group-interface
                      - interface named-item
                      - service-name service-name
                    - ipcp-subnet-negotiation boolean
                    - keepalive
                      - interval number
                      - multiplier number
                    - lcp-force-ack-accm boolean
                    - lcp-ignore-magic-numbers boolean
                    - mtu number
                    - proxy-authentication boolean
                    - proxy-lcp boolean
                    - reject-disabled-ncp boolean
                    - user-db named-item
                - local-address ipv4-unicast-address
                - local-name host-name
                - max-retries-estab number
                - max-retries-not-estab number
                - password encrypted-leaf
                - protocol keyword
                - radius-accounting-policy reference
                - receive-window-size number
                - session-assign-method keyword
                - session-limit (number | keyword)
                - tunnel named-item
                  - admin-state keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - auto-establish boolean
                  - avp-hiding keyword
                  - challenge keyword
                  - description description
                  - destruct-timeout number
                  - failover
                    - recovery-method keyword
                    - recovery-time number
                  - hello-interval (number | keyword)
                  - idle-timeout (number | keyword)
                  - l2tpv3
                    - private-tcp-mss-adjust (number | keyword)
                    - public-tcp-mss-adjust (number | keyword)
                  - lac
                    - df-bit keyword
                  - lns
                    - lns-group reference
                    - load-balance-method keyword
                    - mlppp
                      - admin-state keyword
                      - apply-groups reference
```


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configure service vprn l2tp group tunnel lns mlppp apply-groups-exclude

```
                    - apply-groups-exclude reference
                    - endpoint
                      - ip (ipv4-address | keyword)
                      - mac (mac-address | keyword)
                    - interleave keyword
                    - max-fragment-delay number
                    - max-links number
                    - reassembly-timeout number
                    - short-sequence-numbers keyword
                  - ppp
                    - authentication keyword
                    - authentication-policy named-item
                    - chap-challenge-length
                      - end number
                      - start number
                    - default-group-interface
                      - interface named-item
                      - service-name service-name
                    - ipcp-subnet-negotiation keyword
                    - keepalive
                      - interval number
                      - multiplier number
                    - lcp-force-ack-accm keyword
                    - lcp-ignore-magic-numbers keyword
                    - mtu number
                    - proxy-authentication keyword
                    - proxy-lcp keyword
                    - reject-disabled-ncp keyword
                    - user-db named-item
                - local-address ipv4-unicast-address
                - local-name host-name
                - max-retries-estab number
                - max-retries-not-estab number
                - password encrypted-leaf
                - peer ipv4-unicast-address
                - preference number
                - radius-accounting-policy reference
                - receive-window-size number
                - remote-name host-name
                - session-limit (number | keyword)
            - group-session-limit number
            - hello-interval (number | keyword)
            - idle-timeout (number | keyword)
            - ignore-avps
              - sequencing-required boolean
            - l2tpv3
              - cookie-length number
              - digest-type keyword
              - nonce-length number
              - password encrypted-leaf
              - private-tcp-mss-adjust number
              - public-tcp-mss-adjust number
              - transport-type
                - ip boolean
            - lac
              - calling-number-format ascii-specification
              - cisco-nas-port
                - ethernet binary-specification
              - df-bit boolean
            - local-address ipv4-unicast-address
            - local-name host-name
            - max-retries-estab number
            - max-retries-not-estab number
            - next-attempt keyword
```


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```
            - password encrypted-leaf
            - peer-address-change-policy keyword
            - radius-accounting-policy reference
            - receive-window-size number
            - replace-result-code
               - cdn-invalid-dst boolean
               - cdn-permanent-no-facilities boolean
               - cdn-temporary-no-facilities boolean
            - rtm-debounce-time (number | keyword)
            - session-assign-method keyword
            - session-limit number
            - tunnel-selection-blacklist
               - add-tunnel-on
                  - address-change-timeout boolean
                  - cdn-err-code boolean
                  - cdn-invalid-dst boolean
                  - cdn-permanent-no-facilities boolean
                  - cdn-temporary-no-facilities boolean
                  - stop-ccn-err-code boolean
                  - stop-ccn-other boolean
                  - tx-cdn-not-established-in-time boolean
               - max-list-length (number | keyword)
               - max-time number
               - timeout-action keyword
            - tunnel-session-limit number
         - label-mode keyword
         - local-routes-domain-id domain-id
         - log
            - apply-groups reference
            - apply-groups-exclude reference
            - filter log-filter-name
               - apply-groups reference
               - apply-groups-exclude reference
               - default-action keyword
               - description description
               - named-entry log-filter-entry-name
                  - action keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - description description
                  - match
                     - application
                        - eq keyword
                        - neq keyword
                     - event
                        - eq number
                        - gt number
                        - gte number
                        - lt number
                        - lte number
                        - neq number
                     - message
                        - eq string
                        - neq string
                        - regexp boolean
                     - severity
                        - eq keyword
                        - gt keyword
                        - gte keyword
                        - lt keyword
                        - lte keyword
                        - neq keyword
                     - subject
                        - eq named-item
```


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configure service vprn log filter named-entry match subject neq

```
                    - neq named-item
                    - regexp boolean
          - log-id li-log-name
             - admin-state keyword
             - apply-groups reference
             - apply-groups-exclude reference
             - description description
             - destination
                - netconf
                   - max-entries number
                - snmp
                   - max-entries number
                - syslog reference
             - filter reference
             - netconf-stream named-item
             - python-policy reference
             - source
                - change boolean
                - debug boolean
                - main boolean
                - security boolean
             - time-format keyword
          - snmp-trap-group svc-vprn-snmp-trap-group-name
             - apply-groups reference
             - apply-groups-exclude reference
             - description description
             - trap-target string
                - address (ipv4-address-no-zone | ipv6-address-no-zone)
                - apply-groups reference
                - apply-groups-exclude reference
                - description description
                - notify-community string
                - port number
                - replay boolean
                - security-level keyword
                - version keyword
          - syslog log-vprn-syslog-name
             - address (ipv4-address-no-zone | ipv6-address-no-zone)
             - apply-groups reference
             - apply-groups-exclude reference
             - description description
             - facility keyword
             - hostname
                - use-system-name
                - use-vprn-name
                - value named-item-255
             - log-prefix (keyword | string)
             - port number
             - severity keyword
             - timestamp-format keyword
             - tls-client-profile reference
       - management
          - allow-ftp boolean
          - allow-grpc boolean
          - allow-netconf boolean
          - allow-ssh boolean
          - allow-telnet boolean
          - allow-telnet6 boolean
          - apply-groups reference
          - apply-groups-exclude reference
       - maximum-ipv4-routes
          - log-only boolean
          - threshold number
          - value number
```


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```
        - maximum-ipv6-routes
          - log-only boolean
          - threshold number
          - value number
        - mc-maximum-routes
          - log-only boolean
          - threshold number
          - value number
        - mld
          - admin-state keyword
          - apply-groups reference
          - apply-groups-exclude reference
          - forwarding-group-interface forwarding-service service-name group-interface-
name reference
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - import-policy reference
            - maximum-number-group-sources number
            - maximum-number-groups number
            - maximum-number-sources number
            - mcac
              - bandwidth
                - mandatory (number | keyword)
                - total (number | keyword)
              - interface-policy reference
              - policy reference
            - query-interval number
            - query-last-member-interval number
            - query-response-interval number
            - query-source-address ipv6-unicast-or-linklocal-address
            - router-alert-check boolean
            - sub-hosts-only boolean
            - subnet-check boolean
            - version keyword
          - group-if-query-source-address ipv6-unicast-or-linklocal-address
          - group-interface reference
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - import-policy reference
            - maximum-number-group-sources number
            - maximum-number-groups number
            - maximum-number-sources number
            - mcac
              - bandwidth
                - mandatory (number | keyword)
                - total (number | keyword)
              - interface-policy reference
              - policy reference
            - query-interval number
            - query-last-member-interval number
            - query-response-interval number
            - query-source-address ipv6-unicast-or-linklocal-address
            - router-alert-check boolean
            - sub-hosts-only boolean
            - subnet-check boolean
            - version keyword
          - interface interface-name
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - import-policy reference
            - maximum-number-group-sources number
```


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configure service vprn mld interface maximum-number-groups

```
                - maximum-number-groups number
                - maximum-number-sources number
                - mcac
                  - bandwidth
                    - mandatory (number | keyword)
                    - total (number | keyword)
                  - interface-policy reference
                  - mc-constraints
                    - level number
                      - apply-groups reference
                      - apply-groups-exclude reference
                      - bandwidth number
                    - number-down number
                      - apply-groups reference
                      - apply-groups-exclude reference
                      - level number
                    - use-lag-port-weight boolean
                  - policy reference
                - query-interval number
                - query-last-member-interval number
                - query-response-interval number
                - router-alert-check boolean
                - ssm-translate
                  - group-range start ipv6-multicast-address end ipv6-multicast-address
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - source ipv6-unicast-address
                - static
                  - group ipv6-multicast-address
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - source ipv6-unicast-address
                    - starg
                  - group-range start ipv6-multicast-address end ipv6-multicast-
address step ipv6-address
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - source ipv6-unicast-address
                    - starg
                - version keyword
            - query-interval number
            - query-last-member-interval number
            - query-response-interval number
            - robust-count number
            - ssm-translate
              - group-range start ipv6-multicast-address end ipv6-multicast-address
                - apply-groups reference
                - apply-groups-exclude reference
                - source ipv6-unicast-address
        - msdp
            - active-source-limit number
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - data-encapsulation boolean
            - export-policy reference
            - group named-item
              - active-source-limit number
              - admin-state keyword
              - apply-groups reference
              - apply-groups-exclude reference
              - export-policy reference
              - import-policy reference
              - local-address ipv4-unicast-address
```


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configure service vprn msdp group mode

```
                - mode keyword
                - peer ipv4-unicast-address
                  - active-source-limit number
                  - admin-state keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - authentication-key encrypted-leaf
                  - default-peer boolean
                  - export-policy reference
                  - import-policy reference
                  - local-address ipv4-unicast-address
                  - receive-message-rate
                    - rate number
                    - threshold number
                    - time number
                - receive-message-rate
                  - rate number
                  - threshold number
                  - time number
            - import-policy reference
            - local-address ipv4-unicast-address
            - peer ipv4-unicast-address
                - active-source-limit number
                - admin-state keyword
                - apply-groups reference
                - apply-groups-exclude reference
                - authentication-key encrypted-leaf
                - default-peer boolean
                - export-policy reference
                - import-policy reference
                - local-address ipv4-unicast-address
                - receive-message-rate
                  - rate number
                  - threshold number
                  - time number
            - receive-message-rate
                - rate number
                - threshold number
                - time number
            - rpf-table keyword
            - source ipv4-unicast-prefix
                - active-source-limit number
                - apply-groups reference
                - apply-groups-exclude reference
            - source-active-cache-lifetime number
        - mss-adjust
            - apply-groups reference
            - apply-groups-exclude reference
            - nat-group number
            - segment-size number
        - mtrace2
            - admin-state keyword
            - udp-port number
        - multicast-info-policy reference
        - mvpn
            - apply-groups reference
            - apply-groups-exclude reference
            - auto-discovery
                - source-address ipv4-address
                - type keyword
            - c-mcast-signaling keyword
            - intersite-shared
                - admin-state keyword
                - kat-type5-advertisement-withdraw boolean
```


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configure service vprn mvpn intersite-shared persistent-type5-advertisement

```
            - persistent-type5-advertisement boolean
         - mdt-type keyword
         - provider-tunnel
            - inclusive
               - bier
                  - admin-state keyword
                  - sub-domain number
               - bsr keyword
               - mldp
                  - admin-state keyword
               - p2mp-sr
                  - admin-state keyword
                  - bfd-leaf boolean
                  - bfd-root
                     - multiplier number
                     - transmit-interval number
                  - p2mp-policy-mpls boolean
                  - static-policy-mpls reference
                  - static-policy-srv6 reference
               - pim
                  - admin-state keyword
                  - group-address ipv4-multicast-address
                  - hello-interval number
                  - hello-multiplier number
                  - improved-assert boolean
                  - mode keyword
                  - three-way-hello boolean
                  - tracking-support boolean
               - rsvp
                  - admin-state keyword
                  - bfd-leaf boolean
                  - bfd-root
                     - multiplier number
                     - transmit-interval number
                  - lsp-template reference
               - suppress-ipmsi boolean
               - umh-rate-monitoring
                  - fpe reference
                  - revertive-timer number
                  - traffic-rate-delta number
               - wildcard-spmsi boolean
            - selective
               - asm-mdt boolean
               - auto-discovery boolean
               - bier
                  - admin-state keyword
                  - sub-domain number
               - data-delay-interval number
               - data-threshold
                  - group-prefix (ipv4-prefix | ipv6-prefix)
                     - apply-groups reference
                     - apply-groups-exclude reference
                     - pe-threshold-add number
                     - pe-threshold-delete number
                     - threshold number
               - join-tlv-packing boolean
               - mldp
                  - admin-state keyword
                  - maximum-p2mp-spmsi number
               - multistream-spmsi number
                  - admin-state keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
```


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configure service vprn mvpn provider-tunnel selective multistream-spmsi group-prefix

```
                    - group-prefix (ipv4-prefix | ipv6-prefix) source-prefix (ipv4-prefix |
ipv6-prefix)
                    - lsp-template reference
                    - p2mp-sr
                      - p2mp-policy-mpls boolean
                      - static-policy-mpls reference
                      - static-policy-srv6 reference
                    - pim
                      - group-address ipv4-multicast-address
                      - mode keyword
                  - p2mp-sr
                    - admin-state keyword
                    - p2mp-policy-mpls boolean
                    - static-policy-mpls reference
                    - static-policy-srv6 reference
                  - pim
                    - group-prefix ipv4-multicast-prefix
                    - mode keyword
                  - rsvp
                    - admin-state keyword
                    - lsp-template reference
                    - maximum-p2mp-spmsi number
                  - umh-rate-monitoring
                    - group (ipv4-prefix | ipv6-prefix) source (ipv4-prefix | ipv6-prefix)
                      - apply-groups reference
                      - apply-groups-exclude reference
                      - fpe reference
                      - revertive-timer number
                      - traffic-rate-delta number
            - redundant-source-list
              - source-prefix (ipv4-prefix | ipv6-prefix)
            - rpf-select
              - core-mvpn reference
                - apply-groups reference
                - apply-groups-exclude reference
                - group-prefix ipv4-multicast-prefix
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - starg boolean
            - umh-pe-backup
              - umh-pe ipv4-unicast-address
                - apply-groups reference
                - apply-groups-exclude reference
                - standby ipv4-unicast-address
            - umh-selection keyword
            - vrf-export
              - policy (policy-expr-string | string)
              - unicast boolean
            - vrf-import
              - policy (policy-expr-string | string)
              - unicast boolean
            - vrf-target
              - community route-target
              - export
                - community route-target
                - unicast boolean
              - import
                - community route-target
                - unicast boolean
              - unicast boolean
        - nat
            - apply-groups reference
            - apply-groups-exclude reference
            - inside
```


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configure service vprn nat inside l2-aware

```
                - l2-aware
                  - force-unique-ip-addresses boolean
                  - subscribers ipv4-prefix-with-host-bits
                - large-scale
                  - dnat-only
                    - source-prefix-list reference
                  - dual-stack-lite
                    - admin-state keyword
                    - deterministic
                      - address-map ipv6-prefix to ipv6-prefix nat-policy reference
                        - admin-state keyword
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - outside-range ipv4-address
                      - prefix-map ipv6-unicast-prefix nat-policy reference
                        - admin-state keyword
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - map ipv6-prefix to ipv6-prefix
                          - apply-groups reference
                          - apply-groups-exclude reference
                          - first-outside-address ipv4-address
                    - endpoint ipv6-address
                      - apply-groups reference
                      - apply-groups-exclude reference
                      - ip-fragmentation keyword
                      - min-first-fragment-size-rx number
                      - reassembly boolean
                      - tunnel-mtu number
                    - max-subscriber-limit number
                    - subscriber-prefix-length number
                  - filters
                    - downstream
                      - ipv4 reference
                  - nat-policy reference
                  - nat44
                    - destination-prefix ipv4-unicast-prefix
                      - apply-groups reference
                      - apply-groups-exclude reference
                      - nat-policy reference
                    - deterministic
                      - address-map ipv4-address to ipv4-address nat-policy reference
                        - admin-state keyword
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - outside-range ipv4-address
                      - prefix-map ipv4-unicast-prefix nat-policy reference
                        - admin-state keyword
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - map ipv4-address to ipv4-address
                          - apply-groups reference
                          - apply-groups-exclude reference
                          - first-outside-address ipv4-address
                    - max-subscriber-limit number
                    - nat-import reference
                    - source-prefix ipv4-unicast-prefix
                      - apply-groups reference
                      - apply-groups-exclude reference
                      - nat-policy reference
                  - nat64
                    - admin-state keyword
                    - apply-groups reference
                    - apply-groups-exclude reference
```


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configure service vprn nat inside large-scale nat64 drop-zero-ipv4-checksum

```
                    - drop-zero-ipv4-checksum boolean
                    - insert-ipv6-fragment-header boolean
                    - ip-fragmentation keyword
                    - ipv6-mtu number
                    - prefix ipv6-prefix
                    - subscriber-prefix-length number
                    - tos
                      - downstream
                        - use-ipv4 boolean
                      - upstream
                        - set-tos (keyword | number)
                - redundancy
                    - peer ipv4-unicast-address
                    - peer6 ipv6-unicast-address
                    - steering-route ipv4-unicast-prefix
                - static-port-forwards
                    - spf-nat-policy reference
                - subscriber-identification
                    - admin-state keyword
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - attribute
                      - type keyword
                      - vendor keyword
                    - description description
                    - drop-unidentified-traffic boolean
                    - radius-proxy-server
                      - router-instance string
                      - server named-item
                - traffic-identification
                    - source-prefix-only boolean
            - map
                - map-domain reference
            - outside
                - dnat-only
                    - route-limit number
                - filters
                    - downstream
                        - ipv4 reference
                        - ipv6 reference
                    - upstream
                        - ipv4 reference
                        - ipv6 reference
                - mtu number
                - pool named-item
                    - address-pooling keyword
                    - address-range ipv4-unicast-address end ipv4-unicast-address
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - description description
                        - drain boolean
                    - admin-state keyword
                    - applications
                        - agnostic boolean
                        - flexible-port-allocation boolean
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - description description
                    - icmp-echo-reply boolean
                    - l2-aware
                        - default-host
                          - inside-router-instance string
                          - ip-address ipv4-unicast-address
                          - rate-limit number
```


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configure service vprn nat outside pool l2-aware external-assignment

```
                    - external-assignment boolean
                    - port-block-extension
                      - ports number
                      - subscriber
                        - watermarks
                          - high number
                          - low number
                      - subscriber-limit number
                      - watermarks
                        - high number
                        - low number
                - large-scale
                    - default-host
                      - inside-router-instance string
                      - ip-address ipv4-unicast-address
                      - rate-limit number
                    - deterministic
                      - port-reservation number
                      - watermarks
                        - high number
                        - low number
                    - flexible-port-allocation
                      - free-port-limit
                        - icmp number
                        - tcp number
                        - udp number
                    - redundancy
                      - admin-state keyword
                      - export-route ipv4-unicast-prefix
                      - follow
                        - name named-item
                        - router-instance string
                      - monitor-route ipv4-unicast-prefix
                    - subscriber-limit number
                - mode keyword
                - nat-group reference
                - port-forwarding
                    - dynamic-block-reservation boolean
                    - range-end number
                    - range-start number
                - port-reservation
                    - port-blocks number
                    - ports number
                - type keyword
                - watermarks
                    - high number
                    - low number
                - wlan-gw-group reference
        - network
            - apply-groups reference
            - apply-groups-exclude reference
            - ingress
                - filter
                    - ip reference
                    - ipv6 reference
                - qos
                    - fp-redirect-group reference
                    - instance number
                    - network-policy reference
                - urpf-check boolean
        - network-interface interface-name
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
```


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configure service vprn network-interface cflowd-parameters

```
            - cflowd-parameters
              - sampling keyword
                - apply-groups reference
                - apply-groups-exclude reference
                - direction keyword
                - sample-profile (keyword | number)
                - type keyword
            - cpu-protection reference
            - description very-long-description
            - dist-cpu-protection reference
            - egress
              - filter
                - ip reference
            - hold-time
              - ipv4
                - down
                  - init-only boolean
                  - seconds number
                - up
                  - seconds number
            - ingress
              - filter
                - ip reference
            - ingress-stats boolean
            - ip-mtu number
            - ipv4
              - allow-directed-broadcasts boolean
              - bfd
                - admin-state keyword
                - echo-receive number
                - multiplier number
                - receive number
                - transmit-interval number
                - type keyword
              - icmp
                - mask-reply boolean
                - param-problem
                  - admin-state keyword
                  - number number
                  - seconds number
                - redirects
                  - admin-state keyword
                  - number number
                  - seconds number
                - ttl-expired
                  - admin-state keyword
                  - number number
                  - seconds number
                - unreachables
                  - admin-state keyword
                  - number number
                  - seconds number
              - neighbor-discovery
                - retry-timer number
                - static-neighbor ipv4-address
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - mac-address mac-address
                - timeout number
              - primary
                - address ipv4-unicast-address
                - apply-groups reference
                - apply-groups-exclude reference
                - broadcast keyword
```


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configure service vprn network-interface ipv4 primary prefix-length

```
                - prefix-length number
            - secondary ipv4-unicast-address
                - apply-groups reference
                - apply-groups-exclude reference
                - broadcast keyword
                - igp-inhibit boolean
                - prefix-length number
            - tcp-mss number
            - urpf-check
                - ignore-default boolean
                - mode keyword
        - lag
            - link-map-profile number
            - per-link-hash
                - class number
                - weight number
        - load-balancing
            - flow-label-load-balancing boolean
            - ip-load-balancing keyword
            - lsr-load-balancing keyword
            - spi-load-balancing boolean
            - teid-load-balancing boolean
        - loopback
        - mac mac-unicast-address
        - port port-and-encap
        - qos
            - apply-groups reference
            - apply-groups-exclude reference
            - egress-instance number
            - egress-port-redirect-group reference
            - ingress-fp-redirect-group reference
            - ingress-instance number
            - network-policy reference
        - tos-marking-state keyword
    - ntp
        - admin-state keyword
        - apply-groups reference
        - apply-groups-exclude reference
        - authenticate boolean
        - authentication-check boolean
        - authentication-key number
            - apply-groups reference
            - apply-groups-exclude reference
            - key encrypted-leaf
            - type keyword
        - authentication-keychain reference
        - broadcast reference
            - apply-groups reference
            - apply-groups-exclude reference
            - authentication-keychain reference
            - key-id reference
            - ttl number
            - version number
    - ospf number
        - admin-state keyword
        - advertise-router-capability keyword
        - apply-groups reference
        - apply-groups-exclude reference
        - area ipv4-address
            - advertise-ne-profile reference
            - advertise-router-capability boolean
            - apply-groups reference
            - apply-groups-exclude reference
            - area-range ipv4-unicast-prefix
```


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```
                    - advertise boolean
                    - apply-groups reference
                    - apply-groups-exclude reference
                - blackhole-aggregate boolean
                - export-policy reference
                - import-policy reference
                - interface interface-name
                    - admin-state keyword
                    - advertise-router-capability boolean
                    - advertise-subnet boolean
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - authentication-key encrypted-leaf
                    - authentication-keychain reference
                    - authentication-type keyword
                    - bfd-liveness
                        - remain-down-on-failure boolean
                        - strict boolean
                        - strict-mode-holddown number
                    - dead-interval number
                    - hello-interval number
                    - interface-type keyword
                    - load-balancing-weight number
                    - loopfree-alternate
                        - exclude boolean
                        - policy-map
                            - route-nh-template reference
                    - lsa-filter-out keyword
                    - message-digest-key number
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - md5 encrypted-leaf
                    - metric number
                    - mtu number
                    - neighbor ipv4-unicast-address
                    - passive boolean
                    - poll-interval number
                    - priority number
                    - retransmit-interval number
                    - rib-priority keyword
                    - transit-delay number
                - loopfree-alternate-exclude boolean
                - nssa
                    - area-range ipv4-unicast-prefix
                        - advertise boolean
                        - apply-groups reference
                        - apply-groups-exclude reference
                    - originate-default-route
                        - adjacency-check boolean
                        - type-nssa boolean
                    - redistribute-external boolean
                    - summaries boolean
                - sham-link interface-name ip-address ipv4-unicast-address
                    - admin-state keyword
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - authentication-key encrypted-leaf
                    - authentication-keychain reference
                    - authentication-type keyword
                    - dead-interval number
                    - hello-interval number
                    - message-digest-key number
                        - apply-groups reference
                        - apply-groups-exclude reference
```


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configure service vprn ospf area sham-link message-digest-key md5

```
                    - md5 encrypted-leaf
                  - metric number
                  - retransmit-interval number
                  - transit-delay number
               - stub
                  - default-metric number
                  - summaries boolean
               - virtual-link ipv4-address transit-area reference
                  - admin-state keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - authentication-key encrypted-leaf
                  - authentication-keychain reference
                  - authentication-type keyword
                  - dead-interval number
                  - hello-interval number
                  - message-digest-key number
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - md5 encrypted-leaf
                  - retransmit-interval number
                  - transit-delay number
            - compatible-rfc1583 boolean
            - export-limit
               - log-percent number
               - number number
            - export-policy reference
            - external-db-overflow
               - interval number
               - limit number
            - external-preference number
            - graceful-restart
               - helper-mode boolean
               - strict-lsa-checking boolean
            - ignore-dn-bit boolean
            - import-policy reference
            - loopfree-alternate
               - exclude
                  - prefix-policy reference
            - multicast-import boolean
            - overload boolean
            - overload-include-ext-1 boolean
            - overload-include-ext-2 boolean
            - overload-include-stub boolean
            - overload-on-boot
               - timeout number
            - preference number
            - reference-bandwidth number
            - rib-priority
               - high
                  - prefix-list reference
            - router-id router-id
            - rtr-adv-lsa-limit
               - log-only boolean
               - max-lsa-count number
               - overload-timeout (number | keyword)
               - warning-threshold number
            - super-backbone boolean
            - suppress-dn-bit boolean
            - timers
               - incremental-spf-wait number
               - lsa-accumulate number
               - lsa-arrival number
               - lsa-generate
```


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configure service vprn ospf timers lsa-generate lsa-initial-wait

```
                  - lsa-initial-wait number
                  - lsa-second-wait number
                  - max-lsa-wait number
               - redistribute-delay number
               - spf-wait
                  - spf-initial-wait number
                  - spf-max-wait number
                  - spf-second-wait number
            - unicast-import boolean
            - vpn-domain
               - id system-id
               - type keyword
            - vpn-tag number
         - ospf3 number
            - admin-state keyword
            - advertise-router-capability keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - area ipv4-address
               - advertise-router-capability boolean
               - apply-groups reference
               - apply-groups-exclude reference
               - area-range (ipv4-prefix | ipv6-prefix)
                  - advertise boolean
                  - apply-groups reference
                  - apply-groups-exclude reference
               - blackhole-aggregate boolean
               - export-policy reference
               - import-policy reference
               - interface interface-name
                  - admin-state keyword
                  - advertise-router-capability boolean
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - authentication
                     - inbound reference
                     - outbound reference
                  - bfd-liveness
                     - remain-down-on-failure boolean
                     - strict boolean
                     - strict-mode-holddown number
                  - dead-interval number
                  - hello-interval number
                  - interface-type keyword
                  - load-balancing-weight number
                  - loopfree-alternate
                     - exclude boolean
                     - policy-map
                        - route-nh-template reference
                  - lsa-filter-out keyword
                  - metric number
                  - mtu number
                  - neighbor (ipv4-address-no-zone | ipv6-address-no-zone)
                  - passive boolean
                  - poll-interval number
                  - priority number
                  - retransmit-interval number
                  - rib-priority keyword
                  - transit-delay number
               - key-rollover-interval number
               - loopfree-alternate-exclude boolean
               - nssa
                  - area-range (ipv4-prefix | ipv6-prefix)
                     - advertise boolean
```


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configure service vprn ospf3 area nssa area-range apply-groups

```
                  - apply-groups reference
                  - apply-groups-exclude reference
               - originate-default-route
                  - adjacency-check boolean
                  - type-nssa boolean
               - redistribute-external boolean
               - summaries boolean
            - stub
               - default-metric number
               - summaries boolean
            - virtual-link ipv4-address transit-area reference
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - authentication
                  - inbound reference
                  - outbound reference
               - dead-interval number
               - hello-interval number
               - retransmit-interval number
               - transit-delay number
         - export-limit
            - log-percent number
            - number number
         - export-policy reference
         - external-db-overflow
            - interval number
            - limit number
         - external-preference number
         - graceful-restart
            - helper-mode boolean
            - strict-lsa-checking boolean
         - ignore-dn-bit boolean
         - import-policy reference
         - loopfree-alternate
            - exclude
               - prefix-policy reference
         - multicast-import boolean
         - overload boolean
         - overload-include-ext-1 boolean
         - overload-include-ext-2 boolean
         - overload-include-stub boolean
         - overload-on-boot
            - timeout number
         - preference number
         - reference-bandwidth number
         - rib-priority
            - high
               - prefix-list reference
         - router-id router-id
         - rtr-adv-lsa-limit
            - log-only boolean
            - max-lsa-count number
            - overload-timeout (number | keyword)
            - warning-threshold number
         - suppress-dn-bit boolean
         - timers
            - incremental-spf-wait number
            - lsa-accumulate number
            - lsa-arrival number
            - lsa-generate
               - lsa-initial-wait number
               - lsa-second-wait number
               - max-lsa-wait number
```


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```
            - redistribute-delay number
            - spf-wait
               - spf-initial-wait number
               - spf-max-wait number
               - spf-second-wait number
         - unicast-import boolean
      - pcp
         - server named-item
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - dual-stack-lite-address ipv6-unicast-address
            - fwd-inside-router string
            - interface reference
            - policy reference
      - pim
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - apply-to keyword
         - bgp-nh-override boolean
         - import
            - join-policy reference
            - register-policy reference
         - interface interface-name
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - assert-period number
            - bfd-liveness
               - ipv4 boolean
               - ipv6 boolean
            - bsm-check-rtr-alert boolean
            - hello-interval number
            - hello-multiplier number
            - improved-assert boolean
            - instant-prune-echo boolean
            - ipv4
               - apply-groups reference
               - apply-groups-exclude reference
               - monitor-oper-group
                  - name reference
                  - operation keyword
                  - priority-delta number
               - multicast boolean
            - ipv6
               - apply-groups reference
               - apply-groups-exclude reference
               - monitor-oper-group
                  - name reference
                  - operation keyword
                  - priority-delta number
               - multicast boolean
            - max-groups number
            - mcac
               - bandwidth
                  - mandatory (number | keyword)
                  - total (number | keyword)
               - interface-policy reference
               - mc-constraints
                  - admin-state keyword
                  - level number
                     - apply-groups reference
```


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configure service vprn pim interface mcac mc-constraints level apply-groups-exclude

```
                    - apply-groups-exclude reference
                    - bandwidth number
                 - number-down number
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - level number
                 - use-lag-port-weight boolean
              - policy reference
           - multicast-senders keyword
           - p2mp-ldp-tree-join
              - ipv4 boolean
              - ipv6 boolean
           - priority number
           - sticky-dr
              - priority number
           - three-way-hello boolean
           - tracking-support boolean
        - ipv4
           - admin-state keyword
           - grt-extranet
              - any
              - group-prefix (ipv4-prefix | ipv6-prefix)
                 - apply-groups reference
                 - apply-groups-exclude reference
                 - starg boolean
           - rpf-table keyword
           - source-address
              - register-message ipv4-unicast-address
           - ssm-assert-compatible-mode boolean
           - ssm-default-range boolean
        - ipv6
           - admin-state keyword
           - rpf-table keyword
           - source-address
              - register-message ipv6-unicast-address
           - ssm-default-range boolean
        - mc-ecmp-balance boolean
        - mc-ecmp-balance-hold number
        - mc-ecmp-hashing
           - rebalance boolean
        - mtu-over-head number
        - non-dr-attract-traffic boolean
        - rp
           - bootstrap
              - export reference
              - import reference
           - ipv4
              - anycast ipv4-unicast-address rp-set-peer ipv4-unicast-address
              - auto-rp-discovery boolean
              - bsr-candidate
                 - address ipv4-unicast-address
                 - admin-state keyword
                 - hash-mask-len number
                 - priority number
              - candidate boolean
              - mapping-agent boolean
              - rp-candidate
                 - address ipv4-unicast-address
                 - admin-state keyword
                 - group-range ipv4-multicast-prefix
                 - holdtime number
                 - priority number
              - static
                 - address ipv4-unicast-address
```


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configure service vprn pim rp ipv4 static address apply-groups

```
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - group-prefix ipv4-multicast-prefix
                        - override boolean
              - ipv6
                - anycast ipv6-unicast-address rp-set-peer ipv6-unicast-address
                - bsr-candidate
                  - address ipv6-unicast-address
                  - admin-state keyword
                  - hash-mask-len number
                  - priority number
                - embedded-rp
                  - admin-state keyword
                  - group-range ipv6-multicast-prefix
                - rp-candidate
                  - address ipv6-unicast-address
                  - admin-state keyword
                  - group-range ipv6-multicast-prefix
                  - holdtime number
                  - priority number
                - static
                  - address ipv6-unicast-address
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - group-prefix ipv6-multicast-prefix
                    - override boolean
          - spt-switchover (ipv4-prefix | ipv6-prefix)
            - apply-groups reference
            - apply-groups-exclude reference
            - threshold (number | keyword)
          - ssm-groups
            - group-range (ipv4-prefix | ipv6-prefix)
      - radius
          - apply-groups reference
          - apply-groups-exclude reference
          - proxy named-item
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - attribute-matching
              - entry number
                - accounting-server-policy named-item
                - apply-groups reference
                - apply-groups-exclude reference
                - authentication-server-policy named-item
                - prefix-string display-string
                - suffix-string display-string
              - type number
              - vendor (number | keyword)
            - cache
              - admin-state keyword
              - key
                - attribute-type number
                - packet-type keyword
                - vendor (number | keyword)
              - timeout number
              - track-accounting
                - accounting-off boolean
                - accounting-on boolean
                - interim-update boolean
                - start boolean
                - stop boolean
              - track-authentication
                - accept boolean
```


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```
                - track-delete-hold-time number
            - defaults
                - accounting-server-policy named-item
                - authentication-server-policy named-item
            - description description
            - interface reference
            - load-balance-key
                - attribute-1
                    - type number
                    - vendor (number | keyword)
                - attribute-2
                    - type number
                    - vendor (number | keyword)
                - attribute-3
                    - type number
                    - vendor (number | keyword)
                - attribute-4
                    - type number
                    - vendor (number | keyword)
                - attribute-5
                    - type number
                    - vendor (number | keyword)
                - source-ip-udp
            - purpose keyword
            - python-policy reference
            - secret encrypted-leaf
            - send-accounting-response boolean
            - wlan-gw
                - address ipv4-unicast-address
                - apply-groups reference
                - apply-groups-exclude reference
                - ipv6-address ipv6-unicast-without-local-address
            - wlan-gw-group reference
        - server named-item
            - accept-coa boolean
            - acct-port number
            - address (ipv4-address-no-zone | ipv6-address-no-zone)
            - apply-groups reference
            - apply-groups-exclude reference
            - auth-port number
            - description description
            - pending-requests-limit number
            - python-policy reference
            - secret encrypted-leaf
    - reassembly
        - apply-groups reference
        - apply-groups-exclude reference
        - nat-group number
        - to-base-network boolean
    - redundant-interface interface-name
        - admin-state keyword
        - apply-groups reference
        - apply-groups-exclude reference
        - description very-long-description
        - hold-time
            - ipv4
                - down
                    - init-only boolean
                    - seconds number
                - up
                    - seconds number
        - ip-mtu number
        - ipv4
            - primary
```


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configure service vprn redundant-interface ipv4 primary address

```
                - address ipv4-unicast-address
                - apply-groups reference
                - apply-groups-exclude reference
                - prefix-length number
                - remote-ip ipv4-unicast-address
            - spoke-sdp sdp-bind-id
                - admin-state keyword
                - apply-groups reference
                - apply-groups-exclude reference
                - control-word boolean
                - description description
                - egress
                    - filter
                        - ip reference
                    - vc-label number
                - ingress
                    - filter
                        - ip reference
                    - vc-label number
        - rip
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - authentication-key encrypted-leaf
            - authentication-type keyword
            - bfd-liveness boolean
            - check-zero boolean
            - description description
            - export-limit
                - log-percent number
                - number number
            - export-policy reference
            - group named-item
                - admin-state keyword
                - apply-groups reference
                - apply-groups-exclude reference
                - authentication-key encrypted-leaf
                - authentication-type keyword
                - bfd-liveness boolean
                - check-zero boolean
                - description description
                - export-policy reference
                - import-policy reference
                - message-size number
                - metric-in number
                - metric-out number
                - neighbor interface-name
                    - admin-state keyword
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - authentication-key encrypted-leaf
                    - authentication-type keyword
                    - bfd-liveness boolean
                    - check-zero boolean
                    - description description
                    - export-policy reference
                    - import-policy reference
                    - message-size number
                    - metric-in number
                    - metric-out number
                    - preference number
                    - receive keyword
                    - send keyword
                    - split-horizon boolean
```


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configure service vprn rip group neighbor timers

```
                  - timers
                     - flush number
                     - timeout number
                     - update number
                  - unicast-address ipv4-unicast-address
               - preference number
               - receive keyword
               - send keyword
               - split-horizon boolean
               - timers
                  - flush number
                  - timeout number
                  - update number
            - import-policy reference
            - message-size number
            - metric-in number
            - metric-out number
            - preference number
            - propagate-metric boolean
            - receive keyword
            - send keyword
            - split-horizon boolean
            - timers
               - flush number
               - timeout number
               - update number
         - ripng
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - bfd-liveness boolean
            - check-zero boolean
            - description description
            - export-limit
               - log-percent number
               - number number
            - export-policy reference
            - group named-item
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - bfd-liveness boolean
               - check-zero boolean
               - description description
               - export-policy reference
               - import-policy reference
               - message-size number
               - metric-in number
               - metric-out number
               - neighbor reference
                  - admin-state keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - bfd-liveness boolean
                  - check-zero boolean
                  - description description
                  - export-policy reference
                  - import-policy reference
                  - message-size number
                  - metric-in number
                  - metric-out number
                  - preference number
                  - receive keyword
                  - send keyword
```


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configure service vprn ripng group neighbor split-horizon

```
                  - split-horizon boolean
                  - timers
                     - flush number
                     - timeout number
                     - update number
                  - unicast-address ipv6-unicast-address
               - preference number
               - receive keyword
               - send keyword
               - split-horizon boolean
               - timers
                  - flush number
                  - timeout number
                  - update number
            - import-policy reference
            - message-size number
            - metric-in number
            - metric-out number
            - preference number
            - receive keyword
            - send keyword
            - split-horizon boolean
            - timers
               - flush number
               - timeout number
               - update number
         - router-id router-id
         - segment-routing-v6 number
            - apply-groups reference
            - apply-groups-exclude reference
            - locator reference
               - apply-groups reference
               - apply-groups-exclude reference
               - function
                  - end-dt4
                     - value number
                  - end-dt46
                     - value number
                  - end-dt6
                     - value number
            - micro-segment-locator reference
               - apply-groups reference
               - apply-groups-exclude reference
               - function
                  - udt4
                     - value number
                  - udt46
                     - value number
                  - udt6
                     - value number
         - selective-fib boolean
         - service-id number
         - sfm-overload
            - holdoff-time number
         - sgt-qos
            - dot1p
               - application keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - dot1p (keyword | number)
            - dscp
               - application keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
```


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configure service vprn sgt-qos dscp application dscp

```
                - dscp (keyword | number)
            - dscp-map keyword
                - apply-groups reference
                - apply-groups-exclude reference
                - fc keyword
        - snmp
            - access boolean
            - community encrypted-leaf
                - access-permissions keyword
                - apply-groups reference
                - apply-groups-exclude reference
                - source-access-list reference
                - version keyword
        - source-address
            - ipv4 keyword
                - address ipv4-address
                - apply-groups reference
                - apply-groups-exclude reference
                - interface-name interface-name
            - ipv6 keyword
                - address ipv6-address
                - apply-groups reference
                - apply-groups-exclude reference
        - spoke-sdp sdp-bind-id
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
        - static-routes
            - apply-groups reference
            - apply-groups-exclude reference
            - hold-down
                - initial number
                - max-value number
                - multiplier number
            - route (ipv4-prefix | ipv6-prefix) route-type keyword
                - apply-groups reference
                - apply-groups-exclude reference
                - backup-tag number
                - blackhole
                    - admin-state keyword
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - community community
                    - description description-allow-all-white-spaces
                    - generate-icmp boolean
                    - metric number
                    - preference number
                    - prefix-list
                        - flag keyword
                        - name reference
                        - router-instance string
                    - tag number
                - community community
                - grt
                    - admin-state keyword
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - description description-allow-all-white-spaces
                    - metric number
                    - preference number
                - indirect (ipv4-address-no-zone | ipv6-address-no-zone)
                    - admin-state keyword
                    - apply-groups reference
                    - apply-groups-exclude reference
```


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```
                    - community community
                    - cpe-check (ipv4-address-no-zone | ipv6-address-no-zone)
                      - apply-groups reference
                      - apply-groups-exclude reference
                      - drop-count number
                      - interval number
                      - log boolean
                      - padding-size number
                    - description description-allow-all-white-spaces
                    - destination-class number
                    - metric number
                    - preference number
                    - prefix-list
                      - flag keyword
                      - name reference
                      - router-instance string
                    - qos
                      - forwarding-class keyword
                      - priority keyword
                    - source-class number
                    - tag number
                  - interface interface-name
                    - admin-state keyword
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - community community
                    - cpe-check (ipv4-address-no-zone | ipv6-address-no-zone)
                      - apply-groups reference
                      - apply-groups-exclude reference
                      - drop-count number
                      - interval number
                      - log boolean
                      - padding-size number
                    - description description-allow-all-white-spaces
                    - destination-class number
                    - load-balancing-weight number
                    - metric number
                    - preference number
                    - prefix-list
                      - flag keyword
                      - name reference
                      - router-instance string
                    - qos
                      - forwarding-class keyword
                      - priority keyword
                    - source-class number
                    - tag number
                  - ipsec-tunnel named-item
                    - admin-state keyword
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - community community
                    - description description-allow-all-white-spaces
                    - destination-class number
                    - metric number
                    - preference number
                    - qos
                      - forwarding-class keyword
                      - priority keyword
                    - source-class number
                    - tag number
                  - next-hop (ipv4-address-with-zone | ipv6-address-with-zone)
                    - admin-state keyword
                    - apply-groups reference
```


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configure service vprn static-routes route next-hop apply-groups-exclude

```
                - apply-groups-exclude reference
                - backup-next-hop
                  - address (ipv4-address-no-zone | ipv6-address-no-zone)
                - bfd-liveness boolean
                - community community
                - cpe-check (ipv4-address-no-zone | ipv6-address-no-zone)
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - drop-count number
                  - interval number
                  - log boolean
                  - padding-size number
                - description description-allow-all-white-spaces
                - destination-class number
                - load-balancing-weight number
                - metric number
                - preference number
                - prefix-list
                  - flag keyword
                  - name reference
                  - router-instance string
                - qos
                  - forwarding-class keyword
                  - priority keyword
                - source-class number
                - tag number
                - validate-next-hop boolean
            - tag number
        - subscriber-interface interface-name
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - description very-long-description
            - fwd-service reference
            - fwd-subscriber-interface reference
            - group-interface interface-name
                - admin-state keyword
                - apply-groups reference
                - apply-groups-exclude reference
                - bonding-parameters
                  - admin-state keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - connection number
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - service service-name
                  - fpe reference
                  - multicast
                    - connection (number | keyword)
                - brg
                  - admin-state keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - authenticated-brg-only boolean
                  - default-brg-profile reference
                - cflowd-parameters
                  - sampling keyword
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - direction keyword
                    - sample-profile (keyword | number)
                    - type keyword
                - data-trigger
```


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configure service vprn subscriber-interface group-interface data-trigger accept-ipv6-link-local-address

```
                    - accept-ipv6-link-local-address boolean
                    - admin-state keyword
                    - apply-groups reference
                    - apply-groups-exclude reference
                - description very-long-description
                - dynamic-routes-track-srrp
                    - hold-time number
                - gtp-parameters
                    - admin-state keyword
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - fpe reference
                - gx-policy reference
                - ingress
                    - policy-accounting reference
                - ingress-stats boolean
                - ip-mtu number
                - ipoe-linking
                    - admin-state keyword
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - gratuitous-router-advertisement boolean
                    - shared-circuit-id boolean
                - ipoe-session
                    - admin-state keyword
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - description description
                    - force-auth
                        - cid-change boolean
                        - rid-change boolean
                    - ipoe-session-policy reference
                    - min-auth-interval (keyword | number)
                    - radius-session-timeout keyword
                    - sap-session-limit number
                    - session-limit number
                    - stateless-redundancy boolean
                    - user-db reference
                - ipv4
                    - arp-host
                        - admin-state keyword
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - host-limit number
                        - min-auth-interval number
                        - sap-host-limit number
                    - bfd
                        - admin-state keyword
                        - echo-receive number
                        - multiplier number
                        - receive number
                        - transmit-interval number
                        - type keyword
                    - dhcp
                        - admin-state keyword
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - client-applications
                            - dhcp boolean
                            - ppp boolean
                        - description description
                        - filter reference
                        - gi-address ipv4-unicast-address
                        - lease-populate
```


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configure service vprn subscriber-interface group-interface ipv4 dhcp lease-populate l2-header

```
                    - l2-header
                      - mac mac-unicast-address
                    - max-leases number
                - match-circuit-id boolean
                - offer-selection
                    - client-mac
                      - discover-delay number
                      - mac-address keyword
                    - discover-delay number
                    - server ipv4-unicast-address
                      - apply-groups reference
                      - apply-groups-exclude reference
                      - discover-delay number
                - option-82
                    - action keyword
                    - circuit-id
                      - ascii-tuple
                      - ifindex
                      - none
                      - sap-id
                      - vlan-ascii-tuple
                    - remote-id
                      - ascii-string string-not-all-spaces
                      - mac
                      - none
                    - vendor-specific-option
                      - client-mac-address boolean
                      - pool-name boolean
                      - sap-id boolean
                      - service-id boolean
                      - string string-not-all-spaces
                      - system-id boolean
                - proxy-server
                    - admin-state keyword
                    - emulated-server ipv4-unicast-address
                    - lease-time
                      - radius-override boolean
                      - value number
                - python-policy reference
                - relay-proxy
                    - release-update-src-ip boolean
                    - siaddr-override ipv4-unicast-address
                - release-include-gi-address boolean
                - server ipv4-unicast-address
                - src-ip-addr keyword
                - trusted boolean
                - user-db reference
            - icmp
                - mask-reply boolean
                - param-problem
                    - admin-state keyword
                    - number number
                    - seconds number
                - redirects
                    - admin-state keyword
                    - number number
                    - seconds number
                - ttl-expired
                    - admin-state keyword
                    - number number
                    - seconds number
                    - use-matching-address boolean
                - unreachables
                    - admin-state keyword
```


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configure service vprn subscriber-interface group-interface ipv4 icmp unreachables number

```
                    - number number
                    - seconds number
                - ignore-df-bit boolean
                - neighbor-discovery
                    - local-proxy-arp boolean
                    - populate boolean
                    - proxy-arp-policy reference
                    - remote-proxy-arp boolean
                    - timeout number
                - qos-route-lookup keyword
                - urpf-check
                    - mode keyword
            - ipv6
                - allow-multiple-wan-addresses boolean
                - auto-reply
                    - neighbor-solicitation boolean
                    - router-solicitation boolean
                - bfd
                    - admin-state keyword
                    - echo-receive number
                    - multiplier number
                    - receive number
                    - transmit-interval number
                    - type keyword
                - dhcp6
                    - allow-client-id-change boolean
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - filter reference
                    - option
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - interface-id
                            - ascii-tuple
                            - if-index
                            - sap-id
                            - string string-not-all-spaces
                        - remote-id boolean
                    - override-slaac boolean
                    - pd-managed-route
                        - next-hop keyword
                    - proxy-server
                        - admin-state keyword
                        - client-applications
                            - dhcp boolean
                            - ppp boolean
                        - preferred-lifetime (number | keyword)
                        - rebind-timer number
                        - renew-timer number
                        - server-id
                            - apply-groups reference
                            - apply-groups-exclude reference
                            - duid-en-ascii string-not-all-spaces
                            - duid-en-hex string
                            - duid-ll
                        - valid-lifetime (number | keyword)
                    - python-policy reference
                    - relay
                        - admin-state keyword
                        - advertise-selection
                            - client-mac
                                - mac-address keyword
                                - preference-option
                                    - value number
```


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configure service vprn subscriber-interface group-interface ipv6 dhcp6 relay advertise-selection client-mac solicit-delay

```
                        - solicit-delay number
                     - preference-option
                        - value number
                     - server ipv6-address
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - preference-option
                           - value number
                        - solicit-delay number
                     - solicit-delay number
                  - client-applications
                     - dhcp boolean
                     - ppp boolean
                  - description description
                  - lease-split
                     - admin-state keyword
                     - valid-lifetime number
                  - link-address ipv6-address
                  - server ipv6-address-with-zone
                  - source-address ipv6-unicast-address
               - snooping
                  - admin-state keyword
               - user-db reference
               - user-ident keyword
            - ipoe-bridged-mode boolean
            - neighbor-discovery
               - apply-groups reference
               - apply-groups-exclude reference
               - dad-snooping boolean
               - neighbor-limit number
            - qos-route-lookup keyword
            - router-advertisements
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - force-mcast keyword
               - max-advertisement-interval number
               - min-advertisement-interval number
               - options
                  - current-hop-limit number
                  - dns
                     - include-rdnss boolean
                     - rdnss-lifetime (number | keyword)
                  - managed-configuration boolean
                  - mtu (number | keyword)
                  - other-stateful-configuration boolean
                  - reachable-time number
                  - retransmit-timer number
                  - router-lifetime (number | keyword)
               - prefix-options
                  - autonomous boolean
                  - on-link boolean
                  - preferred-lifetime (number | keyword)
                  - valid-lifetime (number | keyword)
            - router-solicit
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - inactivity-timer (number | keyword)
               - min-auth-interval number
               - user-db reference
            - urpf-check
               - mode keyword
         - local-address-assignment
```


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configure service vprn subscriber-interface group-interface local-address-assignment admin-state

```
                    - admin-state keyword
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - ipv4
                      - client-applications
                        - ipoe boolean
                        - ppp boolean
                      - default-pool named-item
                      - server reference
                    - ipv6
                      - client-applications
                        - ipoe-slaac boolean
                        - ipoe-wan boolean
                        - ppp-slaac boolean
                      - server reference
                  - mac mac-unicast-address
                  - nasreq-auth-policy reference
                  - oper-up-while-empty boolean
                  - pppoe
                    - admin-state keyword
                    - anti-spoof keyword
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - description description
                    - dhcp-client
                      - client-id keyword
                    - policy reference
                    - python-policy reference
                    - sap-session-limit number
                    - session-limit number
                    - user-db reference
                  - radius-auth-policy reference
                  - redundant-interface reference
                  - sap sap
                    - accounting-policy reference
                    - admin-state keyword
                    - anti-spoof keyword
                    - app-profile reference
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - calling-station-id string-not-all-spaces
                    - collect-stats boolean
                    - cpu-protection
                      - eth-cfm-monitoring
                        - aggregate
                        - car
                      - ip-src-monitoring
                      - mac-monitoring
                      - policy-id reference
                    - default-host
                      - ipv4 reference prefix-length number
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - next-hop ipv4-unicast-address
                      - ipv6 ipv6-unicast-address prefix-length number
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - next-hop ipv6-unicast-address
                    - description long-description
                    - dist-cpu-protection reference
                    - egress
                      - agg-rate
                        - adaptation-rule keyword
                        - burst-limit (number | keyword)
```


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configure service vprn subscriber-interface group-interface sap egress agg-rate limit-unused-bandwidth

```
                    - limit-unused-bandwidth boolean
                    - queue-frame-based-accounting boolean
                    - rate number
                - filter
                    - ip reference
                    - ipv6 reference
                - qos
                    - latency-budget number
                    - policer-control-policy
                        - policy-name reference
                    - qinq-mark-top-only boolean
                    - sap-egress
                        - policy-name reference
                    - scheduler-policy
                        - policy-name reference
                - virtual-port
                    - vport-name reference
            - eth-cfm
                - apply-groups reference
                - apply-groups-exclude reference
                - collect-lmm-fc-stats
                    - fc keyword
                    - fc-in-profile keyword
                - collect-lmm-stats boolean
                - mep md-admin-name reference ma-admin-name reference mep-id number
                    - admin-state keyword
                    - ais boolean
                    - alarm-notification
                        - fng-alarm-time number
                        - fng-reset-time number
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - ccm boolean
                    - ccm-ltm-priority number
                    - ccm-padding-size number
                    - csf
                        - multiplier decimal-number
                    - description description
                    - eth-test
                        - bit-error-threshold number
                        - test-pattern
                            - crc-tlv boolean
                            - pattern keyword
                    - fault-propagation keyword
                    - grace
                        - eth-ed
                            - max-rx-defect-window number
                            - priority number
                            - rx-eth-ed boolean
                            - tx-eth-ed boolean
                        - eth-vsm-grace
                            - rx-eth-vsm-grace boolean
                            - tx-eth-vsm-grace boolean
                    - low-priority-defect keyword
                    - one-way-delay-threshold number
                - squelch-ingress-levels number
            - fwd-wholesale
                - pppoe-service reference
            - host-admin-state keyword
            - host-lockout-policy reference
            - igmp-host-tracking
                - apply-groups reference
                - apply-groups-exclude reference
                - expiry-time number
```


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configure service vprn subscriber-interface group-interface sap igmp-host-tracking import-policy

```
                    - import-policy reference
                    - maximum-number-group-sources number
                    - maximum-number-groups number
                    - maximum-number-sources number
                    - router-alert-check boolean
                - ingress
                    - filter
                        - ip reference
                        - ipv6 reference
                    - qos
                        - match-qinq-dot1p keyword
                        - policer-control-policy
                            - policy-name reference
                        - sap-ingress
                            - policy-name reference
                            - queuing-type keyword
                        - scheduler-policy
                            - policy-name reference
                - lag
                    - link-map-profile number
                    - per-link-hash
                        - class number
                        - weight number
                - monitor-oper-group reference
                - multi-service-site reference
                - oper-group reference
                - qtag-normalization
                    - double-tag
                        - c-tag number
                        - s-tag number
                    - single-tag
                        - tag number
                - static-host
                    - ipv4 ipv4-unicast-address mac mac-unicast-address
                        - admin-state keyword
                        - ancp-string ancp-string
                        - app-profile
                            - profile reference
                            - scope keyword
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - int-dest-id int-dest-id
                        - managed-route ipv4-unicast-prefix
                            - apply-groups reference
                            - apply-groups-exclude reference
                            - cpe-check
                                - apply-groups reference
                                - apply-groups-exclude reference
                                - destination-ip-address (ipv4-address-no-zone | ipv6-address-
no-zone)
                                - drop-count number
                                - failed-action
                                    - metric number
                                    - preference number
                                    - tag number
                                    - withdraw boolean
                                - interval number
                                - log boolean
                                - padding-size number
                                - source-ip-address (ipv4-address-no-zone | ipv6-address-no-
zone)
                                - timeout number
                            - metric number
                            - preference number
```


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configure service vprn subscriber-interface group-interface sap static-host ipv4 managed-route tag

```
                        - tag number
                     - rip-policy reference
                     - shcv
                     - sla-profile reference
                     - sub-profile reference
                     - subscriber-id
                        - string subscriber-id
                        - use-sap-id
                  - ipv6 ipv6-unicast-prefix mac mac-unicast-address
                     - admin-state keyword
                     - ancp-string ancp-string
                     - app-profile
                        - profile reference
                        - scope keyword
                     - apply-groups reference
                     - apply-groups-exclude reference
                     - int-dest-id int-dest-id
                     - mac-linking ipv4-unicast-address
                     - managed-route ipv6-unicast-prefix
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - cpe-check
                           - apply-groups reference
                           - apply-groups-exclude reference
                           - destination-ip-address (ipv4-address-no-zone | ipv6-address-
no-zone)
                           - drop-count number
                           - failed-action
                              - metric number
                              - preference number
                              - tag number
                              - withdraw boolean
                           - interval number
                           - log boolean
                           - padding-size number
                           - source-ip-address (ipv4-address-no-zone | ipv6-address-no-
zone)
                           - timeout number
                        - metric number
                        - preference number
                        - tag number
                     - retail-svc-id number
                     - shcv
                     - sla-profile reference
                     - sub-profile reference
                     - subscriber-id
                        - string subscriber-id
                        - use-sap-id
                  - mac-learning
                     - data-triggered boolean
                     - single-mac boolean
               - sub-sla-mgmt
                  - admin-state keyword
                  - defaults
                     - app-profile reference
                     - int-dest-id
                        - string int-dest-id
                        - top-q-tag
                     - sla-profile reference
                     - sub-profile reference
                     - subscriber-id
                        - auto-id
                        - sap-id
                        - string subscriber-id
```


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configure service vprn subscriber-interface group-interface sap sub-sla-mgmt single-sub-parameters

```
                    - single-sub-parameters
                      - non-sub-traffic
                        - app-profile reference
                        - sla-profile reference
                        - sub-profile reference
                        - subscriber-id subscriber-id
                      - profiled-traffic-only boolean
                    - sub-ident-policy reference
                    - subscriber-limit (keyword | number)
                - sap-parameters
                  - anti-spoof keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - description description
                  - sub-sla-mgmt
                    - defaults
                      - app-profile reference
                      - sla-profile reference
                      - sub-profile reference
                      - subscriber-id
                        - auto-id
                        - string subscriber-id
                    - sub-ident-policy reference
                - shcv-policy reference
                - shcv-policy-ipv4 reference
                - shcv-policy-ipv6 reference
                - srrp number
                  - admin-state keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - bfd-liveness
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - dest-ip ipv4-address
                    - interface-name interface-name
                    - service-name service-name
                  - description description
                  - gw-mac mac-unicast-address
                  - keep-alive-interval number
                  - message-path reference
                  - monitor-oper-group
                    - group-name reference
                    - priority-step number
                  - one-garp-per-sap boolean
                  - policy reference
                  - preempt boolean
                  - priority number
                  - send-fib-population-packets keyword
                - suppress-aa-sub boolean
                - tos-marking-state keyword
                - type keyword
                - wlan-gw
                  - admin-state keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - gateway-address (ipv4-address-no-zone | ipv6-address-no-zone)
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - purpose
                      - xconnect boolean
                  - gateway-router string
                  - group-encryption
                    - encryption-keygroup-inbound reference
                    - encryption-keygroup-outbound reference
```


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configure service vprn subscriber-interface group-interface wlan-gw l2-ap

```
                    - l2-ap
                      - access-point sap
                        - admin-state keyword
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - encap-type keyword
                        - epipe-sap-template reference
                      - auto-sub-id-fmt keyword
                      - default-encap-type keyword
                    - lanext
                      - max-bd number
                    - learn-ap-mac
                      - delay-auth boolean
                    - mcs-peer
                      - address reference
                      - sync-tag named-item
                    - mobility
                      - hold-time number
                      - inter-tunnel-type boolean
                      - inter-vlan boolean
                      - trigger
                        - control boolean
                        - data boolean
                        - iapp boolean
                    - oper-down-on-group-degrade boolean
                    - promiscuous-mode boolean
                    - tcp-mss-adjust number
                    - tunnel-egress-qos
                      - admin-state keyword
                      - agg-rate-limit (number | keyword)
                      - granularity keyword
                      - hold-time (number | keyword)
                      - multi-client-only boolean
                      - qos reference
                      - scheduler-policy reference
                    - tunnel-encaps
                      - learn-l2tp-cookie (keyword | hex-string)
                    - vlan-range string
                      - apply-groups reference
                      - apply-groups-exclude reference
                      - authentication
                        - hold-time number
                        - local
                          - coa-policy reference
                          - default-ue-state keyword
                        - on-control-plane boolean
                        - policy reference
                        - vlan-mismatch-timeout number
                      - data-triggered-ue-creation
                        - admin-state keyword
                        - arp boolean
                        - create-proxy-cache-entry
                          - mac-format mac-specification
                          - proxy-server
                            - name named-item
                            - router-instance string
                        - ospf boolean
                      - dhcp4
                        - admin-state keyword
                        - dns ipv4-unicast-address
                        - l2-aware-ip-address (ipv4-unicast-address | keyword)
                        - lease-time
                          - active number
                          - initial number
```


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configure service vprn subscriber-interface group-interface wlan-gw vlan-range dhcp4 nbns

```
                    - nbns ipv4-unicast-address
                - dhcp6
                    - admin-state keyword
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - preferred-lifetime
                        - active number
                        - initial number
                    - valid-lifetime
                        - active number
                        - initial number
                - dsm
                    - accounting-policy reference
                    - accounting-update
                        - interval number
                    - admin-state keyword
                    - application-assurance
                        - accounting-statistics boolean
                        - profile reference
                        - url-parameter aa-http-url-param
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - captive-portal-api-url one-time-http-redirect-url
                    - egress
                        - policer reference
                    - ingress
                        - ip-filter reference
                        - policer reference
                        - soft-quota-exhausted-filter reference
                    - one-time-redirect
                        - port number
                        - url one-time-http-redirect-url
                    - send-unrestricted-portal-url boolean
                    - volume-quota-direction keyword
                - dynamic-service boolean
                - extension string
                - http-redirect-policy reference
                - idle-timeout-action keyword
                - l2-service
                    - admin-state keyword
                    - description description
                    - service reference
                - nat-policy reference
                - retail-service service-name
                - slaac
                    - admin-state keyword
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - preferred-lifetime
                        - active number
                        - initial number
                    - valid-lifetime
                        - active number
                        - initial number
                - vrgw
                    - admin-state keyword
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - brg
                        - authenticated-brg-only boolean
                        - default-brg-profile reference
                    - lanext
                        - access
                            - max-mac number
```


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configure service vprn subscriber-interface group-interface wlan-gw vlan-range vrgw lanext access multi-access

```
                        - multi-access boolean
                        - policer reference
                     - admin-state keyword
                     - apply-groups reference
                     - apply-groups-exclude reference
                     - assistive-address-resolution boolean
                     - bd-mac-prefix string
                     - mac-translation boolean
                     - network
                        - admin-state keyword
                        - max-mac number
                        - policer reference
               - xconnect
                  - accounting
                     - mobility-updates boolean
                     - policy reference
                     - update-interval number
                  - admin-state keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
            - wlan-gw-group reference
         - wpp
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - initial
               - app-profile reference
               - sla-profile reference
               - sub-profile reference
            - lease-time number
            - portal
               - name named-item
               - portal-group reference
               - router-instance string
            - restore-to-initial-on-disconnect boolean
            - triggered-hosts boolean
            - user-db reference
      - hold-time
         - ipv4
            - down
               - init-only boolean
               - seconds number
            - up
               - seconds number
         - ipv6
            - down
               - init-only boolean
               - seconds number
            - up
               - seconds number
      - ipoe-linking
         - apply-groups reference
         - apply-groups-exclude reference
         - gratuitous-router-advertisement boolean
      - ipoe-session
         - apply-groups reference
         - apply-groups-exclude reference
         - session-limit number
      - ipv4
         - address ipv4-unicast-address
            - apply-groups reference
            - apply-groups-exclude reference
            - gateway ipv4-unicast-address
            - holdup-time number
```


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configure service vprn subscriber-interface ipv4 address populate-host-routes

```
                  - populate-host-routes boolean
                  - prefix-length number
                  - track-srrp number
               - allow-unmatching-subnets boolean
               - arp-host
                  - admin-state keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - host-limit number
               - bfd
                  - admin-state keyword
                  - echo-receive number
                  - multiplier number
                  - receive number
                  - transmit-interval number
                  - type keyword
               - default-dns ipv4-unicast-address
               - dhcp
                  - admin-state keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - client-applications
                     - dhcp boolean
                     - ppp boolean
                  - description description
                  - gi-address ipv4-unicast-address
                  - lease-populate
                     - max-leases number
                  - offer-selection
                     - client-mac
                        - discover-delay number
                        - mac-address keyword
                     - discover-delay number
                     - server ipv4-unicast-address
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - discover-delay number
                  - option-82
                     - vendor-specific-option
                        - client-mac-address boolean
                        - sap-id boolean
                        - service-id boolean
                        - string string-not-all-spaces
                        - system-id boolean
                  - proxy-server
                     - admin-state keyword
                     - emulated-server ipv4-unicast-address
                     - lease-time
                        - radius-override boolean
                        - value number
                  - python-policy reference
                  - relay-proxy
                     - release-update-src-ip boolean
                     - siaddr-override ipv4-unicast-address
                  - release-include-gi-address boolean
                  - server ipv4-unicast-address
                  - src-ip-addr keyword
                  - virtual-subnet boolean
               - export-host-routes boolean
               - unnumbered
                  - ip-address ipv4-unicast-address
                  - ip-int-name interface-name
            - ipv6
               - address ipv6-address
```


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configure service vprn subscriber-interface ipv6 address apply-groups

```
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - host-type keyword
                  - prefix-length number
               - allow-multiple-wan-addresses boolean
               - allow-unmatching-prefixes boolean
               - bfd
                  - admin-state keyword
                  - echo-receive number
                  - multiplier number
                  - receive number
                  - transmit-interval number
                  - type keyword
               - default-dns ipv6-unicast-address
               - delegated-prefix-length (number | keyword)
               - dhcp6
                  - allow-client-id-change boolean
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - override-slaac boolean
                  - pd-managed-route
                     - next-hop keyword
                  - proxy-server
                     - admin-state keyword
                     - client-applications
                        - dhcp boolean
                        - ppp boolean
                     - preferred-lifetime (number | keyword)
                     - rebind-timer number
                     - renew-timer number
                     - server-id
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - duid-en-ascii string-not-all-spaces
                        - duid-en-hex string
                        - duid-ll
                     - valid-lifetime (number | keyword)
                  - python-policy reference
                  - relay
                     - admin-state keyword
                     - advertise-selection
                        - client-mac
                           - mac-address keyword
                           - preference-option
                              - value number
                           - solicit-delay number
                        - preference-option
                           - value number
                        - server ipv6-address
                           - apply-groups reference
                           - apply-groups-exclude reference
                           - preference-option
                              - value number
                           - solicit-delay number
                        - solicit-delay number
                     - client-applications
                        - dhcp boolean
                        - ppp boolean
                     - description description
                     - lease-split
                        - admin-state keyword
                        - valid-lifetime number
                     - link-address ipv6-address
                     - server ipv6-address-with-zone
```


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configure service vprn subscriber-interface ipv6 dhcp6 relay source-address

```
                  - source-address ipv6-unicast-address
            - ipoe-bridged-mode boolean
            - link-local-address
               - address ipv6-address
            - prefix ipv6-prefix
               - apply-groups reference
               - apply-groups-exclude reference
               - holdup-time number
               - host-type keyword
               - track-srrp number
            - router-advertisements
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - force-mcast keyword
               - max-advertisement-interval number
               - min-advertisement-interval number
               - options
                  - current-hop-limit number
                  - dns
                     - include-rdnss boolean
                     - rdnss-lifetime (number | keyword)
                  - managed-configuration boolean
                  - mtu (number | keyword)
                  - other-stateful-configuration boolean
                  - reachable-time number
                  - retransmit-timer number
                  - router-lifetime (number | keyword)
               - prefix-options
                  - autonomous boolean
                  - on-link boolean
                  - preferred-lifetime (number | keyword)
                  - valid-lifetime (number | keyword)
            - router-solicit
               - apply-groups reference
               - apply-groups-exclude reference
               - inactivity-timer (number | keyword)
         - local-address-assignment
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - ipv4
               - client-applications
                  - ppp boolean
               - default-pool named-item
               - server reference
            - ipv6
               - client-applications
                  - ipoe-slaac boolean
                  - ipoe-wan boolean
                  - ppp-slaac boolean
               - server reference
         - pppoe
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - session-limit number
         - private-retail-subnets boolean
         - wan-mode keyword
         - wlan-gw
            - apply-groups reference
            - apply-groups-exclude reference
            - pool-manager
               - apply-groups reference
```


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configure service vprn subscriber-interface wlan-gw pool-manager apply-groups-exclude

```
                - apply-groups-exclude reference
                - dhcp6-client
                  - dhcpv4-nat
                    - admin-state keyword
                    - link-address ipv6-address
                    - pool-name named-item
                  - ia-na
                    - admin-state keyword
                    - link-address ipv6-address
                    - pool-name named-item
                  - lease-query
                    - max-retries number
                  - servers ipv6-unicast-address
                  - slaac
                    - admin-state keyword
                    - link-address ipv6-address
                    - pool-name named-item
                  - source-ip (keyword | ipv6-address)
                - watermarks
                  - high number
                  - low number
                - wlan-gw-group reference
              - redundancy
                - admin-state keyword
                - export ipv4-unicast-prefix
                - monitor ipv4-unicast-prefix
          - subscriber-mgmt
            - apply-groups reference
            - apply-groups-exclude reference
            - dhcpv4
              - apply-groups reference
              - apply-groups-exclude reference
              - routed-subnet-transparent-forward boolean
            - multi-chassis-shunt-id number
            - up-resiliency
              - monitor-oper-group reference
                - apply-groups reference
                - apply-groups-exclude reference
                - health-drop number
          - ttl-propagate
            - local keyword
            - transit keyword
          - twamp-light
            - apply-groups reference
            - apply-groups-exclude reference
            - reflector
              - admin-state keyword
              - allow-ipv6-udp-checksum-zero boolean
              - apply-groups reference
              - apply-groups-exclude reference
              - description description
              - prefix (ipv4-prefix | ipv6-prefix)
                - apply-groups reference
                - apply-groups-exclude reference
                - description description
              - type keyword
              - udp-port number
          - video-interface interface-name
            - accounting-policy reference
            - address ipv4-prefix-with-host-bits
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - channel ipv4-multicast-address source ipv4-unicast-address
```


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configure service vprn video-interface channel apply-groups

```
            - apply-groups reference
            - apply-groups-exclude reference
            - channel-name named-item
            - description description
            - scte35-action keyword
            - zone-channel ipv4-multicast-address zone-source ipv4-unicast-address
               - adi-channel-name named-item
               - apply-groups reference
               - apply-groups-exclude reference
         - cpu-protection reference
         - description description
         - multicast-service number
         - output-format keyword
         - video-sap
            - apply-groups reference
            - apply-groups-exclude reference
            - egress
               - apply-groups reference
               - apply-groups-exclude reference
               - filter
                  - ip reference
               - qos
                  - policy-name reference
            - ingress
               - apply-groups reference
               - apply-groups-exclude reference
               - filter
                  - ip reference
               - qos
                  - policy-name reference
            - video-group-id reference
      - vprn-type keyword
      - vxlan
         - instance number
            - apply-groups reference
            - apply-groups-exclude reference
            - network
               - ingress
                  - qos
                     - network
                        - fp-redirect-group
                           - group-name reference
                           - instance number
                        - policy-name reference
            - source-vtep-security boolean
            - vni number
         - source-vtep reference
         - tunnel-termination (ipv4-address-no-zone | ipv6-address-no-zone)
            - apply-groups reference
            - apply-groups-exclude reference
            - fpe-id reference
      - weighted-ecmp keyword
      - wlan-gw
         - apply-groups reference
         - apply-groups-exclude reference
         - distributed-subscriber-mgmt
            - apply-groups reference
            - apply-groups-exclude reference
            - ipv6-tcp-mss-adjust number
         - mobility-triggered-accounting
            - admin-state keyword
            - hold-down number
            - include-counters boolean
         - xconnect
```


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configure service vprn wlan-gw xconnect admin-state

```
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - tunnel-source-ip ipv6-prefix
            - wlan-gw-group reference
      - wpp
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - portal named-item
            - ack-auth-retry-count number
            - address (ipv4-address-no-zone | ipv6-address-no-zone)
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - ntf-logout-retry-count number
            - port-format keyword
            - retry-interval number
            - secret encrypted-leaf
            - version number
```


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## 4.43.1 service command descriptions

### service

| | |
|---|---|
| Synopsis | Enter the **service** context |
| Context | **configure** service |
| Tree | service |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cpipe** [service-name] *service-name*

| | |
|---|---|
| Synopsis | Enter the **cpipe** list instance |
| Context | **configure** service cpipe *service-name* |
| Tree | cpipe |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### [**service-name**] *service-name*

| | |
|---|---|
| Synopsis | Administrative service name |
| Context | **configure** service cpipe *service-name* |
| Tree | cpipe |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the service |
| Context | **configure** service cpipe *service-name* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |


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| | |
|---|---|
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **customer** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Service customer ID |
| Context | **configure** service cpipe *service-name* customer *reference* |
| Tree | customer |
| Reference | **configure** service customer *customer-name* |
| Notes | This element is mandatory. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service cpipe *service-name* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **endpoint** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **endpoint** list instance |
| Context | **configure** service cpipe *service-name* endpoint *named-item* |
| Tree | endpoint |
| Max. instances | 2 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### [**name**] *named-item*

| | |
|---|---|
| Synopsis | Service endpoint name |
| Context | **configure** service cpipe *service-name* endpoint *named-item* |
| Tree | endpoint |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service cpipe *service-name* endpoint *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **hold-time-active** *number*

| | |
|---|---|
| Synopsis | Time before entering standby when MC-LAG SAP goes down |
| Context | **configure** service cpipe *service-name* endpoint *named-item* hold-time-active *number* |
| Tree | hold-time-active |
| Range | 1 to 60 |
| Units | deciseconds |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **revert-time** *(number | keyword)*

| | |
|---|---|
| Synopsis | Time to wait before reverting to primary spoke SDP |
| Context | **configure** service cpipe *service-name* endpoint *named-item* revert-time *(number \| keyword)* |
| Tree | revert-time |


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| | |
|---|---|
| Range | 1 to 600 |
| Units | seconds |
| Options | never, immediate |
| Default | immediate |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **sap** [sap-id] *sap*

| | |
|---|---|
| Synopsis | Enter the **sap** list instance |
| Context | **configure** service cpipe *service-name* sap *sap* |
| Tree | sap |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### [**sap-id**] *sap*

| | |
|---|---|
| Synopsis | SAP ID |
| Context | **configure** service cpipe *service-name* sap *sap* |
| Tree | sap |
| String length | 1 to 45 |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **accounting-policy** *reference*

| | |
|---|---|
| Synopsis | Accounting policy |
| Context | **configure** service cpipe *service-name* sap *sap* accounting-policy *reference* |
| Tree | accounting-policy |
| Reference | **configure** log accounting-policy *number* |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the SAP |
| Context | **configure** service cpipe *service-name* sap *sap* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **cem**

| | |
|---|---|
| Synopsis | Enter the **cem** context |
| Context | **configure** service cpipe *service-name* sap *sap* cem |
| Tree | cem |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **packet**

| | |
|---|---|
| Synopsis | Enter the **packet** context |
| Context | **configure** service cpipe *service-name* sap *sap* cem packet |
| Tree | packet |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **jitter-buffer** *number*

| | |
|---|---|
| Synopsis | Jitter buffer size |
| Context | **configure** service cpipe *service-name* sap *sap* cem packet jitter-buffer *number* |
| Tree | jitter-buffer |
| Range | 1 to 250 |
| Units | milliseconds |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **payload-size** *number*

| | |
|---|---|
| Synopsis | Size of payload packets transmitted to PSN by CEM SAP |
| Context | **configure** service cpipe *service-name* sap *sap* cem packet payload-size *number* |
| Tree | payload-size |
| Range | 2 to 1514 |
| Units | bytes |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **report-alarm**

| | |
|---|---|
| Synopsis | Enter the **report-alarm** context |
| Context | **configure** service cpipe *service-name* sap *sap* cem report-alarm |
| Tree | report-alarm |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **buffer-overrun** *boolean*

| | |
|---|---|
| Synopsis | Report alarm for buffer overrun |
| Context | **configure** service cpipe *service-name* sap *sap* cem report-alarm buffer-overrun *boolean* |
| Tree | buffer-overrun |
| Default | true |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **buffer-underrun** *boolean*

| | |
|---|---|
| Synopsis | Report alarm for buffer underrun |
| Context | **configure** service cpipe *service-name* sap *sap* cem report-alarm buffer-underrun *boolean* |
| Tree | buffer-underrun |
| Default | true |
| Introduced | 20.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **malformed-packets** *boolean*

| | |
|---|---|
| Synopsis | Report alarm for malformed packets |
| Context | **configure** service cpipe *service-name* sap *sap* cem report-alarm malformed-packets *boolean* |
| Tree | malformed-packets |
| Default | true |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **packet-loss** *boolean*

| | |
|---|---|
| Synopsis | Report remote peer is currently in packet loss status |
| Context | **configure** service cpipe *service-name* sap *sap* cem report-alarm packet-loss *boolean* |
| Tree | packet-loss |
| Default | true |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **remote-fault** *boolean*

| | |
|---|---|
| Synopsis | Report remote TDM interface is currently not in service |
| Context | **configure** service cpipe *service-name* sap *sap* cem report-alarm remote-fault *boolean* |
| Tree | remote-fault |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **remote-packet-loss** *boolean*

| | |
|---|---|
| Synopsis | Report remote peer is currently in packet loss status |
| Context | **configure** service cpipe *service-name* sap *sap* cem report-alarm remote-packet-loss *boolean* |
| Tree | remote-packet-loss |


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| | |
|---|---|
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **remote-rdi** *boolean*

| | |
|---|---|
| Synopsis | Report remote TDM interface is currently in RDI status |
| Context | **configure** service cpipe *service-name* sap *sap* cem report-alarm remote-rdi *boolean* |
| Tree | remote-rdi |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **stray-packets** *boolean*

| | |
|---|---|
| Synopsis | Report alarm for stray packets |
| Context | **configure** service cpipe *service-name* sap *sap* cem report-alarm stray-packets *boolean* |
| Tree | stray-packets |
| Default | true |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **rtp-header** *boolean*

| | |
|---|---|
| Synopsis | Use RTP header for transmitted packets to the PSN |
| Context | **configure** service cpipe *service-name* sap *sap* cem rtp-header *boolean* |
| Tree | rtp-header |
| Description | When configured to **true**, the router uses the RTP header when packets are transmitted to the packet service network (PSN) by the CEM SAP. This mode must be enabled for differential-timed E1s. |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |


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### **collect-stats** *boolean*

| | |
|---|---|
| Synopsis | Collect accounting statistics |
| Context | **configure** service cpipe *service-name* sap *sap* collect-stats *boolean* |
| Tree | collect-stats |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **description** *long-description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service cpipe *service-name* sap *sap* description *long-description* |
| Tree | description |
| String length | 1 to 160 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **dist-cpu-protection** *reference*

| | |
|---|---|
| Synopsis | Distributed CPU protection policy for SAP |
| Context | **configure** service cpipe *service-name* sap *sap* dist-cpu-protection *reference* |
| Tree | dist-cpu-protection |
| Reference | **configure** system security dist-cpu-protection policy *named-item* |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **egress**

| | |
|---|---|
| Synopsis | Enter the **egress** context |
| Context | **configure** service cpipe *service-name* sap *sap* egress |
| Tree | egress |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### agg-rate

| | |
|---|---|
| Synopsis | Enter the **agg-rate** context |
| Context | **configure** service cpipe *service-name* sap *sap* egress agg-rate |
| Tree | agg-rate |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### adaptation-rule *keyword*

| | |
|---|---|
| Synopsis | Adaptation rule to compute the operational PIR value when an aggregate shaper is used |
| Context | **configure** service cpipe *service-name* sap *sap* egress agg-rate adaptation-rule *keyword* |
| Tree | adaptation-rule |
| Options | max, min, closest |
| Default | closest |
| Introduced | 22.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### burst-limit *(number | keyword)*

| | |
|---|---|
| Synopsis | Shaping burst size when an aggregate shaper is used |
| Context | **configure** service cpipe *service-name* sap *sap* egress agg-rate burst-limit *(number | keyword)* |
| Tree | burst-limit |
| Range | 1 to 14000000 |
| Units | bytes |
| Options | auto |
| Default | auto |
| Introduced | 22.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### limit-unused-bandwidth *boolean*

| | |
|---|---|
| Synopsis | Enable aggregate rate overrun protection |
| Context | **configure** service cpipe *service-name* sap *sap* egress agg-rate limit-unused-bandwidth *boolean* |


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| | |
|---|---|
| Tree | limit-unused-bandwidth |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **rate** *number*

| | |
|---|---|
| Synopsis | Enforced aggregate rate for all queues |
| Context | **configure** service cpipe *service-name* sap *sap* egress agg-rate rate *number* |
| Tree | rate |
| Range | 1 to 6400000000 |
| Units | kilobps |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### qos

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** service cpipe *service-name* sap *sap* egress qos |
| Tree | qos |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### policer-control-policy

| | |
|---|---|
| Synopsis | Enter the **policer-control-policy** context |
| Context | **configure** service cpipe *service-name* sap *sap* egress qos policer-control-policy |
| Tree | policer-control-policy |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS |

### overrides

| | |
|---|---|
| Synopsis | Enable the **overrides** context |
| Context | **configure** service cpipe *service-name* sap *sap* egress qos policer-control-policy overrides |


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| | |
|---|---|
| Tree | overrides |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS |

## root

| | |
|---|---|
| Synopsis | Enter the **root** context |
| Context | **configure** service cpipe *service-name* sap *sap* egress qos policer-control-policy overrides root |
| Tree | root |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS |

## max-rate *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum frame-based bandwidth limit |
| Context | **configure** service cpipe *service-name* sap *sap* egress qos policer-control-policy overrides root max-rate *(number | keyword)* |
| Tree | max-rate |
| Range | 1 to 6400000000 |
| Options | max |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS |

## priority-mbs-thresholds

| | |
|---|---|
| Synopsis | Enter the **priority-mbs-thresholds** context |
| Context | **configure** service cpipe *service-name* sap *sap* egress qos policer-control-policy overrides root priority-mbs-thresholds |
| Tree | priority-mbs-thresholds |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS |

## min-thresh-separation *(number | keyword)*

| | |
|---|---|
| Synopsis | Minimum amount of separation buffer space |


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| | |
|---|---|
| Context | **configure** service cpipe *service-name* sap *sap* egress qos policer-control-policy overrides root priority-mbs-thresholds min-thresh-separation *(number \| keyword)* |
| Tree | min-thresh-separation |
| Range | 0 to 16777216 |
| Units | bytes |
| Options | auto |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **priority** [priority-level] *number*

| | |
|---|---|
| Synopsis | Enter the **priority** list instance |
| Context | **configure** service cpipe *service-name* sap *sap* egress qos policer-control-policy overrides root priority-mbs-thresholds priority *number* |
| Tree | priority |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS |

### [**priority-level**] *number*

| | |
|---|---|
| Synopsis | Priority level |
| Context | **configure** service cpipe *service-name* sap *sap* egress qos policer-control-policy overrides root priority-mbs-thresholds priority *number* |
| Tree | priority |
| Range | 1 to 8 |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **mbs-contribution** *(number | keyword)*

| | |
|---|---|
| Synopsis | Minimum amount of cumulative buffer space allowed |
| Context | **configure** service cpipe *service-name* sap *sap* egress qos policer-control-policy overrides root priority-mbs-thresholds priority *number* mbs-contribution *(number \| keyword)* |
| Tree | mbs-contribution |


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| | |
|---|---|
| Range | 0 to 16777216 |
| Units | bytes |
| Options | auto |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **policy-name** *reference*

| | |
|---|---|
| Synopsis | Policer control policy name |
| Context | **configure** service cpipe *service-name* sap *sap* egress qos policer-control-policy policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos policer-control-policy *named-item* |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **sap-egress**

| | |
|---|---|
| Synopsis | Enter the **sap-egress** context |
| Context | **configure** service cpipe *service-name* sap *sap* egress qos sap-egress |
| Tree | sap-egress |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **overrides**

| | |
|---|---|
| Synopsis | Enter the **overrides** context |
| Context | **configure** service cpipe *service-name* sap *sap* egress qos sap-egress overrides |
| Tree | overrides |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **policer** [policer-id] *reference*

| | |
|---|---|
| Synopsis | Enter the **policer** list instance |


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| | |
|---|---|
| Context | **configure** service cpipe *service-name* sap *sap* egress qos sap-egress overrides policer *reference* |
| Tree | policer |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS |

### [**policer-id**] *reference*

| | |
|---|---|
| Synopsis | Policer unique ID |
| Context | **configure** service cpipe *service-name* sap *sap* egress qos sap-egress overrides policer *reference* |
| Tree | policer |
| Reference | **configure** qos sap-egress *qos-policy-name* policer *number* |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **cbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | CBS |
| Context | **configure** service cpipe *service-name* sap *sap* egress qos sap-egress overrides policer *reference* cbs *(number | keyword)* |
| Tree | cbs |
| Range | 0 to 268435456 |
| Units | bytes |
| Options | auto |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **mbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | MBS |
| Context | **configure** service cpipe *service-name* sap *sap* egress qos sap-egress overrides policer *reference* mbs *(number | keyword)* |
| Tree | mbs |
| Range | 0 to 268435456 |


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| | |
|---|---|
| Units | bytes |
| Options | auto |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **packet-byte-offset** *number*

| | |
|---|---|
| Synopsis | Packet size modification for policing information |
| Context | **configure** service cpipe *service-name* sap *sap* egress qos sap-egress overrides policer *reference* packet-byte-offset *number* |
| Tree | packet-byte-offset |
| Range | -64 to 31 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **percent-rate**

| | |
|---|---|
| Synopsis | Enter the **percent-rate** context |
| Context | **configure** service cpipe *service-name* sap *sap* egress qos sap-egress overrides policer *reference* percent-rate |
| Tree | percent-rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **cir** *decimal-number*

| | |
|---|---|
| Synopsis | CIR percent rate |
| Context | **configure** service cpipe *service-name* sap *sap* egress qos sap-egress overrides policer *reference* percent-rate cir *decimal-number* |
| Tree | cir |
| Range | 0.00 to 100.00 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **pir** *decimal-number*

| | |
|---|---|
| Synopsis | PIR percent rate |
| Context | **configure** service cpipe *service-name* sap *sap* egress qos sap-egress overrides policer *reference* percent-rate pir *decimal-number* |
| Tree | pir |
| Range | 0.01 to 100.00 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **rate**

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** service cpipe *service-name* sap *sap* egress qos sap-egress overrides policer *reference* rate |
| Tree | rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **cir** *(number | keyword)*

| | |
|---|---|
| Synopsis | CIR rate |
| Context | **configure** service cpipe *service-name* sap *sap* egress qos sap-egress overrides policer *reference* rate cir *(number | keyword)* |
| Tree | cir |
| Range | 0 to 6400000000 |
| Units | kilobps |
| Options | max |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | PIR rate |


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| | |
|---|---|
| Context | **configure** service cpipe *service-name* sap *sap* egress qos sap-egress overrides policer *reference* rate pir *(number \| keyword)* |
| Tree | pir |
| Range | 1 to 6400000000 |
| Units | kilobps |
| Options | max |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **stat-mode** *keyword*

| | |
|---|---|
| Synopsis | Mode of statistics collected by the policer |
| Context | **configure** service cpipe *service-name* sap *sap* egress qos sap-egress overrides policer *reference* stat-mode *keyword* |
| Tree | stat-mode |
| Options | no-stats, minimal, offered-profile-no-cir, offered-total-cir, offered-profile-cir, offered-limited-capped-cir, offered-profile-capped-cir, offered-total-cir-exceed, offered-four-profile-no-cir, offered-total-cir-four-profile |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **queue** [queue-id] *reference*

| | |
|---|---|
| Synopsis | Enter the **queue** list instance |
| Context | **configure** service cpipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* |
| Tree | queue |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### [**queue-id**] *reference*

| | |
|---|---|
| Synopsis | Policer unique ID |
| Context | **configure** service cpipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* |
| Tree | queue |
| Reference | **configure** qos sap-egress *qos-policy-name* queue *number* |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## adaptation-rule

| | |
|---|---|
| Synopsis | Enter the **adaptation-rule** context |
| Context | **configure** service cpipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* adaptation-rule |
| Tree | adaptation-rule |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **cir** *keyword*

| | |
|---|---|
| Synopsis | Constraint used when deriving the operational CIR value |
| Context | **configure** service cpipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* adaptation-rule cir *keyword* |
| Tree | cir |
| Options | max, min, closest |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **pir** *keyword*

| | |
|---|---|
| Synopsis | Constraint used when deriving the operational PIR value |
| Context | **configure** service cpipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* adaptation-rule pir *keyword* |
| Tree | pir |
| Options | max, min, closest |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **avg-frame-overhead** *decimal-number*

| | |
|---|---|
| Synopsis | Average packet-to-frame encapsulation overhead |


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| | |
|---|---|
| Context | **configure** service cpipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* avg-frame-overhead *decimal-number* |
| Tree | avg-frame-overhead |
| Description | This command configures overrides for the average frame overhead. The overrides supersede the average frame overhead configuration under the queue.<br>For a full description of this command, see the **configure qos network-queue queue avg-frame-overhead** and **configure qos sap-egress queue avg-frame-overhead** contexts. |
| Range | 0.00 to 100.00 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **burst-limit** *(number | keyword)*

| | |
|---|---|
| Synopsis | Explicit shaping burst size for the queue |
| Context | **configure** service cpipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* burst-limit *(number | keyword)* |
| Tree | burst-limit |
| Range | 1 to 14000000 |
| Units | bytes |
| Options | auto |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **cbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | CBS |
| Context | **configure** service cpipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* cbs *(number | keyword)* |
| Tree | cbs |
| Range | 0 to 1048576 |
| Units | kilobytes |
| Options | auto |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### drop-tail

| | |
|---|---|
| Synopsis | Enter the **drop-tail** context |
| Context | **configure** service cpipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* drop-tail |
| Tree | drop-tail |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### low

| | |
|---|---|
| Synopsis | Enter the **low** context |
| Context | **configure** service cpipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* drop-tail low |
| Tree | low |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### percent-reduction-from-mbs *(number | keyword)*

| | |
|---|---|
| Synopsis | Percentage reduction from the MBS for a queue drop tail |
| Context | **configure** service cpipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* drop-tail low percent-reduction-from-mbs *(number \| keyword)* |
| Tree | percent-reduction-from-mbs |
| Range | 0 to 100 |
| Options | auto |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### hs-class-weight *number*

| | |
|---|---|
| Synopsis | Class weight override for the queue |
| Context | **configure** service cpipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* hs-class-weight *number* |
| Tree | hs-class-weight |
| Range | 1 \| 2 \| 4 \| 8 |


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| | |
|---|---|
| Introduced | 20.10.R1 |
| Platforms | 7750 SR-7/12/12e |

## hs-wred-queue

| | |
|---|---|
| Synopsis | Enter the **hs-wred-queue** context |
| Context | **configure** service cpipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* hs-wred-queue |
| Tree | hs-wred-queue |
| Introduced | 20.10.R1 |
| Platforms | 7750 SR-7/12/12e |

## policy *reference*

| | |
|---|---|
| Synopsis | Slope policy applied to the HSQ queue group queue |
| Context | **configure** service cpipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* hs-wred-queue policy *reference* |
| Tree | policy |
| Reference | **configure** qos slope-policy *named-item* |
| Introduced | 20.10.R1 |
| Platforms | 7750 SR-7/12/12e |

## hs-wrr-weight *number*

| | |
|---|---|
| Synopsis | WRR weight to parent with the queue into the scheduler |
| Context | **configure** service cpipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* hs-wrr-weight *number* |
| Tree | hs-wrr-weight |
| Range | 1 to 127 |
| Default | 1 |
| Introduced | 20.10.R1 |
| Platforms | 7750 SR-7/12/12e |

## mbs *(number | keyword)*

| | |
|---|---|
| Synopsis | MBS |


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| | |
|---|---|
| Context | **configure** service cpipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* mbs *(number \| keyword)* |
| Tree | mbs |
| Range | 0 to 1073741824 |
| Units | bytes |
| Options | auto |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## monitor-queue-depth

| | |
|---|---|
| Synopsis | Enable the **monitor-queue-depth** context |
| Context | **configure** service cpipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* monitor-queue-depth |
| Tree | monitor-queue-depth |
| Description | Commands in this context configure queue depth monitoring for the specified queue. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## fast-polling *boolean*

| | |
|---|---|
| Synopsis | Enable fast polling of the queue depth |
| Context | **configure** service cpipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* monitor-queue-depth fast-polling *boolean* |
| Tree | fast-polling |
| Description | When configured to **true**, this command enables fast polling of the queue depth. Faster polling allows a more accurate view of the actual depth. |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## violation-threshold *decimal-number*

| | |
|---|---|
| Synopsis | Threshold for queue depth before violation is raised |
| Context | **configure** service cpipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* monitor-queue-depth violation-threshold *decimal-number* |


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| | |
|---|---|
| Tree | violation-threshold |
| Description | This command specifies the threshold for the queue MBS. When the queue depth exceeds the threshold value, a violation is registered. |
| Range | 0.01 to 99.99 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## parent

| | |
|---|---|
| Synopsis | Enter the **parent** context |
| Context | **configure** service cpipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* parent |
| Tree | parent |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## cir-weight *number*

| | |
|---|---|
| Synopsis | CIR parameter that overrides parent for queue group |
| Context | **configure** service cpipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* parent cir-weight *number* |
| Tree | cir-weight |
| Range | 0 to 100 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## weight *number*

| | |
|---|---|
| Synopsis | PIR parameter that overrides parent for queue group |
| Context | **configure** service cpipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* parent weight *number* |
| Tree | weight |
| Range | 0 to 100 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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## percent-rate

| | |
|---|---|
| Synopsis | Enter the **percent-rate** context |
| Context | **configure** service cpipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* percent-rate |
| Tree | percent-rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## cir *decimal-number*

| | |
|---|---|
| Synopsis | CIR percent rate |
| Context | **configure** service cpipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* percent-rate cir *decimal-number* |
| Tree | cir |
| Range | 0.00 to 100.00 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## pir *decimal-number*

| | |
|---|---|
| Synopsis | PIR percent rate |
| Context | **configure** service cpipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* percent-rate pir *decimal-number* |
| Tree | pir |
| Range | 0.01 to 100.00 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## rate

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** service cpipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* rate |
| Tree | rate |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **cir** *(number | keyword)*

| | |
|---|---|
| Synopsis | CIR rate |
| Context | **configure** service cpipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* rate cir *(number | keyword)* |
| Tree | cir |
| Range | 0 to 6400000000 |
| Units | kilobps |
| Options | max |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | PIR rate |
| Context | **configure** service cpipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* rate pir *(number | keyword)* |
| Tree | pir |
| Range | 1 to 6400000000 |
| Units | kilobps |
| Options | max |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **policy-name** *reference*

| | |
|---|---|
| Synopsis | Policy ID to associate with SAP for mirrored service |
| Context | **configure** service cpipe *service-name* sap *sap* egress qos sap-egress policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos sap-egress *qos-policy-name* |
| Introduced | 20.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## scheduler-policy

| | |
|---|---|
| Synopsis | Enter the **scheduler-policy** context |
| Context | **configure** service cpipe *service-name* sap *sap* egress qos scheduler-policy |
| Tree | scheduler-policy |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## overrides

| | |
|---|---|
| Synopsis | Enter the **overrides** context |
| Context | **configure** service cpipe *service-name* sap *sap* egress qos scheduler-policy overrides |
| Tree | overrides |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **scheduler** [scheduler-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **scheduler** list instance |
| Context | **configure** service cpipe *service-name* sap *sap* egress qos scheduler-policy overrides scheduler *named-item* |
| Tree | scheduler |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## [**scheduler-name**] *named-item*

| | |
|---|---|
| Synopsis | Scheduler name |
| Context | **configure** service cpipe *service-name* sap *sap* egress qos scheduler-policy overrides scheduler *named-item* |
| Tree | scheduler |
| Description | This command specifies the scheduler name which is composed of printable 7-bit ASCII characters. If the string contains special characters (#, $, spaces, and so on), the entire string must be enclosed within double quotes. Each scheduler must have a unique name within the context of the scheduler policy. However, the same name can |


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be reused in multiple scheduler policies. If the scheduler name already exists within the policy tier level, the context changes to that scheduler name for the purpose of editing the scheduler commands.

If the scheduler name exists within the policy on a different tier, an error occurs and the current context does not change. If the scheduler name does not exist in this or another tier within the scheduler policy, it is assumed that an attempt is being made to create a scheduler of that name.

If the provided scheduler name is invalid, a name syntax error occurs, the command does not execute, and the context is not change.

| | |
|---|---|
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## parent

| | |
|---|---|
| Synopsis | Enter the **parent** context |
| Context | **configure** service cpipe *service-name* sap *sap* egress qos scheduler-policy overrides scheduler *named-item* parent |
| Tree | parent |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## cir-weight *number*

| | |
|---|---|
| Synopsis | Weight used at the within-CIR port priority level |
| Context | **configure** service cpipe *service-name* sap *sap* egress qos scheduler-policy overrides scheduler *named-item* parent cir-weight *number* |
| Tree | cir-weight |
| Range | 0 to 100 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## weight *number*

| | |
|---|---|
| Synopsis | Relative weight of the scheduler to feed the queue |
| Context | **configure** service cpipe *service-name* sap *sap* egress qos scheduler-policy overrides scheduler *named-item* parent weight *number* |


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| | |
|---|---|
| Tree | weight |
| Range | 0 to 100 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### rate

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** service cpipe *service-name* sap *sap* egress qos scheduler-policy overrides scheduler *named-item* rate |
| Tree | rate |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **cir** *(number | keyword)*

| | |
|---|---|
| Synopsis | CIR at which the queue it to operate |
| Context | **configure** service cpipe *service-name* sap *sap* egress qos scheduler-policy overrides scheduler *named-item* rate cir *(number | keyword)* |
| Tree | cir |
| Range | 0 to 6400000000 |
| Units | kilobps |
| Options | sum, max |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | PIR at which the queue is to operate |
| Context | **configure** service cpipe *service-name* sap *sap* egress qos scheduler-policy overrides scheduler *named-item* rate pir *(number | keyword)* |
| Tree | pir |
| Range | 1 to 6400000000 |
| Units | kilobps |
| Options | max |
| Introduced | 20.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **policy-name** *reference*

| | |
|---|---|
| Synopsis | Scheduler policy name |
| Context | **configure** service cpipe *service-name* sap *sap* egress qos scheduler-policy policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos scheduler-policy *named-item* |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **virtual-port**

| | |
|---|---|
| Synopsis | Enter the **virtual-port** context |
| Context | **configure** service cpipe *service-name* sap *sap* egress virtual-port |
| Tree | virtual-port |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

### **vport-name** *reference*

| | |
|---|---|
| Synopsis | Virtual port assigned to the SAP |
| Context | **configure** service cpipe *service-name* sap *sap* egress virtual-port vport-name *reference* |
| Tree | vport-name |
| Reference | **configure** port *port* ethernet access egress virtual-port *named-item* |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

### **endpoint** *reference*

| | |
|---|---|
| Synopsis | Endpoint name |
| Context | **configure** service cpipe *service-name* sap *sap* endpoint *reference* |
| Tree | endpoint |
| Reference | **configure** service cpipe *service-name* endpoint *named-item* |


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| | |
|---|---|
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## ingress

| | |
|---|---|
| Synopsis | Enter the **ingress** context |
| Context | **configure** service cpipe *service-name* sap *sap* ingress |
| Tree | ingress |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## qos

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** service cpipe *service-name* sap *sap* ingress qos |
| Tree | qos |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## policer-control-policy

| | |
|---|---|
| Synopsis | Enter the **policer-control-policy** context |
| Context | **configure** service cpipe *service-name* sap *sap* ingress qos policer-control-policy |
| Tree | policer-control-policy |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS |

## overrides

| | |
|---|---|
| Synopsis | Enable the **overrides** context |
| Context | **configure** service cpipe *service-name* sap *sap* ingress qos policer-control-policy overrides |
| Tree | overrides |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### root

| | |
|---|---|
| Synopsis | Enter the **root** context |
| Context | **configure** service cpipe *service-name* sap *sap* ingress qos policer-control-policy overrides root |
| Tree | root |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS |

### max-rate *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum frame-based bandwidth limit |
| Context | **configure** service cpipe *service-name* sap *sap* ingress qos policer-control-policy overrides root max-rate *(number | keyword)* |
| Tree | max-rate |
| Range | 1 to 6400000000 |
| Options | max |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS |

### priority-mbs-thresholds

| | |
|---|---|
| Synopsis | Enter the **priority-mbs-thresholds** context |
| Context | **configure** service cpipe *service-name* sap *sap* ingress qos policer-control-policy overrides root priority-mbs-thresholds |
| Tree | priority-mbs-thresholds |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS |

### min-thresh-separation *(number | keyword)*

| | |
|---|---|
| Synopsis | Minimum amount of separation buffer space |
| Context | **configure** service cpipe *service-name* sap *sap* ingress qos policer-control-policy overrides root priority-mbs-thresholds min-thresh-separation *(number | keyword)* |
| Tree | min-thresh-separation |
| Range | 0 to 16777216 |


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| | |
|---|---|
| Units | bytes |
| Options | auto |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **priority** [priority-level] *number*

| | |
|---|---|
| Synopsis | Enter the **priority** list instance |
| Context | **configure** service cpipe *service-name* sap *sap* ingress qos policer-control-policy overrides root priority-mbs-thresholds priority *number* |
| Tree | priority |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS |

### [**priority-level**] *number*

| | |
|---|---|
| Synopsis | Priority level |
| Context | **configure** service cpipe *service-name* sap *sap* ingress qos policer-control-policy overrides root priority-mbs-thresholds priority *number* |
| Tree | priority |
| Range | 1 to 8 |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **mbs-contribution** *(number | keyword)*

| | |
|---|---|
| Synopsis | Minimum amount of cumulative buffer space allowed |
| Context | **configure** service cpipe *service-name* sap *sap* ingress qos policer-control-policy overrides root priority-mbs-thresholds priority *number* mbs-contribution *(number | keyword)* |
| Tree | mbs-contribution |
| Range | 0 to 16777216 |
| Units | bytes |
| Options | auto |
| Introduced | 20.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **policy-name** *reference*

| | |
|---|---|
| Synopsis | Policer control policy name |
| Context | **configure** service cpipe *service-name* sap *sap* ingress qos policer-control-policy policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos policer-control-policy *named-item* |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS |

## sap-ingress

| | |
|---|---|
| Synopsis | Enter the **sap-ingress** context |
| Context | **configure** service cpipe *service-name* sap *sap* ingress qos sap-ingress |
| Tree | sap-ingress |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## overrides

| | |
|---|---|
| Synopsis | Enter the **overrides** context |
| Context | **configure** service cpipe *service-name* sap *sap* ingress qos sap-ingress overrides |
| Tree | overrides |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## ip-criteria

| | |
|---|---|
| Synopsis | Enter the **ip-criteria** context |
| Context | **configure** service cpipe *service-name* sap *sap* ingress qos sap-ingress overrides ip-criteria |
| Tree | ip-criteria |
| Introduced | 20.10.R2 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **activate-entry-tag** *number*

| | |
|---|---|
| Synopsis | Tag ID activated for IPv4 criteria |
| Context | **configure** service cpipe *service-name* sap *sap* ingress qos sap-ingress overrides ip-criteria activate-entry-tag *number* |
| Tree | activate-entry-tag |
| Range | 1 to 255 |
| Introduced | 20.10.R2 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ipv6-criteria**

| | |
|---|---|
| Synopsis | Enter the **ipv6-criteria** context |
| Context | **configure** service cpipe *service-name* sap *sap* ingress qos sap-ingress overrides ipv6-criteria |
| Tree | ipv6-criteria |
| Introduced | 20.10.R2 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **activate-entry-tag** *number*

| | |
|---|---|
| Synopsis | Tag ID activated for IPv6 criteria |
| Context | **configure** service cpipe *service-name* sap *sap* ingress qos sap-ingress overrides ipv6-criteria activate-entry-tag *number* |
| Tree | activate-entry-tag |
| Range | 1 to 255 |
| Introduced | 20.10.R2 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **policer** [policer-id] *reference*

| | |
|---|---|
| Synopsis | Enter the **policer** list instance |
| Context | **configure** service cpipe *service-name* sap *sap* ingress qos sap-ingress overrides policer *reference* |
| Tree | policer |
| Introduced | 20.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS |

### [**policer-id**] *reference*

| | |
|---|---|
| Synopsis | Policer unique ID |
| Context | **configure** service cpipe *service-name* sap *sap* ingress qos sap-ingress overrides policer *reference* |
| Tree | policer |
| Reference | **configure** qos sap-ingress *qos-policy-name* policer *number* |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **cbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | CBS |
| Context | **configure** service cpipe *service-name* sap *sap* ingress qos sap-ingress overrides policer *reference* cbs *(number | keyword)* |
| Tree | cbs |
| Range | 0 to 268435456 |
| Units | bytes |
| Options | auto |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **mbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | MBS |
| Context | **configure** service cpipe *service-name* sap *sap* ingress qos sap-ingress overrides policer *reference* mbs *(number | keyword)* |
| Tree | mbs |
| Range | 0 to 268435456 |
| Units | bytes |
| Options | auto |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **packet-byte-offset** *number*

| | |
|---|---|
| Synopsis | Packet size modification for policing information |
| Context | **configure** service cpipe *service-name* sap *sap* ingress qos sap-ingress overrides policer *reference* packet-byte-offset *number* |
| Tree | packet-byte-offset |
| Range | -32 to 31 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **percent-rate**

| | |
|---|---|
| Synopsis | Enter the **percent-rate** context |
| Context | **configure** service cpipe *service-name* sap *sap* ingress qos sap-ingress overrides policer *reference* percent-rate |
| Tree | percent-rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **cir** *decimal-number*

| | |
|---|---|
| Synopsis | CIR percent rate |
| Context | **configure** service cpipe *service-name* sap *sap* ingress qos sap-ingress overrides policer *reference* percent-rate cir *decimal-number* |
| Tree | cir |
| Range | 0.00 to 100.00 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **pir** *decimal-number*

| | |
|---|---|
| Synopsis | PIR percent rate |
| Context | **configure** service cpipe *service-name* sap *sap* ingress qos sap-ingress overrides policer *reference* percent-rate pir *decimal-number* |
| Tree | pir |


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| | |
|---|---|
| Range | 0.01 to 100.00 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS |

## rate

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** service cpipe *service-name* sap *sap* ingress qos sap-ingress overrides policer *reference* rate |
| Tree | rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **cir** *(number | keyword)*

| | |
|---|---|
| Synopsis | CIR rate |
| Context | **configure** service cpipe *service-name* sap *sap* ingress qos sap-ingress overrides policer *reference* rate cir *(number | keyword)* |
| Tree | cir |
| Range | 0 to 6400000000 |
| Units | kilobps |
| Options | max |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | PIR rate |
| Context | **configure** service cpipe *service-name* sap *sap* ingress qos sap-ingress overrides policer *reference* rate pir *(number | keyword)* |
| Tree | pir |
| Range | 1 to 6400000000 |
| Units | kilobps |
| Options | max |
| Introduced | 20.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **stat-mode** *keyword*

| | |
|---|---|
| Synopsis | Mode of statistics collected by the policer |
| Context | **configure** service cpipe *service-name* sap *sap* ingress qos sap-ingress overrides policer *reference* stat-mode *keyword* |
| Tree | stat-mode |
| Options | no-stats, minimal, offered-profile-no-cir, offered-total-cir, offered-priority-no-cir, offered-profile-cir, offered-priority-cir, offered-limited-profile-cir, offered-profile-capped-cir, offered-limited-capped-cir |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **queue** [queue-id] *reference*

| | |
|---|---|
| Synopsis | Enter the **queue** list instance |
| Context | **configure** service cpipe *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* |
| Tree | queue |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### [**queue-id**] *reference*

| | |
|---|---|
| Synopsis | Policer unique ID |
| Context | **configure** service cpipe *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* |
| Tree | queue |
| Reference | **configure** qos sap-ingress *qos-policy-name* queue *number* |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **adaptation-rule**

| | |
|---|---|
| Synopsis | Enter the **adaptation-rule** context |


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| | |
|---|---|
| Context | **configure** service cpipe *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* adaptation-rule |
| Tree | adaptation-rule |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **cir** *keyword*

| | |
|---|---|
| Synopsis | Constraint used when deriving the operational CIR value |
| Context | **configure** service cpipe *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* adaptation-rule cir *keyword* |
| Tree | cir |
| Options | max, min, closest |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **pir** *keyword*

| | |
|---|---|
| Synopsis | Constraint used when deriving the operational PIR value |
| Context | **configure** service cpipe *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* adaptation-rule pir *keyword* |
| Tree | pir |
| Options | max, min, closest |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **cbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | CBS |
| Context | **configure** service cpipe *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* cbs *(number | keyword)* |
| Tree | cbs |
| Range | 0 to 1048576 |
| Units | kilobytes |
| Options | auto |
| Introduced | 20.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## drop-tail

| | |
|---|---|
| Synopsis | Enter the **drop-tail** context |
| Context | **configure** service cpipe *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* drop-tail |
| Tree | drop-tail |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## low

| | |
|---|---|
| Synopsis | Enter the **low** context |
| Context | **configure** service cpipe *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* drop-tail low |
| Tree | low |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## percent-reduction-from-mbs *(number | keyword)*

| | |
|---|---|
| Synopsis | Percentage reduction from the MBS for a queue drop tail |
| Context | **configure** service cpipe *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* drop-tail low percent-reduction-from-mbs *(number | keyword)* |
| Tree | percent-reduction-from-mbs |
| Range | 0 to 100 |
| Options | auto |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## mbs *(number | keyword)*

| | |
|---|---|
| Synopsis | MBS |
| Context | **configure** service cpipe *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* mbs *(number | keyword)* |
| Tree | mbs |


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| | |
|---|---|
| Range | 0 to 1073741824 |
| Units | bytes |
| Options | auto |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## monitor-queue-depth

| | |
|---|---|
| Synopsis | Enable the **monitor-queue-depth** context |
| Context | **configure** service cpipe *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* monitor-queue-depth |
| Tree | monitor-queue-depth |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## fast-polling *boolean*

| | |
|---|---|
| Synopsis | Enable fast polling of the queue depth |
| Context | **configure** service cpipe *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* monitor-queue-depth fast-polling *boolean* |
| Tree | fast-polling |
| Default | false |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## parent

| | |
|---|---|
| Synopsis | Enter the **parent** context |
| Context | **configure** service cpipe *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* parent |
| Tree | parent |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **cir-weight** *number*

| | |
|---|---|
| Synopsis | CIR parameter that overrides parent for queue group |
| Context | **configure** service cpipe *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* parent cir-weight *number* |
| Tree | cir-weight |
| Range | 0 to 100 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **weight** *number*

| | |
|---|---|
| Synopsis | PIR parameter that overrides parent for queue group |
| Context | **configure** service cpipe *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* parent weight *number* |
| Tree | weight |
| Range | 0 to 100 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **percent-rate**

| | |
|---|---|
| Synopsis | Enter the **percent-rate** context |
| Context | **configure** service cpipe *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* percent-rate |
| Tree | percent-rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **cir** *decimal-number*

| | |
|---|---|
| Synopsis | CIR percent rate |
| Context | **configure** service cpipe *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* percent-rate cir *decimal-number* |
| Tree | cir |


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| | |
|---|---|
| Range | 0.00 to 100.00 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **pir** *decimal-number*

| | |
|---|---|
| Synopsis | PIR percent rate |
| Context | **configure** service cpipe *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* percent-rate pir *decimal-number* |
| Tree | pir |
| Range | 0.01 to 100.00 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **rate**

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** service cpipe *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* rate |
| Tree | rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **cir** *(number | keyword)*

| | |
|---|---|
| Synopsis | CIR rate |
| Context | **configure** service cpipe *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* rate cir *(number | keyword)* |
| Tree | cir |
| Range | 0 to 6400000000 |
| Units | kilobps |
| Options | max |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | PIR rate |
| Context | **configure** service cpipe *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* rate pir *(number \| keyword)* |
| Tree | pir |
| Range | 1 to 6400000000 |
| Units | kilobps |
| Options | max |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **policy-name** *reference*

| | |
|---|---|
| Synopsis | Policy ID |
| Context | **configure** service cpipe *service-name* sap *sap* ingress qos sap-ingress policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos sap-ingress *qos-policy-name* |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **queuing-type** *keyword*

| | |
|---|---|
| Synopsis | Queuing type |
| Context | **configure** service cpipe *service-name* sap *sap* ingress qos sap-ingress queuing-type *keyword* |
| Tree | queuing-type |
| Options | shared, multipoint-shared |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e |

### **scheduler-policy**

| | |
|---|---|
| Synopsis | Enter the **scheduler-policy** context |
| Context | **configure** service cpipe *service-name* sap *sap* ingress qos scheduler-policy |


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| | |
|---|---|
| Tree | scheduler-policy |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## overrides

| | |
|---|---|
| Synopsis | Enter the **overrides** context |
| Context | **configure** service cpipe *service-name* sap *sap* ingress qos scheduler-policy overrides |
| Tree | overrides |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **scheduler** [scheduler-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **scheduler** list instance |
| Context | **configure** service cpipe *service-name* sap *sap* ingress qos scheduler-policy overrides scheduler *named-item* |
| Tree | scheduler |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## [**scheduler-name**] *named-item*

| | |
|---|---|
| Synopsis | Scheduler name |
| Context | **configure** service cpipe *service-name* sap *sap* ingress qos scheduler-policy overrides scheduler *named-item* |
| Tree | scheduler |
| Description | This command specifies the scheduler name which is composed of printable 7-bit ASCII characters. If the string contains special characters (#, $, spaces, and so on), the entire string must be enclosed within double quotes. Each scheduler must have a unique name within the context of the scheduler policy. However, the same name can be reused in multiple scheduler policies. If the scheduler name already exists within the policy tier level, the context changes to that scheduler name for the purpose of editing the scheduler commands.<br><br>If the scheduler name exists within the policy on a different tier, an error occurs and the current context does not change. If the scheduler name does not exist in this or another tier within the scheduler policy, it is assumed that an attempt is being made to create a scheduler of that name. |


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| | |
|---|---|
| | If the provided scheduler name is invalid, a name syntax error occurs, the command does not execute, and the context is not change. |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## parent

| | |
|---|---|
| Synopsis | Enter the **parent** context |
| Context | **configure** service cpipe *service-name* sap *sap* ingress qos scheduler-policy overrides scheduler *named-item* parent |
| Tree | parent |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## cir-weight *number*

| | |
|---|---|
| Synopsis | Weight used at the within-CIR port priority level |
| Context | **configure** service cpipe *service-name* sap *sap* ingress qos scheduler-policy overrides scheduler *named-item* parent cir-weight *number* |
| Tree | cir-weight |
| Range | 0 to 100 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## weight *number*

| | |
|---|---|
| Synopsis | Relative weight of the scheduler to feed the queue |
| Context | **configure** service cpipe *service-name* sap *sap* ingress qos scheduler-policy overrides scheduler *named-item* parent weight *number* |
| Tree | weight |
| Range | 0 to 100 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### rate

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** service cpipe *service-name* sap *sap* ingress qos scheduler-policy overrides scheduler *named-item* rate |
| Tree | rate |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### cir *(number | keyword)*

| | |
|---|---|
| Synopsis | CIR at which the queue it to operate |
| Context | **configure** service cpipe *service-name* sap *sap* ingress qos scheduler-policy overrides scheduler *named-item* rate cir *(number | keyword)* |
| Tree | cir |
| Range | 0 to 6400000000 |
| Units | kilobps |
| Options | sum, max |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### pir *(number | keyword)*

| | |
|---|---|
| Synopsis | PIR at which the queue is to operate |
| Context | **configure** service cpipe *service-name* sap *sap* ingress qos scheduler-policy overrides scheduler *named-item* rate pir *(number | keyword)* |
| Tree | pir |
| Range | 1 to 6400000000 |
| Units | kilobps |
| Options | max |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### policy-name *reference*

| | |
|---|---|
| Synopsis | Scheduler policy name |


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| | |
|---|---|
| Context | **configure** service cpipe *service-name* sap *sap* ingress qos scheduler-policy policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos scheduler-policy *named-item* |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## lag

| | |
|---|---|
| Synopsis | Enter the **lag** context |
| Context | **configure** service cpipe *service-name* sap *sap* lag |
| Tree | lag |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## multi-service-site *reference*

| | |
|---|---|
| Synopsis | Multi service site name |
| Context | **configure** service cpipe *service-name* sap *sap* multi-service-site *reference* |
| Tree | multi-service-site |
| Reference | **configure** service customer *customer-name* multi-service-site *named-item* |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## service-id *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Service ID |
| Context | **configure** service cpipe *service-name* service-id *number* |
| Tree | service-id |
| Range | 1 to 2147483647 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **service-mtu** *number*

| | |
|---|---|
| Synopsis | MTU size |
| Context | **configure** service cpipe *service-name* service-mtu *number* |
| Tree | service-mtu |
| Range | 1 to 9194 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **spoke-sdp** [sdp-bind-id] *sdp-bind-id*

| | |
|---|---|
| Synopsis | Enter the **spoke-sdp** list instance |
| Context | **configure** service cpipe *service-name* spoke-sdp *sdp-bind-id* |
| Tree | spoke-sdp |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### [**sdp-bind-id**] *sdp-bind-id*

| | |
|---|---|
| Synopsis | SDP binding ID |
| Context | **configure** service cpipe *service-name* spoke-sdp *sdp-bind-id* |
| Tree | spoke-sdp |
| String length | 3 to 16 |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the SDP binding to the service |
| Context | **configure** service cpipe *service-name* spoke-sdp *sdp-bind-id* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 20.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **bandwidth** *(number | keyword)*

| | |
|---|---|
| Synopsis | Bandwidth that is reserved for this SDP binding |
| Context | **configure** service cpipe *service-name* spoke-sdp *sdp-bind-id* bandwidth *(number \| keyword)* |
| Tree | bandwidth |
| Range | 0 to 100000000 |
| Units | kilobps |
| Options | max |
| Default | 0 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **bfd**

| | |
|---|---|
| Synopsis | Enter the **bfd** context |
| Context | **configure** service cpipe *service-name* spoke-sdp *sdp-bind-id* bfd |
| Tree | bfd |
| Introduced | 21.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **bfd-liveness**

| | |
|---|---|
| Synopsis | Enable the **bfd-liveness** context |
| Context | **configure** service cpipe *service-name* spoke-sdp *sdp-bind-id* bfd bfd-liveness |
| Tree | bfd-liveness |
| Introduced | 21.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **encap** *keyword*

| | |
|---|---|
| Synopsis | BFD encapsulation used on the SDP binding |
| Context | **configure** service cpipe *service-name* spoke-sdp *sdp-bind-id* bfd bfd-liveness encap *keyword* |


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| | |
|---|---|
| Tree | encap |
| Options | ipv4 |
| Default | ipv4 |
| Introduced | 21.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **bfd-template** *reference*

| | |
|---|---|
| Synopsis | BFD template associated with the SDP binding |
| Context | **configure** service cpipe *service-name* spoke-sdp *sdp-bind-id* bfd bfd-template *reference* |
| Tree | bfd-template |
| Description | This command configures a named BFD template to be used by VCCV BFD on PWs belonging to the VLL service. The template specifies parameters, such as the minimum transmit and receive control packet timer intervals, used by the BFD session. Template parameters are configured under the **configure router bfd** context. |
| Reference | **configure** bfd bfd-template *named-item* |
| Introduced | 21.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **control-word** *boolean*

| | |
|---|---|
| Synopsis | Use control word as part of packet encapsulation |
| Context | **configure** service cpipe *service-name* spoke-sdp *sdp-bind-id* control-word *boolean* |
| Tree | control-word |
| Default | true |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service cpipe *service-name* spoke-sdp *sdp-bind-id* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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## egress

| | |
|---|---|
| Synopsis | Enter the **egress** context |
| Context | **configure** service cpipe *service-name* spoke-sdp *sdp-bind-id* egress |
| Tree | egress |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## qos

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** service cpipe *service-name* spoke-sdp *sdp-bind-id* egress qos |
| Tree | qos |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## network

| | |
|---|---|
| Synopsis | Enter the **network** context |
| Context | **configure** service cpipe *service-name* spoke-sdp *sdp-bind-id* egress qos network |
| Tree | network |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## policy-name *reference*

| | |
|---|---|
| Synopsis | Network policy ID |
| Context | **configure** service cpipe *service-name* spoke-sdp *sdp-bind-id* egress qos network policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos network *network-policy-name* |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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## port-redirect-group

| | |
|---|---|
| Synopsis | Enter the **port-redirect-group** context |
| Context | **configure** service cpipe *service-name* spoke-sdp *sdp-bind-id* egress qos network port-redirect-group |
| Tree | port-redirect-group |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## group-name *reference*

| | |
|---|---|
| Synopsis | Name of the egress port queue group |
| Context | **configure** service cpipe *service-name* spoke-sdp *sdp-bind-id* egress qos network port-redirect-group group-name *reference* |
| Tree | group-name |
| Reference | **configure** qos queue-group-templates egress queue-group *named-item* |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## instance *number*

| | |
|---|---|
| Synopsis | Queue-group instance ID |
| Context | **configure** service cpipe *service-name* spoke-sdp *sdp-bind-id* egress qos network port-redirect-group instance *number* |
| Tree | instance |
| Range | 1 to 65535 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## vc-label *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Egress MPLS VC label to send packets to the far end |
| Context | **configure** service cpipe *service-name* spoke-sdp *sdp-bind-id* egress vc-label *number* |


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| | |
|---|---|
| Tree | vc-label |
| Range | 16 to 1048575 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## endpoint

| | |
|---|---|
| Synopsis | Enter the **endpoint** context |
| Context | **configure** service cpipe *service-name* spoke-sdp *sdp-bind-id* endpoint |
| Tree | endpoint |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## icb *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Bind the SDP as the Inter-Chassis Backup (ICB) type |
| Context | **configure** service cpipe *service-name* spoke-sdp *sdp-bind-id* endpoint icb *boolean* |
| Tree | icb |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## name *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Endpoint name to which SDP bind is attached |
| Context | **configure** service cpipe *service-name* spoke-sdp *sdp-bind-id* endpoint name *reference* |
| Tree | name |
| Reference | **configure** service cpipe *service-name* endpoint *named-item* |
| Introduced | 20.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **precedence** *(number | keyword)*

| | |
|---|---|
| Synopsis | Precedence when multiple SDP binds are on one endpoint |
| Context | **configure** service cpipe *service-name* spoke-sdp *sdp-bind-id* endpoint precedence *(number | keyword)* |
| Tree | precedence |
| Range | 1 to 4 |
| Options | primary |
| Default | 4 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## ingress

| | |
|---|---|
| Synopsis | Enter the **ingress** context |
| Context | **configure** service cpipe *service-name* spoke-sdp *sdp-bind-id* ingress |
| Tree | ingress |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## qos

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** service cpipe *service-name* spoke-sdp *sdp-bind-id* ingress qos |
| Tree | qos |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## network

| | |
|---|---|
| Synopsis | Enter the **network** context |
| Context | **configure** service cpipe *service-name* spoke-sdp *sdp-bind-id* ingress qos network |
| Tree | network |
| Introduced | 20.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## fp-redirect-group

| | |
|---|---|
| Synopsis | Enter the **fp-redirect-group** context |
| Context | **configure** service cpipe *service-name* spoke-sdp *sdp-bind-id* ingress qos network fp-redirect-group |
| Tree | fp-redirect-group |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## group-name *reference*

| | |
|---|---|
| Synopsis | Name of the forwarding plane queue group template |
| Context | **configure** service cpipe *service-name* spoke-sdp *sdp-bind-id* ingress qos network fp-redirect-group group-name *reference* |
| Tree | group-name |
| Reference | **configure** qos queue-group-templates ingress queue-group *named-item* |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## instance *number*

| | |
|---|---|
| Synopsis | Instance of FP ingress queue group for the SDP binding |
| Context | **configure** service cpipe *service-name* spoke-sdp *sdp-bind-id* ingress qos network fp-redirect-group instance *number* |
| Tree | instance |
| Range | 1 to 65535 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## policy-name *reference*

| | |
|---|---|
| Synopsis | Network policy ID |
| Context | **configure** service cpipe *service-name* spoke-sdp *sdp-bind-id* ingress qos network policy-name *reference* |


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| | |
|---|---|
| Tree | policy-name |
| Reference | **configure** qos network *network-policy-name* |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **vc-label** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Ingress MPLS VC label to send packets to the far end |
| Context | **configure** service cpipe *service-name* spoke-sdp *sdp-bind-id* ingress vc-label *number* |
| Tree | vc-label |
| Range | 1 to 1048575 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **test** *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Designate as a test service |
| Context | **configure** service cpipe *service-name* test *boolean* |
| Tree | test |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **vc-switching** *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.


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| | |
|---|---|
| Synopsis | Use PW switching signaling for spoke SDPs in service |
| Context | **configure** service cpipe *service-name* vc-switching *boolean* |
| Tree | vc-switching |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **vc-type** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Circuit emulation service type signalled to the peer |
| Context | **configure** service cpipe *service-name* vc-type *keyword* |
| Tree | vc-type |
| Options | satop-e1, satop-t1, cesopsn, cesopsn-cas |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **vpn-id** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | VPN identifier for the service |
| Context | **configure** service cpipe *service-name* vpn-id *number* |
| Tree | vpn-id |
| Range | 1 to 2147483647 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **customer** [customer-name] *customer-name*

| | |
|---|---|
| Synopsis | Enter the **customer** list instance |
| Context | **configure** service customer *customer-name* |


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| | |
|---|---|
| Tree | customer |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**customer-name**] *customer-name*

| | |
|---|---|
| Synopsis | Customer name for a service |
| Context | **configure** service customer *customer-name* |
| Tree | customer |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **contact** *description*

| | |
|---|---|
| Synopsis | Service customer contact information |
| Context | **configure** service customer *customer-name* contact *description* |
| Tree | contact |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **customer-id** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Customer ID |
| Context | **configure** service customer *customer-name* customer-id *number* |
| Tree | customer-id |
| Range | 1 to 2147483647 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service customer *customer-name* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **multi-service-site** [multi-service-site-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **multi-service-site** list instance |
| Context | **configure** service customer *customer-name* multi-service-site *named-item* |
| Tree | multi-service-site |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**multi-service-site-name**] *named-item*

| | |
|---|---|
| Synopsis | Customer site name |
| Context | **configure** service customer *customer-name* multi-service-site *named-item* |
| Tree | multi-service-site |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **assignment**

| | |
|---|---|
| Synopsis | Enter the **assignment** context |
| Context | **configure** service customer *customer-name* multi-service-site *named-item* assignment |
| Tree | assignment |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **card** *number*

| | |
|---|---|
| Synopsis | Multi-service-site assignment to the card slot |
| Context | **configure** service customer *customer-name* multi-service-site *named-item* assignment card *number* |
| Tree | card |
| Range | 1 to 20 |
| Notes | The following elements are part of a choice: **card**, **fpe**, or **port**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **fpe** *reference*

| | |
|---|---|
| Synopsis | Multi-service-site assignment to the FPE object |
| Context | **configure** service customer *customer-name* multi-service-site *named-item* assignment fpe *reference* |
| Tree | fpe |
| Description | When configured to **true**, this command identifies the MSS assignment to an FPE object to allow the creation of a scheduling hierarchy used to control bandwidth over a set of PW SAPs belonging to multiple PW ports. These PW ports must be associated with the same FPE to which MSS is assigned.<br>When configured to **false**, this command has no effect and returns no warnings or messages. |
| Reference | **configure** fwd-path-ext fpe *number* |
| Notes | The following elements are part of a choice: **card**, **fpe**, or **port**. |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **port** *port-named*

| | |
|---|---|
| Synopsis | Multi-service-site assignment to the port |
| Context | **configure** service customer *customer-name* multi-service-site *named-item* assignment port *port-named* |
| Tree | port |
| Notes | The following elements are part of a choice: **card**, **fpe**, or **port**. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service customer *customer-name* multi-service-site *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **egress**

| | |
|---|---|
| Synopsis | Enter the **egress** context |
| Context | **configure** service customer *customer-name* multi-service-site *named-item* egress |
| Tree | egress |
| Introduced | 16.0.R1 |
| Platforms | All |

### **agg-rate**

| | |
|---|---|
| Synopsis | Enter the **agg-rate** context |
| Context | **configure** service customer *customer-name* multi-service-site *named-item* egress agg-rate |
| Tree | agg-rate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **limit-unused-bandwidth** *boolean*

| | |
|---|---|
| Synopsis | Enable aggregate rate overrun protection |
| Context | **configure** service customer *customer-name* multi-service-site *named-item* egress agg-rate limit-unused-bandwidth *boolean* |
| Tree | limit-unused-bandwidth |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **queue-frame-based-accounting** *boolean*

| | |
|---|---|
| Synopsis | Enable frame based accounting for policers and queues |
| Context | **configure** service customer *customer-name* multi-service-site *named-item* egress agg-rate queue-frame-based-accounting *boolean* |
| Tree | queue-frame-based-accounting |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rate** *number*

| | |
|---|---|
| Synopsis | Rate limit |
| Context | **configure** service customer *customer-name* multi-service-site *named-item* egress agg-rate rate *number* |
| Tree | rate |
| Range | 1 to 6400000000 |
| Units | kilobps |
| Introduced | 16.0.R1 |
| Platforms | All |

### **policer-control-policy** *reference*

| | |
|---|---|
| Synopsis | Policer control policy |
| Context | **configure** service customer *customer-name* multi-service-site *named-item* egress policer-control-policy *reference* |
| Tree | policer-control-policy |
| Reference | **configure** qos policer-control-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |


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## scheduler-policy

| | |
|---|---|
| Synopsis | Enter the **scheduler-policy** context |
| Context | **configure** service customer *customer-name* multi-service-site *named-item* egress scheduler-policy |
| Tree | scheduler-policy |
| Introduced | 16.0.R1 |
| Platforms | All |

## overrides

| | |
|---|---|
| Synopsis | Enter the **overrides** context |
| Context | **configure** service customer *customer-name* multi-service-site *named-item* egress scheduler-policy overrides |
| Tree | overrides |
| Introduced | 16.0.R1 |
| Platforms | All |

## **scheduler** [scheduler-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **scheduler** list instance |
| Context | **configure** service customer *customer-name* multi-service-site *named-item* egress scheduler-policy overrides scheduler *named-item* |
| Tree | scheduler |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**scheduler-name**] *named-item*

| | |
|---|---|
| Synopsis | Scheduler name |
| Context | **configure** service customer *customer-name* multi-service-site *named-item* egress scheduler-policy overrides scheduler *named-item* |
| Tree | scheduler |
| Description | This command specifies the scheduler name which is composed of printable 7-bit ASCII characters. If the string contains special characters (#, $, spaces, and so on), the entire string must be enclosed within double quotes. Each scheduler must have a unique name within the context of the scheduler policy. However, the same name can be reused in multiple scheduler policies. If the scheduler name already exists within the |


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policy tier level, the context changes to that scheduler name for the purpose of editing the scheduler commands.

If the scheduler name exists within the policy on a different tier, an error occurs and the current context will not change. If the scheduler name does not exist in this or another tier within the scheduler policy, it is assumed that an attempt is being made to create a scheduler of that name.

If the provided scheduler name is invalid, a name syntax error occurs, the command does not execute, and the context does not change.

| | |
|---|---|
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## parent

| | |
|---|---|
| Synopsis | Enter the **parent** context |
| Context | **configure** service customer *customer-name* multi-service-site *named-item* egress scheduler-policy overrides scheduler *named-item* parent |
| Tree | parent |
| Introduced | 16.0.R1 |
| Platforms | All |

## cir-weight *number*

| | |
|---|---|
| Synopsis | Weight used at the within-CIR port priority level |
| Context | **configure** service customer *customer-name* multi-service-site *named-item* egress scheduler-policy overrides scheduler *named-item* parent cir-weight *number* |
| Tree | cir-weight |
| Range | 0 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

## weight *number*

| | |
|---|---|
| Synopsis | Relative weight of the scheduler to feed the queue |
| Context | **configure** service customer *customer-name* multi-service-site *named-item* egress scheduler-policy overrides scheduler *named-item* parent weight *number* |
| Tree | weight |


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| | |
|---|---|
| Range | 0 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### rate

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** service customer *customer-name* multi-service-site *named-item* egress scheduler-policy overrides scheduler *named-item* rate |
| Tree | rate |
| Introduced | 16.0.R1 |
| Platforms | All |

### cir *(number | keyword)*

| | |
|---|---|
| Synopsis | CIR for the scheduler |
| Context | **configure** service customer *customer-name* multi-service-site *named-item* egress scheduler-policy overrides scheduler *named-item* rate cir *(number | keyword)* |
| Tree | cir |
| Range | 0 to 6400000000 |
| Units | kilobps |
| Options | sum, max |
| Introduced | 16.0.R1 |
| Platforms | All |

### pir *(number | keyword)*

| | |
|---|---|
| Synopsis | PIR for the scheduler |
| Context | **configure** service customer *customer-name* multi-service-site *named-item* egress scheduler-policy overrides scheduler *named-item* rate pir *(number | keyword)* |
| Tree | pir |
| Range | 1 to 6400000000 |
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **policy-name** *reference*

| | |
|---|---|
| Synopsis | Scheduler policy name |
| Context | **configure** service customer *customer-name* multi-service-site *named-item* egress scheduler-policy policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos scheduler-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **ingress**

| | |
|---|---|
| Synopsis | Enter the **ingress** context |
| Context | **configure** service customer *customer-name* multi-service-site *named-item* ingress |
| Tree | ingress |
| Introduced | 16.0.R1 |
| Platforms | All |

## **policer-control-policy** *reference*

| | |
|---|---|
| Synopsis | Policer control policy |
| Context | **configure** service customer *customer-name* multi-service-site *named-item* ingress policer-control-policy *reference* |
| Tree | policer-control-policy |
| Reference | **configure** qos policer-control-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## **scheduler-policy**

| | |
|---|---|
| Synopsis | Enter the **scheduler-policy** context |
| Context | **configure** service customer *customer-name* multi-service-site *named-item* ingress scheduler-policy |
| Tree | scheduler-policy |
| Introduced | 16.0.R1 |
| Platforms | All |


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## overrides

| | |
|---|---|
| Synopsis | Enter the **overrides** context |
| Context | **configure** service customer *customer-name* multi-service-site *named-item* ingress scheduler-policy overrides |
| Tree | overrides |
| Introduced | 16.0.R1 |
| Platforms | All |

## scheduler [scheduler-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **scheduler** list instance |
| Context | **configure** service customer *customer-name* multi-service-site *named-item* ingress scheduler-policy overrides scheduler *named-item* |
| Tree | scheduler |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**scheduler-name**] *named-item*

| | |
|---|---|
| Synopsis | Scheduler name |
| Context | **configure** service customer *customer-name* multi-service-site *named-item* ingress scheduler-policy overrides scheduler *named-item* |
| Tree | scheduler |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## parent

| | |
|---|---|
| Synopsis | Enter the **parent** context |
| Context | **configure** service customer *customer-name* multi-service-site *named-item* ingress scheduler-policy overrides scheduler *named-item* parent |
| Tree | parent |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **cir-weight** *number*

| | |
|---|---|
| Synopsis | Weight used at the within-CIR port priority level |
| Context | **configure** service customer *customer-name* multi-service-site *named-item* ingress scheduler-policy overrides scheduler *named-item* parent cir-weight *number* |
| Tree | cir-weight |
| Range | 0 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **weight** *number*

| | |
|---|---|
| Synopsis | Relative weight of the scheduler to feed the queue |
| Context | **configure** service customer *customer-name* multi-service-site *named-item* ingress scheduler-policy overrides scheduler *named-item* parent weight *number* |
| Tree | weight |
| Range | 0 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rate**

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** service customer *customer-name* multi-service-site *named-item* ingress scheduler-policy overrides scheduler *named-item* rate |
| Tree | rate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cir** *(number | keyword)*

| | |
|---|---|
| Synopsis | CIR for the scheduler |
| Context | **configure** service customer *customer-name* multi-service-site *named-item* ingress scheduler-policy overrides scheduler *named-item* rate cir *(number | keyword)* |
| Tree | cir |


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| | |
|---|---|
| Range | 0 to 6400000000 |
| Units | kilobps |
| Options | sum, max |
| Introduced | 16.0.R1 |
| Platforms | All |

### **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | PIR for the scheduler |
| Context | **configure** service customer *customer-name* multi-service-site *named-item* ingress scheduler-policy overrides scheduler *named-item* rate pir *(number | keyword)* |
| Tree | pir |
| Range | 1 to 6400000000 |
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | All |

### **policy-name** *reference*

| | |
|---|---|
| Synopsis | Scheduler policy name |
| Context | **configure** service customer *customer-name* multi-service-site *named-item* ingress scheduler-policy policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos scheduler-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **phone** *description*

| | |
|---|---|
| Synopsis | Service customer telephone number information |
| Context | **configure** service customer *customer-name* phone *description* |
| Tree | phone |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **epipe** [service-name] *service-name*

| | |
|---|---|
| Synopsis | Enter the **epipe** list instance |
| Context | **configure** service epipe *service-name* |
| Tree | epipe |
| Description | Commands in this context configure an Epipe service instance. |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**service-name**] *service-name*

| | |
|---|---|
| Synopsis | Administrative service name |
| Context | **configure** service epipe *service-name* |
| Tree | epipe |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the service |
| Context | **configure** service epipe *service-name* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bgp** [bgp-instance] *number*

| | |
|---|---|
| Synopsis | Enter the **bgp** list instance |
| Context | **configure** service epipe *service-name* bgp *number* |


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| | |
|---|---|
| Tree | bgp |
| Description | Commands in this context configure the BGP related options that BGP uses for multihoming and BGP VPWS. |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**bgp-instance**] *number*

| | |
|---|---|
| Synopsis | BGP instance |
| Context | **configure** service epipe *service-name* bgp *number* |
| Tree | bgp |
| Range | 1 to 2 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **adv-service-mtu** *number*

| | |
|---|---|
| Synopsis | Advertised service MTU value |
| Context | **configure** service epipe *service-name* bgp *number* adv-service-mtu *number* |
| Tree | adv-service-mtu |
| Description | This command configures the MTU signaled value used in the BGP for the service. When configured, the router uses the value for signaling and for validation with the received MTU instead of the service MTU. However, the value does not affect the locally enforced value, which is still based on the service MTU. |
| Range | 0 to 9782 |
| Introduced | 22.2.R1 |
| Platforms | All |

### **pw-template-binding** [pw-template-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **pw-template-binding** list instance |
| Context | **configure** service epipe *service-name* bgp *number* pw-template-binding *reference* |
| Tree | pw-template-binding |
| Max. instances | 100 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### [**pw-template-name**] *reference*

| | |
|---|---|
| Synopsis | Policy name |
| Context | **configure** service epipe *service-name* bgp *number* pw-template-binding *reference* |
| Tree | pw-template-binding |
| Reference | **configure** service pw-template *pw-template-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bfd-liveness** *boolean*

| | |
|---|---|
| Synopsis | Enable BFD |
| Context | **configure** service epipe *service-name* bgp *number* pw-template-binding *reference* bfd-liveness *boolean* |
| Tree | bfd-liveness |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bfd-template** *reference*

| | |
|---|---|
| Synopsis | BFD template name for PW-Template binding |
| Context | **configure** service epipe *service-name* bgp *number* pw-template-binding *reference* bfd-template *reference* |
| Tree | bfd-template |
| Reference | **configure** bfd bfd-template *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **endpoint** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Endpoint name associated with the BGP PW template |
| Context | **configure** service epipe *service-name* bgp *number* pw-template-binding *reference* endpoint *reference* |
| Tree | endpoint |
| Description | This command specifies the endpoint name associated with the BGP PW template. When an endpoint is associated to the PW template binding of a BGP VPWS service, EVPN MPLS can also be configured and associated to the same endpoint in the same Epipe service. |
| Reference | **configure** service epipe *service-name* endpoint *named-item* |
| Introduced | 20.5.R1 |
| Platforms | All |

## **import-rt** *route-target*

| | |
|---|---|
| Synopsis | Import route-target communities |
| Context | **configure** service epipe *service-name* bgp *number* pw-template-binding *reference* import-rt *route-target* |
| Tree | import-rt |
| String length | 10 to 28 |
| Max. instances | 5 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **route-distinguisher** *(keyword | vpn-route-distinguisher)*

| | |
|---|---|
| Synopsis | RD component for NLRI for L2VPN and EVPN families |
| Context | **configure** service epipe *service-name* bgp *number* route-distinguisher *(keyword | vpn-route-distinguisher)* |
| Tree | route-distinguisher |
| Options | auto-rd |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## route-target

| | |
|---|---|
| Synopsis | Enter the **route-target** context |
| Context | **configure** service epipe *service-name* bgp *number* route-target |
| Tree | route-target |
| Introduced | 16.0.R1 |
| Platforms | All |

## export *route-target*

| | |
|---|---|
| Synopsis | Extended community name for default import policy |
| Context | **configure** service epipe *service-name* bgp *number* route-target export *route-target* |
| Tree | export |
| String length | 10 to 28 |
| Introduced | 16.0.R1 |
| Platforms | All |

## import *route-target*

| | |
|---|---|
| Synopsis | Extended community name for default import policy |
| Context | **configure** service epipe *service-name* bgp *number* route-target import *route-target* |
| Tree | import |
| String length | 10 to 28 |
| Introduced | 16.0.R1 |
| Platforms | All |

## vsi-export *reference*

| | |
|---|---|
| Synopsis | VSI export policies |
| Context | **configure** service epipe *service-name* bgp *number* vsi-export *reference* |
| Tree | vsi-export |
| Reference | **configure** policy-options policy-statement *named-item-64* |


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| | |
|---|---|
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **vsi-import** *reference*

| | |
|---|---|
| Synopsis | VSI import policies |
| Context | **configure** service epipe *service-name* bgp *number* vsi-import *reference* |
| Tree | vsi-import |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **bgp-evpn**

| | |
|---|---|
| Synopsis | Enable the **bgp-evpn** context |
| Context | **configure** service epipe *service-name* bgp-evpn |
| Tree | bgp-evpn |
| Description | Commands in this context configure the BGP-EVPN options. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **evi** *number*

| | |
|---|---|
| Synopsis | EVPN ID |
| Context | **configure** service epipe *service-name* bgp-evpn evi *number* |
| Tree | evi |
| Description | This command configures an EVPN instance (EVI) unique in the system. It is used for the service-carving algorithm for multi-homing and auto-deriving route target and route distinguishers.<br>The following options are supported: |


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If this EVPN identifier is not specified, the value is zero and no route distinguisher or route target is automatically derived from it.If the specified EVPN identifier is lower than 65535 and no other route distinguisher or route target is configured in the service, the following applies:

- the route distinguisher is derived from <system_ip>:evi
- the route target is derived from <autonomous-system>:evi

If the specified EVPN identifier is higher than 65535 and no other route distinguisher or route target is configured in the service, the following applies.

- The route distinguisher cannot be automatically derived. An error is generated if enabling EVPN is attempted without a route distinguisher. A manual or an **auto-rd** route distinguisher must be configured.
- The route target can only be automatically derived if the **evi-three-byte-auto-rt** command is configured. If configured, the route target is automatically derived in accordance with the rules described in RFC8365.

| | |
|---|---|
| Range | 1 to 16777215 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **local-attachment-circuit** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **local-attachment-circuit** list instance |
| Context | **configure** service epipe *service-name* bgp-evpn local-attachment-circuit *named-item* |
| Tree | local-attachment-circuit |
| Max. instances | 2 |
| Introduced | 20.10.R1 |
| Platforms | All |

## [**name**] *named-item*

| | |
|---|---|
| Synopsis | Attachment circuit name |
| Context | **configure** service epipe *service-name* bgp-evpn local-attachment-circuit *named-item* |
| Tree | local-attachment-circuit |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | All |


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## **bgp** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | BGP instance ID |
| Context | **configure** service epipe *service-name* bgp-evpn local-attachment-circuit *named-item* bgp *number* |
| Tree | bgp |
| Range | 1 to 2 |
| Default | 1 |
| Introduced | 23.10.R1 |
| Platforms | All |

## **endpoint** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Endpoint name |
| Context | **configure** service epipe *service-name* bgp-evpn local-attachment-circuit *named-item* endpoint *reference* |
| Tree | endpoint |
| Reference | **configure** service epipe *service-name* endpoint *named-item* |
| Introduced | 20.10.R1 |
| Platforms | All |

## **eth-tag** *number*

| | |
|---|---|
| Synopsis | Ethernet tag of the attachment circuit |
| Context | **configure** service epipe *service-name* bgp-evpn local-attachment-circuit *named-item* eth-tag *number* |
| Tree | eth-tag |
| Description | This command configures the Ethernet tag value of the attachment circuit.<br>When configured in the local attachment circuit context, the tag value is used in the advertised AD per-EVI route sent for the attachment circuit. |


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When configured in the remote attachment circuit context, the value is compared with the Ethernet tag value of the imported D per-EVI routes for the service. When there is a match, the system creates an EVPN destination for the Epipe.

| | |
|---|---|
| Range | 1 to 16777215 |
| Introduced | 20.10.R1 |
| Platforms | All |

### **vlan-signaled-flexible-cross-connect** *boolean*

| | |
|---|---|
| Synopsis | Enable FXC VLAN-signaled mode |
| Context | **configure** service epipe *service-name* bgp-evpn local-attachment-circuit *named-item* vlan-signaled-flexible-cross-connect *boolean* |
| Tree | vlan-signaled-flexible-cross-connect |
| Description | When configured to **true**, the router enables the FXC Epipe in VLAN-signaled mode. In addition, a separate EVPN Auto-Discovery per-EVI route is advertised per-SAP, and the Ethernet tag IDs are autoderived from the normalized tags for the SAP.<br>When configured to **false**, the router advertises a single Auto-Discovery per-EVI route for the service using the configured local Ethernet tag ID. |
| Default | false |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### **mpls** [bgp-instance] *number*

| | |
|---|---|
| Synopsis | Enter the **mpls** list instance |
| Context | **configure** service epipe *service-name* bgp-evpn mpls *number* |
| Tree | mpls |
| Description | Commands in this context configure the BGP-EVPN MPLS options. |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**bgp-instance**] *number*

| | |
|---|---|
| Synopsis | BGP instance |
| Context | **configure** service epipe *service-name* bgp-evpn mpls *number* |
| Tree | mpls |
| Range | 1 to 2 |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of BGP EVPN MPLS |
| Context | **configure** service epipe *service-name* bgp-evpn mpls *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

## **auto-bind-tunnel**

| | |
|---|---|
| Synopsis | Enter the **auto-bind-tunnel** context |
| Context | **configure** service epipe *service-name* bgp-evpn mpls *number* auto-bind-tunnel |
| Tree | auto-bind-tunnel |
| Description | Commands in this context configure automatic binding of a VPRN service using tunnels to MP-BGP peers. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **allow-flex-algo-fallback** *boolean*

| | |
|---|---|
| Synopsis | Enable flexible algorithm fallback |
| Context | **configure** service epipe *service-name* bgp-evpn mpls *number* auto-bind-tunnel allow-flex-algo-fallback *boolean* |
| Tree | allow-flex-algo-fallback |
| Description | When configured to **true**, a BGP router with a Flex-Algorithm action configured (via the **configure policy-options policy-statement entry action flex-algo** command) can resolve to a tunnel with algorithm 0 if no target Flex-Algorithm tunnel is available**.**<br><br>When configured to **false**, the BGP router can resolve only to the intended Flex-Algorithm tunnel, which may cause traffic loss if no corresponding Flex-Algorithm tunnel is available. |
| Default | false |


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| | |
|---|---|
| Introduced | 20.10.R1 |
| Platforms | All |

### **ecmp** *number*

| | |
|---|---|
| Synopsis | Maximum ECMP routes information |
| Context | **configure** service epipe *service-name* bgp-evpn mpls *number* auto-bind-tunnel ecmp *number* |
| Tree | ecmp |
| Range | 1 to 32 |
| Default | 1 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **enforce-strict-tunnel-tagging** *boolean*

| | |
|---|---|
| Synopsis | Enable/disable enforcement of strict tunnel tagging |
| Context | **configure** service epipe *service-name* bgp-evpn mpls *number* auto-bind-tunnel enforce-strict-tunnel-tagging *boolean* |
| Tree | enforce-strict-tunnel-tagging |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **enforce-untagged-route** *keyword*

| | |
|---|---|
| Synopsis | Untagged route type enforcement |
| Context | **configure** service epipe *service-name* bgp-evpn mpls *number* auto-bind-tunnel enforce-untagged-route *keyword* |
| Tree | enforce-untagged-route |
| Description | This command configures the enforcement of BGP routes with no administrative tag policy applied by modifying the next-hop resolution behavior for autobind services.<br><br>If the **untagged-tunnel** option is configured, untagged routes only bind to LSPs with no administrative tag configured. If both tagged and untagged tunnels to the next hop exist, the system only considers the untagged tunnels. If no untagged tunnels to the next hop exist, the resolution of untagged routes fails. |


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The **untagged-tunnel** option can be used in combination with the **enforce-strict-tunnel-tagging** command configured to **true**, in which case tagged routes resolve to tagged LSPs, and untagged routes only resolve to untagged LSPs.

When unconfigured, untagged routes can bind to tagged or untagged LSPs.

| | |
|---|---|
| Options | none – Untagged routes can bind to tagged or untagged LSPs<br>untagged-tunnel – Untagged routes only bind to LSPs without an admin tag |
| Default | none |
| Introduced | 24.10.R1 |
| Platforms | All |

## **resolution** *keyword*

| | |
|---|---|
| Synopsis | Resolution method for tunnel selection |
| Context | **configure** service epipe *service-name* bgp-evpn mpls *number* auto-bind-tunnel resolution *keyword* |
| Tree | resolution |
| Options | none, filter, any |
| Default | none |
| Introduced | 16.0.R1 |
| Platforms | All |

## **resolution-filter**

| | |
|---|---|
| Synopsis | Enter the **resolution-filter** context |
| Context | **configure** service epipe *service-name* bgp-evpn mpls *number* auto-bind-tunnel resolution-filter |
| Tree | resolution-filter |
| Introduced | 16.0.R1 |
| Platforms | All |

## **bgp** *boolean*

| | |
|---|---|
| Synopsis | Use BGP tunneling for next-hop resolution |
| Context | **configure** service epipe *service-name* bgp-evpn mpls *number* auto-bind-tunnel resolution-filter bgp *boolean* |
| Tree | bgp |
| Description | When configured to **true**, BGP searches the BGP LSP for the address of the BGP next hop. |


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When configured to **false**, BGP tunneling is not used and inter-area or inter-as prefixes are not resolved.

| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ldp** *boolean*

| | |
|---|---|
| Synopsis | Use LDP tunneling for next-hop resolution |
| Context | **configure** service epipe *service-name* bgp-evpn mpls *number* auto-bind-tunnel resolution-filter ldp *boolean* |
| Tree | ldp |
| Description | When configured to **true**, BGP searches for an LDP LSP with a FEC prefix corresponding to the address of the BGP next hop.<br>When configured to **false**, LDP tunneling is not used for next-hop resolution. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mpls-fwd-policy** *boolean*

| | |
|---|---|
| Synopsis | Use MPLS forwarding policy for next-hop resolution |
| Context | **configure** service epipe *service-name* bgp-evpn mpls *number* auto-bind-tunnel resolution-filter mpls-fwd-policy *boolean* |
| Tree | mpls-fwd-policy |
| Description | When configured to **true**, BGP uses the MPLS forwarding policy to determine the address of the BGP next hop.<br>When configured to **false**, the MPLS forwarding policy is not used for next-hop resolution. |
| Default | false |
| Introduced | 19.5.R1 |
| Platforms | All |

### **rib-api** *boolean*

| | |
|---|---|
| Synopsis | Use RIB API gRPC service for next-hop resolution |


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| | |
|---|---|
| Context | **configure** service epipe *service-name* bgp-evpn mpls *number* auto-bind-tunnel resolution-filter rib-api *boolean* |
| Tree | rib-api |
| Description | When configured to **true**, BGP uses tunnels programmed using the RIB API gRPC service to resolve the next hops of routes imported into the EVPN service.<br>When configured to **false**, the RIB API service tunnels are not used for next-hop resolution. |
| Default | false |
| Introduced | 19.5.R1 |
| Platforms | All |

### **rsvp** *boolean*

| | |
|---|---|
| Synopsis | Use RSVP tunneling for next-hop resolution |
| Context | **configure** service epipe *service-name* bgp-evpn mpls *number* auto-bind-tunnel resolution-filter rsvp *boolean* |
| Tree | rsvp |
| Description | When configured to **true**, BGP searches the best metric RSVP LSP to determine the address of the BGP next hop. This address can correspond to the system interface or to another loopback interface used by the BGP instance on the remote node. The LSP metric is provided by MPLS in the tunnel table. In the case of multiple RSVP LSPs with the same lowest metric, BGP selects the LSP with the lowest tunnel ID.<br>When configured to **false**, the RSVP LSP is not used for next-hop resolution. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sr-isis** *boolean*

| | |
|---|---|
| Synopsis | Use IS-IS SR tunneling for next-hop resolution |
| Context | **configure** service epipe *service-name* bgp-evpn mpls *number* auto-bind-tunnel resolution-filter sr-isis *boolean* |
| Tree | sr-isis |
| Description | When configured to **true**, BGP uses an IS-IS tunnel type to determine the address of the BGP next hop.<br>The SR tunnel to the BGP next hop is selected in the TTM from the lowest-numbered IS-IS instance.<br>When configured to **false**, IS-IS tunneling is not used for next-hop resolution. |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sr-ospf** *boolean*

| | |
|---|---|
| Synopsis | Use OSPF SR tunneling for next-hop resolution |
| Context | **configure** service epipe *service-name* bgp-evpn mpls *number* auto-bind-tunnel resolution-filter sr-ospf *boolean* |
| Tree | sr-ospf |
| Description | When configured to **true**, BGP uses an OSPF tunnel type to determine the address of the BGP next hop.<br>The SR tunnel to the BGP next hop is selected in the TTM from the lowest-numbered OPSF instance.<br>When configured to **false**, OSPF tunneling is not used for next-hop resolution. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sr-ospf3** *boolean*

| | |
|---|---|
| Synopsis | Use OSPFv3 SR tunneling for next-hop resolution |
| Context | **configure** service epipe *service-name* bgp-evpn mpls *number* auto-bind-tunnel resolution-filter sr-ospf3 *boolean* |
| Tree | sr-ospf3 |
| Description | When configured to **true**, BGP uses an OSPF3 tunnel type to determine the address of the BGP next hop.<br>The SR tunnel to the BGP next hop is selected in the TTM from the lowest-numbered OPSF3 instance.<br>When configured to **false**, OSPF3 tunneling is not used for next-hop resolution. |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **sr-policy** *boolean*

| | |
|---|---|
| Synopsis | Use SR policies for next-hop resolution |


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| | |
|---|---|
| Context | **configure** service epipe *service-name* bgp-evpn mpls *number* auto-bind-tunnel resolution-filter sr-policy *boolean* |
| Tree | sr-policy |
| Description | When configured to **true**, this command instructs BGP to use an SR policy to determine the address of the BGP next hop. The SR policy search criteria includes a non-null endpoint and color value that matches the BGP next hop and color extended community value, respectively, of the EVPN route.<br>When configured to **false**, SR policies are not used for next-hop resolution. |
| Default | false |
| Introduced | 19.5.R1 |
| Platforms | All |

### **sr-te** *boolean*

| | |
|---|---|
| Synopsis | Use SR-TE tunneling for next-hop resolution |
| Context | **configure** service epipe *service-name* bgp-evpn mpls *number* auto-bind-tunnel resolution-filter sr-te *boolean* |
| Tree | sr-te |
| Description | When configured to **true**, BGP uses an SR-TE tunnel type to determine the address of the BGP next hop.<br>The SR tunnel to the BGP next hop is selected in the TTM from the lowest-numbered tunnel ID.<br>When configured to **false**, SR-TE tunneling is not used for next-hop resolution. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **udp** *boolean*

| | |
|---|---|
| Synopsis | Use MPLS over UDP tunneling for next-hop resolution |
| Context | **configure** service epipe *service-name* bgp-evpn mpls *number* auto-bind-tunnel resolution-filter udp *boolean* |
| Tree | udp |
| Description | When configured to **true**, BGP uses an MPLS over UDP tunnel type to determine the address of the BGP next hop.<br>When configured to **false**, MPLS over UDP tunneling is not used for next-hop resolution. |
| Default | false |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## **weighted-ecmp** *boolean*

| | |
|---|---|
| Synopsis | Allow weighted load balancing |
| Context | **configure** service epipe *service-name* bgp-evpn mpls *number* auto-bind-tunnel weighted-ecmp *boolean* |
| Tree | weighted-ecmp |
| Description | When configured to **true**, this router enables weighted ECMP for packets using tunnels that a VPLS or Epipe automatically binds to. Packets are sprayed across LSPs in the ECMP according to the outcome of the hash algorithm and the configured load balancing weight of each LSP.<br>When configured to **false**, this command disables weighted ECMP for next-hop tunnel selection. |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | All |

## **control-word** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable support for control word |
| Context | **configure** service epipe *service-name* bgp-evpn mpls *number* control-word *boolean* |
| Tree | control-word |
| Description | When configured to **true**, the router enables the transmission and reception of the control word for all EVPN-MPLS destinations at the same time. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **default-route-tag** *one-byte-value*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.


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| | |
|---|---|
| Synopsis | Default route tag |
| Context | **configure** service epipe *service-name* bgp-evpn mpls *number* default-route-tag *one-byte-value* |
| Tree | default-route-tag |
| Description | This command configures a route tag that is used when sending a route to the BGP application (for the corresponding service and BGP instance). If the corresponding BGP instance is enabled, the command cannot be changed.<br><br>When used for BGP EVPN contexts, only one route tag can be passed to BGP for matching on export policies. In case of a conflict with other route tags pushed by EVPN, the default route tag has the least priority. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **domain-id** *domain-id*

| | |
|---|---|
| Synopsis | Domain ID of received BGP route before readvertisement |
| Context | **configure** service epipe *service-name* bgp-evpn mpls *number* domain-id *domain-id* |
| Tree | domain-id |
| Description | This command specifies the domain ID. The domain ID identifies the network from which the BGP route was received before the RTM advertises it to a different neighbor. The domain ID is part of a domain, represented as domain-id:isf_safi_type in the D-PATH attribute, as described in *draft-ietf-bess-evpn-ipvpn-interworking*. Gateway routers modify the D-PATH attribute. A gateway is a PE where a VPRN is instantiated. The VPRN in this case advertises or receives routes from multiple BGP owners (for example, EVPN-IFL and BGP-IPVPN) or multiple instances of the same owner (for example, VPRN with two BGP-IPVPN instances).<br><br>Gateways use the D-PATH attribute to detect loops (for received routes where the D-PATH contains a local domain ID) and to make BGP best-path selection decisions based on the D-PATH length (shorter D-PATH is preferred).<br><br>In the following example, suppose a gateway receives prefix P in an EVPN-IFL instance with the following D-PATH from neighbor N:<br><br>Seg Len=1 / 65000:1:128<br><br>If the router imports the route in VPRN-1, BGP-EVPN SRv6 instance with domain 65000:2, it readvertises it to its BGP-IPVPN MPLS instance as follows:<br><br>Seg Len=2 / 65000:2:70 / 65000:1:128<br><br>That is, the gateway prepends the local domain ID and family to the D-PATH before readvertising the route into a different instance.<br><br>The command is also supported in Epipe services with two instances. As in the case of multi-instance VPRN services, the configured domain ID in an Epipe instance is prepended to the AD per EVI route redistributed to the other instance. |
| Introduced | 23.10.R1 |


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| | |
|---|---|
| Platforms | All |

### **dynamic-egress-label-limit** *boolean*

| | |
|---|---|
| Synopsis | Enables dynamic egress label limit |
| Context | **configure** service epipe *service-name* bgp-evpn mpls *number* dynamic-egress-label-limit *boolean* |
| Tree | dynamic-egress-label-limit |
| Description | When configured to **true**, this command relaxes the egress MPLS label limit check when resolving BGP next hops in the tunnel table.<br>For VPRN services, the OAM label is never computed and, therefore, one more egress label is allowed.<br>For EVPN (Epipe and VPLS) services, the system only computes the control word and ESI label if they are used. For the control word, the system reduces the egress label limit by one label if the control word is configured in the service. When configured, the ESI label is not counted for Epipes or VPLS services without an ES.<br>When configured to **false** this command, for EVPN, Epipe, and VPLS services, always accounts for the ESI label and control word. |
| Default | false |
| Introduced | 22.2.R1 |
| Platforms | All |

### **ecmp** *number*

| | |
|---|---|
| Synopsis | Maximum ECMP routes information |
| Context | **configure** service epipe *service-name* bgp-evpn mpls *number* ecmp *number* |
| Tree | ecmp |
| Range | 1 to 32 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **entropy-label** *boolean*

| | |
|---|---|
| Synopsis | Enable use of entropy-labels |
| Context | **configure** service epipe *service-name* bgp-evpn mpls *number* entropy-label *boolean* |
| Tree | entropy-label |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **evi-three-byte-auto-rt** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Auto-derive the BGP EVPN route target |
| Context | **configure** service epipe *service-name* bgp-evpn mpls *number* evi-three-byte-auto-rt *boolean* |
| Tree | evi-three-byte-auto-rt |
| Description | When configured to **true**, the BGP-EVPN instance import and export route target is auto-derived as described in RFC 8365 (Global-Administrator:A/Type/D-ID/Service-ID).<br>Where:<br>• Global Administrator – is the configured 2-octet AS number; if the configured ASN exceeds the 2 byte limit, the low order 16-bit value is taken<br>• A=0 (for auto-derivation)<br>• Type=4 (EVI-based route-target)<br>• D-ID= [1..2] – encodes the BGP instance, which allows the auto-derivation of different route-targets in multi-instance services; the value is inherited from the corresponding BGP instance<br>• Service ID=3-octet EVI<br>When configured to **false**, route target derivation is not allowed. |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | All |

## **force-vc-forwarding** *keyword*

| | |
|---|---|
| Synopsis | VC forwarding action |
| Context | **configure** service epipe *service-name* bgp-evpn mpls *number* force-vc-forwarding *keyword* |
| Tree | force-vc-forwarding |
| Options | vlan, qinq-c-tag-c-tag, qinq-s-tag-c-tag |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## **hash-label** *boolean*

| | |
|---|---|
| Synopsis | Default profile when the CP-provided profile is unknown |
| Context | **configure** service epipe *service-name* bgp-evpn mpls *number* hash-label *boolean* |
| Tree | hash-label |
| Description | When configured to **true**, the router pushes the hash label.<br>The hash label is never used for BUM packets.<br>The hash-label push is based on the following:<br>• If **advertise-l2-attributes** (in the **configure service vpls bgp-evpn routes incl-mcast** context) is set to **false**, the hash label is pushed to a unicast EVPN destination.<br>• If **advertise-l2-attributes** is set to **true**, the F bit is set to 1 in the Layer 2 Attributes Extended Community of the EVPN IMET route for the service. The hash label is pushed only if the remote PE signaled support for hash label (received F bit is set to 1). |
| Default | false |
| Introduced | 23.10.R1 |
| Platforms | All |

## **mh-mode** *keyword*

| | |
|---|---|
| Synopsis | Multihoming mode |
| Context | **configure** service epipe *service-name* bgp-evpn mpls *number* mh-mode *keyword* |
| Tree | mh-mode |
| Description | This command configures each BGP-EVPN instance in a multi-instance Epipe service to behave as network or access.<br>You can only configure one network instance for the service. If the service has a provider tunnel enabled, it requires a network instance. |
| Options | access, network |
| Default | network |
| Introduced | 23.10.R1 |
| Platforms | All |


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### **oper-group** *reference*

| | |
|---|---|
| Synopsis | Operational group identifier |
| Context | **configure** service epipe *service-name* bgp-evpn mpls *number* oper-group *reference* |
| Tree | oper-group |
| Reference | **configure** service oper-group *named-item* |
| Introduced | 19.5.R1 |
| Platforms | All |

### **route-next-hop**

| | |
|---|---|
| Synopsis | Enter the **route-next-hop** context |
| Context | **configure** service epipe *service-name* bgp-evpn mpls *number* route-next-hop |
| Tree | route-next-hop |
| Description | Commands in this context configure the next hop of the EVPN routes. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **ip-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IP address of the next-hop for the service EVPN route |
| Context | **configure** service epipe *service-name* bgp-evpn mpls *number* route-next-hop ip-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | ip-address |
| Notes | The following elements are part of a choice: **ip-address**, **system-ipv4**, or **system-ipv6**. |
| Introduced | 19.10.R1 |
| Platforms | All |


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## system-ipv4

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | System IPv4 address for service EVPN route next hop |
| Context | **configure** service epipe *service-name* bgp-evpn mpls *number* route-next-hop system-ipv4 |
| Tree | system-ipv4 |
| Notes | The following elements are part of a choice: **ip-address**, **system-ipv4**, or **system-ipv6**. |
| Introduced | 19.10.R1 |
| Platforms | All |

## system-ipv6

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | System IPv6 address for service EVPN route next hop |
| Context | **configure** service epipe *service-name* bgp-evpn mpls *number* route-next-hop system-ipv6 |
| Tree | system-ipv6 |
| Notes | The following elements are part of a choice: **ip-address**, **system-ipv4**, or **system-ipv6**. |
| Introduced | 19.10.R1 |
| Platforms | All |

## send-tunnel-encap

| | |
|---|---|
| Synopsis | Enter the **send-tunnel-encap** context |
| Context | **configure** service epipe *service-name* bgp-evpn mpls *number* send-tunnel-encap |
| Tree | send-tunnel-encap |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **mpls** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable MPLS encapsulation |
| Context | **configure** service epipe *service-name* bgp-evpn mpls *number* send-tunnel-encap mpls *boolean* |
| Tree | mpls |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mpls-over-udp** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable MPLS over UDP encapsulation |
| Context | **configure** service epipe *service-name* bgp-evpn mpls *number* send-tunnel-encap mpls-over-udp *boolean* |
| Tree | mpls-over-udp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **remote-attachment-circuit** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **remote-attachment-circuit** list instance |
| Context | **configure** service epipe *service-name* bgp-evpn remote-attachment-circuit *named-item* |
| Tree | remote-attachment-circuit |
| Max. instances | 2 |
| Introduced | 20.10.R1 |
| Platforms | All |


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### [**name**] *named-item*

| | |
|---|---|
| Synopsis | Attachment circuit name |
| Context | **configure** service epipe *service-name* bgp-evpn remote-attachment-circuit *named-item* |
| Tree | remote-attachment-circuit |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | All |

### **bgp** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | BGP instance ID |
| Context | **configure** service epipe *service-name* bgp-evpn remote-attachment-circuit *named-item* bgp *number* |
| Tree | bgp |
| Range | 1 to 2 |
| Default | 1 |
| Introduced | 23.10.R1 |
| Platforms | All |

### **endpoint** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Endpoint name |
| Context | **configure** service epipe *service-name* bgp-evpn remote-attachment-circuit *named-item* endpoint *reference* |
| Tree | endpoint |
| Reference | **configure** service epipe *service-name* endpoint *named-item* |
| Introduced | 20.10.R1 |


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| | |
|---|---|
| Platforms | All |

### **eth-tag** *number*

| | |
|---|---|
| Synopsis | Ethernet tag of the attachment circuit |
| Context | **configure** service epipe *service-name* bgp-evpn remote-attachment-circuit *named-item* eth-tag *number* |
| Tree | eth-tag |
| Description | This command configures the Ethernet tag value of the attachment circuit.<br>When configured in the local attachment circuit context, the tag value is used in the advertised AD per-EVI route sent for the attachment circuit.<br>When configured in the remote attachment circuit context, the value is compared with the Ethernet tag value of the imported D per-EVI routes for the service. When there is a match, the system creates an EVPN destination for the Epipe. |
| Range | 1 to 16777215 |
| Introduced | 20.10.R1 |
| Platforms | All |

### **segment-routing-v6** [bgp-instance] *number*

| | |
|---|---|
| Synopsis | Enter the **segment-routing-v6** list instance |
| Context | **configure** service epipe *service-name* bgp-evpn segment-routing-v6 *number* |
| Tree | segment-routing-v6 |
| Description | Commands in this context configure the SRv6 instance that is used in the service. |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### [**bgp-instance**] *number*

| | |
|---|---|
| Synopsis | BGP instance |
| Context | **configure** service epipe *service-name* bgp-evpn segment-routing-v6 *number* |
| Tree | segment-routing-v6 |
| Range | 1 to 2 |
| Notes | This element is part of a list key. |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of segment routing over IPv6 |
| Context | **configure** service epipe *service-name* bgp-evpn segment-routing-v6 *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **default-route-tag** *one-byte-value*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Default route tag |
| Context | **configure** service epipe *service-name* bgp-evpn segment-routing-v6 *number* default-route-tag *one-byte-value* |
| Tree | default-route-tag |
| Description | This command configures a route tag that is used when sending a route to the BGP application (for the corresponding service and BGP instance). If the corresponding BGP instance is enabled, the command cannot be changed.<br>When used for BGP EVPN contexts, only one route tag can be passed to BGP for matching on export policies. In case of a conflict with other route tags pushed by EVPN, the default route tag has the least priority. |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **domain-id** *domain-id*

| | |
|---|---|
| Synopsis | Domain ID of received BGP route before readvertisement |
| Context | **configure** service epipe *service-name* bgp-evpn segment-routing-v6 *number* domain-id *domain-id* |
| Tree | domain-id |
| Description | This command specifies the domain ID. The domain ID identifies the network from which the BGP route was received before the RTM advertises it to a different neighbor. The domain ID is part of a domain, represented as domain-id:isf_safi_type in the D- |


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PATH attribute, as described in *draft-ietf-bess-evpn-ipvpn-interworking*. Gateway routers modify the D-PATH attribute. A gateway is a PE where a VPRN is instantiated. The VPRN in this case advertises or receives routes from multiple BGP owners (for example, EVPN-IFL and BGP-IPVPN) or multiple instances of the same owner (for example, VPRN with two BGP-IPVPN instances).

Gateways use the D-PATH attribute to detect loops (for received routes where the D-PATH contains a local domain ID) and to make BGP best-path selection decisions based on the D-PATH length (shorter D-PATH is preferred).

In the following example, suppose a gateway receives prefix P in an EVPN-IFL instance with the following D-PATH from neighbor N:

Seg Len=1 / 65000:1:128

If the router imports the route in VPRN-1, BGP-EVPN SRv6 instance with domain 65000:2, it readvertises it to its BGP-IPVPN MPLS instance as follows:

Seg Len=2 / 65000:2:70 / 65000:1:128

That is, the gateway prepends the local domain ID and family to the D-PATH before readvertising the route into a different instance.

The command is also supported in Epipe services with two instances. As in the case of multi-instance VPRN services, the configured domain ID in an Epipe instance is prepended to the AD per EVI route redistributed to the other instance.

| | |
|---|---|
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **ecmp** *number*

| | |
|---|---|
| Synopsis | Maximum ECMP value configured on the service |
| Context | **configure** service epipe *service-name* bgp-evpn segment-routing-v6 *number* ecmp *number* |
| Tree | ecmp |
| Range | 1 to 32 |
| Default | 1 |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **evi-three-byte-auto-rt** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Auto-derive the BGP EVPN route target |


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Context **configure** service epipe *service-name* bgp-evpn segment-routing-v6 *number* evi-three-byte-auto-rt *boolean*

Tree evi-three-byte-auto-rt

Description When configured to **true**, the BGP-EVPN instance import and export route target is auto-derived as described in RFC 8365 (Global-Administrator:A/Type/D-ID/Service-ID).

Where:

- Global Administrator – is the configured 2-octet AS number; if the configured ASN exceeds the 2 byte limit, the low order 16-bit value is taken
- A=0 (for auto-derivation)
- Type=4 (EVI-based route-target)
- D-ID= [1..2] – encodes the BGP instance, which allows the auto-derivation of different route-targets in multi-instance services; the value is inherited from the corresponding BGP instance
- Service ID=3-octet EVI

When configured to **false**, route target derivation is not allowed.

Default false

Introduced 21.10.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR

## **force-vc-forwarding** *keyword*

Synopsis Datapath forwarding to force vlan-vc-type

Context **configure** service epipe *service-name* bgp-evpn segment-routing-v6 *number* force-vc-forwarding *keyword*

Tree force-vc-forwarding

Description This command allows the system to preserve the VLAN ID and 802.1p bits of the service-delimiting qtag in a new tag added in the customer frame before sending it to the EVPN destinations.

This command may be used in conjunction with the **sap ingress vlan-translation** command. If so used, the configured translated VLAN ID is the VLAN ID sent to the EVPN destinations as opposed to the service-delimiting tag VLAN ID. If the ingress SAP/SDP binding is 'null'-encapsulated, the output VLAN ID and pbits is zero.

Options vlan, qinq-c-tag-c-tag, qinq-s-tag-c-tag

Introduced 21.7.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR

## **mh-mode** *keyword*

Synopsis Multi-homing mode


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| | |
|---|---|
| Context | **configure** service epipe *service-name* bgp-evpn segment-routing-v6 *number* mh-mode *keyword* |
| Tree | mh-mode |
| Options | access, network |
| Default | network |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **oper-group** *reference*

| | |
|---|---|
| Synopsis | Operational group |
| Context | **configure** service epipe *service-name* bgp-evpn segment-routing-v6 *number* oper-group *reference* |
| Tree | oper-group |
| Description | This command adds the BGP EVPN SRv6 instance or an Ethernet Segment (ES) as a member of the operational group.<br>When configured on a BGP EVPN instance, the operational group is up when it is either empty (meaning that the operational group has no members) or at least an EVPN destination is created under the EVPN instance added as member. When configured, no other SAP, SDP binding, or BGP EVPN instance can be added to the same operational group within the same or different service.<br>The operational group is down when it is applied on a BGP EVPN instance as well as:<br>• the service is administratively disabled<br>• the BGP EVPN MPLS and VXLAN is administratively disabled<br>• all the EVPN destinations in the instance are removed<br>When configured on an ES, the state of the operational group depends on the state of the SAPs contained in the ES. The operational group transitions to up if at least one SAP in the ES is up. The operational group goes down when all the associated SAPs are operationally down. Monitor the ES operational group on the LAG associated with the ES, along with single-active multihoming, so that the NDF state can be signaled to the CE by LAG standby signaling. |
| Reference | **configure** service oper-group *named-item* |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **resolution** *keyword*

| | |
|---|---|
| Synopsis | Resolution options for routes |


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| | |
|---|---|
| Context | **configure** service epipe *service-name* bgp-evpn segment-routing-v6 *number* resolution *keyword* |
| Tree | resolution |
| Options | route-table, tunnel-table, fallback-tunnel-to-route-table |
| Default | route-table |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## route-next-hop

| | |
|---|---|
| Synopsis | Enter the **route-next-hop** context |
| Context | **configure** service epipe *service-name* bgp-evpn segment-routing-v6 *number* route-next-hop |
| Tree | route-next-hop |
| Description | Commands in this context configure the next hop of the EVPN routes. |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## ip-address *(ipv4-address-no-zone | ipv6-address-no-zone)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IP address of the next-hop for the service EVPN route |
| Context | **configure** service epipe *service-name* bgp-evpn segment-routing-v6 *number* route-next-hop ip-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | ip-address |
| Notes | The following elements are part of a choice: **ip-address**, **system-ipv4**, or **system-ipv6**. |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |


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## system-ipv4

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | System IPv4 address for service EVPN route next hop |
| Context | **configure** service epipe *service-name* bgp-evpn segment-routing-v6 *number* route-next-hop system-ipv4 |
| Tree | system-ipv4 |
| Notes | The following elements are part of a choice: **ip-address**, **system-ipv4**, or **system-ipv6**. |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## system-ipv6

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | System IPv6 address for service EVPN route next hop |
| Context | **configure** service epipe *service-name* bgp-evpn segment-routing-v6 *number* route-next-hop system-ipv6 |
| Tree | system-ipv6 |
| Notes | The following elements are part of a choice: **ip-address**, **system-ipv4**, or **system-ipv6**. |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## source-address *ipv6-unicast-address*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Source IPv6 address |
| Context | **configure** service epipe *service-name* bgp-evpn segment-routing-v6 *number* source-address *ipv6-unicast-address* |
| Tree | source-address |


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| | |
|---|---|
| Description | When configured, this command specifies the source IPv6 address used in the SA field of the outer IPv6 header of the SRv6 encapsulated packet.<br>When not configured, the source IPv6 address is inherited from the configuration of the global default address in the **router "base" segment-routing segment-routing-v6 source-address** context.<br>A source IPv6 address must be configured in this context or in the base router context.<br>The system does not check if the address entered is a valid local address. |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## srv6

| | |
|---|---|
| Synopsis | Enter the **srv6** context |
| Context | **configure** service epipe *service-name* bgp-evpn segment-routing-v6 *number* srv6 |
| Tree | srv6 |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## default-locator *string*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Default route locator |
| Context | **configure** service epipe *service-name* bgp-evpn segment-routing-v6 *number* srv6 default-locator *string* |
| Tree | default-locator |
| Description | This command specifies the locator that exists in the SRv6 service instance and is used as the default locator for the service. |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |


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### **instance** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Segment Routing SRv6 instance |
| Context | **configure** service epipe *service-name* bgp-evpn segment-routing-v6 *number* srv6 instance *reference* |
| Tree | instance |
| Reference | **configure** service epipe *service-name* segment-routing-v6 *number* |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **vxlan** [bgp-instance] *number*

| | |
|---|---|
| Synopsis | Enter the **vxlan** list instance |
| Context | **configure** service epipe *service-name* bgp-evpn vxlan *number* |
| Tree | vxlan |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**bgp-instance**] *number*

| | |
|---|---|
| Synopsis | BGP instance |
| Context | **configure** service epipe *service-name* bgp-evpn vxlan *number* |
| Tree | vxlan |
| Range | 1 to 2 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of BGP EVPN VXLAN |
| Context | **configure** service epipe *service-name* bgp-evpn vxlan *number* admin-state *keyword* |


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| | |
|---|---|
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

## **default-route-tag** *one-byte-value*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Default route tag |
| Context | **configure** service epipe *service-name* bgp-evpn vxlan *number* default-route-tag *one-byte-value* |
| Tree | default-route-tag |
| Description | This command configures a route tag that is used when sending a route to the BGP application (for the corresponding service and BGP instance). If the corresponding BGP instance is enabled, the command cannot be changed.<br>When used for BGP EVPN contexts, only one route tag can be passed to BGP for matching on export policies. In case of a conflict with other route tags pushed by EVPN, the default route tag has the least priority. |
| Introduced | 16.0.R4 |
| Platforms | All |

## **ecmp** *number*

| | |
|---|---|
| Synopsis | Maximum ECMP routes information |
| Context | **configure** service epipe *service-name* bgp-evpn vxlan *number* ecmp *number* |
| Tree | ecmp |
| Range | 1 to 32 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **evi-three-byte-auto-rt** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Auto-derive the BGP EVPN route target |
| Context | **configure** service epipe *service-name* bgp-evpn vxlan *number* evi-three-byte-auto-rt *boolean* |
| Tree | evi-three-byte-auto-rt |
| Description | When configured to **true**, the BGP-EVPN instance import and export route target is auto-derived as described in RFC 8365 (Global-Administrator:A/Type/D-ID/Service-ID).<br>Where:<br>• Global Administrator – is the configured 2-octet AS number; if the configured ASN exceeds the 2 byte limit, the low order 16-bit value is taken<br>• A=0 (for auto-derivation)<br>• Type=4 (EVI-based route-target)<br>• D-ID= [1..2] – encodes the BGP instance, which allows the auto-derivation of different route-targets in multi-instance services; the value is inherited from the corresponding BGP instance<br>• Service ID=3-octet EVI<br>When configured to **false**, route target derivation is not allowed. |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | All |

## **send-tunnel-encap** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Send VXLAN value in encapsulation extended community |
| Context | **configure** service epipe *service-name* bgp-evpn vxlan *number* send-tunnel-encap *boolean* |
| Tree | send-tunnel-encap |
| Description | When configured to **true**, this command sends the VXLAN value in the encapsulation that is advertised with the EVPN routes for the service. The encapsulation is encoded in RFC5512-based tunnel encapsulation extended communities. |


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When configured to **false**, no encapsulation extended community is sent.

| | |
|---|---|
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

## **vxlan-instance** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | VXLAN instance |
| Context | **configure** service epipe *service-name* bgp-evpn vxlan *number* vxlan-instance *reference* |
| Tree | vxlan-instance |
| Reference | **configure** service epipe *service-name* vxlan instance *number* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **bgp-mh-site** [site-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **bgp-mh-site** list instance |
| Context | **configure** service epipe *service-name* bgp-mh-site *named-item* |
| Tree | bgp-mh-site |
| Max. instances | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**site-name**] *named-item*

| | |
|---|---|
| Synopsis | Name for the specific site |
| Context | **configure** service epipe *service-name* bgp-mh-site *named-item* |
| Tree | bgp-mh-site |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **activation-timer** *number*

| | |
|---|---|
| Synopsis | Time to wait for BGP updates from remote PEs |
| Context | **configure** service epipe *service-name* bgp-mh-site *named-item* activation-timer *number* |
| Tree | activation-timer |
| Range | 0 to 100 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the site |
| Context | **configure** service epipe *service-name* bgp-mh-site *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **boot-timer** *number*

| | |
|---|---|
| Synopsis | Wait time after reboot to run the DF election algorithm |
| Context | **configure** service epipe *service-name* bgp-mh-site *named-item* boot-timer *number* |
| Tree | boot-timer |
| Range | 0 to 600 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **id** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Site ID for the service |
| Context | **configure** service epipe *service-name* bgp-mh-site *named-item* id *number* |
| Tree | id |
| Description | This command configures the ID for the site. The ID must match between services but is local to the service. |
| Range | 1 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **min-down-timer** *number*

| | |
|---|---|
| Synopsis | Minimum down time when site goes operationally down |
| Context | **configure** service epipe *service-name* bgp-mh-site *named-item* min-down-timer *number* |
| Tree | min-down-timer |
| Range | 0 to 100 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

## **preference** *number*

| | |
|---|---|
| Synopsis | Preference to advertise in NLRI L2 extended community |
| Context | **configure** service epipe *service-name* bgp-mh-site *named-item* preference *number* |
| Tree | preference |
| Range | 1 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **sap** *sap*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | SAP to be associated with this site |
| Context | **configure** service epipe *service-name* bgp-mh-site *named-item* sap *sap* |
| Tree | sap |
| String length | 1 to 45 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bgp-vpws**

| | |
|---|---|
| Synopsis | Enable the **bgp-vpws** context |
| Context | **configure** service epipe *service-name* bgp-vpws |
| Tree | bgp-vpws |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the VPWS edge instance |
| Context | **configure** service epipe *service-name* bgp-vpws admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **local-ve**

| | |
|---|---|
| Synopsis | Enter the **local-ve** context |
| Context | **configure** service epipe *service-name* bgp-vpws local-ve |
| Tree | local-ve |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **id** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Local VPWS edge ID |
| Context | **configure** service epipe *service-name* bgp-vpws local-ve id *number* |
| Tree | id |
| Range | 1 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **name** *named-item*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Local VPWS instance name |
| Context | **configure** service epipe *service-name* bgp-vpws local-ve name *named-item* |
| Tree | name |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **remote-ve** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **remote-ve** list instance |
| Context | **configure** service epipe *service-name* bgp-vpws remote-ve *named-item* |
| Tree | remote-ve |
| Max. instances | 2 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | Remote PE name to which a PW is to be signaled |
| Context | **configure** service epipe *service-name* bgp-vpws remote-ve *named-item* |
| Tree | remote-ve |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **id** *number*

| | |
|---|---|
| Synopsis | Remote VPWS edge ID |
| Context | **configure** service epipe *service-name* bgp-vpws remote-ve *named-item* id *number* |
| Tree | id |
| Range | 1 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **customer** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Service customer ID |
| Context | **configure** service epipe *service-name* customer *reference* |
| Tree | customer |
| Reference | **configure** service customer *customer-name* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service epipe *service-name* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **endpoint** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **endpoint** list instance |
| Context | **configure** service epipe *service-name* endpoint *named-item* |
| Tree | endpoint |
| Max. instances | 2 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | Service endpoint name |
| Context | **configure** service epipe *service-name* endpoint *named-item* |
| Tree | endpoint |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service epipe *service-name* endpoint *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **hold-time-active** *number*

| | |
|---|---|
| Synopsis | Time before entering standby when MC-LAG SAP goes down |
| Context | **configure** service epipe *service-name* endpoint *named-item* hold-time-active *number* |
| Tree | hold-time-active |
| Range | 1 to 60 |
| Units | deciseconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **revert-time** *(number | keyword)*

| | |
|---|---|
| Synopsis | Time to wait before reverting to primary spoke SDP |
| Context | **configure** service epipe *service-name* endpoint *named-item* revert-time *(number \| keyword)* |
| Tree | revert-time |
| Range | 1 to 600 |
| Units | seconds |
| Options | never, immediate |
| Default | immediate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **standby-signaling** *keyword*

| | |
|---|---|
| Synopsis | Endpoint behavior to handle the PW standby bit |
| Context | **configure** service epipe *service-name* endpoint *named-item* standby-signaling *keyword* |
| Tree | standby-signaling |
| Options | master, slave |
| Introduced | 16.0.R1 |
| Platforms | All |


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## eth-cfm

| | |
|---|---|
| Synopsis | Enter the **eth-cfm** context |
| Context | **configure** service epipe *service-name* eth-cfm |
| Tree | eth-cfm |
| Introduced | 19.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## flexible-cross-connect *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable FXC mode |
| Context | **configure** service epipe *service-name* flexible-cross-connect *boolean* |
| Tree | flexible-cross-connect |
| Description | When configured to **true**, the router enables Flexible Cross Connect (FXC) mode, which allows the configuration of two or more SAPs on the same Epipe.<br>When configured to **false**, the router disables FXC mode. |
| Default | false |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

## ignore-l2vpn-mtu-mismatch *boolean*

| | |
|---|---|
| Synopsis | Ignore the L2 VPN MTU mismatch with local service MTU |
| Context | **configure** service epipe *service-name* ignore-l2vpn-mtu-mismatch *boolean* |
| Tree | ignore-l2vpn-mtu-mismatch |
| Description | When configured to **true**, the router does not check the value of the Layer 2 MTU in the Layer2 Info Extended Community received in a BGP update message against the local service MTU or locally signaled MTU. It may, therefore, bring up the BGP VPWS service regardless of any MTU mismatch.<br>When configured to **false**, an MTU mismatch prevents the system from bringing up a BGP-VPWS service. |
| Default | false |
| Introduced | 22.2.R1 |


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| | |
|---|---|
| Platforms | All |

## load-balancing

| | |
|---|---|
| Synopsis | Enter the **load-balancing** context |
| Context | **configure** service epipe *service-name* load-balancing |
| Tree | load-balancing |
| Introduced | 16.0.R1 |
| Platforms | All |

## lbl-eth-or-ip-l4-teid *boolean*

| | |
|---|---|
| Synopsis | Enable hashing of MPLS ethernet and IP packets on SAPs |
| Context | **configure** service epipe *service-name* load-balancing lbl-eth-or-ip-l4-teid *boolean* |
| Tree | lbl-eth-or-ip-l4-teid |
| Description | When configured to **true**, this command enables hashing of MPLS Ethernet and MPLS IP packets received on the Epipe and VPLS service SAP using the MPLS labels, the inner IP addresses, the port numbers, and the GTP TEID field, if read by the system. This capability is supported on line cards that are FP4-based and later. |
| Default | false |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## per-service-hashing *boolean*

| | |
|---|---|
| Synopsis | Enable per-service hashing for Ethernet services |
| Context | **configure** service epipe *service-name* load-balancing per-service-hashing *boolean* |
| Tree | per-service-hashing |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## nat-outside [nat-group] *number*

| | |
|---|---|
| Synopsis | Enter the **nat-outside** list instance |
| Context | **configure** service epipe *service-name* nat-outside *number* |


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| | |
|---|---|
| Tree | nat-outside |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**nat-group**] *number*

| | |
|---|---|
| Synopsis | NAT group |
| Context | **configure** service epipe *service-name* nat-outside *number* |
| Tree | nat-outside |
| Max. range | 0 to 4294967295 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of Epipe as a NAT outside service |
| Context | **configure** service epipe *service-name* nat-outside *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **oper-group** *reference*

| | |
|---|---|
| Synopsis | Oper-group name |
| Context | **configure** service epipe *service-name* oper-group *reference* |
| Tree | oper-group |
| Reference | **configure** service oper-group *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |


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## pbb

| | |
|---|---|
| Synopsis | Enter the **pbb** context |
| Context | **configure** service epipe *service-name* pbb |
| Tree | pbb |
| Introduced | 16.0.R1 |
| Platforms | All |

## force-qtag-forwarding *boolean*

| | |
|---|---|
| Synopsis | Add an IEEE 802.1q tag after CMAC addresses PBB header |
| Context | **configure** service epipe *service-name* pbb force-qtag-forwarding *boolean* |
| Tree | force-qtag-forwarding |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## local-switch-service-state *keyword*

| | |
|---|---|
| Synopsis | Endpoint state used to determine PBB-Epipe state |
| Context | **configure** service epipe *service-name* pbb local-switch-service-state *keyword* |
| Tree | local-switch-service-state |
| Description | In a PBB Epipe with two SAPs and a PBB tunnel, this command controls whether the operational state of the PBB-Epipe service depends on the state of the PBB tunnel only, or on the state of two of the three endpoints (PBB tunnel and two SAPs). The second case implies that at least one of the SAPs must be up for the PBB-Epipe service to be operationally up. |
| Options | sap, pbb-tunnel |
| Default | sap |
| Introduced | 21.7.R1 |
| Platforms | All |

## tunnel

| | |
|---|---|
| Synopsis | Enable the **tunnel** context |
| Context | **configure** service epipe *service-name* pbb tunnel |


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| | |
|---|---|
| Tree | tunnel |
| Introduced | 16.0.R1 |
| Platforms | All |

## **backbone-dest-mac** *mac-unicast-address-no-zero*

| | |
|---|---|
| Synopsis | Backbone Destination MAC address |
| Context | **configure** service epipe *service-name* pbb tunnel backbone-dest-mac *mac-unicast-address-no-zero* |
| Tree | backbone-dest-mac |
| Notes | The following elements are part of a mandatory choice: **backbone-dest-mac** or **backbone-dest-mac-name**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **backbone-dest-mac-name** *reference*

| | |
|---|---|
| Synopsis | Backbone destination MAC name for PBB packets |
| Context | **configure** service epipe *service-name* pbb tunnel backbone-dest-mac-name *reference* |
| Tree | backbone-dest-mac-name |
| Reference | **configure** service pbb mac *named-item* |
| Notes | The following elements are part of a mandatory choice: **backbone-dest-mac** or **backbone-dest-mac-name**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **backbone-vpls-service-name** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Backbone VPLS service |
| Context | **configure** service epipe *service-name* pbb tunnel backbone-vpls-service-name *reference* |
| Tree | backbone-vpls-service-name |
| Reference | **configure** service vpls *service-name* |


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| | |
|---|---|
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **isid** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Service instance ID |
| Context | **configure** service epipe *service-name* pbb tunnel isid *number* |
| Tree | isid |
| Range | 0 to 16777215 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sap** [sap-id] *sap*

| | |
|---|---|
| Synopsis | Enter the **sap** list instance |
| Context | **configure** service epipe *service-name* sap *sap* |
| Tree | sap |
| Max. instances | 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**sap-id**] *sap*

| | |
|---|---|
| Synopsis | SAP ID |
| Context | **configure** service epipe *service-name* sap *sap* |
| Tree | sap |
| String length | 1 to 45 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## aarp

| | |
|---|---|
| Synopsis | Enable the **aarp** context |
| Context | **configure** service epipe *service-name* sap *sap* aarp |
| Tree | aarp |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## id *reference*

| | |
|---|---|
| Synopsis | AARP instance ID |
| Context | **configure** service epipe *service-name* sap *sap* aarp id *reference* |
| Tree | id |
| Reference | **configure** application-assurance aarp *number* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## type *keyword*

| | |
|---|---|
| Synopsis | Role referenced by the AARP |
| Context | **configure** service epipe *service-name* sap *sap* aarp type *keyword* |
| Tree | type |
| Options | dual-homed, dual-homed-secondary |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## accounting-policy *reference*

| | |
|---|---|
| Synopsis | Accounting policy |
| Context | **configure** service epipe *service-name* sap *sap* accounting-policy *reference* |
| Tree | accounting-policy |
| Reference | **configure** log accounting-policy *number* |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the SAP |
| Context | **configure** service epipe *service-name* sap *sap* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **app-profile** *reference*

| | |
|---|---|
| Synopsis | Application profile name |
| Context | **configure** service epipe *service-name* sap *sap* app-profile *reference* |
| Tree | app-profile |
| Reference | **configure** application-assurance group *number* partition *number* policy app-profile *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **bandwidth** *number*

| | |
|---|---|
| Synopsis | SAP bandwidth |
| Context | **configure** service epipe *service-name* sap *sap* bandwidth *number* |
| Tree | bandwidth |
| Range | 1 to 6400000000 |
| Units | kilobps |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cflowd** *boolean*

| | |
|---|---|
| Synopsis | Enable Cflowd collection and analysis on this SAP |


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| | |
|---|---|
| Context | **configure** service epipe *service-name* sap *sap* cflowd *boolean* |
| Tree | cflowd |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **collect-stats** *boolean*

| | |
|---|---|
| Synopsis | Collect accounting statistics |
| Context | **configure** service epipe *service-name* sap *sap* collect-stats *boolean* |
| Tree | collect-stats |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cpu-protection**

| | |
|---|---|
| Synopsis | Enter the **cpu-protection** context |
| Context | **configure** service epipe *service-name* sap *sap* cpu-protection |
| Tree | cpu-protection |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

### **eth-cfm-monitoring**

| | |
|---|---|
| Synopsis | Enable the **eth-cfm-monitoring** context |
| Context | **configure** service epipe *service-name* sap *sap* cpu-protection eth-cfm-monitoring |
| Tree | eth-cfm-monitoring |
| Notes | The following elements are part of a choice: **eth-cfm-monitoring** or **mac-monitoring**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

### **aggregate**

| | |
|---|---|
| Synopsis | Apply rate limit to the sum of the per peer packet rates |


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| | |
|---|---|
| Context | **configure** service epipe *service-name* sap *sap* cpu-protection eth-cfm-monitoring aggregate |
| Tree | aggregate |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

## car

| | |
|---|---|
| Synopsis | Ignore Ethernet CFM packets when enforcing overall rate |
| Context | **configure** service epipe *service-name* sap *sap* cpu-protection eth-cfm-monitoring car |
| Tree | car |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

## mac-monitoring

| | |
|---|---|
| Synopsis | Monitor MAC for CPU protection |
| Context | **configure** service epipe *service-name* sap *sap* cpu-protection mac-monitoring |
| Tree | mac-monitoring |
| Notes | The following elements are part of a choice: **eth-cfm-monitoring** or **mac-monitoring**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

## policy-id *reference*

| | |
|---|---|
| Synopsis | CPM protection policy |
| Context | **configure** service epipe *service-name* sap *sap* cpu-protection policy-id *reference* |
| Tree | policy-id |
| Reference | **configure** system security cpu-protection policy *number* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

## description *long-description*

| | |
|---|---|
| Synopsis | Text description |


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| | |
|---|---|
| Context | **configure** service epipe *service-name* sap *sap* description *long-description* |
| Tree | description |
| String length | 1 to 160 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **dist-cpu-protection** *reference*

| | |
|---|---|
| Synopsis | Distributed CPU protection policy for SAP |
| Context | **configure** service epipe *service-name* sap *sap* dist-cpu-protection *reference* |
| Tree | dist-cpu-protection |
| Reference | **configure** system security dist-cpu-protection policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **egress**

| | |
|---|---|
| Synopsis | Enter the **egress** context |
| Context | **configure** service epipe *service-name* sap *sap* egress |
| Tree | egress |
| Introduced | 16.0.R1 |
| Platforms | All |

### **agg-rate**

| | |
|---|---|
| Synopsis | Enter the **agg-rate** context |
| Context | **configure** service epipe *service-name* sap *sap* egress agg-rate |
| Tree | agg-rate |
| Notes | The following elements are part of a choice: **agg-rate** or **percent-agg-rate**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **adaptation-rule** *keyword*

| | |
|---|---|
| Synopsis | Adaptation rule to compute the operational PIR value when an aggregate shaper is used |


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| | |
|---|---|
| Context | **configure** service epipe *service-name* sap *sap* egress agg-rate adaptation-rule *keyword* |
| Tree | adaptation-rule |
| Options | max, min, closest |
| Default | closest |
| Introduced | 22.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### **burst-limit** *(number | keyword)*

| | |
|---|---|
| Synopsis | Shaping burst size when an aggregate shaper is used |
| Context | **configure** service epipe *service-name* sap *sap* egress agg-rate burst-limit *(number \| keyword)* |
| Tree | burst-limit |
| Range | 1 to 14000000 |
| Units | bytes |
| Options | auto |
| Default | auto |
| Introduced | 22.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### **limit-unused-bandwidth** *boolean*

| | |
|---|---|
| Synopsis | Enable aggregate rate overrun protection |
| Context | **configure** service epipe *service-name* sap *sap* egress agg-rate limit-unused-bandwidth *boolean* |
| Tree | limit-unused-bandwidth |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **queue-frame-based-accounting** *boolean*

| | |
|---|---|
| Synopsis | Enable frame based accounting on policers and queues |
| Context | **configure** service epipe *service-name* sap *sap* egress agg-rate queue-frame-based-accounting *boolean* |
| Tree | queue-frame-based-accounting |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rate** *number*

| | |
|---|---|
| Synopsis | Enforced aggregate rate for all queues |
| Context | **configure** service epipe *service-name* sap *sap* egress agg-rate rate *number* |
| Tree | rate |
| Range | 1 to 6400000000 |
| Units | kilobps |
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter**

| | |
|---|---|
| Synopsis | Enter the **filter** context |
| Context | **configure** service epipe *service-name* sap *sap* egress filter |
| Tree | filter |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ip** *reference*

| | |
|---|---|
| Synopsis | IPv4 filter policy name |
| Context | **configure** service epipe *service-name* sap *sap* egress filter ip *reference* |
| Tree | ip |
| Reference | **configure** filter ip-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv6** *reference*

| | |
|---|---|
| Synopsis | IPv6 filter policy name |
| Context | **configure** service epipe *service-name* sap *sap* egress filter ipv6 *reference* |


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| | |
|---|---|
| Tree | ipv6 |
| Reference | **configure** filter ipv6-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mac** *reference*

| | |
|---|---|
| Synopsis | MAC filter policy name |
| Context | **configure** service epipe *service-name* sap *sap* egress filter mac *reference* |
| Tree | mac |
| Reference | **configure** filter mac-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **qos**

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** service epipe *service-name* sap *sap* egress qos |
| Tree | qos |
| Introduced | 16.0.R1 |
| Platforms | All |

### **latency-budget** *number*

| | |
|---|---|
| Synopsis | SAP egress latency budget |
| Context | **configure** service epipe *service-name* sap *sap* egress qos latency-budget *number* |
| Tree | latency-budget |
| Range | 1 to 1000000 |
| Units | microseconds |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **policer-control-policy**

| | |
|---|---|
| Synopsis | Enter the **policer-control-policy** context |


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| | |
|---|---|
| Context | **configure** service epipe *service-name* sap *sap* egress qos policer-control-policy |
| Tree | policer-control-policy |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## overrides

| | |
|---|---|
| Synopsis | Enable the **overrides** context |
| Context | **configure** service epipe *service-name* sap *sap* egress qos policer-control-policy overrides |
| Tree | overrides |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## root

| | |
|---|---|
| Synopsis | Enter the **root** context |
| Context | **configure** service epipe *service-name* sap *sap* egress qos policer-control-policy overrides root |
| Tree | root |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## max-rate *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum frame-based bandwidth limit |
| Context | **configure** service epipe *service-name* sap *sap* egress qos policer-control-policy overrides root max-rate *(number | keyword)* |
| Tree | max-rate |
| Range | 1 to 6400000000 |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |


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### priority-mbs-thresholds

| | |
|---|---|
| Synopsis | Enter the **priority-mbs-thresholds** context |
| Context | **configure** service epipe *service-name* sap *sap* egress qos policer-control-policy overrides root priority-mbs-thresholds |
| Tree | priority-mbs-thresholds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### min-thresh-separation *(number | keyword)*

| | |
|---|---|
| Synopsis | Minimum amount of separation buffer space |
| Context | **configure** service epipe *service-name* sap *sap* egress qos policer-control-policy overrides root priority-mbs-thresholds min-thresh-separation *(number | keyword)* |
| Tree | min-thresh-separation |
| Range | 0 to 16777216 |
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **priority** [priority-level] *number*

| | |
|---|---|
| Synopsis | Enter the **priority** list instance |
| Context | **configure** service epipe *service-name* sap *sap* egress qos policer-control-policy overrides root priority-mbs-thresholds priority *number* |
| Tree | priority |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### [**priority-level**] *number*

| | |
|---|---|
| Synopsis | Priority level |
| Context | **configure** service epipe *service-name* sap *sap* egress qos policer-control-policy overrides root priority-mbs-thresholds priority *number* |
| Tree | priority |


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| | |
|---|---|
| Range | 1 to 8 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **mbs-contribution** *(number | keyword)*

| | |
|---|---|
| Synopsis | Minimum amount of cumulative buffer space allowed |
| Context | **configure** service epipe *service-name* sap *sap* egress qos policer-control-policy overrides root priority-mbs-thresholds priority *number* mbs-contribution *(number \| keyword)* |
| Tree | mbs-contribution |
| Range | 0 to 16777216 |
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **policy-name** *reference*

| | |
|---|---|
| Synopsis | Policer control policy name |
| Context | **configure** service epipe *service-name* sap *sap* egress qos policer-control-policy policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos policer-control-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **qinq-mark-top-only** *boolean*

| | |
|---|---|
| Synopsis | Mark top Q-tags |
| Context | **configure** service epipe *service-name* sap *sap* egress qos qinq-mark-top-only *boolean* |
| Tree | qinq-mark-top-only |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### sap-egress

| | |
|---|---|
| Synopsis | Enter the **sap-egress** context |
| Context | **configure** service epipe *service-name* sap *sap* egress qos sap-egress |
| Tree | sap-egress |
| Introduced | 16.0.R1 |
| Platforms | All |

### overrides

| | |
|---|---|
| Synopsis | Enter the **overrides** context |
| Context | **configure** service epipe *service-name* sap *sap* egress qos sap-egress overrides |
| Tree | overrides |
| Introduced | 16.0.R1 |
| Platforms | All |

### hs-secondary-shaper *named-item*

| | |
|---|---|
| Synopsis | HS Secondary Shaper |
| Context | **configure** service epipe *service-name* sap *sap* egress qos sap-egress overrides hs-secondary-shaper *named-item* |
| Tree | hs-secondary-shaper |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### hs-wrr-group [group-id] *reference*

| | |
|---|---|
| Synopsis | Enter the **hs-wrr-group** list instance |
| Context | **configure** service epipe *service-name* sap *sap* egress qos sap-egress overrides hs-wrr-group *reference* |
| Tree | hs-wrr-group |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |


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### [**group-id**] *reference*

| | |
|---|---|
| Synopsis | HS WRR group identifier |
| Context | **configure** service epipe *service-name* sap *sap* egress qos sap-egress overrides hs-wrr-group *reference* |
| Tree | hs-wrr-group |
| Reference | **configure** qos sap-egress *qos-policy-name* hs-wrr-group *number* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **hs-class-weight** *number*

| | |
|---|---|
| Synopsis | Class weight override of the WRR group |
| Context | **configure** service epipe *service-name* sap *sap* egress qos sap-egress overrides hs-wrr-group *reference* hs-class-weight *number* |
| Tree | hs-class-weight |
| Range | 1 \| 2 \| 4 \| 8 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **percent-rate** *decimal-number*

| | |
|---|---|
| Synopsis | Percent rate override applied to the HS WRR group |
| Context | **configure** service epipe *service-name* sap *sap* egress qos sap-egress overrides hs-wrr-group *reference* percent-rate *decimal-number* |
| Tree | percent-rate |
| Range | 0.01 to 100.00 |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **rate** *(number | keyword)*

| | |
|---|---|
| Synopsis | Scheduling rate override applied to the HS WRR group |


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| | |
|---|---|
| Context | **configure** service epipe *service-name* sap *sap* egress qos sap-egress overrides hs-wrr-group *reference* rate *(number \| keyword)* |
| Tree | rate |
| Range | 1 to 2000000000 |
| Units | kilobps |
| Options | max |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **policer** [policer-id] *reference*

| | |
|---|---|
| Synopsis | Enter the **policer** list instance |
| Context | **configure** service epipe *service-name* sap *sap* egress qos sap-egress overrides policer *reference* |
| Tree | policer |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### [**policer-id**] *reference*

| | |
|---|---|
| Synopsis | Policer unique ID |
| Context | **configure** service epipe *service-name* sap *sap* egress qos sap-egress overrides policer *reference* |
| Tree | policer |
| Reference | **configure** qos sap-egress *qos-policy-name* policer *number* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **cbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | CBS |
| Context | **configure** service epipe *service-name* sap *sap* egress qos sap-egress overrides policer *reference* cbs *(number \| keyword)* |
| Tree | cbs |


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| | |
|---|---|
| Range | 0 to 268435456 |
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **mbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | MBS |
| Context | **configure** service epipe *service-name* sap *sap* egress qos sap-egress overrides policer *reference* mbs *(number | keyword)* |
| Tree | mbs |
| Range | 0 to 268435456 |
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **packet-byte-offset** *number*

| | |
|---|---|
| Synopsis | Packet size modification for policing information |
| Context | **configure** service epipe *service-name* sap *sap* egress qos sap-egress overrides policer *reference* packet-byte-offset *number* |
| Tree | packet-byte-offset |
| Range | -64 to 31 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **percent-rate**

| | |
|---|---|
| Synopsis | Enter the **percent-rate** context |
| Context | **configure** service epipe *service-name* sap *sap* egress qos sap-egress overrides policer *reference* percent-rate |
| Tree | percent-rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **cir** *decimal-number*

| | |
|---|---|
| Synopsis | CIR percent rate |
| Context | **configure** service epipe *service-name* sap *sap* egress qos sap-egress overrides policer *reference* percent-rate cir *decimal-number* |
| Tree | cir |
| Range | 0.00 to 100.00 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **pir** *decimal-number*

| | |
|---|---|
| Synopsis | PIR percent rate |
| Context | **configure** service epipe *service-name* sap *sap* egress qos sap-egress overrides policer *reference* percent-rate pir *decimal-number* |
| Tree | pir |
| Range | 0.01 to 100.00 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **rate**

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** service epipe *service-name* sap *sap* egress qos sap-egress overrides policer *reference* rate |
| Tree | rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **cir** *(number | keyword)*

| | |
|---|---|
| Synopsis | CIR rate |


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| | |
|---|---|
| Context | **configure** service epipe *service-name* sap *sap* egress qos sap-egress overrides policer *reference* rate cir *(number \| keyword)* |
| Tree | cir |
| Range | 0 to 6400000000 |
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | PIR rate |
| Context | **configure** service epipe *service-name* sap *sap* egress qos sap-egress overrides policer *reference* rate pir *(number \| keyword)* |
| Tree | pir |
| Range | 1 to 6400000000 |
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **stat-mode** *keyword*

| | |
|---|---|
| Synopsis | Mode of statistics collected by the policer |
| Context | **configure** service epipe *service-name* sap *sap* egress qos sap-egress overrides policer *reference* stat-mode *keyword* |
| Tree | stat-mode |
| Options | no-stats, minimal, offered-profile-no-cir, offered-total-cir, offered-profile-cir, offered-limited-capped-cir, offered-profile-capped-cir, offered-total-cir-exceed, offered-four-profile-no-cir, offered-total-cir-four-profile |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **queue** [queue-id] *reference*

| | |
|---|---|
| Synopsis | Enter the **queue** list instance |


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| | |
|---|---|
| Context | **configure** service epipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* |
| Tree | queue |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**queue-id**] *reference*

| | |
|---|---|
| Synopsis | Policer unique ID |
| Context | **configure** service epipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* |
| Tree | queue |
| Reference | **configure** qos sap-egress *qos-policy-name* queue *number* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## adaptation-rule

| | |
|---|---|
| Synopsis | Enter the **adaptation-rule** context |
| Context | **configure** service epipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* adaptation-rule |
| Tree | adaptation-rule |
| Introduced | 16.0.R1 |
| Platforms | All |

## **cir** *keyword*

| | |
|---|---|
| Synopsis | Constraint used when deriving the operational CIR value |
| Context | **configure** service epipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* adaptation-rule cir *keyword* |
| Tree | cir |
| Options | max, min, closest |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **pir** *keyword*

| | |
|---|---|
| Synopsis | Constraint used when deriving the operational PIR value |
| Context | **configure** service epipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* adaptation-rule pir *keyword* |
| Tree | pir |
| Options | max, min, closest |
| Introduced | 16.0.R1 |
| Platforms | All |

### **avg-frame-overhead** *decimal-number*

| | |
|---|---|
| Synopsis | Average packet-to-frame encapsulation overhead |
| Context | **configure** service epipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* avg-frame-overhead *decimal-number* |
| Tree | avg-frame-overhead |
| Description | This command configures overrides for the average frame overhead. The overrides supersede the average frame overhead configuration under the queue.<br>For a full description of this command, see the **configure qos network-queue queue avg-frame-overhead** and **configure qos sap-egress queue avg-frame-overhead** contexts. |
| Range | 0.00 to 100.00 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **burst-limit** *(number | keyword)*

| | |
|---|---|
| Synopsis | Explicit shaping burst size for the queue |
| Context | **configure** service epipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* burst-limit *(number | keyword)* |
| Tree | burst-limit |
| Range | 1 to 14000000 |
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **cbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | CBS |
| Context | **configure** service epipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* cbs *(number \| keyword)* |
| Tree | cbs |
| Range | 0 to 1048576 |
| Units | kilobytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | All |

### **drop-tail**

| | |
|---|---|
| Synopsis | Enter the **drop-tail** context |
| Context | **configure** service epipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* drop-tail |
| Tree | drop-tail |
| Introduced | 16.0.R1 |
| Platforms | All |

### **low**

| | |
|---|---|
| Synopsis | Enter the **low** context |
| Context | **configure** service epipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* drop-tail low |
| Tree | low |
| Introduced | 16.0.R1 |
| Platforms | All |

### **percent-reduction-from-mbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | Percentage reduction from the MBS for a queue drop tail |
| Context | **configure** service epipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* drop-tail low percent-reduction-from-mbs *(number \| keyword)* |
| Tree | percent-reduction-from-mbs |


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| | |
|---|---|
| Range | 0 to 100 |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hs-class-weight** *number*

| | |
|---|---|
| Synopsis | Class weight override for the queue |
| Context | **configure** service epipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* hs-class-weight *number* |
| Tree | hs-class-weight |
| Range | 1 \| 2 \| 4 \| 8 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **hs-wred-queue**

| | |
|---|---|
| Synopsis | Enter the **hs-wred-queue** context |
| Context | **configure** service epipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* hs-wred-queue |
| Tree | hs-wred-queue |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **policy** *reference*

| | |
|---|---|
| Synopsis | Slope policy applied to the HSQ queue group queue |
| Context | **configure** service epipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* hs-wred-queue policy *reference* |
| Tree | policy |
| Reference | **configure** qos slope-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |


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### **hs-wrr-weight** *number*

| | |
|---|---|
| Synopsis | WRR weight to parent with the queue into the scheduler |
| Context | **configure** service epipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* hs-wrr-weight *number* |
| Tree | hs-wrr-weight |
| Range | 1 to 127 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **mbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | MBS |
| Context | **configure** service epipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* mbs *(number | keyword)* |
| Tree | mbs |
| Range | 0 to 1073741824 |
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | All |

### **monitor-queue-depth**

| | |
|---|---|
| Synopsis | Enable the **monitor-queue-depth** context |
| Context | **configure** service epipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* monitor-queue-depth |
| Tree | monitor-queue-depth |
| Description | Commands in this context configure queue depth monitoring for the specified queue. |
| Introduced | 20.10.R1 |
| Platforms | All |

### **fast-polling** *boolean*

| | |
|---|---|
| Synopsis | Enable fast polling of the queue depth |


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| | |
|---|---|
| Context | **configure** service epipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* monitor-queue-depth fast-polling *boolean* |
| Tree | fast-polling |
| Description | When configured to **true**, this command enables fast polling of the queue depth. Faster polling allows a more accurate view of the actual depth. |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | All |

## **violation-threshold** *decimal-number*

| | |
|---|---|
| Synopsis | Threshold for queue depth before violation is raised |
| Context | **configure** service epipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* monitor-queue-depth violation-threshold *decimal-number* |
| Tree | violation-threshold |
| Description | This command specifies the threshold for the queue MBS. When the queue depth exceeds the threshold value, a violation is registered. |
| Range | 0.01 to 99.99 |
| Introduced | 20.10.R1 |
| Platforms | All |

## **parent**

| | |
|---|---|
| Synopsis | Enter the **parent** context |
| Context | **configure** service epipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* parent |
| Tree | parent |
| Introduced | 16.0.R1 |
| Platforms | All |

## **cir-weight** *number*

| | |
|---|---|
| Synopsis | CIR parameter that overrides parent for queue group |
| Context | **configure** service epipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* parent cir-weight *number* |
| Tree | cir-weight |
| Range | 0 to 100 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **weight** *number*

| | |
|---|---|
| Synopsis | PIR parameter that overrides parent for queue group |
| Context | **configure** service epipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* parent weight *number* |
| Tree | weight |
| Range | 0 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **percent-rate**

| | |
|---|---|
| Synopsis | Enter the **percent-rate** context |
| Context | **configure** service epipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* percent-rate |
| Tree | percent-rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cir** *decimal-number*

| | |
|---|---|
| Synopsis | CIR percent rate |
| Context | **configure** service epipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* percent-rate cir *decimal-number* |
| Tree | cir |
| Range | 0.00 to 100.00 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **pir** *decimal-number*

| | |
|---|---|
| Synopsis | PIR percent rate |


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| | |
|---|---|
| Context | **configure** service epipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* percent-rate pir *decimal-number* |
| Tree | pir |
| Range | 0.01 to 100.00 |
| Introduced | 16.0.R1 |
| Platforms | All |

### rate

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** service epipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* rate |
| Tree | rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### cir *(number | keyword)*

| | |
|---|---|
| Synopsis | CIR rate |
| Context | **configure** service epipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* rate cir *(number | keyword)* |
| Tree | cir |
| Range | 0 to 6400000000 |
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | All |

### pir *(number | keyword)*

| | |
|---|---|
| Synopsis | PIR rate |
| Context | **configure** service epipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* rate pir *(number | keyword)* |
| Tree | pir |
| Range | 1 to 6400000000 |


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| | |
|---|---|
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | All |

## **policy-name** *reference*

| | |
|---|---|
| Synopsis | Policy ID to associate with SAP for mirrored service |
| Context | **configure** service epipe *service-name* sap *sap* egress qos sap-egress policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos sap-egress *qos-policy-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **port-redirect-group**

| | |
|---|---|
| Synopsis | Enter the **port-redirect-group** context |
| Context | **configure** service epipe *service-name* sap *sap* egress qos sap-egress port-redirect-group |
| Tree | port-redirect-group |
| Introduced | 16.0.R1 |
| Platforms | All |

## **group-name** *reference*

| | |
|---|---|
| Synopsis | Name of the queue group redirect list policy |
| Context | **configure** service epipe *service-name* sap *sap* egress qos sap-egress port-redirect-group group-name *reference* |
| Tree | group-name |
| Reference | **configure** qos queue-group-templates egress queue-group *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **instance** *number*

| | |
|---|---|
| Synopsis | Instance of port queue group |
| Context | **configure** service epipe *service-name* sap *sap* egress qos sap-egress port-redirect-group instance *number* |
| Tree | instance |
| Range | 1 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **scheduler-policy**

| | |
|---|---|
| Synopsis | Enter the **scheduler-policy** context |
| Context | **configure** service epipe *service-name* sap *sap* egress qos scheduler-policy |
| Tree | scheduler-policy |
| Introduced | 16.0.R1 |
| Platforms | All |

### **overrides**

| | |
|---|---|
| Synopsis | Enter the **overrides** context |
| Context | **configure** service epipe *service-name* sap *sap* egress qos scheduler-policy overrides |
| Tree | overrides |
| Introduced | 16.0.R1 |
| Platforms | All |

### **scheduler** [scheduler-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **scheduler** list instance |
| Context | **configure** service epipe *service-name* sap *sap* egress qos scheduler-policy overrides scheduler *named-item* |
| Tree | scheduler |
| Introduced | 16.0.R1 |
| Platforms | All |


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## [**scheduler-name**] *named-item*

| | |
|---|---|
| Synopsis | Scheduler name |
| Context | **configure** service epipe *service-name* sap *sap* egress qos scheduler-policy overrides scheduler *named-item* |
| Tree | scheduler |
| Description | This command specifies the scheduler name which is composed of printable 7-bit ASCII characters. If the string contains special characters (#, $, spaces, and so on), the entire string must be enclosed within double quotes. Each scheduler must have a unique name within the context of the scheduler policy. However, the same name can be reused in multiple scheduler policies. If the scheduler name already exists within the policy tier level, the context changes to that scheduler name for the purpose of editing the scheduler commands.<br><br>If the scheduler name exists within the policy on a different tier, an error occurs and the current context does not change. If the scheduler name does not exist in this or another tier within the scheduler policy, it is assumed that an attempt is being made to create a scheduler of that name.<br><br>If the provided scheduler name is invalid, a name syntax error occurs, the command does not execute, and the context is not change. |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **parent**

| | |
|---|---|
| Synopsis | Enter the **parent** context |
| Context | **configure** service epipe *service-name* sap *sap* egress qos scheduler-policy overrides scheduler *named-item* parent |
| Tree | parent |
| Introduced | 16.0.R1 |
| Platforms | All |

## **cir-weight** *number*

| | |
|---|---|
| Synopsis | Weight used at the within-CIR port priority level |
| Context | **configure** service epipe *service-name* sap *sap* egress qos scheduler-policy overrides scheduler *named-item* parent cir-weight *number* |
| Tree | cir-weight |


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| | |
|---|---|
| Range | 0 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **weight** *number*

| | |
|---|---|
| Synopsis | Relative weight of the scheduler to feed the queue |
| Context | **configure** service epipe *service-name* sap *sap* egress qos scheduler-policy overrides scheduler *named-item* parent weight *number* |
| Tree | weight |
| Range | 0 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rate**

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** service epipe *service-name* sap *sap* egress qos scheduler-policy overrides scheduler *named-item* rate |
| Tree | rate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cir** *(number | keyword)*

| | |
|---|---|
| Synopsis | CIR at which the queue it to operate |
| Context | **configure** service epipe *service-name* sap *sap* egress qos scheduler-policy overrides scheduler *named-item* rate cir *(number | keyword)* |
| Tree | cir |
| Range | 0 to 6400000000 |
| Units | kilobps |
| Options | sum, max |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | PIR at which the queue is to operate |
| Context | **configure** service epipe *service-name* sap *sap* egress qos scheduler-policy overrides scheduler *named-item* rate pir *(number \| keyword)* |
| Tree | pir |
| Range | 1 to 6400000000 |
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | All |

### **policy-name** *reference*

| | |
|---|---|
| Synopsis | Scheduler policy name |
| Context | **configure** service epipe *service-name* sap *sap* egress qos scheduler-policy policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos scheduler-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **virtual-port**

| | |
|---|---|
| Synopsis | Enter the **virtual-port** context |
| Context | **configure** service epipe *service-name* sap *sap* egress virtual-port |
| Tree | virtual-port |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **vport-name** *reference*

| | |
|---|---|
| Synopsis | Virtual port assigned to the SAP |
| Context | **configure** service epipe *service-name* sap *sap* egress virtual-port vport-name *reference* |
| Tree | vport-name |


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| | |
|---|---|
| Reference | **configure** port *port* ethernet access egress virtual-port *named-item* |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **endpoint** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Name of the endpoint |
| Context | **configure** service epipe *service-name* sap *sap* endpoint *reference* |
| Tree | endpoint |
| Reference | **configure** service epipe *service-name* endpoint *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **eth-cfm**

| | |
|---|---|
| Synopsis | Enter the **eth-cfm** context |
| Context | **configure** service epipe *service-name* sap *sap* eth-cfm |
| Tree | eth-cfm |
| Description | Commands in this context configure ETH-CFM options for Epipe SAPs. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **ais** *boolean*

| | |
|---|---|
| Synopsis | Enable the generation and the reception of AIS messages |
| Context | **configure** service epipe *service-name* sap *sap* eth-cfm ais *boolean* |
| Tree | ais |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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## collect-lmm-fc-stats

| | |
|---|---|
| Synopsis | Enter the **collect-lmm-fc-stats** context |
| Context | **configure** service epipe *service-name* sap *sap* eth-cfm collect-lmm-fc-stats |
| Tree | collect-lmm-fc-stats |
| Description | Commands in this context configure per forwarding class (FC) LMM information collection.<br>The commands **fc-in-profile** and **fc** in this context are mutually exclusive. The commands apply to either profile-aware or profile-unaware FCs respectively.<br>This command and the **collect-lmm-stats** command are mutually exclusive when there is entity resource contention. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **fc** *keyword*

| | |
|---|---|
| Synopsis | Forwarding class name for profile-unaware counter |
| Context | **configure** service epipe *service-name* sap *sap* eth-cfm collect-lmm-fc-stats fc *keyword* |
| Tree | fc |
| Description | This command configures individual counters for the specified FCs without regard for profile. The system includes all countable packets that match a configured FC, regardless of profile, in this counter.<br>An FC specified as part of this command and for this specific context cannot be specified as a profile-aware FC using the **fc-in-profile** command under the **collect-lmm-fc-stats** context.<br>When this command is reentered, a differential is performed. Omitted FCs stop counting, newly added FCs start counting, and unchanged FCs continue to count. |
| Options | be, l2, af, l1, h2, ef, h1, nc |
| Max. instances | 8 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **fc-in-profile** *keyword*

| | |
|---|---|
| Synopsis | Forwarding class name for profile-aware counter |
| Context | **configure** service epipe *service-name* sap *sap* eth-cfm collect-lmm-fc-stats fc-in-profile *keyword* |


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| | |
|---|---|
| Tree | fc-in-profile |
| Description | This command configures individual counters for the specified FCs with regard to profile. The system includes all countable packets that match a configured FC and that are deemed to be in-profile in this counter.<br>An FC specified as part of this command and for this specific context cannot be specified as a profile-unaware FC using the **fc** command under the **collect-lmm-fc-stats** context.<br>When this command is reentered, a differential is performed. Omitted FCs stop counting, newly added FCs start counting, and unchanged FCs continue to count. |
| Options | be, l2, af, l1, h2, ef, h1, nc |
| Max. instances | 8 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **collect-lmm-stats** *boolean*

| | |
|---|---|
| Synopsis | Collect statistics for loss measurement message tests |
| Context | **configure** service epipe *service-name* sap *sap* eth-cfm collect-lmm-stats *boolean* |
| Tree | collect-lmm-stats |
| Description | When set to **true**, this command configures the collection of OAM path-monitoring LMM test statistics on Router Facility MEPs. (Facility is at a different level of the hierarchy than the collection of LMM statistics for service SAPs and MPLS SDP bindings.)<br>The **show eth-cfm mep** command can be used to determine if the Facility MEP is collecting stats.<br>When this command is configured to **false**, no LMM statistics are collected in this context.<br>This command is mutually exclusive with the **collect-lmm-fc-stats** command when there is entity resource contention. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **mep** md-admin-name *reference* ma-admin-name *reference* mep-id *number*

| | |
|---|---|
| Synopsis | Enter the **mep** list instance |
| Context | **configure** service epipe *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |
| Tree | mep |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **md-admin-name** *reference*

| | |
|---|---|
| Synopsis | Maintenance Domain (MD) name |
| Context | **configure** service epipe *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |
| Tree | mep |
| Reference | **configure** eth-cfm domain *admin-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ma-admin-name** *reference*

| | |
|---|---|
| Synopsis | Maintenance Association (MA) name |
| Context | **configure** service epipe *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |
| Tree | mep |
| Reference | **configure** eth-cfm domain *admin-name* association *admin-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **mep-id** *number*

| | |
|---|---|
| Synopsis | Maintenance Endpoint (MEP) ID |
| Context | **configure** service epipe *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |
| Tree | mep |
| Range | 1 to 8191 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the MEP |
| Context | **configure** service epipe *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ais**

| | |
|---|---|
| Synopsis | Enable the **ais** context |
| Context | **configure** service epipe *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ais |
| Tree | ais |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **client-meg-level** *number*

| | |
|---|---|
| Synopsis | Client MEG level for AIS message generation |
| Context | **configure** service epipe *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ais client-meg-level *number* |
| Tree | client-meg-level |
| Range | 1 to 7 |
| Max. instances | 7 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **interface-support** *boolean*

| | |
|---|---|
| Synopsis | Enable generation of AIS PDUs based on endpoint state |
| Context | **configure** service epipe *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ais interface-support *boolean* |


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| | |
|---|---|
| Tree | interface-support |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **interval** *number*

| | |
|---|---|
| Synopsis | Transmission interval for AIS messages |
| Context | **configure** service epipe *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ais interval *number* |
| Tree | interval |
| Range | 1 \| 60 |
| Units | seconds |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **low-priority-defect** *keyword*

| | |
|---|---|
| Synopsis | Lowest priority defect allowed to generate fault alarm |
| Context | **configure** service epipe *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ais low-priority-defect *keyword* |
| Tree | low-priority-defect |
| Options | all-def, mac-rem-err-xcon |
| Default | all-def |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **priority** *number*

| | |
|---|---|
| Synopsis | Priority of the AIS messages generated by the node |
| Context | **configure** service epipe *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ais priority *number* |
| Tree | priority |
| Range | 0 to 7 |
| Default | 7 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## alarm-notification

| | |
|---|---|
| Synopsis | Enter the **alarm-notification** context |
| Context | **configure** service epipe *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* alarm-notification |
| Tree | alarm-notification |
| Description | Commands in this context configure the Fault Notification Generator (FNG) time values to raise an alarm or reset the CCM defect alarm.<br>Use these timers for network management processes. The timers are not tied into delaying the notification to the fault management system on the network element and do not affect fault propagation mechanisms. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## fng-alarm-time *number*

| | |
|---|---|
| Synopsis | Time that must expire before an FNG alarm is raised |
| Context | **configure** service epipe *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* alarm-notification fng-alarm-time *number* |
| Tree | fng-alarm-time |
| Range | 250 \| 500 \| 1000 |
| Units | centiseconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## fng-reset-time *number*

| | |
|---|---|
| Synopsis | Time that must expire before an FNG alarm is reset |
| Context | **configure** service epipe *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* alarm-notification fng-reset-time *number* |
| Tree | fng-reset-time |
| Range | 250 \| 500 \| 1000 |
| Units | centiseconds |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ccm** *boolean*

| | |
|---|---|
| Synopsis | Generate CCM messages |
| Context | **configure** service epipe *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ccm *boolean* |
| Tree | ccm |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ccm-ltm-priority** *number*

| | |
|---|---|
| Synopsis | Priority of CCM and LTM messages transmitted by the MEP |
| Context | **configure** service epipe *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ccm-ltm-priority *number* |
| Tree | ccm-ltm-priority |
| Range | 0 to 7 |
| Default | 7 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ccm-padding-size** *number*

| | |
|---|---|
| Synopsis | Number of octets of padding to insert in CCM packets |
| Context | **configure** service epipe *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ccm-padding-size *number* |
| Tree | ccm-padding-size |
| Description | This command sets the byte size of the optional Data TLV to be included in the ETH-CC PDU.<br><br>This command increases the size of the ETH-CC PDU by the configured value. The base size of the ETH-CC PDU, including the Interface Status TLV and Port Status TLV, is 83 bytes not including the Layer 2 encapsulation. CCM padding is not supported when the CCM interval (configured through **configure eth-cfm domain association ccm-interval)** is less than 1 second. |
| Range | 3 to 1500 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **cfm-vlan-tag** *one-or-two-vlan-tags*

| | |
|---|---|
| Synopsis | VLAN tags to apply to CFM PDUs for egress processing |
| Context | **configure** service epipe *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* cfm-vlan-tag *one-or-two-vlan-tags* |
| Tree | cfm-vlan-tag |
| Description | This command allows the CFM function to include additional VLAN tags to the CFM packet that are carried to the egress and treated as service delimited. Typically, this function is used to influence the VLAN carried over a binding that uses the **vc-type vlan** or the binding forces the use of one or more VLAN tag that results in a mismatch between the service data arriving at the binding and the locally generated ETH-CFM PDUs arriving at the same egress. When this command is included under the MEP or MIP configuration, the tags used as part of the configuration typically match the SAP service delimited configuration. |
| String length | 1 to 9 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **csf**

| | |
|---|---|
| Synopsis | Enable the **csf** context |
| Context | **configure** service epipe *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* csf |
| Tree | csf |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **multiplier** *decimal-number*

| | |
|---|---|
| Synopsis | Multiplication factor used to clear the CSF condition |
| Context | **configure** service epipe *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* csf multiplier *decimal-number* |
| Tree | multiplier |
| Range | 0.0 \| 2.0 to 30.0 |
| Default | 3.5 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service epipe *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **direction** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Direction the MEP faces |
| Context | **configure** service epipe *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* direction *keyword* |
| Tree | direction |
| Options | down, up |
| Default | down |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **eth-test**

| | |
|---|---|
| Synopsis | Enable the **eth-test** context |
| Context | **configure** service epipe *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test |
| Tree | eth-test |
| Description | Commands in this context configure information used by the Ethernet Test (ETH-TST) packet. The commands must be configured on both the sender and the receiver nodes. The test packets are used with the **oam eth-cfm eth-test** command. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **bit-error-threshold** *number*

| | |
|---|---|
| Synopsis | Lowest priority defect allowed to generate fault alarm |
| Context | **configure** service epipe *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test bit-error-threshold *number* |
| Tree | bit-error-threshold |
| Range | 0 to 11840 |
| Units | bit errors |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **test-pattern**

| | |
|---|---|
| Synopsis | Enter the **test-pattern** context |
| Context | **configure** service epipe *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test test-pattern |
| Tree | test-pattern |
| Description | Commands in this context specify the test pattern for the ETH-TST frames. The pattern does not have to be the same on the sender and the receiver. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **crc-tlv** *boolean*

| | |
|---|---|
| Synopsis | Generate a CRC checksum |
| Context | **configure** service epipe *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test test-pattern crc-tlv *boolean* |
| Tree | crc-tlv |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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## **pattern** *keyword*

| | |
|---|---|
| Synopsis | Test pattern for Ethernet Test frames |
| Context | **configure** service epipe *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test test-pattern pattern *keyword* |
| Tree | pattern |
| Description | This command specifies the test pattern of the Ethernet Test (ETH-TST) frames. This does not have to be configured the same on the sender and the receiver. |
| Options | all-zeros, all-ones |
| Default | all-zeros |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **fault-propagation** *keyword*

| | |
|---|---|
| Synopsis | Fault propagation for the MEP |
| Context | **configure** service epipe *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* fault-propagation *keyword* |
| Tree | fault-propagation |
| Options | use-if-status-tlv, suspend-ccm |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **grace**

| | |
|---|---|
| Synopsis | Enter the **grace** context |
| Context | **configure** service epipe *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace |
| Tree | grace |
| Description | Commands in this context configure the Nokia ETH-CFM Grace function and the ITU-T Y.1731 Ethernet Expected Default (ETH-ED) function. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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## eth-ed

| | |
|---|---|
| Synopsis | Enter the **eth-ed** context |
| Context | **configure** service epipe *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed |
| Tree | eth-ed |
| Description | Commands in this context configure the ITU-T Y.1731 ETH-ED function. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## max-rx-defect-window *number*

| | |
|---|---|
| Synopsis | Maximum received ETH-ED expected defect window duration |
| Context | **configure** service epipe *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed max-rx-defect-window *number* |
| Tree | max-rx-defect-window |
| Range | 1 to 86400 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## priority *number*

| | |
|---|---|
| Synopsis | Transmission priority for ETH-ED PDUs |
| Context | **configure** service epipe *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed priority *number* |
| Tree | priority |
| Range | 0 to 7 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## rx-eth-ed *boolean*

| | |
|---|---|
| Synopsis | Receive and process ETH-ED ITU-T Y.1731 PDUs on the MEP |
| Context | **configure** service epipe *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed rx-eth-ed *boolean* |


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| | |
|---|---|
| Tree | rx-eth-ed |
| Description | This command enables the reception and processing of the ITU-T Y.1731 ETH-ED PDU on the MEP. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **tx-eth-ed** *boolean*

| | |
|---|---|
| Synopsis | Transmit ETH-ED PDUs from the MEP |
| Context | **configure** service epipe *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed tx-eth-ed *boolean* |
| Tree | tx-eth-ed |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **eth-vsm-grace**

| | |
|---|---|
| Synopsis | Enter the **eth-vsm-grace** context |
| Context | **configure** service epipe *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-vsm-grace |
| Tree | eth-vsm-grace |
| Description | Commands in this context configure the Nokia ETH-CFM Grace function. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **rx-eth-vsm-grace** *boolean*

| | |
|---|---|
| Synopsis | Receive and process Nokia ETH-CFM Grace PDU on the MEP |
| Context | **configure** service epipe *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-vsm-grace rx-eth-vsm-grace *boolean* |
| Tree | rx-eth-vsm-grace |
| Description | When configured to **true**, the router enables the Nokia Grace function, which is a vendor-specific PDU that informs MEP peers that the local node may be entering a period of expected defect. |


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When configured to **false**, the router disables the Nokia Grace function.

Default true

Introduced 16.0.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS

## **tx-eth-vsm-grace** *boolean*

Synopsis Transmit ETH-ED PDUs from the MEP

Context **configure** service epipe *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-vsm-grace tx-eth-vsm-grace *boolean*

Tree tx-eth-vsm-grace

Description When configured to **true**, the router can transmit the Nokia ETH-CFM Grace PDU from the MEP when a system soft reset notification is received for one or more cards.

The Nokia Grace function is a vendor-specific PDU that informs MEP peers that the local node may be entering a period of expected defect.

The operator must configure the **configure system eth-cfm grace** command to instruct the system that the node is capable of transmitting expected-defect windows to peers. The system can only transmit one form of ETH-CFM grace (Nokia ETH-CFM Grace or ITU-T Y.1731 ETH-ED).

When configured to **false**, the router disables the transmission of the Nokia ETH-CFM Grace PDU from the MEP.

Default true

Introduced 16.0.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS

## **lbm-svc-act-responder** *boolean*

Synopsis Process service activation streams in ETH-CFM LBM

Context **configure** service epipe *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* lbm-svc-act-responder *boolean*

Tree lbm-svc-act-responder

Introduced 16.0.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS

## **low-priority-defect** *keyword*

Synopsis Lowest priority defect allowed to generate fault alarm


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| | |
|---|---|
| Context | **configure** service epipe *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* low-priority-defect *keyword* |
| Tree | low-priority-defect |
| Options | all-def, mac-rem-err-xcon, rem-err-xcon, err-xcon, xcon, no-xcon |
| Default | mac-rem-err-xcon |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **mac-address** *mac-unicast-address-no-zero*

| | |
|---|---|
| Synopsis | MAC address of the MEP |
| Context | **configure** service epipe *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* mac-address *mac-unicast-address-no-zero* |
| Tree | mac-address |
| Description | This command specifies the MAC address of the MEP.<br>When unconfigured, the MAC address of the port (if the MEP is on a SAP) or the MAC address of a bridge (if the MEP is on a spoke) is used. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **monitor-oper-group** *reference*

| | |
|---|---|
| Synopsis | Operational group to monitor |
| Context | **configure** service epipe *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* monitor-oper-group *reference* |
| Tree | monitor-oper-group |
| Description | This command operationally affects the state of the SAP based on the state of the operational group. When the monitoring function detects an operationally down state for the operational group, the SAP is set to operationally down and any CFM defects that were present on the MEP are cleared. The MEP enters a pseudo down state and does not try to transmit CFM packets and it is not expecting to receive CFM packets. When the monitoring function detects an operationally up state for the operational group, the CFM reason code that brought the SAP operationally down is removed. Assuming no other conditions prevent this, the SAP transitions to operationally up and the MEP is initialized.<br>This command is applicable to MEPs with a direction of down (**configure service sap eth-cfm mep direction down**) and a **configure eth-cfm domain association ccm-interval** of 1 second or higher. |
| Reference | **configure** service oper-group *named-item* |


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| | |
|---|---|
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **one-way-delay-threshold** *number*

| | |
|---|---|
| Synopsis | Threshold time limit for the one-way delay test |
| Context | **configure** service epipe *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* one-way-delay-threshold *number* |
| Tree | one-way-delay-threshold |
| Range | 0 to 600 |
| Units | seconds |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **primary-vlan** *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | MEP provisioned using MA primary VLAN ID |
| Context | **configure** service epipe *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* primary-vlan *boolean* |
| Tree | primary-vlan |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **mip** primary-vlan *(number | keyword)*

| | |
|---|---|
| Synopsis | Enter the **mip** list instance |
| Context | **configure** service epipe *service-name* sap *sap* eth-cfm mip primary-vlan *(number \| keyword)* |
| Tree | mip |
| Description | This command allows the CFM function to include additional VLAN tags to the CFM packet that are carried to the egress and treated as service delimited. Typically, this function is used to influence the VLAN carried over a binding that uses the **vc-type** |


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**vlan** or the binding forces the use of one or more VLAN tag that results in a mismatch between the service data arriving at the binding and the locally generated ETH-CFM PDUs arriving at the same egress. When this command is included under the MEP or MIP configuration, the tags used as part of the configuration typically match the SAP service delimited configuration.

Introduced 21.5.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS

### **primary-vlan** *(number | keyword)*

Synopsis VLAN ID to which the MIP is attached

Context **configure** service epipe *service-name* sap *sap* eth-cfm mip primary-vlan *(number | keyword)*

Tree mip

Description This command provides an option for linking a MIP with a Primary VLAN number or none. When the **none** option is provided, the MIP does not include the primary vlan.

Range 1 to 4094

Options none

Notes This element is part of a list key.

Introduced 21.5.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS

### **cfm-vlan-tag** *one-or-two-vlan-tags*

Synopsis VLAN tags to apply to CFM PDUs for egress processing

Context **configure** service epipe *service-name* sap *sap* eth-cfm mip primary-vlan *(number | keyword)* cfm-vlan-tag *one-or-two-vlan-tags*

Tree cfm-vlan-tag

Description This command allows the CFM function to include additional VLAN tags to the CFM packet that are carried to the egress and treated as service delimited. Typically, this function is used to influence the VLAN carried over a binding that uses the vc-type vlan or the binding forces the use of one or more VLAN tag that results in a mismatch between the service data arriving at the binding and the locally generated ETH-CFM PDUs arriving at the same egress. When this command is included under the MEP or MIP configuration, the tags used as part of the configuration typically match the SAP service delimited configuration.

String length 1 to 9

Introduced 21.10.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS


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### **mac-address** *mac-unicast-address-no-zero*

| | |
|---|---|
| Synopsis | MAC address of the MIP |
| Context | **configure** service epipe *service-name* sap *sap* eth-cfm mip primary-vlan *(number \| keyword)* mac-address *mac-unicast-address-no-zero* |
| Tree | mac-address |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **squelch-ingress-ctag-levels** *number*

| | |
|---|---|
| Synopsis | Squelch levels using additional VLAN C-Tag space |
| Context | **configure** service epipe *service-name* sap *sap* eth-cfm squelch-ingress-ctag-levels *number* |
| Tree | squelch-ingress-ctag-levels |
| Description | This command defines the levels of the ETH-CFM packets that are silently discarded on ingress into the SAP or SDP binding from the wire that matches the service delineation of the SAP or SDP binding plus an additional VLAN, up to a maximum tag length of two tags. All ETH-CFM packets inbound to the SAP or SDP binding that match the configured levels are dropped without regard for any other ETH-CFM criteria. No statistical information or drop count is available for any ETH-CFM packet that is silently discarded by this option.<br>The list of levels must be a complete contiguous list from 0 up to the highest level to be dropped. |
| Range | 0 to 7 |
| Max. instances | 8 |
| Introduced | 21.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **squelch-ingress-levels** *number*

| | |
|---|---|
| Synopsis | Levels for which ETH-CFM packets are silently discarded |
| Context | **configure** service epipe *service-name* sap *sap* eth-cfm squelch-ingress-levels *number* |
| Tree | squelch-ingress-levels |
| Description | This command defines the levels of the ETH-CFM packets that are silently discarded.<br>At ingress, ETH-CFM packets that meet the following conditions are silently discarded:<br>• The packet is ingressing into the SAP or SDP binding from the wire that matches the service delineation of the SAP or SDP binding. |


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- The packet level matches the configured levels.

All ETH-CFM packets ingressing to the SAP or SDP binding that match the configured levels are dropped without regard for other ETH-CFM criteria. No statistical information or drop count is available for any ETH-CFM packet that is silently discarded by this option.

The list of levels must be a complete contiguous list from 0 up to the highest level that is to be dropped.

| | |
|---|---|
| Range | 0 to 7 |
| Max. instances | 8 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## ethernet

| | |
|---|---|
| Synopsis | Enter the **ethernet** context |
| Context | **configure** service epipe *service-name* sap *sap* ethernet |
| Tree | ethernet |
| Introduced | 20.5.R1 |
| Platforms | All |

## llf

| | |
|---|---|
| Synopsis | Enter the **llf** context |
| Context | **configure** service epipe *service-name* sap *sap* ethernet llf |
| Tree | llf |
| Description | Commands in this context enable Link Loss Forwarding (LLF) on an Ethernet port. This feature provides an end-to-end OAM fault notification for Ethernet VLL service. It brings down the Ethernet port (Ethernet LLF) or sends a SONET/SDH Path AIS (ATM LLF) toward the attached CE when there is a local fault on the pseudowire or service, or a remote fault on the SAP or pseudowire, signaled with label withdrawal or T-LDP status bits. It ceases when the fault disappears.<br><br>The Ethernet port must be configured for null encapsulation.<br><br>This feature is also supported in Epipes with BGP-EVPN enabled. In this case, upon removal of the EVPN destination, the port transitions to an operationally down state, however the AD per-EVI route for the SAP is still advertised (the SAP remains operationally up). The port transitions to the operationally up state when the EVPN destination is created. |
| Introduced | 20.5.R1 |


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| | |
|---|---|
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of Link Loss Forwarding |
| Context | **configure** service epipe *service-name* sap *sap* ethernet llf admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 20.5.R1 |
| Platforms | All |

## **ignore-oper-down** *boolean*

| | |
|---|---|
| Synopsis | Ignore operational down state of the SAP on SAP failure |
| Context | **configure** service epipe *service-name* sap *sap* ignore-oper-down *boolean* |
| Tree | ignore-oper-down |
| Description | When configured to **true**, the Epipe service does not transition to the operational down state when the SAP fails. This command can only be set to **true** for a single SAP in an Epipe. The command can be used in Epipes with or without EVPN enabled.<br>When configured to **false**, the Epipe service transitions to the operational down state when SAP fails. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **ingress**

| | |
|---|---|
| Synopsis | Enter the **ingress** context |
| Context | **configure** service epipe *service-name* sap *sap* ingress |
| Tree | ingress |
| Introduced | 16.0.R1 |
| Platforms | All |


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### filter

| | |
|---|---|
| Synopsis | Enter the **filter** context |
| Context | **configure** service epipe *service-name* sap *sap* ingress filter |
| Tree | filter |
| Introduced | 16.0.R1 |
| Platforms | All |

### ip *reference*

| | |
|---|---|
| Synopsis | IPv4 filter policy name |
| Context | **configure** service epipe *service-name* sap *sap* ingress filter ip *reference* |
| Tree | ip |
| Reference | **configure** filter ip-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### ipv6 *reference*

| | |
|---|---|
| Synopsis | IPv6 filter policy name |
| Context | **configure** service epipe *service-name* sap *sap* ingress filter ipv6 *reference* |
| Tree | ipv6 |
| Reference | **configure** filter ipv6-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### mac *reference*

| | |
|---|---|
| Synopsis | MAC filter policy name |
| Context | **configure** service epipe *service-name* sap *sap* ingress filter mac *reference* |
| Tree | mac |
| Reference | **configure** filter mac-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |


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## qos

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos |
| Tree | qos |
| Introduced | 16.0.R1 |
| Platforms | All |

## match-qinq-dot1p *keyword*

| | |
|---|---|
| Synopsis | Ingress match QinQ Dot1p |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos match-qinq-dot1p *keyword* |
| Tree | match-qinq-dot1p |
| Options | top, bottom |
| Introduced | 16.0.R1 |
| Platforms | All |

## policer-control-policy

| | |
|---|---|
| Synopsis | Enter the **policer-control-policy** context |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos policer-control-policy |
| Tree | policer-control-policy |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## overrides

| | |
|---|---|
| Synopsis | Enable the **overrides** context |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos policer-control-policy overrides |
| Tree | overrides |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |


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### root

| | |
|---|---|
| Synopsis | Enter the **root** context |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos policer-control-policy overrides root |
| Tree | root |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### max-rate *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum frame-based bandwidth limit |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos policer-control-policy overrides root max-rate *(number | keyword)* |
| Tree | max-rate |
| Range | 1 to 6400000000 |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### priority-mbs-thresholds

| | |
|---|---|
| Synopsis | Enter the **priority-mbs-thresholds** context |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos policer-control-policy overrides root priority-mbs-thresholds |
| Tree | priority-mbs-thresholds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### min-thresh-separation *(number | keyword)*

| | |
|---|---|
| Synopsis | Minimum amount of separation buffer space |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos policer-control-policy overrides root priority-mbs-thresholds min-thresh-separation *(number | keyword)* |
| Tree | min-thresh-separation |
| Range | 0 to 16777216 |


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| | |
|---|---|
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **priority** [priority-level] *number*

| | |
|---|---|
| Synopsis | Enter the **priority** list instance |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos policer-control-policy overrides root priority-mbs-thresholds priority *number* |
| Tree | priority |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### [**priority-level**] *number*

| | |
|---|---|
| Synopsis | Priority level |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos policer-control-policy overrides root priority-mbs-thresholds priority *number* |
| Tree | priority |
| Range | 1 to 8 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **mbs-contribution** *(number | keyword)*

| | |
|---|---|
| Synopsis | Minimum amount of cumulative buffer space allowed |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos policer-control-policy overrides root priority-mbs-thresholds priority *number* mbs-contribution *(number \| keyword)* |
| Tree | mbs-contribution |
| Range | 0 to 16777216 |
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## **policy-name** *reference*

| | |
|---|---|
| Synopsis | Policer control policy name |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos policer-control-policy policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos policer-control-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## **sap-ingress**

| | |
|---|---|
| Synopsis | Enter the **sap-ingress** context |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos sap-ingress |
| Tree | sap-ingress |
| Introduced | 16.0.R1 |
| Platforms | All |

## **fp-redirect-group**

| | |
|---|---|
| Synopsis | Enter the **fp-redirect-group** context |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos sap-ingress fp-redirect-group |
| Tree | fp-redirect-group |
| Introduced | 16.0.R1 |
| Platforms | All |

## **group-name** *reference*

| | |
|---|---|
| Synopsis | Queue group template name created on forwarding plane |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos sap-ingress fp-redirect-group group-name *reference* |
| Tree | group-name |
| Reference | **configure** qos queue-group-templates ingress queue-group *named-item* |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **instance** *number*

| | |
|---|---|
| Synopsis | Queue group instance |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos sap-ingress fp-redirect-group instance *number* |
| Tree | instance |
| Range | 1 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **overrides**

| | |
|---|---|
| Synopsis | Enter the **overrides** context |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos sap-ingress overrides |
| Tree | overrides |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ip-criteria**

| | |
|---|---|
| Synopsis | Enter the **ip-criteria** context |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos sap-ingress overrides ip-criteria |
| Tree | ip-criteria |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **activate-entry-tag** *number*

| | |
|---|---|
| Synopsis | Tag ID activated for IPv4 criteria |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos sap-ingress overrides ip-criteria activate-entry-tag *number* |
| Tree | activate-entry-tag |


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| | |
|---|---|
| Range | 1 to 255 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### ipv6-criteria

| | |
|---|---|
| Synopsis | Enter the **ipv6-criteria** context |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos sap-ingress overrides ipv6-criteria |
| Tree | ipv6-criteria |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### activate-entry-tag *number*

| | |
|---|---|
| Synopsis | Tag ID activated for IPv6 criteria |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos sap-ingress overrides ipv6-criteria activate-entry-tag *number* |
| Tree | activate-entry-tag |
| Range | 1 to 255 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### policer [policer-id] *reference*

| | |
|---|---|
| Synopsis | Enter the **policer** list instance |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos sap-ingress overrides policer *reference* |
| Tree | policer |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### [policer-id] *reference*

| | |
|---|---|
| Synopsis | Policer unique ID |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos sap-ingress overrides policer *reference* |


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| | |
|---|---|
| Tree | policer |
| Reference | **configure** qos sap-ingress *qos-policy-name* policer *number* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **cbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | CBS |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos sap-ingress overrides policer *reference* cbs *(number | keyword)* |
| Tree | cbs |
| Range | 0 to 268435456 |
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **mbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | MBS |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos sap-ingress overrides policer *reference* mbs *(number | keyword)* |
| Tree | mbs |
| Range | 0 to 268435456 |
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **packet-byte-offset** *number*

| | |
|---|---|
| Synopsis | Packet size modification for policing information |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos sap-ingress overrides policer *reference* packet-byte-offset *number* |
| Tree | packet-byte-offset |


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| | |
|---|---|
| Range | -32 to 31 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## percent-rate

| | |
|---|---|
| Synopsis | Enter the **percent-rate** context |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos sap-ingress overrides policer *reference* percent-rate |
| Tree | percent-rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## **cir** *decimal-number*

| | |
|---|---|
| Synopsis | CIR percent rate |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos sap-ingress overrides policer *reference* percent-rate cir *decimal-number* |
| Tree | cir |
| Range | 0.00 to 100.00 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## **pir** *decimal-number*

| | |
|---|---|
| Synopsis | PIR percent rate |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos sap-ingress overrides policer *reference* percent-rate pir *decimal-number* |
| Tree | pir |
| Range | 0.01 to 100.00 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |


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### rate

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos sap-ingress overrides policer *reference* rate |
| Tree | rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### cir *(number | keyword)*

| | |
|---|---|
| Synopsis | CIR rate |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos sap-ingress overrides policer *reference* rate cir *(number | keyword)* |
| Tree | cir |
| Range | 0 to 6400000000 |
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### pir *(number | keyword)*

| | |
|---|---|
| Synopsis | PIR rate |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos sap-ingress overrides policer *reference* rate pir *(number | keyword)* |
| Tree | pir |
| Range | 1 to 6400000000 |
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |


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### **stat-mode** *keyword*

| | |
|---|---|
| Synopsis | Mode of statistics collected by the policer |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos sap-ingress overrides policer *reference* stat-mode *keyword* |
| Tree | stat-mode |
| Options | no-stats, minimal, offered-profile-no-cir, offered-total-cir, offered-priority-no-cir, offered-profile-cir, offered-priority-cir, offered-limited-profile-cir, offered-profile-capped-cir, offered-limited-capped-cir |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **queue** [queue-id] *reference*

| | |
|---|---|
| Synopsis | Enter the **queue** list instance |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* |
| Tree | queue |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**queue-id**] *reference*

| | |
|---|---|
| Synopsis | Policer unique ID |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* |
| Tree | queue |
| Reference | **configure** qos sap-ingress *qos-policy-name* queue *number* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **adaptation-rule**

| | |
|---|---|
| Synopsis | Enter the **adaptation-rule** context |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* adaptation-rule |


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| | |
|---|---|
| Tree | adaptation-rule |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cir** *keyword*

| | |
|---|---|
| Synopsis | Constraint used when deriving the operational CIR value |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* adaptation-rule cir *keyword* |
| Tree | cir |
| Options | max, min, closest |
| Introduced | 16.0.R1 |
| Platforms | All |

### **pir** *keyword*

| | |
|---|---|
| Synopsis | Constraint used when deriving the operational PIR value |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* adaptation-rule pir *keyword* |
| Tree | pir |
| Options | max, min, closest |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | CBS |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* cbs *(number | keyword)* |
| Tree | cbs |
| Range | 0 to 1048576 |
| Units | kilobytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | All |


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### drop-tail

| | |
|---|---|
| Synopsis | Enter the **drop-tail** context |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* drop-tail |
| Tree | drop-tail |
| Introduced | 16.0.R1 |
| Platforms | All |

### low

| | |
|---|---|
| Synopsis | Enter the **low** context |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* drop-tail low |
| Tree | low |
| Introduced | 16.0.R1 |
| Platforms | All |

### percent-reduction-from-mbs *(number | keyword)*

| | |
|---|---|
| Synopsis | Percentage reduction from the MBS for a queue drop tail |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* drop-tail low percent-reduction-from-mbs *(number | keyword)* |
| Tree | percent-reduction-from-mbs |
| Range | 0 to 100 |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | All |

### mbs *(number | keyword)*

| | |
|---|---|
| Synopsis | MBS |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* mbs *(number | keyword)* |
| Tree | mbs |
| Range | 0 to 1073741824 |


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| | |
|---|---|
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | All |

## monitor-queue-depth

| | |
|---|---|
| Synopsis | Enable the **monitor-queue-depth** context |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* monitor-queue-depth |
| Tree | monitor-queue-depth |
| Introduced | 21.7.R1 |
| Platforms | All |

## fast-polling *boolean*

| | |
|---|---|
| Synopsis | Enable fast polling of the queue depth |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* monitor-queue-depth fast-polling *boolean* |
| Tree | fast-polling |
| Default | false |
| Introduced | 21.7.R1 |
| Platforms | All |

## parent

| | |
|---|---|
| Synopsis | Enter the **parent** context |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* parent |
| Tree | parent |
| Introduced | 16.0.R1 |
| Platforms | All |

## cir-weight *number*

| | |
|---|---|
| Synopsis | CIR parameter that overrides parent for queue group |


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| | |
|---|---|
| Context | **configure** service epipe *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* parent cir-weight *number* |
| Tree | cir-weight |
| Range | 0 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **weight** *number*

| | |
|---|---|
| Synopsis | PIR parameter that overrides parent for queue group |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* parent weight *number* |
| Tree | weight |
| Range | 0 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **percent-rate**

| | |
|---|---|
| Synopsis | Enter the **percent-rate** context |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* percent-rate |
| Tree | percent-rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cir** *decimal-number*

| | |
|---|---|
| Synopsis | CIR percent rate |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* percent-rate cir *decimal-number* |
| Tree | cir |
| Range | 0.00 to 100.00 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **pir** *decimal-number*

| | |
|---|---|
| Synopsis | PIR percent rate |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* percent-rate pir *decimal-number* |
| Tree | pir |
| Range | 0.01 to 100.00 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rate**

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* rate |
| Tree | rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cir** *(number | keyword)*

| | |
|---|---|
| Synopsis | CIR rate |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* rate cir *(number | keyword)* |
| Tree | cir |
| Range | 0 to 6400000000 |
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | All |

### **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | PIR rate |


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| | |
|---|---|
| Context | **configure** service epipe *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* rate pir *(number \| keyword)* |
| Tree | pir |
| Range | 1 to 6400000000 |
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | All |

## **policy-name** *reference*

| | |
|---|---|
| Synopsis | Policy ID |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos sap-ingress policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos sap-ingress *qos-policy-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **queuing-type** *keyword*

| | |
|---|---|
| Synopsis | Queuing type |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos sap-ingress queuing-type *keyword* |
| Tree | queuing-type |
| Options | shared, multipoint-shared |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e, VSR |

## **scheduler-policy**

| | |
|---|---|
| Synopsis | Enter the **scheduler-policy** context |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos scheduler-policy |
| Tree | scheduler-policy |
| Introduced | 16.0.R1 |
| Platforms | All |


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### overrides

| | |
|---|---|
| Synopsis | Enter the **overrides** context |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos scheduler-policy overrides |
| Tree | overrides |
| Introduced | 16.0.R1 |
| Platforms | All |

### scheduler [scheduler-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **scheduler** list instance |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos scheduler-policy overrides scheduler *named-item* |
| Tree | scheduler |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**scheduler-name**] *named-item*

| | |
|---|---|
| Synopsis | Scheduler name |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos scheduler-policy overrides scheduler *named-item* |
| Tree | scheduler |
| Description | This command specifies the scheduler name which is composed of printable 7-bit ASCII characters. If the string contains special characters (#, $, spaces, and so on), the entire string must be enclosed within double quotes. Each scheduler must have a unique name within the context of the scheduler policy. However, the same name can be reused in multiple scheduler policies. If the scheduler name already exists within the policy tier level, the context changes to that scheduler name for the purpose of editing the scheduler commands.<br><br>If the scheduler name exists within the policy on a different tier, an error occurs and the current context does not change. If the scheduler name does not exist in this or another tier within the scheduler policy, it is assumed that an attempt is being made to create a scheduler of that name.<br><br>If the provided scheduler name is invalid, a name syntax error occurs, the command does not execute, and the context is not change. |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## parent

| | |
|---|---|
| Synopsis | Enter the **parent** context |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos scheduler-policy overrides scheduler *named-item* parent |
| Tree | parent |
| Introduced | 16.0.R1 |
| Platforms | All |

## cir-weight *number*

| | |
|---|---|
| Synopsis | Weight used at the within-CIR port priority level |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos scheduler-policy overrides scheduler *named-item* parent cir-weight *number* |
| Tree | cir-weight |
| Range | 0 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

## weight *number*

| | |
|---|---|
| Synopsis | Relative weight of the scheduler to feed the queue |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos scheduler-policy overrides scheduler *named-item* parent weight *number* |
| Tree | weight |
| Range | 0 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

## rate

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos scheduler-policy overrides scheduler *named-item* rate |
| Tree | rate |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **cir** *(number | keyword)*

| | |
|---|---|
| Synopsis | CIR at which the queue it to operate |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos scheduler-policy overrides scheduler *named-item* rate cir *(number | keyword)* |
| Tree | cir |
| Range | 0 to 6400000000 |
| Units | kilobps |
| Options | sum, max |
| Introduced | 16.0.R1 |
| Platforms | All |

### **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | PIR at which the queue is to operate |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos scheduler-policy overrides scheduler *named-item* rate pir *(number | keyword)* |
| Tree | pir |
| Range | 1 to 6400000000 |
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | All |

### **policy-name** *reference*

| | |
|---|---|
| Synopsis | Scheduler policy name |
| Context | **configure** service epipe *service-name* sap *sap* ingress qos scheduler-policy policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos scheduler-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |


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## qtag-manipulation

| | |
|---|---|
| Synopsis | Enter the **qtag-manipulation** context |
| Context | **configure** service epipe *service-name* sap *sap* ingress qtag-manipulation |
| Tree | qtag-manipulation |
| Introduced | 16.0.R1 |
| Platforms | All |

## c-tag *(number | keyword)*

| | |
|---|---|
| Synopsis | Inner ingress VLAN translation for two service delimiting VLAN values |
| Context | **configure** service epipe *service-name* sap *sap* ingress qtag-manipulation c-tag *(number \| keyword)* |
| Tree | c-tag |
| Range | 0 to 4094 |
| Options | tag-* |
| Notes | The following elements are part of a choice: **push-dot1q-vlan** or (**c-tag** and **s-tag**). |
| Introduced | 16.0.R1 |
| Platforms | All |

## push-dot1q-vlan *(number | keyword)*

| | |
|---|---|
| Synopsis | VLAN translation information |
| Context | **configure** service epipe *service-name* sap *sap* ingress qtag-manipulation push-dot1q-vlan *(number \| keyword)* |
| Tree | push-dot1q-vlan |
| Range | 0 to 4094 |
| Options | use-sap-svlan |
| Notes | The following elements are part of a choice: **push-dot1q-vlan** or (**c-tag** and **s-tag**). |
| Introduced | 16.0.R1 |
| Platforms | All |

## s-tag *number*

| | |
|---|---|
| Synopsis | Outer ingress VLN translation for two service delimiting VLAN values |


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| | |
|---|---|
| Context | **configure** service epipe *service-name* sap *sap* ingress qtag-manipulation s-tag *number* |
| Tree | s-tag |
| Range | 0 to 4094 |
| Notes | The following elements are part of a choice: **push-dot1q-vlan** or (**c-tag** and **s-tag**). |
| Introduced | 16.0.R1 |
| Platforms | All |

## l2tpv3-session

| | |
|---|---|
| Synopsis | Enable the **l2tpv3-session** context |
| Context | **configure** service epipe *service-name* sap *sap* l2tpv3-session |
| Tree | l2tpv3-session |
| Introduced | 16.0.R4 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the session for the service |
| Context | **configure** service epipe *service-name* sap *sap* l2tpv3-session admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R4 |
| Platforms | All |

## pseudo-wire

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **pseudo-wire** context |
| Context | **configure** service epipe *service-name* sap *sap* l2tpv3-session pseudo-wire |
| Tree | pseudo-wire |
| Introduced | 16.0.R4 |
| Platforms | All |


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## ethernet

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable the Ethernet PW-type for the L2TPv3 session |
| Context | **configure** service epipe *service-name* sap *sap* l2tpv3-session pseudo-wire ethernet |
| Tree | ethernet |
| Notes | The following elements are part of a choice: **ethernet** or **ethernet-vlan-id**. |
| Introduced | 16.0.R4 |
| Platforms | All |

## ethernet-vlan-id *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Ethernet-VLAN PW-type ID for the L2TPv3 session |
| Context | **configure** service epipe *service-name* sap *sap* l2tpv3-session pseudo-wire ethernet-vlan-id *number* |
| Tree | ethernet-vlan-id |
| Range | 0 to 4095 |
| Notes | The following elements are part of a choice: **ethernet** or **ethernet-vlan-id**. |
| Introduced | 16.0.R4 |
| Platforms | All |

## router

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **router** context |
| Context | **configure** service epipe *service-name* sap *sap* l2tpv3-session router |
| Tree | router |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | All |

### **group** *named-item*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Tunnel group name |
| Context | **configure** service epipe *service-name* sap *sap* l2tpv3-session router group *named-item* |
| Tree | group |
| String length | 1 to 32 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **router-instance** *router-instance-base-vprn-loose*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Router name used to identify the router instance |
| Context | **configure** service epipe *service-name* sap *sap* l2tpv3-session router router-instance *router-instance-base-vprn-loose* |
| Tree | router-instance |
| String length | 1 to 64 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **vc-id** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | VC ID for the L2TPv3 session |
| Context | **configure** service epipe *service-name* sap *sap* l2tpv3-session vc-id *number* |


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| | |
|---|---|
| Tree | vc-id |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R4 |
| Platforms | All |

## lag

| | |
|---|---|
| Synopsis | Enter the **lag** context |
| Context | **configure** service epipe *service-name* sap *sap* lag |
| Tree | lag |
| Introduced | 16.0.R1 |
| Platforms | All |

## link-map-profile *number*

| | |
|---|---|
| Synopsis | LAG link map profile |
| Context | **configure** service epipe *service-name* sap *sap* lag link-map-profile *number* |
| Tree | link-map-profile |
| Range | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | All |

## per-link-hash

| | |
|---|---|
| Synopsis | Enter the **per-link-hash** context |
| Context | **configure** service epipe *service-name* sap *sap* lag per-link-hash |
| Tree | per-link-hash |
| Introduced | 16.0.R1 |
| Platforms | All |

## class *number*

| | |
|---|---|
| Synopsis | Class used on LAG egress using weighted per-link-hash |
| Context | **configure** service epipe *service-name* sap *sap* lag per-link-hash class *number* |
| Tree | class |


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| | |
|---|---|
| Range | 1 to 3 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **weight** *number*

| | |
|---|---|
| Synopsis | Weight used on LAG egress using weighted per-link-hash |
| Context | **configure** service epipe *service-name* sap *sap* lag per-link-hash weight *number* |
| Tree | weight |
| Range | 1 to 1024 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mc-ring**

| | |
|---|---|
| Synopsis | Enable the **mc-ring** context |
| Context | **configure** service epipe *service-name* sap *sap* mc-ring |
| Tree | mc-ring |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ring-node** *named-item*

| | |
|---|---|
| Synopsis | Name for the ring node associated with this SAP |
| Context | **configure** service epipe *service-name* sap *sap* mc-ring ring-node *named-item* |
| Tree | ring-node |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **monitor-oper-group** *reference*

| | |
|---|---|
| Synopsis | Monitor operational group |
| Context | **configure** service epipe *service-name* sap *sap* monitor-oper-group *reference* |
| Tree | monitor-oper-group |
| Reference | **configure** service oper-group *named-item* |
| Notes | The following elements are part of a choice: **monitor-oper-group** or **oper-group**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **multi-service-site** *reference*

| | |
|---|---|
| Synopsis | Multi service site name |
| Context | **configure** service epipe *service-name* sap *sap* multi-service-site *reference* |
| Tree | multi-service-site |
| Reference | **configure** service customer *customer-name* multi-service-site *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **oper-group** *reference*

| | |
|---|---|
| Synopsis | Operational group |
| Context | **configure** service epipe *service-name* sap *sap* oper-group *reference* |
| Tree | oper-group |
| Reference | **configure** service oper-group *named-item* |
| Notes | The following elements are part of a choice: **monitor-oper-group** or **oper-group**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **qtag-normalization**

| | |
|---|---|
| Synopsis | Enable the **qtag-normalization** context |
| Context | **configure** service epipe *service-name* sap *sap* qtag-normalization |
| Tree | qtag-normalization |


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| | |
|---|---|
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

## double-tag

| | |
|---|---|
| Synopsis | Enter the **double-tag** context |
| Context | **configure** service epipe *service-name* sap *sap* qtag-normalization double-tag |
| Tree | double-tag |
| Notes | The following elements are part of a choice: **double-tag** or **single-tag**. |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

## c-tag *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | C-tag value used for the tag normalization |
| Context | **configure** service epipe *service-name* sap *sap* qtag-normalization double-tag c-tag *number* |
| Tree | c-tag |
| Description | This command configures the normalized C-tag for the SAP. When configured, the tag value is pushed as the C-tag (inner tag) into the frames coming from this SAP and sent to EVPN. On network ingress, the inner and outer VLAN tags are looked up and the frames matching this value and the normalized S-tag value are sent to the associated SAP.<br>When unconfigured, the normalized C-tag is derived from the service delimiting C-tag. |
| Range | 0 to 4094 |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

## s-tag *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.


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| | |
|---|---|
| Synopsis | S-tag value used for the tag normalization |
| Context | **configure** service epipe *service-name* sap *sap* qtag-normalization double-tag s-tag *number* |
| Tree | s-tag |
| Description | This command configures the normalized S-tag for the SAP. When configured, the tag value is pushed as the S-tag (outer tag) into the frames coming from this SAP and sent to EVPN. On network ingress, the inner and outer VLAN tags are looked up and the frames matching this value and the normalized C-tag value are sent to the associated SAP.<br>When unconfigured, the normalized S-tag is derived from the service delimiting S-tag. |
| Range | 0 to 4094 |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

## single-tag

| | |
|---|---|
| Synopsis | Enter the **single-tag** context |
| Context | **configure** service epipe *service-name* sap *sap* qtag-normalization single-tag |
| Tree | single-tag |
| Notes | The following elements are part of a choice: **double-tag** or **single-tag**. |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

## tag *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Tag normalization value |
| Context | **configure** service epipe *service-name* sap *sap* qtag-normalization single-tag tag *number* |
| Tree | tag |
| Description | This command configures the normalized S-tag for the SAP. When configured, the tag value is pushed as the S-tag (outer tag) into the frames coming from this SAP and sent to EVPN. On network ingress, the inner and outer VLAN tags are looked up and the frames matching this value and the normalized C-tag value are sent to the associated SAP.<br>When unconfigured, the normalized S-tag is derived from the service delimiting S-tag. |


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| | |
|---|---|
| Range | 0 to 4094 |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

## transit-policy

| | |
|---|---|
| Synopsis | Enable the **transit-policy** context |
| Context | **configure** service epipe *service-name* sap *sap* transit-policy |
| Tree | transit-policy |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## ip *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IP transit policy ID |
| Context | **configure** service epipe *service-name* sap *sap* transit-policy ip *reference* |
| Tree | ip |
| Reference | **configure** application-assurance group *number* partition *number* transit-ip-policy *number* |
| Notes | The following elements are part of a mandatory choice: **ip** or **prefix**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## prefix *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IP prefix policy ID |
| Context | **configure** service epipe *service-name* sap *sap* transit-policy prefix *reference* |
| Tree | prefix |


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| | |
|---|---|
| Reference | **configure** application-assurance group *number* partition *number* transit-prefix-policy *number* |
| Notes | The following elements are part of a mandatory choice: **ip** or **prefix**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **segment-routing-v6** [instance] *number*

| | |
|---|---|
| Synopsis | Enter the **segment-routing-v6** list instance |
| Context | **configure** service epipe *service-name* segment-routing-v6 *number* |
| Tree | segment-routing-v6 |
| Description | Commands in this context configure the SRv6 instance that is used in the service. |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### [**instance**] *number*

| | |
|---|---|
| Synopsis | Segment routing v6 instance |
| Context | **configure** service epipe *service-name* segment-routing-v6 *number* |
| Tree | segment-routing-v6 |
| Range | 1 |
| Notes | This element is part of a list key. |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **locator** [locator-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **locator** list instance |
| Context | **configure** service epipe *service-name* segment-routing-v6 *number* locator *reference* |
| Tree | locator |
| Max. instances | 1 |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |


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### [**locator-name**] *reference*

| | |
|---|---|
| Synopsis | SRv6 locator name |
| Context | **configure** service epipe *service-name* segment-routing-v6 *number* locator *reference* |
| Tree | locator |
| Reference | **configure** router *named-item-64* segment-routing segment-routing-v6 locator *named-item-64* |
| Notes | This element is part of a list key. |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### function

| | |
|---|---|
| Synopsis | Enter the **function** context |
| Context | **configure** service epipe *service-name* segment-routing-v6 *number* locator *reference* function |
| Tree | function |
| Description | Commands in this context configure SRv6 SID function values and parameters for the locator. |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### end-dx2

| | |
|---|---|
| Synopsis | Enable the **end-dx2** context |
| Context | **configure** service epipe *service-name* segment-routing-v6 *number* locator *reference* function end-dx2 |
| Tree | end-dx2 |
| Description | Commands in this context configure the SRv6 End.DX2 behavior and function value that is associated with the SRv6 instance in the service. This means that decapsulation and cross-connect to the egress SAP occurs in the Epipe service. |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### value *number*

| | |
|---|---|
| Synopsis | SRv6 function value |


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| | |
|---|---|
| Context | **configure** service epipe *service-name* segment-routing-v6 *number* locator *reference* function end-dx2 value *number* |
| Tree | value |
| Description | This command assigns the optional static function value for the routes in the VPRN, VPLS, or Epipe instance.<br>When unconfigured, the system allocates a value dynamically. |
| Range | 1 to 1048575 |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **micro-segment-locator** [locator-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **micro-segment-locator** list instance |
| Context | **configure** service epipe *service-name* segment-routing-v6 *number* micro-segment-locator *reference* |
| Tree | micro-segment-locator |
| Max. instances | 1 |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### [**locator-name**] *reference*

| | |
|---|---|
| Synopsis | Micro-segment SRv6 locator name |
| Context | **configure** service epipe *service-name* segment-routing-v6 *number* micro-segment-locator *reference* |
| Tree | micro-segment-locator |
| Description | This command associates a pre-defined micro-segment SRv6 locator (defined in the **configure router segment-routing segment-routing-v6** context) with the SRv6 instance in the service. The same micro-segment locator can be referenced in multiple BGP instances used by IPVPN or EVPN. |
| Reference | **configure** router *named-item-64* segment-routing segment-routing-v6 micro-segment-locator *named-item-64* |
| Notes | This element is part of a list key. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |


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## function

| | |
|---|---|
| Synopsis | Enter the **function** context |
| Context | **configure** service epipe *service-name* segment-routing-v6 *number* micro-segment-locator *reference* function |
| Tree | function |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## udx2

| | |
|---|---|
| Synopsis | Enable the **udx2** context |
| Context | **configure** service epipe *service-name* segment-routing-v6 *number* micro-segment-locator *reference* function udx2 |
| Tree | udx2 |
| Description | Commands in this context configure the SRv6 micro-segment uDX2 behavior and the function value that is associated with the SRv6 instance in the service. When configured, decapsulation and cross-connect to the egress SAP occurs in the Epipe service. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## value *number*

| | |
|---|---|
| Synopsis | SRv6 function value |
| Context | **configure** service epipe *service-name* segment-routing-v6 *number* micro-segment-locator *reference* function udx2 value *number* |
| Tree | value |
| Description | This command assigns the optional static function value for the routes in the VPRN, VPLS, or Epipe instance.<br>When unconfigured, the system allocates a value dynamically. |
| Range | 1 to 1048575 |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |


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## **service-id** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Service ID |
| Context | **configure** service epipe *service-name* service-id *number* |
| Tree | service-id |
| Range | 1 to 2147483647 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **service-mtu** *number*

| | |
|---|---|
| Synopsis | MTU size |
| Context | **configure** service epipe *service-name* service-mtu *number* |
| Tree | service-mtu |
| Description | This command configures the Maximum Transmission Unit (MTU) value (payload) for the service. The system uses the value to validate the operational state of the SAP and SDP binding within the service. The value overrides the default MTU for the service type.<br><br>The service MTU and a SAP's service delineation encapsulation overhead (4 bytes for a dot1q tag) are used to derive the required MTU of the physical port or channel on which the SAP was created. If the required payload is larger than the port or channel MTU, the SAP is placed in an inoperative state. If the required MTU is equal to or less than the port or channel MTU, the SAP transitions to the operative state.<br><br>When binding an SDP to a service, the service MTU is compared to the path MTU associated with the SDP. The path MTU can be administratively defined in the context of the SDP. The default or administrative path MTU can be dynamically reduced due to the MTU capabilities discovered by the tunneling mechanism of the SDP or the egress interface MTU capabilities based on the next hop in the tunnel path. If the service MTU is larger than the path MTU, the SDP binding for the service is placed in an inoperative state. If the service MTU is equal to or less than the path MTU, the SDP binding is placed in an operational state.<br><br>If a service MTU, port or channel MTU, or path MTU is dynamically or administratively modified, all associated SAP and SDP binding operational states are automatically reevaluated.<br><br>Binding operational states are automatically reevaluated.<br><br>For I-VPLS and Epipes bound to a B-VPLS, the service MTU must be at least 18 bytes smaller than the B-VPLS service MTU to accommodate the PBB header. |


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Because this connects a Layer 2 to a Layer 3 service, adjust the service MTU under the Epipe service. The MTU that is advertised from the Epipe side is service MTU minus EtherHeaderSize.

In the **configure service epipe spoke-sdp** context, the **adv-service-mtu** command can be used to override the configured MTU value used in T-LDP signaling to the far-end of an Epipe spoke-sdp. The **adv-service-mtu** command is also used to validate the value signaled by the far-end PE.

| | |
|---|---|
| Range | 1 to 9782 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **spoke-sdp** [sdp-bind-id] *sdp-bind-id*

| | |
|---|---|
| Synopsis | Enter the **spoke-sdp** list instance |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* |
| Tree | spoke-sdp |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**sdp-bind-id**] *sdp-bind-id*

| | |
|---|---|
| Synopsis | SDP binding ID |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* |
| Tree | spoke-sdp |
| String length | 3 to 16 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **aarp**

| | |
|---|---|
| Synopsis | Enable the **aarp** context |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* aarp |
| Tree | aarp |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **id** *reference*

| | |
|---|---|
| Synopsis | AARP instance ID |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* aarp id *reference* |
| Tree | id |
| Reference | **configure** application-assurance aarp *number* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **type** *keyword*

| | |
|---|---|
| Synopsis | Role referenced by the AARP |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* aarp type *keyword* |
| Tree | type |
| Options | dual-homed, dual-homed-secondary |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **accounting-policy** *reference*

| | |
|---|---|
| Synopsis | Policy to collect accounting statistics |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* accounting-policy *reference* |
| Tree | accounting-policy |
| Reference | **configure** log accounting-policy *number* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the SDP binding to the service |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **adv-service-mtu** *number*

| | |
|---|---|
| Synopsis | Service MTU used in signaling |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* adv-service-mtu *number* |
| Tree | adv-service-mtu |
| Description | This command configures the MTU value that is signaled in the targeted LDP for the spoke-SDP, instead of the service MTU. However, the configuration does not affect the locally enforced value, which is still based on the service MTU.<br>This MTU value cannot be configured on a spoke-SDP that is bound to an SDP with the **adv-mtu-override** command (**configure service sdp** context).<br>When unconfigured, an adjusted service MTU is used (**service-mtu** command). |
| Range | 0 to 9782 |
| Introduced | 21.5.R1 |
| Platforms | All |

### **app-profile** *reference*

| | |
|---|---|
| Synopsis | Application profile name for this SDP |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* app-profile *reference* |
| Tree | app-profile |
| Reference | **configure** application-assurance group *number* partition *number* policy app-profile *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **bandwidth** *(number | keyword)*

| | |
|---|---|
| Synopsis | Bandwidth that is reserved for this SDP binding |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* bandwidth *(number \| keyword)* |
| Tree | bandwidth |
| Range | 0 to 100000000 |
| Units | kilobps |


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| | |
|---|---|
| Options | max |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### bfd

| | |
|---|---|
| Synopsis | Enter the **bfd** context |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* bfd |
| Tree | bfd |
| Introduced | 21.2.R1 |
| Platforms | All |

### bfd-liveness

| | |
|---|---|
| Synopsis | Enable the **bfd-liveness** context |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* bfd bfd-liveness |
| Tree | bfd-liveness |
| Introduced | 21.2.R1 |
| Platforms | All |

### encap *keyword*

| | |
|---|---|
| Synopsis | BFD encapsulation used on the SDP binding |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* bfd bfd-liveness encap *keyword* |
| Tree | encap |
| Options | ipv4 |
| Default | ipv4 |
| Introduced | 21.2.R1 |
| Platforms | All |

### bfd-template *reference*

| | |
|---|---|
| Synopsis | BFD template associated with the SDP binding |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* bfd bfd-template *reference* |


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| | |
|---|---|
| Tree | bfd-template |
| Description | This command configures a named BFD template to be used by VCCV BFD on PWs belonging to the VLL service. The template specifies parameters, such as the minimum transmit and receive control packet timer intervals, used by the BFD session. Template parameters are configured under the **configure router bfd** context. |
| Reference | **configure** bfd bfd-template *named-item* |
| Introduced | 21.2.R1 |
| Platforms | All |

### **failure-action** *keyword*

| | |
|---|---|
| Synopsis | VCCV BFD action taken on the SDP binding |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* bfd failure-action *keyword* |
| Tree | failure-action |
| Description | This command configures a named BFD template to be used by VCCV BFD on PWs belonging to the VLL service. The template specifies parameters, such as the minimum transmit and receive control packet timer intervals, used by the BFD session. Template parameters are configured under the **configure router bfd** context. |
| Options | none, down |
| Default | none |
| Introduced | 21.2.R1 |
| Platforms | All |

### **wait-for-up-timer** *number*

| | |
|---|---|
| Synopsis | Time waited for BFD up status |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* bfd wait-for-up-timer *number* |
| Tree | wait-for-up-timer |
| Description | This command configures the time interval that is used to wait for a BFD session to come up.<br>This command is triggered when a spoke-SDP is first administratively enabled and a VCCV BFD session transitions from up to down. The command is required to allow time for BFD sessions to come up, and for BFD to settle before selecting the active spoke-SDP for use in a redundant set. In the case where a VCCV BFD session is bouncing, the timer prevents excessive flapping of the operational state of a spoke-SDP. |
| Range | 1 to 60 |
| Units | seconds |


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| | |
|---|---|
| Introduced | 21.2.R1 |
| Platforms | All |

### **collect-stats** *boolean*

| | |
|---|---|
| Synopsis | Allow agent to collect accounting statistics |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* collect-stats *boolean* |
| Tree | collect-stats |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **control-word** *boolean*

| | |
|---|---|
| Synopsis | Use the control word as preferred |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* control-word *boolean* |
| Tree | control-word |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cpu-protection**

| | |
|---|---|
| Synopsis | Enter the **cpu-protection** context |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* cpu-protection |
| Tree | cpu-protection |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

### **eth-cfm-monitoring**

| | |
|---|---|
| Synopsis | Enable the **eth-cfm-monitoring** context |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* cpu-protection eth-cfm-monitoring |
| Tree | eth-cfm-monitoring |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **eth-cfm-monitoring** or **mac-monitoring**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

## aggregate

| | |
|---|---|
| Synopsis | Apply rate limit to the sum of the per peer packet rates |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* cpu-protection eth-cfm-monitoring aggregate |
| Tree | aggregate |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

## car

| | |
|---|---|
| Synopsis | Ignore Ethernet CFM packets when enforcing overall rate |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* cpu-protection eth-cfm-monitoring car |
| Tree | car |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

## mac-monitoring

| | |
|---|---|
| Synopsis | Monitor MAC for CPU protection |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* cpu-protection mac-monitoring |
| Tree | mac-monitoring |
| Notes | The following elements are part of a choice: **eth-cfm-monitoring** or **mac-monitoring**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

## policy-id *reference*

| | |
|---|---|
| Synopsis | CPM protection policy |


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| | |
|---|---|
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* cpu-protection policy-id *reference* |
| Tree | policy-id |
| Reference | **configure** system security cpu-protection policy *number* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **egress**

| | |
|---|---|
| Synopsis | Enter the **egress** context |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* egress |
| Tree | egress |
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter**

| | |
|---|---|
| Synopsis | Enter the **filter** context |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* egress filter |
| Tree | filter |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ip** *reference*

| | |
|---|---|
| Synopsis | IPv4 filter policy name |


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| | |
|---|---|
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* egress filter ip *reference* |
| Tree | ip |
| Reference | **configure** filter ip-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **ipv6** *reference*

| | |
|---|---|
| Synopsis | IPv6 filter policy name |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* egress filter ipv6 *reference* |
| Tree | ipv6 |
| Reference | **configure** filter ipv6-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **mac** *reference*

| | |
|---|---|
| Synopsis | MAC filter policy name |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* egress filter mac *reference* |
| Tree | mac |
| Reference | **configure** filter mac-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **l2tpv3**

| | |
|---|---|
| Synopsis | Enter the **l2tpv3** context |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* egress l2tpv3 |
| Tree | l2tpv3 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **cookie** *cookie-value*

| | |
|---|---|
| Synopsis | Cookie parameters |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* egress l2tpv3 cookie *cookie-value* |
| Tree | cookie |
| String length | 18 to 23 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **qos**

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* egress qos |
| Tree | qos |
| Introduced | 16.0.R1 |
| Platforms | All |

### **network**

| | |
|---|---|
| Synopsis | Enter the **network** context |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* egress qos network |
| Tree | network |
| Introduced | 16.0.R1 |
| Platforms | All |

### **policy-name** *reference*

| | |
|---|---|
| Synopsis | Network policy ID |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* egress qos network policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos network *network-policy-name* |
| Introduced | 16.0.R1 |
| Platforms | All |


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## port-redirect-group

| | |
|---|---|
| Synopsis | Enter the **port-redirect-group** context |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* egress qos network port-redirect-group |
| Tree | port-redirect-group |
| Introduced | 16.0.R1 |
| Platforms | All |

## group-name *reference*

| | |
|---|---|
| Synopsis | Name of the egress port queue group |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* egress qos network port-redirect-group group-name *reference* |
| Tree | group-name |
| Reference | **configure** qos queue-group-templates egress queue-group *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

## instance *number*

| | |
|---|---|
| Synopsis | Queue-group instance ID |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* egress qos network port-redirect-group instance *number* |
| Tree | instance |
| Range | 1 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

## vc-label *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Egress MPLS VC label to send packets to the far end |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* egress vc-label *number* |


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| | |
|---|---|
| Tree | vc-label |
| Range | 16 to 1048575 |
| Introduced | 16.0.R1 |
| Platforms | All |

## endpoint

| | |
|---|---|
| Synopsis | Enter the **endpoint** context |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* endpoint |
| Tree | endpoint |
| Introduced | 16.0.R1 |
| Platforms | All |

## icb *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Bind SDP as type Inter-Chassis Backup (ICB) |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* endpoint icb *boolean* |
| Tree | icb |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## name *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Service endpoint name |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* endpoint name *reference* |
| Tree | name |
| Reference | **configure** service epipe *service-name* endpoint *named-item* |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## **precedence** *(number | keyword)*

| | |
|---|---|
| Synopsis | Precedence when multiple SDP binds are on one endpoint |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* endpoint precedence *(number \| keyword)* |
| Tree | precedence |
| Range | 1 to 4 |
| Options | primary |
| Default | 4 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **entropy-label**

| | |
|---|---|
| Synopsis | Enable the use of entropy labels for spoke SDPs |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* entropy-label |
| Tree | entropy-label |
| Notes | The following elements are part of a choice: **entropy-label** or **hash-label**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **eth-cfm**

| | |
|---|---|
| Synopsis | Enter the **eth-cfm** context |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* eth-cfm |
| Tree | eth-cfm |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **collect-lmm-fc-stats**

| | |
|---|---|
| Synopsis | Enter the **collect-lmm-fc-stats** context |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* eth-cfm collect-lmm-fc-stats |


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| | |
|---|---|
| Tree | collect-lmm-fc-stats |
| Description | Commands in this context configure per forwarding class (FC) LMM information collection.<br>The commands **fc-in-profile** and **fc** in this context are mutually exclusive. The commands apply to either profile-aware or profile-unaware FCs respectively.<br>This command and the **collect-lmm-stats** command are mutually exclusive when there is entity resource contention. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **fc** *keyword*

| | |
|---|---|
| Synopsis | Forwarding class name for profile-unaware counter |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* eth-cfm collect-lmm-fc-stats fc *keyword* |
| Tree | fc |
| Description | This command configures individual counters for the specified FCs without regard for profile. The system includes all countable packets that match a configured FC, regardless of profile, in this counter.<br>An FC specified as part of this command and for this specific context cannot be specified as a profile-aware FC using the **fc-in-profile** command under the **collect-lmm-fc-stats** context.<br>When this command is reentered, a differential is performed. Omitted FCs stop counting, newly added FCs start counting, and unchanged FCs continue to count. |
| Options | be, l2, af, l1, h2, ef, h1, nc |
| Max. instances | 8 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **fc-in-profile** *keyword*

| | |
|---|---|
| Synopsis | Forwarding class name for profile-aware counter |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* eth-cfm collect-lmm-fc-stats fc-in-profile *keyword* |
| Tree | fc-in-profile |
| Description | This command configures individual counters for the specified FCs with regard to profile. The system includes all countable packets that match a configured FC and that are deemed to be in-profile in this counter. |


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An FC specified as part of this command and for this specific context cannot be specified as a profile-unaware FC using the **fc** command under the **collect-lmm-fc-stats** context.

When this command is reentered, a differential is performed. Omitted FCs stop counting, newly added FCs start counting, and unchanged FCs continue to count.

| | |
|---|---|
| Options | be, l2, af, l1, h2, ef, h1, nc |
| Max. instances | 8 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **collect-lmm-stats** *boolean*

| | |
|---|---|
| Synopsis | Collect statistics for loss measurement message tests |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* eth-cfm collect-lmm-stats *boolean* |
| Tree | collect-lmm-stats |
| Description | When configured to **true**, the router instantiates the statistical counter to transmit and receive packets for the LAG facility MEP bindings.<br>The **show eth-cfm collect-lmm-stats** command displays entities that have been enabled to collect transit and receive counters.<br>When configured to **false**, the router does not instantiate the counter and the LMM PDU associated with the MEP does not populate the counters in the packet. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **mep** md-admin-name *reference* ma-admin-name *reference* mep-id *number*

| | |
|---|---|
| Synopsis | Enter the **mep** list instance |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |
| Tree | mep |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **md-admin-name** *reference*

| | |
|---|---|
| Synopsis | Maintenance Domain (MD) name |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |
| Tree | mep |
| Reference | **configure** eth-cfm domain *admin-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ma-admin-name** *reference*

| | |
|---|---|
| Synopsis | Maintenance Association (MA) name |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |
| Tree | mep |
| Reference | **configure** eth-cfm domain *admin-name* association *admin-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **mep-id** *number*

| | |
|---|---|
| Synopsis | Maintenance Endpoint (MEP) ID |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |
| Tree | mep |
| Range | 1 to 8191 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the MEP |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ais**

| | |
|---|---|
| Synopsis | Enable the **ais** context |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ais |
| Tree | ais |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **client-meg-level** *number*

| | |
|---|---|
| Synopsis | Client MEG level for AIS message generation |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ais client-meg-level *number* |
| Tree | client-meg-level |
| Range | 1 to 7 |
| Max. instances | 7 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **interface-support** *boolean*

| | |
|---|---|
| Synopsis | Enable generation of AIS PDUs based on endpoint state |


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| | |
|---|---|
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ais interface-support *boolean* |
| Tree | interface-support |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **interval** *number*

| | |
|---|---|
| Synopsis | Transmission interval for AIS messages |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ais interval *number* |
| Tree | interval |
| Range | 1 \| 60 |
| Units | seconds |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **low-priority-defect** *keyword*

| | |
|---|---|
| Synopsis | Lowest priority defect allowed to generate fault alarm |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ais low-priority-defect *keyword* |
| Tree | low-priority-defect |
| Options | all-def, mac-rem-err-xcon |
| Default | all-def |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **priority** *number*

| | |
|---|---|
| Synopsis | Priority of the AIS messages generated by the node |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ais priority *number* |


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| | |
|---|---|
| Tree | priority |
| Range | 0 to 7 |
| Default | 7 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## alarm-notification

| | |
|---|---|
| Synopsis | Enter the **alarm-notification** context |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* alarm-notification |
| Tree | alarm-notification |
| Description | Commands in this context configure the Fault Notification Generator (FNG) time values to raise an alarm or reset the CCM defect alarm.<br>Use these timers for network management processes. The timers are not tied into delaying the notification to the fault management system on the network element and do not affect fault propagation mechanisms. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## fng-alarm-time *number*

| | |
|---|---|
| Synopsis | Time that must expire before an FNG alarm is raised |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* alarm-notification fng-alarm-time *number* |
| Tree | fng-alarm-time |
| Range | 250 \| 500 \| 1000 |
| Units | centiseconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## fng-reset-time *number*

| | |
|---|---|
| Synopsis | Time that must expire before an FNG alarm is reset |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* alarm-notification fng-reset-time *number* |


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| | |
|---|---|
| Tree | fng-reset-time |
| Range | 250 \| 500 \| 1000 |
| Units | centiseconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ccm** *boolean*

| | |
|---|---|
| Synopsis | Generate CCM messages |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ccm *boolean* |
| Tree | ccm |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ccm-ltm-priority** *number*

| | |
|---|---|
| Synopsis | Priority of CCM and LTM messages transmitted by the MEP |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ccm-ltm-priority *number* |
| Tree | ccm-ltm-priority |
| Range | 0 to 7 |
| Default | 7 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ccm-padding-size** *number*

| | |
|---|---|
| Synopsis | Number of octets of padding to insert in CCM packets |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ccm-padding-size *number* |
| Tree | ccm-padding-size |
| Description | This command sets the byte size of the optional Data TLV to be included in the ETH-CC PDU.<br>This command increases the size of the ETH-CC PDU by the configured value. The base size of the ETH-CC PDU, including the Interface Status TLV and Port Status TLV, |


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is 83 bytes not including the Layer 2 encapsulation. CCM padding is not supported when the CCM interval (configured through **configure eth-cfm domain association ccm-interval)** is less than 1 second.

Range 3 to 1500

Introduced 16.0.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS

## **cfm-vlan-tag** *one-or-two-vlan-tags*

Synopsis VLAN tags to apply to CFM PDUs for egress processing

Context **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* cfm-vlan-tag *one-or-two-vlan-tags*

Tree cfm-vlan-tag

Description This command allows the CFM function to include additional VLAN tags to the CFM packet that are carried to the egress and treated as service delimited. Typically, this function is used to influence the VLAN carried over a binding that uses the **vc-type vlan** or the binding forces the use of one or more VLAN tag that results in a mismatch between the service data arriving at the binding and the locally generated ETH-CFM PDUs arriving at the same egress. When this command is included under the MEP or MIP configuration, the tags used as part of the configuration typically match the SAP service delimited configuration.

String length 1 to 9

Introduced 21.10.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS

## **csf**

Synopsis Enable the **csf** context

Context **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* csf

Tree csf

Introduced 16.0.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS

## **multiplier** *decimal-number*

Synopsis Multiplication factor used to clear the CSF condition


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| | |
|---|---|
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* csf multiplier *decimal-number* |
| Tree | multiplier |
| Range | 0.0 \| 2.0 to 30.0 |
| Default | 3.5 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **direction** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Direction the MEP faces |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* direction *keyword* |
| Tree | direction |
| Options | down, up |
| Default | down |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **eth-test**

| | |
|---|---|
| Synopsis | Enable the **eth-test** context |


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| | |
|---|---|
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test |
| Tree | eth-test |
| Description | Commands in this context configure information used by the Ethernet Test (ETH-TST) packet. The commands must be configured on both the sender and the receiver nodes. The test packets are used with the **oam eth-cfm eth-test** command. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **bit-error-threshold** *number*

| | |
|---|---|
| Synopsis | Lowest priority defect allowed to generate fault alarm |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test bit-error-threshold *number* |
| Tree | bit-error-threshold |
| Range | 0 to 11840 |
| Units | bit errors |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **test-pattern**

| | |
|---|---|
| Synopsis | Enter the **test-pattern** context |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test test-pattern |
| Tree | test-pattern |
| Description | Commands in this context specify the test pattern for the ETH-TST frames. The pattern does not have to be the same on the sender and the receiver. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **crc-tlv** *boolean*

| | |
|---|---|
| Synopsis | Generate a CRC checksum |


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| | |
|---|---|
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test test-pattern crc-tlv *boolean* |
| Tree | crc-tlv |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **pattern** *keyword*

| | |
|---|---|
| Synopsis | Test pattern for Ethernet Test frames |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test test-pattern pattern *keyword* |
| Tree | pattern |
| Description | This command specifies the test pattern of the Ethernet Test (ETH-TST) frames. This does not have to be configured the same on the sender and the receiver. |
| Options | all-zeros, all-ones |
| Default | all-zeros |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **fault-propagation** *keyword*

| | |
|---|---|
| Synopsis | Fault propagation for the MEP |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* fault-propagation *keyword* |
| Tree | fault-propagation |
| Options | use-if-status-tlv, suspend-ccm |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **grace**

| | |
|---|---|
| Synopsis | Enter the **grace** context |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace |


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| | |
|---|---|
| Tree | grace |
| Description | Commands in this context configure the Nokia ETH-CFM Grace function and the ITU-T Y.1731 Ethernet Expected Default (ETH-ED) function. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## eth-ed

| | |
|---|---|
| Synopsis | Enter the **eth-ed** context |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed |
| Tree | eth-ed |
| Description | Commands in this context configure the ITU-T Y.1731 ETH-ED function. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## max-rx-defect-window *number*

| | |
|---|---|
| Synopsis | Maximum received ETH-ED expected defect window duration |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed max-rx-defect-window *number* |
| Tree | max-rx-defect-window |
| Range | 1 to 86400 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## priority *number*

| | |
|---|---|
| Synopsis | Transmission priority for ETH-ED PDUs |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed priority *number* |
| Tree | priority |
| Range | 0 to 7 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **rx-eth-ed** *boolean*

| | |
|---|---|
| Synopsis | Receive and process ETH-ED ITU-T Y.1731 PDUs on the MEP |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed rx-eth-ed *boolean* |
| Tree | rx-eth-ed |
| Description | This command enables the reception and processing of the ITU-T Y.1731 ETH-ED PDU on the MEP. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **tx-eth-ed** *boolean*

| | |
|---|---|
| Synopsis | Transmit ETH-ED PDUs from the MEP |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed tx-eth-ed *boolean* |
| Tree | tx-eth-ed |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **eth-vsm-grace**

| | |
|---|---|
| Synopsis | Enter the **eth-vsm-grace** context |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-vsm-grace |
| Tree | eth-vsm-grace |
| Description | Commands in this context configure the Nokia ETH-CFM Grace function. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **rx-eth-vsm-grace** *boolean*

| | |
|---|---|
| Synopsis | Receive and process Nokia ETH-CFM Grace PDU on the MEP |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-vsm-grace rx-eth-vsm-grace *boolean* |
| Tree | rx-eth-vsm-grace |
| Description | When configured to **true**, the router enables the Nokia Grace function, which is a vendor-specific PDU that informs MEP peers that the local node may be entering a period of expected defect.<br>When configured to **false**, the router disables the Nokia Grace function. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **tx-eth-vsm-grace** *boolean*

| | |
|---|---|
| Synopsis | Transmit ETH-ED PDUs from the MEP |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-vsm-grace tx-eth-vsm-grace *boolean* |
| Tree | tx-eth-vsm-grace |
| Description | When configured to **true**, the router can transmit the Nokia ETH-CFM Grace PDU from the MEP when a system soft reset notification is received for one or more cards.<br>The Nokia Grace function is a vendor-specific PDU that informs MEP peers that the local node may be entering a period of expected defect.<br>The operator must configure the **configure system eth-cfm grace** command to instruct the system that the node is capable of transmitting expected-defect windows to peers. The system can only transmit one form of ETH-CFM grace (Nokia ETH-CFM Grace or ITU-T Y.1731 ETH-ED).<br>When configured to **false**, the router disables the transmission of the Nokia ETH-CFM Grace PDU from the MEP. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **lbm-svc-act-responder** *boolean*

| | |
|---|---|
| Synopsis | Process service activation streams in ETH-CFM LBM |


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| | |
|---|---|
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* lbm-svc-act-responder *boolean* |
| Tree | lbm-svc-act-responder |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **low-priority-defect** *keyword*

| | |
|---|---|
| Synopsis | Lowest priority defect allowed to generate fault alarm |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* low-priority-defect *keyword* |
| Tree | low-priority-defect |
| Options | all-def, mac-rem-err-xcon, rem-err-xcon, err-xcon, xcon, no-xcon |
| Default | mac-rem-err-xcon |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **mac-address** *mac-unicast-address-no-zero*

| | |
|---|---|
| Synopsis | MAC address of the MEP |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* mac-address *mac-unicast-address-no-zero* |
| Tree | mac-address |
| Description | This command specifies the MAC address of the MEP.<br>When unconfigured, the MAC address of the port (if the MEP is on a SAP) or the MAC address of a bridge (if the MEP is on a spoke) is used. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **one-way-delay-threshold** *number*

| | |
|---|---|
| Synopsis | Threshold time limit for the one-way delay test |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* one-way-delay-threshold *number* |
| Tree | one-way-delay-threshold |


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| | |
|---|---|
| Range | 0 to 600 |
| Units | seconds |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **primary-vlan** *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | MEP provisioned using MA primary VLAN ID |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* primary-vlan *boolean* |
| Tree | primary-vlan |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **mip** primary-vlan *(number | keyword)*

| | |
|---|---|
| Synopsis | Enter the **mip** list instance |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* eth-cfm mip primary-vlan *(number \| keyword)* |
| Tree | mip |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **primary-vlan** *(number | keyword)*

| | |
|---|---|
| Synopsis | VLAN ID to which the MIP is attached |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* eth-cfm mip primary-vlan *(number \| keyword)* |
| Tree | mip |
| Description | This command provides an option for linking a MIP with a Primary VLAN number or none. When the **none** option is provided, the MIP does not include the primary vlan. |


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| | |
|---|---|
| Range | 1 to 4094 |
| Options | none |
| Notes | This element is part of a list key. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **cfm-vlan-tag** *one-or-two-vlan-tags*

| | |
|---|---|
| Synopsis | VLAN tags to apply to CFM PDUs for egress processing |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* eth-cfm mip primary-vlan *(number \| keyword)* cfm-vlan-tag *one-or-two-vlan-tags* |
| Tree | cfm-vlan-tag |
| Description | This command allows the CFM function to include additional VLAN tags to the CFM packet that are carried to the egress and treated as service delimited. Typically, this function is used to influence the VLAN carried over a binding that uses the vc-type vlan or the binding forces the use of one or more VLAN tag that results in a mismatch between the service data arriving at the binding and the locally generated ETH-CFM PDUs arriving at the same egress. When this command is included under the MEP or MIP configuration, the tags used as part of the configuration typically match the SAP service delimited configuration. |
| String length | 1 to 9 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **mac-address** *mac-unicast-address-no-zero*

| | |
|---|---|
| Synopsis | MAC address of the MIP |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* eth-cfm mip primary-vlan *(number \| keyword)* mac-address *mac-unicast-address-no-zero* |
| Tree | mac-address |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **squelch-ingress-ctag-levels** *number*

| | |
|---|---|
| Synopsis | Squelch levels using additional VLAN C-Tag space |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* eth-cfm squelch-ingress-ctag-levels *number* |


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| | |
|---|---|
| Tree | squelch-ingress-ctag-levels |
| Description | This command defines the levels of the ETH-CFM packets that are silently discarded on ingress into the SAP or SDP binding from the wire that matches the service delineation of the SAP or SDP binding plus an additional VLAN, up to a maximum tag length of two tags. All ETH-CFM packets inbound to the SAP or SDP binding that match the configured levels are dropped without regard for any other ETH-CFM criteria. No statistical information or drop count is available for any ETH-CFM packet that is silently discarded by this option.<br>The list of levels must be a complete contiguous list from 0 up to the highest level to be dropped. |
| Range | 0 to 7 |
| Max. instances | 8 |
| Introduced | 21.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **squelch-ingress-levels** *number*

| | |
|---|---|
| Synopsis | Levels for which ETH-CFM packets are silently discarded |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* eth-cfm squelch-ingress-levels *number* |
| Tree | squelch-ingress-levels |
| Description | This command defines the levels of the ETH-CFM packets that are silently discarded on ingress into the SAP or SDP binding from the wire that matches the service delineation of the SAP or SDP binding. All ETH-CFM packets inbound to the SAP or SDP binding that match the configured levels are dropped without regard for any other ETH-CFM criteria. No statistical information or drop count is available for any ETH-CFM packet that is silently discarded by this option.<br>The list of levels must be a complete contiguous list from 0 up to the highest level that will be dropped. |
| Range | 0 to 7 |
| Max. instances | 8 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **force-vc-forwarding** *keyword*

| | |
|---|---|
| Synopsis | VC forwarding action |


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| | |
|---|---|
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* force-vc-forwarding *keyword* |
| Tree | force-vc-forwarding |
| Options | vlan, qinq-c-tag-c-tag, qinq-s-tag-c-tag |
| Introduced | 16.0.R1 |
| Platforms | All |

## hash-label

| | |
|---|---|
| Synopsis | Enable the **hash-label** context |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* hash-label |
| Tree | hash-label |
| Description | Commands in this context configure the use of hash labels for egress datapaths.<br>For information about hash-label handling, see the "Hash labels" section of the *7450 ESS, 7750 SR, 7950 XRS, and VSR MPLS Guide*. |
| Notes | The following elements are part of a choice: **entropy-label** or **hash-label**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## signal-capability

| | |
|---|---|
| Synopsis | Signal hash label capability to the remote PE |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* hash-label signal-capability |
| Tree | signal-capability |
| Description | When configured, this command enables the signaling and negotiating of the hash label between the local and remote PE nodes.<br>The signaling process outcome determines whether the local PE inserts the hash label on the user packets. This outcome can override the local PE configuration. |
| Introduced | 16.0.R1 |
| Platforms | All |

## ingress

| | |
|---|---|
| Synopsis | Enter the **ingress** context |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* ingress |


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| | |
|---|---|
| Tree | ingress |
| Introduced | 16.0.R1 |
| Platforms | All |

## filter

| | |
|---|---|
| Synopsis | Enter the **filter** context |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* ingress filter |
| Tree | filter |
| Introduced | 16.0.R1 |
| Platforms | All |

## ip *reference*

| | |
|---|---|
| Synopsis | IPv4 filter policy name |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* ingress filter ip *reference* |
| Tree | ip |
| Reference | **configure** filter ip-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

## ipv6 *reference*

| | |
|---|---|
| Synopsis | IPv6 filter policy name |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* ingress filter ipv6 *reference* |
| Tree | ipv6 |
| Reference | **configure** filter ipv6-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

## mac *reference*

| | |
|---|---|
| Synopsis | MAC filter policy name |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* ingress filter mac *reference* |


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| | |
|---|---|
| Tree | mac |
| Reference | **configure** filter mac-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

## l2tpv3

| | |
|---|---|
| Synopsis | Enter the **l2tpv3** context |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* ingress l2tpv3 |
| Tree | l2tpv3 |
| Introduced | 16.0.R1 |
| Platforms | All |

## cookie

| | |
|---|---|
| Synopsis | Enter the **cookie** context |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* ingress l2tpv3 cookie |
| Tree | cookie |
| Introduced | 16.0.R1 |
| Platforms | All |

## cookie1 *cookie-value*

| | |
|---|---|
| Synopsis | Value of cookie-1 for the tunnel |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* ingress l2tpv3 cookie cookie1 *cookie-value* |
| Tree | cookie1 |
| String length | 18 to 23 |
| Introduced | 16.0.R1 |
| Platforms | All |

## cookie2 *cookie-value*

| | |
|---|---|
| Synopsis | Value of cookie-1 for the tunnel |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* ingress l2tpv3 cookie cookie2 *cookie-value* |


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| | |
|---|---|
| Tree | cookie2 |
| String length | 18 to 23 |
| Introduced | 16.0.R1 |
| Platforms | All |

## qos

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* ingress qos |
| Tree | qos |
| Introduced | 16.0.R1 |
| Platforms | All |

## network

| | |
|---|---|
| Synopsis | Enter the **network** context |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* ingress qos network |
| Tree | network |
| Introduced | 16.0.R1 |
| Platforms | All |

## fp-redirect-group

| | |
|---|---|
| Synopsis | Enter the **fp-redirect-group** context |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* ingress qos network fp-redirect-group |
| Tree | fp-redirect-group |
| Introduced | 16.0.R1 |
| Platforms | All |

## group-name *reference*

| | |
|---|---|
| Synopsis | Name of the forwarding plane queue group template |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* ingress qos network fp-redirect-group group-name *reference* |
| Tree | group-name |


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| | |
|---|---|
| Reference | **configure** qos queue-group-templates ingress queue-group *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **instance** *number*

| | |
|---|---|
| Synopsis | Instance of FP ingress queue group for the SDP binding |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* ingress qos network fp-redirect-group instance *number* |
| Tree | instance |
| Range | 1 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **policy-name** *reference*

| | |
|---|---|
| Synopsis | Network policy ID |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* ingress qos network policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos network *network-policy-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **vc-label** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Ingress MPLS VC label to send packets to the far end |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* ingress vc-label *number* |
| Tree | vc-label |
| Range | 1 to 1048575 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **monitor-oper-group** *reference*

| | |
|---|---|
| Synopsis | Operational group that affects state of the SDP bind |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* monitor-oper-group *reference* |
| Tree | monitor-oper-group |
| Reference | **configure** service oper-group *named-item* |
| Notes | The following elements are part of a choice: **monitor-oper-group** or **oper-group**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **oper-group** *reference*

| | |
|---|---|
| Synopsis | Operational group identifier |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* oper-group *reference* |
| Tree | oper-group |
| Reference | **configure** service oper-group *named-item* |
| Notes | The following elements are part of a choice: **monitor-oper-group** or **oper-group**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **pw-status**

| | |
|---|---|
| Synopsis | Enter the **pw-status** context |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* pw-status |
| Tree | pw-status |
| Introduced | 16.0.R1 |
| Platforms | All |

### **block-on-peer-fault** *boolean*

| | |
|---|---|
| Synopsis | Block transmit direction of PW based on status code |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* pw-status block-on-peer-fault *boolean* |
| Tree | block-on-peer-fault |


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| | |
|---|---|
| Default | false |
| Notes | The following elements are part of a choice: **block-on-peer-fault** or **standby-signaling-slave**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **signaling** *boolean*

| | |
|---|---|
| Synopsis | Allow SDP binding to support pseudowire status signaling |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* pw-status signaling *boolean* |
| Tree | signaling |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **standby-signaling-slave** *boolean*

| | |
|---|---|
| Synopsis | Block spoke transmission based on PW standby status |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* pw-status standby-signaling-slave *boolean* |
| Tree | standby-signaling-slave |
| Default | false |
| Notes | The following elements are part of a choice: **block-on-peer-fault** or **standby-signaling-slave**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **source-bmac**

| | |
|---|---|
| Synopsis | Enter the **source-bmac** context |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* source-bmac |
| Tree | source-bmac |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **use-sdp-bmac-lsb** *boolean*

| | |
|---|---|
| Synopsis | Allow the spoke SDP to be part of a redundant pseudo-wire within PBB Epipe service |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* source-bmac use-sdp-bmac-lsb *boolean* |
| Tree | use-sdp-bmac-lsb |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **transit-policy**

| | |
|---|---|
| Synopsis | Enable the **transit-policy** context |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* transit-policy |
| Tree | transit-policy |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ip** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IP transit policy ID |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* transit-policy ip *reference* |
| Tree | ip |
| Reference | **configure** application-assurance group *number* partition *number* transit-ip-policy *number* |
| Notes | The following elements are part of a mandatory choice: **ip** or **prefix**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **prefix** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IP prefix policy ID |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* transit-policy prefix *reference* |
| Tree | prefix |
| Reference | **configure** application-assurance group *number* partition *number* transit-prefix-policy *number* |
| Notes | The following elements are part of a mandatory choice: **ip** or **prefix**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **vc-type** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Virtual circuit type associated with the SDP binding |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* vc-type *keyword* |
| Tree | vc-type |
| Options | ether, vlan |
| Default | ether |
| Introduced | 16.0.R1 |
| Platforms | All |

## **vlan-vc-tag** *number*

| | |
|---|---|
| Synopsis | SDP bind VC tag |
| Context | **configure** service epipe *service-name* spoke-sdp *sdp-bind-id* vlan-vc-tag *number* |
| Tree | vlan-vc-tag |
| Range | 0 to 4094 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **test** *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Designate as a test service |
| Context | **configure** service epipe *service-name* test *boolean* |
| Tree | test |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **vc-switching** *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Use PW switching signaling for spoke SDPs in service |
| Context | **configure** service epipe *service-name* vc-switching *boolean* |
| Tree | vc-switching |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **vpn-id** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | VPN identifier for the service |
| Context | **configure** service epipe *service-name* vpn-id *number* |
| Tree | vpn-id |
| Range | 1 to 2147483647 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### vxlan

| | |
|---|---|
| Synopsis | Enter the **vxlan** context |
| Context | **configure** service epipe *service-name* vxlan |
| Tree | vxlan |
| Introduced | 16.0.R1 |
| Platforms | All |

### instance [vxlan-instance] *number*

| | |
|---|---|
| Synopsis | Enter the **instance** list instance |
| Context | **configure** service epipe *service-name* vxlan instance *number* |
| Tree | instance |
| Max. instances | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [vxlan-instance] *number*

| | |
|---|---|
| Synopsis | VXLAN instance |
| Context | **configure** service epipe *service-name* vxlan instance *number* |
| Tree | instance |
| Range | 1 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### egress-vtep

| | |
|---|---|
| Synopsis | Enter the **egress-vtep** context |
| Context | **configure** service epipe *service-name* vxlan instance *number* egress-vtep |


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| | |
|---|---|
| Tree | egress-vtep |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ip-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | VTEP IP address used when originating VXLAN packets |
| Context | **configure** service epipe *service-name* vxlan instance *number* egress-vtep ip-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | ip-address |
| Introduced | 16.0.R1 |
| Platforms | All |

### **oper-group** *reference*

| | |
|---|---|
| Synopsis | Operational group associated with egress VTEP address |
| Context | **configure** service epipe *service-name* vxlan instance *number* egress-vtep oper-group *reference* |
| Tree | oper-group |
| Reference | **configure** service oper-group *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **vni** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | VNI of the VXLAN |
| Context | **configure** service epipe *service-name* vxlan instance *number* vni *number* |
| Tree | vni |
| Range | 1 to 16777215 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **source-vtep** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Vxlan source virtual tunnel endpoint information |
| Context | **configure** service epipe *service-name* vxlan source-vtep *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | source-vtep |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ies** [service-name] *service-name*

| | |
|---|---|
| Synopsis | Enter the **ies** list instance |
| Context | **configure** service ies *service-name* |
| Tree | ies |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**service-name**] *service-name*

| | |
|---|---|
| Synopsis | Administrative service name |
| Context | **configure** service ies *service-name* |
| Tree | ies |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **aa-interface** [interface-name] *interface-name*

| | |
|---|---|
| Synopsis | Enter the **aa-interface** list instance |
| Context | **configure** service ies *service-name* aa-interface *interface-name* |
| Tree | aa-interface |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### [**interface-name**] *interface-name*

| | |
|---|---|
| Synopsis | Interface name |
| Context | **configure** service ies *service-name* aa-interface *interface-name* |
| Tree | aa-interface |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the interface |
| Context | **configure** service ies *service-name* aa-interface *interface-name* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *very-long-description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service ies *service-name* aa-interface *interface-name* description *very-long-description* |
| Tree | description |
| String length | 1 to 255 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ip-mtu** *number*

| | |
|---|---|
| Synopsis | IP MTU applied to outgoing packets |
| Context | **configure** service ies *service-name* aa-interface *interface-name* ip-mtu *number* |
| Tree | ip-mtu |


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| | |
|---|---|
| Description | This command configures the IP maximum transmission unit (MTU) for the associated router IP interface. |
| Range | 512 to 9786 |
| Units | bytes |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## ipv4

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |
| Context | **configure** service ies *service-name* aa-interface *interface-name* ipv4 |
| Tree | ipv4 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## primary

| | |
|---|---|
| Synopsis | Enable the **primary** context |
| Context | **configure** service ies *service-name* aa-interface *interface-name* ipv4 primary |
| Tree | primary |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## address *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Primary IPv4 address assigned to the interface |
| Context | **configure** service ies *service-name* aa-interface *interface-name* ipv4 primary address *ipv4-unicast-address* |
| Tree | address |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## prefix-length *number*

| | |
|---|---|
| Synopsis | IPv4 address prefix length |


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| | |
|---|---|
| Context | **configure** service ies *service-name* aa-interface *interface-name* ipv4 primary prefix-length *number* |
| Tree | prefix-length |
| Range | 0 to 32 |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **sap** [sap-id] *sap*

| | |
|---|---|
| Synopsis | Enter the **sap** list instance |
| Context | **configure** service ies *service-name* aa-interface *interface-name* sap *sap* |
| Tree | sap |
| Max. instances | 1 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**sap-id**] *sap*

| | |
|---|---|
| Synopsis | SAP ID |
| Context | **configure** service ies *service-name* aa-interface *interface-name* sap *sap* |
| Tree | sap |
| String length | 1 to 45 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the SAP |
| Context | **configure** service ies *service-name* aa-interface *interface-name* sap *sap* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |


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| | |
|---|---|
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *long-description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service ies *service-name* aa-interface *interface-name* sap *sap* description *long-description* |
| Tree | description |
| String length | 1 to 160 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **egress**

| | |
|---|---|
| Synopsis | Enter the **egress** context |
| Context | **configure** service ies *service-name* aa-interface *interface-name* sap *sap* egress |
| Tree | egress |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **filter**

| | |
|---|---|
| Synopsis | Enter the **filter** context |
| Context | **configure** service ies *service-name* aa-interface *interface-name* sap *sap* egress filter |
| Tree | filter |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ip** *reference*

| | |
|---|---|
| Synopsis | IPv4 filter policy name |
| Context | **configure** service ies *service-name* aa-interface *interface-name* sap *sap* egress filter ip *reference* |
| Tree | ip |
| Reference | **configure** filter ip-filter *filter-name* |


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| | |
|---|---|
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## qos

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** service ies *service-name* aa-interface *interface-name* sap *sap* egress qos |
| Tree | qos |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## sap-egress

| | |
|---|---|
| Synopsis | Enter the **sap-egress** context |
| Context | **configure** service ies *service-name* aa-interface *interface-name* sap *sap* egress qos sap-egress |
| Tree | sap-egress |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## policy-name *reference*

| | |
|---|---|
| Synopsis | Policy ID to associate with SAP for mirrored service |
| Context | **configure** service ies *service-name* aa-interface *interface-name* sap *sap* egress qos sap-egress policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos sap-egress *qos-policy-name* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## virtual-port

| | |
|---|---|
| Synopsis | Enter the **virtual-port** context |
| Context | **configure** service ies *service-name* aa-interface *interface-name* sap *sap* egress virtual-port |
| Tree | virtual-port |


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| | |
|---|---|
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **vport-name** *reference*

| | |
|---|---|
| Synopsis | Virtual port assigned to the SAP |
| Context | **configure** service ies *service-name* aa-interface *interface-name* sap *sap* egress virtual-port vport-name *reference* |
| Tree | vport-name |
| Reference | **configure** port *port* ethernet access egress virtual-port *named-item* |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **fwd-wholesale**

| | |
|---|---|
| Synopsis | Enter the **fwd-wholesale** context |
| Context | **configure** service ies *service-name* aa-interface *interface-name* sap *sap* fwd-wholesale |
| Tree | fwd-wholesale |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **pppoe-service** *reference*

| | |
|---|---|
| Synopsis | PPPoE service name |
| Context | **configure** service ies *service-name* aa-interface *interface-name* sap *sap* fwd-wholesale pppoe-service *reference* |
| Tree | pppoe-service |
| Reference | **configure** service epipe *service-name* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **ingress**

| | |
|---|---|
| Synopsis | Enter the **ingress** context |
| Context | **configure** service ies *service-name* aa-interface *interface-name* sap *sap* ingress |
| Tree | ingress |


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| | |
|---|---|
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## qos

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** service ies *service-name* aa-interface *interface-name* sap *sap* ingress qos |
| Tree | qos |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## sap-ingress

| | |
|---|---|
| Synopsis | Enter the **sap-ingress** context |
| Context | **configure** service ies *service-name* aa-interface *interface-name* sap *sap* ingress qos sap-ingress |
| Tree | sap-ingress |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## overrides

| | |
|---|---|
| Synopsis | Enter the **overrides** context |
| Context | **configure** service ies *service-name* aa-interface *interface-name* sap *sap* ingress qos sap-ingress overrides |
| Tree | overrides |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## policy-name *reference*

| | |
|---|---|
| Synopsis | Policy ID |
| Context | **configure** service ies *service-name* aa-interface *interface-name* sap *sap* ingress qos sap-ingress policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos sap-ingress *qos-policy-name* |


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| | |
|---|---|
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## lag

| | |
|---|---|
| Synopsis | Enter the **lag** context |
| Context | **configure** service ies *service-name* aa-interface *interface-name* sap *sap* lag |
| Tree | lag |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **aarp-interface** [interface-name] *interface-name*

| | |
|---|---|
| Synopsis | Enter the **aarp-interface** list instance |
| Context | **configure** service ies *service-name* aarp-interface *interface-name* |
| Tree | aarp-interface |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## [**interface-name**] *interface-name*

| | |
|---|---|
| Synopsis | Interface name |
| Context | **configure** service ies *service-name* aarp-interface *interface-name* |
| Tree | aarp-interface |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the interface |
| Context | **configure** service ies *service-name* aarp-interface *interface-name* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |


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| | |
|---|---|
| Default | enable |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *very-long-description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service ies *service-name* aarp-interface *interface-name* description *very-long-description* |
| Tree | description |
| String length | 1 to 255 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ip-mtu** *number*

| | |
|---|---|
| Synopsis | IP MTU applied to outgoing packets |
| Context | **configure** service ies *service-name* aarp-interface *interface-name* ip-mtu *number* |
| Tree | ip-mtu |
| Description | This command configures the IP maximum transmission unit (MTU) for the associated router IP interface. |
| Range | 512 to 9786 |
| Units | bytes |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **spoke-sdp** [sdp-bind-id] *sdp-bind-id*

| | |
|---|---|
| Synopsis | Enter the **spoke-sdp** list instance |
| Context | **configure** service ies *service-name* aarp-interface *interface-name* spoke-sdp *sdp-bind-id* |
| Tree | spoke-sdp |
| Max. instances | 1 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## [**sdp-bind-id**] *sdp-bind-id*

| | |
|---|---|
| Synopsis | SDP binding ID |
| Context | **configure** service ies *service-name* aarp-interface *interface-name* spoke-sdp *sdp-bind-id* |
| Tree | spoke-sdp |
| String length | 3 to 16 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## aarp

| | |
|---|---|
| Synopsis | Enable the **aarp** context |
| Context | **configure** service ies *service-name* aarp-interface *interface-name* spoke-sdp *sdp-bind-id* aarp |
| Tree | aarp |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## id *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | AARP instance ID |
| Context | **configure** service ies *service-name* aarp-interface *interface-name* spoke-sdp *sdp-bind-id* aarp id *reference* |
| Tree | id |
| Reference | **configure** application-assurance aarp *number* |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **type** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Role of the spoke SDP referenced by the AARP |
| Context | **configure** service ies *service-name* aarp-interface *interface-name* spoke-sdp *sdp-bind-id* aarp type *keyword* |
| Tree | type |
| Options | subscriber-side-shunt, network-side-shunt |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of this service SDP binding |
| Context | **configure** service ies *service-name* aarp-interface *interface-name* spoke-sdp *sdp-bind-id* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service ies *service-name* aarp-interface *interface-name* spoke-sdp *sdp-bind-id* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## egress

| | |
|---|---|
| Synopsis | Enter the **egress** context |
| Context | **configure** service ies *service-name* aarp-interface *interface-name* spoke-sdp *sdp-bind-id* egress |
| Tree | egress |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## filter

| | |
|---|---|
| Synopsis | Enter the **filter** context |
| Context | **configure** service ies *service-name* aarp-interface *interface-name* spoke-sdp *sdp-bind-id* egress filter |
| Tree | filter |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## ip *reference*

| | |
|---|---|
| Synopsis | IP filter ID |
| Context | **configure** service ies *service-name* aarp-interface *interface-name* spoke-sdp *sdp-bind-id* egress filter ip *reference* |
| Tree | ip |
| Reference | **configure** filter ip-filter *filter-name* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## vc-label *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | VC egress value that indicates a specific connection |
| Context | **configure** service ies *service-name* aarp-interface *interface-name* spoke-sdp *sdp-bind-id* egress vc-label *number* |


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| | |
|---|---|
| Tree | vc-label |
| Range | 16 to 1048575 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## ingress

| | |
|---|---|
| Synopsis | Enter the **ingress** context |
| Context | **configure** service ies *service-name* aarp-interface *interface-name* spoke-sdp *sdp-bind-id* ingress |
| Tree | ingress |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## filter

| | |
|---|---|
| Synopsis | Enter the **filter** context |
| Context | **configure** service ies *service-name* aarp-interface *interface-name* spoke-sdp *sdp-bind-id* ingress filter |
| Tree | filter |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## ip *reference*

| | |
|---|---|
| Synopsis | IP filter name |
| Context | **configure** service ies *service-name* aarp-interface *interface-name* spoke-sdp *sdp-bind-id* ingress filter ip *reference* |
| Tree | ip |
| Reference | **configure** filter ip-filter *filter-name* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **vc-label** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | VC ingress value that indicates a specific connection |
| Context | **configure** service ies *service-name* aarp-interface *interface-name* spoke-sdp *sdp-bind-id* ingress vc-label *number* |
| Tree | vc-label |
| Range | 1 to 1048575 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the service |
| Context | **configure** service ies *service-name* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **customer** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Service customer ID |
| Context | **configure** service ies *service-name* customer *reference* |
| Tree | customer |
| Reference | **configure** service customer *customer-name* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service ies *service-name* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **eth-cfm**

| | |
|---|---|
| Synopsis | Enter the **eth-cfm** context |
| Context | **configure** service ies *service-name* eth-cfm |
| Tree | eth-cfm |
| Introduced | 19.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **igmp-host-tracking**

| | |
|---|---|
| Synopsis | Enter the **igmp-host-tracking** context |
| Context | **configure** service ies *service-name* igmp-host-tracking |
| Tree | igmp-host-tracking |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of IGMP host tracking |
| Context | **configure** service ies *service-name* igmp-host-tracking admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **expiry-time** *number*

| | |
|---|---|
| Synopsis | Time that the system continues to track inactive hosts |
| Context | **configure** service ies *service-name* igmp-host-tracking expiry-time *number* |
| Tree | expiry-time |
| Range | 1 to 65535 |
| Units | seconds |
| Default | 260 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **interface** [interface-name] *interface-name*

| | |
|---|---|
| Synopsis | Enter the **interface** list instance |
| Context | **configure** service ies *service-name* interface *interface-name* |
| Tree | interface |
| Description | Commands in this context create a logical IP routing interface. When created, attributes such as an IP address and SAP ID can be associated with the IP interface. |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**interface-name**] *interface-name*

| | |
|---|---|
| Synopsis | Interface name |
| Context | **configure** service ies *service-name* interface *interface-name* |
| Tree | interface |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the interface |
| Context | **configure** service ies *service-name* interface *interface-name* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cflowd-parameters**

| | |
|---|---|
| Synopsis | Enter the **cflowd-parameters** context |
| Context | **configure** service ies *service-name* interface *interface-name* cflowd-parameters |
| Tree | cflowd-parameters |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sampling** [sampling-type] *keyword*

| | |
|---|---|
| Synopsis | Enter the **sampling** list instance |
| Context | **configure** service ies *service-name* interface *interface-name* cflowd-parameters sampling *keyword* |
| Tree | sampling |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**sampling-type**] *keyword*

| | |
|---|---|
| Synopsis | Traffic sampling type |
| Context | **configure** service ies *service-name* interface *interface-name* cflowd-parameters sampling *keyword* |
| Tree | sampling |
| Description | This command configures the type of traffic to be sampled on the associated IP interface. |
| Options | unicast, multicast, both |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **direction** *keyword*

| | |
|---|---|
| Synopsis | Direction of traffic for cflowd sampling |
| Context | **configure** service ies *service-name* interface *interface-name* cflowd-parameters sampling *keyword* direction *keyword* |
| Tree | direction |
| Description | This command configures the direction in which sampling occurs on the associated IP interfaces. |
| Options | ingress-only, egress-only, both |
| Default | ingress-only |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sample-profile** *(keyword | number)*

| | |
|---|---|
| Synopsis | Sample profile ID |
| Context | **configure** service ies *service-name* interface *interface-name* cflowd-parameters sampling *keyword* sample-profile *(keyword | number)* |
| Tree | sample-profile |
| Description | This command defines the sampling rate profile associated with this interface. |
| Max. range | 0 to 4294967295 |
| Options | 1 |
| Introduced | 19.5.R1 |
| Platforms | All |

### **type** *keyword*

| | |
|---|---|
| Synopsis | Type of cflowd analysis |
| Context | **configure** service ies *service-name* interface *interface-name* cflowd-parameters sampling *keyword* type *keyword* |
| Tree | type |
| Description | This command configures the cflowd sampling type on the associated IP interface. |


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| | |
|---|---|
| Options | acl, interface |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cpu-protection** *reference*

| | |
|---|---|
| Synopsis | CPU protection policy |
| Context | **configure** service ies *service-name* interface *interface-name* cpu-protection *reference* |
| Tree | cpu-protection |
| Reference | **configure** system security cpu-protection policy *number* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

### **description** *very-long-description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service ies *service-name* interface *interface-name* description *very-long-description* |
| Tree | description |
| String length | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **dynamic-tunnel-redundant-nexthop** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Redundant next-hop address for the dynamic IPsec tunnel |
| Context | **configure** service ies *service-name* interface *interface-name* dynamic-tunnel-redundant-nexthop *ipv4-unicast-address* |
| Tree | dynamic-tunnel-redundant-nexthop |
| Description | This command specifies the redundant next-hop address on a public or private IPsec interface (with public or private tunnel SAP) for a dynamic IPsec tunnel. The next-hop address is used by a standby node to shunt traffic to a master if it receives the address.<br>The next-hop address is resolved in the routing table of a corresponding service. |
| Notes | The following elements are part of a choice: **multi-chassis-shunting-profile** or (**dynamic-tunnel-redundant-nexthop** and **static-tunnel-redundant-nexthop**). |


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| | |
|---|---|
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## hold-time

| | |
|---|---|
| Synopsis | Enter the **hold-time** context |
| Context | **configure** service ies *service-name* interface *interface-name* hold-time |
| Tree | hold-time |
| Introduced | 16.0.R1 |
| Platforms | All |

## ipv4

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |
| Context | **configure** service ies *service-name* interface *interface-name* hold-time ipv4 |
| Tree | ipv4 |
| Introduced | 16.0.R1 |
| Platforms | All |

## down

| | |
|---|---|
| Synopsis | Enter the **down** context |
| Context | **configure** service ies *service-name* interface *interface-name* hold-time ipv4 down |
| Tree | down |
| Description | Commands in this context configure the down hold timer, which specifies the delay before activating the associated interface. The delay is invoked whenever the system attempts to bring the associated IP interface up, unless an operator configures the **init-only** command. |
| Introduced | 16.0.R1 |
| Platforms | All |

## init-only *boolean*

| | |
|---|---|
| Synopsis | Apply delay only at interface configuration or reboot |
| Context | **configure** service ies *service-name* interface *interface-name* hold-time ipv4 down init-only *boolean* |


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| | |
|---|---|
| Tree | init-only |
| Description | This command applies a delay only when the IP interface is first configured or after a system reboot. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **seconds** *number*

| | |
|---|---|
| Synopsis | Down hold time for the IP interface |
| Context | **configure** service ies *service-name* interface *interface-name* hold-time ipv4 down seconds *number* |
| Tree | seconds |
| Range | 1 to 1200 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **up**

| | |
|---|---|
| Synopsis | Enter the **up** context |
| Context | **configure** service ies *service-name* interface *interface-name* hold-time ipv4 up |
| Tree | up |
| Description | Commands in this context configure the up hold timer, which specifies the delay before deactivation of the associated interface. The delay is invoked whenever the system attempts to bring the associated IP interface down. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **seconds** *number*

| | |
|---|---|
| Synopsis | Up hold time for the IP interface |
| Context | **configure** service ies *service-name* interface *interface-name* hold-time ipv4 up seconds *number* |
| Tree | seconds |
| Range | 1 to 1200 |


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| | |
|---|---|
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

## ipv6

| | |
|---|---|
| Synopsis | Enter the **ipv6** context |
| Context | **configure** service ies *service-name* interface *interface-name* hold-time ipv6 |
| Tree | ipv6 |
| Introduced | 16.0.R1 |
| Platforms | All |

## down

| | |
|---|---|
| Synopsis | Enter the **down** context |
| Context | **configure** service ies *service-name* interface *interface-name* hold-time ipv6 down |
| Tree | down |
| Description | Commands in this context configure the down hold timer, which specifies the delay before activation of the associated interface. The delay is invoked whenever the system attempts to bring the associated IP interface up, unless an operator configures the **init-only** command. |
| Introduced | 16.0.R1 |
| Platforms | All |

## init-only *boolean*

| | |
|---|---|
| Synopsis | Apply delay only at interface configuration or reboot |
| Context | **configure** service ies *service-name* interface *interface-name* hold-time ipv6 down init-only *boolean* |
| Tree | init-only |
| Description | When configured to **true**, the system applies a delay only when the IP interface is first configured or after a system reboot. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **seconds** *number*

| | |
|---|---|
| Synopsis | Down hold time for the IP interface |
| Context | **configure** service ies *service-name* interface *interface-name* hold-time ipv6 down seconds *number* |
| Tree | seconds |
| Range | 1 to 1200 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **up**

| | |
|---|---|
| Synopsis | Enter the **up** context |
| Context | **configure** service ies *service-name* interface *interface-name* hold-time ipv6 up |
| Tree | up |
| Description | Commands in this context configure the up hold timer, which specifies the delay before deactivation of the associated interface. The delay is invoked whenever the system attempts to bring the associated IP interface down. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **seconds** *number*

| | |
|---|---|
| Synopsis | Up hold time for the IP interface |
| Context | **configure** service ies *service-name* interface *interface-name* hold-time ipv6 up seconds *number* |
| Tree | seconds |
| Range | 1 to 1200 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **if-attribute**

| | |
|---|---|
| Synopsis | Enter the **if-attribute** context |


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| | |
|---|---|
| Context | **configure** service ies *service-name* interface *interface-name* if-attribute |
| Tree | if-attribute |
| Introduced | 16.0.R1 |
| Platforms | All |

## **admin-group** *reference*

| | |
|---|---|
| Synopsis | Administrative group name for the interface |
| Context | **configure** service ies *service-name* interface *interface-name* if-attribute admin-group *reference* |
| Tree | admin-group |
| Description | This command specifies the administrative group membership to an interface.<br>The configured administrative group membership is applied in all levels or areas the interface is participating in. The same interface cannot have different memberships in different levels or areas. |
| Reference | **configure** routing-options if-attribute admin-group *named-item* |
| Max. instances | 32 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **srlg-group** [name] *reference*

| | |
|---|---|
| Synopsis | Add a list entry for **srlg-group** |
| Context | **configure** service ies *service-name* interface *interface-name* if-attribute srlg-group *reference* |
| Tree | srlg-group |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**name**] *reference*

| | |
|---|---|
| Synopsis | SRLG name |
| Context | **configure** service ies *service-name* interface *interface-name* if-attribute srlg-group *reference* |
| Tree | srlg-group |
| Reference | **configure** routing-options if-attribute srlg-group *named-item* |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## ingress

| | |
|---|---|
| Synopsis | Enter the **ingress** context |
| Context | **configure** service ies *service-name* interface *interface-name* ingress |
| Tree | ingress |
| Introduced | 19.7.R1 |
| Platforms | All |

## destination-class-lookup *boolean*

| | |
|---|---|
| Synopsis | Enable BGP destination class lookup |
| Context | **configure** service ies *service-name* interface *interface-name* ingress destination-class-lookup *boolean* |
| Tree | destination-class-lookup |
| Description | When configured to **true**, the router performs a destination class lookup. This command is supported on FP3-based cards and later and is used in combination with the **destination-class** match criterion for an IP filter policy to filter egress traffic based on BGP destination classes.<br>When configured to **false**, destination class lookup is not enabled. |
| Default | false |
| Introduced | 20.7.R1 |
| Platforms | All |

## policy-accounting *reference*

| | |
|---|---|
| Synopsis | Ingress policy accounting template name |
| Context | **configure** service ies *service-name* interface *interface-name* ingress policy-accounting *reference* |
| Tree | policy-accounting |
| Reference | **configure** routing-options policy-accounting policy-acct-template *named-item* |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |


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## **ingress-stats** *boolean*

| | |
|---|---|
| Synopsis | Collect ingress statistics |
| Context | **configure** service ies *service-name* interface *interface-name* ingress-stats *boolean* |
| Tree | ingress-stats |
| Description | When configured to **true**, ingress interface IP statistics are collected for the associated interface. This command is only applicable to IP statistics, and not to uRPF statistics.<br>The following statistics are collected:<br>• IPv4 offered packets<br>• IPv4 offered octets<br>• IPv6 offered packets<br>• IPv6 offered octets<br>**Note:** Octet statistics for IPv4 and IPv6 at IP interfaces include the Layer 2 frame overhead.<br>When configured to **false** ingress interface IP statistics are not collected for the associated interface. The "in-packets" statistics field in the **statistics** command output is always 0. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **ip-mtu** *number*

| | |
|---|---|
| Synopsis | IP MTU applied to outgoing packets |
| Context | **configure** service ies *service-name* interface *interface-name* ip-mtu *number* |
| Tree | ip-mtu |
| Description | This command configures the IP maximum transmission unit (MTU) for the associated router IP interface. |
| Range | 512 to 9786 |
| Units | bytes |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **ip-tunnel-interface** *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable IP tunnel interface |
| Context | **configure** service ies *service-name* interface *interface-name* ip-tunnel-interface *boolean* |
| Tree | ip-tunnel-interface |
| Description | When configured to **true**, the system enables a GRE virtual IP interface. |
| Default | false |
| Introduced | 24.10.R1 |
| Platforms | All |

### **ipsec**

| | |
|---|---|
| Synopsis | Enable the **ipsec** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec |
| Tree | ipsec |
| Description | Commands in this context configure an IPsec secured interface. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of IPsec secured interface |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 22.7.R1 |
| Platforms | VSR |

### **ip-exception** *reference*

| | |
|---|---|
| Synopsis | IP exception filter |


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| | |
|---|---|
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ip-exception *reference* |
| Tree | ip-exception |
| Description | This command configures the IP exception filter for the secured interface. All ingress traffic matching the specified filter bypasses IPsec processing. |
| Reference | **configure** filter ip-exception *filter-name* |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **ipsec-tunnel** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **ipsec-tunnel** list instance |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* |
| Tree | ipsec-tunnel |
| Description | Commands in this context configure IPsec tunnels used to secure traffic forwarded over the interface. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## [**name**] *named-item*

| | |
|---|---|
| Synopsis | IPsec tunnel name |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* |
| Tree | ipsec-tunnel |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the IPsec tunnel |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* admin-state *keyword* |


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| | |
|---|---|
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## bfd

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **bfd** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* bfd |
| Tree | bfd |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## bfd-designate *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Designate IPsec tunnel to carry BFD traffic |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* bfd bfd-designate *boolean* |
| Tree | bfd-designate |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | VSR |


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## bfd-liveness

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable the **bfd-liveness** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* bfd bfd-liveness |
| Tree | bfd-liveness |
| Description | Commands in this context configure a BFD session to provide a heart-beat mechanism for a specified IPsec tunnel. There can be only one BFD session assigned to any given IPsec tunnel, but there can be multiple IPsec tunnels using the same BFD session.<br>BFD controls the state of the association tunnel. If the BFD session goes down, the system brings down the associated non-designated IPsec tunnel. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## dest-ip *ipv4-unicast-address*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Destination address used for the BFD session |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* bfd bfd-liveness dest-ip *ipv4-unicast-address* |
| Tree | dest-ip |
| Notes | This element is mandatory. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## interface *interface-name*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Name of the interface used by the BFD session |


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| | |
|---|---|
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* bfd bfd-liveness interface *interface-name* |
| Tree | interface |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **service-name** *service-name*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Administrative service name |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* bfd bfd-liveness service-name *service-name* |
| Tree | service-name |
| Description | This command configures the name of the service where BFD traffic is forwarded to. |
| String length | 1 to 64 |
| Notes | This element is mandatory. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **clear-df-bit** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Reset the DF bit to 0 in all payload IP packets |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* clear-df-bit *boolean* |
| Tree | clear-df-bit |
| Description | When configured to **true**, the DF bit is set to 0 in all payload IP packets associated with the IPsec tunnel, before any potential fragmentation occurs. |
| Default | false |


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| | |
|---|---|
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **copy-traffic-class-upon-decapsulation** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable traffic class copy upon decapsulation |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* copy-traffic-class-upon-decapsulation *boolean* |
| Tree | copy-traffic-class-upon-decapsulation |
| Description | When configured to **true**, the system copies the traffic class from the outer tunnel IP packet header to the payload IP packet header in the decapsulating direction (public to private). |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **encapsulated-ip-mtu** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum size of the encapsulated tunnel packet |


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| | |
|---|---|
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* encapsulated-ip-mtu *number* |
| Tree | encapsulated-ip-mtu |
| Description | This command specifies the maximum size of the encapsulated tunnel packet to the IPsec tunnel, the IP tunnel, or the dynamic tunnels terminated on the IPsec Gateway. If the encapsulated IPv4 or IPv6 tunnel packet exceeds this value, the system fragments the packet. |
| Range | 512 to 9000 |
| Units | bytes |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## icmp-generation

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **icmp-generation** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* icmp-generation |
| Tree | icmp-generation |
| Description | Commands in this context configure settings for ICMPv4 message generation. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## frag-required

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **frag-required** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* icmp-generation frag-required |
| Tree | frag-required |
| Description | Commands in this context configure the attributes for sending generated ICMP Destination Unreachable "fragmentation needed and DF set" messages (type 3, code 4) |


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| | |
|---|---|
| | back to the source, if the received size of the IPv4 packet on the private side exceeds the private MTU size. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **admin-state** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Administrative state of sending ICMP messages |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* icmp-generation frag-required admin-state *keyword* |
| Tree | admin-state |
| Description | This command configures the administrative state of sending ICMP Destination Unreachable "fragmentation needed, DF set" messages (type 3, code 4) messages to the source if the received size of the IPv4 packet on the private side exceeds the private MTU size. |
| Options | enable, disable |
| Default | enable |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **interval** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Interval for sending ICMP messages |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* icmp-generation frag-required interval *number* |
| Tree | interval |
| Description | This command configures the interval for sending ICMP Destination Unreachable "fragmentation needed, DF set" messages (type 3, code 4). |
| Range | 1 to 60 |
| Units | seconds |
| Default | 10 |


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| | |
|---|---|
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **message-count** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum number of ICMP messages that can be sent |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* icmp-generation frag-required message-count *number* |
| Tree | message-count |
| Description | This command configures the maximum number of ICMP Destination Unreachable "fragmentation needed, DF set" messages (type 3, code 4) that can be sent during the configured interval. |
| Range | 10 to 1000 |
| Default | 100 |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## icmp6-generation

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **icmp6-generation** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* icmp6-generation |
| Tree | icmp6-generation |
| Description | Commands in this context configure settings for ICMPv6 message generation. |
| Introduced | 22.7.R1 |
| Platforms | VSR |


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## packet-too-big

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **packet-too-big** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* icmp6-generation packet-too-big |
| Tree | packet-too-big |
| Description | Commands in this context configure the parameters to send ICMPv6 PTB (Packet Too Big) messages on the private side.<br>The system sends PTB messages if a received IPv6 packet on the private side is greater than 1280 bytes and it exceeds the private MTU of the tunnel.<br>The private MTU for the tunnel is configured via the **configure router interface ipsec ipsec-tunnel ip-mtu** command for the interface. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## admin-state *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Administrative state of Packet Too Big message sends |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* icmp6-generation packet-too-big admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 22.7.R1 |
| Platforms | VSR |


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## **interval** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Interval for sending Packet Too Big messages |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* icmp6-generation packet-too-big interval *number* |
| Tree | interval |
| Range | 1 to 60 |
| Units | seconds |
| Default | 10 |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **message-count** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum number of ICMPv6 PTB messages that can be sent |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* icmp6-generation packet-too-big message-count *number* |
| Tree | message-count |
| Description | This command configures the maximum number of PTB messages that can be sent during the configured interval. |
| Range | 10 to 1000 |
| Default | 100 |
| Introduced | 22.7.R1 |
| Platforms | VSR |


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## ip-mtu *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Private MTU of the IPsec tunnel |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* ip-mtu *number* |
| Tree | ip-mtu |
| Description | This command specifies the private MTU of the IPsec tunnel. The private MTU is used to determine the need for fragmentation before encapsulation of the payload packet. |
| Range | 512 to 9000 |
| Units | bytes |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## key-exchange

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **key-exchange** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange |
| Tree | key-exchange |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## dynamic

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable the **dynamic** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange dynamic |


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| | |
|---|---|
| Tree | dynamic |
| Notes | The following elements are part of a choice: **dynamic** or **manual**. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **auto-establish** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Attempt to establish a phase 1 exchange automatically |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange dynamic auto-establish *boolean* |
| Tree | auto-establish |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **cert**

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **cert** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange dynamic cert |
| Tree | cert |
| Description | Commands in this context configure the attributes of the dynamic keying certificate. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **cert-profile** *reference*

| | |
|---|---|
| Synopsis | Certificate profile name |


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| | |
|---|---|
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange dynamic cert cert-profile *reference* |
| Tree | cert-profile |
| Reference | **configure** ipsec cert-profile *named-item* |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## status-verify

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **status-verify** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange dynamic cert status-verify |
| Tree | status-verify |
| Description | Commands in this context configure attributes of Certificate Status Verification (CSV). |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## default-result *keyword*

| | |
|---|---|
| Synopsis | Default result for Certificate Status Verification |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange dynamic cert status-verify default-result *keyword* |
| Tree | default-result |
| Description | This command specifies the default certificate revocation status result to use when all configured CSV methods fail to return a result. |
| Options | revoked, good |
| Default | revoked |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## primary *keyword*

| | |
|---|---|
| Synopsis | Primary method of CSV to verify the revocation status |


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| | |
|---|---|
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange dynamic cert status-verify primary *keyword* |
| Tree | primary |
| Description | This command configures the primary method of Certificate Status Verification (CSV) that is used to verify the revocation status of the certificate of the peer. |
| Options | crl, ocsp |
| Default | crl |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **secondary** *keyword*

| | |
|---|---|
| Synopsis | Secondary method used to verify certificate revocation |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange dynamic cert status-verify secondary *keyword* |
| Tree | secondary |
| Description | This command specifies the secondary method of Certificate Status Verification (CSV) that is used to verify the revocation status of the peer certificate. |
| Options | none, crl, ocsp |
| Default | none |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **trust-anchor-profile** *reference*

| | |
|---|---|
| Synopsis | Trust anchor profile name |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange dynamic cert trust-anchor-profile *reference* |
| Tree | trust-anchor-profile |
| Reference | **configure** ipsec trust-anchor-profile *named-item* |
| Introduced | 22.7.R1 |
| Platforms | VSR |


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## id

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **id** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange dynamic id |
| Tree | id |
| Description | Commands in this context specify the local ID used for IDi or IDr for IKEv2 negotiation.<br>The default behavior depends on the local authentication method as follows:<br>• Psk: local tunnel IP address<br>• Cert-auth: subject of the local certificate |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **fqdn** *fully-qualified-domain-name*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | FQDN used as the local ID IKE type |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange dynamic id fqdn *fully-qualified-domain-name* |
| Tree | fqdn |
| String length | 1 to 255 |
| Notes | The following elements are part of a choice: **fqdn**, **ipv4**, or **ipv6**. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **ipv4** *ipv4-unicast-address*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.


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| | |
|---|---|
| Synopsis | IPv4 as the local ID type |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange dynamic id ipv4 *ipv4-unicast-address* |
| Tree | ipv4 |
| Notes | The following elements are part of a choice: **fqdn**, **ipv4**, or **ipv6**. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **ipv6** *(ipv4-address-no-zone | ipv6-address-no-zone)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IPv6 used as the local IKE ID type |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange dynamic id ipv6 *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | ipv6 |
| Notes | The following elements are part of a choice: **fqdn**, **ipv4**, or **ipv6**. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **ike-policy** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IKE policy ID |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange dynamic ike-policy *reference* |
| Tree | ike-policy |
| Description | This command specifies the ID of the IKE policy used for IKE negotiation.<br>The **ipsec-transport-mode-profile** configuration only supports IKEv2. |
| Reference | **configure** ipsec ike-policy *number* |
| Introduced | 22.7.R1 |
| Platforms | VSR |


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## **ipsec-transform** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IPsec transform IDs used by the dynamic key |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange dynamic ipsec-transform *reference* |
| Tree | ipsec-transform |
| Description | This command specifies IPsec transform IDs used for CHILD_SA negotiation. |
| Reference | **configure** ipsec ipsec-transform *number* |
| Max. instances | 4 |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **ppk**

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **ppk** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange dynamic ppk |
| Tree | ppk |
| Description | Commands in this context configure the PPKs to use for dynamic keying of the IPsec tunnel. |
| Introduced | 24.10.R1 |
| Platforms | VSR |

## **id** *reference*

**WARNING:**
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| | |
|---|---|
| Synopsis | PPK ID |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange dynamic ppk id *reference* |
| Tree | id |
| Reference | **configure** ipsec ppk-list *named-item* ppk *named-item-64* |
| Introduced | 24.10.R1 |
| Platforms | VSR |

## **list** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | PPK list instance name |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange dynamic ppk list *reference* |
| Tree | list |
| Reference | **configure** ipsec ppk-list *named-item* |
| Introduced | 24.10.R1 |
| Platforms | VSR |

## **pre-shared-key** *encrypted-leaf*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Pre-shared key for authentication |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange dynamic pre-shared-key *encrypted-leaf* |
| Tree | pre-shared-key |
| String length | 1 to 115 |
| Introduced | 22.7.R1 |
| Platforms | VSR |


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## manual

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable the **manual** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange manual |
| Tree | manual |
| Description | Commands in this context configure settings for manually configured security associations for the IPsec tunnel. |
| Notes | The following elements are part of a choice: **dynamic** or **manual**. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **keys** [security-association] *number* direction *keyword*

| | |
|---|---|
| Synopsis | Enter the **keys** list instance |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange manual keys *number* direction *keyword* |
| Tree | keys |
| Description | Commands in this context configure the security association list for the tunnel. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## [**security-association**] *number*

| | |
|---|---|
| Synopsis | SA entry ID |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange manual keys *number* direction *keyword* |
| Tree | keys |
| Range | 1 to 16 |
| Notes | This element is part of a list key. |
| Introduced | 22.7.R1 |
| Platforms | VSR |


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### **direction** *keyword*

| | |
|---|---|
| Synopsis | Direction of the IPsec tunnel |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange manual keys *number* direction *keyword* |
| Tree | keys |
| Options | inbound, outbound |
| Notes | This element is part of a list key. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

### **authentication-key** *hex-string*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Key used for the authentication algorithm |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange manual keys *number* direction *keyword* authentication-key *hex-string* |
| Tree | authentication-key |
| String length | 1 to 130 |
| Introduced | 22.7.R1 |
| Platforms | VSR |

### **encryption-key** *hex-string*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Key used for the encryption algorithm |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange manual keys *number* direction *keyword* encryption-key *hex-string* |
| Tree | encryption-key |
| String length | 1 to 66 |
| Introduced | 22.7.R1 |


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| | |
|---|---|
| Platforms | VSR |

## **ipsec-transform** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Transform entry used by manual SAs |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange manual keys *number* direction *keyword* ipsec-transform *reference* |
| Tree | ipsec-transform |
| Reference | **configure** ipsec ipsec-transform *number* |
| Notes | This element is mandatory. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **spi** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | SPI of inbound and outbound packets |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange manual keys *number* direction *keyword* spi *number* |
| Tree | spi |
| Description | This command specifies the Security Parameter Index (SPI) used to look up the instruction to verify and decrypt the incoming IPsec packets when the direction is inbound. When the direction is outbound, the SPI is used in the encoding of the outgoing packets.<br>The remote node can use the SPI to look up the instruction to verify and decrypt the packet. |
| Range | 256 to 16383 |
| Notes | This element is mandatory. |
| Introduced | 22.7.R1 |
| Platforms | VSR |


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### **local-gateway-address-override** *(ipv4-address-no-zone | ipv6-address-no-zone)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Local IPsec tunnel endpoint address |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* local-gateway-address-override *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | local-gateway-address-override |
| Description | This command configures the local IPsec tunnel endpoint address. This overrides the default endpoint address, which is the interface address. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

### **max-history-key-records**

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **max-history-key-records** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* max-history-key-records |
| Tree | max-history-key-records |
| Description | Commands in this context configure the settings for recording historical IPsec keys. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

### **esp** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum number of recent records |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* max-history-key-records esp *number* |


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| | |
|---|---|
| Tree | esp |
| Range | 1 to 48 |
| Introduced | 22.7.R1 |
| Platforms | VSR |

### **ike** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum number of historical IKE key records |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* max-history-key-records ike *number* |
| Tree | ike |
| Range | 1 to 3 |
| Introduced | 22.7.R1 |
| Platforms | VSR |

### **pmtu-discovery-aging** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Aging out time of the learned path MTU |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* pmtu-discovery-aging *number* |
| Tree | pmtu-discovery-aging |
| Description | This command configures the temporary public and private MTU expiration time. The temporary MTU is used for MTU propagation. |
| Range | 900 to 3600 |
| Units | seconds |
| Default | 900 |
| Introduced | 22.7.R1 |
| Platforms | VSR |


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## **private-sap** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Private SAP ID |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* private-sap *number* |
| Tree | private-sap |
| Range | 0 to 4094 |
| Notes | This element is mandatory. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **private-service** *service-name*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Private service name |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* private-service *service-name* |
| Tree | private-service |
| Description | This command configures the private service name.<br>If unconfigured, the private service is the service where the secured interface resides. |
| String length | 1 to 64 |
| Introduced | 22.7.R1 |
| Platforms | VSR |


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## **private-tcp-mss-adjust** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | TCP maximum segment size (MSS) adjustment |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* private-tcp-mss-adjust *number* |
| Tree | private-tcp-mss-adjust |
| Description | This command specifies the TCP MSS to adjust for the tunnel on the private side.<br>When configured, the system may use the value to update the MSS option in the received TCP SYN packet on the private side. |
| Range | 512 to 9000 |
| Units | bytes |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **propagate-pmtu-v4** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable propagation of the path MTU to IPv4 hosts |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* propagate-pmtu-v4 *boolean* |
| Tree | propagate-pmtu-v4 |
| Description | When configured to **true**, the system propagates the path MTU learned from the public side to the private side (IPv4 hosts). |
| Default | true |
| Introduced | 22.7.R1 |
| Platforms | VSR |


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### **propagate-pmtu-v6** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable propagation of the path MTU to IPv6 hosts |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* propagate-pmtu-v6 *boolean* |
| Tree | propagate-pmtu-v6 |
| Description | When configured to **true**, the system propagates the path MTU learned from the public side to the private side (IPv6 hosts). |
| Default | true |
| Introduced | 22.7.R1 |
| Platforms | VSR |

### **public-tcp-mss-adjust** *(number | keyword)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | TCP maximum segment size (MSS) on the public network |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* public-tcp-mss-adjust *(number \| keyword)* |
| Tree | public-tcp-mss-adjust |
| Description | This command configures the MSS for the TCP traffic in an IPsec tunnel that is sent from the public network to the private network. The system may use this value to adjust or insert the MSS option in the TCP SYN packet. |
| Range | 512 to 9000 |
| Units | bytes |
| Options | auto |
| Introduced | 22.7.R1 |
| Platforms | VSR |


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### **remote-gateway-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Remote IPsec tunnel endpoint address |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* remote-gateway-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | remote-gateway-address |
| Introduced | 22.7.R1 |
| Platforms | VSR |

### **replay-window** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Anti-replay window size |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* replay-window *number* |
| Tree | replay-window |
| Description | This command specifies the size of an IPsec anti-replay window. If unconfigured, IPsec anti-replay is disabled. |
| Range | 32 \| 64 \| 128 \| 256 \| 512 |
| Units | packets |
| Introduced | 22.7.R1 |
| Platforms | VSR |

### **security-policy**

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **security-policy** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* security-policy |


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| | |
|---|---|
| Tree | security-policy |
| Description | Commands in this context specify a security policy used by the tunnel. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **id** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Security policy ID for use by the tunnel |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* security-policy id *number* |
| Tree | id |
| Max. range | 0 to 4294967295 |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **strict-match** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable strict match of the security policy entry |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* security-policy strict-match *boolean* |
| Tree | strict-match |
| Description | When configured to **true**, this command enables strict match of the security policy entry.<br>When a CREATE_CHILD exchange request is received for a static IPsec tunnel, and this request is not a rekey request, ISA matches the received TSi and TSr with the configured security policy. This can be a match only when a received TS (in TSi or TSr) address range matches exactly with the subnet in a security policy entry.<br>If there is no match, the setup fails, and TS_UNACCEPTABLE is sent.<br>If there is a match, but there is an existing CHILD_SA for the matched security policy, the setup fails, and NO_PROPOSAL_CHOSEN is sent.<br>If there is a match, and there is not a CHILD_SA for the matched entry, the subnet is sent in the matched security policy entry as TSi and TSr, and the CHILD_SA is created. |


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| | |
|---|---|
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **ipv6-exception** *reference*

| | |
|---|---|
| Synopsis | IPv6 filter exception used to bypass encryption |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec ipv6-exception *reference* |
| Tree | ipv6-exception |
| Description | This command specifies the IPv6 filter exception for an IPsec-secured IPv6 interface. When an IPv6 filter exception is added, clear text packets that match the exception criteria in the IPv6 filter exception can ingress the interface, even when IPsec is enabled on the interface. |
| Reference | **configure** filter ipv6-exception *filter-name* |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **public-sap** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Public SAP ID |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec public-sap *number* |
| Tree | public-sap |
| Range | 0 to 4094 |
| Notes | This element is mandatory. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **tunnel-group** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.


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| | |
|---|---|
| Synopsis | Tunnel group ID |
| Context | **configure** service ies *service-name* interface *interface-name* ipsec tunnel-group *reference* |
| Tree | tunnel-group |
| Reference | **configure** isa tunnel-group *number* |
| Notes | This element is mandatory. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## ipv4

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 |
| Tree | ipv4 |
| Introduced | 16.0.R1 |
| Platforms | All |

## addresses

| | |
|---|---|
| Synopsis | Enter the **addresses** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 addresses |
| Tree | addresses |
| Introduced | 16.0.R1 |
| Platforms | All |

## address [ipv4-address] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Enter the **address** list instance |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 addresses address *ipv4-unicast-address* |
| Tree | address |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**ipv4-address**] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IPv4 address for the interface |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 addresses address *ipv4-unicast-address* |
| Tree | address |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **prefix-length** *number*

| | |
|---|---|
| Synopsis | IPv4 address prefix length |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 addresses address *ipv4-unicast-address* prefix-length *number* |
| Tree | prefix-length |
| Range | 0 to 32 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **allow-directed-broadcasts** *boolean*

| | |
|---|---|
| Synopsis | Forward directed broadcasts |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 allow-directed-broadcasts *boolean* |
| Tree | allow-directed-broadcasts |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bfd**

| | |
|---|---|
| Synopsis | Enter the **bfd** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 bfd |
| Tree | bfd |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of BFD sessions |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 bfd admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **echo-receive** *number*

| | |
|---|---|
| Synopsis | Minimum echo interval over this interface |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 bfd echo-receive *number* |
| Tree | echo-receive |
| Range | 100 to 100000 |
| Units | milliseconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **multiplier** *number*

| | |
|---|---|
| Synopsis | Number of consecutive BFD messages missed from the peer |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 bfd multiplier *number* |
| Tree | multiplier |
| Description | This command configures the number of missed messages before the BFD session state is changed to down and the upper-level protocol is notified of the fault. A multiplier of less than 3 should not be used in production environments. |
| Range | 1 to 20 |
| Default | 3 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **receive** *number*

| | |
|---|---|
| Synopsis | BFD receive interval over this interface |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 bfd receive *number* |
| Tree | receive |
| Description | This command specifies the receive interval for the BFD session.<br>On the 7750 SR, this command can only be configured to a value less than 100 when the **type** command is configured to **cpm-np**. |
| Range | 10 to 100000 |
| Units | milliseconds |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **transmit-interval** *number*

| | |
|---|---|
| Synopsis | BFD transmit interval over this interface |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 bfd transmit-interval *number* |
| Tree | transmit-interval |
| Description | This command configures the transmit intervals.<br>On the 7750 SR, this command can only be configured to a value less than 100 when the **type** command is configured to **cpm-np**. |
| Range | 10 to 100000 |
| Units | milliseconds |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **type** *keyword*

| | |
|---|---|
| Synopsis | Local termination point for the BFD session |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 bfd type *keyword* |
| Tree | type |


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| | |
|---|---|
| Description | This command sets the local termination point for the BFD session to allow for fast timers down to 10 ms granularity.<br>The options to specify where the BFD session runs are:<br>• **auto** (default) – the system chooses and uses the line card CPU only for single-hop BFD sessions with timer intervals equal to or greater than 100ms. All others are placed on the **cpm-np**.<br>• **cpm-np** – BFD session runs on the FP complex associated with the CPM. This is either the FP on the CPM or the one elected on smaller systems.<br>• **fp** – BFD session runs on the line card CPU. This option can only be used for single-hop BFD sessions with timers equal to or greater than 100ms. |
| Options | cpm-np, auto, fp |
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## dhcp

| | |
|---|---|
| Synopsis | Enter the **dhcp** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 dhcp |
| Tree | dhcp |
| Introduced | 16.0.R1 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of DHCP |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 dhcp admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Introduced | 16.0.R1 |
| Platforms | All |

## description *description*

| | |
|---|---|
| Synopsis | Text description |


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| | |
|---|---|
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 dhcp description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **gi-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | GI address for the DHCP relay |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 dhcp gi-address *ipv4-unicast-address* |
| Tree | gi-address |
| Description | This command configures the GI address to distinguish between the different subscriber interfaces (and potentially group interfaces) defined when the router functions as a DHCP relay.<br>By default, the GI address used in the relayed DHCP packet is the primary IP address of a normal IES interface. Specifying the GI address allows the user to choose a secondary address. For group interfaces, a GI address must be specified under the group interface DHCP context or subscriber interface DHCP context for DHCP to function. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **lease-populate**

| | |
|---|---|
| Synopsis | Enter the **lease-populate** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 dhcp lease-populate |
| Tree | lease-populate |
| Introduced | 16.0.R1 |
| Platforms | All |

## **max-leases** *number*

| | |
|---|---|
| Synopsis | Maximum number of DHCPv4 leases allowed |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 dhcp lease-populate max-leases *number* |
| Tree | max-leases |


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| | |
|---|---|
| Range | 0 to 511999 |
| Introduced | 16.0.R1 |
| Platforms | All |

## option-82

| | |
|---|---|
| Synopsis | Enter the **option-82** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 dhcp option-82 |
| Tree | option-82 |
| Description | Commands in this context configure the processing required when the router receives a DHCP request that already has an Option 82 field in the packet. |
| Introduced | 16.0.R1 |
| Platforms | All |

## action *keyword*

| | |
|---|---|
| Synopsis | Action to take with received DHCP Option 82 |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 dhcp option-82 action *keyword* |
| Tree | action |
| Options | replace, drop, keep |
| Default | keep |
| Introduced | 16.0.R1 |
| Platforms | All |

## circuit-id

| | |
|---|---|
| Synopsis | Enter the **circuit-id** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 dhcp option-82 circuit-id |
| Tree | circuit-id |
| Introduced | 16.0.R1 |
| Platforms | All |


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## ascii-tuple

| | |
|---|---|
| Synopsis | Use the ASCII-encoded tuple for the circuit ID |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 dhcp option-82 circuit-id ascii-tuple |
| Tree | ascii-tuple |
| Notes | The following elements are part of a choice: **ascii-tuple**, **ifindex**, **none**, **sap-id**, or **vlan-ascii-tuple**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## ifindex

| | |
|---|---|
| Synopsis | Use the interface index for the circuit ID |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 dhcp option-82 circuit-id ifindex |
| Tree | ifindex |
| Notes | The following elements are part of a choice: **ascii-tuple**, **ifindex**, **none**, **sap-id**, or **vlan-ascii-tuple**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## none

| | |
|---|---|
| Synopsis | Do not include the circuit ID |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 dhcp option-82 circuit-id none |
| Tree | none |
| Notes | The following elements are part of a choice: **ascii-tuple**, **ifindex**, **none**, **sap-id**, or **vlan-ascii-tuple**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## sap-id

| | |
|---|---|
| Synopsis | Use the SAP ID |


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| | |
|---|---|
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 dhcp option-82 circuit-id sap-id |
| Tree | sap-id |
| Notes | The following elements are part of a choice: **ascii-tuple**, **ifindex**, **none**, **sap-id**, or **vlan-ascii-tuple**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## vlan-ascii-tuple

| | |
|---|---|
| Synopsis | Include the VLAN ID and dot1p bits in the ASCII tuple |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 dhcp option-82 circuit-id vlan-ascii-tuple |
| Tree | vlan-ascii-tuple |
| Description | When configured, the router includes the VLAN ID and dot1p bits with the ASCII-tuple information. This only occurs on dot1q and QinQ-encapsulated ports. When the Option 82 bits are stripped, dot1p bits are copied to the Ethernet header of the outgoing packet.<br>When unconfigured, the router leaves the circuit ID sub-option of the DHCP packet empty. |
| Notes | The following elements are part of a choice: **ascii-tuple**, **ifindex**, **none**, **sap-id**, or **vlan-ascii-tuple**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## remote-id

| | |
|---|---|
| Synopsis | Enter the **remote-id** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 dhcp option-82 remote-id |
| Tree | remote-id |
| Description | Commands in this context configure the remote IP sub-option of the DHCP packet with the identity of the remote host end (typically the DHCP client). |
| Introduced | 16.0.R1 |
| Platforms | All |

## ascii-string *string-not-all-spaces*

| | |
|---|---|
| Synopsis | User-defined ASCII string for the remote ID |


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| | |
|---|---|
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 dhcp option-82 remote-id ascii-string *string-not-all-spaces* |
| Tree | ascii-string |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **ascii-string**, **mac**, or **none**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## mac

| | |
|---|---|
| Synopsis | Use the MAC address for the remote ID |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 dhcp option-82 remote-id mac |
| Tree | mac |
| Notes | The following elements are part of a choice: **ascii-string**, **mac**, or **none**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## none

| | |
|---|---|
| Synopsis | Do not include the remote ID |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 dhcp option-82 remote-id none |
| Tree | none |
| Notes | The following elements are part of a choice: **ascii-string**, **mac**, or **none**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## vendor-specific-option

| | |
|---|---|
| Synopsis | Enter the **vendor-specific-option** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 dhcp option-82 vendor-specific-option |
| Tree | vendor-specific-option |
| Description | Commands in this context configure the Nokia Vendor-Specific Option (VSO) of the DHCP packet. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **client-mac-address** *boolean*

| | |
|---|---|
| Synopsis | Send the MAC address in the VSO |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 dhcp option-82 vendor-specific-option client-mac-address *boolean* |
| Tree | client-mac-address |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **pool-name** *boolean*

| | |
|---|---|
| Synopsis | Send the pool name in the VSO |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 dhcp option-82 vendor-specific-option pool-name *boolean* |
| Tree | pool-name |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sap-id** *boolean*

| | |
|---|---|
| Synopsis | Send SAP ID in the sub-option of the DHCP relay packet |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 dhcp option-82 vendor-specific-option sap-id *boolean* |
| Tree | sap-id |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **service-id** *boolean*

| | |
|---|---|
| Synopsis | Send the service ID in the Vendor Specific Option |


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| | |
|---|---|
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 dhcp option-82 vendor-specific-option service-id *boolean* |
| Tree | service-id |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **string** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | User-defined ASCII string for the VSO |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 dhcp option-82 vendor-specific-option string *string-not-all-spaces* |
| Tree | string |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **system-id** *boolean*

| | |
|---|---|
| Synopsis | Send the system ID in the VSO |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 dhcp option-82 vendor-specific-option system-id *boolean* |
| Tree | system-id |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **proxy-server**

| | |
|---|---|
| Synopsis | Enter the **proxy-server** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 dhcp proxy-server |
| Tree | proxy-server |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the DHCP proxy server |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 dhcp proxy-server admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **emulated-server** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IP address used as the DHCP server address for the SAP |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 dhcp proxy-server emulated-server *ipv4-unicast-address* |
| Tree | emulated-server |
| Description | This command configures the IP address which will be used as the DHCP server address in the context of the SAP. Typically, the configured address should be in the context of the subnet represented by the service. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lease-time**

| | |
|---|---|
| Synopsis | Enter the **lease-time** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 dhcp proxy-server lease-time |
| Tree | lease-time |
| Introduced | 16.0.R1 |
| Platforms | All |

### **radius-override** *boolean*

| | |
|---|---|
| Synopsis | Use lease time information provided by RADIUS server |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 dhcp proxy-server lease-time radius-override *boolean* |


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| | |
|---|---|
| Tree | radius-override |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **value** *number*

| | |
|---|---|
| Synopsis | DHCP lease time |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 dhcp proxy-server lease-time value *number* |
| Tree | value |
| Range | 300 to 315446399 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **python-policy** *reference*

| | |
|---|---|
| Synopsis | Python policy |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 dhcp python-policy *reference* |
| Tree | python-policy |
| Reference | **configure** python python-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **relay-plain-bootp** *boolean*

| | |
|---|---|
| Synopsis | Enable relaying of plain BOOTP packets |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 dhcp relay-plain-bootp *boolean* |
| Tree | relay-plain-bootp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### relay-proxy

| | |
|---|---|
| Synopsis | Enable the **relay-proxy** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 dhcp relay-proxy |
| Tree | relay-proxy |
| Introduced | 16.0.R1 |
| Platforms | All |

### release-update-src-ip *boolean*

| | |
|---|---|
| Synopsis | Update the source IP address of a DHCP RELEASE message |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 dhcp relay-proxy release-update-src-ip *boolean* |
| Tree | release-update-src-ip |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### siaddr-override *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | DHCP server IP address for address hiding function |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 dhcp relay-proxy siaddr-override *ipv4-unicast-address* |
| Tree | siaddr-override |
| Introduced | 16.0.R1 |
| Platforms | All |

### release-include-gi-address *boolean*

| | |
|---|---|
| Synopsis | Include gateway IP address in DHCP Release messages |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 dhcp release-include-gi-address *boolean* |
| Tree | release-include-gi-address |
| Default | false |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **server** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IP addresses for DHCP server requests |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 dhcp server *ipv4-unicast-address* |
| Tree | server |
| Description | This command configures a list of servers that this interface forwards requests to.<br>The operator can enter the list of servers as either IP addresses or fully qualified domain names. The operator must specify at least one server specified for DHCP relay to work. If there are multiple servers, the system forwards the request to all the servers in the list. |
| Max. instances | 8 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **src-ip-addr** *keyword*

| | |
|---|---|
| Synopsis | Type of source address to use for DHCP relay |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 dhcp src-ip-addr *keyword* |
| Tree | src-ip-addr |
| Options | auto, gi-address |
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | All |

### **trusted** *boolean*

| | |
|---|---|
| Synopsis | Relay untrusted packets |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 dhcp trusted *boolean* |
| Tree | trusted |
| Description | When configured to **true**, the router enables the trusted mode on the interface. When enabled, the relay agent changes the existing GI address (of the request) to the ingress interface, and forwards the request.<br>A DHCP request that contains a GI address of 0.0.0.0 and an Option 82 field in the packet is discarded unless it arrives on a trusted circuit. |


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This behavior only applies if the Relay Agent Information Option action is to keep the existing information. When the Option 82 field is replaced by the relay agent, the original Option 82 information is lost, and there is no reason to enable the trusted option.

| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **use-arp** *boolean*

| | |
|---|---|
| Synopsis | Use ARP to determine the destination hardware address |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 dhcp use-arp *boolean* |
| Tree | use-arp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **icmp**

| | |
|---|---|
| Synopsis | Enter the **icmp** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 icmp |
| Tree | icmp |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mask-reply** *boolean*

| | |
|---|---|
| Synopsis | Allow responses to ICMP mask requests on the interface |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 icmp mask-reply *boolean* |
| Tree | mask-reply |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |


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## param-problem

| | |
|---|---|
| Synopsis | Enter the **param-problem** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 icmp param-problem |
| Tree | param-problem |
| Description | Commands in this context specify the settings for ICMP Parameter Problem messages generated by the interface. |
| Introduced | 16.0.R1 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of sent Parameter Problem messages |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 icmp param-problem admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

## number *number*

| | |
|---|---|
| Synopsis | Maximum number of Parameter Problem messages to send |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 icmp param-problem number *number* |
| Tree | number |
| Range | 10 to 1000 |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

## seconds *number*

| | |
|---|---|
| Synopsis | Time used to limit number of Parameter Problem messages |


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| | |
|---|---|
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 icmp param-problem seconds *number* |
| Tree | seconds |
| Range | 1 to 60 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

## redirects

| | |
|---|---|
| Synopsis | Enter the **redirects** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 icmp redirects |
| Tree | redirects |
| Description | Commands in this context configure the settings for ICMP redirect messages generated by the interface.<br>The system sends ICMP redirect messages to alert the sending node that a more optimal route is available on another router on the same subnetwork. |
| Introduced | 16.0.R1 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of sending ICMP redirect messages |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 icmp redirects admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

## number *number*

| | |
|---|---|
| Synopsis | Maximum number of ICMP redirect messages to send |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 icmp redirects number *number* |


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| | |
|---|---|
| Tree | number |
| Range | 10 to 1000 |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **seconds** *number*

| | |
|---|---|
| Synopsis | Time used to limit the number of ICMP redirect messages |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 icmp redirects seconds *number* |
| Tree | seconds |
| Range | 1 to 60 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ttl-expired**

| | |
|---|---|
| Synopsis | Enter the **ttl-expired** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 icmp ttl-expired |
| Tree | ttl-expired |
| Description | Commands in this context configure the settings for ICMP TTL expired messages generated by the interface. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of sending TTL expired messages |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 icmp ttl-expired admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **number** *number*

| | |
|---|---|
| Synopsis | Maximum number of TTL expired messages to send |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 icmp ttl-expired number *number* |
| Tree | number |
| Range | 10 to 2000 |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **seconds** *number*

| | |
|---|---|
| Synopsis | Time used to limit the number of TTL expired messages |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 icmp ttl-expired seconds *number* |
| Tree | seconds |
| Range | 1 to 60 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **unreachables**

| | |
|---|---|
| Synopsis | Enter the **unreachables** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 icmp unreachables |
| Tree | unreachables |
| Description | Commands in this context specify the settings for ICMP host and network destination unreachable messages generated by the interface. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of sending unreachable messages |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 icmp unreachables admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **number** *number*

| | |
|---|---|
| Synopsis | Maximum number of unreachable messages to send |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 icmp unreachables number *number* |
| Tree | number |
| Range | 10 to 2000 |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **seconds** *number*

| | |
|---|---|
| Synopsis | Time to limit the number of ICMP unreachable messages |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 icmp unreachables seconds *number* |
| Tree | seconds |
| Range | 1 to 60 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **ip-helper-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Gateway address |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 ip-helper-address *ipv4-unicast-address* |
| Tree | ip-helper-address |
| Introduced | 16.0.R1 |
| Platforms | All |

### **local-dhcp-server** *reference*

| | |
|---|---|
| Synopsis | DHCP server for the interface |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 local-dhcp-server *reference* |
| Tree | local-dhcp-server |
| Reference | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **neighbor-discovery**

| | |
|---|---|
| Synopsis | Enter the **neighbor-discovery** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 neighbor-discovery |
| Tree | neighbor-discovery |
| Introduced | 16.0.R1 |
| Platforms | All |

### **host-route**

| | |
|---|---|
| Synopsis | Enter the **host-route** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 neighbor-discovery host-route |
| Tree | host-route |
| Introduced | 19.10.R1 |
| Platforms | All |


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## **populate** [route-type] *keyword*

| | |
|---|---|
| Synopsis | Enter the **populate** list instance |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 neighbor-discovery host-route populate *keyword* |
| Tree | populate |
| Introduced | 19.10.R1 |
| Platforms | All |

## [**route-type**] *keyword*

| | |
|---|---|
| Synopsis | Type of ARP or ND entries that generate host routes |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 neighbor-discovery host-route populate *keyword* |
| Tree | populate |
| Options | static, dynamic, evpn |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | All |

## **route-tag** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Tag value used with the host route from an ARP/ND entry |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 neighbor-discovery host-route populate *keyword* route-tag *number* |
| Tree | route-tag |
| Description | This command specifies the route tag that is added in the route table for ARP or ND host routes. This tag can be matched on BGP VRF export and BGP peer export policies. |
| Range | 1 to 255 |
| Introduced | 19.10.R1 |
| Platforms | All |


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## **learn-unsolicited** *boolean*

| | |
|---|---|
| Synopsis | Learn new entries from any received NA message |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 neighbor-discovery learn-unsolicited *boolean* |
| Tree | learn-unsolicited |
| Description | When configured to **true**, the router can learn neighbor entries from received unsolicited Neighbor Advertisement (NA) messages, with or without the solicited (S) flag set. The command can be enabled for global addresses, link-local addresses, or for both.<br>When configured to **false**, the router follows standard behavior for learning neighbor entries.<br>• If an unsolicited NA (regardless of the S flag) is received from a neighbor that is not yet in the Neighbor Discovery (ND) cache, the NA is ignored.<br>• If an NS, RS, RA, or Redirect message with a Link Layer Address (MAC) is received from a neighbor that is not yet in the ND cache, a new neighbor entry is created in the cache to store the received Link Layer MAC. The neighbor is put in the STALE state. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **limit**

| | |
|---|---|
| Synopsis | Enter the **limit** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 neighbor-discovery limit |
| Tree | limit |
| Introduced | 16.0.R1 |
| Platforms | All |

## **log-only** *boolean*

| | |
|---|---|
| Synopsis | Generate log entries only if limit is reached |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 neighbor-discovery limit log-only *boolean* |
| Tree | log-only |
| Default | false |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **max-entries** *number*

| | |
|---|---|
| Synopsis | Maximum number of entries learned on an IP interface |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 neighbor-discovery limit max-entries *number* |
| Tree | max-entries |
| Range | 0 to 524288 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **threshold** *number*

| | |
|---|---|
| Synopsis | Threshold value that triggers a warning message |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 neighbor-discovery limit threshold *number* |
| Tree | threshold |
| Range | 1 to 100 |
| Units | percent |
| Default | 90 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **local-proxy-arp** *boolean*

| | |
|---|---|
| Synopsis | Enable local proxy ARP on interface |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 neighbor-discovery local-proxy-arp *boolean* |
| Tree | local-proxy-arp |
| Description | When configured to **true**, the router enables local proxy ARP on the interface.<br>When configured to **false**, the router does not respond to ARP requests for addresses on the same subnet. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **populate** *boolean*

| | |
|---|---|
| Synopsis | Allow static and dynamic hosts to be populated in system ARP cache |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 neighbor-discovery populate *boolean* |
| Tree | populate |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **proactive-refresh** *boolean*

| | |
|---|---|
| Synopsis | Send a single refresh message before entry timeout |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 neighbor-discovery proactive-refresh *boolean* |
| Tree | proactive-refresh |
| Description | When configured to **true**, the router always sends a refresh message 30 seconds before the timeout of the entry (a single refresh message with no retries).<br>When configured to **false**, the router marks an entry as stale 30 seconds before age-out, and the router only sends an ARP request to refresh the entry if the IOM receives traffic that uses it. Then, the IOM asks the ARP application to send a refresh message. With ARP proactive refresh enabled, the ARP module sends a refresh message regardless of the IOM receiving traffic. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **proxy-arp-policy** *reference*

| | |
|---|---|
| Synopsis | Proxy ARP policy name |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 neighbor-discovery proxy-arp-policy *reference* |
| Tree | proxy-arp-policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **remote-proxy-arp** *boolean*

| | |
|---|---|
| Synopsis | Enable remote proxy ARP on the interface |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 neighbor-discovery remote-proxy-arp *boolean* |
| Tree | remote-proxy-arp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **retry-timer** *number*

| | |
|---|---|
| Synopsis | ARP retry interval |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 neighbor-discovery retry-timer *number* |
| Tree | retry-timer |
| Range | 1 to 300 |
| Units | deciseconds |
| Default | 50 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **static-neighbor** [ipv4-address] *ipv4-address*

| | |
|---|---|
| Synopsis | Enter the **static-neighbor** list instance |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 neighbor-discovery static-neighbor *ipv4-address* |
| Tree | static-neighbor |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**ipv4-address**] *ipv4-address*

| | |
|---|---|
| Synopsis | IPv4 address that corresponds to the physical address |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 neighbor-discovery static-neighbor *ipv4-address* |
| Tree | static-neighbor |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mac-address** *mac-address*

| | |
|---|---|
| Synopsis | MAC address for the static neighbor |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 neighbor-discovery static-neighbor *ipv4-address* mac-address *mac-address* |
| Tree | mac-address |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **static-neighbor-unnumbered**

| | |
|---|---|
| Synopsis | Enable the **static-neighbor-unnumbered** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 neighbor-discovery static-neighbor-unnumbered |
| Tree | static-neighbor-unnumbered |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mac-address** *mac-address*

| | |
|---|---|
| Synopsis | MAC address for the static neighbor |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 neighbor-discovery static-neighbor-unnumbered mac-address *mac-address* |
| Tree | mac-address |
| Notes | This element is mandatory. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **timeout** *number*

| | |
|---|---|
| Synopsis | Timeout for an ARP entry learned on the interface |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 neighbor-discovery timeout *number* |
| Tree | timeout |
| Description | This command configures the minimum time an ARP entry learned on the IP interface is stored in the ARP table. ARP entries are automatically refreshed when an ARP request or gratuitous ARP is seen by an IP host. Otherwise, the ARP entry is aged from the ARP table. |
| Range | 0 to 65535 |
| Units | seconds |
| Default | 14400 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **primary**

| | |
|---|---|
| Synopsis | Enable the **primary** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 primary |
| Tree | primary |
| Introduced | 16.0.R1 |
| Platforms | All |

### **address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Primary IPv4 address assigned to the interface |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 primary address *ipv4-unicast-address* |
| Tree | address |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **broadcast** *keyword*

| | |
|---|---|
| Synopsis | Broadcast address format |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 primary broadcast *keyword* |
| Tree | broadcast |
| Options | all-ones, host-ones |
| Default | host-ones |
| Introduced | 16.0.R1 |
| Platforms | All |

### **prefix-length** *number*

| | |
|---|---|
| Synopsis | IPv4 address prefix length |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 primary prefix-length *number* |
| Tree | prefix-length |
| Range | 0 to 32 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **track-srrp** *number*

| | |
|---|---|
| Synopsis | SRRP instance whose state is tracked on the IP address |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 primary track-srrp *number* |
| Tree | track-srrp |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **qos-route-lookup** *keyword*

| | |
|---|---|
| Synopsis | IP address for QoS route lookup for ingress IP packets |


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| | |
|---|---|
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 qos-route-lookup *keyword* |
| Tree | qos-route-lookup |
| Description | This command specifies the IP address type used for QPPB enabled per-packet QoS handling (in terms of FC and priority). When using QPPB, routes are associated with a QoS treatment (FC and optionally priority) through either explicit configuration or the route policy. If an IPv4 or IPv6 packet arrives on an interface where the configuration of this command applies to the packet, the QoS treatment of the packet is based on the route that matched the destination IP address or the route that matched the source IP address.<br>See "Enabling QPPB on an IP interface" in the *7450 ESS, 7750 SR, 7950 XRS, and VSR Router Configuration Guide* for more information about QPPB. |
| Options | destination, source, source-and-dest |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **secondary** [address] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Enter the **secondary** list instance |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 secondary *ipv4-unicast-address* |
| Tree | secondary |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**address**] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Secondary IPv4 address assigned to the interface |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 secondary *ipv4-unicast-address* |
| Tree | secondary |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **broadcast** *keyword*

| | |
|---|---|
| Synopsis | Broadcast address format |


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| | |
|---|---|
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 secondary *ipv4-unicast-address* broadcast *keyword* |
| Tree | broadcast |
| Options | all-ones, host-ones |
| Default | host-ones |
| Introduced | 16.0.R1 |
| Platforms | All |

## **igp-inhibit** *boolean*

| | |
|---|---|
| Synopsis | Disable the running IGP from recognizing secondary IP |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 secondary *ipv4-unicast-address* igp-inhibit *boolean* |
| Tree | igp-inhibit |
| Description | When configured to **true**, the running IGP does not recognize the secondary IP address as a local interface. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **prefix-length** *number*

| | |
|---|---|
| Synopsis | IPv4 address prefix length |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 secondary *ipv4-unicast-address* prefix-length *number* |
| Tree | prefix-length |
| Range | 0 to 32 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **track-srrp** *number*

| | |
|---|---|
| Synopsis | SRRP instance whose state is tracked on the IP address |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 secondary *ipv4-unicast-address* track-srrp *number* |


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| | |
|---|---|
| Tree | track-srrp |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **tcp-mss** *number*

| | |
|---|---|
| Synopsis | TCP maximum segment size for the interface |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 tcp-mss *number* |
| Tree | tcp-mss |
| Range | 384 to 9746 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **unnumbered**

| | |
|---|---|
| Synopsis | Enter the **unnumbered** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 unnumbered |
| Tree | unnumbered |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ip-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IP address of the unnumbered interface |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 unnumbered ip-address *ipv4-unicast-address* |
| Tree | ip-address |
| Notes | The following elements are part of a choice: **ip-address**, **ip-int-name**, or **system**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ip-int-name** *interface-name*

| | |
|---|---|
| Synopsis | IP interface name |


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| | |
|---|---|
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 unnumbered ip-int-name *interface-name* |
| Tree | ip-int-name |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **ip-address**, **ip-int-name**, or **system**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## system

| | |
|---|---|
| Synopsis | IP interface as an unnumbered interface |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 unnumbered system |
| Tree | system |
| Notes | The following elements are part of a choice: **ip-address**, **ip-int-name**, or **system**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## urpf-check

| | |
|---|---|
| Synopsis | Enable the **urpf-check** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 urpf-check |
| Tree | urpf-check |
| Introduced | 16.0.R1 |
| Platforms | All |

## ignore-default *boolean*

| | |
|---|---|
| Synopsis | Ignore default route when performing a uRPF check |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 urpf-check ignore-default *boolean* |
| Tree | ignore-default |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **mode** *keyword*

| | |
|---|---|
| Synopsis | Unicast RPF check mode |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 urpf-check mode *keyword* |
| Tree | mode |
| Options | strict, loose, strict-no-ecmp |
| Default | strict |
| Introduced | 16.0.R1 |
| Platforms | All |

### **vrrp** [virtual-router-id] *number*

| | |
|---|---|
| Synopsis | Enter the **vrrp** list instance |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 vrrp *number* |
| Tree | vrrp |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**virtual-router-id**] *number*

| | |
|---|---|
| Synopsis | Virtual Router Identifier (VRID) for the IP interface |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 vrrp *number* |
| Tree | vrrp |
| Range | 1 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of VRRP |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 vrrp *number* admin-state *keyword* |
| Tree | admin-state |


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| | |
|---|---|
| Description | The command determines the administrative state of non-owner virtual router instances.<br><br>Non-owner virtual router instances can be administratively disabled. This allows the termination of VRRP participation in the virtual router and stops all routing and other access capabilities with regards to the virtual router IP addresses. Disabling the virtual router instance provides a mechanism to maintain the virtual routers without causing false backup or master state changes.<br><br>When **disabled**, no VRRP advertisement messages are generated and all received VRRP advertisement messages are silently discarded with no processing.<br><br>Whenever the administrative or operational state of a virtual router instance transitions, a log message is generated.<br><br>An owner virtual router context does not use this command. To administratively disable an owner virtual router instance, use the **admin-state** command within the parent IP interface node which administratively disables the IP interface. |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

## **authentication-key** *encrypted-leaf*

| | |
|---|---|
| Synopsis | Password for simple text authentication |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 vrrp *number* authentication-key *encrypted-leaf* |
| Tree | authentication-key |
| Description | This command optionally assigns a simple text password authentication key to generate master VRRP advertisement messages and validate received VRRP advertisement messages.<br><br>If this command is re-executed with a different password key defined, the new key immediately replaces the old key. This command may be executed at any time. |
| String length | 1 to 38 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **backup** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Virtual router IP addresses for the interface |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 vrrp *number* backup *ipv4-unicast-address* |
| Tree | backup |


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| | |
|---|---|
| Description | This command associates virtual router IP addresses with those of the parental IP interface.<br><br>This command has two different functions based on whether it is being executed on an owner or non-owner virtual router instance.<br><br>Non-owner virtual router instances create a routable IP interface address that is operationally dependent on the virtual router instance mode (master or backup). This command, when executed on an owner virtual router instance, does not create a routable IP interface address; it simply defines the existing IP addresses of the parental IP interface that are advertised by the virtual router instance.<br><br>For owner virtual router instances, this command defines the IP addresses that are advertised within VRRP advertisement messages. This communicates the IP addresses that the master is advertising to backup virtual routers receiving the messages. The specified *unicast-ipv4-address* must be equal to one of the existing IP addresses in the parental IP interface (primary or secondary) or this command fails.<br><br>See "Owner and non-owner VRRP" in the *7450 ESS, 7750 SR, 7950 XRS, and VSR Router Configuration Guide* for more information about owner and non-owner virtual router instances. |
| Max. instances | 16 |
| Introduced | 16.0.R1 |
| Platforms | All |

## bfd-liveness

| | |
|---|---|
| Synopsis | Enable the **bfd-liveness** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 vrrp *number* bfd-liveness |
| Tree | bfd-liveness |
| Introduced | 16.0.R1 |
| Platforms | All |

## dest-ip *ipv4-address*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Destination IP address to use for BFD session |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 vrrp *number* bfd-liveness dest-ip *ipv4-address* |
| Tree | dest-ip |


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| | |
|---|---|
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **interface-name** *interface-name*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Name of the interface running BFD |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 vrrp *number* bfd-liveness interface-name *interface-name* |
| Tree | interface-name |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **service-name** *service-name*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Administrative service name |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 vrrp *number* bfd-liveness service-name *service-name* |
| Tree | service-name |
| String length | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **init-delay** *number*

| | |
|---|---|
| Synopsis | VRRP initialization delay timer |


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| | |
|---|---|
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 vrrp *number* init-delay *number* |
| Tree | init-delay |
| Range | 1 to 65535 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

## **mac** *mac-unicast-address*

| | |
|---|---|
| Synopsis | Virtual MAC address to use in ARP responses |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 vrrp *number* mac *mac-unicast-address* |
| Tree | mac |
| Description | This command sets an explicit MAC address for the virtual router instance that overrides the VRRP default derived from the VRID.<br><br>Changing the default MAC address is useful when an existing HSRP or other non-VRRP default MAC is in use by the IP hosts that use the virtual router IP address. Many hosts do not monitor unessential ARPs and continue to use the cached non-VRRP MAC address after the virtual router becomes master of the host's gateway address.<br><br>Additionally, this command sets the MAC address used in ARP responses when the virtual router instance is master. Routing of IP packets with *unicast-mac-address* as the destination MAC is also enabled. The MAC must be the same for all virtual routers participating as a virtual router or indeterminate connectivity by the attached IP hosts results. All VRRP advertisement messages are transmitted with *unicast-mac-address* as the source MAC.<br><br>An operator can execute this command at any time and it takes effect immediately. When the virtual router MAC on a master virtual router instance changes, a gratuitous ARP is immediately sent with a VRRP advertisement message. If the virtual router instance is disabled or operating as a backup, the gratuitous ARP and VRRP advertisement messages are not sent. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **master-int-inherit** *boolean*

| | |
|---|---|
| Synopsis | Allow master instance to dictate the master down timer |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 vrrp *number* master-int-inherit *boolean* |
| Tree | master-int-inherit |


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Description When configured to **true**, the virtual router instance inherits the advertisement interval timer of the master VRRP router, which backup routers use to calculate the master down timer.

When configured to **false**, the locally configured message interval must match the master's VRRP advertisement message advertisement interval field value or the message is discarded.

Introduced 16.0.R1

Platforms All

## **message-interval** *number*

Synopsis Interval for sending VRRP advertisement messages

Context **configure** service ies *service-name* interface *interface-name* ipv4 vrrp *number* message-interval *number*

Tree message-interval

Description This command configures the administrative advertisement message timer used by the master virtual router instance to send VRRP advertisement messages. The backup master down timer is derived from the value configured using this command.

The usage of this command varies for non-owner virtual router instances, depending on the state of the virtual router (master or backup) and the state of the **master-int-inherit** command:

- When a non-owner is operating as master for the virtual router, the system uses the configured value of this command as the operational advertisement timer, similar to an owner virtual router instance. The **master-int-inherit** command has no effect when operating as master.
- When a non-owner is in the backup state with **master-int-inherit** disabled, the system uses the configured value of this command to match the incoming advertisement interval field of the VRRP advertisement message. If the locally configured message interval does not match the advertisement interval field, the system discards the VRRP advertisement.
- When a non-owner is in the backup state with **master-int-inherit** enabled, the configured value of this command is ignored. The master down timer is indirectly derived from the advertisement interval field value of the incoming VRRP advertisement message.

Range 1 to 2559

Units deciseconds

Default 10

Introduced 16.0.R1

Platforms All


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## **monitor-oper-group** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | VRRP instance to follow a specified operational group |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 vrrp *number* monitor-oper-group *reference* |
| Tree | monitor-oper-group |
| Description | This command configures VRRP to associate with an operational group. When associated, VRRP notifies the operational group of its state changes so that other protocols can monitor it to provide a redundancy mechanism. When VRRP is the master router, the operational group is up and the operational group is down for all other VRRP states. |
| Reference | **configure** service oper-group *named-item* |
| Introduced | 22.2.R1 |
| Platforms | All |

## **ntp-reply** *boolean*

| | |
|---|---|
| Synopsis | Allow processing of NTP requests |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 vrrp *number* ntp-reply *boolean* |
| Tree | ntp-reply |
| Description | When configured to **true**, the router redirects NTP requests to the VRRP virtual IP address. This behavior only applies to the router acting as the master VRRP router.<br>When configured to **false**, the router does not process NTP requests. |
| Default | false |
| Introduced | 20.2.R1 |
| Platforms | All |

## **oper-group** *reference*

| | |
|---|---|
| Synopsis | Operational group name associated with the VRRP |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 vrrp *number* oper-group *reference* |
| Tree | oper-group |


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| | |
|---|---|
| Description | This command configures an operational group to associate with the VRRP. When associated, VRRP notifies the operational group of its state changes so that other protocols can monitor it to provide a redundancy mechanism. When VRRP is the master router (MR), the operational group is up. The operational group is down for all other VRRP states. |
| Reference | **configure** service oper-group *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **owner** *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Designate the virtual router instance as owner |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 vrrp *number* owner *boolean* |
| Tree | owner |
| Description | When configured to **true**, the router designates this virtual router instance as the owner of the virtual router IP addresses. Therefore, this virtual router becomes responsible for forwarding packets sent to the virtual router IP addresses. The owner also assumes the role of master virtual router.<br>When configured to **false**, this virtual router instance is designated as a non-owner. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **passive** *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Suppress the processing of VRRP advertisement messages |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 vrrp *number* passive *boolean* |
| Tree | passive |
| Description | When configured to **true**, the router identifies this virtual router instance as passive; and therefore the owner of the virtual router IP addresses. A passive virtual router instance |


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does not transmit or receive VRRP advertisement messages and is always in either the master state (if the interface is operationally up) or the init state (if the interface is operationally down).

When configured to **false**, this virtual router instance is not identified as passive, meaning that it transmits and receives VRRP advertisement messages.

Default false

Introduced 16.0.R1

Platforms All

## **ping-reply** *boolean*

Synopsis Allow non-owner master to reply to ICMP echo requests

Context **configure** service ies *service-name* interface *interface-name* ipv4 vrrp *number* ping-reply *boolean*

Tree ping-reply

Description When configured to **true**, the router allows the non-owner master to reply to ICMP echo requests directed at the IP addresses of the virtual router instance. Any routed interface can receive the ping request. Ping must not have been disabled at the management security level (either on the parental IP interface or on the Ping source host address).

When configured to **false**, ICMP echo requests sent to non-owner master virtual IP addresses are silently discarded.

Non-owner backup virtual routers never respond to ICMP echo requests, regardless of the configuration of this command.

Default false

Introduced 16.0.R1

Platforms All

## **policy** *reference*

Synopsis VRRP priority control policy

Context **configure** service ies *service-name* interface *interface-name* ipv4 vrrp *number* policy *reference*

Tree policy

Description This command configures a VRRP priority control policy to associate with the virtual router instance.

VRRP priority control policies can override or adjust the base priority value of the virtual router instance, depending on events or conditions within the chassis.

An operator can associate a policy with more than one virtual router instance. The priority events within the policy either override or diminish the base priority set with


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the **priority** command. As priority events clear in the policy, the in-use priority can eventually be restored to the base priority value.

For non-owner virtual router instances, if this command is not executed, the base priority is used as the in-use priority.

Reference **configure** vrrp policy *number*

Introduced 16.0.R1

Platforms All

## **preempt** *boolean*

Synopsis Allow the VRRP to override an existing non-owner master

Context **configure** service ies *service-name* interface *interface-name* ipv4 vrrp *number* preempt *boolean*

Tree preempt

Description When configured to **true**, this virtual router instance overrides any non-owner master with an in-use message priority value less than the in-use priority value of this virtual router.

When configured to **false**, this virtual router only becomes master if the master down timer expires before a VRRP advertisement message is received from another virtual router.

Default true

Introduced 16.0.R1

Platforms All

## **priority** *number*

Synopsis Base priority for the VRRP

Context **configure** service ies *service-name* interface *interface-name* ipv4 vrrp *number* priority *number*

Tree priority

Description This command configures the base router priority for the virtual router instance, which defines the selection order of the virtual router in the master election process.

The in-use priority is derived from the base priority. However, the in-use priority is modified by optional VRRP priority control policies. An operator can use VRRP priority control policies to either override or adjust the base priority value depending on events or conditions within the chassis.

Range 1 to 255

Introduced 16.0.R1


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| | |
|---|---|
| Platforms | All |

### **ssh-reply** *boolean*

| | |
|---|---|
| Synopsis | Allow the non-owner master to reply to SSH requests |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 vrrp *number* ssh-reply *boolean* |
| Tree | ssh-reply |
| Description | When configured to **true**, the router allows the non-owner master to reply to SSH requests directed at the IP addresses of the virtual router instance. Any routed interface can receive the SSH request. SSH cannot be disabled at the management security level (either on the parental IP interface or on the SSH source host address).<br>When configure to **false**, SSH requests to non-owner master virtual IP addresses are silently discarded. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **standby-forwarding** *boolean*

| | |
|---|---|
| Synopsis | Allow standby router to forward traffic |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 vrrp *number* standby-forwarding *boolean* |
| Tree | standby-forwarding |
| Description | When configured to **true**, the standby router forwards all traffic.<br>When configured to **false**, the standby router cannot forward traffic sent to the MAC address of the virtual router. However, the standby router still forwards traffic sent to its own MAC address. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **telnet-reply** *boolean*

| | |
|---|---|
| Synopsis | Allow non-owner master to reply to Telnet requests |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 vrrp *number* telnet-reply *boolean* |
| Tree | telnet-reply |


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| | |
|---|---|
| Description | When configured to **true**, the router allows the non-owner master to reply to Telnet requests directed at the IP addresses of the virtual router instance. Any routed interface can receive Telnet requests. Telnet cannot be disabled at the management security level (either on the parental IP interface or on the Telnet source host address).<br>When configured to **false**, the router silently discards Telnet requests sent to non-owner master virtual IP addresses. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **traceroute-reply** *boolean*

| | |
|---|---|
| Synopsis | Allow non-owner master to reply to traceroute requests |
| Context | **configure** service ies *service-name* interface *interface-name* ipv4 vrrp *number* traceroute-reply *boolean* |
| Tree | traceroute-reply |
| Description | When configured to **true**, the router allows a non-owner master to reply to traceroute requests directed to the IP addresses of the virtual router instance.<br>When configured to **false**, the router silently discards traceroute requests sent to non-owner master virtual IP addresses.<br>Traceroute must not have been disabled at the management security level (either on the parental IP interface or the source host address). |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv6**

| | |
|---|---|
| Synopsis | Enable the **ipv6** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 |
| Tree | ipv6 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **address** [ipv6-address] *ipv6-address*

| | |
|---|---|
| Synopsis | Enter the **address** list instance |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 address *ipv6-address* |


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| | |
|---|---|
| Tree | address |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ipv6-address**] *ipv6-address*

| | |
|---|---|
| Synopsis | IPv6 address assigned to the interface |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 address *ipv6-address* |
| Tree | address |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **duplicate-address-detection** *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable Duplicate Address Detection |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 address *ipv6-address* duplicate-address-detection *boolean* |
| Tree | duplicate-address-detection |
| Description | When configured to **true**, the router enables Duplicate Address Detection (DAD).<br>When configured to **false**, the router disables DAD and sets the address to preferred, even if there is a duplicated address. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **eui-64** *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Form IPv6 address from prefix and 64-bit interface ID |


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| | |
|---|---|
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 address *ipv6-address* eui-64 *boolean* |
| Tree | eui-64 |
| Description | When configured to **true**, the router forms a complete IPv6 address from the supplied prefix and 64-bit interface identifier. The 64-bit interface identifier is derived from the MAC address on Ethernet interfaces. For interfaces without a MAC address, for example POS interfaces, use the base MAC address of the chassis. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **prefix-length** *number*

| | |
|---|---|
| Synopsis | IPv6 address prefix length |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 address *ipv6-address* prefix-length *number* |
| Tree | prefix-length |
| Range | 4 to 128 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **primary-preference** *number*

| | |
|---|---|
| Synopsis | Index assigned to the IPv6 address of the interface |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 address *ipv6-address* primary-preference *number* |
| Tree | primary-preference |
| Description | This command assigns a primary preference index to an IPv6 address of the interface to enforce the order in which the address is used by control plane protocols and applications that require a fixed address of the interface, such as LDP and Segment Routing. In cases where a fixed address is required when originating packets from the interface, the IPv6 address with the lowest primary preference index is selected. If the selected address is removed, the next IPv6 address with the next lowest primary preference index is selected.<br><br>If this index is not specified for the IPv6 address, the system assigns the next available index value to the address. The address index space is unique across all addresses of a given interface. |
| Range | 1 to 4294967295 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **track-srrp** *number*

| | |
|---|---|
| Synopsis | SRRP ID whose state is tracked on this IP address |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 address *ipv6-address* track-srrp *number* |
| Tree | track-srrp |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bfd**

| | |
|---|---|
| Synopsis | Enter the **bfd** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 bfd |
| Tree | bfd |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of BFD sessions |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 bfd admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **echo-receive** *number*

| | |
|---|---|
| Synopsis | Minimum echo interval over this interface |


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| | |
|---|---|
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 bfd echo-receive *number* |
| Tree | echo-receive |
| Range | 100 to 100000 |
| Units | milliseconds |
| Introduced | 16.0.R1 |
| Platforms | All |

## **multiplier** *number*

| | |
|---|---|
| Synopsis | Number of consecutive BFD messages missed from the peer |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 bfd multiplier *number* |
| Tree | multiplier |
| Description | This command configures the number of missed messages before the BFD session state is changed to down and the upper-level protocol is notified of the fault. A multiplier of less than 3 should not be used in production environments. |
| Range | 1 to 20 |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **receive** *number*

| | |
|---|---|
| Synopsis | BFD receive interval over this interface |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 bfd receive *number* |
| Tree | receive |
| Description | This command specifies the receive interval for the BFD session.<br>On the 7750 SR, this command can only be configured to a value less than 100 when the **type** command is configured to **cpm-np**. |
| Range | 10 to 100000 |
| Units | milliseconds |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **transmit-interval** *number*

| | |
|---|---|
| Synopsis | BFD transmit interval over this interface |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 bfd transmit-interval *number* |
| Tree | transmit-interval |
| Description | This command configures the transmit intervals.<br>On the 7750 SR, this command can only be configured to a value less than 100 when the **type** command is configured to **cpm-np**. |
| Range | 10 to 100000 |
| Units | milliseconds |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **type** *keyword*

| | |
|---|---|
| Synopsis | Local termination point for the BFD session |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 bfd type *keyword* |
| Tree | type |
| Description | This command sets the local termination point for the BFD session to allow for fast timers down to 10 ms granularity.<br>The options to specify where the BFD session runs are:<br>• **auto** (default) – the system chooses and uses the line card CPU only for single-hop BFD sessions with timer intervals equal to or greater than 100ms. All others are placed on the **cpm-np**.<br>• **cpm-np** – BFD session runs on the FP complex associated with the CPM. This is either the FP on the CPM or the one elected on smaller systems.<br>• **fp** – BFD session runs on the line card CPU. This option can only be used for single-hop BFD sessions with timers equal to or greater than 100ms. |
| Options | cpm-np, auto, fp |
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### dhcp6

| | |
|---|---|
| Synopsis | Enter the **dhcp6** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 dhcp6 |
| Tree | dhcp6 |
| Introduced | 16.0.R1 |
| Platforms | All |

### relay

| | |
|---|---|
| Synopsis | Enter the **relay** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 dhcp6 relay |
| Tree | relay |
| Introduced | 16.0.R1 |
| Platforms | All |

### admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of DHCPv6 Relay |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 dhcp6 relay admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### description *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 dhcp6 relay description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### lease-populate

| | |
|---|---|
| Synopsis | Enter the **lease-populate** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 dhcp6 relay lease-populate |
| Tree | lease-populate |
| Introduced | 16.0.R1 |
| Platforms | All |

### max-nbr-of-leases *number*

| | |
|---|---|
| Synopsis | Maximum lease state entries allowed for the interface |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 dhcp6 relay lease-populate max-nbr-of-leases *number* |
| Tree | max-nbr-of-leases |
| Range | 0 to 32767 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### route-populate

| | |
|---|---|
| Synopsis | Enter the **route-populate** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 dhcp6 relay lease-populate route-populate |
| Tree | route-populate |
| Introduced | 16.0.R1 |
| Platforms | All |

### na *boolean*

| | |
|---|---|
| Synopsis | Create route based on IA_NA prefix option in relay-reply message |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 dhcp6 relay lease-populate route-populate na *boolean* |
| Tree | na |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### pd

| | |
|---|---|
| Synopsis | Enable the **pd** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 dhcp6 relay lease-populate route-populate pd |
| Tree | pd |
| Introduced | 16.0.R1 |
| Platforms | All |

### exclude *boolean*

| | |
|---|---|
| Synopsis | Create back hole route based on prefix exclude option in relay-reply message |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 dhcp6 relay lease-populate route-populate pd exclude *boolean* |
| Tree | exclude |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### ta *boolean*

| | |
|---|---|
| Synopsis | Create route based on IA_TA prefix option in relay-reply message |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 dhcp6 relay lease-populate route-populate ta *boolean* |
| Tree | ta |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### link-address *ipv6-address*

| | |
|---|---|
| Synopsis | Link address of the DHCPv6 relay messages |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 dhcp6 relay link-address *ipv6-address* |


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| | |
|---|---|
| Tree | link-address |
| Introduced | 16.0.R1 |
| Platforms | All |

### neighbor-resolution *boolean*

| | |
|---|---|
| Synopsis | Enable neighbor resolution via DHCPv6 relay |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 dhcp6 relay neighbor-resolution *boolean* |
| Tree | neighbor-resolution |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### option

| | |
|---|---|
| Synopsis | Enter the **option** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 dhcp6 relay option |
| Tree | option |
| Introduced | 16.0.R1 |
| Platforms | All |

### interface-id

| | |
|---|---|
| Synopsis | Enter the **interface-id** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 dhcp6 relay option interface-id |
| Tree | interface-id |
| Introduced | 16.0.R1 |
| Platforms | All |

### ascii-tuple

| | |
|---|---|
| Synopsis | Use ASCII-encoded concatenated tuple |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 dhcp6 relay option interface-id ascii-tuple |


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| | |
|---|---|
| Tree | ascii-tuple |
| Notes | The following elements are part of a choice: **ascii-tuple**, **if-index**, **sap-id**, or **string**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## if-index

| | |
|---|---|
| Synopsis | Use interface index in the DHCPv6 relay packet |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 dhcp6 relay option interface-id if-index |
| Tree | if-index |
| Notes | The following elements are part of a choice: **ascii-tuple**, **if-index**, **sap-id**, or **string**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## sap-id

| | |
|---|---|
| Synopsis | Use SAP ID in interface ID option in relay packet |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 dhcp6 relay option interface-id sap-id |
| Tree | sap-id |
| Notes | The following elements are part of a choice: **ascii-tuple**, **if-index**, **sap-id**, or **string**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **string** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | String for interface ID option in DHCPv6 relay packet |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 dhcp6 relay option interface-id string *string-not-all-spaces* |
| Tree | string |
| String length | 1 to 80 |
| Notes | The following elements are part of a choice: **ascii-tuple**, **if-index**, **sap-id**, or **string**. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **remote-id** *boolean*

| | |
|---|---|
| Synopsis | Send remote ID option in the DHCPv6 relay packet |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 dhcp6 relay option remote-id *boolean* |
| Tree | remote-id |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **python-policy** *reference*

| | |
|---|---|
| Synopsis | Python policy name |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 dhcp6 relay python-policy *reference* |
| Tree | python-policy |
| Reference | **configure** python python-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **server** *ipv6-address-with-zone*

| | |
|---|---|
| Synopsis | DHCPv6 server to which the DHCPv6 requests are forwarded |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 dhcp6 relay server *ipv6-address-with-zone* |
| Tree | server |
| Max. instances | 8 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **source-address** *ipv6-unicast-or-linklocal-address*

| | |
|---|---|
| Synopsis | Source IPv6 address of the DHCPv6 relay messages |


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| | |
|---|---|
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 dhcp6 relay source-address *ipv6-unicast-or-linklocal-address* |
| Tree | source-address |
| Introduced | 16.0.R1 |
| Platforms | All |

## **user-db** *reference*

| | |
|---|---|
| Synopsis | Local user database for authentication |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 dhcp6 relay user-db *reference* |
| Tree | user-db |
| Reference | **configure** subscriber-mgmt local-user-db *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **server**

| | |
|---|---|
| Synopsis | Enter the **server** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 dhcp6 server |
| Tree | server |
| Introduced | 16.0.R1 |
| Platforms | All |

## **max-nbr-of-leases** *number*

| | |
|---|---|
| Synopsis | DHCPv6 leases allowed |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 dhcp6 server max-nbr-of-leases *number* |
| Tree | max-nbr-of-leases |
| Range | 0 to 8000 |
| Default | 8000 |
| Introduced | 16.0.R1 |
| Platforms | All |


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## prefix-delegation

| | |
|---|---|
| Synopsis | Enter the **prefix-delegation** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 dhcp6 server prefix-delegation |
| Tree | prefix-delegation |
| Description | Commands in this context configure the options for delegating a long-lived prefix from a delegating router to a requesting router, where the delegating router does not require knowledge about the link topology in the network to which the prefixes are assigned. |
| Introduced | 16.0.R1 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the prefix delegation |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 dhcp6 server prefix-delegation admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

## prefix [ipv6-prefix] *ipv6-prefix*

| | |
|---|---|
| Synopsis | Enter the **prefix** list instance |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 dhcp6 server prefix-delegation prefix *ipv6-prefix* |
| Tree | prefix |
| Description | Commands in this context configure the IPv6 prefix that is delegated by the system. |
| Introduced | 16.0.R1 |
| Platforms | All |

## [ipv6-prefix] *ipv6-prefix*

| | |
|---|---|
| Synopsis | IPv6 address and prefix |


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| | |
|---|---|
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 dhcp6 server prefix-delegation prefix *ipv6-prefix* |
| Tree | prefix |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## client-id

| | |
|---|---|
| Synopsis | Enter the **client-id** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 dhcp6 server prefix-delegation prefix *ipv6-prefix* client-id |
| Tree | client-id |
| Introduced | 16.0.R1 |
| Platforms | All |

## duid *string*

| | |
|---|---|
| Synopsis | Requesting router ID |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 dhcp6 server prefix-delegation prefix *ipv6-prefix* client-id duid *string* |
| Tree | duid |
| String length | 1 to 130 |
| Introduced | 16.0.R1 |
| Platforms | All |

## iaid *number*

| | |
|---|---|
| Synopsis | IAID from the requesting router to match |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 dhcp6 server prefix-delegation prefix *ipv6-prefix* client-id iaid *number* |
| Tree | iaid |
| Description | This command configures the Identity Association ID (IAID) associated with a prefix delegation entry and must match the IAID sent by the requesting router for the prefix delegation to succeed. |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **preferred-lifetime** *(number | keyword)*

| | |
|---|---|
| Synopsis | Preferred lifetime of the prefix |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 dhcp6 server prefix-delegation prefix *ipv6-prefix* preferred-lifetime *(number \| keyword)* |
| Tree | preferred-lifetime |
| Description | This command configures the preferred lifetime of the prefix. The value cannot be greater than the valid lifetime value. |
| Range | 1 to 4294967294 |
| Units | seconds |
| Options | infinite |
| Default | 604800 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **valid-lifetime** *(number | keyword)*

| | |
|---|---|
| Synopsis | Valid lifetime of the prefix |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 dhcp6 server prefix-delegation prefix *ipv6-prefix* valid-lifetime *(number \| keyword)* |
| Tree | valid-lifetime |
| Range | 1 to 4294967294 |
| Units | seconds |
| Options | infinite |
| Default | 2592000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **duplicate-address-detection** *boolean*

| | |
|---|---|
| Synopsis | Enable Duplicate Address Detection per interface |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 duplicate-address-detection *boolean* |
| Tree | duplicate-address-detection |


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| | |
|---|---|
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **forward-ipv4-packets** *boolean*

| | |
|---|---|
| Synopsis | Forward unencapsulated IPv4 packets |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 forward-ipv4-packets *boolean* |
| Tree | forward-ipv4-packets |
| Default | false |
| Introduced | 19.5.R1 |
| Platforms | All |

### **icmp6**

| | |
|---|---|
| Synopsis | Enter the **icmp6** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 icmp6 |
| Tree | icmp6 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **packet-too-big**

| | |
|---|---|
| Synopsis | Enter the **packet-too-big** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 icmp6 packet-too-big |
| Tree | packet-too-big |
| Description | Commands in this context configure limiting the number of ICMPv6 Packet Too Big messages. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of Packet Too Big message sends |


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| | |
|---|---|
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 icmp6 packet-too-big admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **number** *number*

| | |
|---|---|
| Synopsis | Number of Packet Too big Messages issued per time frame |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 icmp6 packet-too-big number *number* |
| Tree | number |
| Range | 10 to 1000 |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **seconds** *number*

| | |
|---|---|
| Synopsis | Time used to limit Packet Too Big messages |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 icmp6 packet-too-big seconds *number* |
| Tree | seconds |
| Range | 1 to 60 |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **param-problem**

| | |
|---|---|
| Synopsis | Enter the **param-problem** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 icmp6 param-problem |
| Tree | param-problem |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of Parameter Problem message sends |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 icmp6 param-problem admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **number** *number*

| | |
|---|---|
| Synopsis | Number used to limit ICMPv6 Parameter Problem messages |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 icmp6 param-problem number *number* |
| Tree | number |
| Range | 10 to 1000 |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **seconds** *number*

| | |
|---|---|
| Synopsis | Time used to limit ICMPv6 Parameter Problem messages |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 icmp6 param-problem seconds *number* |
| Tree | seconds |
| Range | 1 to 60 |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### redirects

| | |
|---|---|
| Synopsis | Enter the **redirects** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 icmp6 redirects |
| Tree | redirects |
| Introduced | 16.0.R1 |
| Platforms | All |

### admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of Redirect message sends |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 icmp6 redirects admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### number *number*

| | |
|---|---|
| Synopsis | Number to limit ICMPv6 Redirect messages per time frame |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 icmp6 redirects number *number* |
| Tree | number |
| Range | 10 to 1000 |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### seconds *number*

| | |
|---|---|
| Synopsis | Time used to limit ICMPv6 Redirect messages |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 icmp6 redirects seconds *number* |
| Tree | seconds |


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| | |
|---|---|
| Range | 1 to 60 |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

## time-exceeded

| | |
|---|---|
| Synopsis | Enter the **time-exceeded** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 icmp6 time-exceeded |
| Tree | time-exceeded |
| Introduced | 16.0.R1 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of Time Exceeded message sends |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 icmp6 time-exceeded admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

## number *number*

| | |
|---|---|
| Synopsis | Number to limit Time Exceeded messages per time frame |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 icmp6 time-exceeded number *number* |
| Tree | number |
| Range | 10 to 2000 |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **seconds** *number*

| | |
|---|---|
| Synopsis | Time used to limit ICMPv6 Time Exceeded messages |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 icmp6 time-exceeded seconds *number* |
| Tree | seconds |
| Range | 1 to 60 |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **unreachables**

| | |
|---|---|
| Synopsis | Enter the **unreachables** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 icmp6 unreachables |
| Tree | unreachables |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of Unreachable message sends |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 icmp6 unreachables admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **number** *number*

| | |
|---|---|
| Synopsis | Number to limit Unreachable messages per time frame |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 icmp6 unreachables number *number* |
| Tree | number |


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| | |
|---|---|
| Range | 10 to 2000 |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **seconds** *number*

| | |
|---|---|
| Synopsis | Time used to limit ICMPv6 Unreachable messages |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 icmp6 unreachables seconds *number* |
| Tree | seconds |
| Range | 1 to 60 |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **link-local-address**

| | |
|---|---|
| Synopsis | Enter the **link-local-address** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 link-local-address |
| Tree | link-local-address |
| Introduced | 16.0.R1 |
| Platforms | All |

### **address** *ipv6-address*

| | |
|---|---|
| Synopsis | IPv6 link-local address |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 link-local-address address *ipv6-address* |
| Tree | address |
| Introduced | 16.0.R1 |
| Platforms | All |

### **duplicate-address-detection** *boolean*

| | |
|---|---|
| Synopsis | Enable Duplicate Address Detection |


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| | |
|---|---|
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 link-local-address duplicate-address-detection *boolean* |
| Tree | duplicate-address-detection |
| Description | When configured to **true**, the router enables Duplicate Address Detection (DAD) on the interface.<br>When configured to **false**, the router disables DAD and sets the address to preferred, even if there is a duplicated address. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

## **local-dhcp-server** *reference*

| | |
|---|---|
| Synopsis | DHCP server for the interface |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 local-dhcp-server *reference* |
| Tree | local-dhcp-server |
| Reference | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **neighbor-discovery**

| | |
|---|---|
| Synopsis | Enter the **neighbor-discovery** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 neighbor-discovery |
| Tree | neighbor-discovery |
| Introduced | 16.0.R1 |
| Platforms | All |

## **host-route**

| | |
|---|---|
| Synopsis | Enter the **host-route** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 neighbor-discovery host-route |
| Tree | host-route |
| Introduced | 20.2.R1 |


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| | |
|---|---|
| Platforms | All |

## **populate** [route-type] *keyword*

| | |
|---|---|
| Synopsis | Enter the **populate** list instance |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 neighbor-discovery host-route populate *keyword* |
| Tree | populate |
| Introduced | 20.2.R1 |
| Platforms | All |

## [**route-type**] *keyword*

| | |
|---|---|
| Synopsis | Type of ARP or ND entries that generate host routes |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 neighbor-discovery host-route populate *keyword* |
| Tree | populate |
| Options | static, dynamic, evpn |
| Notes | This element is part of a list key. |
| Introduced | 20.2.R1 |
| Platforms | All |

## **route-tag** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Tag value used with the host route from an ARP/ND entry |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 neighbor-discovery host-route populate *keyword* route-tag *number* |
| Tree | route-tag |
| Description | This command specifies the route tag that is added in the route table for ARP or ND host routes. This tag can be matched on BGP VRF export and BGP peer export policies. |
| Range | 1 to 255 |
| Introduced | 20.2.R1 |
| Platforms | All |


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### **learn-unsolicited** *keyword*

| | |
|---|---|
| Synopsis | Type of entries learned from unsolicited NA messages |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 neighbor-discovery learn-unsolicited *keyword* |
| Tree | learn-unsolicited |
| Description | This command enables the ability to learn neighbor entries out of received unsolicited Neighbor Advertisement (NA) messages, with or without the solicited flag set.<br>When unconfigured, the router follows standard RFC 4861 behavior for learning of neighbor entries. The neighbor is put in the stale state. This is the standard RFC behavior. |
| Options | global, link-local, both |
| Introduced | 16.0.R1 |
| Platforms | All |

### **limit**

| | |
|---|---|
| Synopsis | Enter the **limit** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 neighbor-discovery limit |
| Tree | limit |
| Introduced | 16.0.R1 |
| Platforms | All |

### **log-only** *boolean*

| | |
|---|---|
| Synopsis | Generate log entries when limit is reached |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 neighbor-discovery limit log-only *boolean* |
| Tree | log-only |
| Description | When configured to **true**, the router sends the warning message at the specified threshold percentage or upon exceeding the specified limit. Entries that exceed the limit are learned.<br>When configured to **false**, the router does not send the warning message. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **max-entries** *number*

| | |
|---|---|
| Synopsis | Maximum number of entries learned on an IP interface |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 neighbor-discovery limit max-entries *number* |
| Tree | max-entries |
| Description | This command configures the maximum number of entries that can be learned on an IP interface.<br>When unconfigured, no maximum limit is imposed. |
| Range | 0 to 102400 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **threshold** *number*

| | |
|---|---|
| Synopsis | Threshold percentage that triggers a warning message |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 neighbor-discovery limit threshold *number* |
| Tree | threshold |
| Range | 1 to 100 |
| Units | percent |
| Default | 90 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **local-proxy-nd** *boolean*

| | |
|---|---|
| Synopsis | Enable local proxy neighbor discovery on the interface |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 neighbor-discovery local-proxy-nd *boolean* |
| Tree | local-proxy-nd |
| Description | When configured to **true**, the router enables local proxy neighbor discovery on the interface and replies to neighbor solicitation requests when both the hosts are on the same subnet. In this case, ICMP redirects are disabled.<br>When configured to **false**, the router disables local proxy neighbor discovery on the interface and does not reply to neighbor solicitation requests if both the hosts are on the same subnet. |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **proactive-refresh** *keyword*

| | |
|---|---|
| Synopsis | Proactive refresh of neighbor entries |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 neighbor-discovery proactive-refresh *keyword* |
| Tree | proactive-refresh |
| Description | This command enables a proactive refresh of the neighbor entries. After the stale timer expires, the router sends an NUD message to the host (regardless of the existence of traffic to the IP address on the IOM), so the entry can be refreshed or removed. |
| Options | global, link-local, both |
| Introduced | 16.0.R1 |
| Platforms | All |

## **proxy-nd-policy** *reference*

| | |
|---|---|
| Synopsis | Proxy Neighbor Discovery policy name for the interface |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 neighbor-discovery proxy-nd-policy *reference* |
| Tree | proxy-nd-policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **reachable-time** *number*

| | |
|---|---|
| Synopsis | Neighbor reachability detection timer |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 neighbor-discovery reachable-time *number* |
| Tree | reachable-time |
| Range | 30 to 3600 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## secure-nd

| | |
|---|---|
| Synopsis | Enter the **secure-nd** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 neighbor-discovery secure-nd |
| Tree | secure-nd |
| Introduced | 16.0.R1 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of Secure Neighbor Discovery |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 neighbor-discovery secure-nd admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

## allow-unsecured-msgs *boolean*

| | |
|---|---|
| Synopsis | Accept unsecured messages |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 neighbor-discovery secure-nd allow-unsecured-msgs *boolean* |
| Tree | allow-unsecured-msgs |
| Description | When configured to **true**, the router accepts unsecured messages. When Secure Neighbor Discovery (SeND) is enabled, only secure messages are accepted.<br>When configured to **false**, the router disables the acceptance of unsecured messages. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **public-key-min-bits** *number*

| | |
|---|---|
| Synopsis | Minimum acceptable key length for public keys in CGA |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 neighbor-discovery secure-nd public-key-min-bits *number* |
| Tree | public-key-min-bits |
| Range | 512 to 1024 |
| Default | 1024 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **security-parameter** *number*

| | |
|---|---|
| Synopsis | Security parameter used in the generation of a CGA |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 neighbor-discovery secure-nd security-parameter *number* |
| Tree | security-parameter |
| Range | 0 to 1 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **stale-time** *number*

| | |
|---|---|
| Synopsis | Time a Neighbor Discovery cache entry remains stale |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 neighbor-discovery stale-time *number* |
| Tree | stale-time |
| Range | 60 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **static-neighbor** [ipv6-address] *ipv6-address*

| | |
|---|---|
| Synopsis | Enter the **static-neighbor** list instance |


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| | |
|---|---|
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 neighbor-discovery static-neighbor *ipv6-address* |
| Tree | static-neighbor |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ipv6-address**] *ipv6-address*

| | |
|---|---|
| Synopsis | IPv6 address corresponding to the physical address |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 neighbor-discovery static-neighbor *ipv6-address* |
| Tree | static-neighbor |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mac-address** *mac-address*

| | |
|---|---|
| Synopsis | MAC address for the static neighbor |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 neighbor-discovery static-neighbor *ipv6-address* mac-address *mac-address* |
| Tree | mac-address |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **qos-route-lookup** *keyword*

| | |
|---|---|
| Synopsis | IP address for QoS route lookup for ingress IP packets |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 qos-route-lookup *keyword* |
| Tree | qos-route-lookup |
| Description | This command specifies the IP address type used for QPPB enabled per-packet QoS handling (in terms of FC and priority). When using QPPB, routes are associated with a QoS treatment (FC and optionally priority) through either explicit configuration or the route policy. If an IPv4 or IPv6 packet arrives on an interface where the configuration of this command applies to the packet, the QoS treatment of the packet is based on the |


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route that matched the destination IP address or the route that matched the source IP address.

See "Enabling QPPB on an IP interface" in the *7450 ESS, 7750 SR, 7950 XRS, and VSR Router Configuration Guide* for more information about QPPB.

| | |
|---|---|
| Options | destination, source, source-and-dest |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **tcp-mss** *number*

| | |
|---|---|
| Synopsis | TCP maximum segment size for the interface |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 tcp-mss *number* |
| Tree | tcp-mss |
| Range | 1220 to 9726 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **urpf-check**

| | |
|---|---|
| Synopsis | Enable the **urpf-check** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 urpf-check |
| Tree | urpf-check |
| Introduced | 16.0.R1 |
| Platforms | All |

## **ignore-default** *boolean*

| | |
|---|---|
| Synopsis | Ignore default route when performing a uRPF check |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 urpf-check ignore-default *boolean* |
| Tree | ignore-default |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **mode** *keyword*

| | |
|---|---|
| Synopsis | Unicast RPF check mode |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 urpf-check mode *keyword* |
| Tree | mode |
| Options | strict, loose, strict-no-ecmp |
| Default | strict |
| Introduced | 16.0.R1 |
| Platforms | All |

### **vrrp** [virtual-router-id] *number*

| | |
|---|---|
| Synopsis | Enter the **vrrp** list instance |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 vrrp *number* |
| Tree | vrrp |
| Max. instances | 4 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**virtual-router-id**] *number*

| | |
|---|---|
| Synopsis | Virtual Router Identifier (VRID) for the IP interface |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 vrrp *number* |
| Tree | vrrp |
| Range | 1 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of VRRP |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 vrrp *number* admin-state *keyword* |


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| | |
|---|---|
| Tree | admin-state |
| Description | The command determines the administrative state of non-owner virtual router instances.<br><br>Non-owner virtual router instances can be administratively disabled. This allows the termination of VRRP participation in the virtual router and stops all routing and other access capabilities with regards to the virtual router IP addresses. Disabling the virtual router instance provides a mechanism to maintain the virtual routers without causing false backup or master state changes.<br><br>When **disabled**, no VRRP advertisement messages are generated and all received VRRP advertisement messages are silently discarded with no processing.<br><br>Whenever the administrative or operational state of a virtual router instance transitions, a log message is generated.<br><br>An owner virtual router context does not use this command. To administratively disable an owner virtual router instance, use the **admin-state** command within the parent IP interface node which administratively disables the IP interface. |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

## **backup** *ipv6-address*

| | |
|---|---|
| Synopsis | Virtual router IP addresses for the interface |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 vrrp *number* backup *ipv6-address* |
| Tree | backup |
| Description | This command associates router IPv6 virtual router IP addresses with those of the parental IP interface.<br><br>This command has two different functions based on whether it is being executed on an owner or non-owner virtual router instance.<br><br>Non-owner virtual router instance create a routable IP interface address that is operationally dependent on the virtual router instance mode (master or backup). This command, when executed on an owner virtual router instance, does not create a routable IP interface address; it simply defines the existing IP addresses of the parental IP interface that are advertised by the virtual router instance.<br><br>For owner virtual router instances, this command defines the IP addresses that are advertised within VRRP advertisement messages. This communicates the IP addresses that the master is representing to backup virtual routers receiving the messages. The specified IPv6 address must be equal to one of the existing parental IP addresses in the parental IP interface (primary or secondary) or this command fails.<br><br>See "Owner and non-owner VRRP" in the *7450 ESS, 7750 SR, 7950 XRS, and VSR Router Configuration Guide* for more information about owner and non-owner virtual router instances. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## bfd-liveness

| | |
|---|---|
| Synopsis | Enable the **bfd-liveness** context |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 vrrp *number* bfd-liveness |
| Tree | bfd-liveness |
| Introduced | 16.0.R1 |
| Platforms | All |

## dest-ip *(ipv4-address-no-zone | ipv6-address-no-zone)*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Destination address for the BFD session |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 vrrp *number* bfd-liveness dest-ip *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | dest-ip |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## interface-name *interface-name*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Name of the interface running BFD |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 vrrp *number* bfd-liveness interface-name *interface-name* |
| Tree | interface-name |
| String length | 1 to 32 |


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| | |
|---|---|
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **service-name** *service-name*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Administrative service name |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 vrrp *number* bfd-liveness service-name *service-name* |
| Tree | service-name |
| String length | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **init-delay** *number*

| | |
|---|---|
| Synopsis | VRRP initialization delay timer |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 vrrp *number* init-delay *number* |
| Tree | init-delay |
| Range | 1 to 65535 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mac** *mac-unicast-address*

| | |
|---|---|
| Synopsis | Virtual MAC address to use in ARP responses |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 vrrp *number* mac *mac-unicast-address* |
| Tree | mac |
| Description | This command sets an explicit MAC address for the virtual router instance that overrides the VRRP default derived from the VRID. |


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Changing the default MAC address is useful when an existing HSRP or other non-VRRP default MAC is in use by the IP hosts that use the virtual router IP address. Many hosts do not monitor unessential ARPs and continue to use the cached non-VRRP MAC address after the virtual router becomes master of the host's gateway address.

Additionally, this command sets the MAC address used in ARP responses when the virtual router instance is master. Routing of IP packets with *unicast-mac-address* as the destination MAC is also enabled. The MAC must be the same for all virtual routers participating as a virtual router or indeterminate connectivity by the attached IP hosts results. All VRRP advertisement messages are transmitted with *unicast-mac-address* as the source MAC.

An operator can execute this command at any time and it takes effect immediately. When the virtual router MAC on a master virtual router instance changes, a gratuitous ARP is immediately sent with a VRRP advertisement message. If the virtual router instance is disabled or operating as a backup, the gratuitous ARP and VRRP advertisement messages are not sent.

Introduced 16.0.R1

Platforms All

## **master-int-inherit** *boolean*

Synopsis Allow master instance to dictate the master down timer

Context **configure** service ies *service-name* interface *interface-name* ipv6 vrrp *number* master-int-inherit *boolean*

Tree master-int-inherit

Description When configured to **true**, the virtual router instance inherits the advertisement interval timer of the master VRRP router, which backup routers use to calculate the master down timer.

When configured to **false**, the locally configured message interval must match the master's VRRP advertisement message advertisement interval field value or the message is discarded.

Introduced 16.0.R1

Platforms All

## **message-interval** *number*

Synopsis Interval for sending VRRP advertisement messages

Context **configure** service ies *service-name* interface *interface-name* ipv6 vrrp *number* message-interval *number*

Tree message-interval

Description This command configures the administrative advertisement message timer used by the master virtual router instance to send VRRP advertisement messages. The backup master down timer is derived from the value configured using this command.


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The use of this command varies for non-owner virtual router instances, depending on the state of the virtual router (master or backup) and the state of the **master-int-inherit** command:

- When a non-owner is operating as master for the virtual router, the system uses the configured value of this command as the operational advertisement timer, similar to an owner virtual router instance. The **master-int-inherit** command has no effect when operating as the master.
- When a non-owner is in the backup state with **master-int-inherit** disabled, the system uses the configured value of this command to match the incoming advertisement interval field of the VRRP advertisement message. If the locally configured message interval does not match the advertisement interval field, the system discards the VRRP advertisement.
- When a non-owner is in the backup state with **master-int-inherit** enabled, the configured value of this command is ignored. The master down timer is indirectly derived from the advertisement interval field value of the incoming VRRP advertisement message.

| | |
|---|---|
| Range | 10 to 4095 |
| Units | centiseconds |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **monitor-oper-group** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | VRRP instance to follow a specified operational group |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 vrrp *number* monitor-oper-group *reference* |
| Tree | monitor-oper-group |
| Description | This command configures VRRP to associate with an operational group. When associated, VRRP notifies the operational group of its state changes so that other protocols can monitor it to provide a redundancy mechanism. When VRRP is the master router, the operational group is up and the operational group is down for all other VRRP states. |
| Reference | **configure** service oper-group *named-item* |
| Introduced | 22.2.R1 |
| Platforms | All |


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### **ntp-reply** *boolean*

| | |
|---|---|
| Synopsis | Allow processing of NTP requests |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 vrrp *number* ntp-reply *boolean* |
| Tree | ntp-reply |
| Description | When configured to **true**, the router redirects NTP requests to the VRRP virtual IP address. This behavior only applies to the router acting as the master VRRP router.<br>When configured to **false**, the router does not process NTP requests. |
| Default | false |
| Introduced | 20.2.R1 |
| Platforms | All |

### **oper-group** *reference*

| | |
|---|---|
| Synopsis | Operational group name associated with the VRRP |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 vrrp *number* oper-group *reference* |
| Tree | oper-group |
| Description | This command configures an operational group to associate with the VRRP. When associated, VRRP notifies the operational group of its state changes so that other protocols can monitor it to provide a redundancy mechanism. When VRRP is the master router (MR), the operational group is up. The operational group is down for all other VRRP states. |
| Reference | **configure** service oper-group *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **owner** *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Designate the virtual router instance as owner |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 vrrp *number* owner *boolean* |
| Tree | owner |


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| | |
|---|---|
| Description | When configured to **true**, the router designates this virtual router instance as the owner of the virtual router IP addresses. Therefore, this virtual router becomes responsible for forwarding packets sent to the virtual router IP addresses. The owner also assumes the role of master virtual router.<br>When configured to **false**, this virtual router instance is designated as a non-owner. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **passive** *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Suppress the processing of VRRP advertisement messages |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 vrrp *number* passive *boolean* |
| Tree | passive |
| Description | When configured to **true**, the router identifies this virtual router instance as passive; and therefore the owner of the virtual router IP addresses. A passive virtual router instance does not transmit or receive VRRP advertisement messages and is always in either the master state (if the interface is operationally up) or the init state (if the interface is operationally down).<br>When configured to **false**, this virtual router instance is not identified as passive, meaning that it transmits and receives VRRP advertisement messages. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **ping-reply** *boolean*

| | |
|---|---|
| Synopsis | Allow non-owner master to reply to ICMP echo requests |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 vrrp *number* ping-reply *boolean* |
| Tree | ping-reply |
| Description | When configured to **true**, the router allows the non-owner master to reply to ICMP echo requests directed at the IP addresses of the virtual router instance. Any routed interface can receive the ping request. Ping must not have been disabled at the management security level (either on the parental IP interface or on the Ping source host address). |


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When configured to **false**, ICMP echo requests sent to non-owner master virtual IP addresses are silently discarded.

Non-owner backup virtual routers never respond to ICMP echo requests, regardless of the configuration of this command.

Default false

Introduced 16.0.R1

Platforms All

## **policy** *reference*

Synopsis VRRP priority control policy

Context **configure** service ies *service-name* interface *interface-name* ipv6 vrrp *number* policy *reference*

Tree policy

Description This command configures a VRRP priority control policy to associate with the virtual router instance.

VRRP priority control policies can override or adjust the base priority value of the virtual router instance, depending on events or conditions within the chassis.

An operator can associate a policy with more than one virtual router instance. The priority events within the policy either override or diminish the base priority set with the **priority** command. As priority events clear in the policy, the in-use priority can eventually be restored to the base priority value.

For non-owner virtual router instances, if this command is not executed, the base priority is used as the in-use priority.

Reference **configure** vrrp policy *number*

Introduced 16.0.R1

Platforms All

## **preempt** *boolean*

Synopsis Allow the VRRP to override an existing non-owner master

Context **configure** service ies *service-name* interface *interface-name* ipv6 vrrp *number* preempt *boolean*

Tree preempt

Description When configured to **true**, this virtual router instance overrides any non-owner master with an in-use message priority value less than the in-use priority value of this virtual router.


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When configured to **false**, this virtual router only becomes master if the master down timer expires before a VRRP advertisement message is received from another virtual router.

Default true

Introduced 16.0.R1

Platforms All

## **priority** *number*

Synopsis Base priority for the VRRP

Context **configure** service ies *service-name* interface *interface-name* ipv6 vrrp *number* priority *number*

Tree priority

Description This command configures the base router priority for the virtual router instance, which defines the selection order of the virtual router in the master election process.

The in-use priority is derived from the base priority. However, the in-use priority is modified by optional VRRP priority control policies. An operator can use VRRP priority control policies to either override or adjust the base priority value depending on events or conditions within the chassis.

Range 1 to 255

Introduced 16.0.R1

Platforms All

## **standby-forwarding** *boolean*

Synopsis Allow standby router to forward traffic

Context **configure** service ies *service-name* interface *interface-name* ipv6 vrrp *number* standby-forwarding *boolean*

Tree standby-forwarding

Description When configured to **true**, the standby router forwards all traffic.

When configured to **false**, the standby router cannot forward traffic sent to the MAC address of the virtual router. However, the standby router still forwards traffic sent to its own MAC address.

Default false

Introduced 16.0.R1

Platforms All


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### **telnet-reply** *boolean*

| | |
|---|---|
| Synopsis | Allow non-owner master to reply to Telnet requests |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 vrrp *number* telnet-reply *boolean* |
| Tree | telnet-reply |
| Description | When configured to **true**, the router allows the non-owner master to reply to Telnet requests directed at the IP addresses of the virtual router instance. Any routed interface can receive Telnet requests. Telnet cannot be disabled at the management security level (either on the parental IP interface or on the Telnet source host address).<br>When configured to **false**, the router silently discards Telnet requests sent to non-owner master virtual IP addresses. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **traceroute-reply** *boolean*

| | |
|---|---|
| Synopsis | Allow non-owner master to reply to traceroute requests |
| Context | **configure** service ies *service-name* interface *interface-name* ipv6 vrrp *number* traceroute-reply *boolean* |
| Tree | traceroute-reply |
| Description | When configured to **true**, the router allows a non-owner master to reply to traceroute requests directed to the IP addresses of the virtual router instance.<br>When configured to **false**, the router silently discards traceroute requests sent to non-owner master virtual IP addresses.<br>Traceroute must not have been disabled at the management security level (either on the parental IP interface or the source host address). |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **load-balancing**

| | |
|---|---|
| Synopsis | Enter the **load-balancing** context |
| Context | **configure** service ies *service-name* interface *interface-name* load-balancing |
| Tree | load-balancing |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## **flow-label-load-balancing** *boolean*

| | |
|---|---|
| Synopsis | Enable flow label load balancing |
| Context | **configure** service ies *service-name* interface *interface-name* load-balancing flow-label-load-balancing *boolean* |
| Tree | flow-label-load-balancing |
| Description | When configured to **true**, the router enables load balancing in ECMP and LAG based on the output of a hash performed on the triplet (SA, DA, flow label) in the header of an IPv6 packet received on an IES, VPRN, R-VPLS, CSC, or network interface.<br>When configured to **false**, the router disables load balancing in ECMP and LAG. |
| Default | false |
| Introduced | 21.5.R1 |
| Platforms | All |

## **ip-load-balancing** *keyword*

| | |
|---|---|
| Synopsis | IP load-balancing algorithm |
| Context | **configure** service ies *service-name* interface *interface-name* load-balancing ip-load-balancing *keyword* |
| Tree | ip-load-balancing |
| Description | This command specifies whether to include the source address, destination address, or both in LAG or ECMP hash on IP interfaces. Additionally, when the **l4-load-balancing** command is enabled, this command also includes the source or destination port in the hash inputs. |
| Options | both, destination, source, inner-ip |
| Default | both |
| Introduced | 16.0.R3 |
| Platforms | All |

## **spi-load-balancing** *boolean*

| | |
|---|---|
| Synopsis | Enable SPI use in hashing |
| Context | **configure** service ies *service-name* interface *interface-name* load-balancing spi-load-balancing *boolean* |
| Tree | spi-load-balancing |


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| | |
|---|---|
| Description | When configured to **true**, the router uses the Security Parameter Index (SPI) in hashing for ESP and AH encrypted IPv4 and IPv6 traffic. This is a per-interface setting. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **teid-load-balancing** *boolean*

| | |
|---|---|
| Synopsis | Enable use of TEID in hashing |
| Context | **configure** service ies *service-name* interface *interface-name* load-balancing teid-load-balancing *boolean* |
| Tree | teid-load-balancing |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **loopback** *boolean*

| | |
|---|---|
| Synopsis | Use interface as a loopback interface |
| Context | **configure** service ies *service-name* interface *interface-name* loopback *boolean* |
| Tree | loopback |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mac** *mac-unicast-address*

| | |
|---|---|
| Synopsis | MAC address for the interface |
| Context | **configure** service ies *service-name* interface *interface-name* mac *mac-unicast-address* |
| Tree | mac |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mac-accounting** *boolean*

| | |
|---|---|
| Synopsis | Enable MAC accounting functionality |
| Context | **configure** service ies *service-name* interface *interface-name* mac-accounting *boolean* |


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| | |
|---|---|
| Tree | mac-accounting |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **monitor-oper-group** *reference*

| | |
|---|---|
| Synopsis | Operational group to monitor |
| Context | **configure** service ies *service-name* interface *interface-name* monitor-oper-group *reference* |
| Tree | monitor-oper-group |
| Reference | **configure** service oper-group *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **multi-chassis-shunting-profile** *reference*

| | |
|---|---|
| Synopsis | Multi-chassis shunting profile name |
| Context | **configure** service ies *service-name* interface *interface-name* multi-chassis-shunting-profile *reference* |
| Tree | multi-chassis-shunting-profile |
| Description | This command configures the name of a multi-chassis shunting profile to use on public or private tunnel interfaces. |
| Reference | **configure** router *named-item-64* ipsec multi-chassis-shunting-profile *named-item* |
| Notes | The following elements are part of a choice: **multi-chassis-shunting-profile** or (**dynamic-tunnel-redundant-nexthop** and **static-tunnel-redundant-nexthop**). |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **multicast-network-domain** *reference*

| | |
|---|---|
| Synopsis | Network domain name |
| Context | **configure** service ies *service-name* interface *interface-name* multicast-network-domain *reference* |
| Tree | multicast-network-domain |
| Reference | **configure** router *named-item-64* network-domains network-domain *named-item* |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## ping-template

| | |
|---|---|
| Synopsis | Enable the **ping-template** context |
| Context | **configure** service ies *service-name* interface *interface-name* ping-template |
| Tree | ping-template |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the ping template |
| Context | **configure** service ies *service-name* interface *interface-name* ping-template admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## destination-address *ipv4-unicast-address*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Ping template destination address |
| Context | **configure** service ies *service-name* interface *interface-name* ping-template destination-address *ipv4-unicast-address* |
| Tree | destination-address |
| Description | This command configures the address to where the ICMP echo requests are directed to test connectivity. The source of the ICMP echo request is the primary IPv4 address of the interface under which the ping-template is configured. The destination address must be on the same subnet as the source IP address.<br><br>Unnumbered interfaces and loopback addresses are not supported. |


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| | |
|---|---|
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **name** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Ping template name |
| Context | **configure** service ies *service-name* interface *interface-name* ping-template name *reference* |
| Tree | name |
| Description | This command configures the name of the ping template to be assigned to the IP interface. |
| Reference | **configure** test-oam icmp ping-template *named-item-64* |
| Notes | This element is mandatory. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **ptp-hw-assist**

| | |
|---|---|
| Synopsis | Enter the **ptp-hw-assist** context |
| Context | **configure** service ies *service-name* interface *interface-name* ptp-hw-assist |
| Tree | ptp-hw-assist |
| Description | Commands in this context enable the port-based timestamping assist of PTP packets at the physical interface. This capability is supported on specific hardware. The command may be blocked if not all hardware has the required level of support.<br>Only one interface per physical port can have port-based timestamping assist enabled. This feature cannot be enabled if the physical port supporting the interface is configured as a PTP port. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the PTP timestamping assist |


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| | |
|---|---|
| Context | **configure** service ies *service-name* interface *interface-name* ptp-hw-assist admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **radius-auth-policy** *reference*

| | |
|---|---|
| Synopsis | Authentication policy |
| Context | **configure** service ies *service-name* interface *interface-name* radius-auth-policy *reference* |
| Tree | radius-auth-policy |
| Reference | **configure** subscriber-mgmt radius-authentication-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **sap** [sap-id] *sap*

| | |
|---|---|
| Synopsis | Enter the **sap** list instance |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* |
| Tree | sap |
| Max. instances | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**sap-id**] *sap*

| | |
|---|---|
| Synopsis | SAP ID |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* |
| Tree | sap |
| String length | 1 to 45 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## aarp

| | |
|---|---|
| Synopsis | Enable the **aarp** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* aarp |
| Tree | aarp |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## id *reference*

| | |
|---|---|
| Synopsis | AARP instance ID |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* aarp id *reference* |
| Tree | id |
| Reference | **configure** application-assurance aarp *number* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## type *keyword*

| | |
|---|---|
| Synopsis | Role referenced by the AARP |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* aarp type *keyword* |
| Tree | type |
| Options | dual-homed, dual-homed-secondary |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## accounting-policy *reference*

| | |
|---|---|
| Synopsis | Accounting policy |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* accounting-policy *reference* |
| Tree | accounting-policy |
| Reference | **configure** log accounting-policy *number* |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the SAP |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **anti-spoof** *keyword*

| | |
|---|---|
| Synopsis | Anti-spoof filtering |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* anti-spoof *keyword* |
| Tree | anti-spoof |
| Options | source-ip-addr, source-mac-addr, source-ip-and-mac-addr, next-hop-ip-and-mac-addr |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **app-profile** *reference*

| | |
|---|---|
| Synopsis | Application profile name |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* app-profile *reference* |
| Tree | app-profile |
| Reference | **configure** application-assurance group *number* partition *number* policy app-profile *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **bandwidth** *number*

| | |
|---|---|
| Synopsis | SAP bandwidth |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* bandwidth *number* |
| Tree | bandwidth |
| Range | 1 to 6400000000 |
| Units | kilobps |
| Introduced | 16.0.R1 |
| Platforms | All |

### **calling-station-id** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | Calling station ID |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* calling-station-id *string-not-all-spaces* |
| Tree | calling-station-id |
| String length | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **collect-stats** *boolean*

| | |
|---|---|
| Synopsis | Collect accounting statistics |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* collect-stats *boolean* |
| Tree | collect-stats |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cpu-protection**

| | |
|---|---|
| Synopsis | Enter the **cpu-protection** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* cpu-protection |
| Tree | cpu-protection |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

## eth-cfm-monitoring

| | |
|---|---|
| Synopsis | Enable the **eth-cfm-monitoring** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* cpu-protection eth-cfm-monitoring |
| Tree | eth-cfm-monitoring |
| Notes | The following elements are part of a choice: **eth-cfm-monitoring**, **ip-src-monitoring**, or **mac-monitoring**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

## aggregate

| | |
|---|---|
| Synopsis | Apply rate limit to the sum of the per peer packet rates |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* cpu-protection eth-cfm-monitoring aggregate |
| Tree | aggregate |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

## car

| | |
|---|---|
| Synopsis | Ignore Ethernet CFM packets when enforcing overall rate |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* cpu-protection eth-cfm-monitoring car |
| Tree | car |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

## ip-src-monitoring

| | |
|---|---|
| Synopsis | Enable IP source monitoring for CPU protection |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* cpu-protection ip-src-monitoring |


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| | |
|---|---|
| Tree | ip-src-monitoring |
| Notes | The following elements are part of a choice: **eth-cfm-monitoring**, **ip-src-monitoring**, or **mac-monitoring**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

## mac-monitoring

| | |
|---|---|
| Synopsis | Monitor MAC for CPU protection |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* cpu-protection mac-monitoring |
| Tree | mac-monitoring |
| Notes | The following elements are part of a choice: **eth-cfm-monitoring**, **ip-src-monitoring**, or **mac-monitoring**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

## policy-id *reference*

| | |
|---|---|
| Synopsis | CPM protection policy |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* cpu-protection policy-id *reference* |
| Tree | policy-id |
| Reference | **configure** system security cpu-protection policy *number* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

## description *long-description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* description *long-description* |
| Tree | description |
| String length | 1 to 160 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **dist-cpu-protection** *reference*

| | |
|---|---|
| Synopsis | Distributed CPU protection policy for SAP |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* dist-cpu-protection *reference* |
| Tree | dist-cpu-protection |
| Reference | **configure** system security dist-cpu-protection policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **egress**

| | |
|---|---|
| Synopsis | Enter the **egress** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress |
| Tree | egress |
| Introduced | 16.0.R1 |
| Platforms | All |

### **agg-rate**

| | |
|---|---|
| Synopsis | Enter the **agg-rate** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress agg-rate |
| Tree | agg-rate |
| Notes | The following elements are part of a choice: **agg-rate** or **percent-agg-rate**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **adaptation-rule** *keyword*

| | |
|---|---|
| Synopsis | Adaptation rule to compute the operational PIR value when an aggregate shaper is used |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress agg-rate adaptation-rule *keyword* |
| Tree | adaptation-rule |
| Options | max, min, closest |
| Default | closest |


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| | |
|---|---|
| Introduced | 22.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### **burst-limit** *(number | keyword)*

| | |
|---|---|
| Synopsis | Shaping burst size when an aggregate shaper is used |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress agg-rate burst-limit *(number | keyword)* |
| Tree | burst-limit |
| Range | 1 to 14000000 |
| Units | bytes |
| Options | auto |
| Default | auto |
| Introduced | 22.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### **limit-unused-bandwidth** *boolean*

| | |
|---|---|
| Synopsis | Enable aggregate rate overrun protection |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress agg-rate limit-unused-bandwidth *boolean* |
| Tree | limit-unused-bandwidth |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **queue-frame-based-accounting** *boolean*

| | |
|---|---|
| Synopsis | Enable frame based accounting on policers and queues |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress agg-rate queue-frame-based-accounting *boolean* |
| Tree | queue-frame-based-accounting |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **rate** *number*

| | |
|---|---|
| Synopsis | Enforced aggregate rate for all queues |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress agg-rate rate *number* |
| Tree | rate |
| Range | 1 to 6400000000 |
| Units | kilobps |
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter**

| | |
|---|---|
| Synopsis | Enter the **filter** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress filter |
| Tree | filter |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ip** *reference*

| | |
|---|---|
| Synopsis | IPv4 filter policy name |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress filter ip *reference* |
| Tree | ip |
| Reference | **configure** filter ip-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv6** *reference*

| | |
|---|---|
| Synopsis | IPv6 filter policy name |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress filter ipv6 *reference* |
| Tree | ipv6 |
| Reference | **configure** filter ipv6-filter *filter-name* |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## qos

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos |
| Tree | qos |
| Introduced | 16.0.R1 |
| Platforms | All |

## latency-budget *number*

| | |
|---|---|
| Synopsis | SAP egress latency budget |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos latency-budget *number* |
| Tree | latency-budget |
| Range | 1 to 1000000 |
| Units | microseconds |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## policer-control-policy

| | |
|---|---|
| Synopsis | Enter the **policer-control-policy** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos policer-control-policy |
| Tree | policer-control-policy |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## overrides

| | |
|---|---|
| Synopsis | Enable the **overrides** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos policer-control-policy overrides |


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| | |
|---|---|
| Tree | overrides |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### root

| | |
|---|---|
| Synopsis | Enter the **root** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos policer-control-policy overrides root |
| Tree | root |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### max-rate *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum frame-based bandwidth limit |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos policer-control-policy overrides root max-rate *(number | keyword)* |
| Tree | max-rate |
| Range | 1 to 6400000000 |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### priority-mbs-thresholds

| | |
|---|---|
| Synopsis | Enter the **priority-mbs-thresholds** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos policer-control-policy overrides root priority-mbs-thresholds |
| Tree | priority-mbs-thresholds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### min-thresh-separation *(number | keyword)*

| | |
|---|---|
| Synopsis | Minimum amount of separation buffer space |


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| | |
|---|---|
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos policer-control-policy overrides root priority-mbs-thresholds min-thresh-separation *(number \| keyword)* |
| Tree | min-thresh-separation |
| Range | 0 to 16777216 |
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **priority** [priority-level] *number*

| | |
|---|---|
| Synopsis | Enter the **priority** list instance |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos policer-control-policy overrides root priority-mbs-thresholds priority *number* |
| Tree | priority |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### [**priority-level**] *number*

| | |
|---|---|
| Synopsis | Priority level |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos policer-control-policy overrides root priority-mbs-thresholds priority *number* |
| Tree | priority |
| Range | 1 to 8 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **mbs-contribution** *(number | keyword)*

| | |
|---|---|
| Synopsis | Minimum amount of cumulative buffer space allowed |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos policer-control-policy overrides root priority-mbs-thresholds priority *number* mbs-contribution *(number \| keyword)* |
| Tree | mbs-contribution |


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| | |
|---|---|
| Range | 0 to 16777216 |
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## **policy-name** *reference*

| | |
|---|---|
| Synopsis | Policer control policy name |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos policer-control-policy policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos policer-control-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## **qinq-mark-top-only** *boolean*

| | |
|---|---|
| Synopsis | Mark top Q-tags |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos qinq-mark-top-only *boolean* |
| Tree | qinq-mark-top-only |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **sap-egress**

| | |
|---|---|
| Synopsis | Enter the **sap-egress** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos sap-egress |
| Tree | sap-egress |
| Introduced | 16.0.R1 |
| Platforms | All |


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### overrides

| | |
|---|---|
| Synopsis | Enter the **overrides** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides |
| Tree | overrides |
| Introduced | 16.0.R1 |
| Platforms | All |

### hs-secondary-shaper *named-item*

| | |
|---|---|
| Synopsis | HS Secondary Shaper |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides hs-secondary-shaper *named-item* |
| Tree | hs-secondary-shaper |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### hs-wrr-group [group-id] *reference*

| | |
|---|---|
| Synopsis | Enter the **hs-wrr-group** list instance |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides hs-wrr-group *reference* |
| Tree | hs-wrr-group |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### [group-id] *reference*

| | |
|---|---|
| Synopsis | HS WRR group identifier |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides hs-wrr-group *reference* |
| Tree | hs-wrr-group |
| Reference | **configure** qos sap-egress *qos-policy-name* hs-wrr-group *number* |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **hs-class-weight** *number*

| | |
|---|---|
| Synopsis | Class weight override of the WRR group |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides hs-wrr-group *reference* hs-class-weight *number* |
| Tree | hs-class-weight |
| Range | 1 \| 2 \| 4 \| 8 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **percent-rate** *decimal-number*

| | |
|---|---|
| Synopsis | Percent rate override applied to the HS WRR group |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides hs-wrr-group *reference* percent-rate *decimal-number* |
| Tree | percent-rate |
| Range | 0.01 to 100.00 |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **rate** *(number | keyword)*

| | |
|---|---|
| Synopsis | Scheduling rate override applied to the HS WRR group |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides hs-wrr-group *reference* rate *(number \| keyword)* |
| Tree | rate |
| Range | 1 to 2000000000 |
| Units | kilobps |
| Options | max |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |


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### **policer** [policer-id] *reference*

| | |
|---|---|
| Synopsis | Enter the **policer** list instance |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides policer *reference* |
| Tree | policer |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### [**policer-id**] *reference*

| | |
|---|---|
| Synopsis | Policer unique ID |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides policer *reference* |
| Tree | policer |
| Reference | **configure** qos sap-egress *qos-policy-name* policer *number* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **cbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | CBS |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides policer *reference* cbs *(number | keyword)* |
| Tree | cbs |
| Range | 0 to 268435456 |
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **mbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | MBS |


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| | |
|---|---|
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides policer *reference* mbs *(number \| keyword)* |
| Tree | mbs |
| Range | 0 to 268435456 |
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **packet-byte-offset** *number*

| | |
|---|---|
| Synopsis | Packet size modification for policing information |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides policer *reference* packet-byte-offset *number* |
| Tree | packet-byte-offset |
| Range | -64 to 31 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **percent-rate**

| | |
|---|---|
| Synopsis | Enter the **percent-rate** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides policer *reference* percent-rate |
| Tree | percent-rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **cir** *decimal-number*

| | |
|---|---|
| Synopsis | CIR percent rate |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides policer *reference* percent-rate cir *decimal-number* |
| Tree | cir |
| Range | 0.00 to 100.00 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **pir** *decimal-number*

| | |
|---|---|
| Synopsis | PIR percent rate |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides policer *reference* percent-rate pir *decimal-number* |
| Tree | pir |
| Range | 0.01 to 100.00 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **rate**

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides policer *reference* rate |
| Tree | rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **cir** *(number | keyword)*

| | |
|---|---|
| Synopsis | CIR rate |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides policer *reference* rate cir *(number | keyword)* |
| Tree | cir |
| Range | 0 to 6400000000 |
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |


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### **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | PIR rate |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides policer *reference* rate pir *(number \| keyword)* |
| Tree | pir |
| Range | 1 to 6400000000 |
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **stat-mode** *keyword*

| | |
|---|---|
| Synopsis | Mode of statistics collected by the policer |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides policer *reference* stat-mode *keyword* |
| Tree | stat-mode |
| Options | no-stats, minimal, offered-profile-no-cir, offered-total-cir, offered-profile-cir, offered-limited-capped-cir, offered-profile-capped-cir, offered-total-cir-exceed, offered-four-profile-no-cir, offered-total-cir-four-profile |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **queue** [queue-id] *reference*

| | |
|---|---|
| Synopsis | Enter the **queue** list instance |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides queue *reference* |
| Tree | queue |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**queue-id**] *reference*

| | |
|---|---|
| Synopsis | Policer unique ID |


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| | |
|---|---|
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides queue *reference* |
| Tree | queue |
| Reference | **configure** qos sap-egress *qos-policy-name* queue *number* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## adaptation-rule

| | |
|---|---|
| Synopsis | Enter the **adaptation-rule** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides queue *reference* adaptation-rule |
| Tree | adaptation-rule |
| Introduced | 16.0.R1 |
| Platforms | All |

## **cir** *keyword*

| | |
|---|---|
| Synopsis | Constraint used when deriving the operational CIR value |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides queue *reference* adaptation-rule cir *keyword* |
| Tree | cir |
| Options | max, min, closest |
| Introduced | 16.0.R1 |
| Platforms | All |

## **pir** *keyword*

| | |
|---|---|
| Synopsis | Constraint used when deriving the operational PIR value |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides queue *reference* adaptation-rule pir *keyword* |
| Tree | pir |
| Options | max, min, closest |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **avg-frame-overhead** *decimal-number*

| | |
|---|---|
| Synopsis | Average packet-to-frame encapsulation overhead |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides queue *reference* avg-frame-overhead *decimal-number* |
| Tree | avg-frame-overhead |
| Description | This command configures overrides for the average frame overhead. The overrides supersede the average frame overhead configuration under the queue.<br>For a full description of this command, see the **configure qos network-queue queue avg-frame-overhead** and **configure qos sap-egress queue avg-frame-overhead** contexts. |
| Range | 0.00 to 100.00 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **burst-limit** *(number | keyword)*

| | |
|---|---|
| Synopsis | Explicit shaping burst size for the queue |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides queue *reference* burst-limit *(number \| keyword)* |
| Tree | burst-limit |
| Range | 1 to 14000000 |
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | CBS |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides queue *reference* cbs *(number \| keyword)* |
| Tree | cbs |
| Range | 0 to 1048576 |
| Units | kilobytes |
| Options | auto |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## drop-tail

| | |
|---|---|
| Synopsis | Enter the **drop-tail** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides queue *reference* drop-tail |
| Tree | drop-tail |
| Introduced | 16.0.R1 |
| Platforms | All |

## low

| | |
|---|---|
| Synopsis | Enter the **low** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides queue *reference* drop-tail low |
| Tree | low |
| Introduced | 16.0.R1 |
| Platforms | All |

## percent-reduction-from-mbs *(number | keyword)*

| | |
|---|---|
| Synopsis | Percentage reduction from the MBS for a queue drop tail |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides queue *reference* drop-tail low percent-reduction-from-mbs *(number \| keyword)* |
| Tree | percent-reduction-from-mbs |
| Range | 0 to 100 |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | All |

## hs-class-weight *number*

| | |
|---|---|
| Synopsis | Class weight override for the queue |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides queue *reference* hs-class-weight *number* |


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| | |
|---|---|
| Tree | hs-class-weight |
| Range | 1 \| 2 \| 4 \| 8 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

## hs-wred-queue

| | |
|---|---|
| Synopsis | Enter the **hs-wred-queue** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides queue *reference* hs-wred-queue |
| Tree | hs-wred-queue |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

## policy *reference*

| | |
|---|---|
| Synopsis | Slope policy applied to the HSQ queue group queue |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides queue *reference* hs-wred-queue policy *reference* |
| Tree | policy |
| Reference | **configure** qos slope-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

## hs-wrr-weight *number*

| | |
|---|---|
| Synopsis | WRR weight to parent with the queue into the scheduler |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides queue *reference* hs-wrr-weight *number* |
| Tree | hs-wrr-weight |
| Range | 1 to 127 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |


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### **mbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | MBS |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides queue *reference* mbs *(number \| keyword)* |
| Tree | mbs |
| Range | 0 to 1073741824 |
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | All |

### **monitor-queue-depth**

| | |
|---|---|
| Synopsis | Enable the **monitor-queue-depth** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides queue *reference* monitor-queue-depth |
| Tree | monitor-queue-depth |
| Description | Commands in this context configure queue depth monitoring for the specified queue. |
| Introduced | 20.10.R1 |
| Platforms | All |

### **fast-polling** *boolean*

| | |
|---|---|
| Synopsis | Enable fast polling of the queue depth |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides queue *reference* monitor-queue-depth fast-polling *boolean* |
| Tree | fast-polling |
| Description | When configured to **true**, this command enables fast polling of the queue depth. Faster polling allows a more accurate view of the actual depth. |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | All |


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### **violation-threshold** *decimal-number*

| | |
|---|---|
| Synopsis | Threshold for queue depth before violation is raised |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides queue *reference* monitor-queue-depth violation-threshold *decimal-number* |
| Tree | violation-threshold |
| Description | This command specifies the threshold for the queue MBS. When the queue depth exceeds the threshold value, a violation is registered. |
| Range | 0.01 to 99.99 |
| Introduced | 20.10.R1 |
| Platforms | All |

### **parent**

| | |
|---|---|
| Synopsis | Enter the **parent** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides queue *reference* parent |
| Tree | parent |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cir-weight** *number*

| | |
|---|---|
| Synopsis | CIR parameter that overrides parent for queue group |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides queue *reference* parent cir-weight *number* |
| Tree | cir-weight |
| Range | 0 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **weight** *number*

| | |
|---|---|
| Synopsis | PIR parameter that overrides parent for queue group |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides queue *reference* parent weight *number* |


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| | |
|---|---|
| Tree | weight |
| Range | 0 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

## percent-rate

| | |
|---|---|
| Synopsis | Enter the **percent-rate** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides queue *reference* percent-rate |
| Tree | percent-rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **cir** *decimal-number*

| | |
|---|---|
| Synopsis | CIR percent rate |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides queue *reference* percent-rate cir *decimal-number* |
| Tree | cir |
| Range | 0.00 to 100.00 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **pir** *decimal-number*

| | |
|---|---|
| Synopsis | PIR percent rate |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides queue *reference* percent-rate pir *decimal-number* |
| Tree | pir |
| Range | 0.01 to 100.00 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### rate

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides queue *reference* rate |
| Tree | rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### cir *(number | keyword)*

| | |
|---|---|
| Synopsis | CIR rate |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides queue *reference* rate cir *(number | keyword)* |
| Tree | cir |
| Range | 0 to 6400000000 |
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | All |

### pir *(number | keyword)*

| | |
|---|---|
| Synopsis | PIR rate |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides queue *reference* rate pir *(number | keyword)* |
| Tree | pir |
| Range | 1 to 6400000000 |
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **policy-name** *reference*

| | |
|---|---|
| Synopsis | Policy ID to associate with SAP for mirrored service |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos sap-egress policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos sap-egress *qos-policy-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **port-redirect-group**

| | |
|---|---|
| Synopsis | Enter the **port-redirect-group** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos sap-egress port-redirect-group |
| Tree | port-redirect-group |
| Introduced | 16.0.R1 |
| Platforms | All |

### **group-name** *reference*

| | |
|---|---|
| Synopsis | Name of the queue group redirect list policy |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos sap-egress port-redirect-group group-name *reference* |
| Tree | group-name |
| Reference | **configure** qos queue-group-templates egress queue-group *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **instance** *number*

| | |
|---|---|
| Synopsis | Instance of port queue group |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos sap-egress port-redirect-group instance *number* |
| Tree | instance |
| Range | 1 to 65535 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## scheduler-policy

| | |
|---|---|
| Synopsis | Enter the **scheduler-policy** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos scheduler-policy |
| Tree | scheduler-policy |
| Introduced | 16.0.R1 |
| Platforms | All |

## overrides

| | |
|---|---|
| Synopsis | Enter the **overrides** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos scheduler-policy overrides |
| Tree | overrides |
| Introduced | 16.0.R1 |
| Platforms | All |

## **scheduler** [scheduler-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **scheduler** list instance |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos scheduler-policy overrides scheduler *named-item* |
| Tree | scheduler |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**scheduler-name**] *named-item*

| | |
|---|---|
| Synopsis | Scheduler name |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos scheduler-policy overrides scheduler *named-item* |
| Tree | scheduler |


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| | |
|---|---|
| Description | This command specifies the scheduler name which is composed of printable 7-bit ASCII characters. If the string contains special characters (#, $, spaces, and so on), the entire string must be enclosed within double quotes. Each scheduler must have a unique name within the context of the scheduler policy. However, the same name can be reused in multiple scheduler policies. If the scheduler name already exists within the policy tier level, the context changes to that scheduler name for the purpose of editing the scheduler commands.<br><br>If the scheduler name exists within the policy on a different tier, an error occurs and the current context does not change. If the scheduler name does not exist in this or another tier within the scheduler policy, it is assumed that an attempt is being made to create a scheduler of that name.<br><br>If the provided scheduler name is invalid, a name syntax error occurs, the command does not execute, and the context is not change. |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## parent

| | |
|---|---|
| Synopsis | Enter the **parent** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos scheduler-policy overrides scheduler *named-item* parent |
| Tree | parent |
| Introduced | 16.0.R1 |
| Platforms | All |

## cir-weight *number*

| | |
|---|---|
| Synopsis | Weight used at the within-CIR port priority level |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos scheduler-policy overrides scheduler *named-item* parent cir-weight *number* |
| Tree | cir-weight |
| Range | 0 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **weight** *number*

| | |
|---|---|
| Synopsis | Relative weight of the scheduler to feed the queue |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos scheduler-policy overrides scheduler *named-item* parent weight *number* |
| Tree | weight |
| Range | 0 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rate**

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos scheduler-policy overrides scheduler *named-item* rate |
| Tree | rate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cir** *(number | keyword)*

| | |
|---|---|
| Synopsis | CIR at which the queue it to operate |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos scheduler-policy overrides scheduler *named-item* rate cir *(number | keyword)* |
| Tree | cir |
| Range | 0 to 6400000000 |
| Units | kilobps |
| Options | sum, max |
| Introduced | 16.0.R1 |
| Platforms | All |

### **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | PIR at which the queue is to operate |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos scheduler-policy overrides scheduler *named-item* rate pir *(number | keyword)* |


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| | |
|---|---|
| Tree | pir |
| Range | 1 to 6400000000 |
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | All |

## **policy-name** *reference*

| | |
|---|---|
| Synopsis | Scheduler policy name |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress qos scheduler-policy policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos scheduler-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **queue-group-redirect-list** *reference*

| | |
|---|---|
| Synopsis | Assign queue-group redirect list |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress queue-group-redirect-list *reference* |
| Tree | queue-group-redirect-list |
| Reference | **configure** qos queue-group-redirect-list *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **virtual-port**

| | |
|---|---|
| Synopsis | Enter the **virtual-port** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress virtual-port |
| Tree | virtual-port |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **vport-name** *reference*

| | |
|---|---|
| Synopsis | Virtual port assigned to the SAP |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* egress virtual-port vport-name *reference* |
| Tree | vport-name |
| Reference | **configure** port *port* ethernet access egress virtual-port *named-item* |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **eth-cfm**

| | |
|---|---|
| Synopsis | Enter the **eth-cfm** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* eth-cfm |
| Tree | eth-cfm |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **collect-lmm-fc-stats**

| | |
|---|---|
| Synopsis | Enter the **collect-lmm-fc-stats** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* eth-cfm collect-lmm-fc-stats |
| Tree | collect-lmm-fc-stats |
| Description | Commands in this context configure per forwarding class (FC) LMM information collection.<br>The commands **fc-in-profile** and **fc** in this context are mutually exclusive. The commands apply to either profile-aware or profile-unaware FCs respectively.<br>This command and the **collect-lmm-stats** command are mutually exclusive when there is entity resource contention. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **fc** *keyword*

| | |
|---|---|
| Synopsis | Forwarding class name for profile-unaware counter |


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| | |
|---|---|
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* eth-cfm collect-lmm-fc-stats fc *keyword* |
| Tree | fc |
| Description | This command configures individual counters for the specified FCs without regard for profile. The system includes all countable packets that match a configured FC, regardless of profile, in this counter.<br>An FC specified as part of this command and for this specific context cannot be specified as a profile-aware FC using the **fc-in-profile** command under the **collect-lmm-fc-stats** context.<br>When this command is reentered, a differential is performed. Omitted FCs stop counting, newly added FCs start counting, and unchanged FCs continue to count. |
| Options | be, l2, af, l1, h2, ef, h1, nc |
| Max. instances | 8 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **fc-in-profile** *keyword*

| | |
|---|---|
| Synopsis | Forwarding class name for profile-aware counter |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* eth-cfm collect-lmm-fc-stats fc-in-profile *keyword* |
| Tree | fc-in-profile |
| Description | This command configures individual counters for the specified FCs with regard to profile. The system includes all countable packets that match a configured FC and that are deemed to be in-profile in this counter.<br>An FC specified as part of this command and for this specific context cannot be specified as a profile-unaware FC using the **fc** command under the **collect-lmm-fc-stats** context.<br>When this command is reentered, a differential is performed. Omitted FCs stop counting, newly added FCs start counting, and unchanged FCs continue to count. |
| Options | be, l2, af, l1, h2, ef, h1, nc |
| Max. instances | 8 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **collect-lmm-stats** *boolean*

| | |
|---|---|
| Synopsis | Collect statistics for loss measurement message tests |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* eth-cfm collect-lmm-stats *boolean* |
| Tree | collect-lmm-stats |
| Description | When configured to **true**, the router instantiates the statistical counter to transmit and receive packets for the LAG facility MEP bindings.<br>The **show eth-cfm collect-lmm-stats** command displays entities that have been enabled to collect transit and receive counters.<br>When configured to **false**, the router does not instantiate the counter and the LMM PDU associated with the MEP does not populate the counters in the packet. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **mep** md-admin-name *reference* ma-admin-name *reference* mep-id *number*

| | |
|---|---|
| Synopsis | Enter the **mep** list instance |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |
| Tree | mep |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **md-admin-name** *reference*

| | |
|---|---|
| Synopsis | Maintenance Domain (MD) name |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |
| Tree | mep |
| Reference | **configure** eth-cfm domain *admin-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **ma-admin-name** *reference*

| | |
|---|---|
| Synopsis | Maintenance Association (MA) name |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |
| Tree | mep |
| Reference | **configure** eth-cfm domain *admin-name* association *admin-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **mep-id** *number*

| | |
|---|---|
| Synopsis | Maintenance Endpoint (MEP) ID |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |
| Tree | mep |
| Range | 1 to 8191 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the MEP |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ais** *boolean*

| | |
|---|---|
| Synopsis | Enable the generation and the reception of AIS messages |


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| | |
|---|---|
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ais *boolean* |
| Tree | ais |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## alarm-notification

| | |
|---|---|
| Synopsis | Enter the **alarm-notification** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* alarm-notification |
| Tree | alarm-notification |
| Description | Commands in this context configure the Fault Notification Generator (FNG) time values to raise an alarm or reset the CCM defect alarm.<br>Use these timers for network management processes. The timers are not tied into delaying the notification to the fault management system on the network element and do not affect fault propagation mechanisms. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## fng-alarm-time *number*

| | |
|---|---|
| Synopsis | Time that must expire before an FNG alarm is raised |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* alarm-notification fng-alarm-time *number* |
| Tree | fng-alarm-time |
| Range | 250 \| 500 \| 1000 |
| Units | centiseconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## fng-reset-time *number*

| | |
|---|---|
| Synopsis | Time that must expire before an FNG alarm is reset |


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| | |
|---|---|
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* alarm-notification fng-reset-time *number* |
| Tree | fng-reset-time |
| Range | 250 \| 500 \| 1000 |
| Units | centiseconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **ccm** *boolean*

| | |
|---|---|
| Synopsis | Generate CCM messages |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ccm *boolean* |
| Tree | ccm |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **ccm-ltm-priority** *number*

| | |
|---|---|
| Synopsis | Priority of CCM and LTM messages transmitted by the MEP |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ccm-ltm-priority *number* |
| Tree | ccm-ltm-priority |
| Range | 0 to 7 |
| Default | 7 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **ccm-padding-size** *number*

| | |
|---|---|
| Synopsis | Number of octets of padding to insert in CCM packets |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ccm-padding-size *number* |


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| | |
|---|---|
| Tree | ccm-padding-size |
| Description | This command sets the byte size of the optional Data TLV to be included in the ETH-CC PDU.<br>This command increases the size of the ETH-CC PDU by the configured value. The base size of the ETH-CC PDU, including the Interface Status TLV and Port Status TLV, is 83 bytes not including the Layer 2 encapsulation. CCM padding is not supported when the CCM interval (configured through **configure eth-cfm domain association ccm-interval)** is less than 1 second. |
| Range | 3 to 1500 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## csf

| | |
|---|---|
| Synopsis | Enable the **csf** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* csf |
| Tree | csf |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## multiplier *decimal-number*

| | |
|---|---|
| Synopsis | Multiplication factor used to clear the CSF condition |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* csf multiplier *decimal-number* |
| Tree | multiplier |
| Range | 0.0 \| 2.0 to 30.0 |
| Default | 3.5 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## description *description*

| | |
|---|---|
| Synopsis | Text description |


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| | |
|---|---|
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## eth-test

| | |
|---|---|
| Synopsis | Enable the **eth-test** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test |
| Tree | eth-test |
| Description | Commands in this context configure information used by the Ethernet Test (ETH-TST) packet. The commands must be configured on both the sender and the receiver nodes. The test packets are used with the **oam eth-cfm eth-test** command. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## bit-error-threshold *number*

| | |
|---|---|
| Synopsis | Lowest priority defect allowed to generate fault alarm |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test bit-error-threshold *number* |
| Tree | bit-error-threshold |
| Range | 0 to 11840 |
| Units | bit errors |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## test-pattern

| | |
|---|---|
| Synopsis | Enter the **test-pattern** context |


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| | |
|---|---|
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test test-pattern |
| Tree | test-pattern |
| Description | Commands in this context specify the test pattern for the ETH-TST frames. The pattern does not have to be the same on the sender and the receiver. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **crc-tlv** *boolean*

| | |
|---|---|
| Synopsis | Generate a CRC checksum |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test test-pattern crc-tlv *boolean* |
| Tree | crc-tlv |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **pattern** *keyword*

| | |
|---|---|
| Synopsis | Test pattern for Ethernet Test frames |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test test-pattern pattern *keyword* |
| Tree | pattern |
| Description | This command specifies the test pattern of the Ethernet Test (ETH-TST) frames. This does not have to be configured the same on the sender and the receiver. |
| Options | all-zeros, all-ones |
| Default | all-zeros |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **fault-propagation** *keyword*

| | |
|---|---|
| Synopsis | Fault propagation for the MEP |


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| | |
|---|---|
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* fault-propagation *keyword* |
| Tree | fault-propagation |
| Options | use-if-status-tlv, suspend-ccm |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## grace

| | |
|---|---|
| Synopsis | Enter the **grace** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace |
| Tree | grace |
| Description | Commands in this context configure the Nokia ETH-CFM Grace function and the ITU-T Y.1731 Ethernet Expected Default (ETH-ED) function. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## eth-ed

| | |
|---|---|
| Synopsis | Enter the **eth-ed** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed |
| Tree | eth-ed |
| Description | Commands in this context configure the ITU-T Y.1731 ETH-ED function. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## max-rx-defect-window *number*

| | |
|---|---|
| Synopsis | Maximum received ETH-ED expected defect window duration |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed max-rx-defect-window *number* |
| Tree | max-rx-defect-window |
| Range | 1 to 86400 |


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| | |
|---|---|
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **priority** *number*

| | |
|---|---|
| Synopsis | Transmission priority for ETH-ED PDUs |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed priority *number* |
| Tree | priority |
| Range | 0 to 7 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **rx-eth-ed** *boolean*

| | |
|---|---|
| Synopsis | Receive and process ETH-ED ITU-T Y.1731 PDUs on the MEP |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed rx-eth-ed *boolean* |
| Tree | rx-eth-ed |
| Description | This command enables the reception and processing of the ITU-T Y.1731 ETH-ED PDU on the MEP. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **tx-eth-ed** *boolean*

| | |
|---|---|
| Synopsis | Transmit ETH-ED PDUs from the MEP |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed tx-eth-ed *boolean* |
| Tree | tx-eth-ed |
| Default | false |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## eth-vsm-grace

| | |
|---|---|
| Synopsis | Enter the **eth-vsm-grace** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-vsm-grace |
| Tree | eth-vsm-grace |
| Description | Commands in this context configure the Nokia ETH-CFM Grace function. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## rx-eth-vsm-grace *boolean*

| | |
|---|---|
| Synopsis | Receive and process Nokia ETH-CFM Grace PDU on the MEP |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-vsm-grace rx-eth-vsm-grace *boolean* |
| Tree | rx-eth-vsm-grace |
| Description | When configured to **true**, the router enables the Nokia Grace function, which is a vendor-specific PDU that informs MEP peers that the local node may be entering a period of expected defect.<br>When configured to **false**, the router disables the Nokia Grace function. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## tx-eth-vsm-grace *boolean*

| | |
|---|---|
| Synopsis | Transmit ETH-ED PDUs from the MEP |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-vsm-grace tx-eth-vsm-grace *boolean* |
| Tree | tx-eth-vsm-grace |
| Description | When configured to **true**, the router can transmit the Nokia ETH-CFM Grace PDU from the MEP when a system soft reset notification is received for one or more cards.<br>The Nokia Grace function is a vendor-specific PDU that informs MEP peers that the local node may be entering a period of expected defect. |


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The operator must configure the **configure system eth-cfm grace** command to instruct the system that the node is capable of transmitting expected-defect windows to peers. The system can only transmit one form of ETH-CFM grace (Nokia ETH-CFM Grace or ITU-T Y.1731 ETH-ED).

When configured to **false**, the router disables the transmission of the Nokia ETH-CFM Grace PDU from the MEP.

Default true

Introduced 16.0.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS

## **low-priority-defect** *keyword*

Synopsis Lowest priority defect allowed to generate fault alarm

Context **configure** service ies *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* low-priority-defect *keyword*

Tree low-priority-defect

Options all-def, mac-rem-err-xcon, rem-err-xcon, err-xcon, xcon, no-xcon

Default mac-rem-err-xcon

Introduced 16.0.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS

## **monitor-oper-group** *reference*

Synopsis Operational group to monitor

Context **configure** service ies *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* monitor-oper-group *reference*

Tree monitor-oper-group

Description This command operationally affects the state of the SAP based on the state of the operational group. When the monitoring function detects an operationally down state for the operational group, the SAP is set to operationally down and any CFM defects that were present on the MEP are cleared. The MEP enters a pseudo down state and does not try to transmit CFM packets and it is not expecting to receive CFM packets. When the monitoring function detects an operationally up state for the operational group, the CFM reason code that brought the SAP operationally down is removed. Assuming no other conditions prevent this, the SAP transitions to operationally up and the MEP is initialized.

This command is applicable to MEPs with a direction of down (**configure service sap eth-cfm mep direction down**) and a **configure eth-cfm domain association ccm-interval** of 1 second or higher.


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| | |
|---|---|
| Reference | **configure** service oper-group *named-item* |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **one-way-delay-threshold** *number*

| | |
|---|---|
| Synopsis | Threshold time limit for the one-way delay test |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* one-way-delay-threshold *number* |
| Tree | one-way-delay-threshold |
| Range | 0 to 600 |
| Units | seconds |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **squelch-ingress-levels** *number*

| | |
|---|---|
| Synopsis | Levels for which ETH-CFM packets are silently discarded |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* eth-cfm squelch-ingress-levels *number* |
| Tree | squelch-ingress-levels |
| Description | This command defines the levels of the ETH-CFM packets that are silently discarded.<br>At ingress, ETH-CFM packets that meet the following conditions are silently discarded:<br>• The packet is ingressing into the SAP or SDP binding from the wire that matches the service delineation of the SAP or SDP binding.<br>• The packet level matches the configured levels.<br>All ETH-CFM packets ingressing to the SAP or SDP binding that match the configured levels are dropped without regard for other ETH-CFM criteria. No statistical information or drop count is available for any ETH-CFM packet that is silently discarded by this option.<br>The list of levels must be a complete contiguous list from 0 up to the highest level that is to be dropped. |
| Range | 0 to 7 |
| Max. instances | 8 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## fwd-wholesale

| | |
|---|---|
| Synopsis | Enter the **fwd-wholesale** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* fwd-wholesale |
| Tree | fwd-wholesale |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## pppoe-service *reference*

| | |
|---|---|
| Synopsis | PPPoE service name |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* fwd-wholesale pppoe-service *reference* |
| Tree | pppoe-service |
| Reference | **configure** service epipe *service-name* |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## host-admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of host creation on the SAP |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* host-admin-state *keyword* |
| Tree | host-admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## host-lockout-policy *reference*

| | |
|---|---|
| Synopsis | Host lockout policy |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* host-lockout-policy *reference* |


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| | |
|---|---|
| Tree | host-lockout-policy |
| Reference | **configure** subscriber-mgmt host-lockout-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ingress

| | |
|---|---|
| Synopsis | Enter the **ingress** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress |
| Tree | ingress |
| Introduced | 16.0.R1 |
| Platforms | All |

## filter

| | |
|---|---|
| Synopsis | Enter the **filter** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress filter |
| Tree | filter |
| Introduced | 16.0.R1 |
| Platforms | All |

## ip *reference*

| | |
|---|---|
| Synopsis | IPv4 filter policy name |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress filter ip *reference* |
| Tree | ip |
| Reference | **configure** filter ip-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

## ipv6 *reference*

| | |
|---|---|
| Synopsis | IPv6 filter policy name |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress filter ipv6 *reference* |


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| | |
|---|---|
| Tree | ipv6 |
| Reference | **configure** filter ipv6-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

## qos

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos |
| Tree | qos |
| Introduced | 16.0.R1 |
| Platforms | All |

## match-qinq-dot1p *keyword*

| | |
|---|---|
| Synopsis | Ingress match QinQ Dot1p |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos match-qinq-dot1p *keyword* |
| Tree | match-qinq-dot1p |
| Options | top, bottom |
| Introduced | 16.0.R1 |
| Platforms | All |

## policer-control-policy

| | |
|---|---|
| Synopsis | Enter the **policer-control-policy** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos policer-control-policy |
| Tree | policer-control-policy |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## overrides

| | |
|---|---|
| Synopsis | Enable the **overrides** context |


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| | |
|---|---|
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos policer-control-policy overrides |
| Tree | overrides |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## root

| | |
|---|---|
| Synopsis | Enter the **root** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos policer-control-policy overrides root |
| Tree | root |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## max-rate *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum frame-based bandwidth limit |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos policer-control-policy overrides root max-rate *(number | keyword)* |
| Tree | max-rate |
| Range | 1 to 6400000000 |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## priority-mbs-thresholds

| | |
|---|---|
| Synopsis | Enter the **priority-mbs-thresholds** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos policer-control-policy overrides root priority-mbs-thresholds |
| Tree | priority-mbs-thresholds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |


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### **min-thresh-separation** *(number | keyword)*

| | |
|---|---|
| Synopsis | Minimum amount of separation buffer space |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos policer-control-policy overrides root priority-mbs-thresholds min-thresh-separation *(number | keyword)* |
| Tree | min-thresh-separation |
| Range | 0 to 16777216 |
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **priority** [priority-level] *number*

| | |
|---|---|
| Synopsis | Enter the **priority** list instance |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos policer-control-policy overrides root priority-mbs-thresholds priority *number* |
| Tree | priority |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### [**priority-level**] *number*

| | |
|---|---|
| Synopsis | Priority level |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos policer-control-policy overrides root priority-mbs-thresholds priority *number* |
| Tree | priority |
| Range | 1 to 8 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **mbs-contribution** *(number | keyword)*

| | |
|---|---|
| Synopsis | Minimum amount of cumulative buffer space allowed |


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| | |
|---|---|
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos policer-control-policy overrides root priority-mbs-thresholds priority *number* mbs-contribution *(number \| keyword)* |
| Tree | mbs-contribution |
| Range | 0 to 16777216 |
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## **policy-name** *reference*

| | |
|---|---|
| Synopsis | Policer control policy name |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos policer-control-policy policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos policer-control-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## **sap-ingress**

| | |
|---|---|
| Synopsis | Enter the **sap-ingress** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress |
| Tree | sap-ingress |
| Introduced | 16.0.R1 |
| Platforms | All |

## **fp-redirect-group**

| | |
|---|---|
| Synopsis | Enter the **fp-redirect-group** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress fp-redirect-group |
| Tree | fp-redirect-group |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## **group-name** *reference*

| | |
|---|---|
| Synopsis | Queue group template name created on forwarding plane |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress fp-redirect-group group-name *reference* |
| Tree | group-name |
| Reference | **configure** qos queue-group-templates ingress queue-group *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **instance** *number*

| | |
|---|---|
| Synopsis | Queue group instance |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress fp-redirect-group instance *number* |
| Tree | instance |
| Range | 1 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **overrides**

| | |
|---|---|
| Synopsis | Enter the **overrides** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides |
| Tree | overrides |
| Introduced | 16.0.R1 |
| Platforms | All |

## **ip-criteria**

| | |
|---|---|
| Synopsis | Enter the **ip-criteria** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides ip-criteria |


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| | |
|---|---|
| Tree | ip-criteria |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **activate-entry-tag** *number*

| | |
|---|---|
| Synopsis | Tag ID activated for IPv4 criteria |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides ip-criteria activate-entry-tag *number* |
| Tree | activate-entry-tag |
| Range | 1 to 255 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ipv6-criteria**

| | |
|---|---|
| Synopsis | Enter the **ipv6-criteria** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides ipv6-criteria |
| Tree | ipv6-criteria |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **activate-entry-tag** *number*

| | |
|---|---|
| Synopsis | Tag ID activated for IPv6 criteria |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides ipv6-criteria activate-entry-tag *number* |
| Tree | activate-entry-tag |
| Range | 1 to 255 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **policer** [policer-id] *reference*

| | |
|---|---|
| Synopsis | Enter the **policer** list instance |


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| | |
|---|---|
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides policer *reference* |
| Tree | policer |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### [**policer-id**] *reference*

| | |
|---|---|
| Synopsis | Policer unique ID |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides policer *reference* |
| Tree | policer |
| Reference | **configure** qos sap-ingress *qos-policy-name* policer *number* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **cbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | CBS |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides policer *reference* cbs *(number | keyword)* |
| Tree | cbs |
| Range | 0 to 268435456 |
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **mbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | MBS |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides policer *reference* mbs *(number | keyword)* |
| Tree | mbs |
| Range | 0 to 268435456 |


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| | |
|---|---|
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **packet-byte-offset** *number*

| | |
|---|---|
| Synopsis | Packet size modification for policing information |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides policer *reference* packet-byte-offset *number* |
| Tree | packet-byte-offset |
| Range | -32 to 31 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **percent-rate**

| | |
|---|---|
| Synopsis | Enter the **percent-rate** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides policer *reference* percent-rate |
| Tree | percent-rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **cir** *decimal-number*

| | |
|---|---|
| Synopsis | CIR percent rate |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides policer *reference* percent-rate cir *decimal-number* |
| Tree | cir |
| Range | 0.00 to 100.00 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |


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### **pir** *decimal-number*

| | |
|---|---|
| Synopsis | PIR percent rate |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides policer *reference* percent-rate pir *decimal-number* |
| Tree | pir |
| Range | 0.01 to 100.00 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **rate**

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides policer *reference* rate |
| Tree | rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **cir** *(number | keyword)*

| | |
|---|---|
| Synopsis | CIR rate |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides policer *reference* rate cir *(number | keyword)* |
| Tree | cir |
| Range | 0 to 6400000000 |
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | PIR rate |


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| | |
|---|---|
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides policer *reference* rate pir *(number \| keyword)* |
| Tree | pir |
| Range | 1 to 6400000000 |
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **stat-mode** *keyword*

| | |
|---|---|
| Synopsis | Mode of statistics collected by the policer |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides policer *reference* stat-mode *keyword* |
| Tree | stat-mode |
| Options | no-stats, minimal, offered-profile-no-cir, offered-total-cir, offered-priority-no-cir, offered-profile-cir, offered-priority-cir, offered-limited-profile-cir, offered-profile-capped-cir, offered-limited-capped-cir |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **queue** [queue-id] *reference*

| | |
|---|---|
| Synopsis | Enter the **queue** list instance |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides queue *reference* |
| Tree | queue |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**queue-id**] *reference*

| | |
|---|---|
| Synopsis | Policer unique ID |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides queue *reference* |
| Tree | queue |
| Reference | **configure** qos sap-ingress *qos-policy-name* queue *number* |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## adaptation-rule

| | |
|---|---|
| Synopsis | Enter the **adaptation-rule** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides queue *reference* adaptation-rule |
| Tree | adaptation-rule |
| Introduced | 16.0.R1 |
| Platforms | All |

## **cir** *keyword*

| | |
|---|---|
| Synopsis | Constraint used when deriving the operational CIR value |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides queue *reference* adaptation-rule cir *keyword* |
| Tree | cir |
| Options | max, min, closest |
| Introduced | 16.0.R1 |
| Platforms | All |

## **pir** *keyword*

| | |
|---|---|
| Synopsis | Constraint used when deriving the operational PIR value |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides queue *reference* adaptation-rule pir *keyword* |
| Tree | pir |
| Options | max, min, closest |
| Introduced | 16.0.R1 |
| Platforms | All |

## **cbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | CBS |


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| | |
|---|---|
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides queue *reference* cbs *(number \| keyword)* |
| Tree | cbs |
| Range | 0 to 1048576 |
| Units | kilobytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | All |

## drop-tail

| | |
|---|---|
| Synopsis | Enter the **drop-tail** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides queue *reference* drop-tail |
| Tree | drop-tail |
| Introduced | 16.0.R1 |
| Platforms | All |

## low

| | |
|---|---|
| Synopsis | Enter the **low** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides queue *reference* drop-tail low |
| Tree | low |
| Introduced | 16.0.R1 |
| Platforms | All |

## percent-reduction-from-mbs *(number | keyword)*

| | |
|---|---|
| Synopsis | Percentage reduction from the MBS for a queue drop tail |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides queue *reference* drop-tail low percent-reduction-from-mbs *(number \| keyword)* |
| Tree | percent-reduction-from-mbs |
| Range | 0 to 100 |
| Options | auto |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## **mbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | MBS |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides queue *reference* mbs *(number | keyword)* |
| Tree | mbs |
| Range | 0 to 1073741824 |
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | All |

## **monitor-queue-depth**

| | |
|---|---|
| Synopsis | Enable the **monitor-queue-depth** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides queue *reference* monitor-queue-depth |
| Tree | monitor-queue-depth |
| Introduced | 21.7.R1 |
| Platforms | All |

## **fast-polling** *boolean*

| | |
|---|---|
| Synopsis | Enable fast polling of the queue depth |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides queue *reference* monitor-queue-depth fast-polling *boolean* |
| Tree | fast-polling |
| Default | false |
| Introduced | 21.7.R1 |
| Platforms | All |

## **parent**

| | |
|---|---|
| Synopsis | Enter the **parent** context |


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| | |
|---|---|
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides queue *reference* parent |
| Tree | parent |
| Introduced | 16.0.R1 |
| Platforms | All |

## **cir-weight** *number*

| | |
|---|---|
| Synopsis | CIR parameter that overrides parent for queue group |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides queue *reference* parent cir-weight *number* |
| Tree | cir-weight |
| Range | 0 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **weight** *number*

| | |
|---|---|
| Synopsis | PIR parameter that overrides parent for queue group |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides queue *reference* parent weight *number* |
| Tree | weight |
| Range | 0 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **percent-rate**

| | |
|---|---|
| Synopsis | Enter the **percent-rate** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides queue *reference* percent-rate |
| Tree | percent-rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **cir** *decimal-number*

| | |
|---|---|
| Synopsis | CIR percent rate |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides queue *reference* percent-rate cir *decimal-number* |
| Tree | cir |
| Range | 0.00 to 100.00 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **pir** *decimal-number*

| | |
|---|---|
| Synopsis | PIR percent rate |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides queue *reference* percent-rate pir *decimal-number* |
| Tree | pir |
| Range | 0.01 to 100.00 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rate**

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides queue *reference* rate |
| Tree | rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cir** *(number | keyword)*

| | |
|---|---|
| Synopsis | CIR rate |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides queue *reference* rate cir *(number | keyword)* |
| Tree | cir |


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| | |
|---|---|
| Range | 0 to 6400000000 |
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | All |

### **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | PIR rate |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides queue *reference* rate pir *(number | keyword)* |
| Tree | pir |
| Range | 1 to 6400000000 |
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | All |

### **policy-name** *reference*

| | |
|---|---|
| Synopsis | Policy ID |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos sap-ingress *qos-policy-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **queuing-type** *keyword*

| | |
|---|---|
| Synopsis | Queuing type |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress queuing-type *keyword* |
| Tree | queuing-type |
| Options | shared, multipoint-shared |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e, VSR |

## scheduler-policy

| | |
|---|---|
| Synopsis | Enter the **scheduler-policy** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos scheduler-policy |
| Tree | scheduler-policy |
| Introduced | 16.0.R1 |
| Platforms | All |

## overrides

| | |
|---|---|
| Synopsis | Enter the **overrides** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos scheduler-policy overrides |
| Tree | overrides |
| Introduced | 16.0.R1 |
| Platforms | All |

## **scheduler** [scheduler-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **scheduler** list instance |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos scheduler-policy overrides scheduler *named-item* |
| Tree | scheduler |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**scheduler-name**] *named-item*

| | |
|---|---|
| Synopsis | Scheduler name |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos scheduler-policy overrides scheduler *named-item* |
| Tree | scheduler |
| Description | This command specifies the scheduler name which is composed of printable 7-bit ASCII characters. If the string contains special characters (#, $, spaces, and so on), |


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the entire string must be enclosed within double quotes. Each scheduler must have a unique name within the context of the scheduler policy. However, the same name can be reused in multiple scheduler policies. If the scheduler name already exists within the policy tier level, the context changes to that scheduler name for the purpose of editing the scheduler commands.

If the scheduler name exists within the policy on a different tier, an error occurs and the current context does not change. If the scheduler name does not exist in this or another tier within the scheduler policy, it is assumed that an attempt is being made to create a scheduler of that name.

If the provided scheduler name is invalid, a name syntax error occurs, the command does not execute, and the context is not change.

| | |
|---|---|
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## parent

| | |
|---|---|
| Synopsis | Enter the **parent** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos scheduler-policy overrides scheduler *named-item* parent |
| Tree | parent |
| Introduced | 16.0.R1 |
| Platforms | All |

## cir-weight *number*

| | |
|---|---|
| Synopsis | Weight used at the within-CIR port priority level |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos scheduler-policy overrides scheduler *named-item* parent cir-weight *number* |
| Tree | cir-weight |
| Range | 0 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

## weight *number*

| | |
|---|---|
| Synopsis | Relative weight of the scheduler to feed the queue |


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| | |
|---|---|
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos scheduler-policy overrides scheduler *named-item* parent weight *number* |
| Tree | weight |
| Range | 0 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

## rate

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos scheduler-policy overrides scheduler *named-item* rate |
| Tree | rate |
| Introduced | 16.0.R1 |
| Platforms | All |

## cir *(number | keyword)*

| | |
|---|---|
| Synopsis | CIR at which the queue it to operate |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos scheduler-policy overrides scheduler *named-item* rate cir *(number | keyword)* |
| Tree | cir |
| Range | 0 to 6400000000 |
| Units | kilobps |
| Options | sum, max |
| Introduced | 16.0.R1 |
| Platforms | All |

## pir *(number | keyword)*

| | |
|---|---|
| Synopsis | PIR at which the queue is to operate |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos scheduler-policy overrides scheduler *named-item* rate pir *(number | keyword)* |
| Tree | pir |
| Range | 1 to 6400000000 |
| Units | kilobps |


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| | |
|---|---|
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | All |

### **policy-name** *reference*

| | |
|---|---|
| Synopsis | Scheduler policy name |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress qos scheduler-policy policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos scheduler-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **queue-group-redirect-list** *reference*

| | |
|---|---|
| Synopsis | Queue group redirect list |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ingress queue-group-redirect-list *reference* |
| Tree | queue-group-redirect-list |
| Reference | **configure** qos queue-group-redirect-list *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ip-tunnel** [tunnel-name] *interface-name*

| | |
|---|---|
| Synopsis | Enter the **ip-tunnel** list instance |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* |
| Tree | ip-tunnel |
| Description | Commands in this context configure an IP-GRE or IP-IP tunnel and associate it with a private tunnel SAP within an IES service. |
| Max. instances | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**tunnel-name**] *interface-name*

| | |
|---|---|
| Synopsis | IP tunnel name |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* |
| Tree | ip-tunnel |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the IP tunnel |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **backup-remote-ip-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Backup remote IP address that is applied to this tunnel |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* backup-remote-ip-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | backup-remote-ip-address |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **clear-df-bit** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Clear the Do-not-Fragment bit |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* clear-df-bit *boolean* |
| Tree | clear-df-bit |
| Description | When configured to **true**, the DF bit is cleared (set to 0) in all payload IP packets associated with the GRE or IPsec tunnel, before any potential fragmentation resulting from the ip-mtu command. This requires a modification of the header checksum.<br>When configured to **false**, clearing of the DF bit is disabled. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **delivery-service** *service-name*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Service to originate and terminate GRE packets |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* delivery-service *service-name* |
| Tree | delivery-service |
| Description | This command specifies the service used to originate and terminate the GRE encapsulated packets belonging to the GRE tunnel. The delivery service may be the same service that owns the private tunnel SAP associated with the GRE tunnel.<br>The GRE tunnel does not come up until a valid delivery service is configured. |
| String length | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **description** *description*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **dest-ip** [dest-ip-address] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Add a list entry for **dest-ip** |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* dest-ip *(ipv4-address-no-zone | ipv6-address-no-zone)* |
| Tree | dest-ip |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**dest-ip-address**] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the remote IP tunnel endpoint |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* dest-ip *(ipv4-address-no-zone | ipv6-address-no-zone)* |
| Tree | dest-ip |
| Description | This command configures the IP address of the remote IP tunnel endpoint. If the remote IP address is not within the subnet of the IP interface associated with the tunnel, the tunnel fails to come up. |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **dscp** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Differentiated Services Code Point (DSCP) name |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* dscp *keyword* |
| Tree | dscp |
| Options | be, cp1, cp2, cp3, cp4, cp5, cp6, cp7, cs1, cp9, af11, cp11, af12, cp13, af13, cp15, cs2, cp17, af21, cp19, af22, cp21, af23, cp23, cs3, cp25, af31, cp27, af32, cp29, af33, cp31, cs4, cp33, af41, cp35, af42, cp37, af43, cp39, cs5, cp41, cp42, cp43, cp44, cp45, ef, cp47, nc1, cp49, cp50, cp51, cp52, cp53, cp54, cp55, nc2, cp57, cp58, cp59, cp60, cp61, cp62, cp63 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **encapsulated-ip-mtu** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum size of the encapsulated tunnel packet |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* encapsulated-ip-mtu *number* |
| Tree | encapsulated-ip-mtu |
| Description | This command specifies the maximum size of the encapsulated tunnel packet for the IP tunnel. If the packet exceeds this value, the system fragments the packet. |
| Range | 512 to 9000 |
| Units | bytes |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## gre-header

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **gre-header** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* gre-header |
| Tree | gre-header |
| Introduced | 16.0.R1 |
| Platforms | All |

## admin-state *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Administrative state of the GRE header in the tunnel |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* gre-header admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Introduced | 16.0.R1 |
| Platforms | All |

## key

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **key** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* gre-header key |
| Tree | key |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## **admin-state** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Administrative state of the keys in the GRE header |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* gre-header key admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

## **receive** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Receive key of the GRE header |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* gre-header key receive *number* |
| Tree | receive |
| Max. range | 0 to 4294967295 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **send** *number*

**WARNING:**
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| | |
|---|---|
| Synopsis | Send key of the GRE header |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* gre-header key send *number* |
| Tree | send |
| Max. range | 0 to 4294967295 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

## icmp-generation

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **icmp-generation** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* icmp-generation |
| Tree | icmp-generation |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## frag-required

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **frag-required** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* icmp-generation frag-required |
| Tree | frag-required |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **admin-state** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Administrative state of sending ICMP messages |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* icmp-generation frag-required admin-state *keyword* |
| Tree | admin-state |
| Description | This command configures the administrative state of sending ICMP Destination Unreachable "fragmentation needed, DF set" messages (type 3, code 4) messages to the source if the received size of the IPv4 packet on the private side exceeds the private MTU size. |
| Options | enable, disable |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **interval** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Interval for sending ICMP messages |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* icmp-generation frag-required interval *number* |
| Tree | interval |
| Description | This command configures the interval for sending ICMP Destination Unreachable "fragmentation needed, DF set" messages (type 3, code 4). |
| Range | 1 to 60 |
| Units | seconds |
| Default | 10 |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **message-count** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum number of ICMP messages sent |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* icmp-generation frag-required message-count *number* |
| Tree | message-count |
| Description | This command configures the maximum number of ICMP messages that can be sent during the period specified by the **interval** command. |
| Range | 10 to 1000 |
| Default | 100 |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## icmp6-generation

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **icmp6-generation** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* icmp6-generation |
| Tree | icmp6-generation |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## packet-too-big

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **packet-too-big** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* icmp6-generation packet-too-big |


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| | |
|---|---|
| Tree | packet-too-big |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Administrative state of sending Packet Too Big messages |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* icmp6-generation packet-too-big admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **number** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum number of PTB ICMPv6 messages that can be sent |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* icmp6-generation packet-too-big number *number* |
| Tree | number |
| Description | This command configures the maximum number of ICMPv6 messages that can be sent during the configured interval. |
| Range | 10 to 1000 |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **seconds** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum interval when PTB messages can be sent |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* icmp6-generation packet-too-big seconds *number* |
| Tree | seconds |
| Range | 1 to 60 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ip-mtu** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IP MTU for the interface |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* ip-mtu *number* |
| Tree | ip-mtu |
| Description | This command specifies the IP MTU for the interface. If the DF bit is not set in the packet, IP packet fragmentation is performed, if necessary, based on this configured value.<br>When unconfigured, all IP packets, regardless of the packet size or DF bit setting, are allowed into the tunnel without fragmentation. |
| Range | 512 to 9000 |
| Units | bytes |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **ipsec-transport-mode-profile** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IPsec transport mode profile name |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* ipsec-transport-mode-profile *reference* |
| Tree | ipsec-transport-mode-profile |
| Reference | **configure** ipsec ipsec-transport-mode-profile *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **local-ip-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Local IP address of this tunnel |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* local-ip-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | local-ip-address |
| Description | This command specifies the local IP address to use for the IP tunnel. This configuration applies to the outer IP header of the encapsulated packets. The address must belong to one of the IP subnets associated with the public SAP interface of the tunnel group. The source IP address, the remote IP address, and the backup remote IP address of a tunnel must all belong to the same address family (IPv4 or IPv6).<br><br>When this command specifies an IPv6 address, it must be a global unicast address. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **pmtu-discovery-aging** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.


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| | |
|---|---|
| Synopsis | Time to age out the learned path MTU |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* pmtu-discovery-aging *number* |
| Tree | pmtu-discovery-aging |
| Description | This command configures the temporary public MTU expiration time. The temporary public MTU is used for MTU propagation. |
| Range | 900 to 3600 |
| Units | seconds |
| Default | 900 |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **private-tcp-mss-adjust** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | TCP Maximum Segment Size (MSS) on the private side |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* private-tcp-mss-adjust *number* |
| Tree | private-tcp-mss-adjust |
| Description | This command specifies the TCP MSS to adjust for tunnels on the private side. The value is used to adjust the TCP MSS option in the TCP SYN packet. |
| Range | 512 to 9000 |
| Units | bytes |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **propagate-pmtu-v4** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable propagation of the path MTU to IPv4 hosts |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* propagate-pmtu-v4 *boolean* |


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| | |
|---|---|
| Tree | propagate-pmtu-v4 |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **propagate-pmtu-v6** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable propagation of path MTU to IPv6 hosts |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* propagate-pmtu-v6 *boolean* |
| Tree | propagate-pmtu-v6 |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **public-tcp-mss-adjust** *(number | keyword)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | TCP Maximum Segment Size (MSS) on the public side |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* public-tcp-mss-adjust *(number \| keyword)* |
| Tree | public-tcp-mss-adjust |
| Description | This command specifies the TCP MSS for TCP traffic sent from the public network to the private network. The value is used to adjust the TCP MSS option in the TCP SYN packet. |
| Range | 512 to 9000 |
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **reassembly** *(number | keyword)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum reassembly wait time |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* reassembly *(number \| keyword)* |
| Tree | reassembly |
| Description | This command configures the maximum time to wait to receive all fragments of a particular IPsec or GRE packet for reassembly. |
| Range | 1 to 5000 |
| Units | milliseconds |
| Options | use-tunnel-group-setting, none |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **remote-ip-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Remote IP address of the tunnel |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* remote-ip-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | remote-ip-address |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipsec-gateway** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **ipsec-gateway** list instance |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* |
| Tree | ipsec-gateway |


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| | |
|---|---|
| Max. instances | 1 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | IPsec gateway name |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* |
| Tree | ipsec-gateway |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the IPsec gateway |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **cert**

| | |
|---|---|
| Synopsis | Enter the **cert** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* cert |
| Tree | cert |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **cert-profile** *reference*

| | |
|---|---|
| Synopsis | Certificate profile name |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* cert cert-profile *reference* |
| Tree | cert-profile |
| Reference | **configure** ipsec cert-profile *named-item* |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **status-verify**

| | |
|---|---|
| Synopsis | Enter the **status-verify** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* cert status-verify |
| Tree | status-verify |
| Description | Commands in this context configure certificate revocation status verification. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **default-result** *keyword*

| | |
|---|---|
| Synopsis | Default result of Certificate Status Verification (CSV) |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* cert status-verify default-result *keyword* |
| Tree | default-result |
| Description | This command specifies the default result when both the primary and secondary methods fail to provide an answer. |
| Options | revoked, good |
| Default | revoked |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **primary** *keyword*

| | |
|---|---|
| Synopsis | Primary method of CSV to verify the revocation status |


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| | |
|---|---|
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* cert status-verify primary *keyword* |
| Tree | primary |
| Options | crl, ocsp |
| Default | crl |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **secondary** *keyword*

| | |
|---|---|
| Synopsis | Secondary method of CSV to verify the revocation status |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* cert status-verify secondary *keyword* |
| Tree | secondary |
| Options | none, crl, ocsp |
| Default | none |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **trust-anchor-profile** *reference*

| | |
|---|---|
| Synopsis | Trust anchor profile name |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* cert trust-anchor-profile *reference* |
| Tree | trust-anchor-profile |
| Reference | **configure** ipsec trust-anchor-profile *named-item* |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **client-db**

| | |
|---|---|
| Synopsis | Enable the **client-db** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* client-db |
| Tree | client-db |


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| | |
|---|---|
| Description | Commands in this context configure the IPsec client database. The client database is used to authenticate the IKEv2 dynamic LAN-to-LAN tunnel. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **fallback** *boolean*

| | |
|---|---|
| Synopsis | Fall back to the default authentication policy |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* client-db fallback *boolean* |
| Tree | fallback |
| Description | When configured to **true**, this command specifies whether the IPsec gateway can fall back to the default authentication policy when the IPsec tunnel authentication request fails to match any clients in the IPsec database.<br>When configured to **false** and the client database lookup fails to return a matched result, the system fails the tunnel setup. |
| Default | true |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **name** *reference*

| | |
|---|---|
| Synopsis | Client database name |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* client-db name *reference* |
| Tree | name |
| Reference | **configure** ipsec client-db *named-item* |
| Notes | This element is mandatory. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **default-secure-service**

| | |
|---|---|
| Synopsis | Enable the **default-secure-service** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* default-secure-service |
| Tree | default-secure-service |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **interface** *interface-name*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Private IPsec tunnel interface name |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* default-secure-service interface *interface-name* |
| Tree | interface |
| String length | 1 to 32 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **service-name** *service-name*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Default security service name |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* default-secure-service service-name *service-name* |
| Tree | service-name |
| String length | 1 to 64 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **default-tunnel-template** *reference*

| | |
|---|---|
| Synopsis | Default tunnel policy template for the gateway |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* default-tunnel-template *reference* |
| Tree | default-tunnel-template |
| Reference | **configure** ipsec tunnel-template *number* |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## dhcp-address-assignment

| | |
|---|---|
| Synopsis | Enter the **dhcp-address-assignment** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* dhcp-address-assignment |
| Tree | dhcp-address-assignment |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## dhcpv4

| | |
|---|---|
| Synopsis | Enable the **dhcpv4** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* dhcp-address-assignment dhcpv4 |
| Tree | dhcpv4 |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the IPsec DHCPv4 server |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* dhcp-address-assignment dhcpv4 admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **gi-address** *ipv4-unicast-address*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Gateway IP address of DHCPv4 packets sent by the system |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* dhcp-address-assignment dhcpv4 gi-address *ipv4-unicast-address* |
| Tree | gi-address |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **send-release** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Send DHCPv4 release message when IPsec tunnel removed |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* dhcp-address-assignment dhcpv4 send-release *boolean* |
| Tree | send-release |
| Default | true |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **server**

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **server** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* dhcp-address-assignment dhcpv4 server |
| Tree | server |
| Introduced | 19.7.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **address** *ipv4-unicast-address*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | DHCPv4 server addresses |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* dhcp-address-assignment dhcpv4 server address *ipv4-unicast-address* |
| Tree | address |
| Description | This command specifies DHCPv4 server addresses for the DHCPv4-based address assignment. If multiple server addresses are specified, the first advertised DHCPv4 address received is chosen. |
| Max. instances | 8 |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **router-instance** *router-instance-base-vprn-loose*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Router instance used to reach the DHCPv4 server |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* dhcp-address-assignment dhcpv4 server router-instance *router-instance-base-vprn-loose* |
| Tree | router-instance |
| String length | 1 to 64 |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **dhcpv6**

| | |
|---|---|
| Synopsis | Enable the **dhcpv6** context |


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| | |
|---|---|
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* dhcp-address-assignment dhcpv6 |
| Tree | dhcpv6 |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the DHCPv6 server |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* dhcp-address-assignment dhcpv6 admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **link-address** *ipv6-unicast-address*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Link address of the relayed DHCPv6 packets |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* dhcp-address-assignment dhcpv6 link-address *ipv6-unicast-address* |
| Tree | link-address |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **send-release** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Send DHCPv6 release message when IPsec tunnel removed |


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| | |
|---|---|
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* dhcp-address-assignment dhcpv6 send-release *boolean* |
| Tree | send-release |
| Default | true |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## server

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **server** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* dhcp-address-assignment dhcpv6 server |
| Tree | server |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## address *ipv6-unicast-address*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | DHCPv6 server addresses |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* dhcp-address-assignment dhcpv6 server address *ipv6-unicast-address* |
| Tree | address |
| Description | This command specifies DHCPv6 server addresses for the DHCPv6-based address assignment. If multiple server addresses are specified, the first advertised DHCPv6 address received is chosen. |
| Max. instances | 8 |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **router-instance** *router-instance-base-vprn-loose*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Router instance to reach the DHCPv6 server |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* dhcp-address-assignment dhcpv6 server router-instance *router-instance-base-vprn-loose* |
| Tree | router-instance |
| String length | 1 to 64 |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **ike-policy** *reference*

| | |
|---|---|
| Synopsis | IKE policy ID |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* ike-policy *reference* |
| Tree | ike-policy |
| Reference | **configure** ipsec ike-policy *number* |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **local**

| | |
|---|---|
| Synopsis | Enter the **local** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* local |
| Tree | local |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **address-assignment**

| | |
|---|---|
| Synopsis | Enable the **address-assignment** context |


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| | |
|---|---|
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* local address-assignment |
| Tree | address-assignment |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of local address assignments |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* local address-assignment admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **ipv4**

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable the **ipv4** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* local address-assignment ipv4 |
| Tree | ipv4 |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **dhcp-server** *named-item*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Local DHCPv4 server name |


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| | |
|---|---|
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* local address-assignment ipv4 dhcp-server *named-item* |
| Tree | dhcp-server |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **pool** *named-item*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Name of the pool defined in the specified DHCPv4 server |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* local address-assignment ipv4 pool *named-item* |
| Tree | pool |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **router-instance** *router-instance-base-vprn-loose*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Router instance ID for the local DHCPv4 server |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* local address-assignment ipv4 router-instance *router-instance-base-vprn-loose* |
| Tree | router-instance |
| String length | 1 to 64 |
| Notes | This element is mandatory. |
| Introduced | 19.7.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **secondary-pool** *named-item*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Name of the secondary pool defined in the DHCPv4 server |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* local address-assignment ipv4 secondary-pool *named-item* |
| Tree | secondary-pool |
| String length | 1 to 32 |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **ipv6**

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable the **ipv6** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* local address-assignment ipv6 |
| Tree | ipv6 |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **dhcp-server** *named-item*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Local DHCPv6 server name |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* local address-assignment ipv6 dhcp-server *named-item* |
| Tree | dhcp-server |


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| | |
|---|---|
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **pool** *named-item*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Secondary pool name defined in the DHCPv6 server |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* local address-assignment ipv6 pool *named-item* |
| Tree | pool |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **router-instance** *router-instance-base-vprn-loose*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Router instance ID hosting the DHCPv6 connection |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* local address-assignment ipv6 router-instance *router-instance-base-vprn-loose* |
| Tree | router-instance |
| String length | 1 to 64 |
| Notes | This element is mandatory. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **gateway-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Local gateway address of the IPsec gateway |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* local gateway-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | gateway-address |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## id

| | |
|---|---|
| Synopsis | Enter the **id** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* local id |
| Tree | id |
| Description | Commands in this context specify the local ID used for the Identification Indicator (IDi) or Identification Responder (IDr) in the IKEv2 tunnel. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## auto

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Select ID based on authentication method in IKE policy |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* local id auto |
| Tree | auto |
| Notes | The following elements are part of a choice: **auto**, **fqdn**, **ipv4**, or **ipv6**. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **fqdn** *fully-qualified-domain-name*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | FQDN as the local ID type |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* local id fqdn *fully-qualified-domain-name* |
| Tree | fqdn |
| String length | 1 to 255 |
| Notes | The following elements are part of a choice: **auto**, **fqdn**, **ipv4**, or **ipv6**. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ipv4** *ipv4-unicast-address*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IPv4 address as the local ID type |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* local id ipv4 *ipv4-unicast-address* |
| Tree | ipv4 |
| Notes | The following elements are part of a choice: **auto**, **fqdn**, **ipv4**, or **ipv6**. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ipv6** *(ipv4-address-no-zone | ipv6-address-no-zone)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IPv6 address as the local ID type |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* local id ipv6 *(ipv4-address-no-zone \| ipv6-address-no-zone)* |


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| | |
|---|---|
| Tree | ipv6 |
| Notes | The following elements are part of a choice: **auto**, **fqdn**, **ipv4**, or **ipv6**. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## max-history-key-records

| | |
|---|---|
| Synopsis | Enter the **max-history-key-records** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* max-history-key-records |
| Tree | max-history-key-records |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## esp *number*

| | |
|---|---|
| Synopsis | Maximum number of recent records |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* max-history-key-records esp *number* |
| Tree | esp |
| Range | 1 to 48 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## ike *number*

| | |
|---|---|
| Synopsis | Maximum number of historical IKE keys recorded |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* max-history-key-records ike *number* |
| Tree | ike |
| Range | 1 to 3 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **pre-shared-key** *encrypted-leaf*

| | |
|---|---|
| Synopsis | Pre-shared key for the IPsec gateway |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* pre-shared-key *encrypted-leaf* |
| Tree | pre-shared-key |
| String length | 1 to 115 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **radius**

| | |
|---|---|
| Synopsis | Enter the **radius** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* radius |
| Tree | radius |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **accounting-policy** *reference*

| | |
|---|---|
| Synopsis | RADIUS accounting policy |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* radius accounting-policy *reference* |
| Tree | accounting-policy |
| Reference | **configure** ipsec radius accounting-policy *named-item* |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **authentication-policy** *reference*

| | |
|---|---|
| Synopsis | RADIUS authentication policy |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* radius authentication-policy *reference* |
| Tree | authentication-policy |
| Reference | **configure** ipsec radius authentication-policy *named-item* |


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| | |
|---|---|
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **ts-list** *reference*

| | |
|---|---|
| Synopsis | TS list used for IKEv2 TS negotiation |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* ts-list *reference* |
| Tree | ts-list |
| Reference | **configure** ipsec ts-list *named-item* |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **lag**

| | |
|---|---|
| Synopsis | Enter the **lag** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* lag |
| Tree | lag |
| Introduced | 16.0.R1 |
| Platforms | All |

## **link-map-profile** *number*

| | |
|---|---|
| Synopsis | LAG link map profile for a SAP or network interface |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* lag link-map-profile *number* |
| Tree | link-map-profile |
| Description | This command assigns a preconfigured LAG link map profile to a SAP or network interface configured on a LAG or a PW port that exists on a LAG. After an operator assigns a LAG link map profile, the system rehashes the SAP or network interface egress traffic over the LAG as required by the new configuration.<br><br>If the LAG link map profile for a SAP or network interface is deleted, the system reverts back to per-flow hashing. |
| Range | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | All |


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## per-link-hash

| | |
|---|---|
| Synopsis | Enter the **per-link-hash** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* lag per-link-hash |
| Tree | per-link-hash |
| Introduced | 16.0.R1 |
| Platforms | All |

## class *number*

| | |
|---|---|
| Synopsis | Class used on LAG egress using weighted per-link-hash |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* lag per-link-hash class *number* |
| Tree | class |
| Range | 1 to 3 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

## weight *number*

| | |
|---|---|
| Synopsis | Weight used on LAG egress using weighted per-link-hash |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* lag per-link-hash weight *number* |
| Tree | weight |
| Range | 1 to 1024 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

## multi-service-site *reference*

| | |
|---|---|
| Synopsis | Multi service site name |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* multi-service-site *reference* |
| Tree | multi-service-site |


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| | |
|---|---|
| Reference | **configure** service customer *customer-name* multi-service-site *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

## static-host

| | |
|---|---|
| Synopsis | Enter the **static-host** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* static-host |
| Tree | static-host |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **ipv4** [ip] *ipv4-address* mac *mac-unicast-address*

| | |
|---|---|
| Synopsis | Enter the **ipv4** list instance |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* static-host ipv4 *ipv4-address* mac *mac-unicast-address* |
| Tree | ipv4 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## [**ip**] *ipv4-address*

| | |
|---|---|
| Synopsis | IP address |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* static-host ipv4 *ipv4-address* mac *mac-unicast-address* |
| Tree | ipv4 |
| MD-CLI default | 0.0.0.0 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **mac** *mac-unicast-address*

| | |
|---|---|
| Synopsis | MAC address |


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| | |
|---|---|
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* static-host ipv4 *ipv4-address* mac *mac-unicast-address* |
| Tree | ipv4 |
| MD-CLI default | 00:00:00:00:00:00 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the static host |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* static-host ipv4 *ipv4-address* mac *mac-unicast-address* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **ancp-string** *ancp-string*

| | |
|---|---|
| Synopsis | ANCP string |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* static-host ipv4 *ipv4-address* mac *mac-unicast-address* ancp-string *ancp-string* |
| Tree | ancp-string |
| String length | 1 to 63 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **app-profile**

| | |
|---|---|
| Synopsis | Enter the **app-profile** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* static-host ipv4 *ipv4-address* mac *mac-unicast-address* app-profile |
| Tree | app-profile |


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| | |
|---|---|
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **profile** *reference*

| | |
|---|---|
| Synopsis | Application profile used by the static host |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* static-host ipv4 *ipv4-address* mac *mac-unicast-address* app-profile profile *reference* |
| Tree | profile |
| Reference | **configure** application-assurance group *number* partition *number* policy app-profile *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **int-dest-id** *int-dest-id*

| | |
|---|---|
| Synopsis | Intermediate destination ID |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* static-host ipv4 *ipv4-address* mac *mac-unicast-address* int-dest-id *int-dest-id* |
| Tree | int-dest-id |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **sla-profile** *reference*

| | |
|---|---|
| Synopsis | SLA profile name |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* static-host ipv4 *ipv4-address* mac *mac-unicast-address* sla-profile *reference* |
| Tree | sla-profile |
| Reference | **configure** subscriber-mgmt sla-profile *external-named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **sub-profile** *reference*

| | |
|---|---|
| Synopsis | Sub-profile name |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* static-host ipv4 *ipv4-address* mac *mac-unicast-address* sub-profile *reference* |
| Tree | sub-profile |
| Reference | **configure** subscriber-mgmt sub-profile *external-named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **subscriber-id**

| | |
|---|---|
| Synopsis | Enter the **subscriber-id** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* static-host ipv4 *ipv4-address* mac *mac-unicast-address* subscriber-id |
| Tree | subscriber-id |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **string** *subscriber-id*

| | |
|---|---|
| Synopsis | Subscriber identification |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* static-host ipv4 *ipv4-address* mac *mac-unicast-address* subscriber-id string *subscriber-id* |
| Tree | string |
| String length | 1 to 64 |
| Notes | The following elements are part of a choice: **string** or **use-sap-id**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **use-sap-id**

| | |
|---|---|
| Synopsis | Use the SAP id as subscriber ID |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* static-host ipv4 *ipv4-address* mac *mac-unicast-address* subscriber-id use-sap-id |
| Tree | use-sap-id |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **string** or **use-sap-id**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## transit-policy

| | |
|---|---|
| Synopsis | Enable the **transit-policy** context |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* transit-policy |
| Tree | transit-policy |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## ip *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IP transit policy ID |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* transit-policy ip *reference* |
| Tree | ip |
| Reference | **configure** application-assurance group *number* partition *number* transit-ip-policy *number* |
| Notes | The following elements are part of a mandatory choice: **ip** or **prefix**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## prefix *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IP prefix policy ID |
| Context | **configure** service ies *service-name* interface *interface-name* sap *sap* transit-policy prefix *reference* |


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| | |
|---|---|
| Tree | prefix |
| Reference | **configure** application-assurance group *number* partition *number* transit-prefix-policy *number* |
| Notes | The following elements are part of a mandatory choice: **ip** or **prefix**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **shcv-policy-ipv4** *reference*

| | |
|---|---|
| Synopsis | Host connectivity IPv4 policy |
| Context | **configure** service ies *service-name* interface *interface-name* shcv-policy-ipv4 *reference* |
| Tree | shcv-policy-ipv4 |
| Reference | **configure** subscriber-mgmt shcv-policy *external-named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **spoke-sdp** [sdp-bind-id] *sdp-bind-id*

| | |
|---|---|
| Synopsis | Enter the **spoke-sdp** list instance |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* |
| Tree | spoke-sdp |
| Max. instances | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**sdp-bind-id**] *sdp-bind-id*

| | |
|---|---|
| Synopsis | SDP binding ID |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* |
| Tree | spoke-sdp |
| String length | 3 to 16 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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## aarp

| | |
|---|---|
| Synopsis | Enable the **aarp** context |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* aarp |
| Tree | aarp |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## id *reference*

| | |
|---|---|
| Synopsis | AARP instance ID |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* aarp id *reference* |
| Tree | id |
| Reference | **configure** application-assurance aarp *number* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## type *keyword*

| | |
|---|---|
| Synopsis | Role referenced by the AARP |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* aarp type *keyword* |
| Tree | type |
| Options | dual-homed, dual-homed-secondary |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## accounting-policy *reference*

| | |
|---|---|
| Synopsis | Policy to collect accounting statistics |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* accounting-policy *reference* |
| Tree | accounting-policy |
| Reference | **configure** log accounting-policy *number* |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the SDP binding to the service |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **app-profile** *reference*

| | |
|---|---|
| Synopsis | Application profile name for this SDP |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* app-profile *reference* |
| Tree | app-profile |
| Reference | **configure** application-assurance group *number* partition *number* policy app-profile *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **bfd**

| | |
|---|---|
| Synopsis | Enter the **bfd** context |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* bfd |
| Tree | bfd |
| Introduced | 21.2.R1 |
| Platforms | All |

### **bfd-liveness**

| | |
|---|---|
| Synopsis | Enable the **bfd-liveness** context |


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| | |
|---|---|
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* bfd bfd-liveness |
| Tree | bfd-liveness |
| Introduced | 21.2.R1 |
| Platforms | All |

### **encap** *keyword*

| | |
|---|---|
| Synopsis | BFD encapsulation used on the SDP binding |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* bfd bfd-liveness encap *keyword* |
| Tree | encap |
| Options | ipv4 |
| Default | ipv4 |
| Introduced | 21.2.R1 |
| Platforms | All |

### **bfd-template** *reference*

| | |
|---|---|
| Synopsis | BFD template associated with the SDP binding |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* bfd bfd-template *reference* |
| Tree | bfd-template |
| Description | This command configures a named BFD template to be used by VCCV BFD on PWs belonging to the VLL service. The template specifies parameters, such as the minimum transmit and receive control packet timer intervals, used by the BFD session. Template parameters are configured under the **configure router bfd** context. |
| Reference | **configure** bfd bfd-template *named-item* |
| Introduced | 21.2.R1 |
| Platforms | All |

### **failure-action** *keyword*

| | |
|---|---|
| Synopsis | VCCV BFD action taken on the SDP binding |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* bfd failure-action *keyword* |
| Tree | failure-action |


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| | |
|---|---|
| Description | This command configures a named BFD template to be used by VCCV BFD on PWs belonging to the VLL service. The template specifies parameters, such as the minimum transmit and receive control packet timer intervals, used by the BFD session. Template parameters are configured under the **configure router bfd** context. |
| Options | none, down |
| Default | none |
| Introduced | 21.2.R1 |
| Platforms | All |

### **wait-for-up-timer** *number*

| | |
|---|---|
| Synopsis | Time waited for BFD up status |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* bfd wait-for-up-timer *number* |
| Tree | wait-for-up-timer |
| Description | This command configures the time interval that is used to wait for a BFD session to come up.<br>This command is triggered when a spoke-SDP is first administratively enabled and a VCCV BFD session transitions from up to down. The command is required to allow time for BFD sessions to come up, and for BFD to settle before selecting the active spoke-SDP for use in a redundant set. In the case where a VCCV BFD session is bouncing, the timer prevents excessive flapping of the operational state of a spoke-SDP. |
| Range | 1 to 60 |
| Units | seconds |
| Introduced | 21.2.R1 |
| Platforms | All |

### **collect-stats** *boolean*

| | |
|---|---|
| Synopsis | Allow agent to collect accounting statistics |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* collect-stats *boolean* |
| Tree | collect-stats |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **control-word** *boolean*

| | |
|---|---|
| Synopsis | Use the control word as preferred |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* control-word *boolean* |
| Tree | control-word |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### cpu-protection

| | |
|---|---|
| Synopsis | Enter the **cpu-protection** context |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* cpu-protection |
| Tree | cpu-protection |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

### eth-cfm-monitoring

| | |
|---|---|
| Synopsis | Enable the **eth-cfm-monitoring** context |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* cpu-protection eth-cfm-monitoring |
| Tree | eth-cfm-monitoring |
| Notes | The following elements are part of a choice: **eth-cfm-monitoring**, **ip-src-monitoring**, or **mac-monitoring**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

### aggregate

| | |
|---|---|
| Synopsis | Apply rate limit to the sum of the per peer packet rates |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* cpu-protection eth-cfm-monitoring aggregate |
| Tree | aggregate |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

## car

| | |
|---|---|
| Synopsis | Ignore Ethernet CFM packets when enforcing overall rate |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* cpu-protection eth-cfm-monitoring car |
| Tree | car |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

## ip-src-monitoring

| | |
|---|---|
| Synopsis | Enable IP source monitoring for CPU protection |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* cpu-protection ip-src-monitoring |
| Tree | ip-src-monitoring |
| Notes | The following elements are part of a choice: **eth-cfm-monitoring**, **ip-src-monitoring**, or **mac-monitoring**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

## mac-monitoring

| | |
|---|---|
| Synopsis | Monitor MAC for CPU protection |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* cpu-protection mac-monitoring |
| Tree | mac-monitoring |
| Notes | The following elements are part of a choice: **eth-cfm-monitoring**, **ip-src-monitoring**, or **mac-monitoring**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

## policy-id *reference*

| | |
|---|---|
| Synopsis | CPM protection policy |


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| | |
|---|---|
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* cpu-protection policy-id *reference* |
| Tree | policy-id |
| Reference | **configure** system security cpu-protection policy *number* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **egress**

| | |
|---|---|
| Synopsis | Enter the **egress** context |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* egress |
| Tree | egress |
| Introduced | 16.0.R1 |
| Platforms | All |

## **filter**

| | |
|---|---|
| Synopsis | Enter the **filter** context |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* egress filter |
| Tree | filter |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **ip** *reference*

| | |
|---|---|
| Synopsis | IPv4 filter policy name |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* egress filter ip *reference* |
| Tree | ip |
| Reference | **configure** filter ip-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv6** *reference*

| | |
|---|---|
| Synopsis | IPv6 filter policy name |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* egress filter ipv6 *reference* |
| Tree | ipv6 |
| Reference | **configure** filter ipv6-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **qos**

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* egress qos |
| Tree | qos |
| Introduced | 16.0.R1 |
| Platforms | All |

### **network**

| | |
|---|---|
| Synopsis | Enter the **network** context |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* egress qos network |
| Tree | network |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## **policy-name** *reference*

| | |
|---|---|
| Synopsis | Network policy ID |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* egress qos network policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos network *network-policy-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **port-redirect-group**

| | |
|---|---|
| Synopsis | Enter the **port-redirect-group** context |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* egress qos network port-redirect-group |
| Tree | port-redirect-group |
| Introduced | 16.0.R1 |
| Platforms | All |

## **group-name** *reference*

| | |
|---|---|
| Synopsis | Name of the egress port queue group |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* egress qos network port-redirect-group group-name *reference* |
| Tree | group-name |
| Reference | **configure** qos queue-group-templates egress queue-group *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **instance** *number*

| | |
|---|---|
| Synopsis | Queue-group instance ID |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* egress qos network port-redirect-group instance *number* |


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| | |
|---|---|
| Tree | instance |
| Range | 1 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **vc-label** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Egress MPLS VC label to send packets to the far end |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* egress vc-label *number* |
| Tree | vc-label |
| Range | 16 to 1048575 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **entropy-label**

| | |
|---|---|
| Synopsis | Enable the use of entropy labels for spoke SDPs |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* entropy-label |
| Tree | entropy-label |
| Notes | The following elements are part of a choice: **entropy-label** or **hash-label**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **eth-cfm**

| | |
|---|---|
| Synopsis | Enter the **eth-cfm** context |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm |
| Tree | eth-cfm |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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## collect-lmm-fc-stats

| | |
|---|---|
| Synopsis | Enter the **collect-lmm-fc-stats** context |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm collect-lmm-fc-stats |
| Tree | collect-lmm-fc-stats |
| Description | Commands in this context configure per forwarding class (FC) LMM information collection.<br>The commands **fc-in-profile** and **fc** in this context are mutually exclusive. The commands apply to either profile-aware or profile-unaware FCs respectively.<br>This command and the **collect-lmm-stats** command are mutually exclusive when there is entity resource contention. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **fc** *keyword*

| | |
|---|---|
| Synopsis | Forwarding class name for profile-unaware counter |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm collect-lmm-fc-stats fc *keyword* |
| Tree | fc |
| Description | This command configures individual counters for the specified FCs without regard for profile. The system includes all countable packets that match a configured FC, regardless of profile, in this counter.<br>An FC specified as part of this command and for this specific context cannot be specified as a profile-aware FC using the **fc-in-profile** command under the **collect-lmm-fc-stats** context.<br>When this command is reentered, a differential is performed. Omitted FCs stop counting, newly added FCs start counting, and unchanged FCs continue to count. |
| Options | be, l2, af, l1, h2, ef, h1, nc |
| Max. instances | 8 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **fc-in-profile** *keyword*

| | |
|---|---|
| Synopsis | Forwarding class name for profile-aware counter |


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| | |
|---|---|
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm collect-lmm-fc-stats fc-in-profile *keyword* |
| Tree | fc-in-profile |
| Description | This command configures individual counters for the specified FCs with regard to profile. The system includes all countable packets that match a configured FC and that are deemed to be in-profile in this counter.<br>An FC specified as part of this command and for this specific context cannot be specified as a profile-unaware FC using the **fc** command under the **collect-lmm-fc-stats** context.<br>When this command is reentered, a differential is performed. Omitted FCs stop counting, newly added FCs start counting, and unchanged FCs continue to count. |
| Options | be, l2, af, l1, h2, ef, h1, nc |
| Max. instances | 8 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **collect-lmm-stats** *boolean*

| | |
|---|---|
| Synopsis | Collect statistics for loss measurement message tests |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm collect-lmm-stats *boolean* |
| Tree | collect-lmm-stats |
| Description | When configured to **true**, the router instantiates the statistical counter to transmit and receive packets for the LAG facility MEP bindings.<br>The **show eth-cfm collect-lmm-stats** command displays entities that have been enabled to collect transit and receive counters.<br>When configured to **false**, the router does not instantiate the counter and the LMM PDU associated with the MEP does not populate the counters in the packet. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **mep** md-admin-name *reference* ma-admin-name *reference* mep-id *number*

| | |
|---|---|
| Synopsis | Enter the **mep** list instance |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |
| Tree | mep |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **md-admin-name** *reference*

| | |
|---|---|
| Synopsis | Maintenance Domain (MD) name |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |
| Tree | mep |
| Reference | **configure** eth-cfm domain *admin-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ma-admin-name** *reference*

| | |
|---|---|
| Synopsis | Maintenance Association (MA) name |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |
| Tree | mep |
| Reference | **configure** eth-cfm domain *admin-name* association *admin-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **mep-id** *number*

| | |
|---|---|
| Synopsis | Maintenance Endpoint (MEP) ID |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |
| Tree | mep |
| Range | 1 to 8191 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the MEP |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ais** *boolean*

| | |
|---|---|
| Synopsis | Enable the generation and the reception of AIS messages |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ais *boolean* |
| Tree | ais |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **alarm-notification**

| | |
|---|---|
| Synopsis | Enter the **alarm-notification** context |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* alarm-notification |
| Tree | alarm-notification |
| Description | Commands in this context configure the Fault Notification Generator (FNG) time values to raise an alarm or reset the CCM defect alarm.<br>Use these timers for network management processes. The timers are not tied into delaying the notification to the fault management system on the network element and do not affect fault propagation mechanisms. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **fng-alarm-time** *number*

| | |
|---|---|
| Synopsis | Time that must expire before an FNG alarm is raised |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* alarm-notification fng-alarm-time *number* |
| Tree | fng-alarm-time |
| Range | 250 \| 500 \| 1000 |
| Units | centiseconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **fng-reset-time** *number*

| | |
|---|---|
| Synopsis | Time that must expire before an FNG alarm is reset |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* alarm-notification fng-reset-time *number* |
| Tree | fng-reset-time |
| Range | 250 \| 500 \| 1000 |
| Units | centiseconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ccm** *boolean*

| | |
|---|---|
| Synopsis | Generate CCM messages |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ccm *boolean* |
| Tree | ccm |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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## **ccm-ltm-priority** *number*

| | |
|---|---|
| Synopsis | Priority of CCM and LTM messages transmitted by the MEP |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ccm-ltm-priority *number* |
| Tree | ccm-ltm-priority |
| Range | 0 to 7 |
| Default | 7 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **ccm-padding-size** *number*

| | |
|---|---|
| Synopsis | Number of octets of padding to insert in CCM packets |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ccm-padding-size *number* |
| Tree | ccm-padding-size |
| Description | This command sets the byte size of the optional Data TLV to be included in the ETH-CC PDU.<br>This command increases the size of the ETH-CC PDU by the configured value. The base size of the ETH-CC PDU, including the Interface Status TLV and Port Status TLV, is 83 bytes not including the Layer 2 encapsulation. CCM padding is not supported when the CCM interval (configured through **configure eth-cfm domain association ccm-interval)** is less than 1 second. |
| Range | 3 to 1500 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **csf**

| | |
|---|---|
| Synopsis | Enable the **csf** context |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* csf |
| Tree | csf |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **multiplier** *decimal-number*

| | |
|---|---|
| Synopsis | Multiplication factor used to clear the CSF condition |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* csf multiplier *decimal-number* |
| Tree | multiplier |
| Range | 0.0 \| 2.0 to 30.0 |
| Default | 3.5 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **eth-test**

| | |
|---|---|
| Synopsis | Enable the **eth-test** context |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test |
| Tree | eth-test |
| Description | Commands in this context configure information used by the Ethernet Test (ETH-TST) packet. The commands must be configured on both the sender and the receiver nodes. The test packets are used with the **oam eth-cfm eth-test** command. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **bit-error-threshold** *number*

| | |
|---|---|
| Synopsis | Lowest priority defect allowed to generate fault alarm |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test bit-error-threshold *number* |
| Tree | bit-error-threshold |
| Range | 0 to 11840 |
| Units | bit errors |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **test-pattern**

| | |
|---|---|
| Synopsis | Enter the **test-pattern** context |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test test-pattern |
| Tree | test-pattern |
| Description | Commands in this context specify the test pattern for the ETH-TST frames. The pattern does not have to be the same on the sender and the receiver. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **crc-tlv** *boolean*

| | |
|---|---|
| Synopsis | Generate a CRC checksum |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test test-pattern crc-tlv *boolean* |
| Tree | crc-tlv |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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## **pattern** *keyword*

| | |
|---|---|
| Synopsis | Test pattern for Ethernet Test frames |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test test-pattern pattern *keyword* |
| Tree | pattern |
| Description | This command specifies the test pattern of the Ethernet Test (ETH-TST) frames. This does not have to be configured the same on the sender and the receiver. |
| Options | all-zeros, all-ones |
| Default | all-zeros |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **fault-propagation** *keyword*

| | |
|---|---|
| Synopsis | Fault propagation for the MEP |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* fault-propagation *keyword* |
| Tree | fault-propagation |
| Options | use-if-status-tlv, suspend-ccm |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **grace**

| | |
|---|---|
| Synopsis | Enter the **grace** context |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace |
| Tree | grace |
| Description | Commands in this context configure the Nokia ETH-CFM Grace function and the ITU-T Y.1731 Ethernet Expected Default (ETH-ED) function. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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## eth-ed

| | |
|---|---|
| Synopsis | Enter the **eth-ed** context |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed |
| Tree | eth-ed |
| Description | Commands in this context configure the ITU-T Y.1731 ETH-ED function. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## max-rx-defect-window *number*

| | |
|---|---|
| Synopsis | Maximum received ETH-ED expected defect window duration |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed max-rx-defect-window *number* |
| Tree | max-rx-defect-window |
| Range | 1 to 86400 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## priority *number*

| | |
|---|---|
| Synopsis | Transmission priority for ETH-ED PDUs |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed priority *number* |
| Tree | priority |
| Range | 0 to 7 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## rx-eth-ed *boolean*

| | |
|---|---|
| Synopsis | Receive and process ETH-ED ITU-T Y.1731 PDUs on the MEP |


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| | |
|---|---|
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed rx-eth-ed *boolean* |
| Tree | rx-eth-ed |
| Description | This command enables the reception and processing of the ITU-T Y.1731 ETH-ED PDU on the MEP. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **tx-eth-ed** *boolean*

| | |
|---|---|
| Synopsis | Transmit ETH-ED PDUs from the MEP |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed tx-eth-ed *boolean* |
| Tree | tx-eth-ed |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **eth-vsm-grace**

| | |
|---|---|
| Synopsis | Enter the **eth-vsm-grace** context |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-vsm-grace |
| Tree | eth-vsm-grace |
| Description | Commands in this context configure the Nokia ETH-CFM Grace function. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **rx-eth-vsm-grace** *boolean*

| | |
|---|---|
| Synopsis | Receive and process Nokia ETH-CFM Grace PDU on the MEP |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-vsm-grace rx-eth-vsm-grace *boolean* |


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| | |
|---|---|
| Tree | rx-eth-vsm-grace |
| Description | When configured to **true**, the router enables the Nokia Grace function, which is a vendor-specific PDU that informs MEP peers that the local node may be entering a period of expected defect.<br>When configured to **false**, the router disables the Nokia Grace function. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **tx-eth-vsm-grace** *boolean*

| | |
|---|---|
| Synopsis | Transmit ETH-ED PDUs from the MEP |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-vsm-grace tx-eth-vsm-grace *boolean* |
| Tree | tx-eth-vsm-grace |
| Description | When configured to **true**, the router can transmit the Nokia ETH-CFM Grace PDU from the MEP when a system soft reset notification is received for one or more cards.<br>The Nokia Grace function is a vendor-specific PDU that informs MEP peers that the local node may be entering a period of expected defect.<br>The operator must configure the **configure system eth-cfm grace** command to instruct the system that the node is capable of transmitting expected-defect windows to peers. The system can only transmit one form of ETH-CFM grace (Nokia ETH-CFM Grace or ITU-T Y.1731 ETH-ED).<br>When configured to **false**, the router disables the transmission of the Nokia ETH-CFM Grace PDU from the MEP. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **low-priority-defect** *keyword*

| | |
|---|---|
| Synopsis | Lowest priority defect allowed to generate fault alarm |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* low-priority-defect *keyword* |
| Tree | low-priority-defect |
| Options | all-def, mac-rem-err-xcon, rem-err-xcon, err-xcon, xcon, no-xcon |
| Default | mac-rem-err-xcon |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **one-way-delay-threshold** *number*

| | |
|---|---|
| Synopsis | Threshold time limit for the one-way delay test |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* one-way-delay-threshold *number* |
| Tree | one-way-delay-threshold |
| Range | 0 to 600 |
| Units | seconds |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **squelch-ingress-levels** *number*

| | |
|---|---|
| Synopsis | Levels for which ETH-CFM packets are silently discarded |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm squelch-ingress-levels *number* |
| Tree | squelch-ingress-levels |
| Description | This command defines the levels of the ETH-CFM packets that are silently discarded on ingress into the SAP or SDP binding from the wire that matches the service delineation of the SAP or SDP binding. All ETH-CFM packets inbound to the SAP or SDP binding that match the configured levels are dropped without regard for any other ETH-CFM criteria. No statistical information or drop count is available for any ETH-CFM packet that is silently discarded by this option.<br><br>The list of levels must be a complete contiguous list from 0 up to the highest level that will be dropped. |
| Range | 0 to 7 |
| Max. instances | 8 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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## hash-label

| | |
|---|---|
| Synopsis | Enable the **hash-label** context |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* hash-label |
| Tree | hash-label |
| Description | Commands in this context configure the use of hash labels for egress datapaths.<br>For information about hash-label handling, see the "Hash labels" section of the *7450 ESS, 7750 SR, 7950 XRS, and VSR MPLS Guide*. |
| Notes | The following elements are part of a choice: **entropy-label** or **hash-label**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## signal-capability

| | |
|---|---|
| Synopsis | Signal hash label capability to the remote PE |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* hash-label signal-capability |
| Tree | signal-capability |
| Description | When configured, this command enables the signaling and negotiating of the hash label between the local and remote PE nodes.<br>The signaling process outcome determines whether the local PE inserts the hash label on the user packets. This outcome can override the local PE configuration. |
| Introduced | 16.0.R1 |
| Platforms | All |

## ingress

| | |
|---|---|
| Synopsis | Enter the **ingress** context |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* ingress |
| Tree | ingress |
| Introduced | 16.0.R1 |
| Platforms | All |


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## filter

| | |
|---|---|
| Synopsis | Enter the **filter** context |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* ingress filter |
| Tree | filter |
| Introduced | 16.0.R1 |
| Platforms | All |

## ip *reference*

| | |
|---|---|
| Synopsis | IPv4 filter policy name |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* ingress filter ip *reference* |
| Tree | ip |
| Reference | **configure** filter ip-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

## ipv6 *reference*

| | |
|---|---|
| Synopsis | IPv6 filter policy name |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* ingress filter ipv6 *reference* |
| Tree | ipv6 |
| Reference | **configure** filter ipv6-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

## qos

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* ingress qos |
| Tree | qos |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## network

| | |
|---|---|
| Synopsis | Enter the **network** context |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* ingress qos network |
| Tree | network |
| Introduced | 16.0.R1 |
| Platforms | All |

## fp-redirect-group

| | |
|---|---|
| Synopsis | Enter the **fp-redirect-group** context |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* ingress qos network fp-redirect-group |
| Tree | fp-redirect-group |
| Introduced | 16.0.R1 |
| Platforms | All |

## group-name *reference*

| | |
|---|---|
| Synopsis | Name of the forwarding plane queue group template |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* ingress qos network fp-redirect-group group-name *reference* |
| Tree | group-name |
| Reference | **configure** qos queue-group-templates ingress queue-group *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

## instance *number*

| | |
|---|---|
| Synopsis | Instance of FP ingress queue group for the SDP binding |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* ingress qos network fp-redirect-group instance *number* |
| Tree | instance |


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| | |
|---|---|
| Range | 1 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **policy-name** *reference*

| | |
|---|---|
| Synopsis | Network policy ID |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* ingress qos network policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos network *network-policy-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **vc-label** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Ingress MPLS VC label to send packets to the far end |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* ingress vc-label *number* |
| Tree | vc-label |
| Range | 1 to 1048575 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **transit-policy**

| | |
|---|---|
| Synopsis | Enable the **transit-policy** context |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* transit-policy |
| Tree | transit-policy |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **ip** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IP transit policy ID |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* transit-policy ip *reference* |
| Tree | ip |
| Reference | **configure** application-assurance group *number* partition *number* transit-ip-policy *number* |
| Notes | The following elements are part of a mandatory choice: **ip** or **prefix**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **prefix** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IP prefix policy ID |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* transit-policy prefix *reference* |
| Tree | prefix |
| Reference | **configure** application-assurance group *number* partition *number* transit-prefix-policy *number* |
| Notes | The following elements are part of a mandatory choice: **ip** or **prefix**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **vc-type** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.


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| | |
|---|---|
| Synopsis | Virtual circuit type associated with the SDP binding |
| Context | **configure** service ies *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* vc-type *keyword* |
| Tree | vc-type |
| Options | ether, ipipe |
| Default | ether |
| Introduced | 16.0.R1 |
| Platforms | All |

## **static-tunnel-redundant-nexthop** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Address for the static ISA tunnel redundant next-hop |
| Context | **configure** service ies *service-name* interface *interface-name* static-tunnel-redundant-nexthop *ipv4-unicast-address* |
| Tree | static-tunnel-redundant-nexthop |
| Description | This command specifies the redundant next-hop address on public or private IPsec interfaces (with a public or private tunnel SAP) for the static IPsec tunnel.<br>The next-hop address is resolved in the routing table of the corresponding service. |
| Notes | The following elements are part of a choice: **multi-chassis-shunting-profile** or (**dynamic-tunnel-redundant-nexthop** and **static-tunnel-redundant-nexthop**). |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **tos-marking-state** *keyword*

| | |
|---|---|
| Synopsis | TOS marking state |
| Context | **configure** service ies *service-name* interface *interface-name* tos-marking-state *keyword* |
| Tree | tos-marking-state |
| Options | trusted, untrusted |
| Default | untrusted |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **tunnel** *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable/disable tunnel interface |
| Context | **configure** service ies *service-name* interface *interface-name* tunnel *boolean* |
| Tree | tunnel |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **vas-if-type** *keyword*

| | |
|---|---|
| Synopsis | VAS interface type |
| Context | **configure** service ies *service-name* interface *interface-name* vas-if-type *keyword* |
| Tree | vas-if-type |
| Options | to-from-access, to-from-network, to-from-both |
| Introduced | 16.0.R1 |
| Platforms | All |

### **vpls** [vpls-name] *named-item-64*

| | |
|---|---|
| Synopsis | Enter the **vpls** list instance |
| Context | **configure** service ies *service-name* interface *interface-name* vpls *named-item-64* |
| Tree | vpls |
| Max. instances | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**vpls-name**] *named-item-64*

| | |
|---|---|
| Synopsis | VPLS service |
| Context | **configure** service ies *service-name* interface *interface-name* vpls *named-item-64* |


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| | |
|---|---|
| Tree | vpls |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

## egress

| | |
|---|---|
| Synopsis | Enter the **egress** context |
| Context | **configure** service ies *service-name* interface *interface-name* vpls *named-item-64* egress |
| Tree | egress |
| Introduced | 16.0.R1 |
| Platforms | All |

## reclassify-using-qos *reference*

| | |
|---|---|
| Synopsis | Egress QoS policy |
| Context | **configure** service ies *service-name* interface *interface-name* vpls *named-item-64* egress reclassify-using-qos *reference* |
| Tree | reclassify-using-qos |
| Reference | **configure** qos sap-egress *qos-policy-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

## routed-override-filter

| | |
|---|---|
| Synopsis | Enter the **routed-override-filter** context |
| Context | **configure** service ies *service-name* interface *interface-name* vpls *named-item-64* egress routed-override-filter |
| Tree | routed-override-filter |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **ip** *reference*

| | |
|---|---|
| Synopsis | IPv4 filter policy name |
| Context | **configure** service ies *service-name* interface *interface-name* vpls *named-item-64* egress routed-override-filter ip *reference* |
| Tree | ip |
| Reference | **configure** filter ip-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv6** *reference*

| | |
|---|---|
| Synopsis | IPv6 filter policy name |
| Context | **configure** service ies *service-name* interface *interface-name* vpls *named-item-64* egress routed-override-filter ipv6 *reference* |
| Tree | ipv6 |
| Reference | **configure** filter ipv6-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **evpn**

| | |
|---|---|
| Synopsis | Enter the **evpn** context |
| Context | **configure** service ies *service-name* interface *interface-name* vpls *named-item-64* evpn |
| Tree | evpn |
| Introduced | 19.10.R1 |
| Platforms | All |

### **arp**

| | |
|---|---|
| Synopsis | Enter the **arp** context |
| Context | **configure** service ies *service-name* interface *interface-name* vpls *named-item-64* evpn arp |
| Tree | arp |
| Introduced | 19.10.R1 |
| Platforms | All |


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### **advertise** [route-type] *keyword*

| | |
|---|---|
| Synopsis | Enter the **advertise** list instance |
| Context | **configure** service ies *service-name* interface *interface-name* vpls *named-item-64* evpn arp advertise *keyword* |
| Tree | advertise |
| Introduced | 19.10.R1 |
| Platforms | All |

### [**route-type**] *keyword*

| | |
|---|---|
| Synopsis | Type of ARP or ND entries that generate host routes |
| Context | **configure** service ies *service-name* interface *interface-name* vpls *named-item-64* evpn arp advertise *keyword* |
| Tree | advertise |
| Description | This command specifies the type of ARP or ND entries that are installed in the ARP or ND cache into EVPN MAC/IP routes. |
| Options | static, dynamic |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **route-tag** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Tag value used with the host route from an ARP/ND entry |
| Context | **configure** service ies *service-name* interface *interface-name* vpls *named-item-64* evpn arp advertise *keyword* route-tag *number* |
| Tree | route-tag |
| Description | This command specifies the route tag that is added separately to dynamic or static ARP or ND entries that are advertised in EVPN MAC/IP routes. This tag can be matched on BGP vsi-export (in the R-VPLS) and BGP peer export policies. |
| Range | 0 to 255 |
| Introduced | 19.10.R1 |


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| | |
|---|---|
| Platforms | All |

## **flood-garp-and-unknown-req** *boolean*

| | |
|---|---|
| Synopsis | Allow CPM originated ARP frames to flood R-VPLS service |
| Context | **configure** service ies *service-name* interface *interface-name* vpls *named-item-64* evpn arp flood-garp-and-unknown-req *boolean* |
| Tree | flood-garp-and-unknown-req |
| Description | When configured to **true**, the system allows CPM-originated ARP frames to be flooded in the R-VPLS service. Any frames that are data path flooded such as the ARP messages received on a SAP, are flooded irrespective of this command.<br>When configured to **false**, CPM-originated ARP flooding is suppressed. |
| Default | true |
| Introduced | 19.10.R1 |
| Platforms | All |

## **learn-dynamic** *boolean*

| | |
|---|---|
| Synopsis | Process ARP or ND messages on EVPN tunnels |
| Context | **configure** service ies *service-name* interface *interface-name* vpls *named-item-64* evpn arp learn-dynamic *boolean* |
| Tree | learn-dynamic |
| Description | When configured to **true**, the system processes ARP or ND messages that arrive on EVPN tunnels.<br>When configured to **false**, learning is disabled and table entries are not created for these messages. |
| Default | true |
| Introduced | 19.10.R1 |
| Platforms | All |

## **nd**

| | |
|---|---|
| Synopsis | Enter the **nd** context |
| Context | **configure** service ies *service-name* interface *interface-name* vpls *named-item-64* evpn nd |
| Tree | nd |
| Introduced | 20.5.R1 |


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| | |
|---|---|
| Platforms | All |

## **advertise** [route-type] *keyword*

| | |
|---|---|
| Synopsis | Enter the **advertise** list instance |
| Context | **configure** service ies *service-name* interface *interface-name* vpls *named-item-64* evpn nd advertise *keyword* |
| Tree | advertise |
| Introduced | 20.5.R1 |
| Platforms | All |

## [**route-type**] *keyword*

| | |
|---|---|
| Synopsis | Type of ARP or ND entries that generate host routes |
| Context | **configure** service ies *service-name* interface *interface-name* vpls *named-item-64* evpn nd advertise *keyword* |
| Tree | advertise |
| Description | This command specifies the type of ARP or ND entries that are installed in the ARP or ND cache into EVPN MAC/IP routes. |
| Options | static, dynamic |
| Notes | This element is part of a list key. |
| Introduced | 20.5.R1 |
| Platforms | All |

## **route-tag** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Tag value used with the host route from an ARP/ND entry |
| Context | **configure** service ies *service-name* interface *interface-name* vpls *named-item-64* evpn nd advertise *keyword* route-tag *number* |
| Tree | route-tag |
| Description | This command specifies the route tag that is added separately to dynamic or static ARP or ND entries that are advertised in EVPN MAC/IP routes. This tag can be matched on BGP vsi-export (in the R-VPLS) and BGP peer export policies. |


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| | |
|---|---|
| Range | 0 to 255 |
| Introduced | 20.5.R1 |
| Platforms | All |

## **learn-dynamic** *boolean*

| | |
|---|---|
| Synopsis | Process ARP or ND messages on EVPN tunnels |
| Context | **configure** service ies *service-name* interface *interface-name* vpls *named-item-64* evpn nd learn-dynamic *boolean* |
| Tree | learn-dynamic |
| Description | When configured to **true**, the system processes ARP or ND messages that arrive on EVPN tunnels.<br>When configured to **false**, learning is disabled and table entries are not created for these messages. |
| Default | true |
| Introduced | 20.5.R1 |
| Platforms | All |

## **ingress**

| | |
|---|---|
| Synopsis | Enter the **ingress** context |
| Context | **configure** service ies *service-name* interface *interface-name* vpls *named-item-64* ingress |
| Tree | ingress |
| Introduced | 16.0.R1 |
| Platforms | All |

## **routed-override-filter**

| | |
|---|---|
| Synopsis | Enter the **routed-override-filter** context |
| Context | **configure** service ies *service-name* interface *interface-name* vpls *named-item-64* ingress routed-override-filter |
| Tree | routed-override-filter |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **ip** *reference*

| | |
|---|---|
| Synopsis | IPv4 filter policy name |
| Context | **configure** service ies *service-name* interface *interface-name* vpls *named-item-64* ingress routed-override-filter ip *reference* |
| Tree | ip |
| Description | This command specifies an IP filter that is applied to routed unicast ingress packets entering the VPLS service and destined to the R-VPLS interface MAC address.<br>The filter overrides any existing ingress IP filter applied to SAPs or SDP bindings for packets associated with the routing IP interface. The override filter is optional and when it is not defined or it is removed, the IP routed packets use the existing ingress IP filter configured on the VPLS endpoint. |
| Reference | **configure** filter ip-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv6** *reference*

| | |
|---|---|
| Synopsis | IPv6 filter policy name |
| Context | **configure** service ies *service-name* interface *interface-name* vpls *named-item-64* ingress routed-override-filter ipv6 *reference* |
| Tree | ipv6 |
| Description | This command specifies an IPv6 filter that is applied to routed unicast ingress packets entering the VPLS service and destined to the R-VPLS interface MAC address.<br>The filter overrides any existing ingress IP filter applied to SAPs or SDP bindings for packets associated with the routing IP interface. The override filter is optional and when it is not defined or it is removed, the IP routed packets use the existing ingress IP filter configured on the VPLS endpoint. |
| Reference | **configure** filter ipv6-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **redundant-interface** [interface-name] *interface-name*

| | |
|---|---|
| Synopsis | Enter the **redundant-interface** list instance |
| Context | **configure** service ies *service-name* redundant-interface *interface-name* |
| Tree | redundant-interface |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**interface-name**] *interface-name*

| | |
|---|---|
| Synopsis | Interface name |
| Context | **configure** service ies *service-name* redundant-interface *interface-name* |
| Tree | redundant-interface |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the interface |
| Context | **configure** service ies *service-name* redundant-interface *interface-name* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **description** *very-long-description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service ies *service-name* redundant-interface *interface-name* description *very-long-description* |
| Tree | description |
| String length | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **hold-time**

| | |
|---|---|
| Synopsis | Enter the **hold-time** context |


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| | |
|---|---|
| Context | **configure** service ies *service-name* redundant-interface *interface-name* hold-time |
| Tree | hold-time |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ipv4

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |
| Context | **configure** service ies *service-name* redundant-interface *interface-name* hold-time ipv4 |
| Tree | ipv4 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## down

| | |
|---|---|
| Synopsis | Enter the **down** context |
| Context | **configure** service ies *service-name* redundant-interface *interface-name* hold-time ipv4 down |
| Tree | down |
| Description | Commands in this context configure the down hold timer, which specifies the delay before activating the associated interface. The delay is invoked whenever the system attempts to bring the associated IP interface up, unless an operator configures the **init-only** command. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## init-only *boolean*

| | |
|---|---|
| Synopsis | Apply delay only at interface configuration or reboot |
| Context | **configure** service ies *service-name* redundant-interface *interface-name* hold-time ipv4 down init-only *boolean* |
| Tree | init-only |
| Description | This command applies a delay only when the IP interface is first configured or after a system reboot. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **seconds** *number*

| | |
|---|---|
| Synopsis | Down hold time for the IP interface |
| Context | **configure** service ies *service-name* redundant-interface *interface-name* hold-time ipv4 down seconds *number* |
| Tree | seconds |
| Range | 1 to 1200 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **up**

| | |
|---|---|
| Synopsis | Enter the **up** context |
| Context | **configure** service ies *service-name* redundant-interface *interface-name* hold-time ipv4 up |
| Tree | up |
| Description | Commands in this context configure the up hold timer, which specifies the delay before deactivation of the associated interface. The delay is invoked whenever the system attempts to bring the associated IP interface down. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **seconds** *number*

| | |
|---|---|
| Synopsis | Up hold time for the IP interface |
| Context | **configure** service ies *service-name* redundant-interface *interface-name* hold-time ipv4 up seconds *number* |
| Tree | seconds |
| Range | 1 to 1200 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ip-mtu** *number*

| | |
|---|---|
| Synopsis | IP MTU applied to outgoing packets |


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| | |
|---|---|
| Context | **configure** service ies *service-name* redundant-interface *interface-name* ip-mtu *number* |
| Tree | ip-mtu |
| Description | This command configures the IP maximum transmission unit (MTU) for the associated router IP interface. |
| Range | 512 to 9786 |
| Units | bytes |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ipv4

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |
| Context | **configure** service ies *service-name* redundant-interface *interface-name* ipv4 |
| Tree | ipv4 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## primary

| | |
|---|---|
| Synopsis | Enable the **primary** context |
| Context | **configure** service ies *service-name* redundant-interface *interface-name* ipv4 primary |
| Tree | primary |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## address *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IPv4 address to be assigned to the interface |
| Context | **configure** service ies *service-name* redundant-interface *interface-name* ipv4 primary address *ipv4-unicast-address* |
| Tree | address |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **prefix-length** *number*

| | |
|---|---|
| Synopsis | IPv4 address prefix length |
| Context | **configure** service ies *service-name* redundant-interface *interface-name* ipv4 primary prefix-length *number* |
| Tree | prefix-length |
| Range | 0 to 32 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **remote-ip** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Remote IP address for the interface |
| Context | **configure** service ies *service-name* redundant-interface *interface-name* ipv4 primary remote-ip *ipv4-unicast-address* |
| Tree | remote-ip |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **spoke-sdp** [sdp-bind-id] *sdp-bind-id*

| | |
|---|---|
| Synopsis | Enter the **spoke-sdp** list instance |
| Context | **configure** service ies *service-name* redundant-interface *interface-name* spoke-sdp *sdp-bind-id* |
| Tree | spoke-sdp |
| Max. instances | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**sdp-bind-id**] *sdp-bind-id*

| | |
|---|---|
| Synopsis | SDP binding ID |
| Context | **configure** service ies *service-name* redundant-interface *interface-name* spoke-sdp *sdp-bind-id* |
| Tree | spoke-sdp |


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| | |
|---|---|
| String length | 3 to 16 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the SDP binding to the service |
| Context | **configure** service ies *service-name* redundant-interface *interface-name* spoke-sdp *sdp-bind-id* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **control-word** *boolean*

| | |
|---|---|
| Synopsis | Use the control word as preferred |
| Context | **configure** service ies *service-name* redundant-interface *interface-name* spoke-sdp *sdp-bind-id* control-word *boolean* |
| Tree | control-word |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service ies *service-name* redundant-interface *interface-name* spoke-sdp *sdp-bind-id* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## egress

| | |
|---|---|
| Synopsis | Enter the **egress** context |
| Context | **configure** service ies *service-name* redundant-interface *interface-name* spoke-sdp *sdp-bind-id* egress |
| Tree | egress |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## filter

| | |
|---|---|
| Synopsis | Enter the **filter** context |
| Context | **configure** service ies *service-name* redundant-interface *interface-name* spoke-sdp *sdp-bind-id* egress filter |
| Tree | filter |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ip *reference*

| | |
|---|---|
| Synopsis | IPv4 filter policy name |
| Context | **configure** service ies *service-name* redundant-interface *interface-name* spoke-sdp *sdp-bind-id* egress filter ip *reference* |
| Tree | ip |
| Reference | **configure** filter ip-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## vc-label *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Egress MPLS VC label to send packets to the far end |
| Context | **configure** service ies *service-name* redundant-interface *interface-name* spoke-sdp *sdp-bind-id* egress vc-label *number* |


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| | |
|---|---|
| Tree | vc-label |
| Range | 16 to 1048575 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ingress

| | |
|---|---|
| Synopsis | Enter the **ingress** context |
| Context | **configure** service ies *service-name* redundant-interface *interface-name* spoke-sdp *sdp-bind-id* ingress |
| Tree | ingress |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## filter

| | |
|---|---|
| Synopsis | Enter the **filter** context |
| Context | **configure** service ies *service-name* redundant-interface *interface-name* spoke-sdp *sdp-bind-id* ingress filter |
| Tree | filter |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ip *reference*

| | |
|---|---|
| Synopsis | IPv4 filter policy name |
| Context | **configure** service ies *service-name* redundant-interface *interface-name* spoke-sdp *sdp-bind-id* ingress filter ip *reference* |
| Tree | ip |
| Reference | **configure** filter ip-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **vc-label** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Ingress MPLS VC label to send packets to the far end |
| Context | **configure** service ies *service-name* redundant-interface *interface-name* spoke-sdp *sdp-bind-id* ingress vc-label *number* |
| Tree | vc-label |
| Range | 1 to 1048575 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **service-id** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Service ID |
| Context | **configure** service ies *service-name* service-id *number* |
| Tree | service-id |
| Range | 1 to 2147483647 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **subscriber-interface** [interface-name] *interface-name*

| | |
|---|---|
| Synopsis | Enter the **subscriber-interface** list instance |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* |
| Tree | subscriber-interface |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### [**interface-name**] *interface-name*

| | |
|---|---|
| Synopsis | Subscriber interface name |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* |
| Tree | subscriber-interface |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the subscriber interface |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **description** *very-long-description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* description *very-long-description* |
| Tree | description |
| String length | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## **fwd-service** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Forwarding service name |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* fwd-service *reference* |
| Tree | fwd-service |
| Reference | **configure** service vprn *service-name* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **fwd-subscriber-interface** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Forwarding subscriber interface name |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* fwd-subscriber-interface *reference* |
| Tree | fwd-subscriber-interface |
| Reference | **configure** service vprn *service-name* subscriber-interface *interface-name* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **group-interface** [group-interface-name] *interface-name*

| | |
|---|---|
| Synopsis | Enter the **group-interface** list instance |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* |
| Tree | group-interface |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### [**group-interface-name**] *interface-name*

| | |
|---|---|
| Synopsis | Group interface name |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* |
| Tree | group-interface |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the interface |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **bonding-parameters**

| | |
|---|---|
| Synopsis | Enter the **bonding-parameters** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* bonding-parameters |
| Tree | bonding-parameters |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of ESM connection bonding |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* bonding-parameters admin-state *keyword* |


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| | |
|---|---|
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **connection** [connection-index] *number*

| | |
|---|---|
| Synopsis | Enter the **connection** list instance |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* bonding-parameters connection *number* |
| Tree | connection |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**connection-index**] *number*

| | |
|---|---|
| Synopsis | Bonding connection index |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* bonding-parameters connection *number* |
| Tree | connection |
| Range | 1 to 2 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **service** *service-name*

| | |
|---|---|
| Synopsis | Connection service |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* bonding-parameters connection *number* service *service-name* |
| Tree | service |
| String length | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **fpe** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | FPE that provisions bonding functionality |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* bonding-parameters fpe *reference* |
| Tree | fpe |
| Reference | **configure** fwd-path-ext fpe *number* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **multicast**

| | |
|---|---|
| Synopsis | Enter the **multicast** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* bonding-parameters multicast |
| Tree | multicast |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **connection** *(number | keyword)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Multicast connection |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* bonding-parameters multicast connection *(number \| keyword)* |
| Tree | connection |
| Range | 1 to 2 |
| Options | use-incoming |
| Default | use-incoming |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## brg

| | |
|---|---|
| Synopsis | Enter the **brg** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* brg |
| Tree | brg |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of BRG |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* brg admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## authenticated-brg-only *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Allow BRGs that have been pre-authenticated |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* brg authenticated-brg-only *boolean* |
| Tree | authenticated-brg-only |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## **default-brg-profile** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Default BRG profile for new BRGs |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* brg default-brg-profile *reference* |
| Tree | default-brg-profile |
| Reference | **configure** subscriber-mgmt vrgw brg-profile *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **cflowd-parameters**

| | |
|---|---|
| Synopsis | Enter the **cflowd-parameters** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* cflowd-parameters |
| Tree | cflowd-parameters |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **sampling** [sampling-type] *keyword*

| | |
|---|---|
| Synopsis | Enter the **sampling** list instance |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* cflowd-parameters sampling *keyword* |
| Tree | sampling |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## [**sampling-type**] *keyword*

| | |
|---|---|
| Synopsis | Traffic sampling type |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* cflowd-parameters sampling *keyword* |


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| | |
|---|---|
| Tree | sampling |
| Description | This command configures the type of traffic to be sampled on the associated IP interface. |
| Options | unicast, multicast, both |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **direction** *keyword*

| | |
|---|---|
| Synopsis | Direction of traffic for cflowd sampling |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* cflowd-parameters sampling *keyword* direction *keyword* |
| Tree | direction |
| Description | This command configures the direction in which sampling occurs on the associated IP interfaces. |
| Options | ingress-only, egress-only, both |
| Default | ingress-only |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **sample-profile** *(keyword | number)*

| | |
|---|---|
| Synopsis | Sample profile ID |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* cflowd-parameters sampling *keyword* sample-profile *(keyword | number)* |
| Tree | sample-profile |
| Description | This command defines the sampling rate profile associated with this interface. |
| Max. range | 0 to 4294967295 |
| Options | 1 |
| Introduced | 19.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **type** *keyword*

| | |
|---|---|
| Synopsis | Type of cflowd analysis |


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| | |
|---|---|
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* cflowd-parameters sampling *keyword* type *keyword* |
| Tree | type |
| Description | This command configures the cflowd sampling type on the associated IP interface. |
| Options | acl, interface |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## data-trigger

| | |
|---|---|
| Synopsis | Enter the **data-trigger** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* data-trigger |
| Tree | data-trigger |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## accept-ipv6-link-local-address *boolean*

| | |
|---|---|
| Synopsis | Enable IPv6 Link Local Address to start authentication |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* data-trigger accept-ipv6-link-local-address *boolean* |
| Tree | accept-ipv6-link-local-address |
| Description | When configured to **true**, the system triggers authentication of the subscriber based on an IPv6 packet with a source IP Link Local Address (LLA). The authentication trigger only occurs if the anti-spoof is type nh-mac. If the anti-spoof is not nh-mac, the packet with an IPv6 LLA is ignored.<br>When configured to **false**, the system ignores all IPv6 packets with a LLA as a source IP address. |
| Default | false |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of data-triggered host creation |


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| | |
|---|---|
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* data-trigger admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **description** *very-long-description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* description *very-long-description* |
| Tree | description |
| String length | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **dynamic-routes-track-srrp**

| | |
|---|---|
| Synopsis | Enable the **dynamic-routes-track-srrp** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* dynamic-routes-track-srrp |
| Tree | dynamic-routes-track-srrp |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **hold-time** *number*

| | |
|---|---|
| Synopsis | Time before route state updated after SRRP transition |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* dynamic-routes-track-srrp hold-time *number* |
| Tree | hold-time |
| Range | 1 to 50 |
| Units | deciseconds |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## gtp-parameters

| | |
|---|---|
| Synopsis | Enter the **gtp-parameters** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* gtp-parameters |
| Tree | gtp-parameters |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of GTP access |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* gtp-parameters admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## fpe *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | PE that provisions the GTP user interface |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* gtp-parameters fpe *reference* |
| Tree | fpe |
| Reference | **configure** fwd-path-ext fpe *number* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **gx-policy** *reference*

| | |
|---|---|
| Synopsis | Diameter application policy |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* gx-policy *reference* |
| Tree | gx-policy |
| Reference | **configure** subscriber-mgmt diameter-gx-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **ingress**

| | |
|---|---|
| Synopsis | Enter the **ingress** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ingress |
| Tree | ingress |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **policy-accounting** *reference*

| | |
|---|---|
| Synopsis | Ingress policy accounting template name |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ingress policy-accounting *reference* |
| Tree | policy-accounting |
| Reference | **configure** routing-options policy-accounting policy-acct-template *named-item* |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## **ingress-stats** *boolean*

| | |
|---|---|
| Synopsis | Collect ingress interface statistics |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ingress-stats *boolean* |
| Tree | ingress-stats |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ip-mtu** *number*

| | |
|---|---|
| Synopsis | Interface IP MTU |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ip-mtu *number* |
| Tree | ip-mtu |
| Range | 512 to 9786 |
| Units | bytes |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ipoe-linking**

| | |
|---|---|
| Synopsis | Enter the **ipoe-linking** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipoe-linking |
| Tree | ipoe-linking |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of IPoE host linking |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipoe-linking admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## **gratuitous-router-advertisement** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Send unsolicited router advertisement after DHCP setup |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipoe-linking gratuitous-router-advertisement *boolean* |
| Tree | gratuitous-router-advertisement |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **shared-circuit-id** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable circuit ID in DHCPv4 Option82 to validate DHCPv6 |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipoe-linking shared-circuit-id *boolean* |
| Tree | shared-circuit-id |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **ipoe-session**

| | |
|---|---|
| Synopsis | Enter the **ipoe-session** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipoe-session |
| Tree | ipoe-session |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of IPoE session management |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipoe-session admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipoe-session description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **force-auth**

| | |
|---|---|
| Synopsis | Enter the **force-auth** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipoe-session force-auth |
| Tree | force-auth |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **cid-change** *boolean*

| | |
|---|---|
| Synopsis | Ignore min-auth-interval when circuit ID changed |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipoe-session force-auth cid-change *boolean* |
| Tree | cid-change |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **rid-change** *boolean*

| | |
|---|---|
| Synopsis | Ignore min-auth-interval when remote ID changed |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipoe-session force-auth rid-change *boolean* |
| Tree | rid-change |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **ipoe-session-policy** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IPoE Session policy to be used for new sessions |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipoe-session ipoe-session-policy *reference* |
| Tree | ipoe-session-policy |
| Reference | **configure** subscriber-mgmt ipoe-session-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **min-auth-interval** *(keyword | number)*

| | |
|---|---|
| Synopsis | Minimum time between two authentication attempts |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipoe-session min-auth-interval *(keyword | number)* |
| Tree | min-auth-interval |
| Range | 1 to 32000000 |
| Units | seconds |
| Options | infinite, always-reauthenticate |
| Default | infinite |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **radius-session-timeout** *keyword*

| | |
|---|---|
| Synopsis | Session timeout attribute to be interpreted |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipoe-session radius-session-timeout *keyword* |
| Tree | radius-session-timeout |
| Options | absolute, ignore, backwards-compatible |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sap-session-limit** *number*

| | |
|---|---|
| Synopsis | Maximum number of sessions per SAP |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipoe-session sap-session-limit *number* |
| Tree | sap-session-limit |
| Range | 1 to 131071 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **session-limit** *number*

| | |
|---|---|
| Synopsis | Maximum number of sessions on this group interface |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipoe-session session-limit *number* |
| Tree | session-limit |
| Range | 1 to 500000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **stateless-redundancy** *boolean*

**WARNING:**
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| | |
|---|---|
| Synopsis | Remove IPoE sessions when the system becomes stand-by in a stateless multi-chassis redundancy setup |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipoe-session stateless-redundancy *boolean* |
| Tree | stateless-redundancy |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **user-db** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Local user database for IPoE session authentication |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipoe-session user-db *reference* |
| Tree | user-db |
| Reference | **configure** subscriber-mgmt local-user-db *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ipv4

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 |
| Tree | ipv4 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## arp-host

| | |
|---|---|
| Synopsis | Enter the **arp-host** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 arp-host |


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| | |
|---|---|
| Tree | arp-host |
| Introduced | 16.0.R6 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of ARP hosts |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 arp-host admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Introduced | 16.0.R6 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **host-limit** *number*

| | |
|---|---|
| Synopsis | Maximum number of ARP hosts |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 arp-host host-limit *number* |
| Tree | host-limit |
| Range | 1 to 524287 |
| Introduced | 16.0.R6 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **min-auth-interval** *number*

| | |
|---|---|
| Synopsis | Minimum authentication interval |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 arp-host min-auth-interval *number* |
| Tree | min-auth-interval |
| Range | 1 to 6000 |
| Units | minutes |
| Default | 15 |
| Introduced | 16.0.R6 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **sap-host-limit** *number*

| | |
|---|---|
| Synopsis | Maximum number of ARP hosts per SAP |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 arp-host sap-host-limit *number* |
| Tree | sap-host-limit |
| Range | 1 to 131071 |
| Default | 1 |
| Introduced | 16.0.R6 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **dhcp**

| | |
|---|---|
| Synopsis | Enter the **dhcp** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp |
| Tree | dhcp |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of DHCP |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **client-applications**

| | |
|---|---|
| Synopsis | Enter the **client-applications** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp client-applications |
| Tree | client-applications |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **dhcp** *boolean*

| | |
|---|---|
| Synopsis | Enable IPoE clients to use DHCP relay or proxy server |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp client-applications dhcp *boolean* |
| Tree | dhcp |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ppp** *boolean*

| | |
|---|---|
| Synopsis | Enable PPPoE clients to use DHCP relay or proxy server |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp client-applications ppp *boolean* |
| Tree | ppp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **filter** *reference*

| | |
|---|---|
| Synopsis | DHCP filter ID for the group interface |


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| | |
|---|---|
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp filter *reference* |
| Tree | filter |
| Reference | **configure** filter dhcp-filter *number* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **gi-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | GI address for the DHCP relay |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp gi-address *ipv4-unicast-address* |
| Tree | gi-address |
| Description | This command configures the GI address to distinguish between the different subscriber interfaces (and potentially group interfaces) defined when the router functions as a DHCP relay.<br>By default, the GI address used in the relayed DHCP packet is the primary IP address of a normal IES interface. Specifying the GI address allows the user to choose a secondary address. For group interfaces, a GI address must be specified under the group interface DHCP context or subscriber interface DHCP context for DHCP to function. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **lease-populate**

| | |
|---|---|
| Synopsis | Enter the **lease-populate** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp lease-populate |
| Tree | lease-populate |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **l2-header**

| | |
|---|---|
| Synopsis | Enable the **l2-header** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp lease-populate l2-header |


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| | |
|---|---|
| Tree | l2-header |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **mac** *mac-unicast-address*

| | |
|---|---|
| Synopsis | IEEE address used in anti-spoofing entries for the SAP |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp lease-populate l2-header mac *mac-unicast-address* |
| Tree | mac |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **max-leases** *number*

| | |
|---|---|
| Synopsis | Maximum number of DHCPv4 leases |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp lease-populate max-leases *number* |
| Tree | max-leases |
| Range | 1 to 511999 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **match-circuit-id** *boolean*

| | |
|---|---|
| Synopsis | Enable Option 82 circuit ID on relayed DHCP packets |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp match-circuit-id *boolean* |
| Tree | match-circuit-id |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **offer-selection**

| | |
|---|---|
| Synopsis | Enter the **offer-selection** context |


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| | |
|---|---|
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp offer-selection |
| Tree | offer-selection |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## client-mac

| | |
|---|---|
| Synopsis | Enter the **client-mac** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp offer-selection client-mac |
| Tree | client-mac |
| Notes | The following elements are part of a choice: **client-mac** or **server**. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## discover-delay *number*

| | |
|---|---|
| Synopsis | Delay before sending DHCP Discover messages |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp offer-selection client-mac discover-delay *number* |
| Tree | discover-delay |
| Description | This command configures the time to delay sending DHCP Discover messages from the specified MAC addresses. |
| Range | 1 to 100 |
| Units | deciseconds |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## mac-address *keyword*

| | |
|---|---|
| Synopsis | Designated client MAC addresses for Offer selection |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp offer-selection client-mac mac-address *keyword* |
| Tree | mac-address |
| Description | This command specifies the client MAC addresses for which the Discover delay applies. |


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| | |
|---|---|
| Options | odd, even |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **discover-delay** *number*

| | |
|---|---|
| Synopsis | Delay before sending DHCP Discover messages |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp offer-selection discover-delay *number* |
| Tree | discover-delay |
| Description | This command configures the time to delay sending DHCP Discover messages. The delay is applied to all DHCP Discover messages for which no per DHCP server or per client MAC delay is configured. |
| Range | 1 to 100 |
| Units | deciseconds |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **server** [ipv4-address] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Enter the **server** list instance |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp offer-selection server *ipv4-unicast-address* |
| Tree | server |
| Max. instances | 8 |
| Notes | The following elements are part of a choice: **client-mac** or **server**. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**ipv4-address**] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IP address of the DHCP server |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp offer-selection server *ipv4-unicast-address* |
| Tree | server |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **discover-delay** *number*

| | |
|---|---|
| Synopsis | Delay before sending DHCP Discover messages |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp offer-selection server *ipv4-unicast-address* discover-delay *number* |
| Tree | discover-delay |
| Description | This command configures the time to delay DHCP Discover messages sent to the server. |
| Range | 1 to 100 |
| Units | deciseconds |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **option-82**

| | |
|---|---|
| Synopsis | Enter the **option-82** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp option-82 |
| Tree | option-82 |
| Description | Commands in this context configure the processing required when the router receives a DHCP request that already has an Option 82 field in the packet. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **action** *keyword*

| | |
|---|---|
| Synopsis | Action to take with received DHCP Option 82 |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp option-82 action *keyword* |
| Tree | action |
| Options | replace, drop, keep |
| Default | keep |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## circuit-id

| | |
|---|---|
| Synopsis | Enter the **circuit-id** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp option-82 circuit-id |
| Tree | circuit-id |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ascii-tuple

| | |
|---|---|
| Synopsis | Use the ASCII-encoded tuple for the circuit ID |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp option-82 circuit-id ascii-tuple |
| Tree | ascii-tuple |
| Notes | The following elements are part of a choice: **ascii-tuple**, **ifindex**, **none**, **sap-id**, or **vlan-ascii-tuple**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ifindex

| | |
|---|---|
| Synopsis | Use the interface index for the circuit ID |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp option-82 circuit-id ifindex |
| Tree | ifindex |
| Notes | The following elements are part of a choice: **ascii-tuple**, **ifindex**, **none**, **sap-id**, or **vlan-ascii-tuple**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## none

| | |
|---|---|
| Synopsis | Do not include the circuit ID |


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| | |
|---|---|
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp option-82 circuit-id none |
| Tree | none |
| Notes | The following elements are part of a choice: **ascii-tuple**, **ifindex**, **none**, **sap-id**, or **vlan-ascii-tuple**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## sap-id

| | |
|---|---|
| Synopsis | Use the SAP ID |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp option-82 circuit-id sap-id |
| Tree | sap-id |
| Notes | The following elements are part of a choice: **ascii-tuple**, **ifindex**, **none**, **sap-id**, or **vlan-ascii-tuple**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## vlan-ascii-tuple

| | |
|---|---|
| Synopsis | Include the VLAN ID and dot1p bits in the ASCII tuple |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp option-82 circuit-id vlan-ascii-tuple |
| Tree | vlan-ascii-tuple |
| Description | When configured, the router includes the VLAN ID and dot1p bits with the ASCII-tuple information. This only occurs on dot1q and QinQ-encapsulated ports. When the Option 82 bits are stripped, dot1p bits are copied to the Ethernet header of the outgoing packet.<br><br>When unconfigured, the router leaves the circuit ID sub-option of the DHCP packet empty. |
| Notes | The following elements are part of a choice: **ascii-tuple**, **ifindex**, **none**, **sap-id**, or **vlan-ascii-tuple**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## remote-id

| | |
|---|---|
| Synopsis | Enter the **remote-id** context |


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| | |
|---|---|
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp option-82 remote-id |
| Tree | remote-id |
| Description | Commands in this context configure the remote IP sub-option of the DHCP packet with the identity of the remote host end (typically the DHCP client). |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **ascii-string** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | User-defined ASCII string for the remote ID |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp option-82 remote-id ascii-string *string-not-all-spaces* |
| Tree | ascii-string |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **ascii-string**, **mac**, or **none**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **mac**

| | |
|---|---|
| Synopsis | Use the MAC address for the remote ID |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp option-82 remote-id mac |
| Tree | mac |
| Notes | The following elements are part of a choice: **ascii-string**, **mac**, or **none**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **none**

| | |
|---|---|
| Synopsis | Do not include the remote ID |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp option-82 remote-id none |
| Tree | none |
| Notes | The following elements are part of a choice: **ascii-string**, **mac**, or **none**. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## vendor-specific-option

| | |
|---|---|
| Synopsis | Enter the **vendor-specific-option** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp option-82 vendor-specific-option |
| Tree | vendor-specific-option |
| Description | Commands in this context configure the Nokia Vendor-Specific Option (VSO) of the DHCP packet. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## client-mac-address *boolean*

| | |
|---|---|
| Synopsis | Send the MAC address in the VSO |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp option-82 vendor-specific-option client-mac-address *boolean* |
| Tree | client-mac-address |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## pool-name *boolean*

| | |
|---|---|
| Synopsis | Send the pool name in the VSO |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp option-82 vendor-specific-option pool-name *boolean* |
| Tree | pool-name |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **sap-id** *boolean*

| | |
|---|---|
| Synopsis | Send SAP ID in the sub-option of the DHCP relay packet |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp option-82 vendor-specific-option sap-id *boolean* |
| Tree | sap-id |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **service-id** *boolean*

| | |
|---|---|
| Synopsis | Send the service ID in the Vendor Specific Option |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp option-82 vendor-specific-option service-id *boolean* |
| Tree | service-id |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **string** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | User-defined ASCII string for the VSO |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp option-82 vendor-specific-option string *string-not-all-spaces* |
| Tree | string |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **system-id** *boolean*

| | |
|---|---|
| Synopsis | Send the system ID in the VSO |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp option-82 vendor-specific-option system-id *boolean* |
| Tree | system-id |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## proxy-server

| | |
|---|---|
| Synopsis | Enter the **proxy-server** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp proxy-server |
| Tree | proxy-server |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the DHCP proxy server |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp proxy-server admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## emulated-server *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IP address used as DHCP server address in SAP context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp proxy-server emulated-server *ipv4-unicast-address* |
| Tree | emulated-server |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## lease-time

| | |
|---|---|
| Synopsis | Enter the **lease-time** context |


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| | |
|---|---|
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp proxy-server lease-time |
| Tree | lease-time |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **radius-override** *boolean*

| | |
|---|---|
| Synopsis | Use lease time information provided by RADIUS server |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp proxy-server lease-time radius-override *boolean* |
| Tree | radius-override |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **value** *number*

| | |
|---|---|
| Synopsis | DHCP lease time |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp proxy-server lease-time value *number* |
| Tree | value |
| Range | 300 to 315446399 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **python-policy** *reference*

| | |
|---|---|
| Synopsis | Python policy name |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp python-policy *reference* |
| Tree | python-policy |
| Description | This command associates a Python policy name with the interface. |
| Reference | **configure** python python-policy *named-item* |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## relay-proxy

| | |
|---|---|
| Synopsis | Enable the **relay-proxy** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp relay-proxy |
| Tree | relay-proxy |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## release-update-src-ip *boolean*

| | |
|---|---|
| Synopsis | Update the source IP address of a DHCP RELEASE message |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp relay-proxy release-update-src-ip *boolean* |
| Tree | release-update-src-ip |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## siaddr-override *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | DHCP server IP address for address hiding function |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp relay-proxy siaddr-override *ipv4-unicast-address* |
| Tree | siaddr-override |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## release-include-gi-address *boolean*

| | |
|---|---|
| Synopsis | Include gateway IP address in DHCP Release messages |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp release-include-gi-address *boolean* |
| Tree | release-include-gi-address |
| Default | false |


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| | |
|---|---|
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **server** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IP addresses for DHCP server requests |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp server *ipv4-unicast-address* |
| Tree | server |
| Description | This command configures a list of servers that this interface forwards requests to.<br>The operator can enter the list of servers as either IP addresses or fully qualified domain names. The operator must specify at least one server specified for DHCP relay to work. If there are multiple servers, the system forwards the request to all the servers in the list. |
| Max. instances | 8 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **src-ip-addr** *keyword*

| | |
|---|---|
| Synopsis | Type of source address to use for DHCP relay |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp src-ip-addr *keyword* |
| Tree | src-ip-addr |
| Options | auto, gi-address |
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **trusted** *boolean*

| | |
|---|---|
| Synopsis | Relay untrusted packets |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp trusted *boolean* |
| Tree | trusted |


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| | |
|---|---|
| Description | When configured to **true**, the router enables the trusted mode on the interface. When enabled, the relay agent changes the existing GI address (of the request) to the ingress interface, and forwards the request.<br>A DHCP request that contains a GI address of 0.0.0.0 and an Option 82 field in the packet is discarded unless it arrives on a trusted circuit.<br>This behavior only applies if the Relay Agent Information Option action is to keep the existing information. When the Option 82 field is replaced by the relay agent, the original Option 82 information is lost, and there is no reason to enable the trusted option. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **user-db** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Local user database for authentication |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp user-db *reference* |
| Tree | user-db |
| Reference | **configure** subscriber-mgmt local-user-db *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **icmp**

| | |
|---|---|
| Synopsis | Enter the **icmp** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 icmp |
| Tree | icmp |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **mask-reply** *boolean*

| | |
|---|---|
| Synopsis | Allow responses to ICMP mask requests on the interface |


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| | |
|---|---|
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 icmp mask-reply *boolean* |
| Tree | mask-reply |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## param-problem

| | |
|---|---|
| Synopsis | Enter the **param-problem** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 icmp param-problem |
| Tree | param-problem |
| Description | Commands in this context specify the settings for ICMP Parameter Problem messages generated by the interface. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of sent Parameter Problem messages |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 icmp param-problem admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## number *number*

| | |
|---|---|
| Synopsis | Maximum number of Parameter Problem messages to send |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 icmp param-problem number *number* |
| Tree | number |
| Range | 10 to 1000 |


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| | |
|---|---|
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **seconds** *number*

| | |
|---|---|
| Synopsis | Time used to limit number of Parameter Problem messages |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 icmp param-problem seconds *number* |
| Tree | seconds |
| Range | 1 to 60 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **redirects**

| | |
|---|---|
| Synopsis | Enter the **redirects** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 icmp redirects |
| Tree | redirects |
| Description | Commands in this context configure the settings for ICMP redirect messages generated by the interface.<br>The system sends ICMP redirect messages to alert the sending node that a more optimal route is available on another router on the same subnetwork. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of sending ICMP redirect messages |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 icmp redirects admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **number** *number*

| | |
|---|---|
| Synopsis | Maximum number of ICMP redirect messages to send |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 icmp redirects number *number* |
| Tree | number |
| Range | 10 to 1000 |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **seconds** *number*

| | |
|---|---|
| Synopsis | Time used to limit the number of ICMP redirect messages |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 icmp redirects seconds *number* |
| Tree | seconds |
| Range | 1 to 60 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ttl-expired**

| | |
|---|---|
| Synopsis | Enter the **ttl-expired** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 icmp ttl-expired |
| Tree | ttl-expired |
| Description | Commands in this context configure the settings for ICMP TTL expired messages generated by the interface. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of sending TTL expired messages |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 icmp ttl-expired admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **number** *number*

| | |
|---|---|
| Synopsis | Maximum number of TTL expired messages to send |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 icmp ttl-expired number *number* |
| Tree | number |
| Range | 10 to 2000 |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **seconds** *number*

| | |
|---|---|
| Synopsis | Time used to limit the number of TTL expired messages |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 icmp ttl-expired seconds *number* |
| Tree | seconds |
| Range | 1 to 60 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **use-matching-address** *boolean*

| | |
|---|---|
| Synopsis | Use the subscriber interface address as source address |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 icmp ttl-expired use-matching-address *boolean* |
| Tree | use-matching-address |
| Description | When configured to **true**, the system uses a matching subscriber interface address as the source address of the ICMP TTL expired message.<br>For matching to occur, the source address of the offending packet must be in the same subnet of the subscriber interface address.<br>When configured to **false**, the system uses the first configured address. |
| Default | false |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **unreachables**

| | |
|---|---|
| Synopsis | Enter the **unreachables** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 icmp unreachables |
| Tree | unreachables |
| Description | Commands in this context specify the settings for ICMP host and network destination unreachable messages generated by the interface. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of sending unreachable messages |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 icmp unreachables admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **number** *number*

| | |
|---|---|
| Synopsis | Maximum number of unreachable messages to send |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 icmp unreachables number *number* |
| Tree | number |
| Range | 10 to 2000 |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **seconds** *number*

| | |
|---|---|
| Synopsis | Time to limit the number of ICMP unreachable messages |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 icmp unreachables seconds *number* |
| Tree | seconds |
| Range | 1 to 60 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ignore-df-bit** *boolean*

| | |
|---|---|
| Synopsis | Ignore DF bit in the IPv4 header when fragmenting |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 ignore-df-bit *boolean* |
| Tree | ignore-df-bit |
| Description | When configured to **true**, fragmentation is applied according to the applicable egress MTU instead of the DF bit for frames egressing the WLAN-GW group. The DF bit is reset for frames that are fragmented.<br><br>When configured to **false**, the router fragments a packet larger than the MTU if the DF bit is set to 0 and drops the packet if the DF bit is set to 1. |
| Default | false |
| Introduced | 20.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## neighbor-discovery

| | |
|---|---|
| Synopsis | Enter the **neighbor-discovery** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 neighbor-discovery |
| Tree | neighbor-discovery |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## local-proxy-arp *boolean*

| | |
|---|---|
| Synopsis | Enable local proxy ARP on interface |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 neighbor-discovery local-proxy-arp *boolean* |
| Tree | local-proxy-arp |
| Description | When configured to **true**, the router enables local proxy ARP on the interface.<br>When configured to **false**, the router does not respond to ARP requests for addresses on the same subnet. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## populate *boolean*

| | |
|---|---|
| Synopsis | Allow population of static and dynamic hosts |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 neighbor-discovery populate *boolean* |
| Tree | populate |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## proxy-arp-policy *reference*

| | |
|---|---|
| Synopsis | Proxy ARP policy name |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 neighbor-discovery proxy-arp-policy *reference* |
| Tree | proxy-arp-policy |


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| | |
|---|---|
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **remote-proxy-arp** *boolean*

| | |
|---|---|
| Synopsis | Enable remote proxy ARP on the interface |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 neighbor-discovery remote-proxy-arp *boolean* |
| Tree | remote-proxy-arp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **timeout** *number*

| | |
|---|---|
| Synopsis | Timeout for an ARP entry learned on the interface |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 neighbor-discovery timeout *number* |
| Tree | timeout |
| Range | 0 to 65535 |
| Units | seconds |
| Default | 14400 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **qos-route-lookup** *keyword*

| | |
|---|---|
| Synopsis | QoS route lookup |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 qos-route-lookup *keyword* |
| Tree | qos-route-lookup |
| Options | destination |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## urpf-check

| | |
|---|---|
| Synopsis | Enable the **urpf-check** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 urpf-check |
| Tree | urpf-check |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## mode *keyword*

| | |
|---|---|
| Synopsis | Unicast RPF check mode |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 urpf-check mode *keyword* |
| Tree | mode |
| Options | strict, loose, strict-no-ecmp |
| Default | strict |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ipv6

| | |
|---|---|
| Synopsis | Enable the **ipv6** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 |
| Tree | ipv6 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## allow-multiple-wan-addresses *boolean*

| | |
|---|---|
| Synopsis | Allow multiple WAN addresses |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 allow-multiple-wan-addresses *boolean* |


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| | |
|---|---|
| Tree | allow-multiple-wan-addresses |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## auto-reply

| | |
|---|---|
| Synopsis | Enter the **auto-reply** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 auto-reply |
| Tree | auto-reply |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## neighbor-solicitation *boolean*

| | |
|---|---|
| Synopsis | Enable auto-reply for NS |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 auto-reply neighbor-solicitation *boolean* |
| Tree | neighbor-solicitation |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## router-solicitation *boolean*

| | |
|---|---|
| Synopsis | Enable auto-reply for RS |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 auto-reply router-solicitation *boolean* |
| Tree | router-solicitation |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## dhcp6

| | |
|---|---|
| Synopsis | Enter the **dhcp6** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 |
| Tree | dhcp6 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## allow-client-id-change *boolean*

| | |
|---|---|
| Synopsis | Allow changes to the client ID |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 allow-client-id-change *boolean* |
| Tree | allow-client-id-change |
| Default | false |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## filter *reference*

| | |
|---|---|
| Synopsis | DHCPv6 filter |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 filter *reference* |
| Tree | filter |
| Reference | **configure** filter dhcp6-filter *number* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## option

| | |
|---|---|
| Synopsis | Enter the **option** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 option |
| Tree | option |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## interface-id

| | |
|---|---|
| Synopsis | Enter the **interface-id** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 option interface-id |
| Tree | interface-id |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ascii-tuple

| | |
|---|---|
| Synopsis | Use ASCII-encoded concatenated tuple |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 option interface-id ascii-tuple |
| Tree | ascii-tuple |
| Notes | The following elements are part of a choice: **ascii-tuple**, **if-index**, **sap-id**, or **string**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## if-index

| | |
|---|---|
| Synopsis | Use interface index in the DHCPv6 relay packet |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 option interface-id if-index |
| Tree | if-index |
| Notes | The following elements are part of a choice: **ascii-tuple**, **if-index**, **sap-id**, or **string**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## sap-id

| | |
|---|---|
| Synopsis | Use SAP ID in interface ID option in relay packet |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 option interface-id sap-id |


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| | |
|---|---|
| Tree | sap-id |
| Notes | The following elements are part of a choice: **ascii-tuple**, **if-index**, **sap-id**, or **string**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **string** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | String for interface ID option in DHCPv6 relay packet |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 option interface-id string *string-not-all-spaces* |
| Tree | string |
| String length | 1 to 80 |
| Notes | The following elements are part of a choice: **ascii-tuple**, **if-index**, **sap-id**, or **string**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **remote-id** *boolean*

| | |
|---|---|
| Synopsis | Send remote ID option in the DHCPv6 relay packet |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 option remote-id *boolean* |
| Tree | remote-id |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **override-slaac** *boolean*

| | |
|---|---|
| Synopsis | Allow WAN address offered by DHCP to overwrite the WAN address acquired from SLAAC |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 override-slaac *boolean* |
| Tree | override-slaac |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## pd-managed-route

| | |
|---|---|
| Synopsis | Enable the **pd-managed-route** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 pd-managed-route |
| Tree | pd-managed-route |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## next-hop *keyword*

| | |
|---|---|
| Synopsis | Next hop type |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 pd-managed-route next-hop *keyword* |
| Tree | next-hop |
| Options | ipv4, ipv6 |
| Default | ipv6 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## proxy-server

| | |
|---|---|
| Synopsis | Enter the **proxy-server** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 proxy-server |
| Tree | proxy-server |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the DHCPv6 proxy server |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 proxy-server admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |


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| | |
|---|---|
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## client-applications

| | |
|---|---|
| Synopsis | Enter the **client-applications** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 proxy-server client-applications |
| Tree | client-applications |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## dhcp *boolean*

| | |
|---|---|
| Synopsis | Enable IPoE clients to use DHCP relay or proxy server |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 proxy-server client-applications dhcp *boolean* |
| Tree | dhcp |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ppp *boolean*

| | |
|---|---|
| Synopsis | Allow PPPoE clients to use DHCP relay functionality |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 proxy-server client-applications ppp *boolean* |
| Tree | ppp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## preferred-lifetime *(number | keyword)*

| | |
|---|---|
| Synopsis | Time for prefix to remain preferred on this interface |


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| | |
|---|---|
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 proxy-server preferred-lifetime *(number \| keyword)* |
| Tree | preferred-lifetime |
| Range | 300 to 4294967294 |
| Units | seconds |
| Options | infinite |
| Default | 3600 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **rebind-timer** *number*

| | |
|---|---|
| Synopsis | Rebind timer (T2) for this interface |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 proxy-server rebind-timer *number* |
| Tree | rebind-timer |
| Range | 0 to 1209600 |
| Units | seconds |
| Default | 2880 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **renew-timer** *number*

| | |
|---|---|
| Synopsis | Renew timer (T1) |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 proxy-server renew-timer *number* |
| Tree | renew-timer |
| Range | 0 to 604800 |
| Units | seconds |
| Default | 1800 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## server-id

| | |
|---|---|
| Synopsis | Enter the **server-id** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 proxy-server server-id |
| Tree | server-id |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## duid-en-ascii *string-not-all-spaces*

| | |
|---|---|
| Synopsis | Vendor-assigned ID based on Enterprise Number (DUID-EN) |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 proxy-server server-id duid-en-ascii *string-not-all-spaces* |
| Tree | duid-en-ascii |
| String length | 1 to 58 |
| Notes | The following elements are part of a choice: **duid-en-ascii**, **duid-en-hex**, or **duid-ll**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## duid-en-hex *string*

| | |
|---|---|
| Synopsis | DUID system ID in hexadecimal format |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 proxy-server server-id duid-en-hex *string* |
| Tree | duid-en-hex |
| String length | 1 to 118 |
| Notes | The following elements are part of a choice: **duid-en-ascii**, **duid-en-hex**, or **duid-ll**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## duid-ll

| | |
|---|---|
| Synopsis | Use link-layer address (DUID-LL) as DUID |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 proxy-server server-id duid-ll |


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| | |
|---|---|
| Tree | duid-ll |
| Notes | The following elements are part of a choice: **duid-en-ascii**, **duid-en-hex**, or **duid-ll**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **valid-lifetime** *(number | keyword)*

| | |
|---|---|
| Synopsis | Time for prefix to remain valid on this interface |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 proxy-server valid-lifetime *(number \| keyword)* |
| Tree | valid-lifetime |
| Range | 300 to 4294967294 |
| Units | seconds |
| Options | infinite |
| Default | 86400 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **python-policy** *reference*

| | |
|---|---|
| Synopsis | Python policy |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 python-policy *reference* |
| Tree | python-policy |
| Reference | **configure** python python-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **relay**

| | |
|---|---|
| Synopsis | Enter the **relay** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 relay |
| Tree | relay |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of DHCPv6 Relay |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 relay admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **advertise-selection**

| | |
|---|---|
| Synopsis | Enter the **advertise-selection** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 relay advertise-selection |
| Tree | advertise-selection |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **client-mac**

| | |
|---|---|
| Synopsis | Enter the **client-mac** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 relay advertise-selection client-mac |
| Tree | client-mac |
| Notes | The following elements are part of a choice: **client-mac** or **server**. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **mac-address** *keyword*

| | |
|---|---|
| Synopsis | Designated client MAC addresses for Advertise selection |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 relay advertise-selection client-mac mac-address *keyword* |
| Tree | mac-address |


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| | |
|---|---|
| Options | odd, even |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## preference-option

| | |
|---|---|
| Synopsis | Enter the **preference-option** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 relay advertise-selection client-mac preference-option |
| Tree | preference-option |
| Description | Commands in this context configure the DHCPv6 preference option that is inserted in the DHCPv6 Advertise message. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## value *number*

| | |
|---|---|
| Synopsis | Preference option value for DHCPv6 Advertise messages |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 relay advertise-selection client-mac preference-option value *number* |
| Tree | value |
| Range | 0 to 255 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## solicit-delay *number*

| | |
|---|---|
| Synopsis | Delay before sending DHCPv6 Solicit messages |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 relay advertise-selection client-mac solicit-delay *number* |
| Tree | solicit-delay |
| Description | This command configures the time to delay DHCPv6 Solicit messages sent from the designated client MAC addresses. |
| Range | 1 to 100 |
| Units | deciseconds |
| Introduced | 20.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## preference-option

| | |
|---|---|
| Synopsis | Enter the **preference-option** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 relay advertise-selection preference-option |
| Tree | preference-option |
| Description | Commands in this context configure the DHCPv6 preference option that is inserted in the DHCPv6 Advertise message. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## value *number*

| | |
|---|---|
| Synopsis | Preference option value for DHCPv6 Advertise messages |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 relay advertise-selection preference-option value *number* |
| Tree | value |
| Range | 0 to 255 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## server [ipv6-address] *ipv6-address*

| | |
|---|---|
| Synopsis | Enter the **server** list instance |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 relay advertise-selection server *ipv6-address* |
| Tree | server |
| Max. instances | 8 |
| Notes | The following elements are part of a choice: **client-mac** or **server**. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### [**ipv6-address**] *ipv6-address*

| | |
|---|---|
| Synopsis | IP address of the DHCPv6 server |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 relay advertise-selection server *ipv6-address* |
| Tree | server |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **preference-option**

| | |
|---|---|
| Synopsis | Enter the **preference-option** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 relay advertise-selection server *ipv6-address* preference-option |
| Tree | preference-option |
| Description | Commands in this context configure the DHCPv6 preference option that is inserted in the DHCPv6 Advertise message. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **value** *number*

| | |
|---|---|
| Synopsis | Preference option value for DHCPv6 Advertise messages |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 relay advertise-selection server *ipv6-address* preference-option value *number* |
| Tree | value |
| Range | 0 to 255 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **solicit-delay** *number*

| | |
|---|---|
| Synopsis | Delay before sending DHCPv6 Solicit messages |


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| | |
|---|---|
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 relay advertise-selection server *ipv6-address* solicit-delay *number* |
| Tree | solicit-delay |
| Description | This command configures the time to delay DHCPv6 Solicit messages sent to the server. |
| Range | 1 to 100 |
| Units | deciseconds |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **solicit-delay** *number*

| | |
|---|---|
| Synopsis | Delay before sending DHCPv6 Solicit messages |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 relay advertise-selection solicit-delay *number* |
| Tree | solicit-delay |
| Description | This command configures the time to delay DHCPv6 Solicit messages. The delay is applied to DHCPv6 Solicit messages for which no overriding value is configured in the **server** instance or the **client-mac** context. |
| Range | 1 to 100 |
| Units | deciseconds |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **client-applications**

| | |
|---|---|
| Synopsis | Enter the **client-applications** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 relay client-applications |
| Tree | client-applications |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **dhcp** *boolean*

| | |
|---|---|
| Synopsis | Enable IPoE clients to use DHCP relay or proxy server |


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| | |
|---|---|
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 relay client-applications dhcp *boolean* |
| Tree | dhcp |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **ppp** *boolean*

| | |
|---|---|
| Synopsis | Allow PPPoE clients to use DHCP relay functionality |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 relay client-applications ppp *boolean* |
| Tree | ppp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 relay description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **lease-split**

| | |
|---|---|
| Synopsis | Enter the **lease-split** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 relay lease-split |
| Tree | lease-split |
| Description | Commands in this context configure DHCPv6 lease split.<br>DHCPv6 lease split is active when administratively enabled and for all IA_NA and IA_PD options in the transaction, the configured lease split valid lifetime (short lease time) is less than or equal to one of the following: |


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- the renew time T1 committed by the server (long renew time)
- half of the preferred lifetime committed by the server when T1 committed by the server equals zero

Introduced 21.2.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR

### **admin-state** *keyword*

Synopsis Administrative state of DHCPv6 lease split

Context **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 relay lease-split admin-state *keyword*

Tree admin-state

Options enable, disable

Default disable

Introduced 21.2.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR

### **valid-lifetime** *number*

Synopsis DHCPv6 lease split valid lifetime (short lease time)

Context **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 relay lease-split valid-lifetime *number*

Tree valid-lifetime

Range 300 to 315446399

Units seconds

Default 3600

Introduced 21.2.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR

### **link-address** *ipv6-address*

Synopsis Link address for the DHCPv6 relay messages

Context **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 relay link-address *ipv6-address*

Tree link-address

Introduced 16.0.R1


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **server** *ipv6-address-with-zone*

| | |
|---|---|
| Synopsis | DHCP6 servers to which the DHCP6 requests are forwarded |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 relay server *ipv6-address-with-zone* |
| Tree | server |
| Max. instances | 8 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **source-address** *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Source IPv6 address for the DHCPv6 relay messages |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 relay source-address *ipv6-unicast-address* |
| Tree | source-address |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **snooping**

| | |
|---|---|
| Synopsis | Enter the **snooping** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 snooping |
| Tree | snooping |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of DHCPv6 snooping |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 snooping admin-state *keyword* |


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| | |
|---|---|
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## **user-db** *reference*

| | |
|---|---|
| Synopsis | Local user database for authentication |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 user-db *reference* |
| Tree | user-db |
| Reference | **configure** subscriber-mgmt local-user-db *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **user-ident** *keyword*

| | |
|---|---|
| Synopsis | DHCP6 user identification for this interface |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 user-ident *keyword* |
| Tree | user-ident |
| Options | mac, mac-interface-id |
| Default | mac |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **ipoe-bridged-mode** *boolean*

| | |
|---|---|
| Synopsis | Enable IPv6 IPoE bridged mode |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 ipoe-bridged-mode *boolean* |
| Tree | ipoe-bridged-mode |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## neighbor-discovery

| | |
|---|---|
| Synopsis | Enter the **neighbor-discovery** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 neighbor-discovery |
| Tree | neighbor-discovery |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## dad-snooping *boolean*

| | |
|---|---|
| Synopsis | Populate table via duplicate address detection packets |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 neighbor-discovery dad-snooping *boolean* |
| Tree | dad-snooping |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## neighbor-limit *number*

| | |
|---|---|
| Synopsis | Maximum neighbor entries learned per SLAAC host |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 neighbor-discovery neighbor-limit *number* |
| Tree | neighbor-limit |
| Range | 1 to 8 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## qos-route-lookup *keyword*

| | |
|---|---|
| Synopsis | QoS route lookup |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 qos-route-lookup *keyword* |
| Tree | qos-route-lookup |


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| | |
|---|---|
| Options | destination |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## router-advertisements

| | |
|---|---|
| Synopsis | Enter the **router-advertisements** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 router-advertisements |
| Tree | router-advertisements |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of router advertisements |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 router-advertisements admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## force-mcast *keyword*

| | |
|---|---|
| Synopsis | Protocol with forced multicast |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 router-advertisements force-mcast *keyword* |
| Tree | force-mcast |
| Options | ip, ip-mac |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **max-advertisement-interval** *number*

| | |
|---|---|
| Synopsis | Maximum advertisement interval |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 router-advertisements max-advertisement-interval *number* |
| Tree | max-advertisement-interval |
| Range | 900 to 1800 |
| Units | seconds |
| Default | 1800 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **min-advertisement-interval** *number*

| | |
|---|---|
| Synopsis | Minimum advertisement interval |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 router-advertisements min-advertisement-interval *number* |
| Tree | min-advertisement-interval |
| Range | 900 to 1350 |
| Units | seconds |
| Default | 900 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **options**

| | |
|---|---|
| Synopsis | Enter the **options** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 router-advertisements options |
| Tree | options |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **current-hop-limit** *number*

| | |
|---|---|
| Synopsis | Hop limit to be advertised |


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| | |
|---|---|
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 router-advertisements options current-hop-limit *number* |
| Tree | current-hop-limit |
| Range | 0 to 255 |
| Default | 64 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## dns

| | |
|---|---|
| Synopsis | Enter the **dns** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 router-advertisements options dns |
| Tree | dns |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## include-rdnss *boolean*

| | |
|---|---|
| Synopsis | Include the RDNSS server option 25 |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 router-advertisements options dns include-rdnss *boolean* |
| Tree | include-rdnss |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## rdnss-lifetime *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum time for the RDNSS address to remain valid |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 router-advertisements options dns rdnss-lifetime *(number | keyword)* |
| Tree | rdnss-lifetime |
| Range | 900 to 3600 |
| Units | seconds |
| Options | infinite |


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| | |
|---|---|
| Default | 3600 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **managed-configuration** *boolean*

| | |
|---|---|
| Synopsis | Managed address configuration flag |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 router-advertisements options managed-configuration *boolean* |
| Tree | managed-configuration |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **mtu** *(number | keyword)*

| | |
|---|---|
| Synopsis | Advertised MTU value |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 router-advertisements options mtu *(number | keyword)* |
| Tree | mtu |
| Range | 1280 to 9212 |
| Units | bytes |
| Options | not-included |
| Default | not-included |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **other-stateful-configuration** *boolean*

| | |
|---|---|
| Synopsis | Other stateful configuration flag |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 router-advertisements options other-stateful-configuration *boolean* |
| Tree | other-stateful-configuration |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **reachable-time** *number*

| | |
|---|---|
| Synopsis | Reachable time for advertisements |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 router-advertisements options reachable-time *number* |
| Tree | reachable-time |
| Range | 0 to 3600000 |
| Units | milliseconds |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **retransmit-timer** *number*

| | |
|---|---|
| Synopsis | Retransmit time in router advertisements from interface |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 router-advertisements options retransmit-timer *number* |
| Tree | retransmit-timer |
| Range | 0 to 1800000 |
| Units | seconds |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **router-lifetime** *(number | keyword)*

| | |
|---|---|
| Synopsis | Router lifetime |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 router-advertisements options router-lifetime *(number | keyword)* |
| Tree | router-lifetime |
| Range | 2700 to 9000 |
| Units | seconds |
| Options | no-default-router |
| Default | 4500 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## prefix-options

| | |
|---|---|
| Synopsis | Enter the **prefix-options** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 router-advertisements prefix-options |
| Tree | prefix-options |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## autonomous *boolean*

| | |
|---|---|
| Synopsis | Value of the autonomous flag |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 router-advertisements prefix-options autonomous *boolean* |
| Tree | autonomous |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## on-link *boolean*

| | |
|---|---|
| Synopsis | Assign the prefix to an interface on the specified link |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 router-advertisements prefix-options on-link *boolean* |
| Tree | on-link |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## preferred-lifetime *(number | keyword)*

| | |
|---|---|
| Synopsis | Time for a prefix to remain preferred |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 router-advertisements prefix-options preferred-lifetime *(number | keyword)* |
| Tree | preferred-lifetime |
| Range | 0 to 4294967294 |


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| | |
|---|---|
| Units | seconds |
| Options | infinite |
| Default | 3600 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **valid-lifetime** *(number | keyword)*

| | |
|---|---|
| Synopsis | Time for a prefix to remain valid |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 router-advertisements prefix-options valid-lifetime *(number | keyword)* |
| Tree | valid-lifetime |
| Range | 0 to 4294967294 |
| Units | seconds |
| Options | infinite |
| Default | 86400 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **router-solicit**

| | |
|---|---|
| Synopsis | Enter the **router-solicit** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 router-solicit |
| Tree | router-solicit |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of router-solicit authentication |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 router-solicit admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |


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| | |
|---|---|
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **inactivity-timer** *(number | keyword)*

| | |
|---|---|
| Synopsis | Time before an inactive host is removed |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 router-solicit inactivity-timer *(number \| keyword)* |
| Tree | inactivity-timer |
| Range | 1 to 31536000 |
| Units | seconds |
| Options | infinite |
| Default | 300 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **min-auth-interval** *number*

| | |
|---|---|
| Synopsis | Minimum time between successive authentication attempts |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 router-solicit min-auth-interval *number* |
| Tree | min-auth-interval |
| Range | 1 to 360000 |
| Units | seconds |
| Default | 300 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **user-db** *reference*

| | |
|---|---|
| Synopsis | Local user database used for authentication |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 router-solicit user-db *reference* |
| Tree | user-db |
| Reference | **configure** subscriber-mgmt local-user-db *named-item* |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## urpf-check

| | |
|---|---|
| Synopsis | Enable the **urpf-check** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 urpf-check |
| Tree | urpf-check |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## mode *keyword*

| | |
|---|---|
| Synopsis | Unicast RPF check mode |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 urpf-check mode *keyword* |
| Tree | mode |
| Options | strict, loose, strict-no-ecmp |
| Default | strict |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## local-address-assignment

| | |
|---|---|
| Synopsis | Enter the **local-address-assignment** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* local-address-assignment |
| Tree | local-address-assignment |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of Local Address Assignment |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* local-address-assignment admin-state *keyword* |


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| | |
|---|---|
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ipv4

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* local-address-assignment ipv4 |
| Tree | ipv4 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## client-applications

| | |
|---|---|
| Synopsis | Enter the **client-applications** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* local-address-assignment ipv4 client-applications |
| Tree | client-applications |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ipoe *boolean*

| | |
|---|---|
| Synopsis | Request local addresses for non-DHCP/managed IPoE hosts |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* local-address-assignment ipv4 client-applications ipoe *boolean* |
| Tree | ipoe |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **ppp** *boolean*

| | |
|---|---|
| Synopsis | Request local addresses for PPP IPCP hosts |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* local-address-assignment ipv4 client-applications ppp *boolean* |
| Tree | ppp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **default-pool** *named-item*

| | |
|---|---|
| Synopsis | Default pools |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* local-address-assignment ipv4 default-pool *named-item* |
| Tree | default-pool |
| String length | 1 to 32 |
| Max. instances | 2 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **server** *reference*

| | |
|---|---|
| Synopsis | Local DHCPv4 server for local pools management |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* local-address-assignment ipv4 server *reference* |
| Tree | server |
| Reference | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ipv6**

| | |
|---|---|
| Synopsis | Enter the **ipv6** context |


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| | |
|---|---|
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* local-address-assignment ipv6 |
| Tree | ipv6 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## client-applications

| | |
|---|---|
| Synopsis | Enter the **client-applications** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* local-address-assignment ipv6 client-applications |
| Tree | client-applications |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ipoe-slaac *boolean*

| | |
|---|---|
| Synopsis | Request local addresses for IPoE SLAAC hosts |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* local-address-assignment ipv6 client-applications ipoe-slaac *boolean* |
| Tree | ipoe-slaac |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ipoe-wan *boolean*

| | |
|---|---|
| Synopsis | Request local addresses for IPoE IA NA hosts |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* local-address-assignment ipv6 client-applications ipoe-wan *boolean* |
| Tree | ipoe-wan |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **ppp-slaac** *boolean*

| | |
|---|---|
| Synopsis | Request local addresses for PPP SLAAC hosts |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* local-address-assignment ipv6 client-applications ppp-slaac *boolean* |
| Tree | ppp-slaac |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **server** *reference*

| | |
|---|---|
| Synopsis | Local DHCPv6 server for local pools management |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* local-address-assignment ipv6 server *reference* |
| Tree | server |
| Reference | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **mac** *mac-unicast-address*

| | |
|---|---|
| Synopsis | MAC address for the interface |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* mac *mac-unicast-address* |
| Tree | mac |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **nasreq-auth-policy** *reference*

| | |
|---|---|
| Synopsis | Diameter NASREQ application policy to use for authentication |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* nasreq-auth-policy *reference* |
| Tree | nasreq-auth-policy |
| Reference | **configure** subscriber-mgmt diameter-nasreq-policy *named-item* |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **oper-up-while-empty** *boolean*

| | |
|---|---|
| Synopsis | Enable this group interface without any active SAPs |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* oper-up-while-empty *boolean* |
| Tree | oper-up-while-empty |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **pppoe**

| | |
|---|---|
| Synopsis | Enter the **pppoe** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* pppoe |
| Tree | pppoe |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of PPPoE |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* pppoe admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **anti-spoof** *keyword*

| | |
|---|---|
| Synopsis | PPPoE anti-spoof filtering |


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| | |
|---|---|
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* pppoe anti-spoof *keyword* |
| Tree | anti-spoof |
| Options | mac-sid, mac-sid-ip |
| Default | mac-sid |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* pppoe description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **dhcp-client**

| | |
|---|---|
| Synopsis | Enter the **dhcp-client** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* pppoe dhcp-client |
| Tree | dhcp-client |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **client-id** *keyword*

| | |
|---|---|
| Synopsis | Type of information that DHCP option 61 contains |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* pppoe dhcp-client client-id *keyword* |
| Tree | client-id |
| Options | mac-pppoe-session-id |
| Introduced | 16.0.R7 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **policy** *reference*

| | |
|---|---|
| Synopsis | PPPoE policy |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* pppoe policy *reference* |
| Tree | policy |
| Reference | **configure** subscriber-mgmt ppp-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **python-policy** *reference*

| | |
|---|---|
| Synopsis | Python policy used to modify PPPoE packets |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* pppoe python-policy *reference* |
| Tree | python-policy |
| Reference | **configure** python python-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sap-session-limit** *number*

| | |
|---|---|
| Synopsis | Maximum PPPoE sessions per SAP |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* pppoe sap-session-limit *number* |
| Tree | sap-session-limit |
| Range | 1 to 131071 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **session-limit** *number*

| | |
|---|---|
| Synopsis | Maximum PPPoE sessions |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* pppoe session-limit *number* |


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| | |
|---|---|
| Tree | session-limit |
| Range | 1 to 333823 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **user-db** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Local user database for authentication |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* pppoe user-db *reference* |
| Tree | user-db |
| Reference | **configure** subscriber-mgmt local-user-db *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **radius-auth-policy** *reference*

| | |
|---|---|
| Synopsis | RADIUS authentication policy |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* radius-auth-policy *reference* |
| Tree | radius-auth-policy |
| Reference | **configure** subscriber-mgmt radius-authentication-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **redundant-interface** *reference*

| | |
|---|---|
| Synopsis | Redundant interface |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* redundant-interface *reference* |
| Tree | redundant-interface |


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| | |
|---|---|
| Reference | **configure** service ies *service-name* redundant-interface *interface-name* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sap** [sap-id] *sap*

| | |
|---|---|
| Synopsis | Enter the **sap** list instance |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* |
| Tree | sap |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**sap-id**] *sap*

| | |
|---|---|
| Synopsis | SAP ID |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* |
| Tree | sap |
| String length | 1 to 45 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **accounting-policy** *reference*

| | |
|---|---|
| Synopsis | Accounting policy |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* accounting-policy *reference* |
| Tree | accounting-policy |
| Reference | **configure** log accounting-policy *number* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the SAP |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **anti-spoof** *keyword*

| | |
|---|---|
| Synopsis | Type of anti-spoof filtering |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* anti-spoof *keyword* |
| Tree | anti-spoof |
| Options | source-ip-addr, source-ip-and-mac-addr, next-hop-ip-and-mac-addr |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **app-profile** *reference*

| | |
|---|---|
| Synopsis | Application profile name |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* app-profile *reference* |
| Tree | app-profile |
| Reference | **configure** application-assurance group *number* partition *number* policy app-profile *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **calling-station-id** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | Calling station ID |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* calling-station-id *string-not-all-spaces* |


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| | |
|---|---|
| Tree | calling-station-id |
| String length | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **collect-stats** *boolean*

| | |
|---|---|
| Synopsis | Collect accounting statistics |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* collect-stats *boolean* |
| Tree | collect-stats |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## cpu-protection

| | |
|---|---|
| Synopsis | Enter the **cpu-protection** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* cpu-protection |
| Tree | cpu-protection |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s |

## eth-cfm-monitoring

| | |
|---|---|
| Synopsis | Enable the **eth-cfm-monitoring** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* cpu-protection eth-cfm-monitoring |
| Tree | eth-cfm-monitoring |
| Notes | The following elements are part of a choice: **eth-cfm-monitoring**, **ip-src-monitoring**, or **mac-monitoring**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s |


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## aggregate

| | |
|---|---|
| Synopsis | Apply rate limit to the sum of the per peer packet rates |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* cpu-protection eth-cfm-monitoring aggregate |
| Tree | aggregate |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s |

## car

| | |
|---|---|
| Synopsis | Ignore Ethernet CFM packets when enforcing overall rate |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* cpu-protection eth-cfm-monitoring car |
| Tree | car |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s |

## ip-src-monitoring

| | |
|---|---|
| Synopsis | Enable IP source monitoring for CPU protection |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* cpu-protection ip-src-monitoring |
| Tree | ip-src-monitoring |
| Notes | The following elements are part of a choice: **eth-cfm-monitoring**, **ip-src-monitoring**, or **mac-monitoring**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s |

## mac-monitoring

| | |
|---|---|
| Synopsis | Monitor MAC for CPU protection |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* cpu-protection mac-monitoring |
| Tree | mac-monitoring |
| Notes | The following elements are part of a choice: **eth-cfm-monitoring**, **ip-src-monitoring**, or **mac-monitoring**. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s |

### **policy-id** *reference*

| | |
|---|---|
| Synopsis | CPM protection policy |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* cpu-protection policy-id *reference* |
| Tree | policy-id |
| Reference | **configure** system security cpu-protection policy *number* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s |

### **default-host**

| | |
|---|---|
| Synopsis | Enter the **default-host** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* default-host |
| Tree | default-host |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

### **ipv4** [address] *reference* prefix-length *number*

| | |
|---|---|
| Synopsis | Enter the **ipv4** list instance |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* default-host ipv4 *reference* prefix-length *number* |
| Tree | ipv4 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

### [**address**] *reference*

| | |
|---|---|
| Synopsis | IPv4 default host address |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* default-host ipv4 *reference* prefix-length *number* |


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| | |
|---|---|
| Tree | ipv4 |
| Reference | **configure** service ies *service-name* subscriber-interface *interface-name* ipv4 address *ipv4-unicast-address* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## **prefix-length** *number*

| | |
|---|---|
| Synopsis | IPv4 address prefix length |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* default-host ipv4 *reference* prefix-length *number* |
| Tree | ipv4 |
| Range | 0 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## **next-hop** *ipv4-unicast-address*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Next hop IP address |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* default-host ipv4 *reference* prefix-length *number* next-hop *ipv4-unicast-address* |
| Tree | next-hop |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## **ipv6** [address] *ipv6-unicast-address* prefix-length *number*

| | |
|---|---|
| Synopsis | Enter the **ipv6** list instance |


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| | |
|---|---|
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* default-host ipv6 *ipv6-unicast-address* prefix-length *number* |
| Tree | ipv6 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## [**address**] *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | IPv6 default host address |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* default-host ipv6 *ipv6-unicast-address* prefix-length *number* |
| Tree | ipv6 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## **prefix-length** *number*

| | |
|---|---|
| Synopsis | IPv6 address prefix length |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* default-host ipv6 *ipv6-unicast-address* prefix-length *number* |
| Tree | ipv6 |
| Range | 0 to 128 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## **next-hop** *ipv6-unicast-address*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Next hop IP address |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* default-host ipv6 *ipv6-unicast-address* prefix-length *number* next-hop *ipv6-unicast-address* |


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| | |
|---|---|
| Tree | next-hop |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## **description** *long-description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* description *long-description* |
| Tree | description |
| String length | 1 to 160 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **dist-cpu-protection** *reference*

| | |
|---|---|
| Synopsis | Distributed CPU protection policy for SAP |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* dist-cpu-protection *reference* |
| Tree | dist-cpu-protection |
| Reference | **configure** system security dist-cpu-protection policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **egress**

| | |
|---|---|
| Synopsis | Enter the **egress** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* egress |
| Tree | egress |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### agg-rate

| | |
|---|---|
| Synopsis | Enter the **agg-rate** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* egress agg-rate |
| Tree | agg-rate |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### adaptation-rule *keyword*

| | |
|---|---|
| Synopsis | Adaptation rule to compute the operational PIR value when an aggregate shaper is used |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* egress agg-rate adaptation-rule *keyword* |
| Tree | adaptation-rule |
| Options | max, min, closest |
| Default | closest |
| Introduced | 22.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### burst-limit *(number | keyword)*

| | |
|---|---|
| Synopsis | Shaping burst size when an aggregate shaper is used |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* egress agg-rate burst-limit *(number | keyword)* |
| Tree | burst-limit |
| Range | 1 to 14000000 |
| Units | bytes |
| Options | auto |
| Default | auto |
| Introduced | 22.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### limit-unused-bandwidth *boolean*

| | |
|---|---|
| Synopsis | Enable aggregate rate overrun protection |


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| | |
|---|---|
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* egress agg-rate limit-unused-bandwidth *boolean* |
| Tree | limit-unused-bandwidth |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **queue-frame-based-accounting** *boolean*

| | |
|---|---|
| Synopsis | Enable frame based accounting on policers and queues |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* egress agg-rate queue-frame-based-accounting *boolean* |
| Tree | queue-frame-based-accounting |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **rate** *number*

| | |
|---|---|
| Synopsis | Enforced aggregate rate for all queues |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* egress agg-rate rate *number* |
| Tree | rate |
| Range | 1 to 6400000000 |
| Units | kilobps |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **filter**

| | |
|---|---|
| Synopsis | Enter the **filter** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* egress filter |
| Tree | filter |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **ip** *reference*

| | |
|---|---|
| Synopsis | IPv4 filter policy name |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* egress filter ip *reference* |
| Tree | ip |
| Reference | **configure** filter ip-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ipv6** *reference*

| | |
|---|---|
| Synopsis | IPv6 filter policy name |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* egress filter ipv6 *reference* |
| Tree | ipv6 |
| Reference | **configure** filter ipv6-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **qos**

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* egress qos |
| Tree | qos |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **latency-budget** *number*

| | |
|---|---|
| Synopsis | SAP egress latency budget |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* egress qos latency-budget *number* |
| Tree | latency-budget |
| Range | 1 to 1000000 |


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| | |
|---|---|
| Units | microseconds |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## policer-control-policy

| | |
|---|---|
| Synopsis | Enter the **policer-control-policy** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* egress qos policer-control-policy |
| Tree | policer-control-policy |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## policy-name *reference*

| | |
|---|---|
| Synopsis | Policer control policy name |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* egress qos policer-control-policy policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos policer-control-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## qinq-mark-top-only *boolean*

| | |
|---|---|
| Synopsis | Mark top Q-tags |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* egress qos qinq-mark-top-only *boolean* |
| Tree | qinq-mark-top-only |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## sap-egress

| | |
|---|---|
| Synopsis | Enter the **sap-egress** context |


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| | |
|---|---|
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* egress qos sap-egress |
| Tree | sap-egress |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **policy-name** *reference*

| | |
|---|---|
| Synopsis | Policy ID to associate with SAP for mirrored service |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* egress qos sap-egress policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos sap-egress *qos-policy-name* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **scheduler-policy**

| | |
|---|---|
| Synopsis | Enter the **scheduler-policy** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* egress qos scheduler-policy |
| Tree | scheduler-policy |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **policy-name** *reference*

| | |
|---|---|
| Synopsis | Scheduler policy name |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* egress qos scheduler-policy policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos scheduler-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## virtual-port

| | |
|---|---|
| Synopsis | Enter the **virtual-port** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* egress virtual-port |
| Tree | virtual-port |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## vport-name *reference*

| | |
|---|---|
| Synopsis | Virtual port assigned to the SAP |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* egress virtual-port vport-name *reference* |
| Tree | vport-name |
| Reference | **configure** port *port* ethernet access egress virtual-port *named-item* |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## eth-cfm

| | |
|---|---|
| Synopsis | Enter the **eth-cfm** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm |
| Tree | eth-cfm |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## collect-lmm-fc-stats

| | |
|---|---|
| Synopsis | Enter the **collect-lmm-fc-stats** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm collect-lmm-fc-stats |
| Tree | collect-lmm-fc-stats |
| Description | Commands in this context configure per forwarding class (FC) LMM information collection. |


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The commands **fc-in-profile** and **fc** in this context are mutually exclusive. The commands apply to either profile-aware or profile-unaware FCs respectively.

This command and the **collect-lmm-stats** command are mutually exclusive when there is entity resource contention.

Introduced 16.0.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s

## **fc** *keyword*

Synopsis Forwarding class name for profile-unaware counter

Context **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm collect-lmm-fc-stats fc *keyword*

Tree fc

Description This command configures individual counters for the specified FCs without regard for profile. The system includes all countable packets that match a configured FC, regardless of profile, in this counter.

An FC specified as part of this command and for this specific context cannot be specified as a profile-aware FC using the **fc-in-profile** command under the **collect-lmm-fc-stats** context.

When this command is reentered, a differential is performed. Omitted FCs stop counting, newly added FCs start counting, and unchanged FCs continue to count.

Options be, l2, af, l1, h2, ef, h1, nc

Max. instances 8

Introduced 16.0.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s

## **fc-in-profile** *keyword*

Synopsis Forwarding class name for profile-aware counter

Context **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm collect-lmm-fc-stats fc-in-profile *keyword*

Tree fc-in-profile

Description This command configures individual counters for the specified FCs with regard to profile. The system includes all countable packets that match a configured FC and that are deemed to be in-profile in this counter.

An FC specified as part of this command and for this specific context cannot be specified as a profile-unaware FC using the **fc** command under the **collect-lmm-fc-stats** context.


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When this command is reentered, a differential is performed. Omitted FCs stop counting, newly added FCs start counting, and unchanged FCs continue to count.

| | |
|---|---|
| Options | be, l2, af, l1, h2, ef, h1, nc |
| Max. instances | 8 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

### **collect-lmm-stats** *boolean*

| | |
|---|---|
| Synopsis | Collect statistics for loss measurement message tests |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm collect-lmm-stats *boolean* |
| Tree | collect-lmm-stats |
| Description | When configured to **true**, the router instantiates the statistical counter to transmit and receive packets for the LAG facility MEP bindings.<br>The **show eth-cfm collect-lmm-stats** command displays entities that have been enabled to collect transit and receive counters.<br>When configured to **false**, the router does not instantiate the counter and the LMM PDU associated with the MEP does not populate the counters in the packet. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

### **mep** md-admin-name *reference* ma-admin-name *reference* mep-id *number*

| | |
|---|---|
| Synopsis | Enter the **mep** list instance |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |
| Tree | mep |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

### **md-admin-name** *reference*

| | |
|---|---|
| Synopsis | Maintenance Domain (MD) name |


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| | |
|---|---|
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |
| Tree | mep |
| Reference | **configure** eth-cfm domain *admin-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## **ma-admin-name** *reference*

| | |
|---|---|
| Synopsis | Maintenance Association (MA) name |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |
| Tree | mep |
| Reference | **configure** eth-cfm domain *admin-name* association *admin-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## **mep-id** *number*

| | |
|---|---|
| Synopsis | Maintenance Endpoint (MEP) ID |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |
| Tree | mep |
| Range | 1 to 8191 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the MEP |


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| | |
|---|---|
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## **ais** *boolean*

| | |
|---|---|
| Synopsis | Enable the generation and the reception of AIS messages |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ais *boolean* |
| Tree | ais |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## **alarm-notification**

| | |
|---|---|
| Synopsis | Enter the **alarm-notification** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* alarm-notification |
| Tree | alarm-notification |
| Description | Commands in this context configure the Fault Notification Generator (FNG) time values to raise an alarm or reset the CCM defect alarm.<br>Use these timers for network management processes. The timers are not tied into delaying the notification to the fault management system on the network element and do not affect fault propagation mechanisms. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## **fng-alarm-time** *number*

| | |
|---|---|
| Synopsis | Time that must expire before an FNG alarm is raised |


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| | |
|---|---|
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* alarm-notification fng-alarm-time *number* |
| Tree | fng-alarm-time |
| Range | 250 \| 500 \| 1000 |
| Units | centiseconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

### **fng-reset-time** *number*

| | |
|---|---|
| Synopsis | Time that must expire before an FNG alarm is reset |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* alarm-notification fng-reset-time *number* |
| Tree | fng-reset-time |
| Range | 250 \| 500 \| 1000 |
| Units | centiseconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

### **ccm** *boolean*

| | |
|---|---|
| Synopsis | Generate CCM messages |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ccm *boolean* |
| Tree | ccm |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

### **ccm-ltm-priority** *number*

| | |
|---|---|
| Synopsis | Priority of CCM and LTM messages transmitted by the MEP |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ccm-ltm-priority *number* |


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| | |
|---|---|
| Tree | ccm-ltm-priority |
| Range | 0 to 7 |
| Default | 7 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## **ccm-padding-size** *number*

| | |
|---|---|
| Synopsis | Number of octets of padding to insert in CCM packets |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ccm-padding-size *number* |
| Tree | ccm-padding-size |
| Description | This command sets the byte size of the optional Data TLV to be included in the ETH-CC PDU.<br>This command increases the size of the ETH-CC PDU by the configured value. The base size of the ETH-CC PDU, including the Interface Status TLV and Port Status TLV, is 83 bytes not including the Layer 2 encapsulation. CCM padding is not supported when the CCM interval (configured through **configure eth-cfm domain association ccm-interval)** is less than 1 second. |
| Range | 3 to 1500 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## **csf**

| | |
|---|---|
| Synopsis | Enable the **csf** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* csf |
| Tree | csf |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## **multiplier** *decimal-number*

| | |
|---|---|
| Synopsis | Multiplication factor used to clear the CSF condition |


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| | |
|---|---|
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* csf multiplier *decimal-number* |
| Tree | multiplier |
| Range | 0.0 \| 2.0 to 30.0 |
| Default | 3.5 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## **eth-test**

| | |
|---|---|
| Synopsis | Enable the **eth-test** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test |
| Tree | eth-test |
| Description | Commands in this context configure information used by the Ethernet Test (ETH-TST) packet. The commands must be configured on both the sender and the receiver nodes. The test packets are used with the **oam eth-cfm eth-test** command. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## **bit-error-threshold** *number*

| | |
|---|---|
| Synopsis | Lowest priority defect allowed to generate fault alarm |


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| | |
|---|---|
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test bit-error-threshold *number* |
| Tree | bit-error-threshold |
| Range | 0 to 11840 |
| Units | bit errors |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## test-pattern

| | |
|---|---|
| Synopsis | Enter the **test-pattern** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test test-pattern |
| Tree | test-pattern |
| Description | Commands in this context specify the test pattern for the ETH-TST frames. The pattern does not have to be the same on the sender and the receiver. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## crc-tlv *boolean*

| | |
|---|---|
| Synopsis | Generate a CRC checksum |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test test-pattern crc-tlv *boolean* |
| Tree | crc-tlv |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## pattern *keyword*

| | |
|---|---|
| Synopsis | Test pattern for Ethernet Test frames |


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| | |
|---|---|
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test test-pattern pattern *keyword* |
| Tree | pattern |
| Description | This command specifies the test pattern of the Ethernet Test (ETH-TST) frames. This does not have to be configured the same on the sender and the receiver. |
| Options | all-zeros, all-ones |
| Default | all-zeros |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## **fault-propagation** *keyword*

| | |
|---|---|
| Synopsis | Fault propagation for the MEP |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* fault-propagation *keyword* |
| Tree | fault-propagation |
| Options | use-if-status-tlv, suspend-ccm |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## **grace**

| | |
|---|---|
| Synopsis | Enter the **grace** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace |
| Tree | grace |
| Description | Commands in this context configure the Nokia ETH-CFM Grace function and the ITU-T Y.1731 Ethernet Expected Default (ETH-ED) function. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## **eth-ed**

| | |
|---|---|
| Synopsis | Enter the **eth-ed** context |


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| | |
|---|---|
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed |
| Tree | eth-ed |
| Description | Commands in this context configure the ITU-T Y.1731 ETH-ED function. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## **max-rx-defect-window** *number*

| | |
|---|---|
| Synopsis | Maximum received ETH-ED expected defect window duration |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed max-rx-defect-window *number* |
| Tree | max-rx-defect-window |
| Range | 1 to 86400 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## **priority** *number*

| | |
|---|---|
| Synopsis | Transmission priority for ETH-ED PDUs |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed priority *number* |
| Tree | priority |
| Range | 0 to 7 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## **rx-eth-ed** *boolean*

| | |
|---|---|
| Synopsis | Receive and process ETH-ED ITU-T Y.1731 PDUs on the MEP |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed rx-eth-ed *boolean* |


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| | |
|---|---|
| Tree | rx-eth-ed |
| Description | This command enables the reception and processing of the ITU-T Y.1731 ETH-ED PDU on the MEP. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## **tx-eth-ed** *boolean*

| | |
|---|---|
| Synopsis | Transmit ETH-ED PDUs from the MEP |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed tx-eth-ed *boolean* |
| Tree | tx-eth-ed |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## **eth-vsm-grace**

| | |
|---|---|
| Synopsis | Enter the **eth-vsm-grace** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-vsm-grace |
| Tree | eth-vsm-grace |
| Description | Commands in this context configure the Nokia ETH-CFM Grace function. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## **rx-eth-vsm-grace** *boolean*

| | |
|---|---|
| Synopsis | Receive and process Nokia ETH-CFM Grace PDU on the MEP |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-vsm-grace rx-eth-vsm-grace *boolean* |
| Tree | rx-eth-vsm-grace |


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| | |
|---|---|
| Description | When configured to **true**, the router enables the Nokia Grace function, which is a vendor-specific PDU that informs MEP peers that the local node may be entering a period of expected defect.<br>When configured to **false**, the router disables the Nokia Grace function. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## **tx-eth-vsm-grace** *boolean*

| | |
|---|---|
| Synopsis | Transmit ETH-ED PDUs from the MEP |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-vsm-grace tx-eth-vsm-grace *boolean* |
| Tree | tx-eth-vsm-grace |
| Description | When configured to **true**, the router can transmit the Nokia ETH-CFM Grace PDU from the MEP when a system soft reset notification is received for one or more cards.<br>The Nokia Grace function is a vendor-specific PDU that informs MEP peers that the local node may be entering a period of expected defect.<br>The operator must configure the **configure system eth-cfm grace** command to instruct the system that the node is capable of transmitting expected-defect windows to peers. The system can only transmit one form of ETH-CFM grace (Nokia ETH-CFM Grace or ITU-T Y.1731 ETH-ED).<br>When configured to **false**, the router disables the transmission of the Nokia ETH-CFM Grace PDU from the MEP. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## **low-priority-defect** *keyword*

| | |
|---|---|
| Synopsis | Lowest priority defect allowed to generate fault alarm |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* low-priority-defect *keyword* |
| Tree | low-priority-defect |
| Options | all-def, mac-rem-err-xcon, rem-err-xcon, err-xcon, xcon, no-xcon |
| Default | mac-rem-err-xcon |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## **one-way-delay-threshold** *number*

| | |
|---|---|
| Synopsis | Threshold time limit for the one-way delay test |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* one-way-delay-threshold *number* |
| Tree | one-way-delay-threshold |
| Range | 0 to 600 |
| Units | seconds |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## **squelch-ingress-levels** *number*

| | |
|---|---|
| Synopsis | Levels for which ETH-CFM packets are silently discarded |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm squelch-ingress-levels *number* |
| Tree | squelch-ingress-levels |
| Description | This command defines the levels of the ETH-CFM packets that are silently discarded.<br>At ingress, ETH-CFM packets that meet the following conditions are silently discarded:<br>• The packet is ingressing into the SAP or SDP binding from the wire that matches the service delineation of the SAP or SDP binding.<br>• The packet level matches the configured levels.<br>All ETH-CFM packets ingressing to the SAP or SDP binding that match the configured levels are dropped without regard for other ETH-CFM criteria. No statistical information or drop count is available for any ETH-CFM packet that is silently discarded by this option.<br>The list of levels must be a complete contiguous list from 0 up to the highest level that is to be dropped. |
| Range | 0 to 7 |
| Max. instances | 8 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |


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## fwd-wholesale

| | |
|---|---|
| Synopsis | Enter the **fwd-wholesale** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* fwd-wholesale |
| Tree | fwd-wholesale |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## pppoe-service *reference*

| | |
|---|---|
| Synopsis | PPPoE service name |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* fwd-wholesale pppoe-service *reference* |
| Tree | pppoe-service |
| Reference | **configure** service epipe *service-name* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## host-admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the hosts |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* host-admin-state *keyword* |
| Tree | host-admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## host-lockout-policy *reference*

| | |
|---|---|
| Synopsis | Host lockout policy |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* host-lockout-policy *reference* |
| Tree | host-lockout-policy |


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| | |
|---|---|
| Reference | **configure** subscriber-mgmt host-lockout-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## igmp-host-tracking

| | |
|---|---|
| Synopsis | Enter the **igmp-host-tracking** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* igmp-host-tracking |
| Tree | igmp-host-tracking |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## expiry-time *number*

| | |
|---|---|
| Synopsis | Time that the system continues to track inactive hosts |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* igmp-host-tracking expiry-time *number* |
| Tree | expiry-time |
| Range | 1 to 65535 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## import-policy *reference*

| | |
|---|---|
| Synopsis | Import policy that filters IGMP packets |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* igmp-host-tracking import-policy *reference* |
| Tree | import-policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **maximum-number-group-sources** *number*

| | |
|---|---|
| Synopsis | Maximum number of multicast groups to track per group |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* igmp-host-tracking maximum-number-group-sources *number* |
| Tree | maximum-number-group-sources |
| Range | 1 to 32000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **maximum-number-groups** *number*

| | |
|---|---|
| Synopsis | Maximum number of multicast groups to be tracked |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* igmp-host-tracking maximum-number-groups *number* |
| Tree | maximum-number-groups |
| Range | 1 to 16000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **maximum-number-sources** *number*

| | |
|---|---|
| Synopsis | Maximum number of multicast sources to be tracked |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* igmp-host-tracking maximum-number-sources *number* |
| Tree | maximum-number-sources |
| Range | 1 to 1000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **router-alert-check** *boolean*

| | |
|---|---|
| Synopsis | Enable IGMP router alert check option |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* igmp-host-tracking router-alert-check *boolean* |
| Tree | router-alert-check |


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| | |
|---|---|
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ingress

| | |
|---|---|
| Synopsis | Enter the **ingress** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* ingress |
| Tree | ingress |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## filter

| | |
|---|---|
| Synopsis | Enter the **filter** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* ingress filter |
| Tree | filter |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ip *reference*

| | |
|---|---|
| Synopsis | IPv4 filter policy name |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* ingress filter ip *reference* |
| Tree | ip |
| Reference | **configure** filter ip-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ipv6 *reference*

| | |
|---|---|
| Synopsis | IPv6 filter policy name |


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| | |
|---|---|
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* ingress filter ipv6 *reference* |
| Tree | ipv6 |
| Reference | **configure** filter ipv6-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## qos

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* ingress qos |
| Tree | qos |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## match-qinq-dot1p *keyword*

| | |
|---|---|
| Synopsis | Ingress match QinQ Dot1p |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* ingress qos match-qinq-dot1p *keyword* |
| Tree | match-qinq-dot1p |
| Options | top, bottom |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## policer-control-policy

| | |
|---|---|
| Synopsis | Enter the **policer-control-policy** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* ingress qos policer-control-policy |
| Tree | policer-control-policy |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **policy-name** *reference*

| | |
|---|---|
| Synopsis | Policer control policy name |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* ingress qos policer-control-policy policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos policer-control-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **sap-ingress**

| | |
|---|---|
| Synopsis | Enter the **sap-ingress** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* ingress qos sap-ingress |
| Tree | sap-ingress |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **policy-name** *reference*

| | |
|---|---|
| Synopsis | Policy ID |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* ingress qos sap-ingress policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos sap-ingress *qos-policy-name* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **queuing-type** *keyword*

| | |
|---|---|
| Synopsis | Queuing type |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* ingress qos sap-ingress queuing-type *keyword* |
| Tree | queuing-type |
| Options | shared, multipoint-shared |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e, VSR |

## scheduler-policy

| | |
|---|---|
| Synopsis | Enter the **scheduler-policy** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* ingress qos scheduler-policy |
| Tree | scheduler-policy |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## policy-name *reference*

| | |
|---|---|
| Synopsis | Scheduler policy name |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* ingress qos scheduler-policy policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos scheduler-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## lag

| | |
|---|---|
| Synopsis | Enter the **lag** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* lag |
| Tree | lag |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## link-map-profile *number*

| | |
|---|---|
| Synopsis | LAG link map profile for a SAP or network interface |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* lag link-map-profile *number* |


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| | |
|---|---|
| Tree | link-map-profile |
| Description | This command assigns a preconfigured LAG link map profile to a SAP or network interface configured on a LAG or a PW port that exists on a LAG. After an operator assigns a LAG link map profile, the system rehashes the SAP or network interface egress traffic over the LAG as required by the new configuration.<br>If the LAG link map profile for a SAP or network interface is deleted, the system reverts back to per-flow hashing. |
| Range | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## per-link-hash

| | |
|---|---|
| Synopsis | Enter the **per-link-hash** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* lag per-link-hash |
| Tree | per-link-hash |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## class *number*

| | |
|---|---|
| Synopsis | Class used on LAG egress using weighted per-link-hash |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* lag per-link-hash class *number* |
| Tree | class |
| Range | 1 to 3 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## weight *number*

| | |
|---|---|
| Synopsis | Weight used on LAG egress using weighted per-link-hash |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* lag per-link-hash weight *number* |
| Tree | weight |


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| | |
|---|---|
| Range | 1 to 1024 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **monitor-oper-group** *reference*

| | |
|---|---|
| Synopsis | Monitor operational group |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* monitor-oper-group *reference* |
| Tree | monitor-oper-group |
| Reference | **configure** service oper-group *named-item* |
| Notes | The following elements are part of a choice: **monitor-oper-group** or **oper-group**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **multi-service-site** *reference*

| | |
|---|---|
| Synopsis | Multi service site name |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* multi-service-site *reference* |
| Tree | multi-service-site |
| Reference | **configure** service customer *customer-name* multi-service-site *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **oper-group** *reference*

| | |
|---|---|
| Synopsis | Operational group |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* oper-group *reference* |
| Tree | oper-group |
| Reference | **configure** service oper-group *named-item* |
| Notes | The following elements are part of a choice: **monitor-oper-group** or **oper-group**. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## qtag-normalization

| | |
|---|---|
| Synopsis | Enable the **qtag-normalization** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* qtag-normalization |
| Tree | qtag-normalization |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

## double-tag

| | |
|---|---|
| Synopsis | Enter the **double-tag** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* qtag-normalization double-tag |
| Tree | double-tag |
| Notes | The following elements are part of a choice: **double-tag** or **single-tag**. |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

## c-tag *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | C-tag value used for the tag normalization |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* qtag-normalization double-tag c-tag *number* |
| Tree | c-tag |
| Description | This command configures the normalized C-tag for the SAP. When configured, the tag value is pushed as the C-tag (inner tag) into the frames coming from this SAP and sent to EVPN. On network ingress, the inner and outer VLAN tags are looked up and the frames matching this value and the normalized S-tag value are sent to the associated SAP.<br><br>When unconfigured, the normalized C-tag is derived from the service delimiting C-tag. |
| Range | 0 to 4094 |


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| | |
|---|---|
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

## **s-tag** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | S-tag value used for the tag normalization |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* qtag-normalization double-tag s-tag *number* |
| Tree | s-tag |
| Description | This command configures the normalized S-tag for the SAP. When configured, the tag value is pushed as the S-tag (outer tag) into the frames coming from this SAP and sent to EVPN. On network ingress, the inner and outer VLAN tags are looked up and the frames matching this value and the normalized C-tag value are sent to the associated SAP.<br>When unconfigured, the normalized S-tag is derived from the service delimiting S-tag. |
| Range | 0 to 4094 |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

## **single-tag**

| | |
|---|---|
| Synopsis | Enter the **single-tag** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* qtag-normalization single-tag |
| Tree | single-tag |
| Notes | The following elements are part of a choice: **double-tag** or **single-tag**. |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

## **tag** *number*

**WARNING:**
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| | |
|---|---|
| Synopsis | Tag normalization value |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* qtag-normalization single-tag tag *number* |
| Tree | tag |
| Description | This command configures the normalized S-tag for the SAP. When configured, the tag value is pushed as the S-tag (outer tag) into the frames coming from this SAP and sent to EVPN. On network ingress, the inner and outer VLAN tags are looked up and the frames matching this value and the normalized C-tag value are sent to the associated SAP.<br>When unconfigured, the normalized S-tag is derived from the service delimiting S-tag. |
| Range | 0 to 4094 |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

## static-host

| | |
|---|---|
| Synopsis | Enter the **static-host** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host |
| Tree | static-host |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **ipv4** [ip] *ipv4-unicast-address* mac *mac-unicast-address*

| | |
|---|---|
| Synopsis | Enter the **ipv4** list instance |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* |
| Tree | ipv4 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## [**ip**] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IPv4 address used by the static host |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* |
| Tree | ipv4 |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **mac** *mac-unicast-address*

| | |
|---|---|
| Synopsis | MAC address used by the static host |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* |
| Tree | ipv4 |
| MD-CLI default | 00:00:00:00:00:00 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the static host |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ancp-string** *ancp-string*

| | |
|---|---|
| Synopsis | ANCP string |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* ancp-string *ancp-string* |
| Tree | ancp-string |
| String length | 1 to 63 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## app-profile

| | |
|---|---|
| Synopsis | Enter the **app-profile** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* app-profile |
| Tree | app-profile |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## profile *reference*

| | |
|---|---|
| Synopsis | Application profile used by the static host |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* app-profile profile *reference* |
| Tree | profile |
| Reference | **configure** application-assurance group *number* partition *number* policy app-profile *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## scope *keyword*

| | |
|---|---|
| Synopsis | Scope of the static host application profile |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* app-profile scope *keyword* |
| Tree | scope |
| Options | subscriber, mac |
| Default | subscriber |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **int-dest-id** *int-dest-id*

| | |
|---|---|
| Synopsis | Intermediate destination ID |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* int-dest-id *int-dest-id* |
| Tree | int-dest-id |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **managed-route** [prefix] *ipv4-unicast-prefix*

| | |
|---|---|
| Synopsis | Enter the **managed-route** list instance |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* managed-route *ipv4-unicast-prefix* |
| Tree | managed-route |
| Description | Commands in this context configure managed route parameters. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**prefix**] *ipv4-unicast-prefix*

| | |
|---|---|
| Synopsis | Managed route prefix associated with IPv4 static host |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* managed-route *ipv4-unicast-prefix* |
| Tree | managed-route |
| Description | This command configures the managed route prefix. The prefix length must be in the range of 1 to 32. |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## cpe-check

| | |
|---|---|
| Synopsis | Enable the **cpe-check** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* managed-route *ipv4-unicast-prefix* cpe-check |
| Tree | cpe-check |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## destination-ip-address *(ipv4-address-no-zone | ipv6-address-no-zone)*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IP address of the target CPE device |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* managed-route *ipv4-unicast-prefix* cpe-check destination-ip-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | destination-ip-address |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## drop-count *number*

| | |
|---|---|
| Synopsis | Consecutive ping replies missed before CPE deemed down |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* managed-route *ipv4-unicast-prefix* cpe-check drop-count *number* |
| Tree | drop-count |
| Range | 1 to 255 |
| Default | 3 |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## failed-action

| | |
|---|---|
| Synopsis | Enter the **failed-action** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* managed-route *ipv4-unicast-prefix* cpe-check failed-action |
| Tree | failed-action |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## metric *number*

| | |
|---|---|
| Synopsis | Metric associated with the provisioned managed route |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* managed-route *ipv4-unicast-prefix* cpe-check failed-action metric *number* |
| Tree | metric |
| Max. range | 0 to 4294967295 |
| Default | 0 |
| Notes | The following elements are part of a choice: (**metric**, **preference**, and **tag**) or **withdraw**. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## preference *number*

| | |
|---|---|
| Synopsis | Preference associated to the provisioned managed route |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* managed-route *ipv4-unicast-prefix* cpe-check failed-action preference *number* |
| Tree | preference |
| Range | 0 to 255 |
| Notes | The following elements are part of a choice: (**metric**, **preference**, and **tag**) or **withdraw**. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **tag** *number*

| | |
|---|---|
| Synopsis | Route tag used if CPE check fails |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* managed-route *ipv4-unicast-prefix* cpe-check failed-action tag *number* |
| Tree | tag |
| Max. range | 0 to 4294967295 |
| Default | 0 |
| Notes | The following elements are part of a choice: (**metric**, **preference**, and **tag**) or **withdraw**. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **withdraw** *boolean*

| | |
|---|---|
| Synopsis | Withdraw the route when the CPE check fails |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* managed-route *ipv4-unicast-prefix* cpe-check failed-action withdraw *boolean* |
| Tree | withdraw |
| Default | false |
| Notes | The following elements are part of a choice: (**metric**, **preference**, and **tag**) or **withdraw**. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **interval** *number*

| | |
|---|---|
| Synopsis | Interval between ICMP pings to target CPE IP address |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* managed-route *ipv4-unicast-prefix* cpe-check interval *number* |
| Tree | interval |
| Range | 1 to 255 |
| Units | seconds |
| Default | 1 |
| Introduced | 22.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **log** *boolean*

| | |
|---|---|
| Synopsis | Log CPE connectivity checks transitions |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* managed-route *ipv4-unicast-prefix* cpe-check log *boolean* |
| Tree | log |
| Default | false |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **padding-size** *number*

| | |
|---|---|
| Synopsis | Padding size for CPE connectivity checks |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* managed-route *ipv4-unicast-prefix* cpe-check padding-size *number* |
| Tree | padding-size |
| Range | 0 to 16384 |
| Units | bytes |
| Default | 56 |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **source-ip-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source IP address used in the ICMP messages |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* managed-route *ipv4-unicast-prefix* cpe-check source-ip-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | source-ip-address |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **timeout** *number*

| | |
|---|---|
| Synopsis | Time interval determining that a ping is missed |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* managed-route *ipv4-unicast-prefix* cpe-check timeout *number* |
| Tree | timeout |
| Range | 1 to 10 |
| Units | seconds |
| Default | 1 |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **metric** *number*

| | |
|---|---|
| Synopsis | Metric associated with the managed route |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* managed-route *ipv4-unicast-prefix* metric *number* |
| Tree | metric |
| Max. range | 0 to 4294967295 |
| Default | 0 |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **preference** *number*

| | |
|---|---|
| Synopsis | Preference associated with the managed route |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* managed-route *ipv4-unicast-prefix* preference *number* |
| Tree | preference |
| Range | 0 to 255 |
| Default | 0 |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **tag** *number*

| | |
|---|---|
| Synopsis | Route tag associated with the managed route |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* managed-route *ipv4-unicast-prefix* tag *number* |
| Tree | tag |
| Max. range | 0 to 4294967295 |
| Default | 0 |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **rip-policy** *reference*

| | |
|---|---|
| Synopsis | RIP policy name |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* rip-policy *reference* |
| Tree | rip-policy |
| Reference | **configure** subscriber-mgmt rip-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **shcv**

| | |
|---|---|
| Synopsis | Enter the **shcv** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* shcv |
| Tree | shcv |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sla-profile** *reference*

| | |
|---|---|
| Synopsis | SLA profile name |


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| | |
|---|---|
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* sla-profile *reference* |
| Tree | sla-profile |
| Reference | **configure** subscriber-mgmt sla-profile *external-named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **sub-profile** *reference*

| | |
|---|---|
| Synopsis | Sub-profile name |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* sub-profile *reference* |
| Tree | sub-profile |
| Reference | **configure** subscriber-mgmt sub-profile *external-named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **subscriber-id**

| | |
|---|---|
| Synopsis | Enter the **subscriber-id** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* subscriber-id |
| Tree | subscriber-id |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **string** *subscriber-id*

| | |
|---|---|
| Synopsis | Subscriber identification |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* subscriber-id string *subscriber-id* |
| Tree | string |
| String length | 1 to 64 |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **string** or **use-sap-id**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## use-sap-id

| | |
|---|---|
| Synopsis | Use the SAP id as subscriber ID |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* subscriber-id use-sap-id |
| Tree | use-sap-id |
| Notes | The following elements are part of a choice: **string** or **use-sap-id**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **ipv6** [prefix] *ipv6-unicast-prefix* mac *mac-unicast-address*

| | |
|---|---|
| Synopsis | Enter the **ipv6** list instance |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* |
| Tree | ipv6 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## [**prefix**] *ipv6-unicast-prefix*

| | |
|---|---|
| Synopsis | IPv6 prefix |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* |
| Tree | ipv6 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **mac** *mac-unicast-address*

| | |
|---|---|
| Synopsis | MAC address |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* |
| Tree | ipv6 |
| MD-CLI default | 00:00:00:00:00:00 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the static host |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ancp-string** *ancp-string*

| | |
|---|---|
| Synopsis | ANCP string |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* ancp-string *ancp-string* |
| Tree | ancp-string |
| String length | 1 to 63 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## app-profile

| | |
|---|---|
| Synopsis | Enter the **app-profile** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* app-profile |
| Tree | app-profile |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## profile *reference*

| | |
|---|---|
| Synopsis | Application profile used by the static host |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* app-profile profile *reference* |
| Tree | profile |
| Reference | **configure** application-assurance group *number* partition *number* policy app-profile *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## scope *keyword*

| | |
|---|---|
| Synopsis | Scope of the static host application profile |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* app-profile scope *keyword* |
| Tree | scope |
| Options | subscriber, mac |
| Default | subscriber |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## int-dest-id *int-dest-id*

| | |
|---|---|
| Synopsis | Intermediate destination ID |


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| | |
|---|---|
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* int-dest-id *int-dest-id* |
| Tree | int-dest-id |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **mac-linking** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IPv6 host linked with IPv4 host via learned MAC address |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* mac-linking *ipv4-unicast-address* |
| Tree | mac-linking |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **managed-route** [ipv6-prefix] *ipv6-unicast-prefix*

| | |
|---|---|
| Synopsis | Enter the **managed-route** list instance |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* managed-route *ipv6-unicast-prefix* |
| Tree | managed-route |
| Description | Commands in this context configure managed route parameters. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**ipv6-prefix**] *ipv6-unicast-prefix*

| | |
|---|---|
| Synopsis | Managed route prefix associated with IPv6 static host |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* managed-route *ipv6-unicast-prefix* |
| Tree | managed-route |
| Description | This command configures the managed route prefix. The prefix length must be in the range of 1 to 128. |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## cpe-check

| | |
|---|---|
| Synopsis | Enable the **cpe-check** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* managed-route *ipv6-unicast-prefix* cpe-check |
| Tree | cpe-check |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## destination-ip-address *(ipv4-address-no-zone | ipv6-address-no-zone)*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IP address of the target CPE device |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* managed-route *ipv6-unicast-prefix* cpe-check destination-ip-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | destination-ip-address |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## drop-count *number*

| | |
|---|---|
| Synopsis | Consecutive ping replies missed before CPE deemed down |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* managed-route *ipv6-unicast-prefix* cpe-check drop-count *number* |
| Tree | drop-count |
| Range | 1 to 255 |
| Default | 3 |


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| | |
|---|---|
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## failed-action

| | |
|---|---|
| Synopsis | Enter the **failed-action** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* managed-route *ipv6-unicast-prefix* cpe-check failed-action |
| Tree | failed-action |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## metric *number*

| | |
|---|---|
| Synopsis | Metric associated with the provisioned managed route |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* managed-route *ipv6-unicast-prefix* cpe-check failed-action metric *number* |
| Tree | metric |
| Max. range | 0 to 4294967295 |
| Default | 0 |
| Notes | The following elements are part of a choice: (**metric**, **preference**, and **tag**) or **withdraw**. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## preference *number*

| | |
|---|---|
| Synopsis | Preference associated to the provisioned managed route |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* managed-route *ipv6-unicast-prefix* cpe-check failed-action preference *number* |
| Tree | preference |
| Range | 0 to 255 |
| Notes | The following elements are part of a choice: (**metric**, **preference**, and **tag**) or **withdraw**. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **tag** *number*

| | |
|---|---|
| Synopsis | Route tag used if CPE check fails |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* managed-route *ipv6-unicast-prefix* cpe-check failed-action tag *number* |
| Tree | tag |
| Max. range | 0 to 4294967295 |
| Default | 0 |
| Notes | The following elements are part of a choice: (**metric**, **preference**, and **tag**) or **withdraw**. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **withdraw** *boolean*

| | |
|---|---|
| Synopsis | Withdraw the route when the CPE check fails |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* managed-route *ipv6-unicast-prefix* cpe-check failed-action withdraw *boolean* |
| Tree | withdraw |
| Default | false |
| Notes | The following elements are part of a choice: (**metric**, **preference**, and **tag**) or **withdraw**. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **interval** *number*

| | |
|---|---|
| Synopsis | Interval between ICMP pings to target CPE IP address |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* managed-route *ipv6-unicast-prefix* cpe-check interval *number* |
| Tree | interval |
| Range | 1 to 255 |
| Units | seconds |
| Default | 1 |
| Introduced | 22.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **log** *boolean*

| | |
|---|---|
| Synopsis | Log CPE connectivity checks transitions |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* managed-route *ipv6-unicast-prefix* cpe-check log *boolean* |
| Tree | log |
| Default | false |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **padding-size** *number*

| | |
|---|---|
| Synopsis | Padding size for CPE connectivity checks |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* managed-route *ipv6-unicast-prefix* cpe-check padding-size *number* |
| Tree | padding-size |
| Range | 0 to 16384 |
| Units | bytes |
| Default | 56 |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **source-ip-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source IP address used in the ICMP messages |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* managed-route *ipv6-unicast-prefix* cpe-check source-ip-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | source-ip-address |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **timeout** *number*

| | |
|---|---|
| Synopsis | Time interval determining that a ping is missed |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* managed-route *ipv6-unicast-prefix* cpe-check timeout *number* |
| Tree | timeout |
| Range | 1 to 10 |
| Units | seconds |
| Default | 1 |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **metric** *number*

| | |
|---|---|
| Synopsis | Metric associated with the managed route |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* managed-route *ipv6-unicast-prefix* metric *number* |
| Tree | metric |
| Max. range | 0 to 4294967295 |
| Default | 0 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **preference** *number*

| | |
|---|---|
| Synopsis | Preference associated with the managed route |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* managed-route *ipv6-unicast-prefix* preference *number* |
| Tree | preference |
| Range | 0 to 255 |
| Default | 0 |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **tag** *number*

| | |
|---|---|
| Synopsis | Route tag associated with the managed route |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* managed-route *ipv6-unicast-prefix* tag *number* |
| Tree | tag |
| Max. range | 0 to 4294967295 |
| Default | 0 |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **retail-svc-id** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Retail service ID |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* retail-svc-id *number* |
| Tree | retail-svc-id |
| Range | 1 to 2147483647 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **shcv**

| | |
|---|---|
| Synopsis | Enter the **shcv** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* shcv |
| Tree | shcv |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **sla-profile** *reference*

| | |
|---|---|
| Synopsis | SLA profile name |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* sla-profile *reference* |
| Tree | sla-profile |
| Reference | **configure** subscriber-mgmt sla-profile *external-named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sub-profile** *reference*

| | |
|---|---|
| Synopsis | Sub-profile name |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* sub-profile *reference* |
| Tree | sub-profile |
| Reference | **configure** subscriber-mgmt sub-profile *external-named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **subscriber-id**

| | |
|---|---|
| Synopsis | Enter the **subscriber-id** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* subscriber-id |
| Tree | subscriber-id |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **string** *subscriber-id*

| | |
|---|---|
| Synopsis | Subscriber identification |


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| | |
|---|---|
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* subscriber-id string *subscriber-id* |
| Tree | string |
| String length | 1 to 64 |
| Notes | The following elements are part of a choice: **string** or **use-sap-id**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## use-sap-id

| | |
|---|---|
| Synopsis | Use the SAP id as subscriber ID |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* subscriber-id use-sap-id |
| Tree | use-sap-id |
| Notes | The following elements are part of a choice: **string** or **use-sap-id**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## mac-learning

| | |
|---|---|
| Synopsis | Enter the **mac-learning** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host mac-learning |
| Tree | mac-learning |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## data-triggered *boolean*

| | |
|---|---|
| Synopsis | Enable learning of MAC addresses from data packets |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host mac-learning data-triggered *boolean* |
| Tree | data-triggered |
| Default | false |
| Introduced | 16.0.R4 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **single-mac** *boolean*

| | |
|---|---|
| Synopsis | Enforce single MAC address and subscriber for the SAP |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host mac-learning single-mac *boolean* |
| Tree | single-mac |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sub-sla-mgmt**

| | |
|---|---|
| Synopsis | Enter the **sub-sla-mgmt** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* sub-sla-mgmt |
| Tree | sub-sla-mgmt |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of SAP subscriber management |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* sub-sla-mgmt admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **defaults**

| | |
|---|---|
| Synopsis | Enter the **defaults** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* sub-sla-mgmt defaults |


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| | |
|---|---|
| Tree | defaults |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **app-profile** *reference*

| | |
|---|---|
| Synopsis | Default application profile name for this SAP |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* sub-sla-mgmt defaults app-profile *reference* |
| Tree | app-profile |
| Reference | **configure** application-assurance group *number* partition *number* policy app-profile *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **int-dest-id**

| | |
|---|---|
| Synopsis | Enter the **int-dest-id** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* sub-sla-mgmt defaults int-dest-id |
| Tree | int-dest-id |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **string** *int-dest-id*

| | |
|---|---|
| Synopsis | Use the configured string |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* sub-sla-mgmt defaults int-dest-id string *int-dest-id* |
| Tree | string |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **string** or **top-q-tag**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## top-q-tag

| | |
|---|---|
| Synopsis | Use the top Q-tag of this SAP |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* sub-sla-mgmt defaults int-dest-id top-q-tag |
| Tree | top-q-tag |
| Notes | The following elements are part of a choice: **string** or **top-q-tag**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## sla-profile *reference*

| | |
|---|---|
| Synopsis | Default SLA profile for hosts on this SAP |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* sub-sla-mgmt defaults sla-profile *reference* |
| Tree | sla-profile |
| Reference | **configure** subscriber-mgmt sla-profile *external-named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## sub-profile *reference*

| | |
|---|---|
| Synopsis | Default subscriber profile for the SAP |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* sub-sla-mgmt defaults sub-profile *reference* |
| Tree | sub-profile |
| Reference | **configure** subscriber-mgmt sub-profile *external-named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## subscriber-id

| | |
|---|---|
| Synopsis | Enter the **subscriber-id** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* sub-sla-mgmt defaults subscriber-id |
| Tree | subscriber-id |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## auto-id

| | |
|---|---|
| Synopsis | Use auto-generated subscriber identification string |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* sub-sla-mgmt defaults subscriber-id auto-id |
| Tree | auto-id |
| Notes | The following elements are part of a choice: **auto-id**, **sap-id**, or **string**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## sap-id

| | |
|---|---|
| Synopsis | Use SAP ID as default subscriber identification string |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* sub-sla-mgmt defaults subscriber-id sap-id |
| Tree | sap-id |
| Notes | The following elements are part of a choice: **auto-id**, **sap-id**, or **string**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **string** *subscriber-id*

| | |
|---|---|
| Synopsis | Default subscriber identification string for the SAP |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* sub-sla-mgmt defaults subscriber-id string *subscriber-id* |
| Tree | string |
| String length | 1 to 64 |
| Notes | The following elements are part of a choice: **auto-id**, **sap-id**, or **string**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## single-sub-parameters

| | |
|---|---|
| Synopsis | Enter the **single-sub-parameters** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* sub-sla-mgmt single-sub-parameters |
| Tree | single-sub-parameters |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## non-sub-traffic

| | |
|---|---|
| Synopsis | Enable the **non-sub-traffic** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* sub-sla-mgmt single-sub-parameters non-sub-traffic |
| Tree | non-sub-traffic |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## app-profile *reference*

| | |
|---|---|
| Synopsis | Application profile name for all non-subscriber traffic |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* sub-sla-mgmt single-sub-parameters non-sub-traffic app-profile *reference* |
| Tree | app-profile |
| Reference | **configure** application-assurance group *number* partition *number* policy app-profile *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## sla-profile *reference*

| | |
|---|---|
| Synopsis | SLA profile applicable for all non-subscriber traffic |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* sub-sla-mgmt single-sub-parameters non-sub-traffic sla-profile *reference* |
| Tree | sla-profile |


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| | |
|---|---|
| Reference | **configure** subscriber-mgmt sla-profile *external-named-item* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **sub-profile** *reference*

| | |
|---|---|
| Synopsis | Subscriber profile all non-subscriber traffic |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* sub-sla-mgmt single-sub-parameters non-sub-traffic sub-profile *reference* |
| Tree | sub-profile |
| Reference | **configure** subscriber-mgmt sub-profile *external-named-item* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **subscriber-id** *subscriber-id*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Subscriber ID applied for all non-subscriber traffic |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* sub-sla-mgmt single-sub-parameters non-sub-traffic subscriber-id *subscriber-id* |
| Tree | subscriber-id |
| String length | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **profiled-traffic-only** *boolean*

| | |
|---|---|
| Synopsis | Include all traffic in subscriber profile |


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| | |
|---|---|
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* sub-sla-mgmt single-sub-parameters profiled-traffic-only *boolean* |
| Tree | profiled-traffic-only |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **sub-ident-policy** *reference*

| | |
|---|---|
| Synopsis | Subscriber identification policy used on this SAP |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* sub-sla-mgmt sub-ident-policy *reference* |
| Tree | sub-ident-policy |
| Reference | **configure** subscriber-mgmt sub-ident-policy *external-named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **subscriber-limit** *(keyword | number)*

| | |
|---|---|
| Synopsis | Maximum number of subscribers on this SAP |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* sub-sla-mgmt subscriber-limit *(keyword | number)* |
| Tree | subscriber-limit |
| Range | 1 to 131071 |
| Options | no-limit |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **sap-parameters**

| | |
|---|---|
| Synopsis | Enter the **sap-parameters** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap-parameters |
| Tree | sap-parameters |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **anti-spoof** *keyword*

| | |
|---|---|
| Synopsis | Anti-spoof type of the SAP |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap-parameters anti-spoof *keyword* |
| Tree | anti-spoof |
| Options | ip-mac, nh-mac |
| Default | ip-mac |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap-parameters description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **sub-sla-mgmt**

| | |
|---|---|
| Synopsis | Enter the **sub-sla-mgmt** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap-parameters sub-sla-mgmt |
| Tree | sub-sla-mgmt |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **defaults**

| | |
|---|---|
| Synopsis | Enter the **defaults** context |


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| | |
|---|---|
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap-parameters sub-sla-mgmt defaults |
| Tree | defaults |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **app-profile** *reference*

| | |
|---|---|
| Synopsis | Default application profile name |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap-parameters sub-sla-mgmt defaults app-profile *reference* |
| Tree | app-profile |
| Reference | **configure** application-assurance group *number* partition *number* policy app-profile *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **sla-profile** *reference*

| | |
|---|---|
| Synopsis | Default SLA profile |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap-parameters sub-sla-mgmt defaults sla-profile *reference* |
| Tree | sla-profile |
| Reference | **configure** subscriber-mgmt sla-profile *external-named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **sub-profile** *reference*

| | |
|---|---|
| Synopsis | Default subscriber profile |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap-parameters sub-sla-mgmt defaults sub-profile *reference* |
| Tree | sub-profile |
| Reference | **configure** subscriber-mgmt sub-profile *external-named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## subscriber-id

| | |
|---|---|
| Synopsis | Enter the **subscriber-id** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap-parameters sub-sla-mgmt defaults subscriber-id |
| Tree | subscriber-id |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## auto-id

| | |
|---|---|
| Synopsis | Subscriber ID that is autogenerated |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap-parameters sub-sla-mgmt defaults subscriber-id auto-id |
| Tree | auto-id |
| Notes | The following elements are part of a choice: **auto-id** or **string**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **string** *subscriber-id*

| | |
|---|---|
| Synopsis | String to be used as default subscriber ID |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap-parameters sub-sla-mgmt defaults subscriber-id string *subscriber-id* |
| Tree | string |
| String length | 1 to 64 |
| Notes | The following elements are part of a choice: **auto-id** or **string**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **sub-ident-policy** *reference*

| | |
|---|---|
| Synopsis | Subscriber identification policy |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap-parameters sub-sla-mgmt sub-ident-policy *reference* |
| Tree | sub-ident-policy |


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| | |
|---|---|
| Reference | **configure** subscriber-mgmt sub-ident-policy *external-named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **shcv-policy** *reference*

| | |
|---|---|
| Synopsis | SHCV policy for IPv4 and IPv6 subscriber hosts |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* shcv-policy *reference* |
| Tree | shcv-policy |
| Reference | **configure** subscriber-mgmt shcv-policy *external-named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **shcv-policy-ipv4** *reference*

| | |
|---|---|
| Synopsis | SHCV for IPv4 subscriber hosts |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* shcv-policy-ipv4 *reference* |
| Tree | shcv-policy-ipv4 |
| Reference | **configure** subscriber-mgmt shcv-policy *external-named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **shcv-policy-ipv6** *reference*

| | |
|---|---|
| Synopsis | SHCV for IPv6 subscriber hosts |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* shcv-policy-ipv6 *reference* |
| Tree | shcv-policy-ipv6 |
| Reference | **configure** subscriber-mgmt shcv-policy *external-named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **srrp** [srrp-id] *number*

| | |
|---|---|
| Synopsis | Enter the **srrp** list instance |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* srrp *number* |
| Tree | srrp |
| Max. instances | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**srrp-id**] *number*

| | |
|---|---|
| Synopsis | SRRP instance ID |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* srrp *number* |
| Tree | srrp |
| Range | 1 to 4294967295 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of SRRP |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* srrp *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **bfd-liveness**

| | |
|---|---|
| Synopsis | Enable the **bfd-liveness** context |


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| | |
|---|---|
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* srrp *number* bfd-liveness |
| Tree | bfd-liveness |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **dest-ip** *ipv4-address*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Destination IPv4 prefix |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* srrp *number* bfd-liveness dest-ip *ipv4-address* |
| Tree | dest-ip |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **interface-name** *interface-name*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Name of the interface running BFD |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* srrp *number* bfd-liveness interface-name *interface-name* |
| Tree | interface-name |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **service-name** *service-name*

**WARNING:**
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| | |
|---|---|
| Synopsis | Administrative service name |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* srrp *number* bfd-liveness service-name *service-name* |
| Tree | service-name |
| String length | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* srrp *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **gw-mac** *mac-unicast-address*

| | |
|---|---|
| Synopsis | Gateway MAC address |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* srrp *number* gw-mac *mac-unicast-address* |
| Tree | gw-mac |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **keep-alive-interval** *number*

| | |
|---|---|
| Synopsis | Interval between SRRP advertisements |


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| | |
|---|---|
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* srrp *number* keep-alive-interval *number* |
| Tree | keep-alive-interval |
| Range | 1 to 100 |
| Units | deciseconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **message-path** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | SAP to use as the SRRP message path |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* srrp *number* message-path *reference* |
| Tree | message-path |
| Reference | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **monitor-oper-group**

| | |
|---|---|
| Synopsis | Enter the **monitor-oper-group** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* srrp *number* monitor-oper-group |
| Tree | monitor-oper-group |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **group-name** *reference*

| | |
|---|---|
| Synopsis | Operational group name |


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| | |
|---|---|
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* srrp *number* monitor-oper-group group-name *reference* |
| Tree | group-name |
| Reference | **configure** service oper-group *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **priority-step** *number*

| | |
|---|---|
| Synopsis | Step value to change priority of SRRP instance |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* srrp *number* monitor-oper-group priority-step *number* |
| Tree | priority-step |
| Range | 1 to 10 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **one-garp-per-sap** *boolean*

| | |
|---|---|
| Synopsis | Send one gratuitous ARP to each SAP |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* srrp *number* one-garp-per-sap *boolean* |
| Tree | one-garp-per-sap |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **policy** *reference*

| | |
|---|---|
| Synopsis | VRRP priority control policy associated with the SRRP |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* srrp *number* policy *reference* |
| Tree | policy |
| Reference | **configure** vrrp policy *number* |
| Max. instances | 2 |


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| | |
|---|---|
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **preempt** *boolean*

| | |
|---|---|
| Synopsis | Allow the SRRP instance to override an existing master |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* srrp *number* preempt *boolean* |
| Tree | preempt |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **priority** *number*

| | |
|---|---|
| Synopsis | Priority for this interface at this level |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* srrp *number* priority *number* |
| Tree | priority |
| Range | 1 to 254 |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **send-fib-population-packets** *keyword*

| | |
|---|---|
| Synopsis | Mode used to send FIB population packets on switchover |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* srrp *number* send-fib-population-packets *keyword* |
| Tree | send-fib-population-packets |
| Options | all, outer-tag-only |
| Default | all |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **suppress-aa-sub** *boolean*

| | |
|---|---|
| Synopsis | Enable application assurance suppression for ESM subscribers |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* suppress-aa-sub *boolean* |
| Tree | suppress-aa-sub |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **tos-marking-state** *keyword*

| | |
|---|---|
| Synopsis | TOS marking state |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* tos-marking-state *keyword* |
| Tree | tos-marking-state |
| Options | trusted, untrusted |
| Default | untrusted |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **type** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Group interface type |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* type *keyword* |
| Tree | type |
| Options | plain, lns, wlan-gw, gtp, bonding |
| Default | plain |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### wlan-gw

| | |
|---|---|
| Synopsis | Enter the **wlan-gw** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw |
| Tree | wlan-gw |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of WLAN Gateway |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### gateway-address [address] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Enter the **gateway-address** list instance |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw gateway-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | gateway-address |
| Max. instances | 10 |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [address] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Gateway endpoint address of the WLAN Gateway tunnel |


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| | |
|---|---|
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw gateway-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | gateway-address |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## purpose

| | |
|---|---|
| Synopsis | Enter the **purpose** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw gateway-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* purpose |
| Tree | purpose |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## xconnect *boolean*

| | |
|---|---|
| Synopsis | Use tunnel IP address for crosse-connect traffic |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw gateway-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* purpose xconnect *boolean* |
| Tree | xconnect |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## gateway-router *string*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Routing instance the WLAN-GW endpoint resides in |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw gateway-router *string* |


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| | |
|---|---|
| Tree | gateway-router |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## group-encryption

| | |
|---|---|
| Synopsis | Enter the **group-encryption** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw group-encryption |
| Tree | group-encryption |
| Introduced | 21.10.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## encryption-keygroup-inbound *reference*

| | |
|---|---|
| Synopsis | Encryption keygroup for inbound traffic |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw group-encryption encryption-keygroup-inbound *reference* |
| Tree | encryption-keygroup-inbound |
| Reference | **configure** group-encryption encryption-keygroup *number* |
| Introduced | 21.10.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## encryption-keygroup-outbound *reference*

| | |
|---|---|
| Synopsis | Encryption keygroup for inbound traffic |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw group-encryption encryption-keygroup-outbound *reference* |
| Tree | encryption-keygroup-outbound |
| Reference | **configure** group-encryption encryption-keygroup *number* |
| Introduced | 21.10.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## l2-ap

| | |
|---|---|
| Synopsis | Enter the **l2-ap** context |


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| | |
|---|---|
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw l2-ap |
| Tree | l2-ap |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **access-point** [sap-id] *sap*

| | |
|---|---|
| Synopsis | Enter the **access-point** list instance |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw l2-ap access-point *sap* |
| Tree | access-point |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**sap-id**] *sap*

| | |
|---|---|
| Synopsis | SAP ID for the Layer 2 access point |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw l2-ap access-point *sap* |
| Tree | access-point |
| String length | 1 to 45 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the L2 access points |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw l2-ap access-point *sap* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **encap-type** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Service encapsulation type of this access point |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw l2-ap access-point *sap* encap-type *keyword* |
| Tree | encap-type |
| Options | null, dot1q, qinq |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **epipe-sap-template** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Parameters template for the L2 access point SAP |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw l2-ap access-point *sap* epipe-sap-template *reference* |
| Tree | epipe-sap-template |
| Reference | **configure** service template epipe-sap-template *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **auto-sub-id-fmt** *keyword*

| | |
|---|---|
| Synopsis | Format of the auto-generated subscriber ID |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw l2-ap auto-sub-id-fmt *keyword* |
| Tree | auto-sub-id-fmt |
| Options | include-ap-tags, sap-only |
| Default | include-ap-tags |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **default-encap-type** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Default encapsulation type for Layer 2 access points |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw l2-ap default-encap-type *keyword* |
| Tree | default-encap-type |
| Options | null, dot1q, qinq |
| Default | null |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **lanext**

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable the **lanext** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw lanext |
| Tree | lanext |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **max-bd** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum number of bridge domains |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw lanext max-bd *number* |


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| | |
|---|---|
| Tree | max-bd |
| Range | 1 to 131071 |
| Default | 131071 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## learn-ap-mac

| | |
|---|---|
| Synopsis | Enable the **learn-ap-mac** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw learn-ap-mac |
| Tree | learn-ap-mac |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## delay-auth *boolean*

| | |
|---|---|
| Synopsis | Delay AP-MAC until after ARP/ND authentication response |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw learn-ap-mac delay-auth *boolean* |
| Tree | delay-auth |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## mcs-peer

| | |
|---|---|
| Synopsis | Enable the **mcs-peer** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw mcs-peer |
| Tree | mcs-peer |
| Description | Commands in this context configure a multi-chassis synchronization peer. |
| Introduced | 23.10.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **address** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IP address of the MCS peer |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw mcs-peer address *reference* |
| Tree | address |
| Description | This command configures the IPv4 address or the global IPv6 unicast address for a multi-chassis synchronization peer. |
| Reference | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **sync-tag** *named-item*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Synchronization tag shared by MCS peers |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw mcs-peer sync-tag *named-item* |
| Tree | sync-tag |
| Description | This command configures the synchronization tag for synchronization of ESM and the tunnel state for ESM over soft-GRE with an MCS peer. |
| String length | 1 to 32 |


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| | |
|---|---|
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## mobility

| | |
|---|---|
| Synopsis | Enter the **mobility** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw mobility |
| Tree | mobility |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## hold-time *number*

| | |
|---|---|
| Synopsis | Minimum time between two mobility events for single UE |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw mobility hold-time *number* |
| Tree | hold-time |
| Range | 0 to 255 |
| Units | seconds |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## inter-tunnel-type *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable mobility between terminating tunnel types |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw mobility inter-tunnel-type *boolean* |
| Tree | inter-tunnel-type |
| Default | false |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **inter-vlan** *boolean*

| | |
|---|---|
| Synopsis | Allow mobility within different VLANs of the same range |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw mobility inter-vlan *boolean* |
| Tree | inter-vlan |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **trigger**

| | |
|---|---|
| Synopsis | Enter the **trigger** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw mobility trigger |
| Tree | trigger |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **control** *boolean*

| | |
|---|---|
| Synopsis | Use control traffic as a mobility trigger |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw mobility trigger control *boolean* |
| Tree | control |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **data** *boolean*

| | |
|---|---|
| Synopsis | Use data traffic as mobility trigger |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw mobility trigger data *boolean* |
| Tree | data |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **iapp** *boolean*

| | |
|---|---|
| Synopsis | Use IAPP messages as a mobility trigger |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw mobility trigger iapp *boolean* |
| Tree | iapp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **oper-down-on-group-degrade** *boolean*

| | |
|---|---|
| Synopsis | Bring interface down when the ISA WLAN Gateway degraded |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw oper-down-on-group-degrade *boolean* |
| Tree | oper-down-on-group-degrade |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **promiscuous-mode** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable promiscuous mode for this group interface |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw promiscuous-mode *boolean* |
| Tree | promiscuous-mode |
| Description | When configured to **true**, the router accepts all traffic, including traffic that is not destined for a WLAN gateway group interface MAC or virtual MAC address for ESM processing. |


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When configured to **false**, the router only accepts traffic that is destined for a WLAN gateway group interface MAC or virtual MAC address for ESM processing.

| | |
|---|---|
| Default | false |
| Introduced | 23.10.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **tcp-mss-adjust** *number*

| | |
|---|---|
| Synopsis | TCP Maximum Segment Size (MSS) adjustment for gateway |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw tcp-mss-adjust *number* |
| Tree | tcp-mss-adjust |
| Range | 160 to 10240 |
| Units | bytes |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **tunnel-egress-qos**

| | |
|---|---|
| Synopsis | Enter the **tunnel-egress-qos** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw tunnel-egress-qos |
| Tree | tunnel-egress-qos |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Administrative state of egress QoS for WLAN-GW tunnels |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw tunnel-egress-qos admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |


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| | |
|---|---|
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **agg-rate-limit** *(number | keyword)*

| | |
|---|---|
| Synopsis | HQoS aggregate rate limit |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw tunnel-egress-qos agg-rate-limit *(number | keyword)* |
| Tree | agg-rate-limit |
| Range | 1 to 100000000 |
| Options | max |
| Default | max |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **granularity** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Granularity of the egress shaping for WLAN Gateway |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw tunnel-egress-qos granularity *keyword* |
| Tree | granularity |
| Options | per-tunnel – Applied to each tunnel<br>per-retailer – Applied to each retailer Mobile Network Operator's fraction of the tunnel payload |
| Default | per-tunnel |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **hold-time** *(number | keyword)*

| | |
|---|---|
| Synopsis | Minimum time to hold egress shaping resources |


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| | |
|---|---|
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw tunnel-egress-qos hold-time *(number \| keyword)* |
| Tree | hold-time |
| Range | 1 to 86400 |
| Units | seconds |
| Options | infinite |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **multi-client-only** *boolean*

| | |
|---|---|
| Synopsis | Allow shaping for tunnel traffic for multiple UEs |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw tunnel-egress-qos multi-client-only *boolean* |
| Tree | multi-client-only |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **qos** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Egress QoS policy linked with each interface tunnel |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw tunnel-egress-qos qos *reference* |
| Tree | qos |
| Reference | **configure** qos sap-egress *qos-policy-name* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **scheduler-policy** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Egress scheduler policy linked with each tunnel |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw tunnel-egress-qos scheduler-policy *reference* |
| Tree | scheduler-policy |
| Reference | **configure** qos scheduler-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **tunnel-encaps**

| | |
|---|---|
| Synopsis | Enter the **tunnel-encaps** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw tunnel-encaps |
| Tree | tunnel-encaps |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **learn-l2tp-cookie** *(keyword | hex-string)*

| | |
|---|---|
| Synopsis | System that learns the cookie from L2TP tunnels terminating on this interface |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw tunnel-encaps learn-l2tp-cookie *(keyword \| hex-string)* |
| Tree | learn-l2tp-cookie |
| String length | 6 |
| Options | never – Never interpret the cookie<br>always – Interpret cookie regardless of first two octets value |
| Default | never |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **vlan-range** [range] *string*

| | |
|---|---|
| Synopsis | Enter the **vlan-range** list instance |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* |
| Tree | vlan-range |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**range**] *string*

| | |
|---|---|
| Synopsis | IEEE 802.1q VLAN tag range |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* |
| Tree | vlan-range |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **authentication**

| | |
|---|---|
| Synopsis | Enter the **authentication** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* authentication |
| Tree | authentication |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **hold-time** *number*

| | |
|---|---|
| Synopsis | Minimum time UE held down after failed authentication |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* authentication hold-time *number* |
| Tree | hold-time |
| Range | 0 to 3600 |
| Units | seconds |


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| | |
|---|---|
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## local

| | |
|---|---|
| Synopsis | Enable the **local** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* authentication local |
| Tree | local |
| Introduced | 22.2.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## coa-policy *reference*

| | |
|---|---|
| Synopsis | RADIUS ISA policy applied to CoA or disconnect messages |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* authentication local coa-policy *reference* |
| Tree | coa-policy |
| Reference | **configure** aaa radius isa-policy *named-item* |
| Introduced | 22.2.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## default-ue-state *keyword*

| | |
|---|---|
| Synopsis | UE state accepted for immediate authentication |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* authentication local default-ue-state *keyword* |
| Tree | default-ue-state |
| Options | portal – Portal redirect UE using the http-redirect-policy<br>dsm – DSM UE using DSM parameters |
| Notes | This element is mandatory. |
| Introduced | 22.2.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **on-control-plane** *boolean*

| | |
|---|---|
| Synopsis | Allow authentication on first control plane packet |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* authentication on-control-plane *boolean* |
| Tree | on-control-plane |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **policy** *reference*

| | |
|---|---|
| Synopsis | RADIUS policy for authentication |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* authentication policy *reference* |
| Tree | policy |
| Reference | **configure** aaa radius isa-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **vlan-mismatch-timeout** *number*

| | |
|---|---|
| Synopsis | Timeout if packet received with a non-matching VLAN tag |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* authentication vlan-mismatch-timeout *number* |
| Tree | vlan-mismatch-timeout |
| Range | 5 to 60 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **data-triggered-ue-creation**

| | |
|---|---|
| Synopsis | Enter the **data-triggered-ue-creation** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* data-triggered-ue-creation |


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| | |
|---|---|
| Tree | data-triggered-ue-creation |
| Description | Commands in this context configure data-triggered subscriber creation for Wi-Fi subscribers. Data-triggered UE creation only works upon receipt of TCP and UDP packets. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of data-triggered UE creation |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* data-triggered-ue-creation admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **arp** *boolean*

| | |
|---|---|
| Synopsis | Authenticate ARP packets received from an unknown UE |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* data-triggered-ue-creation arp *boolean* |
| Tree | arp |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **create-proxy-cache-entry**

| | |
|---|---|
| Synopsis | Enter the **create-proxy-cache-entry** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* data-triggered-ue-creation create-proxy-cache-entry |
| Tree | create-proxy-cache-entry |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **mac-format** *mac-specification*

| | |
|---|---|
| Synopsis | MAC address format |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* data-triggered-ue-creation create-proxy-cache-entry mac-format *mac-specification* |
| Tree | mac-format |
| String length | 2 to 7 |
| Default | aa: |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **proxy-server**

| | |
|---|---|
| Synopsis | Enable the **proxy-server** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* data-triggered-ue-creation create-proxy-cache-entry proxy-server |
| Tree | proxy-server |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **name** *named-item*

| | |
|---|---|
| Synopsis | RADIUS Proxy server name |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* data-triggered-ue-creation create-proxy-cache-entry proxy-server name *named-item* |
| Tree | name |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **router-instance** *string*

| | |
|---|---|
| Synopsis | Router instance of the RADIUS proxy server |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* data-triggered-ue-creation create-proxy-cache-entry proxy-server router-instance *string* |
| Tree | router-instance |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ospf** *boolean*

| | |
|---|---|
| Synopsis | Authenticate OSPF packets received from an unknown UE |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* data-triggered-ue-creation ospf *boolean* |
| Tree | ospf |
| Description | When configured to **true**, the system triggers UE authentication based on OSPFv2 or OSPFv3 packets. These packets are used with the dynamic VPLS service. |
| Default | false |
| Introduced | 23.7.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **dhcp4**

| | |
|---|---|
| Synopsis | Enter the **dhcp4** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dhcp4 |
| Tree | dhcp4 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of DHCPv4 |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dhcp4 admin-state *keyword* |


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| | |
|---|---|
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **dns** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | DNS servers signaled in DHCP |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dhcp4 dns *ipv4-unicast-address* |
| Tree | dns |
| Max. instances | 2 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **l2-aware-ip-address** *(ipv4-unicast-address | keyword)*

| | |
|---|---|
| Synopsis | L2-Aware NAT inside IP address |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dhcp4 l2-aware-ip-address *(ipv4-unicast-address \| keyword)* |
| Tree | l2-aware-ip-address |
| Options | from-pool – IP address allocated from a pool |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **lease-time**

| | |
|---|---|
| Synopsis | Enter the **lease-time** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dhcp4 lease-time |
| Tree | lease-time |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **active** *number*

| | |
|---|---|
| Synopsis | Lease time an authenticated user |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dhcp4 lease-time active *number* |
| Tree | active |
| Range | 300 to 3600 |
| Units | seconds |
| Default | 600 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **initial** *number*

| | |
|---|---|
| Synopsis | Lease time for migrant user (unauthenticated) |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dhcp4 lease-time initial *number* |
| Tree | initial |
| Range | 300 to 3600 |
| Units | seconds |
| Default | 600 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **nbns** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | NetBIOS servers signaled in DHCP |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dhcp4 nbns *ipv4-unicast-address* |
| Tree | nbns |
| Max. instances | 2 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## dhcp6

| | |
|---|---|
| Synopsis | Enter the **dhcp6** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dhcp6 |
| Tree | dhcp6 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the protocol |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dhcp6 admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## preferred-lifetime

| | |
|---|---|
| Synopsis | Enter the **preferred-lifetime** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dhcp6 preferred-lifetime |
| Tree | preferred-lifetime |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## active *number*

| | |
|---|---|
| Synopsis | Preferred signaled lifetime after full authentication |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dhcp6 preferred-lifetime active *number* |
| Tree | active |


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| | |
|---|---|
| Range | 300 to 3600 |
| Units | seconds |
| Default | 600 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **initial** *number*

| | |
|---|---|
| Synopsis | Signaled preferred lifetime after full authentication |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dhcp6 preferred-lifetime initial *number* |
| Tree | initial |
| Range | 300 to 3600 |
| Units | seconds |
| Default | 300 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **valid-lifetime**

| | |
|---|---|
| Synopsis | Enter the **valid-lifetime** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dhcp6 valid-lifetime |
| Tree | valid-lifetime |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **active** *number*

| | |
|---|---|
| Synopsis | Signaled valid lifetime after full authentication |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dhcp6 valid-lifetime active *number* |
| Tree | active |
| Range | 300 to 3600 |
| Units | seconds |
| Default | 600 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **initial** *number*

| | |
|---|---|
| Synopsis | Valid signaled lifetime UE is not fully authenticated |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dhcp6 valid-lifetime initial *number* |
| Tree | initial |
| Range | 300 to 3600 |
| Units | seconds |
| Default | 300 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **dsm**

| | |
|---|---|
| Synopsis | Enter the **dsm** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dsm |
| Tree | dsm |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **accounting-policy** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | ISA Radius Policy for accounting |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dsm accounting-policy *reference* |
| Tree | accounting-policy |
| Reference | **configure** aaa radius isa-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## accounting-update

| | |
|---|---|
| Synopsis | Enable the **accounting-update** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dsm accounting-update |
| Tree | accounting-update |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## interval *number*

| | |
|---|---|
| Synopsis | Interim accounting update messages interval |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dsm accounting-update interval *number* |
| Tree | interval |
| Range | 5 to 259200 |
| Units | minutes |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of DSM |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dsm admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## application-assurance

| | |
|---|---|
| Synopsis | Enter the **application-assurance** context |


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| | |
|---|---|
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dsm application-assurance |
| Tree | application-assurance |
| Introduced | 21.10.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **accounting-statistics** *boolean*

| | |
|---|---|
| Synopsis | Collect AA statistics |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dsm application-assurance accounting-statistics *boolean* |
| Tree | accounting-statistics |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **profile** *reference*

| | |
|---|---|
| Synopsis | AA application profile used for portal authentication |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dsm application-assurance profile *reference* |
| Tree | profile |
| Reference | **configure** application-assurance group *number* partition *number* policy app-profile *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **url-parameter** *aa-http-url-param*

| | |
|---|---|
| Synopsis | AA URL parameter included for HTTP portal redirect |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dsm application-assurance url-parameter *aa-http-url-param* |
| Tree | url-parameter |
| String length | 1 to 247 |
| Introduced | 22.2.R1 |


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Platforms 7750 SR, 7750 SR-e, 7750 SR-s, VSR

## **captive-portal-api-url** *one-time-http-redirect-url*

Synopsis Captive portal URL

Context **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dsm captive-portal-api-url *one-time-http-redirect-url*

Tree captive-portal-api-url

Description This command specifies a URL for an RFC 8908 captive portal API server that is included in DHCP, RA, and DHCPv6 messages as described in RFC 8910. This command supports the same macro substitutions as the **configure subscriber-mgmt http-redirect-policy url** command.

This command is mutually exclusive with the **one-time-redirect** and **send-unrestricted-portal-url** commands in the same context.

When unconfigured, the WLAN-GW populates the URL in DHCP, RA, and DHCPv6 messages based on whether redirect is applied and the value of the **one-time-redirect** command.

String length 1 to 255

Introduced 24.3.R1

Platforms 7750 SR, 7750 SR-e, 7750 SR-s, VSR

## **egress**

Synopsis Enter the **egress** context

Context **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dsm egress

Tree egress

Introduced 16.0.R1

Platforms 7750 SR, 7750 SR-e, 7750 SR-s, VSR

## **policer** *reference*

Synopsis Policer for egress traffic

Context **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dsm egress policer *reference*

Tree policer

Reference **configure** subscriber-mgmt isa-policer *named-item*


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## ingress

| | |
|---|---|
| Synopsis | Enter the **ingress** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dsm ingress |
| Tree | ingress |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## ip-filter *reference*

| | |
|---|---|
| Synopsis | Filter for ingress traffic |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dsm ingress ip-filter *reference* |
| Tree | ip-filter |
| Reference | **configure** subscriber-mgmt isa-filter *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## policer *reference*

| | |
|---|---|
| Synopsis | Policer for ingress traffic |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dsm ingress policer *reference* |
| Tree | policer |
| Reference | **configure** subscriber-mgmt isa-policer *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## soft-quota-exhausted-filter *reference*

| | |
|---|---|
| Synopsis | Filter applied when soft volume quota is reached |


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| | |
|---|---|
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dsm ingress soft-quota-exhausted-filter *reference* |
| Tree | soft-quota-exhausted-filter |
| Description | This command applies a filter when a soft volume quota is reached. The filter replaces the currently applied filter (which can be preconfigured using the **ip-filter** command in the **configure service vprn subscriber-interface group-interface wlan-gw vlan-range dsm ingress ip-filter** context or be set using a RADIUS CoA message) for the UE upon quota exhaustion. If the quota is extended using a RADIUS CoA message, the filter is automatically reverted. Configuration changes apply only to new DSM UEs and not to existing UEs. |
| Reference | **configure** subscriber-mgmt isa-filter *named-item* |
| Introduced | 21.7.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## one-time-redirect

| | |
|---|---|
| Synopsis | Enter the **one-time-redirect** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dsm one-time-redirect |
| Tree | one-time-redirect |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## port *number*

| | |
|---|---|
| Synopsis | Destination port of packets for HTTP redirect |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dsm one-time-redirect port *number* |
| Tree | port |
| Range | 1 to 65535 |
| Default | 80 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## url *one-time-http-redirect-url*

| | |
|---|---|
| Synopsis | URL for redirected HTTP protocol packets |


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| | |
|---|---|
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dsm one-time-redirect url *one-time-http-redirect-url* |
| Tree | url |
| String length | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **send-unrestricted-portal-url** *boolean*

| | |
|---|---|
| Synopsis | Send an indicator if no captive portal is enabled |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dsm send-unrestricted-portal-url *boolean* |
| Tree | send-unrestricted-portal-url |
| Description | When configured to **true**, the router sends the special URL indicator urn:ietf:params:capport:unrestricted in DHCP, DHCPv6, and RA messages, to indicate to the client that no captive portal is enabled. This allows the client to disable all portal detection logic, thereby optimizing the user experience. |
| Default | false |
| Introduced | 24.3.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **volume-quota-direction** *keyword*

| | |
|---|---|
| Synopsis | Volume quota direction for WLAN GW |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dsm volume-quota-direction *keyword* |
| Tree | volume-quota-direction |
| Description | This command specifies the direction that volume quotas are applied. Configuration changes apply only to new DSM UEs and not to existing UEs. |
| Options | both – Both directions<br>ingress – Ingress direction (upstream)<br>egress – Egress direction (downstream) |
| Default | both |
| Introduced | 21.7.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **dynamic-service** *boolean*

| | |
|---|---|
| Synopsis | Dynamically assign WLAN-GW subscriber to a VPLS service |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dynamic-service *boolean* |
| Tree | dynamic-service |
| Description | When configured to **true**, the WLAN-GW subscriber is dynamically assigned to a VPLS service, based on RADIUS authentication reply attributes. This feature is used in conjunction with the **configure service vpls wlan-gw wlan-gw-group** command.<br>See "Dynamic VPLS service" in the *7450 ESS, 7750 SR, and VSR Triple Play Service Delivery Architecture Guide* for more information about the dynamic VPLS service feature. |
| Default | false |
| Introduced | 23.3.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **extension** [extension-range] *string*

| | |
|---|---|
| Synopsis | Add a list entry for **extension** |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* extension *string* |
| Tree | extension |
| Introduced | 21.7.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**extension-range**] *string*

| | |
|---|---|
| Synopsis | VLAN tag range used for matching |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* extension *string* |
| Tree | extension |
| Description | This command configures the additional VLAN range that is used for matching. Any traffic within the extension range is considered part of the same VLAN range for purposes of intra-SSID mobility. |
| Notes | This element is part of a list key. |
| Introduced | 21.7.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **http-redirect-policy** *reference*

| | |
|---|---|
| Synopsis | Default HTTP redirect policy for portal authentication |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* http-redirect-policy *reference* |
| Tree | http-redirect-policy |
| Reference | **configure** subscriber-mgmt http-redirect-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **idle-timeout-action** *keyword*

| | |
|---|---|
| Synopsis | Action to perform when the idle timeout expires |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* idle-timeout-action *keyword* |
| Tree | idle-timeout-action |
| Options | remove, shcv |
| Default | remove |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **l2-service**

| | |
|---|---|
| Synopsis | Enable the **l2-service** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* l2-service |
| Tree | l2-service |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of Layer 2 service for VLAN range |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* l2-service admin-state *keyword* |
| Tree | admin-state |


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| | |
|---|---|
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* l2-service description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **service** *reference*

| | |
|---|---|
| Synopsis | Layer 2 service associated with the range |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* l2-service service *reference* |
| Tree | service |
| Reference | **configure** service vpls *service-name* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **nat-policy** *reference*

| | |
|---|---|
| Synopsis | NAT policy for DSM and ISA portal authentication |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* nat-policy *reference* |
| Tree | nat-policy |
| Reference | **configure** service nat nat-policy *external-named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **retail-service** *service-name*

| | |
|---|---|
| Synopsis | Default retail service for new UEs in this range |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* retail-service *service-name* |
| Tree | retail-service |
| String length | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **slaac**

| | |
|---|---|
| Synopsis | Enter the **slaac** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* slaac |
| Tree | slaac |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the protocol |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* slaac admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **preferred-lifetime**

| | |
|---|---|
| Synopsis | Enter the **preferred-lifetime** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* slaac preferred-lifetime |
| Tree | preferred-lifetime |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **active** *number*

| | |
|---|---|
| Synopsis | Preferred signaled lifetime after full authentication |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* slaac preferred-lifetime active *number* |
| Tree | active |
| Range | 300 to 3600 |
| Units | seconds |
| Default | 600 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **initial** *number*

| | |
|---|---|
| Synopsis | Signaled preferred lifetime after full authentication |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* slaac preferred-lifetime initial *number* |
| Tree | initial |
| Range | 300 to 3600 |
| Units | seconds |
| Default | 300 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **valid-lifetime**

| | |
|---|---|
| Synopsis | Enter the **valid-lifetime** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* slaac valid-lifetime |
| Tree | valid-lifetime |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **active** *number*

| | |
|---|---|
| Synopsis | Signaled valid lifetime after full authentication |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* slaac valid-lifetime active *number* |
| Tree | active |
| Range | 300 to 3600 |
| Units | seconds |
| Default | 600 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **initial** *number*

| | |
|---|---|
| Synopsis | Valid signaled lifetime UE is not fully authenticated |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* slaac valid-lifetime initial *number* |
| Tree | initial |
| Range | 300 to 3600 |
| Units | seconds |
| Default | 300 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **vrgw**

| | |
|---|---|
| Synopsis | Enter the **vrgw** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* vrgw |
| Tree | vrgw |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of vRGW |


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| | |
|---|---|
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* vrgw admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## brg

| | |
|---|---|
| Synopsis | Enter the **brg** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* vrgw brg |
| Tree | brg |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## authenticated-brg-only *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Only allow hosts from BRGs pre-authenticated using the radius-proxy |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* vrgw brg authenticated-brg-only *boolean* |
| Tree | authenticated-brg-only |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## default-brg-profile *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Default BRG profile to use if the AAA server does not specify one |


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| | |
|---|---|
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* vrgw brg default-brg-profile *reference* |
| Tree | default-brg-profile |
| Reference | **configure** subscriber-mgmt vrgw brg-profile *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## lanext

| | |
|---|---|
| Synopsis | Enter the **lanext** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* vrgw lanext |
| Tree | lanext |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## access

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **access** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* vrgw lanext access |
| Tree | access |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## max-mac *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum number of allowed MAC entries on access side |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* vrgw lanext access max-mac *number* |


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| | |
|---|---|
| Tree | max-mac |
| Range | 1 to 256 |
| Default | 20 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **multi-access** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Allow multiple access points |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* vrgw lanext access multi-access *boolean* |
| Tree | multi-access |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **policer** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Policer for ingress home traffic |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* vrgw lanext access policer *reference* |
| Tree | policer |
| Reference | **configure** subscriber-mgmt isa-policer *named-item* |
| Introduced | 19.7.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of HLE |


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| | |
|---|---|
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* vrgw lanext admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **assistive-address-resolution** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | ISA assists in address resolution |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* vrgw lanext assistive-address-resolution *boolean* |
| Tree | assistive-address-resolution |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **bd-mac-prefix** *string*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Prefix of the HLE BD MAC address |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* vrgw lanext bd-mac-prefix *string* |
| Tree | bd-mac-prefix |
| String length | 8 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **mac-translation** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Allow MAC address translation for HLE services |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* vrgw lanext mac-translation *boolean* |
| Tree | mac-translation |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **network**

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **network** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* vrgw lanext network |
| Tree | network |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Administrative state of the HLE network |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* vrgw lanext network admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |


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| | |
|---|---|
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **max-mac** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum number of allowed MAC entries on network side |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* vrgw lanext network max-mac *number* |
| Tree | max-mac |
| Range | 1 to 64 |
| Default | 20 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **policer** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Policer for ingress data center traffic |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* vrgw lanext network policer *reference* |
| Tree | policer |
| Reference | **configure** subscriber-mgmt isa-policer *named-item* |
| Introduced | 19.7.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **xconnect**

| | |
|---|---|
| Synopsis | Enter the **xconnect** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* xconnect |


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| | |
|---|---|
| Tree | xconnect |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## accounting

| | |
|---|---|
| Synopsis | Enter the **accounting** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* xconnect accounting |
| Tree | accounting |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## mobility-updates *boolean*

| | |
|---|---|
| Synopsis | Accounting updates triggered by mobility |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* xconnect accounting mobility-updates *boolean* |
| Tree | mobility-updates |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## policy *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | ISA RADIUS accounting policy for cross-connected UEs |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* xconnect accounting policy *reference* |
| Tree | policy |
| Reference | **configure** aaa radius isa-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **update-interval** *number*

| | |
|---|---|
| Synopsis | Time between successive interim accounting updates |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* xconnect accounting update-interval *number* |
| Tree | update-interval |
| Range | 5 to 259200 |
| Units | minutes |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the cross-connect |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* xconnect admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **wlan-gw-group** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | ID of WLAN Gateway ISA group that gateway binds to |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw wlan-gw-group *reference* |
| Tree | wlan-gw-group |
| Reference | **configure** isa wlan-gw-group *number* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## wpp

| | |
|---|---|
| Synopsis | Enable the **wpp** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wpp |
| Tree | wpp |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of WPP |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wpp admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## initial

| | |
|---|---|
| Synopsis | Enter the **initial** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wpp initial |
| Tree | initial |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## app-profile *reference*

| | |
|---|---|
| Synopsis | Initial application profile name |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wpp initial app-profile *reference* |
| Tree | app-profile |
| Reference | **configure** application-assurance group *number* partition *number* policy app-profile *named-item* |


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| | |
|---|---|
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **sla-profile** *reference*

| | |
|---|---|
| Synopsis | Initial SLA profile |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wpp initial sla-profile *reference* |
| Tree | sla-profile |
| Reference | **configure** subscriber-mgmt sla-profile *external-named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sub-profile** *reference*

| | |
|---|---|
| Synopsis | Initial subscriber profile |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wpp initial sub-profile *reference* |
| Tree | sub-profile |
| Reference | **configure** subscriber-mgmt sub-profile *external-named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **lease-time** *number*

| | |
|---|---|
| Synopsis | Lease time |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wpp lease-time *number* |
| Tree | lease-time |
| Range | 10 to 315446399 |
| Units | seconds |
| Default | 600 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## portal

| | |
|---|---|
| Synopsis | Enter the **portal** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wpp portal |
| Tree | portal |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## name *named-item*

| | |
|---|---|
| Synopsis | Web portal server name |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wpp portal name *named-item* |
| Tree | name |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **portal-group** or (**name** and **router-instance**). |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## portal-group *reference*

| | |
|---|---|
| Synopsis | WPP portal group for this interface |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wpp portal portal-group *reference* |
| Tree | portal-group |
| Reference | **configure** aaa wpp portal-group *named-item* |
| Notes | The following elements are part of a choice: **portal-group** or (**name** and **router-instance**). |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## router-instance *string*

| | |
|---|---|
| Synopsis | Virtual router instance of WPP portal for interface |


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| | |
|---|---|
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wpp portal router-instance *string* |
| Tree | router-instance |
| Notes | The following elements are part of a choice: **portal-group** or (**name** and **router-instance**). |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **restore-to-initial-on-disconnect** *boolean*

| | |
|---|---|
| Synopsis | Restore initial profiles after a host has disconnected |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wpp restore-to-initial-on-disconnect *boolean* |
| Tree | restore-to-initial-on-disconnect |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **triggered-hosts** *boolean*

| | |
|---|---|
| Synopsis | Enable/disable triggered hosts |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wpp triggered-hosts *boolean* |
| Tree | triggered-hosts |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **user-db** *reference*

| | |
|---|---|
| Synopsis | User database |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* group-interface *interface-name* wpp user-db *reference* |
| Tree | user-db |
| Reference | **configure** subscriber-mgmt local-user-db *named-item* |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## hold-time

| | |
|---|---|
| Synopsis | Enter the **hold-time** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* hold-time |
| Tree | hold-time |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ipv4

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* hold-time ipv4 |
| Tree | ipv4 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## down

| | |
|---|---|
| Synopsis | Enter the **down** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* hold-time ipv4 down |
| Tree | down |
| Description | Commands in this context configure the down hold timer, which specifies the delay before activating the associated interface. The delay is invoked whenever the system attempts to bring the associated IP interface up, unless an operator configures the **init-only** command. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## init-only *boolean*

| | |
|---|---|
| Synopsis | Apply delay only at interface configuration or reboot |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* hold-time ipv4 down init-only *boolean* |
| Tree | init-only |


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| | |
|---|---|
| Description | This command applies a delay only when the IP interface is first configured or after a system reboot. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **seconds** *number*

| | |
|---|---|
| Synopsis | Down hold time for the IP interface |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* hold-time ipv4 down seconds *number* |
| Tree | seconds |
| Range | 1 to 1200 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **up**

| | |
|---|---|
| Synopsis | Enter the **up** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* hold-time ipv4 up |
| Tree | up |
| Description | Commands in this context configure the up hold timer, which specifies the delay before deactivation of the associated interface. The delay is invoked whenever the system attempts to bring the associated IP interface down. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **seconds** *number*

| | |
|---|---|
| Synopsis | Up hold time for the IP interface |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* hold-time ipv4 up seconds *number* |
| Tree | seconds |
| Range | 1 to 1200 |
| Units | seconds |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ipv6

| | |
|---|---|
| Synopsis | Enter the **ipv6** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* hold-time ipv6 |
| Tree | ipv6 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## down

| | |
|---|---|
| Synopsis | Enter the **down** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* hold-time ipv6 down |
| Tree | down |
| Description | Commands in this context configure the down hold timer, which specifies the delay before activation of the associated interface. The delay is invoked whenever the system attempts to bring the associated IP interface up, unless an operator configures the **init-only** command. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## init-only *boolean*

| | |
|---|---|
| Synopsis | Apply delay only at interface configuration or reboot |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* hold-time ipv6 down init-only *boolean* |
| Tree | init-only |
| Description | When configured to **true**, the system applies a delay only when the IP interface is first configured or after a system reboot. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **seconds** *number*

| | |
|---|---|
| Synopsis | Down hold time for the IP interface |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* hold-time ipv6 down seconds *number* |
| Tree | seconds |
| Range | 1 to 1200 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **up**

| | |
|---|---|
| Synopsis | Enter the **up** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* hold-time ipv6 up |
| Tree | up |
| Description | Commands in this context configure the up hold timer, which specifies the delay before deactivation of the associated interface. The delay is invoked whenever the system attempts to bring the associated IP interface down. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **seconds** *number*

| | |
|---|---|
| Synopsis | Up hold time for the IP interface |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* hold-time ipv6 up seconds *number* |
| Tree | seconds |
| Range | 1 to 1200 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ipoe-linking**

| | |
|---|---|
| Synopsis | Enter the **ipoe-linking** context |


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| | |
|---|---|
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipoe-linking |
| Tree | ipoe-linking |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **gratuitous-router-advertisement** *boolean*

| | |
|---|---|
| Synopsis | Send unsolicited router advertisement after DHCP setup |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipoe-linking gratuitous-router-advertisement *boolean* |
| Tree | gratuitous-router-advertisement |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ipoe-session**

| | |
|---|---|
| Synopsis | Enter the **ipoe-session** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipoe-session |
| Tree | ipoe-session |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **session-limit** *number*

| | |
|---|---|
| Synopsis | Maximum number of sessions on this group interface |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipoe-session session-limit *number* |
| Tree | session-limit |
| Range | 1 to 500000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ipv4**

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |


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| | |
|---|---|
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv4 |
| Tree | ipv4 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **address** [ipv4-address] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Enter the **address** list instance |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv4 address *ipv4-unicast-address* |
| Tree | address |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**ipv4-address**] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IP address associated with the subscriber subnet |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv4 address *ipv4-unicast-address* |
| Tree | address |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **gateway** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Gateway IP address within the subnet for SRRP routing |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv4 address *ipv4-unicast-address* gateway *ipv4-unicast-address* |
| Tree | gateway |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **holdup-time** *number*

| | |
|---|---|
| Synopsis | Wait time before accepting new state attribute |


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| | |
|---|---|
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv4 address *ipv4-unicast-address* holdup-time *number* |
| Tree | holdup-time |
| Range | 100 to 5000 |
| Units | milliseconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **populate-host-routes** *boolean*

| | |
|---|---|
| Synopsis | Populate subscriber host routes in local FIB |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv4 address *ipv4-unicast-address* populate-host-routes *boolean* |
| Tree | populate-host-routes |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **prefix-length** *number*

| | |
|---|---|
| Synopsis | IPv4 address prefix length |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv4 address *ipv4-unicast-address* prefix-length *number* |
| Tree | prefix-length |
| Range | 0 to 32 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **track-srrp** *number*

| | |
|---|---|
| Synopsis | SRRP instance whose state is tracked on this IP address |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv4 address *ipv4-unicast-address* track-srrp *number* |
| Tree | track-srrp |
| Range | 1 to 4294967295 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **allow-unmatching-subnets** *boolean*

| | |
|---|---|
| Synopsis | Allow subscriber hosts without a matching subnet |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv4 allow-unmatching-subnets *boolean* |
| Tree | allow-unmatching-subnets |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **default-dns** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Default DNS server addresses |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv4 default-dns *ipv4-unicast-address* |
| Tree | default-dns |
| Max. instances | 2 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **dhcp**

| | |
|---|---|
| Synopsis | Enter the **dhcp** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv4 dhcp |
| Tree | dhcp |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of DHCP |


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| | |
|---|---|
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv4 dhcp admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## client-applications

| | |
|---|---|
| Synopsis | Enter the **client-applications** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv4 dhcp client-applications |
| Tree | client-applications |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## dhcp *boolean*

| | |
|---|---|
| Synopsis | Enable IPoE clients to use DHCP relay or proxy server |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv4 dhcp client-applications dhcp *boolean* |
| Tree | dhcp |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ppp *boolean*

| | |
|---|---|
| Synopsis | Enable PPPoE clients to use DHCP relay or proxy server |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv4 dhcp client-applications ppp *boolean* |
| Tree | ppp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv4 dhcp description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **gi-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | GI address for the DHCP relay |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv4 dhcp gi-address *ipv4-unicast-address* |
| Tree | gi-address |
| Description | This command configures the GI address to distinguish between the different subscriber interfaces (and potentially group interfaces) defined when the router functions as a DHCP relay.<br>By default, the GI address used in the relayed DHCP packet is the primary IP address of a normal IES interface. Specifying the GI address allows the user to choose a secondary address. For group interfaces, a GI address must be specified under the group interface DHCP context or subscriber interface DHCP context for DHCP to function. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **lease-populate**

| | |
|---|---|
| Synopsis | Enter the **lease-populate** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv4 dhcp lease-populate |
| Tree | lease-populate |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **max-leases** *number*

| | |
|---|---|
| Synopsis | Maximum number of DHCPv4 leases |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv4 dhcp lease-populate max-leases *number* |
| Tree | max-leases |
| Range | 0 to 511999 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **option-82**

| | |
|---|---|
| Synopsis | Enter the **option-82** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv4 dhcp option-82 |
| Tree | option-82 |
| Description | Commands in this context configure the processing required when the router receives a DHCP request that already has an Option 82 field in the packet. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **vendor-specific-option**

| | |
|---|---|
| Synopsis | Enter the **vendor-specific-option** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv4 dhcp option-82 vendor-specific-option |
| Tree | vendor-specific-option |
| Description | Commands in this context configure the Nokia Vendor-Specific Option (VSO) of the DHCP packet. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **client-mac-address** *boolean*

| | |
|---|---|
| Synopsis | Send the MAC address in the VSO |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv4 dhcp option-82 vendor-specific-option client-mac-address *boolean* |


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| | |
|---|---|
| Tree | client-mac-address |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sap-id** *boolean*

| | |
|---|---|
| Synopsis | Send SAP ID in the sub-option of the DHCP relay packet |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv4 dhcp option-82 vendor-specific-option sap-id *boolean* |
| Tree | sap-id |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **service-id** *boolean*

| | |
|---|---|
| Synopsis | Send the service ID in the Vendor Specific Option |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv4 dhcp option-82 vendor-specific-option service-id *boolean* |
| Tree | service-id |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **string** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | User-defined ASCII string for the VSO |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv4 dhcp option-82 vendor-specific-option string *string-not-all-spaces* |
| Tree | string |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **system-id** *boolean*

| | |
|---|---|
| Synopsis | Send the system ID in the VSO |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv4 dhcp option-82 vendor-specific-option system-id *boolean* |
| Tree | system-id |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **proxy-server**

| | |
|---|---|
| Synopsis | Enter the **proxy-server** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv4 dhcp proxy-server |
| Tree | proxy-server |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the DHCP proxy server |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv4 dhcp proxy-server admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **emulated-server** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IP address used as DHCP server address in SAP context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv4 dhcp proxy-server emulated-server *ipv4-unicast-address* |
| Tree | emulated-server |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## lease-time

| | |
|---|---|
| Synopsis | Enter the **lease-time** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv4 dhcp proxy-server lease-time |
| Tree | lease-time |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## radius-override *boolean*

| | |
|---|---|
| Synopsis | Use lease time information provided by RADIUS server |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv4 dhcp proxy-server lease-time radius-override *boolean* |
| Tree | radius-override |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## value *number*

| | |
|---|---|
| Synopsis | DHCP lease time |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv4 dhcp proxy-server lease-time value *number* |
| Tree | value |
| Range | 300 to 315446399 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## python-policy *reference*

| | |
|---|---|
| Synopsis | Python policy |


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| | |
|---|---|
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv4 dhcp python-policy *reference* |
| Tree | python-policy |
| Reference | **configure** python python-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## relay-proxy

| | |
|---|---|
| Synopsis | Enable the **relay-proxy** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv4 dhcp relay-proxy |
| Tree | relay-proxy |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## release-update-src-ip *boolean*

| | |
|---|---|
| Synopsis | Update the source IP address of a DHCP RELEASE message |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv4 dhcp relay-proxy release-update-src-ip *boolean* |
| Tree | release-update-src-ip |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## siaddr-override *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | DHCP server IP address for address hiding function |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv4 dhcp relay-proxy siaddr-override *ipv4-unicast-address* |
| Tree | siaddr-override |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **release-include-gi-address** *boolean*

| | |
|---|---|
| Synopsis | Include the GI address in DHCP relay messages |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv4 dhcp release-include-gi-address *boolean* |
| Tree | release-include-gi-address |
| Default | false |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **server** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | DHCP server IP addresses |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv4 dhcp server *ipv4-unicast-address* |
| Tree | server |
| Max. instances | 8 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **src-ip-addr** *keyword*

| | |
|---|---|
| Synopsis | Type of source address to use for DHCP relay |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv4 dhcp src-ip-addr *keyword* |
| Tree | src-ip-addr |
| Options | auto, gi-address |
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **virtual-subnet** *boolean*

| | |
|---|---|
| Synopsis | Enable a virtual subnet for DHCPv4 hosts |


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| | |
|---|---|
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv4 dhcp virtual-subnet *boolean* |
| Tree | virtual-subnet |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **export-host-routes** *boolean*

| | |
|---|---|
| Synopsis | Allow export of subscriber management host routes |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv4 export-host-routes *boolean* |
| Tree | export-host-routes |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **unnumbered**

| | |
|---|---|
| Synopsis | Enter the **unnumbered** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv4 unnumbered |
| Tree | unnumbered |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ip-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IP address for the subscriber interface |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv4 unnumbered ip-address *ipv4-unicast-address* |
| Tree | ip-address |
| Notes | The following elements are part of a choice: **ip-address** or **ip-int-name**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **ip-int-name** *interface-name*

| | |
|---|---|
| Synopsis | Interface name from which an IPv4 addressed is borrowed |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv4 unnumbered ip-int-name *interface-name* |
| Tree | ip-int-name |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **ip-address** or **ip-int-name**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ipv6**

| | |
|---|---|
| Synopsis | Enable the **ipv6** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 |
| Tree | ipv6 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **address** [ipv6-address] *ipv6-address*

| | |
|---|---|
| Synopsis | Enter the **address** list instance |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 address *ipv6-address* |
| Tree | address |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**ipv6-address**] *ipv6-address*

| | |
|---|---|
| Synopsis | IPv6 address for the subscriber interface |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 address *ipv6-address* |
| Tree | address |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **host-type** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Host type for subscriber interface prefixes |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 address *ipv6-address* host-type *keyword* |
| Tree | host-type |
| Options | pd – IPv6 ESM hosts for DHCPv6 prefix-delegation<br>wan – ESM hosts for DHCPv6 addresses or by WAN interface<br>pd-wan – Both prefix-delegation and ESM hosts |
| Default | pd |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **prefix-length** *number*

| | |
|---|---|
| Synopsis | IPv6 address prefix length |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 address *ipv6-address* prefix-length *number* |
| Tree | prefix-length |
| Range | 0 to 128 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **allow-multiple-wan-addresses** *boolean*

| | |
|---|---|
| Synopsis | Allow multiple WAN addresses |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 allow-multiple-wan-addresses *boolean* |
| Tree | allow-multiple-wan-addresses |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **allow-unmatching-prefixes** *boolean*

| | |
|---|---|
| Synopsis | Allow subscriber hosts without a matching prefix |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 allow-unmatching-prefixes *boolean* |
| Tree | allow-unmatching-prefixes |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **default-dns** *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Default DNS server addresses |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 default-dns *ipv6-unicast-address* |
| Tree | default-dns |
| Max. instances | 2 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **delegated-prefix-length** *(number | keyword)*

| | |
|---|---|
| Synopsis | IPv6 delegated prefix length |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 delegated-prefix-length *(number \| keyword)* |
| Tree | delegated-prefix-length |
| Range | 48 to 64 |
| Options | variable |
| Default | 64 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## dhcp6

| | |
|---|---|
| Synopsis | Enter the **dhcp6** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 dhcp6 |
| Tree | dhcp6 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## allow-client-id-change *boolean*

| | |
|---|---|
| Synopsis | Allow changes to the client ID |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 dhcp6 allow-client-id-change *boolean* |
| Tree | allow-client-id-change |
| Default | false |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## override-slaac *boolean*

| | |
|---|---|
| Synopsis | Allow WAN address offered by DHCP to overwrite the WAN address acquired from SLAAC |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 dhcp6 override-slaac *boolean* |
| Tree | override-slaac |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## pd-managed-route

| | |
|---|---|
| Synopsis | Enable the **pd-managed-route** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 dhcp6 pd-managed-route |
| Tree | pd-managed-route |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **next-hop** *keyword*

| | |
|---|---|
| Synopsis | Next hop type |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 dhcp6 pd-managed-route next-hop *keyword* |
| Tree | next-hop |
| Options | ipv4, ipv6 |
| Default | ipv6 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **proxy-server**

| | |
|---|---|
| Synopsis | Enter the **proxy-server** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 dhcp6 proxy-server |
| Tree | proxy-server |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the DHCPv6 proxy server |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 dhcp6 proxy-server admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **client-applications**

| | |
|---|---|
| Synopsis | Enter the **client-applications** context |


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| | |
|---|---|
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 dhcp6 proxy-server client-applications |
| Tree | client-applications |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **dhcp** *boolean*

| | |
|---|---|
| Synopsis | Enable IPoE clients to use DHCP relay or proxy server |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 dhcp6 proxy-server client-applications dhcp *boolean* |
| Tree | dhcp |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ppp** *boolean*

| | |
|---|---|
| Synopsis | Allow PPPoE clients to use DHCP relay functionality |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 dhcp6 proxy-server client-applications ppp *boolean* |
| Tree | ppp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **preferred-lifetime** *(number | keyword)*

| | |
|---|---|
| Synopsis | Time for prefix to remain preferred on this interface |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 dhcp6 proxy-server preferred-lifetime *(number | keyword)* |
| Tree | preferred-lifetime |
| Range | 300 to 4294967294 |
| Units | seconds |
| Options | infinite |
| Default | 3600 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **rebind-timer** *number*

| | |
|---|---|
| Synopsis | Rebind timer (T2) for this interface |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 dhcp6 proxy-server rebind-timer *number* |
| Tree | rebind-timer |
| Range | 0 to 1209600 |
| Units | seconds |
| Default | 2880 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **renew-timer** *number*

| | |
|---|---|
| Synopsis | Renew timer (T1) |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 dhcp6 proxy-server renew-timer *number* |
| Tree | renew-timer |
| Range | 0 to 604800 |
| Units | seconds |
| Default | 1800 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **server-id**

| | |
|---|---|
| Synopsis | Enter the **server-id** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 dhcp6 proxy-server server-id |
| Tree | server-id |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **duid-en-ascii** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | Vendor-assigned ID based on Enterprise Number (DUID-EN) |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 dhcp6 proxy-server server-id duid-en-ascii *string-not-all-spaces* |
| Tree | duid-en-ascii |
| String length | 1 to 58 |
| Notes | The following elements are part of a choice: **duid-en-ascii**, **duid-en-hex**, or **duid-ll**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **duid-en-hex** *string*

| | |
|---|---|
| Synopsis | DUID system ID in hexadecimal format |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 dhcp6 proxy-server server-id duid-en-hex *string* |
| Tree | duid-en-hex |
| String length | 1 to 118 |
| Notes | The following elements are part of a choice: **duid-en-ascii**, **duid-en-hex**, or **duid-ll**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **duid-ll**

| | |
|---|---|
| Synopsis | Use link-layer address (DUID-LL) as DUID |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 dhcp6 proxy-server server-id duid-ll |
| Tree | duid-ll |
| Notes | The following elements are part of a choice: **duid-en-ascii**, **duid-en-hex**, or **duid-ll**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **valid-lifetime** *(number | keyword)*

| | |
|---|---|
| Synopsis | Time for prefix to remain valid on this interface |


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| | |
|---|---|
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 dhcp6 proxy-server valid-lifetime *(number \| keyword)* |
| Tree | valid-lifetime |
| Range | 300 to 4294967294 |
| Units | seconds |
| Options | infinite |
| Default | 86400 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **python-policy** *reference*

| | |
|---|---|
| Synopsis | Python policy |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 dhcp6 python-policy *reference* |
| Tree | python-policy |
| Reference | **configure** python python-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **relay**

| | |
|---|---|
| Synopsis | Enter the **relay** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 dhcp6 relay |
| Tree | relay |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of DHCPv6 Relay |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 dhcp6 relay admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |


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| | |
|---|---|
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## client-applications

| | |
|---|---|
| Synopsis | Enter the **client-applications** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 dhcp6 relay client-applications |
| Tree | client-applications |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## dhcp *boolean*

| | |
|---|---|
| Synopsis | Enable IPoE clients to use DHCP relay or proxy server |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 dhcp6 relay client-applications dhcp *boolean* |
| Tree | dhcp |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ppp *boolean*

| | |
|---|---|
| Synopsis | Allow PPPoE clients to use DHCP relay functionality |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 dhcp6 relay client-applications ppp *boolean* |
| Tree | ppp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## description *description*

| | |
|---|---|
| Synopsis | Text description |


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| | |
|---|---|
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 dhcp6 relay description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## lease-split

| | |
|---|---|
| Synopsis | Enter the **lease-split** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 dhcp6 relay lease-split |
| Tree | lease-split |
| Description | Commands in this context configure DHCPv6 lease split.<br>DHCPv6 lease split is active when administratively enabled and for all IA_NA and IA_PD options in the transaction, the configured lease split valid lifetime (short lease time) is less than or equal to one of the following:<br>• the renew time T1 committed by the server (long renew time)<br>• half of the preferred lifetime committed by the server when T1 committed by the server equals zero |
| Introduced | 21.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of DHCPv6 lease split |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 dhcp6 relay lease-split admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## valid-lifetime *number*

| | |
|---|---|
| Synopsis | DHCPv6 lease split valid lifetime (short lease time) |


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| | |
|---|---|
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 dhcp6 relay lease-split valid-lifetime *number* |
| Tree | valid-lifetime |
| Range | 300 to 315446399 |
| Units | seconds |
| Default | 3600 |
| Introduced | 21.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **link-address** *ipv6-address*

| | |
|---|---|
| Synopsis | Link address for the DHCPv6 relay messages |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 dhcp6 relay link-address *ipv6-address* |
| Tree | link-address |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **server** *ipv6-address-with-zone*

| | |
|---|---|
| Synopsis | DHCP6 server(s) to which the DHCP6 requests are forwarded |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 dhcp6 relay server *ipv6-address-with-zone* |
| Tree | server |
| Max. instances | 8 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **source-address** *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Source IPv6 address for the DHCPv6 relay messages |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 dhcp6 relay source-address *ipv6-unicast-address* |
| Tree | source-address |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ipoe-bridged-mode** *boolean*

| | |
|---|---|
| Synopsis | Enable IPv6 IPoE bridged mode |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 ipoe-bridged-mode *boolean* |
| Tree | ipoe-bridged-mode |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **link-local-address**

| | |
|---|---|
| Synopsis | Enter the **link-local-address** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 link-local-address |
| Tree | link-local-address |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **address** *ipv6-address*

| | |
|---|---|
| Synopsis | IPv6 link local address |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 link-local-address address *ipv6-address* |
| Tree | address |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **prefix** [ipv6-prefix] *ipv6-prefix*

| | |
|---|---|
| Synopsis | Enter the **prefix** list instance |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 prefix *ipv6-prefix* |
| Tree | prefix |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## [**ipv6-prefix**] *ipv6-prefix*

| | |
|---|---|
| Synopsis | IPv6 address for a router interface |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 prefix *ipv6-prefix* |
| Tree | prefix |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **holdup-time** *number*

| | |
|---|---|
| Synopsis | Time to wait before route accepts new state attribute |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 prefix *ipv6-prefix* holdup-time *number* |
| Tree | holdup-time |
| Range | 100 to 5000 |
| Units | milliseconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **host-type** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Host type for subscriber interface prefixes |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 prefix *ipv6-prefix* host-type *keyword* |
| Tree | host-type |
| Options | pd – IPv6 ESM hosts for DHCPv6 prefix-delegation<br>wan – ESM hosts for DHCPv6 addresses or by WAN interface<br>pd-wan – Both prefix-delegation and ESM hosts |


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| | |
|---|---|
| Default | pd |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **track-srrp** *number*

| | |
|---|---|
| Synopsis | SRRP instance whose state is tracked on this IP address |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 prefix *ipv6-prefix* track-srrp *number* |
| Tree | track-srrp |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **router-advertisements**

| | |
|---|---|
| Synopsis | Enter the **router-advertisements** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 router-advertisements |
| Tree | router-advertisements |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of router advertisements |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 router-advertisements admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **force-mcast** *keyword*

| | |
|---|---|
| Synopsis | Protocol with forced multicast |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 router-advertisements force-mcast *keyword* |
| Tree | force-mcast |
| Options | ip, ip-mac |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **max-advertisement-interval** *number*

| | |
|---|---|
| Synopsis | Maximum advertisement interval |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 router-advertisements max-advertisement-interval *number* |
| Tree | max-advertisement-interval |
| Range | 900 to 1800 |
| Units | seconds |
| Default | 1800 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **min-advertisement-interval** *number*

| | |
|---|---|
| Synopsis | Minimum advertisement interval |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 router-advertisements min-advertisement-interval *number* |
| Tree | min-advertisement-interval |
| Range | 900 to 1350 |
| Units | seconds |
| Default | 900 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## options

| | |
|---|---|
| Synopsis | Enter the **options** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 router-advertisements options |
| Tree | options |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## current-hop-limit *number*

| | |
|---|---|
| Synopsis | Hop limit to be advertised |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 router-advertisements options current-hop-limit *number* |
| Tree | current-hop-limit |
| Range | 0 to 255 |
| Default | 64 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## dns

| | |
|---|---|
| Synopsis | Enter the **dns** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 router-advertisements options dns |
| Tree | dns |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## include-rdnss *boolean*

| | |
|---|---|
| Synopsis | Include the RDNSS server option 25 |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 router-advertisements options dns include-rdnss *boolean* |
| Tree | include-rdnss |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **rdnss-lifetime** *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum time for the RDNSS address to remain valid |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 router-advertisements options dns rdnss-lifetime *(number | keyword)* |
| Tree | rdnss-lifetime |
| Range | 900 to 3600 |
| Units | seconds |
| Options | infinite |
| Default | 3600 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **managed-configuration** *boolean*

| | |
|---|---|
| Synopsis | Managed address configuration flag |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 router-advertisements options managed-configuration *boolean* |
| Tree | managed-configuration |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **mtu** *(number | keyword)*

| | |
|---|---|
| Synopsis | Advertised MTU value |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 router-advertisements options mtu *(number | keyword)* |
| Tree | mtu |
| Range | 1280 to 9212 |
| Units | bytes |
| Options | not-included |
| Default | not-included |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **other-stateful-configuration** *boolean*

| | |
|---|---|
| Synopsis | Other stateful configuration flag |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 router-advertisements options other-stateful-configuration *boolean* |
| Tree | other-stateful-configuration |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **reachable-time** *number*

| | |
|---|---|
| Synopsis | Reachable time for advertisements |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 router-advertisements options reachable-time *number* |
| Tree | reachable-time |
| Range | 0 to 3600000 |
| Units | milliseconds |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **retransmit-timer** *number*

| | |
|---|---|
| Synopsis | Retransmit time in router advertisements from interface |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 router-advertisements options retransmit-timer *number* |
| Tree | retransmit-timer |
| Range | 0 to 1800000 |
| Units | seconds |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **router-lifetime** *(number | keyword)*

| | |
|---|---|
| Synopsis | Router lifetime |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 router-advertisements options router-lifetime *(number | keyword)* |
| Tree | router-lifetime |
| Range | 2700 to 9000 |
| Units | seconds |
| Options | no-default-router |
| Default | 4500 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **prefix-options**

| | |
|---|---|
| Synopsis | Enter the **prefix-options** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 router-advertisements prefix-options |
| Tree | prefix-options |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **autonomous** *boolean*

| | |
|---|---|
| Synopsis | Value of the autonomous flag |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 router-advertisements prefix-options autonomous *boolean* |
| Tree | autonomous |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **on-link** *boolean*

| | |
|---|---|
| Synopsis | Assign the prefix to an interface on the specified link |


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| | |
|---|---|
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 router-advertisements prefix-options on-link *boolean* |
| Tree | on-link |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **preferred-lifetime** *(number | keyword)*

| | |
|---|---|
| Synopsis | Time for a prefix to remain preferred |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 router-advertisements prefix-options preferred-lifetime *(number | keyword)* |
| Tree | preferred-lifetime |
| Range | 0 to 4294967294 |
| Units | seconds |
| Options | infinite |
| Default | 3600 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **valid-lifetime** *(number | keyword)*

| | |
|---|---|
| Synopsis | Time for a prefix to remain valid |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 router-advertisements prefix-options valid-lifetime *(number | keyword)* |
| Tree | valid-lifetime |
| Range | 0 to 4294967294 |
| Units | seconds |
| Options | infinite |
| Default | 86400 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **router-solicit**

| | |
|---|---|
| Synopsis | Enter the **router-solicit** context |


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| | |
|---|---|
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 router-solicit |
| Tree | router-solicit |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **inactivity-timer** *(number | keyword)*

| | |
|---|---|
| Synopsis | Time before an inactive host is removed |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* ipv6 router-solicit inactivity-timer *(number | keyword)* |
| Tree | inactivity-timer |
| Range | 1 to 31536000 |
| Units | seconds |
| Options | infinite |
| Default | 300 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **local-address-assignment**

| | |
|---|---|
| Synopsis | Enter the **local-address-assignment** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* local-address-assignment |
| Tree | local-address-assignment |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of Local Address Assignment |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* local-address-assignment admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ipv4

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* local-address-assignment ipv4 |
| Tree | ipv4 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## client-applications

| | |
|---|---|
| Synopsis | Enter the **client-applications** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* local-address-assignment ipv4 client-applications |
| Tree | client-applications |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ppp *boolean*

| | |
|---|---|
| Synopsis | Request local addresses for PPP IPCP hosts |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* local-address-assignment ipv4 client-applications ppp *boolean* |
| Tree | ppp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## default-pool *named-item*

| | |
|---|---|
| Synopsis | Default pools |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* local-address-assignment ipv4 default-pool *named-item* |
| Tree | default-pool |


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| | |
|---|---|
| String length | 1 to 32 |
| Max. instances | 2 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **server** *reference*

| | |
|---|---|
| Synopsis | Local DHCPv4 server for local pools management |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* local-address-assignment ipv4 server *reference* |
| Tree | server |
| Reference | **configure** router *named-item-64* dhcp-server dhcpv4 *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ipv6

| | |
|---|---|
| Synopsis | Enter the **ipv6** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* local-address-assignment ipv6 |
| Tree | ipv6 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## client-applications

| | |
|---|---|
| Synopsis | Enter the **client-applications** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* local-address-assignment ipv6 client-applications |
| Tree | client-applications |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **ipoe-slaac** *boolean*

| | |
|---|---|
| Synopsis | Request local addresses for IPoE SLAAC hosts |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* local-address-assignment ipv6 client-applications ipoe-slaac *boolean* |
| Tree | ipoe-slaac |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ipoe-wan** *boolean*

| | |
|---|---|
| Synopsis | Request local addresses for IPoE IA NA hosts |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* local-address-assignment ipv6 client-applications ipoe-wan *boolean* |
| Tree | ipoe-wan |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ppp-slaac** *boolean*

| | |
|---|---|
| Synopsis | Request local addresses for PPP SLAAC hosts |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* local-address-assignment ipv6 client-applications ppp-slaac *boolean* |
| Tree | ppp-slaac |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **server** *reference*

| | |
|---|---|
| Synopsis | Local DHCPv6 server for local pools management |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* local-address-assignment ipv6 server *reference* |
| Tree | server |


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| | |
|---|---|
| Reference | **configure** router *named-item-64* dhcp-server dhcpv6 *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## pppoe

| | |
|---|---|
| Synopsis | Enter the **pppoe** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* pppoe |
| Tree | pppoe |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## description *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* pppoe description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## session-limit *number*

| | |
|---|---|
| Synopsis | Maximum PPPoE sessions |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* pppoe session-limit *number* |
| Tree | session-limit |
| Range | 1 to 333823 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## **wan-mode** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Mode of operation for hosts with /128 WAN IPv6 address |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* wan-mode *keyword* |
| Tree | wan-mode |
| Options | mode64, mode128 |
| Default | mode64 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## wlan-gw

| | |
|---|---|
| Synopsis | Enable the **wlan-gw** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* wlan-gw |
| Tree | wlan-gw |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## pool-manager

| | |
|---|---|
| Synopsis | Enter the **pool-manager** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* wlan-gw pool-manager |
| Tree | pool-manager |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## dhcp6-client

| | |
|---|---|
| Synopsis | Enter the **dhcp6-client** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* wlan-gw pool-manager dhcp6-client |


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| | |
|---|---|
| Tree | dhcp6-client |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## dhcpv4-nat

| | |
|---|---|
| Synopsis | Enter the **dhcpv4-nat** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* wlan-gw pool-manager dhcp6-client dhcpv4-nat |
| Tree | dhcpv4-nat |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the DHCPv6 client entity |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* wlan-gw pool-manager dhcp6-client dhcpv4-nat admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## link-address *ipv6-address*

| | |
|---|---|
| Synopsis | IPv6 address in the link address field of relay header |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* wlan-gw pool-manager dhcp6-client dhcpv4-nat link-address *ipv6-address* |
| Tree | link-address |
| Default | :: |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **pool-name** *named-item*

| | |
|---|---|
| Synopsis | Pool name to be sent in the DHCPv6 messages |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* wlan-gw pool-manager dhcp6-client dhcpv4-nat pool-name *named-item* |
| Tree | pool-name |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ia-na**

| | |
|---|---|
| Synopsis | Enter the **ia-na** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* wlan-gw pool-manager dhcp6-client ia-na |
| Tree | ia-na |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the DHCPv6 client entity |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* wlan-gw pool-manager dhcp6-client ia-na admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **link-address** *ipv6-address*

| | |
|---|---|
| Synopsis | IPv6 address in the link address field of relay header |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* wlan-gw pool-manager dhcp6-client ia-na link-address *ipv6-address* |
| Tree | link-address |


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| | |
|---|---|
| Default | :: |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **pool-name** *named-item*

| | |
|---|---|
| Synopsis | Pool name to be sent in the DHCPv6 messages |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* wlan-gw pool-manager dhcp6-client ia-na pool-name *named-item* |
| Tree | pool-name |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **lease-query**

| | |
|---|---|
| Synopsis | Enable the **lease-query** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* wlan-gw pool-manager dhcp6-client lease-query |
| Tree | lease-query |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **max-retries** *number*

| | |
|---|---|
| Synopsis | Retries before lease query assumes no allocated subnets |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* wlan-gw pool-manager dhcp6-client lease-query max-retries *number* |
| Tree | max-retries |
| Range | 0 to 10 |
| Default | 2 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **servers** *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | DHCPv6 servers that are used for requesting addresses |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* wlan-gw pool-manager dhcp6-client servers *ipv6-unicast-address* |
| Tree | servers |
| Max. instances | 8 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **slaac**

| | |
|---|---|
| Synopsis | Enter the **slaac** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* wlan-gw pool-manager dhcp6-client slaac |
| Tree | slaac |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the DHCPv6 client entity |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* wlan-gw pool-manager dhcp6-client slaac admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **link-address** *ipv6-address*

| | |
|---|---|
| Synopsis | IPv6 address in the link address field of relay header |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* wlan-gw pool-manager dhcp6-client slaac link-address *ipv6-address* |
| Tree | link-address |


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| | |
|---|---|
| Default | :: |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **pool-name** *named-item*

| | |
|---|---|
| Synopsis | Pool name to be sent in the DHCPv6 messages |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* wlan-gw pool-manager dhcp6-client slaac pool-name *named-item* |
| Tree | pool-name |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **source-ip** *(keyword | ipv6-address)*

| | |
|---|---|
| Synopsis | Source IP address that is used by the DHCPv6 client |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* wlan-gw pool-manager dhcp6-client source-ip *(keyword | ipv6-address)* |
| Tree | source-ip |
| Options | use-interface-ip |
| Default | use-interface-ip |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **watermarks**

| | |
|---|---|
| Synopsis | Enter the **watermarks** context |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* wlan-gw pool-manager watermarks |
| Tree | watermarks |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **high** *number*

| | |
|---|---|
| Synopsis | High watermark when new prefix is allocated |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* wlan-gw pool-manager watermarks high *number* |
| Tree | high |
| Range | 51 to 99 |
| Default | 95 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **low** *number*

| | |
|---|---|
| Synopsis | Low watermark when unused prefix is released |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* wlan-gw pool-manager watermarks low *number* |
| Tree | low |
| Range | 50 to 98 |
| Default | 90 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **wlan-gw-group** *reference*

| | |
|---|---|
| Synopsis | ID of WLAN gateway group where prefixes are installed |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* wlan-gw pool-manager wlan-gw-group *reference* |
| Tree | wlan-gw-group |
| Reference | **configure** isa wlan-gw-group *number* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **redundancy**

| | |
|---|---|
| Synopsis | Enter the **redundancy** context |


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| | |
|---|---|
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* wlan-gw redundancy |
| Tree | redundancy |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of WLAN-GW redundancy |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* wlan-gw redundancy admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **export** *ipv4-unicast-prefix*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Route to export to peer |
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* wlan-gw redundancy export *ipv4-unicast-prefix* |
| Tree | export |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **monitor** *ipv4-unicast-prefix*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Peer route to monitor |


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| | |
|---|---|
| Context | **configure** service ies *service-name* subscriber-interface *interface-name* wlan-gw redundancy monitor *ipv4-unicast-prefix* |
| Tree | monitor |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## subscriber-mgmt

| | |
|---|---|
| Synopsis | Enter the **subscriber-mgmt** context |
| Context | **configure** service ies *service-name* subscriber-mgmt |
| Tree | subscriber-mgmt |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## multi-chassis-shunt-id *number*

| | |
|---|---|
| Synopsis | Shunt ID for a pair of resilient nodes |
| Context | **configure** service ies *service-name* subscriber-mgmt multi-chassis-shunt-id *number* |
| Tree | multi-chassis-shunt-id |
| Description | This command configures the shunt ID that is used to shunt downstream traffic from a standby node to an active node. Because this ID identifies the traffic service on the standby node, the same ID must be configured per service on each node.<br>This configuration is required for inter-BNG-UP resiliency shunting, but not for non-BNG-UP shunting. However, when configured, it is also used for shunting non-BNG-UP sessions in the same service. |
| Range | 1 to 8191 |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## up-resiliency

| | |
|---|---|
| Synopsis | Enter the **up-resiliency** context |
| Context | **configure** service ies *service-name* subscriber-mgmt up-resiliency |
| Tree | up-resiliency |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## **monitor-oper-group** [oper-group] *reference*

| | |
|---|---|
| Synopsis | Enter the **monitor-oper-group** list instance |
| Context | **configure** service ies *service-name* subscriber-mgmt up-resiliency monitor-oper-group *reference* |
| Tree | monitor-oper-group |
| Description | Commands in this context define parameters to derive the service health based on monitored operational groups. The BNG-UP sends the health value to the MAG-c. The MAG-c uses the value to determine the need for a BNG-UP status change (active or standby).<br><br>**Note:** The following is only applicable for the **configure service vpls capture-sap** context. If the configured groups are not the same for all capture SAPs sharing the same underlying port or LAG, the configuration of a Layer 2 access ID alias is required, or else the system chooses arbitrarily one set of configured groups. |
| Max. instances | 2 |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## [**oper-group**] *reference*

| | |
|---|---|
| Synopsis | Operational group name |
| Context | **configure** service ies *service-name* subscriber-mgmt up-resiliency monitor-oper-group *reference* |
| Tree | monitor-oper-group |
| Reference | **configure** service oper-group *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **health-drop** *number*

| | |
|---|---|
| Synopsis | Number subtracted from the health value per failure |
| Context | **configure** service ies *service-name* subscriber-mgmt up-resiliency monitor-oper-group *reference* health-drop *number* |
| Tree | health-drop |


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| | |
|---|---|
| Description | This command configures the drop in the health value for every operational group member failure. Every failure of an operational group member decreases the base health value to a possible minimum of 0. |
| Range | 1 to 100 |
| Default | 1 |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **video-interface** [interface-name] *interface-name*

| | |
|---|---|
| Synopsis | Enter the **video-interface** list instance |
| Context | **configure** service ies *service-name* video-interface *interface-name* |
| Tree | video-interface |
| Max. instances | 9 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### [**interface-name**] *interface-name*

| | |
|---|---|
| Synopsis | Video interface name |
| Context | **configure** service ies *service-name* video-interface *interface-name* |
| Tree | video-interface |
| String length | 1 to 29 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **accounting-policy** *reference*

| | |
|---|---|
| Synopsis | Accounting Policy |
| Context | **configure** service ies *service-name* video-interface *interface-name* accounting-policy *reference* |
| Tree | accounting-policy |
| Reference | **configure** log accounting-policy *number* |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **address** [ip-address] *ipv4-prefix-with-host-bits*

| | |
|---|---|
| Synopsis | Add a list entry for **address** |
| Context | **configure** service ies *service-name* video-interface *interface-name* address *ipv4-prefix-with-host-bits* |
| Tree | address |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### [**ip-address**] *ipv4-prefix-with-host-bits*

| | |
|---|---|
| Synopsis | IPv4 address for the video interface within the service |
| Context | **configure** service ies *service-name* video-interface *interface-name* address *ipv4-prefix-with-host-bits* |
| Tree | address |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the video interface |
| Context | **configure** service ies *service-name* video-interface *interface-name* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **channel** [mcast-address] *ipv4-multicast-address* source *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Enter the **channel** list instance |
| Context | **configure** service ies *service-name* video-interface *interface-name* channel *ipv4-multicast-address* source *ipv4-unicast-address* |


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| | |
|---|---|
| Tree | channel |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### [**mcast-address**] *ipv4-multicast-address*

| | |
|---|---|
| Synopsis | Multicast channel address |
| Context | **configure** service ies *service-name* video-interface *interface-name* channel *ipv4-multicast-address* source *ipv4-unicast-address* |
| Tree | channel |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **source** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Unicast source address |
| Context | **configure** service ies *service-name* video-interface *interface-name* channel *ipv4-multicast-address* source *ipv4-unicast-address* |
| Tree | channel |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **channel-name** *named-item*

| | |
|---|---|
| Synopsis | Channel name |
| Context | **configure** service ies *service-name* video-interface *interface-name* channel *ipv4-multicast-address* source *ipv4-unicast-address* channel-name *named-item* |
| Tree | channel-name |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |


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### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service ies *service-name* video-interface *interface-name* channel *ipv4-multicast-address* source *ipv4-unicast-address* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **scte35-action** *keyword*

| | |
|---|---|
| Synopsis | Enable downstream forwarding of SCTE 35 cue avails |
| Context | **configure** service ies *service-name* video-interface *interface-name* channel *ipv4-multicast-address* source *ipv4-unicast-address* scte35-action *keyword* |
| Tree | scte35-action |
| Options | forward, drop |
| Default | forward |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **zone-channel** [zone-mcast-address] *ipv4-multicast-address* zone-source *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Enter the **zone-channel** list instance |
| Context | **configure** service ies *service-name* video-interface *interface-name* channel *ipv4-multicast-address* source *ipv4-unicast-address* zone-channel *ipv4-multicast-address* zone-source *ipv4-unicast-address* |
| Tree | zone-channel |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### [**zone-mcast-address**] *ipv4-multicast-address*

| | |
|---|---|
| Synopsis | Multicast zone channel address |


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| | |
|---|---|
| Context | **configure** service ies *service-name* video-interface *interface-name* channel *ipv4-multicast-address* source *ipv4-unicast-address* zone-channel *ipv4-multicast-address* zone-source *ipv4-unicast-address* |
| Tree | zone-channel |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## **zone-source** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Unicast source address |
| Context | **configure** service ies *service-name* video-interface *interface-name* channel *ipv4-multicast-address* source *ipv4-unicast-address* zone-channel *ipv4-multicast-address* zone-source *ipv4-unicast-address* |
| Tree | zone-channel |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## **adi-channel-name** *named-item*

| | |
|---|---|
| Synopsis | Zone channel name |
| Context | **configure** service ies *service-name* video-interface *interface-name* channel *ipv4-multicast-address* source *ipv4-unicast-address* zone-channel *ipv4-multicast-address* zone-source *ipv4-unicast-address* adi-channel-name *named-item* |
| Tree | adi-channel-name |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## **cpu-protection** *reference*

| | |
|---|---|
| Synopsis | CPU protection policy |
| Context | **configure** service ies *service-name* video-interface *interface-name* cpu-protection *reference* |
| Tree | cpu-protection |
| Reference | **configure** system security cpu-protection policy *number* |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service ies *service-name* video-interface *interface-name* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **multicast-service** *number*

| | |
|---|---|
| Synopsis | Associated multicast service ID |
| Context | **configure** service ies *service-name* video-interface *interface-name* multicast-service *number* |
| Tree | multicast-service |
| Range | 1 to 2147483647 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **output-format** *keyword*

| | |
|---|---|
| Synopsis | Output format |
| Context | **configure** service ies *service-name* video-interface *interface-name* output-format *keyword* |
| Tree | output-format |
| Options | udp, rtp-udp |
| Default | rtp-udp |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |


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## video-sap

| | |
|---|---|
| Synopsis | Enable the **video-sap** context |
| Context | **configure** service ies *service-name* video-interface *interface-name* video-sap |
| Tree | video-sap |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## egress

| | |
|---|---|
| Synopsis | Enter the **egress** context |
| Context | **configure** service ies *service-name* video-interface *interface-name* video-sap egress |
| Tree | egress |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## filter

| | |
|---|---|
| Synopsis | Enter the **filter** context |
| Context | **configure** service ies *service-name* video-interface *interface-name* video-sap egress filter |
| Tree | filter |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## ip *reference*

| | |
|---|---|
| Synopsis | IPv4 filter policy name |
| Context | **configure** service ies *service-name* video-interface *interface-name* video-sap egress filter ip *reference* |
| Tree | ip |
| Reference | **configure** filter ip-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |


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## qos

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** service ies *service-name* video-interface *interface-name* video-sap egress qos |
| Tree | qos |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## policy-name *reference*

| | |
|---|---|
| Synopsis | SAP egress QoS policy ID |
| Context | **configure** service ies *service-name* video-interface *interface-name* video-sap egress qos policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos sap-egress *qos-policy-name* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## ingress

| | |
|---|---|
| Synopsis | Enter the **ingress** context |
| Context | **configure** service ies *service-name* video-interface *interface-name* video-sap ingress |
| Tree | ingress |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## filter

| | |
|---|---|
| Synopsis | Enter the **filter** context |
| Context | **configure** service ies *service-name* video-interface *interface-name* video-sap ingress filter |
| Tree | filter |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |


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### **ip** *reference*

| | |
|---|---|
| Synopsis | IPv4 filter policy name |
| Context | **configure** service ies *service-name* video-interface *interface-name* video-sap ingress filter ip *reference* |
| Tree | ip |
| Reference | **configure** filter ip-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **qos**

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** service ies *service-name* video-interface *interface-name* video-sap ingress qos |
| Tree | qos |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **policy-name** *reference*

| | |
|---|---|
| Synopsis | SAP ingress QoS policy ID |
| Context | **configure** service ies *service-name* video-interface *interface-name* video-sap ingress qos policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos sap-ingress *qos-policy-name* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **video-group-id** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Video group ID |


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| | |
|---|---|
| Context | **configure** service ies *service-name* video-interface *interface-name* video-sap video-group-id *reference* |
| Tree | video-group-id |
| Reference | **configure** isa video-group *number* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## **vpn-id** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | VPN identifier for the service |
| Context | **configure** service ies *service-name* vpn-id *number* |
| Tree | vpn-id |
| Range | 1 to 2147483647 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **ipfix**

| | |
|---|---|
| Synopsis | Enter the **ipfix** context |
| Context | **configure** service ipfix |
| Tree | ipfix |
| Introduced | 16.0.R1 |
| Platforms | All |

## **export-policy** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **export-policy** list instance |
| Context | **configure** service ipfix export-policy *named-item* |
| Tree | export-policy |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**name**] *named-item*

| | |
|---|---|
| Synopsis | IPFIX policy name |
| Context | **configure** service ipfix export-policy *named-item* |
| Tree | export-policy |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **collector** router-instance *string* ip-address *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Enter the **collector** list instance |
| Context | **configure** service ipfix export-policy *named-item* collector router-instance *string* ip-address *ipv4-unicast-address* |
| Tree | collector |
| Introduced | 16.0.R1 |
| Platforms | All |

### **router-instance** *string*

| | |
|---|---|
| Synopsis | Router where the collector is reached |
| Context | **configure** service ipfix export-policy *named-item* collector router-instance *string* ip-address *ipv4-unicast-address* |
| Tree | collector |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **ip-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IPv4 address of the external collector node |
| Context | **configure** service ipfix export-policy *named-item* collector router-instance *string* ip-address *ipv4-unicast-address* |
| Tree | collector |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the collector |
| Context | **configure** service ipfix export-policy *named-item* collector router-instance *string* ip-address *ipv4-unicast-address* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mtu** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum Transmission Unit |
| Context | **configure** service ipfix export-policy *named-item* collector router-instance *string* ip-address *ipv4-unicast-address* mtu *number* |
| Tree | mtu |
| Range | 512 to 9212 |
| Units | octets |
| Default | 1500 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **refresh-timeout** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IPFIX template refresh time |


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| | |
|---|---|
| Context | **configure** service ipfix export-policy *named-item* collector router-instance *string* ip-address *ipv4-unicast-address* refresh-timeout *number* |
| Tree | refresh-timeout |
| Range | 240 to 86400 |
| Units | seconds |
| Default | 600 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **source-ip-address** *ipv4-unicast-address*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Source IP address from which UDP streams are sent |
| Context | **configure** service ipfix export-policy *named-item* collector router-instance *string* ip-address *ipv4-unicast-address* source-ip-address *ipv4-unicast-address* |
| Tree | source-ip-address |
| Introduced | 16.0.R1 |
| Platforms | All |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service ipfix export-policy *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **template-format** *keyword*

| | |
|---|---|
| Synopsis | Template format used by this IPFIX export policy |
| Context | **configure** service ipfix export-policy *named-item* template-format *keyword* |
| Tree | template-format |


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| | |
|---|---|
| Options | format1, format2 |
| Default | format1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipipe** [service-name] *service-name*

| | |
|---|---|
| Synopsis | Enter the **ipipe** list instance |
| Context | **configure** service ipipe *service-name* |
| Tree | ipipe |
| Introduced | 20.10.R1 |
| Platforms | All |

### [**service-name**] *service-name*

| | |
|---|---|
| Synopsis | Administrative service name |
| Context | **configure** service ipipe *service-name* |
| Tree | ipipe |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the service |
| Context | **configure** service ipipe *service-name* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 20.10.R1 |
| Platforms | All |


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### ce-address-discovery

| | |
|---|---|
| Synopsis | Enable the **ce-address-discovery** context |
| Context | **configure** service ipipe *service-name* ce-address-discovery |
| Tree | ce-address-discovery |
| Introduced | 20.10.R1 |
| Platforms | All |

### customer *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Service customer ID |
| Context | **configure** service ipipe *service-name* customer *reference* |
| Tree | customer |
| Reference | **configure** service customer *customer-name* |
| Notes | This element is mandatory. |
| Introduced | 20.10.R1 |
| Platforms | All |

### description *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service ipipe *service-name* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 20.10.R1 |
| Platforms | All |

### endpoint [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **endpoint** list instance |
| Context | **configure** service ipipe *service-name* endpoint *named-item* |
| Tree | endpoint |


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| | |
|---|---|
| Max. instances | 2 |
| Introduced | 20.10.R1 |
| Platforms | All |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | Service endpoint name |
| Context | **configure** service ipipe *service-name* endpoint *named-item* |
| Tree | endpoint |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service ipipe *service-name* endpoint *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 20.10.R1 |
| Platforms | All |

### **hold-time-active** *number*

| | |
|---|---|
| Synopsis | Time before entering standby when MC-LAG SAP goes down |
| Context | **configure** service ipipe *service-name* endpoint *named-item* hold-time-active *number* |
| Tree | hold-time-active |
| Range | 1 to 60 |
| Units | deciseconds |
| Introduced | 20.10.R1 |
| Platforms | All |


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### **revert-time** *(number | keyword)*

| | |
|---|---|
| Synopsis | Time to wait before reverting to primary spoke SDP |
| Context | **configure** service ipipe *service-name* endpoint *named-item* revert-time *(number | keyword)* |
| Tree | revert-time |
| Range | 1 to 600 |
| Units | seconds |
| Options | never, immediate |
| Default | immediate |
| Introduced | 20.10.R1 |
| Platforms | All |

### **standby-signaling** *keyword*

| | |
|---|---|
| Synopsis | Endpoint behavior for status of sending PW standby bit |
| Context | **configure** service ipipe *service-name* endpoint *named-item* standby-signaling *keyword* |
| Tree | standby-signaling |
| Options | master |
| Introduced | 20.10.R1 |
| Platforms | All |

### **sap** [sap-id] *sap*

| | |
|---|---|
| Synopsis | Enter the **sap** list instance |
| Context | **configure** service ipipe *service-name* sap *sap* |
| Tree | sap |
| Introduced | 20.10.R1 |
| Platforms | All |

### [**sap-id**] *sap*

| | |
|---|---|
| Synopsis | SAP ID |
| Context | **configure** service ipipe *service-name* sap *sap* |
| Tree | sap |


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| | |
|---|---|
| String length | 1 to 45 |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | All |

## **accounting-policy** *reference*

| | |
|---|---|
| Synopsis | Accounting policy |
| Context | **configure** service ipipe *service-name* sap *sap* accounting-policy *reference* |
| Tree | accounting-policy |
| Reference | **configure** log accounting-policy *number* |
| Introduced | 20.10.R1 |
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the SAP |
| Context | **configure** service ipipe *service-name* sap *sap* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 20.10.R1 |
| Platforms | All |

## **app-profile** *reference*

| | |
|---|---|
| Synopsis | Application profile name |
| Context | **configure** service ipipe *service-name* sap *sap* app-profile *reference* |
| Tree | app-profile |
| Reference | **configure** application-assurance group *number* partition *number* policy app-profile *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **bandwidth** *number*

| | |
|---|---|
| Synopsis | SAP bandwidth |
| Context | **configure** service ipipe *service-name* sap *sap* bandwidth *number* |
| Tree | bandwidth |
| Range | 1 to 6400000000 |
| Units | kilobps |
| Introduced | 20.10.R1 |
| Platforms | All |

### **ce-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the CE device |
| Context | **configure** service ipipe *service-name* sap *sap* ce-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | ce-address |
| Introduced | 20.10.R1 |
| Platforms | All |

### **collect-stats** *boolean*

| | |
|---|---|
| Synopsis | Collect accounting statistics |
| Context | **configure** service ipipe *service-name* sap *sap* collect-stats *boolean* |
| Tree | collect-stats |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | All |

### **cpu-protection**

| | |
|---|---|
| Synopsis | Enter the **cpu-protection** context |
| Context | **configure** service ipipe *service-name* sap *sap* cpu-protection |
| Tree | cpu-protection |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |


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### mac-monitoring

| | |
|---|---|
| Synopsis | Monitor MAC for CPU protection |
| Context | **configure** service ipipe *service-name* sap *sap* cpu-protection mac-monitoring |
| Tree | mac-monitoring |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

### policy-id *reference*

| | |
|---|---|
| Synopsis | CPM protection policy |
| Context | **configure** service ipipe *service-name* sap *sap* cpu-protection policy-id *reference* |
| Tree | policy-id |
| Reference | **configure** system security cpu-protection policy *number* |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

### description *long-description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service ipipe *service-name* sap *sap* description *long-description* |
| Tree | description |
| String length | 1 to 160 |
| Introduced | 20.10.R1 |
| Platforms | All |

### dist-cpu-protection *reference*

| | |
|---|---|
| Synopsis | Distributed CPU protection policy for SAP |
| Context | **configure** service ipipe *service-name* sap *sap* dist-cpu-protection *reference* |
| Tree | dist-cpu-protection |
| Reference | **configure** system security dist-cpu-protection policy *named-item* |
| Introduced | 20.10.R1 |
| Platforms | All |


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### egress

| | |
|---|---|
| Synopsis | Enter the **egress** context |
| Context | **configure** service ipipe *service-name* sap *sap* egress |
| Tree | egress |
| Introduced | 20.10.R1 |
| Platforms | All |

### agg-rate

| | |
|---|---|
| Synopsis | Enter the **agg-rate** context |
| Context | **configure** service ipipe *service-name* sap *sap* egress agg-rate |
| Tree | agg-rate |
| Introduced | 20.10.R1 |
| Platforms | All |

### adaptation-rule *keyword*

| | |
|---|---|
| Synopsis | Adaptation rule to compute the operational PIR value when an aggregate shaper is used |
| Context | **configure** service ipipe *service-name* sap *sap* egress agg-rate adaptation-rule *keyword* |
| Tree | adaptation-rule |
| Options | max, min, closest |
| Default | closest |
| Introduced | 22.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### burst-limit *(number | keyword)*

| | |
|---|---|
| Synopsis | Shaping burst size when an aggregate shaper is used |
| Context | **configure** service ipipe *service-name* sap *sap* egress agg-rate burst-limit *(number \| keyword)* |
| Tree | burst-limit |
| Range | 1 to 14000000 |
| Units | bytes |
| Options | auto |


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| | |
|---|---|
| Default | auto |
| Introduced | 22.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### **limit-unused-bandwidth** *boolean*

| | |
|---|---|
| Synopsis | Enable aggregate rate overrun protection |
| Context | **configure** service ipipe *service-name* sap *sap* egress agg-rate limit-unused-bandwidth *boolean* |
| Tree | limit-unused-bandwidth |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | All |

### **rate** *number*

| | |
|---|---|
| Synopsis | Enforced aggregate rate for all queues |
| Context | **configure** service ipipe *service-name* sap *sap* egress agg-rate rate *number* |
| Tree | rate |
| Range | 1 to 6400000000 |
| Units | kilobps |
| Introduced | 20.10.R1 |
| Platforms | All |

### **filter**

| | |
|---|---|
| Synopsis | Enter the **filter** context |
| Context | **configure** service ipipe *service-name* sap *sap* egress filter |
| Tree | filter |
| Introduced | 20.10.R1 |
| Platforms | All |

### **ip** *reference*

| | |
|---|---|
| Synopsis | MAC filter ID |
| Context | **configure** service ipipe *service-name* sap *sap* egress filter ip *reference* |


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| | |
|---|---|
| Tree | ip |
| Reference | **configure** filter ip-filter *filter-name* |
| Introduced | 20.10.R1 |
| Platforms | All |

### **ipv6** *reference*

| | |
|---|---|
| Synopsis | IPv6 filter identifier |
| Context | **configure** service ipipe *service-name* sap *sap* egress filter ipv6 *reference* |
| Tree | ipv6 |
| Reference | **configure** filter ipv6-filter *filter-name* |
| Introduced | 20.10.R1 |
| Platforms | All |

### qos

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos |
| Tree | qos |
| Introduced | 20.10.R1 |
| Platforms | All |

### policer-control-policy

| | |
|---|---|
| Synopsis | Enter the **policer-control-policy** context |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos policer-control-policy |
| Tree | policer-control-policy |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### overrides

| | |
|---|---|
| Synopsis | Enable the **overrides** context |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos policer-control-policy overrides |


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| | |
|---|---|
| Tree | overrides |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### root

| | |
|---|---|
| Synopsis | Enter the **root** context |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos policer-control-policy overrides root |
| Tree | root |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### max-rate *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum frame-based bandwidth limit |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos policer-control-policy overrides root max-rate *(number | keyword)* |
| Tree | max-rate |
| Range | 1 to 6400000000 |
| Options | max |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### priority-mbs-thresholds

| | |
|---|---|
| Synopsis | Enter the **priority-mbs-thresholds** context |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos policer-control-policy overrides root priority-mbs-thresholds |
| Tree | priority-mbs-thresholds |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### min-thresh-separation *(number | keyword)*

| | |
|---|---|
| Synopsis | Minimum amount of separation buffer space |


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| | |
|---|---|
| Context | **configure** service ipipe *service-name* sap *sap* egress qos policer-control-policy overrides root priority-mbs-thresholds min-thresh-separation *(number \| keyword)* |
| Tree | min-thresh-separation |
| Range | 0 to 16777216 |
| Units | bytes |
| Options | auto |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **priority** [priority-level] *number*

| | |
|---|---|
| Synopsis | Enter the **priority** list instance |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos policer-control-policy overrides root priority-mbs-thresholds priority *number* |
| Tree | priority |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### [**priority-level**] *number*

| | |
|---|---|
| Synopsis | Priority level |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos policer-control-policy overrides root priority-mbs-thresholds priority *number* |
| Tree | priority |
| Range | 1 to 8 |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **mbs-contribution** *(number | keyword)*

| | |
|---|---|
| Synopsis | Minimum amount of cumulative buffer space allowed |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos policer-control-policy overrides root priority-mbs-thresholds priority *number* mbs-contribution *(number \| keyword)* |
| Tree | mbs-contribution |


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| | |
|---|---|
| Range | 0 to 16777216 |
| Units | bytes |
| Options | auto |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## **policy-name** *reference*

| | |
|---|---|
| Synopsis | Policer control policy name |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos policer-control-policy policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos policer-control-policy *named-item* |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## **qinq-mark-top-only** *boolean*

| | |
|---|---|
| Synopsis | Mark top Q-tags |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos qinq-mark-top-only *boolean* |
| Tree | qinq-mark-top-only |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | All |

## **sap-egress**

| | |
|---|---|
| Synopsis | Enter the **sap-egress** context |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos sap-egress |
| Tree | sap-egress |
| Introduced | 20.10.R1 |
| Platforms | All |


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### overrides

| | |
|---|---|
| Synopsis | Enter the **overrides** context |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos sap-egress overrides |
| Tree | overrides |
| Introduced | 20.10.R1 |
| Platforms | All |

### hs-secondary-shaper *named-item*

| | |
|---|---|
| Synopsis | HS Secondary Shaper |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos sap-egress overrides hs-secondary-shaper *named-item* |
| Tree | hs-secondary-shaper |
| String length | 1 to 32 |
| Introduced | 20.10.R1 |
| Platforms | 7750 SR-7/12/12e |

### hs-wrr-group [group-id] *reference*

| | |
|---|---|
| Synopsis | Enter the **hs-wrr-group** list instance |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos sap-egress overrides hs-wrr-group *reference* |
| Tree | hs-wrr-group |
| Introduced | 20.10.R1 |
| Platforms | 7750 SR-7/12/12e |

### [group-id] *reference*

| | |
|---|---|
| Synopsis | HS WRR group identifier |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos sap-egress overrides hs-wrr-group *reference* |
| Tree | hs-wrr-group |
| Reference | **configure** qos sap-egress *qos-policy-name* hs-wrr-group *number* |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |


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| | |
|---|---|
| Platforms | 7750 SR-7/12/12e |

### **hs-class-weight** *number*

| | |
|---|---|
| Synopsis | Class weight override of the WRR group |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos sap-egress overrides hs-wrr-group *reference* hs-class-weight *number* |
| Tree | hs-class-weight |
| Range | 1 \| 2 \| 4 \| 8 |
| Introduced | 20.10.R1 |
| Platforms | 7750 SR-7/12/12e |

### **percent-rate** *decimal-number*

| | |
|---|---|
| Synopsis | Percent rate override applied to the HS WRR group |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos sap-egress overrides hs-wrr-group *reference* percent-rate *decimal-number* |
| Tree | percent-rate |
| Range | 0.01 to 100.00 |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 20.10.R1 |
| Platforms | 7750 SR-7/12/12e |

### **rate** *(number | keyword)*

| | |
|---|---|
| Synopsis | Scheduling rate override applied to the HS WRR group |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos sap-egress overrides hs-wrr-group *reference* rate *(number \| keyword)* |
| Tree | rate |
| Range | 1 to 2000000000 |
| Units | kilobps |
| Options | max |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 20.10.R1 |
| Platforms | 7750 SR-7/12/12e |


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### **policer** [policer-id] *reference*

| | |
|---|---|
| Synopsis | Enter the **policer** list instance |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos sap-egress overrides policer *reference* |
| Tree | policer |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### [**policer-id**] *reference*

| | |
|---|---|
| Synopsis | Policer unique ID |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos sap-egress overrides policer *reference* |
| Tree | policer |
| Reference | **configure** qos sap-egress *qos-policy-name* policer *number* |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **cbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | CBS |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos sap-egress overrides policer *reference* cbs *(number | keyword)* |
| Tree | cbs |
| Range | 0 to 268435456 |
| Units | bytes |
| Options | auto |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **mbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | MBS |


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| | |
|---|---|
| Context | **configure** service ipipe *service-name* sap *sap* egress qos sap-egress overrides policer *reference* mbs *(number \| keyword)* |
| Tree | mbs |
| Range | 0 to 268435456 |
| Units | bytes |
| Options | auto |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **packet-byte-offset** *number*

| | |
|---|---|
| Synopsis | Packet size modification for policing information |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos sap-egress overrides policer *reference* packet-byte-offset *number* |
| Tree | packet-byte-offset |
| Range | -64 to 31 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **percent-rate**

| | |
|---|---|
| Synopsis | Enter the **percent-rate** context |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos sap-egress overrides policer *reference* percent-rate |
| Tree | percent-rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **cir** *decimal-number*

| | |
|---|---|
| Synopsis | CIR percent rate |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos sap-egress overrides policer *reference* percent-rate cir *decimal-number* |
| Tree | cir |
| Range | 0.00 to 100.00 |


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| | |
|---|---|
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **pir** *decimal-number*

| | |
|---|---|
| Synopsis | PIR percent rate |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos sap-egress overrides policer *reference* percent-rate pir *decimal-number* |
| Tree | pir |
| Range | 0.01 to 100.00 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **rate**

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos sap-egress overrides policer *reference* rate |
| Tree | rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **cir** *(number | keyword)*

| | |
|---|---|
| Synopsis | CIR rate |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos sap-egress overrides policer *reference* rate cir *(number | keyword)* |
| Tree | cir |
| Range | 0 to 6400000000 |
| Units | kilobps |
| Options | max |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |


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### **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | PIR rate |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos sap-egress overrides policer *reference* rate pir *(number | keyword)* |
| Tree | pir |
| Range | 1 to 6400000000 |
| Units | kilobps |
| Options | max |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **stat-mode** *keyword*

| | |
|---|---|
| Synopsis | Mode of statistics collected by the policer |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos sap-egress overrides policer *reference* stat-mode *keyword* |
| Tree | stat-mode |
| Options | no-stats, minimal, offered-profile-no-cir, offered-total-cir, offered-profile-cir, offered-limited-capped-cir, offered-profile-capped-cir, offered-total-cir-exceed, offered-four-profile-no-cir, offered-total-cir-four-profile |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **queue** [queue-id] *reference*

| | |
|---|---|
| Synopsis | Enter the **queue** list instance |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* |
| Tree | queue |
| Introduced | 20.10.R1 |
| Platforms | All |

### [**queue-id**] *reference*

| | |
|---|---|
| Synopsis | Policer unique ID |


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| | |
|---|---|
| Context | **configure** service ipipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* |
| Tree | queue |
| Reference | **configure** qos sap-egress *qos-policy-name* queue *number* |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | All |

## adaptation-rule

| | |
|---|---|
| Synopsis | Enter the **adaptation-rule** context |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* adaptation-rule |
| Tree | adaptation-rule |
| Introduced | 20.10.R1 |
| Platforms | All |

## **cir** *keyword*

| | |
|---|---|
| Synopsis | Constraint used when deriving the operational CIR value |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* adaptation-rule cir *keyword* |
| Tree | cir |
| Options | max, min, closest |
| Introduced | 20.10.R1 |
| Platforms | All |

## **pir** *keyword*

| | |
|---|---|
| Synopsis | Constraint used when deriving the operational PIR value |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* adaptation-rule pir *keyword* |
| Tree | pir |
| Options | max, min, closest |
| Introduced | 20.10.R1 |
| Platforms | All |


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### **avg-frame-overhead** *decimal-number*

| | |
|---|---|
| Synopsis | Average packet-to-frame encapsulation overhead |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* avg-frame-overhead *decimal-number* |
| Tree | avg-frame-overhead |
| Description | This command configures overrides for the average frame overhead. The overrides supersede the average frame overhead configuration under the queue.<br>For a full description of this command, see the **configure qos network-queue queue avg-frame-overhead** and **configure qos sap-egress queue avg-frame-overhead** contexts. |
| Range | 0.00 to 100.00 |
| Introduced | 20.10.R1 |
| Platforms | All |

### **burst-limit** *(number | keyword)*

| | |
|---|---|
| Synopsis | Explicit shaping burst size for the queue |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* burst-limit *(number \| keyword)* |
| Tree | burst-limit |
| Range | 1 to 14000000 |
| Units | bytes |
| Options | auto |
| Introduced | 20.10.R1 |
| Platforms | All |

### **cbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | CBS |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* cbs *(number \| keyword)* |
| Tree | cbs |
| Range | 0 to 1048576 |
| Units | kilobytes |
| Options | auto |
| Introduced | 20.10.R1 |


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| | |
|---|---|
| Platforms | All |

## drop-tail

| | |
|---|---|
| Synopsis | Enter the **drop-tail** context |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* drop-tail |
| Tree | drop-tail |
| Introduced | 20.10.R1 |
| Platforms | All |

## low

| | |
|---|---|
| Synopsis | Enter the **low** context |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* drop-tail low |
| Tree | low |
| Introduced | 20.10.R1 |
| Platforms | All |

## percent-reduction-from-mbs *(number | keyword)*

| | |
|---|---|
| Synopsis | Percentage reduction from the MBS for a queue drop tail |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* drop-tail low percent-reduction-from-mbs *(number \| keyword)* |
| Tree | percent-reduction-from-mbs |
| Range | 0 to 100 |
| Options | auto |
| Introduced | 20.10.R1 |
| Platforms | All |

## hs-class-weight *number*

| | |
|---|---|
| Synopsis | Class weight override for the queue |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* hs-class-weight *number* |
| Tree | hs-class-weight |


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| | |
|---|---|
| Range | 1 \| 2 \| 4 \| 8 |
| Introduced | 20.10.R1 |
| Platforms | 7750 SR-7/12/12e |

## hs-wred-queue

| | |
|---|---|
| Synopsis | Enter the **hs-wred-queue** context |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* hs-wred-queue |
| Tree | hs-wred-queue |
| Introduced | 20.10.R1 |
| Platforms | 7750 SR-7/12/12e |

## policy *reference*

| | |
|---|---|
| Synopsis | Slope policy applied to the HSQ queue group queue |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* hs-wred-queue policy *reference* |
| Tree | policy |
| Reference | **configure** qos slope-policy *named-item* |
| Introduced | 20.10.R1 |
| Platforms | 7750 SR-7/12/12e |

## hs-wrr-weight *number*

| | |
|---|---|
| Synopsis | WRR weight to parent with the queue into the scheduler |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* hs-wrr-weight *number* |
| Tree | hs-wrr-weight |
| Range | 1 to 127 |
| Default | 1 |
| Introduced | 20.10.R1 |
| Platforms | 7750 SR-7/12/12e |


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### **mbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | MBS |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* mbs *(number \| keyword)* |
| Tree | mbs |
| Range | 0 to 1073741824 |
| Units | bytes |
| Options | auto |
| Introduced | 20.10.R1 |
| Platforms | All |

### **monitor-queue-depth**

| | |
|---|---|
| Synopsis | Enable the **monitor-queue-depth** context |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* monitor-queue-depth |
| Tree | monitor-queue-depth |
| Description | Commands in this context configure queue depth monitoring for the specified queue. |
| Introduced | 20.10.R1 |
| Platforms | All |

### **fast-polling** *boolean*

| | |
|---|---|
| Synopsis | Enable fast polling of the queue depth |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* monitor-queue-depth fast-polling *boolean* |
| Tree | fast-polling |
| Description | When configured to **true**, this command enables fast polling of the queue depth. Faster polling allows a more accurate view of the actual depth. |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | All |


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### **violation-threshold** *decimal-number*

| | |
|---|---|
| Synopsis | Threshold for queue depth before violation is raised |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* monitor-queue-depth violation-threshold *decimal-number* |
| Tree | violation-threshold |
| Description | This command specifies the threshold for the queue MBS. When the queue depth exceeds the threshold value, a violation is registered. |
| Range | 0.01 to 99.99 |
| Introduced | 20.10.R1 |
| Platforms | All |

### **parent**

| | |
|---|---|
| Synopsis | Enter the **parent** context |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* parent |
| Tree | parent |
| Introduced | 20.10.R1 |
| Platforms | All |

### **cir-weight** *number*

| | |
|---|---|
| Synopsis | CIR parameter that overrides parent for queue group |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* parent cir-weight *number* |
| Tree | cir-weight |
| Range | 0 to 100 |
| Introduced | 20.10.R1 |
| Platforms | All |

### **weight** *number*

| | |
|---|---|
| Synopsis | PIR parameter that overrides parent for queue group |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* parent weight *number* |
| Tree | weight |


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| | |
|---|---|
| Range | 0 to 100 |
| Introduced | 20.10.R1 |
| Platforms | All |

## percent-rate

| | |
|---|---|
| Synopsis | Enter the **percent-rate** context |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* percent-rate |
| Tree | percent-rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 20.10.R1 |
| Platforms | All |

## **cir** *decimal-number*

| | |
|---|---|
| Synopsis | CIR percent rate |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* percent-rate cir *decimal-number* |
| Tree | cir |
| Range | 0.00 to 100.00 |
| Introduced | 20.10.R1 |
| Platforms | All |

## **pir** *decimal-number*

| | |
|---|---|
| Synopsis | PIR percent rate |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* percent-rate pir *decimal-number* |
| Tree | pir |
| Range | 0.01 to 100.00 |
| Introduced | 20.10.R1 |
| Platforms | All |


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### rate

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* rate |
| Tree | rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 20.10.R1 |
| Platforms | All |

### cir *(number | keyword)*

| | |
|---|---|
| Synopsis | CIR rate |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* rate cir *(number | keyword)* |
| Tree | cir |
| Range | 0 to 6400000000 |
| Units | kilobps |
| Options | max |
| Introduced | 20.10.R1 |
| Platforms | All |

### pir *(number | keyword)*

| | |
|---|---|
| Synopsis | PIR rate |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos sap-egress overrides queue *reference* rate pir *(number | keyword)* |
| Tree | pir |
| Range | 1 to 6400000000 |
| Units | kilobps |
| Options | max |
| Introduced | 20.10.R1 |
| Platforms | All |


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### **policy-name** *reference*

| | |
|---|---|
| Synopsis | Policy ID to associate with SAP for mirrored service |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos sap-egress policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos sap-egress *qos-policy-name* |
| Introduced | 20.10.R1 |
| Platforms | All |

### **port-redirect-group**

| | |
|---|---|
| Synopsis | Enter the **port-redirect-group** context |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos sap-egress port-redirect-group |
| Tree | port-redirect-group |
| Introduced | 20.10.R1 |
| Platforms | All |

### **group-name** *reference*

| | |
|---|---|
| Synopsis | Name of the queue group redirect list policy |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos sap-egress port-redirect-group group-name *reference* |
| Tree | group-name |
| Reference | **configure** qos queue-group-templates egress queue-group *named-item* |
| Introduced | 20.10.R1 |
| Platforms | All |

### **instance** *number*

| | |
|---|---|
| Synopsis | Instance of port queue group |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos sap-egress port-redirect-group instance *number* |
| Tree | instance |
| Range | 1 to 65535 |


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| | |
|---|---|
| Introduced | 20.10.R1 |
| Platforms | All |

## scheduler-policy

| | |
|---|---|
| Synopsis | Enter the **scheduler-policy** context |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos scheduler-policy |
| Tree | scheduler-policy |
| Introduced | 20.10.R1 |
| Platforms | All |

## overrides

| | |
|---|---|
| Synopsis | Enter the **overrides** context |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos scheduler-policy overrides |
| Tree | overrides |
| Introduced | 20.10.R1 |
| Platforms | All |

## **scheduler** [scheduler-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **scheduler** list instance |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos scheduler-policy overrides scheduler *named-item* |
| Tree | scheduler |
| Introduced | 20.10.R1 |
| Platforms | All |

## [**scheduler-name**] *named-item*

| | |
|---|---|
| Synopsis | Scheduler name |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos scheduler-policy overrides scheduler *named-item* |
| Tree | scheduler |
| Description | This command specifies the scheduler name which is composed of printable 7-bit ASCII characters. If the string contains special characters (#, $, spaces, and so on), the entire string must be enclosed within double quotes. Each scheduler must have a |


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unique name within the context of the scheduler policy. However, the same name can be reused in multiple scheduler policies. If the scheduler name already exists within the policy tier level, the context changes to that scheduler name for the purpose of editing the scheduler commands.

If the scheduler name exists within the policy on a different tier, an error occurs and the current context does not change. If the scheduler name does not exist in this or another tier within the scheduler policy, it is assumed that an attempt is being made to create a scheduler of that name.

If the provided scheduler name is invalid, a name syntax error occurs, the command does not execute, and the context is not change.

| | |
|---|---|
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | All |

## parent

| | |
|---|---|
| Synopsis | Enter the **parent** context |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos scheduler-policy overrides scheduler *named-item* parent |
| Tree | parent |
| Introduced | 20.10.R1 |
| Platforms | All |

## cir-weight *number*

| | |
|---|---|
| Synopsis | Weight used at the within-CIR port priority level |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos scheduler-policy overrides scheduler *named-item* parent cir-weight *number* |
| Tree | cir-weight |
| Range | 0 to 100 |
| Introduced | 20.10.R1 |
| Platforms | All |

## weight *number*

| | |
|---|---|
| Synopsis | Relative weight of the scheduler to feed the queue |


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| | |
|---|---|
| Context | **configure** service ipipe *service-name* sap *sap* egress qos scheduler-policy overrides scheduler *named-item* parent weight *number* |
| Tree | weight |
| Range | 0 to 100 |
| Introduced | 20.10.R1 |
| Platforms | All |

### rate

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos scheduler-policy overrides scheduler *named-item* rate |
| Tree | rate |
| Introduced | 20.10.R1 |
| Platforms | All |

### cir *(number | keyword)*

| | |
|---|---|
| Synopsis | CIR at which the queue it to operate |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos scheduler-policy overrides scheduler *named-item* rate cir *(number | keyword)* |
| Tree | cir |
| Range | 0 to 6400000000 |
| Units | kilobps |
| Options | sum, max |
| Introduced | 20.10.R1 |
| Platforms | All |

### pir *(number | keyword)*

| | |
|---|---|
| Synopsis | PIR at which the queue is to operate |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos scheduler-policy overrides scheduler *named-item* rate pir *(number | keyword)* |
| Tree | pir |
| Range | 1 to 6400000000 |
| Units | kilobps |


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| | |
|---|---|
| Options | max |
| Introduced | 20.10.R1 |
| Platforms | All |

## **policy-name** *reference*

| | |
|---|---|
| Synopsis | Scheduler policy name |
| Context | **configure** service ipipe *service-name* sap *sap* egress qos scheduler-policy policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos scheduler-policy *named-item* |
| Introduced | 20.10.R1 |
| Platforms | All |

## **virtual-port**

| | |
|---|---|
| Synopsis | Enter the **virtual-port** context |
| Context | **configure** service ipipe *service-name* sap *sap* egress virtual-port |
| Tree | virtual-port |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **vport-name** *reference*

| | |
|---|---|
| Synopsis | Virtual port assigned to the SAP |
| Context | **configure** service ipipe *service-name* sap *sap* egress virtual-port vport-name *reference* |
| Tree | vport-name |
| Reference | **configure** port *port* ethernet access egress virtual-port *named-item* |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **endpoint** *reference*

| | |
|---|---|
| Synopsis | Endpoint name |
| Context | **configure** service ipipe *service-name* sap *sap* endpoint *reference* |


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| | |
|---|---|
| Tree | endpoint |
| Reference | **configure** service ipipe *service-name* endpoint *named-item* |
| Introduced | 20.10.R1 |
| Platforms | All |

## ingress

| | |
|---|---|
| Synopsis | Enter the **ingress** context |
| Context | **configure** service ipipe *service-name* sap *sap* ingress |
| Tree | ingress |
| Introduced | 20.10.R1 |
| Platforms | All |

## filter

| | |
|---|---|
| Synopsis | Enter the **filter** context |
| Context | **configure** service ipipe *service-name* sap *sap* ingress filter |
| Tree | filter |
| Introduced | 20.10.R1 |
| Platforms | All |

## ip *reference*

| | |
|---|---|
| Synopsis | IPv4 filter policy name |
| Context | **configure** service ipipe *service-name* sap *sap* ingress filter ip *reference* |
| Tree | ip |
| Reference | **configure** filter ip-filter *filter-name* |
| Introduced | 20.10.R1 |
| Platforms | All |

## ipv6 *reference*

| | |
|---|---|
| Synopsis | IPv6 filter policy name |
| Context | **configure** service ipipe *service-name* sap *sap* ingress filter ipv6 *reference* |
| Tree | ipv6 |


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| | |
|---|---|
| Reference | **configure** filter ipv6-filter *filter-name* |
| Introduced | 20.10.R1 |
| Platforms | All |

## qos

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** service ipipe *service-name* sap *sap* ingress qos |
| Tree | qos |
| Introduced | 20.10.R1 |
| Platforms | All |

## match-qinq-dot1p *keyword*

| | |
|---|---|
| Synopsis | Ingress match QinQ Dot1p |
| Context | **configure** service ipipe *service-name* sap *sap* ingress qos match-qinq-dot1p *keyword* |
| Tree | match-qinq-dot1p |
| Options | top, bottom |
| Introduced | 20.10.R1 |
| Platforms | All |

## policer-control-policy

| | |
|---|---|
| Synopsis | Enter the **policer-control-policy** context |
| Context | **configure** service ipipe *service-name* sap *sap* ingress qos policer-control-policy |
| Tree | policer-control-policy |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## overrides

| | |
|---|---|
| Synopsis | Enable the **overrides** context |
| Context | **configure** service ipipe *service-name* sap *sap* ingress qos policer-control-policy overrides |
| Tree | overrides |


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| | |
|---|---|
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### root

| | |
|---|---|
| Synopsis | Enter the **root** context |
| Context | **configure** service ipipe *service-name* sap *sap* ingress qos policer-control-policy overrides root |
| Tree | root |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### max-rate *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum frame-based bandwidth limit |
| Context | **configure** service ipipe *service-name* sap *sap* ingress qos policer-control-policy overrides root max-rate *(number | keyword)* |
| Tree | max-rate |
| Range | 1 to 6400000000 |
| Options | max |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### priority-mbs-thresholds

| | |
|---|---|
| Synopsis | Enter the **priority-mbs-thresholds** context |
| Context | **configure** service ipipe *service-name* sap *sap* ingress qos policer-control-policy overrides root priority-mbs-thresholds |
| Tree | priority-mbs-thresholds |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### min-thresh-separation *(number | keyword)*

| | |
|---|---|
| Synopsis | Minimum amount of separation buffer space |
| Context | **configure** service ipipe *service-name* sap *sap* ingress qos policer-control-policy overrides root priority-mbs-thresholds min-thresh-separation *(number | keyword)* |


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| | |
|---|---|
| Tree | min-thresh-separation |
| Range | 0 to 16777216 |
| Units | bytes |
| Options | auto |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **priority** [priority-level] *number*

| | |
|---|---|
| Synopsis | Enter the **priority** list instance |
| Context | **configure** service ipipe *service-name* sap *sap* ingress qos policer-control-policy overrides root priority-mbs-thresholds priority *number* |
| Tree | priority |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### [**priority-level**] *number*

| | |
|---|---|
| Synopsis | Priority level |
| Context | **configure** service ipipe *service-name* sap *sap* ingress qos policer-control-policy overrides root priority-mbs-thresholds priority *number* |
| Tree | priority |
| Range | 1 to 8 |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **mbs-contribution** *(number | keyword)*

| | |
|---|---|
| Synopsis | Minimum amount of cumulative buffer space allowed |
| Context | **configure** service ipipe *service-name* sap *sap* ingress qos policer-control-policy overrides root priority-mbs-thresholds priority *number* mbs-contribution *(number | keyword)* |
| Tree | mbs-contribution |
| Range | 0 to 16777216 |
| Units | bytes |


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| | |
|---|---|
| Options | auto |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## **policy-name** *reference*

| | |
|---|---|
| Synopsis | Policer control policy name |
| Context | **configure** service ipipe *service-name* sap *sap* ingress qos policer-control-policy policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos policer-control-policy *named-item* |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## **sap-ingress**

| | |
|---|---|
| Synopsis | Enter the **sap-ingress** context |
| Context | **configure** service ipipe *service-name* sap *sap* ingress qos sap-ingress |
| Tree | sap-ingress |
| Introduced | 20.10.R1 |
| Platforms | All |

## **fp-redirect-group**

| | |
|---|---|
| Synopsis | Enter the **fp-redirect-group** context |
| Context | **configure** service ipipe *service-name* sap *sap* ingress qos sap-ingress fp-redirect-group |
| Tree | fp-redirect-group |
| Introduced | 20.10.R1 |
| Platforms | All |

## **group-name** *reference*

| | |
|---|---|
| Synopsis | Queue group template name created on forwarding plane |
| Context | **configure** service ipipe *service-name* sap *sap* ingress qos sap-ingress fp-redirect-group group-name *reference* |
| Tree | group-name |


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| | |
|---|---|
| Reference | **configure** qos queue-group-templates ingress queue-group *named-item* |
| Introduced | 20.10.R1 |
| Platforms | All |

### **instance** *number*

| | |
|---|---|
| Synopsis | Queue group instance |
| Context | **configure** service ipipe *service-name* sap *sap* ingress qos sap-ingress fp-redirect-group instance *number* |
| Tree | instance |
| Range | 1 to 65535 |
| Introduced | 20.10.R1 |
| Platforms | All |

### **overrides**

| | |
|---|---|
| Synopsis | Enter the **overrides** context |
| Context | **configure** service ipipe *service-name* sap *sap* ingress qos sap-ingress overrides |
| Tree | overrides |
| Introduced | 20.10.R1 |
| Platforms | All |

### **policer** [policer-id] *reference*

| | |
|---|---|
| Synopsis | Enter the **policer** list instance |
| Context | **configure** service ipipe *service-name* sap *sap* ingress qos sap-ingress overrides policer *reference* |
| Tree | policer |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### [**policer-id**] *reference*

| | |
|---|---|
| Synopsis | Policer unique ID |
| Context | **configure** service ipipe *service-name* sap *sap* ingress qos sap-ingress overrides policer *reference* |


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| | |
|---|---|
| Tree | policer |
| Reference | **configure** qos sap-ingress *qos-policy-name* policer *number* |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **cbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | CBS |
| Context | **configure** service ipipe *service-name* sap *sap* ingress qos sap-ingress overrides policer *reference* cbs *(number \| keyword)* |
| Tree | cbs |
| Range | 0 to 268435456 |
| Units | bytes |
| Options | auto |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **mbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | MBS |
| Context | **configure** service ipipe *service-name* sap *sap* ingress qos sap-ingress overrides policer *reference* mbs *(number \| keyword)* |
| Tree | mbs |
| Range | 0 to 268435456 |
| Units | bytes |
| Options | auto |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **packet-byte-offset** *number*

| | |
|---|---|
| Synopsis | Packet size modification for policing information |
| Context | **configure** service ipipe *service-name* sap *sap* ingress qos sap-ingress overrides policer *reference* packet-byte-offset *number* |
| Tree | packet-byte-offset |


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| | |
|---|---|
| Range | -32 to 31 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## percent-rate

| | |
|---|---|
| Synopsis | Enter the **percent-rate** context |
| Context | **configure** service ipipe *service-name* sap *sap* ingress qos sap-ingress overrides policer *reference* percent-rate |
| Tree | percent-rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## **cir** *decimal-number*

| | |
|---|---|
| Synopsis | CIR percent rate |
| Context | **configure** service ipipe *service-name* sap *sap* ingress qos sap-ingress overrides policer *reference* percent-rate cir *decimal-number* |
| Tree | cir |
| Range | 0.00 to 100.00 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## **pir** *decimal-number*

| | |
|---|---|
| Synopsis | PIR percent rate |
| Context | **configure** service ipipe *service-name* sap *sap* ingress qos sap-ingress overrides policer *reference* percent-rate pir *decimal-number* |
| Tree | pir |
| Range | 0.01 to 100.00 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |


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### rate

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** service ipipe *service-name* sap *sap* ingress qos sap-ingress overrides policer *reference* rate |
| Tree | rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### cir *(number | keyword)*

| | |
|---|---|
| Synopsis | CIR rate |
| Context | **configure** service ipipe *service-name* sap *sap* ingress qos sap-ingress overrides policer *reference* rate cir *(number | keyword)* |
| Tree | cir |
| Range | 0 to 6400000000 |
| Units | kilobps |
| Options | max |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### pir *(number | keyword)*

| | |
|---|---|
| Synopsis | PIR rate |
| Context | **configure** service ipipe *service-name* sap *sap* ingress qos sap-ingress overrides policer *reference* rate pir *(number | keyword)* |
| Tree | pir |
| Range | 1 to 6400000000 |
| Units | kilobps |
| Options | max |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |


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### **stat-mode** *keyword*

| | |
|---|---|
| Synopsis | Mode of statistics collected by the policer |
| Context | **configure** service ipipe *service-name* sap *sap* ingress qos sap-ingress overrides policer *reference* stat-mode *keyword* |
| Tree | stat-mode |
| Options | no-stats, minimal, offered-profile-no-cir, offered-total-cir, offered-priority-no-cir, offered-profile-cir, offered-priority-cir, offered-limited-profile-cir, offered-profile-capped-cir, offered-limited-capped-cir |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **queue** [queue-id] *reference*

| | |
|---|---|
| Synopsis | Enter the **queue** list instance |
| Context | **configure** service ipipe *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* |
| Tree | queue |
| Introduced | 20.10.R1 |
| Platforms | All |

### [**queue-id**] *reference*

| | |
|---|---|
| Synopsis | Policer unique ID |
| Context | **configure** service ipipe *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* |
| Tree | queue |
| Reference | **configure** qos sap-ingress *qos-policy-name* queue *number* |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | All |

### **adaptation-rule**

| | |
|---|---|
| Synopsis | Enter the **adaptation-rule** context |
| Context | **configure** service ipipe *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* adaptation-rule |


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| | |
|---|---|
| Tree | adaptation-rule |
| Introduced | 20.10.R1 |
| Platforms | All |

### **cir** *keyword*

| | |
|---|---|
| Synopsis | Constraint used when deriving the operational CIR value |
| Context | **configure** service ipipe *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* adaptation-rule cir *keyword* |
| Tree | cir |
| Options | max, min, closest |
| Introduced | 20.10.R1 |
| Platforms | All |

### **pir** *keyword*

| | |
|---|---|
| Synopsis | Constraint used when deriving the operational PIR value |
| Context | **configure** service ipipe *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* adaptation-rule pir *keyword* |
| Tree | pir |
| Options | max, min, closest |
| Introduced | 20.10.R1 |
| Platforms | All |

### **cbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | CBS |
| Context | **configure** service ipipe *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* cbs *(number | keyword)* |
| Tree | cbs |
| Range | 0 to 1048576 |
| Units | kilobytes |
| Options | auto |
| Introduced | 20.10.R1 |
| Platforms | All |


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### drop-tail

| | |
|---|---|
| Synopsis | Enter the **drop-tail** context |
| Context | **configure** service ipipe *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* drop-tail |
| Tree | drop-tail |
| Introduced | 20.10.R1 |
| Platforms | All |

### low

| | |
|---|---|
| Synopsis | Enter the **low** context |
| Context | **configure** service ipipe *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* drop-tail low |
| Tree | low |
| Introduced | 20.10.R1 |
| Platforms | All |

### percent-reduction-from-mbs *(number | keyword)*

| | |
|---|---|
| Synopsis | Percentage reduction from the MBS for a queue drop tail |
| Context | **configure** service ipipe *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* drop-tail low percent-reduction-from-mbs *(number | keyword)* |
| Tree | percent-reduction-from-mbs |
| Range | 0 to 100 |
| Options | auto |
| Introduced | 20.10.R1 |
| Platforms | All |

### mbs *(number | keyword)*

| | |
|---|---|
| Synopsis | MBS |
| Context | **configure** service ipipe *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* mbs *(number | keyword)* |
| Tree | mbs |
| Range | 0 to 1073741824 |


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| | |
|---|---|
| Units | bytes |
| Options | auto |
| Introduced | 20.10.R1 |
| Platforms | All |

## monitor-queue-depth

| | |
|---|---|
| Synopsis | Enable the **monitor-queue-depth** context |
| Context | **configure** service ipipe *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* monitor-queue-depth |
| Tree | monitor-queue-depth |
| Introduced | 21.7.R1 |
| Platforms | All |

## fast-polling *boolean*

| | |
|---|---|
| Synopsis | Enable fast polling of the queue depth |
| Context | **configure** service ipipe *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* monitor-queue-depth fast-polling *boolean* |
| Tree | fast-polling |
| Default | false |
| Introduced | 21.7.R1 |
| Platforms | All |

## parent

| | |
|---|---|
| Synopsis | Enter the **parent** context |
| Context | **configure** service ipipe *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* parent |
| Tree | parent |
| Introduced | 20.10.R1 |
| Platforms | All |

## cir-weight *number*

| | |
|---|---|
| Synopsis | CIR parameter that overrides parent for queue group |


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| | |
|---|---|
| Context | **configure** service ipipe *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* parent cir-weight *number* |
| Tree | cir-weight |
| Range | 0 to 100 |
| Introduced | 20.10.R1 |
| Platforms | All |

### **weight** *number*

| | |
|---|---|
| Synopsis | PIR parameter that overrides parent for queue group |
| Context | **configure** service ipipe *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* parent weight *number* |
| Tree | weight |
| Range | 0 to 100 |
| Introduced | 20.10.R1 |
| Platforms | All |

### **percent-rate**

| | |
|---|---|
| Synopsis | Enter the **percent-rate** context |
| Context | **configure** service ipipe *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* percent-rate |
| Tree | percent-rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 20.10.R1 |
| Platforms | All |

### **cir** *decimal-number*

| | |
|---|---|
| Synopsis | CIR percent rate |
| Context | **configure** service ipipe *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* percent-rate cir *decimal-number* |
| Tree | cir |
| Range | 0.00 to 100.00 |
| Introduced | 20.10.R1 |
| Platforms | All |


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### **pir** *decimal-number*

| | |
|---|---|
| Synopsis | PIR percent rate |
| Context | **configure** service ipipe *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* percent-rate pir *decimal-number* |
| Tree | pir |
| Range | 0.01 to 100.00 |
| Introduced | 20.10.R1 |
| Platforms | All |

### **rate**

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** service ipipe *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* rate |
| Tree | rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 20.10.R1 |
| Platforms | All |

### **cir** *(number | keyword)*

| | |
|---|---|
| Synopsis | CIR rate |
| Context | **configure** service ipipe *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* rate cir *(number | keyword)* |
| Tree | cir |
| Range | 0 to 6400000000 |
| Units | kilobps |
| Options | max |
| Introduced | 20.10.R1 |
| Platforms | All |

### **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | PIR rate |


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| | |
|---|---|
| Context | **configure** service ipipe *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* rate pir *(number \| keyword)* |
| Tree | pir |
| Range | 1 to 6400000000 |
| Units | kilobps |
| Options | max |
| Introduced | 20.10.R1 |
| Platforms | All |

## **policy-name** *reference*

| | |
|---|---|
| Synopsis | Policy ID |
| Context | **configure** service ipipe *service-name* sap *sap* ingress qos sap-ingress policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos sap-ingress *qos-policy-name* |
| Introduced | 20.10.R1 |
| Platforms | All |

## **queuing-type** *keyword*

| | |
|---|---|
| Synopsis | Queuing type |
| Context | **configure** service ipipe *service-name* sap *sap* ingress qos sap-ingress queuing-type *keyword* |
| Tree | queuing-type |
| Options | shared, multipoint-shared |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e, VSR |

## **scheduler-policy**

| | |
|---|---|
| Synopsis | Enter the **scheduler-policy** context |
| Context | **configure** service ipipe *service-name* sap *sap* ingress qos scheduler-policy |
| Tree | scheduler-policy |
| Introduced | 20.10.R1 |
| Platforms | All |


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## overrides

| | |
|---|---|
| Synopsis | Enter the **overrides** context |
| Context | **configure** service ipipe *service-name* sap *sap* ingress qos scheduler-policy overrides |
| Tree | overrides |
| Introduced | 20.10.R1 |
| Platforms | All |

## scheduler [scheduler-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **scheduler** list instance |
| Context | **configure** service ipipe *service-name* sap *sap* ingress qos scheduler-policy overrides scheduler *named-item* |
| Tree | scheduler |
| Introduced | 20.10.R1 |
| Platforms | All |

## [**scheduler-name**] *named-item*

| | |
|---|---|
| Synopsis | Scheduler name |
| Context | **configure** service ipipe *service-name* sap *sap* ingress qos scheduler-policy overrides scheduler *named-item* |
| Tree | scheduler |
| Description | This command specifies the scheduler name which is composed of printable 7-bit ASCII characters. If the string contains special characters (#, $, spaces, and so on), the entire string must be enclosed within double quotes. Each scheduler must have a unique name within the context of the scheduler policy. However, the same name can be reused in multiple scheduler policies. If the scheduler name already exists within the policy tier level, the context changes to that scheduler name for the purpose of editing the scheduler commands.<br><br>If the scheduler name exists within the policy on a different tier, an error occurs and the current context does not change. If the scheduler name does not exist in this or another tier within the scheduler policy, it is assumed that an attempt is being made to create a scheduler of that name.<br><br>If the provided scheduler name is invalid, a name syntax error occurs, the command does not execute, and the context is not change. |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |


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| | |
|---|---|
| Platforms | All |

## parent

| | |
|---|---|
| Synopsis | Enter the **parent** context |
| Context | **configure** service ipipe *service-name* sap *sap* ingress qos scheduler-policy overrides scheduler *named-item* parent |
| Tree | parent |
| Introduced | 20.10.R1 |
| Platforms | All |

## cir-weight *number*

| | |
|---|---|
| Synopsis | Weight used at the within-CIR port priority level |
| Context | **configure** service ipipe *service-name* sap *sap* ingress qos scheduler-policy overrides scheduler *named-item* parent cir-weight *number* |
| Tree | cir-weight |
| Range | 0 to 100 |
| Introduced | 20.10.R1 |
| Platforms | All |

## weight *number*

| | |
|---|---|
| Synopsis | Relative weight of the scheduler to feed the queue |
| Context | **configure** service ipipe *service-name* sap *sap* ingress qos scheduler-policy overrides scheduler *named-item* parent weight *number* |
| Tree | weight |
| Range | 0 to 100 |
| Introduced | 20.10.R1 |
| Platforms | All |

## rate

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** service ipipe *service-name* sap *sap* ingress qos scheduler-policy overrides scheduler *named-item* rate |
| Tree | rate |


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| | |
|---|---|
| Introduced | 20.10.R1 |
| Platforms | All |

### **cir** *(number | keyword)*

| | |
|---|---|
| Synopsis | CIR at which the queue it to operate |
| Context | **configure** service ipipe *service-name* sap *sap* ingress qos scheduler-policy overrides scheduler *named-item* rate cir *(number | keyword)* |
| Tree | cir |
| Range | 0 to 6400000000 |
| Units | kilobps |
| Options | sum, max |
| Introduced | 20.10.R1 |
| Platforms | All |

### **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | PIR at which the queue is to operate |
| Context | **configure** service ipipe *service-name* sap *sap* ingress qos scheduler-policy overrides scheduler *named-item* rate pir *(number | keyword)* |
| Tree | pir |
| Range | 1 to 6400000000 |
| Units | kilobps |
| Options | max |
| Introduced | 20.10.R1 |
| Platforms | All |

### **policy-name** *reference*

| | |
|---|---|
| Synopsis | Scheduler policy name |
| Context | **configure** service ipipe *service-name* sap *sap* ingress qos scheduler-policy policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos scheduler-policy *named-item* |
| Introduced | 20.10.R1 |
| Platforms | All |


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## lag

| | |
|---|---|
| Synopsis | Enter the **lag** context |
| Context | **configure** service ipipe *service-name* sap *sap* lag |
| Tree | lag |
| Introduced | 20.10.R1 |
| Platforms | All |

## link-map-profile *number*

| | |
|---|---|
| Synopsis | LAG link map profile for a SAP or network interface |
| Context | **configure** service ipipe *service-name* sap *sap* lag link-map-profile *number* |
| Tree | link-map-profile |
| Description | This command assigns a preconfigured LAG link map profile to a SAP or network interface configured on a LAG or a PW port that exists on a LAG. After an operator assigns a LAG link map profile, the system rehashes the SAP or network interface egress traffic over the LAG as required by the new configuration.<br>If the LAG link map profile for a SAP or network interface is deleted, the system reverts back to per-flow hashing. |
| Range | 1 to 64 |
| Introduced | 20.10.R1 |
| Platforms | All |

## per-link-hash

| | |
|---|---|
| Synopsis | Enter the **per-link-hash** context |
| Context | **configure** service ipipe *service-name* sap *sap* lag per-link-hash |
| Tree | per-link-hash |
| Introduced | 20.10.R1 |
| Platforms | All |

## class *number*

| | |
|---|---|
| Synopsis | Class used on LAG egress using weighted per-link-hash |
| Context | **configure** service ipipe *service-name* sap *sap* lag per-link-hash class *number* |
| Tree | class |


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| | |
|---|---|
| Range | 1 to 3 |
| Default | 1 |
| Introduced | 20.10.R1 |
| Platforms | All |

### **weight** *number*

| | |
|---|---|
| Synopsis | Weight used on LAG egress using weighted per-link-hash |
| Context | **configure** service ipipe *service-name* sap *sap* lag per-link-hash weight *number* |
| Tree | weight |
| Range | 1 to 1024 |
| Default | 1 |
| Introduced | 20.10.R1 |
| Platforms | All |

### **mac** *mac-address*

| | |
|---|---|
| Synopsis | MAC address of the Ipipe Ethernet SAP |
| Context | **configure** service ipipe *service-name* sap *sap* mac *mac-address* |
| Tree | mac |
| Default | 00:00:00:00:00:00 |
| Introduced | 20.10.R1 |
| Platforms | All |

### **mac-refresh** *number*

| | |
|---|---|
| Synopsis | MAC refresh interval |
| Context | **configure** service ipipe *service-name* sap *sap* mac-refresh *number* |
| Tree | mac-refresh |
| Range | 0 to 65535 |
| Default | 14400 |
| Introduced | 20.10.R1 |
| Platforms | All |


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### **multi-service-site** *reference*

| | |
|---|---|
| Synopsis | Multi service site name |
| Context | **configure** service ipipe *service-name* sap *sap* multi-service-site *reference* |
| Tree | multi-service-site |
| Reference | **configure** service customer *customer-name* multi-service-site *named-item* |
| Introduced | 20.10.R1 |
| Platforms | All |

### **transit-policy**

| | |
|---|---|
| Synopsis | Enable the **transit-policy** context |
| Context | **configure** service ipipe *service-name* sap *sap* transit-policy |
| Tree | transit-policy |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **prefix** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IP prefix policy ID |
| Context | **configure** service ipipe *service-name* sap *sap* transit-policy prefix *reference* |
| Tree | prefix |
| Reference | **configure** application-assurance group *number* partition *number* transit-prefix-policy *number* |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **use-broadcast-mac** *boolean*

| | |
|---|---|
| Synopsis | Allow broadcast MAC on SAP |
| Context | **configure** service ipipe *service-name* sap *sap* use-broadcast-mac *boolean* |


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| | |
|---|---|
| Tree | use-broadcast-mac |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | All |

## **service-id** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Service ID |
| Context | **configure** service ipipe *service-name* service-id *number* |
| Tree | service-id |
| Range | 1 to 2147483647 |
| Introduced | 20.10.R1 |
| Platforms | All |

## **service-mtu** *number*

| | |
|---|---|
| Synopsis | MTU size |
| Context | **configure** service ipipe *service-name* service-mtu *number* |
| Tree | service-mtu |
| Description | This command configures the Maximum Transmission Unit (MTU) value (payload) for the service. The system uses the value to validate the operational state of the SAP and SDP binding within the service. The value overrides the default MTU for the service type.<br><br>The service MTU and a SAP's service delineation encapsulation overhead (4 bytes for a dot1q tag) are used to derive the required MTU of the physical port or channel on which the SAP was created. If the required payload is larger than the port or channel MTU, the SAP is placed in an inoperative state. If the required MTU is equal to or less than the port or channel MTU, the SAP transitions to the operative state.<br><br>When binding an SDP to a service, the service MTU is compared to the path MTU associated with the SDP. The path MTU can be administratively defined in the context of the SDP. The default or administrative path MTU can be dynamically reduced due to the MTU capabilities discovered by the tunneling mechanism of the SDP or the egress interface MTU capabilities based on the next hop in the tunnel path. If the service MTU is larger than the path MTU, the SDP binding for the service is placed in an inoperative state. If the service MTU is equal to or less than the path MTU, the SDP binding is placed in an operational state. |


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If a service MTU, port or channel MTU, or path MTU is dynamically or administratively modified, all associated SAP and SDP binding operational states are automatically reevaluated.

Binding operational states are automatically reevaluated.

For I-VPLS and Epipes bound to a B-VPLS, the service MTU must be at least 18 bytes smaller than the B-VPLS service MTU to accommodate the PBB header.

Because this connects a Layer 2 to a Layer 3 service, adjust the service MTU under the Epipe service. The MTU that is advertised from the Epipe side is service MTU minus EtherHeaderSize.

In the **configure service epipe spoke-sdp** context, the **adv-service-mtu** command can be used to override the configured MTU value used in T-LDP signaling to the far-end of an Epipe spoke-sdp. The **adv-service-mtu** command is also used to validate the value signaled by the far-end PE.

| | |
|---|---|
| Range | 1 to 9194 |
| Introduced | 20.10.R1 |
| Platforms | All |

## **spoke-sdp** [sdp-bind-id] *sdp-bind-id*

| | |
|---|---|
| Synopsis | Enter the **spoke-sdp** list instance |
| Context | **configure** service ipipe *service-name* spoke-sdp *sdp-bind-id* |
| Tree | spoke-sdp |
| Introduced | 20.10.R1 |
| Platforms | All |

## [**sdp-bind-id**] *sdp-bind-id*

| | |
|---|---|
| Synopsis | SDP binding ID |
| Context | **configure** service ipipe *service-name* spoke-sdp *sdp-bind-id* |
| Tree | spoke-sdp |
| String length | 3 to 16 |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | All |

## **aarp**

| | |
|---|---|
| Synopsis | Enable the **aarp** context |


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| | |
|---|---|
| Context | **configure** service ipipe *service-name* spoke-sdp *sdp-bind-id* aarp |
| Tree | aarp |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **id** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | AARP instance ID |
| Context | **configure** service ipipe *service-name* spoke-sdp *sdp-bind-id* aarp id *reference* |
| Tree | id |
| Reference | **configure** application-assurance aarp *number* |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **type** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Role of the spoke SDP referenced by the AARP |
| Context | **configure** service ipipe *service-name* spoke-sdp *sdp-bind-id* aarp type *keyword* |
| Tree | type |
| Options | subscriber-side-shunt, network-side-shunt |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the SDP binding to the service |


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| | |
|---|---|
| Context | **configure** service ipipe *service-name* spoke-sdp *sdp-bind-id* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 20.10.R1 |
| Platforms | All |

## **app-profile** *reference*

| | |
|---|---|
| Synopsis | Application profile name for this SDP |
| Context | **configure** service ipipe *service-name* spoke-sdp *sdp-bind-id* app-profile *reference* |
| Tree | app-profile |
| Reference | **configure** application-assurance group *number* partition *number* policy app-profile *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **bandwidth** *(number | keyword)*

| | |
|---|---|
| Synopsis | Bandwidth that is reserved for this SDP binding |
| Context | **configure** service ipipe *service-name* spoke-sdp *sdp-bind-id* bandwidth *(number | keyword)* |
| Tree | bandwidth |
| Range | 0 to 100000000 |
| Units | kilobps |
| Options | max |
| Default | 0 |
| Introduced | 20.10.R1 |
| Platforms | All |

## **bfd**

| | |
|---|---|
| Synopsis | Enter the **bfd** context |
| Context | **configure** service ipipe *service-name* spoke-sdp *sdp-bind-id* bfd |
| Tree | bfd |


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| | |
|---|---|
| Introduced | 21.2.R1 |
| Platforms | All |

## bfd-liveness

| | |
|---|---|
| Synopsis | Enable the **bfd-liveness** context |
| Context | **configure** service ipipe *service-name* spoke-sdp *sdp-bind-id* bfd bfd-liveness |
| Tree | bfd-liveness |
| Introduced | 21.2.R1 |
| Platforms | All |

## encap *keyword*

| | |
|---|---|
| Synopsis | BFD encapsulation used on the SDP binding |
| Context | **configure** service ipipe *service-name* spoke-sdp *sdp-bind-id* bfd bfd-liveness encap *keyword* |
| Tree | encap |
| Options | ipv4 |
| Default | ipv4 |
| Introduced | 21.2.R1 |
| Platforms | All |

## bfd-template *reference*

| | |
|---|---|
| Synopsis | BFD template associated with the SDP binding |
| Context | **configure** service ipipe *service-name* spoke-sdp *sdp-bind-id* bfd bfd-template *reference* |
| Tree | bfd-template |
| Description | This command configures a named BFD template to be used by VCCV BFD on PWs belonging to the VLL service. The template specifies parameters, such as the minimum transmit and receive control packet timer intervals, used by the BFD session. Template parameters are configured under the **configure router bfd** context. |
| Reference | **configure** bfd bfd-template *named-item* |
| Introduced | 21.2.R1 |
| Platforms | All |


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### **ce-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the CE device |
| Context | **configure** service ipipe *service-name* spoke-sdp *sdp-bind-id* ce-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | ce-address |
| Introduced | 20.10.R1 |
| Platforms | All |

### **control-word** *boolean*

| | |
|---|---|
| Synopsis | Use control word as part of packet encapsulation |
| Context | **configure** service ipipe *service-name* spoke-sdp *sdp-bind-id* control-word *boolean* |
| Tree | control-word |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service ipipe *service-name* spoke-sdp *sdp-bind-id* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 20.10.R1 |
| Platforms | All |

### **egress**

| | |
|---|---|
| Synopsis | Enter the **egress** context |
| Context | **configure** service ipipe *service-name* spoke-sdp *sdp-bind-id* egress |
| Tree | egress |
| Introduced | 20.10.R1 |
| Platforms | All |


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### filter

| | |
|---|---|
| Synopsis | Enter the **filter** context |
| Context | **configure** service ipipe *service-name* spoke-sdp *sdp-bind-id* egress filter |
| Tree | filter |
| Introduced | 20.10.R1 |
| Platforms | All |

### ip *reference*

| | |
|---|---|
| Synopsis | IPv4 filter policy name |
| Context | **configure** service ipipe *service-name* spoke-sdp *sdp-bind-id* egress filter ip *reference* |
| Tree | ip |
| Reference | **configure** filter ip-filter *filter-name* |
| Introduced | 20.10.R1 |
| Platforms | All |

### ipv6 *reference*

| | |
|---|---|
| Synopsis | IPv6 filter policy name |
| Context | **configure** service ipipe *service-name* spoke-sdp *sdp-bind-id* egress filter ipv6 *reference* |
| Tree | ipv6 |
| Reference | **configure** filter ipv6-filter *filter-name* |
| Introduced | 20.10.R1 |
| Platforms | All |

### qos

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** service ipipe *service-name* spoke-sdp *sdp-bind-id* egress qos |
| Tree | qos |
| Introduced | 20.10.R1 |
| Platforms | All |


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## network

| | |
|---|---|
| Synopsis | Enter the **network** context |
| Context | **configure** service ipipe *service-name* spoke-sdp *sdp-bind-id* egress qos network |
| Tree | network |
| Introduced | 20.10.R1 |
| Platforms | All |

## policy-name *reference*

| | |
|---|---|
| Synopsis | Network policy ID |
| Context | **configure** service ipipe *service-name* spoke-sdp *sdp-bind-id* egress qos network policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos network *network-policy-name* |
| Introduced | 20.10.R1 |
| Platforms | All |

## port-redirect-group

| | |
|---|---|
| Synopsis | Enter the **port-redirect-group** context |
| Context | **configure** service ipipe *service-name* spoke-sdp *sdp-bind-id* egress qos network port-redirect-group |
| Tree | port-redirect-group |
| Introduced | 20.10.R1 |
| Platforms | All |

## group-name *reference*

| | |
|---|---|
| Synopsis | Name of the egress port queue group |
| Context | **configure** service ipipe *service-name* spoke-sdp *sdp-bind-id* egress qos network port-redirect-group group-name *reference* |
| Tree | group-name |
| Reference | **configure** qos queue-group-templates egress queue-group *named-item* |
| Introduced | 20.10.R1 |
| Platforms | All |


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### **instance** *number*

| | |
|---|---|
| Synopsis | Queue-group instance ID |
| Context | **configure** service ipipe *service-name* spoke-sdp *sdp-bind-id* egress qos network port-redirect-group instance *number* |
| Tree | instance |
| Range | 1 to 65535 |
| Introduced | 20.10.R1 |
| Platforms | All |

### **vc-label** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Egress MPLS VC label to send packets to the far end |
| Context | **configure** service ipipe *service-name* spoke-sdp *sdp-bind-id* egress vc-label *number* |
| Tree | vc-label |
| Range | 16 to 1048575 |
| Introduced | 20.10.R1 |
| Platforms | All |

### **endpoint**

| | |
|---|---|
| Synopsis | Enter the **endpoint** context |
| Context | **configure** service ipipe *service-name* spoke-sdp *sdp-bind-id* endpoint |
| Tree | endpoint |
| Introduced | 20.10.R1 |
| Platforms | All |

### **name** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.


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| | |
|---|---|
| Synopsis | Endpoint name to which SDP bind is attached |
| Context | **configure** service ipipe *service-name* spoke-sdp *sdp-bind-id* endpoint name *reference* |
| Tree | name |
| Reference | **configure** service ipipe *service-name* endpoint *named-item* |
| Introduced | 20.10.R1 |
| Platforms | All |

## **precedence** *(number | keyword)*

| | |
|---|---|
| Synopsis | Precedence when multiple SDP binds are on one endpoint |
| Context | **configure** service ipipe *service-name* spoke-sdp *sdp-bind-id* endpoint precedence *(number | keyword)* |
| Tree | precedence |
| Range | 1 to 4 |
| Options | primary |
| Default | 4 |
| Introduced | 20.10.R1 |
| Platforms | All |

## **entropy-label**

| | |
|---|---|
| Synopsis | Enable the use of entropy labels for spoke SDPs |
| Context | **configure** service ipipe *service-name* spoke-sdp *sdp-bind-id* entropy-label |
| Tree | entropy-label |
| Notes | The following elements are part of a choice: **entropy-label** or **hash-label**. |
| Introduced | 20.10.R1 |
| Platforms | All |

## **hash-label**

| | |
|---|---|
| Synopsis | Enable the **hash-label** context |
| Context | **configure** service ipipe *service-name* spoke-sdp *sdp-bind-id* hash-label |
| Tree | hash-label |
| Description | Commands in this context configure the use of hash labels for egress datapaths. |


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For information about hash-label handling, see the "Hash labels" section of the *7450 ESS, 7750 SR, 7950 XRS, and VSR MPLS Guide*.

Notes The following elements are part of a choice: **entropy-label** or **hash-label**.

Introduced 20.10.R1

Platforms All

## signal-capability

Synopsis Signal hash label capability to the remote PE

Context **configure** service ipipe *service-name* spoke-sdp *sdp-bind-id* hash-label signal-capability

Tree signal-capability

Description When configured, this command enables the signaling and negotiating of the hash label between the local and remote PE nodes.

The signaling process outcome determines whether the local PE inserts the hash label on the user packets. This outcome can override the local PE configuration.

Introduced 20.10.R1

Platforms All

## ingress

Synopsis Enter the **ingress** context

Context **configure** service ipipe *service-name* spoke-sdp *sdp-bind-id* ingress

Tree ingress

Introduced 20.10.R1

Platforms All

## filter

Synopsis Enter the **filter** context

Context **configure** service ipipe *service-name* spoke-sdp *sdp-bind-id* ingress filter

Tree filter

Introduced 20.10.R1

Platforms All


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### **ip** *reference*

| | |
|---|---|
| Synopsis | IPv4 filter policy name |
| Context | **configure** service ipipe *service-name* spoke-sdp *sdp-bind-id* ingress filter ip *reference* |
| Tree | ip |
| Reference | **configure** filter ip-filter *filter-name* |
| Introduced | 20.10.R1 |
| Platforms | All |

### **ipv6** *reference*

| | |
|---|---|
| Synopsis | IPv6 filter policy name |
| Context | **configure** service ipipe *service-name* spoke-sdp *sdp-bind-id* ingress filter ipv6 *reference* |
| Tree | ipv6 |
| Reference | **configure** filter ipv6-filter *filter-name* |
| Introduced | 20.10.R1 |
| Platforms | All |

### **qos**

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** service ipipe *service-name* spoke-sdp *sdp-bind-id* ingress qos |
| Tree | qos |
| Introduced | 20.10.R1 |
| Platforms | All |

### **network**

| | |
|---|---|
| Synopsis | Enter the **network** context |
| Context | **configure** service ipipe *service-name* spoke-sdp *sdp-bind-id* ingress qos network |
| Tree | network |
| Introduced | 20.10.R1 |
| Platforms | All |


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## fp-redirect-group

| | |
|---|---|
| Synopsis | Enter the **fp-redirect-group** context |
| Context | **configure** service ipipe *service-name* spoke-sdp *sdp-bind-id* ingress qos network fp-redirect-group |
| Tree | fp-redirect-group |
| Introduced | 20.10.R1 |
| Platforms | All |

## group-name *reference*

| | |
|---|---|
| Synopsis | Name of the forwarding plane queue group template |
| Context | **configure** service ipipe *service-name* spoke-sdp *sdp-bind-id* ingress qos network fp-redirect-group group-name *reference* |
| Tree | group-name |
| Reference | **configure** qos queue-group-templates ingress queue-group *named-item* |
| Introduced | 20.10.R1 |
| Platforms | All |

## instance *number*

| | |
|---|---|
| Synopsis | Instance of FP ingress queue group for the SDP binding |
| Context | **configure** service ipipe *service-name* spoke-sdp *sdp-bind-id* ingress qos network fp-redirect-group instance *number* |
| Tree | instance |
| Range | 1 to 65535 |
| Introduced | 20.10.R1 |
| Platforms | All |

## policy-name *reference*

| | |
|---|---|
| Synopsis | Network policy ID |
| Context | **configure** service ipipe *service-name* spoke-sdp *sdp-bind-id* ingress qos network policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos network *network-policy-name* |


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| | |
|---|---|
| Introduced | 20.10.R1 |
| Platforms | All |

## **vc-label** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Ingress MPLS VC label to send packets to the far end |
| Context | **configure** service ipipe *service-name* spoke-sdp *sdp-bind-id* ingress vc-label *number* |
| Tree | vc-label |
| Range | 1 to 1048575 |
| Introduced | 20.10.R1 |
| Platforms | All |

## **transit-policy**

| | |
|---|---|
| Synopsis | Enable the **transit-policy** context |
| Context | **configure** service ipipe *service-name* spoke-sdp *sdp-bind-id* transit-policy |
| Tree | transit-policy |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **prefix** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IP prefix policy ID |
| Context | **configure** service ipipe *service-name* spoke-sdp *sdp-bind-id* transit-policy prefix *reference* |
| Tree | prefix |
| Reference | **configure** application-assurance group *number* partition *number* transit-prefix-policy *number* |
| Notes | This element is mandatory. |


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| | |
|---|---|
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **vc-switching** *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Use PW switching signaling for spoke SDPs in service |
| Context | **configure** service ipipe *service-name* vc-switching *boolean* |
| Tree | vc-switching |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | All |

### **vpn-id** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | VPN identifier for the service |
| Context | **configure** service ipipe *service-name* vpn-id *number* |
| Tree | vpn-id |
| Range | 1 to 2147483647 |
| Introduced | 20.10.R1 |
| Platforms | All |

### **mac-list** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **mac-list** list instance |
| Context | **configure** service mac-list *named-item* |
| Tree | mac-list |
| Description | Commands in this context specify the MAC addresses to be included in a MAC list to be used with the Auto-Learn MAC Protect (ALMP) functionality. The list is used to exclude certain MAC addresses from protection, for example, on SAPs or spoke SDPs |


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configured with ALMP where certain MAC addresses (such as VRRP virtual MAC addresses) must be able to move to other objects.

| | |
|---|---|
| Introduced | 20.5.R1 |
| Platforms | All |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | MAC list name |
| Context | **configure** service mac-list *named-item* |
| Tree | mac-list |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 20.5.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service mac-list *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 20.5.R1 |
| Platforms | All |

### **mac** [address] *mac-address*

| | |
|---|---|
| Synopsis | Enter the **mac** list instance |
| Context | **configure** service mac-list *named-item* mac *mac-address* |
| Tree | mac |
| Introduced | 20.5.R1 |
| Platforms | All |

### [**address**] *mac-address*

| | |
|---|---|
| Synopsis | MAC address |


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| | |
|---|---|
| Context | **configure** service mac-list *named-item* mac *mac-address* |
| Tree | mac |
| Notes | This element is part of a list key. |
| Introduced | 20.5.R1 |
| Platforms | All |

### **mask** *mac-address*

| | |
|---|---|
| Synopsis | Mask for the MAC address |
| Context | **configure** service mac-list *named-item* mac *mac-address* mask *mac-address* |
| Tree | mask |
| Default | ff:ff:ff:ff:ff:ff |
| Introduced | 20.5.R1 |
| Platforms | All |

### **md-auto-id**

| | |
|---|---|
| Synopsis | Enter the **md-auto-id** context |
| Context | **configure** service md-auto-id |
| Tree | md-auto-id |
| Introduced | 16.0.R1 |
| Platforms | All |

### **customer-id-range**

| | |
|---|---|
| Synopsis | Enable the **customer-id-range** context |
| Context | **configure** service md-auto-id customer-id-range |
| Tree | customer-id-range |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **end** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Upper bound of the ID range |
| Context | **configure** service md-auto-id customer-id-range end *number* |
| Tree | end |
| Range | 2 to 2147483647 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **start** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Lower bound of the ID range |
| Context | **configure** service md-auto-id customer-id-range start *number* |
| Tree | start |
| Range | 2 to 2147483647 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **pw-template-id-range**

| | |
|---|---|
| Synopsis | Enable the **pw-template-id-range** context |
| Context | **configure** service md-auto-id pw-template-id-range |
| Tree | pw-template-id-range |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **end** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Upper bound of the PW template ID range |
| Context | **configure** service md-auto-id pw-template-id-range end *number* |
| Tree | end |
| Range | 1 to 2147483647 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **start** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Lower bound of the PW template ID range |
| Context | **configure** service md-auto-id pw-template-id-range start *number* |
| Tree | start |
| Range | 1 to 2147483647 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **service-id-range**

| | |
|---|---|
| Synopsis | Enable the **service-id-range** context |
| Context | **configure** service md-auto-id service-id-range |
| Tree | service-id-range |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **end** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Upper bound of the service ID range |
| Context | **configure** service md-auto-id service-id-range end *number* |
| Tree | end |
| Range | 1 to 2147483647 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **start** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Lower bound of the service ID range |
| Context | **configure** service md-auto-id service-id-range start *number* |
| Tree | start |
| Range | 1 to 2147483647 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mrp**

| | |
|---|---|
| Synopsis | Enter the **mrp** context |
| Context | **configure** service mrp |
| Tree | mrp |
| Introduced | 20.10.R1 |
| Platforms | All |


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### **policy** [policy-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **policy** list instance |
| Context | **configure** service mrp policy *named-item* |
| Tree | policy |
| Introduced | 20.10.R1 |
| Platforms | All |

### [**policy-name**] *named-item*

| | |
|---|---|
| Synopsis | Specify the policy name associated with the MRP |
| Context | **configure** service mrp policy *named-item* |
| Tree | policy |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | All |

### **default-action** *keyword*

| | |
|---|---|
| Synopsis | Action for packets not matching any MRP policy entries |
| Context | **configure** service mrp policy *named-item* default-action *keyword* |
| Tree | default-action |
| Options | block, allow |
| Default | allow |
| Introduced | 20.10.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service mrp policy *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 20.10.R1 |


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| | |
|---|---|
| Platforms | All |

### **entry** [entry-id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** service mrp policy *named-item* entry *number* |
| Tree | entry |
| Introduced | 20.10.R1 |
| Platforms | All |

### [**entry-id**] *number*

| | |
|---|---|
| Synopsis | Sepcify an id for the MRP policy entry |
| Context | **configure** service mrp policy *named-item* entry *number* |
| Tree | entry |
| Range | 1 to 65535 |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | All |

### **action** *keyword*

| | |
|---|---|
| Synopsis | Action applied for matching packets |
| Context | **configure** service mrp policy *named-item* entry *number* action *keyword* |
| Tree | action |
| Options | block, allow, end-station |
| Introduced | 20.10.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service mrp policy *named-item* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |


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| | |
|---|---|
| Introduced | 20.10.R1 |
| Platforms | All |

## match

| | |
|---|---|
| Synopsis | Enter the **match** context |
| Context | **configure** service mrp policy *named-item* entry *number* match |
| Tree | match |
| Introduced | 20.10.R1 |
| Platforms | All |

## **isid** [value] *number*

| | |
|---|---|
| Synopsis | Enter the **isid** list instance |
| Context | **configure** service mrp policy *named-item* entry *number* match isid *number* |
| Tree | isid |
| Introduced | 20.10.R1 |
| Platforms | All |

## [**value**] *number*

| | |
|---|---|
| Synopsis | Lowest service instance ID to match the entry |
| Context | **configure** service mrp policy *named-item* entry *number* match isid *number* |
| Tree | isid |
| Range | 0 to 16777215 |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | All |

## **higher-value** *number*

| | |
|---|---|
| Synopsis | Highest service instance ID to match the entry |
| Context | **configure** service mrp policy *named-item* entry *number* match isid *number* higher-value *number* |
| Tree | higher-value |


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| | |
|---|---|
| Range | 0 to 16777215 |
| Introduced | 20.10.R1 |
| Platforms | All |

### **scope** *keyword*

| | |
|---|---|
| Synopsis | Specify the scope of the mrp-policy definition |
| Context | **configure** service mrp policy *named-item* scope *keyword* |
| Tree | scope |
| Options | exclusive, template |
| Default | template |
| Introduced | 20.10.R1 |
| Platforms | All |

### **nat**

| | |
|---|---|
| Synopsis | Enter the **nat** context |
| Context | **configure** service nat |
| Tree | nat |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **classifier** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **classifier** list instance |
| Context | **configure** service nat classifier *named-item* |
| Tree | classifier |
| Max. instances | 64 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | NAT classifier name |
| Context | **configure** service nat classifier *named-item* |


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| | |
|---|---|
| Tree | classifier |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## default

| | |
|---|---|
| Synopsis | Enter the **default** context |
| Context | **configure** service nat classifier *named-item* default |
| Tree | default |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## action

| | |
|---|---|
| Synopsis | Enter the **action** context |
| Context | **configure** service nat classifier *named-item* default action |
| Tree | action |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## destination-nat

| | |
|---|---|
| Synopsis | Enable the **destination-nat** context |
| Context | **configure** service nat classifier *named-item* default action destination-nat |
| Tree | destination-nat |
| Notes | The following elements are part of a choice: (**destination-nat**, **dnat**, and **dnat-ip-address**) or **forward**. |
| Introduced | 21.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## ip-address *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Substitute destination IP address of matching packets |


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| | |
|---|---|
| Context | **configure** service nat classifier *named-item* default action destination-nat ip-address *ipv4-unicast-address* |
| Tree | ip-address |
| Introduced | 21.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## forward

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

| | |
|---|---|
| Synopsis | Forward mode of operation |
| Context | **configure** service nat classifier *named-item* default action forward |
| Tree | forward |
| Notes | The following elements are part of a choice: (**destination-nat**, **dnat**, and **dnat-ip-address**) or **forward**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## dnat-ip-address *ipv4-unicast-address*

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

| | |
|---|---|
| Synopsis | Default destination IP address for matching entries with dNAT action |
| Context | **configure** service nat classifier *named-item* default dnat-ip-address *ipv4-unicast-address* |
| Tree | dnat-ip-address |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## description *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service nat classifier *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** service nat classifier *named-item* entry *number* |
| Tree | entry |
| Max. instances | 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**id**] *number*

| | |
|---|---|
| Synopsis | Classifier rule entry ID |
| Context | **configure** service nat classifier *named-item* entry *number* |
| Tree | entry |
| Range | 1 to 1000 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **action**

| | |
|---|---|
| Synopsis | Enter the **action** context |
| Context | **configure** service nat classifier *named-item* entry *number* action |
| Tree | action |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **destination-nat**

| | |
|---|---|
| Synopsis | Enable the **destination-nat** context |
| Context | **configure** service nat classifier *named-item* entry *number* action destination-nat |


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| | |
|---|---|
| Tree | destination-nat |
| Notes | The following elements are part of a choice: (**destination-nat**, **dnat**, and **dnat-ip-address**) or **forward**. |
| Introduced | 21.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ip-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Replacement destination IP address for packets |
| Context | **configure** service nat classifier *named-item* entry *number* action destination-nat ip-address *ipv4-unicast-address* |
| Tree | ip-address |
| Introduced | 21.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **forward**

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

| | |
|---|---|
| Synopsis | Forward mode of operation |
| Context | **configure** service nat classifier *named-item* entry *number* action forward |
| Tree | forward |
| Notes | The following elements are part of a choice: (**destination-nat**, **dnat**, and **dnat-ip-address**) or **forward**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service nat classifier *named-item* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## match

| | |
|---|---|
| Synopsis | Enter the **match** context |
| Context | **configure** service nat classifier *named-item* entry *number* match |
| Tree | match |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## dst-port-range

| | |
|---|---|
| Synopsis | Enter the **dst-port-range** context |
| Context | **configure** service nat classifier *named-item* entry *number* match dst-port-range |
| Tree | dst-port-range |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## end *number*

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

| | |
|---|---|
| Synopsis | Upper bound of the port range |
| Context | **configure** service nat classifier *named-item* entry *number* match dst-port-range end *number* |
| Tree | end |
| Range | 0 \| 1 to 65535 |
| Default | 65535 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## start *number*

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

| | |
|---|---|
| Synopsis | Lower bound of the port range |


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| | |
|---|---|
| Context | **configure** service nat classifier *named-item* entry *number* match dst-port-range start *number* |
| Tree | start |
| Range | 0 \| 1 to 65535 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **foreign-ip-address** *ipv4-unicast-address*

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

| | |
|---|---|
| Synopsis | Foreign IP address as the match criterion |
| Context | **configure** service nat classifier *named-item* entry *number* match foreign-ip-address *ipv4-unicast-address* |
| Tree | foreign-ip-address |
| Introduced | 19.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **protocol** *keyword*

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

| | |
|---|---|
| Synopsis | IP protocol to match |
| Context | **configure** service nat classifier *named-item* entry *number* match protocol *keyword* |
| Tree | protocol |
| Options | tcp, udp |
| Default | udp |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **deterministic-script**

| | |
|---|---|
| Synopsis | Enter the **deterministic-script** context |
| Context | **configure** service nat deterministic-script |


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| | |
|---|---|
| Tree | deterministic-script |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **location** *ftp-tftp-url*

| | |
|---|---|
| Synopsis | Remote location where Python script is exported |
| Context | **configure** service nat deterministic-script location *ftp-tftp-url* |
| Tree | location |
| String length | 1 to 180 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **firewall-policy** [name] *external-named-item*

| | |
|---|---|
| Synopsis | Enter the **firewall-policy** list instance |
| Context | **configure** service nat firewall-policy *external-named-item* |
| Tree | firewall-policy |
| Description | Commands in this context configure the attributes of the firewall policy, for use in contexts where basic protection from outside attack vectors is required.<br>Firewall policies cannot be deleted if they are in use. |
| Max. instances | 2048 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *external-named-item*

| | |
|---|---|
| Synopsis | Firewall policy name |
| Context | **configure** service nat firewall-policy *external-named-item* |
| Tree | firewall-policy |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## alg

| | |
|---|---|
| Synopsis | Enter the **alg** context |
| Context | **configure** service nat firewall-policy *external-named-item* alg |
| Tree | alg |
| Description | Commands in this context configure the Application Layer Gateway (ALG) attributes of the policy. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## ftp *boolean*

| | |
|---|---|
| Synopsis | Use FTP ALG for the policy |
| Context | **configure** service nat firewall-policy *external-named-item* alg ftp *boolean* |
| Tree | ftp |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## rtsp *boolean*

| | |
|---|---|
| Synopsis | Use RTSP ALG for the policy |
| Context | **configure** service nat firewall-policy *external-named-item* alg rtsp *boolean* |
| Tree | rtsp |
| Description | When configured to **true**, Real-Time Streaming Protocol (RTSP) ALG is used for the policy. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## sip *boolean*

| | |
|---|---|
| Synopsis | Use SIP ALG for the policy |
| Context | **configure** service nat firewall-policy *external-named-item* alg sip *boolean* |
| Tree | sip |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service nat firewall-policy *external-named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **domain**

| | |
|---|---|
| Synopsis | Enter the **domain** context |
| Context | **configure** service nat firewall-policy *external-named-item* domain |
| Tree | domain |
| Description | Commands in this context configure the attributes of the domain for the firewall policy. All associated traffic must be part of the prefixes specified by this domain. |
| Notes | The following elements are part of a choice: **domain** or **l2-outside**. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **name** *named-item*

| | |
|---|---|
| Synopsis | Firewall domain name |
| Context | **configure** service nat firewall-policy *external-named-item* domain name *named-item* |
| Tree | name |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **router-instance** *string*

| | |
|---|---|
| Synopsis | Router or VPRN service name |
| Context | **configure** service nat firewall-policy *external-named-item* domain router-instance *string* |
| Tree | router-instance |
| Description | This command specifies the router instance or VPRN service for this domain. All associated traffic must be part of the prefixes specified by this domain. |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **filtering** *keyword*

| | |
|---|---|
| Synopsis | Filtering method for inbound traffic for the policy |
| Context | **configure** service nat firewall-policy *external-named-item* filtering *keyword* |
| Tree | filtering |
| Options | endpoint-independent, address-and-port-dependent |
| Default | endpoint-independent |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **l2-outside**

| | |
|---|---|
| Synopsis | Use Layer 2 outside service address location |
| Context | **configure** service nat firewall-policy *external-named-item* l2-outside |
| Tree | l2-outside |
| Description | This command specifies Layer 2 outside service address location for the NAT policy instead of Layer 3 outside service. |
| Notes | The following elements are part of a choice: **domain** or **l2-outside**. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **port-limits**

| | |
|---|---|
| Synopsis | Enter the **port-limits** context |
| Context | **configure** service nat firewall-policy *external-named-item* port-limits |


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| | |
|---|---|
| Tree | port-limits |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **forwarding** *number*

| | |
|---|---|
| Synopsis | Maximum number of port forwarding entries |
| Context | **configure** service nat firewall-policy *external-named-item* port-limits forwarding *number* |
| Tree | forwarding |
| Range | 1 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **priority-sessions**

| | |
|---|---|
| Synopsis | Enter the **priority-sessions** context |
| Context | **configure** service nat firewall-policy *external-named-item* priority-sessions |
| Tree | priority-sessions |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **fc**

| | |
|---|---|
| Synopsis | Enter the **fc** context |
| Context | **configure** service nat firewall-policy *external-named-item* priority-sessions fc |
| Tree | fc |
| Description | Commands in this context specify which Forwarding Class (FC) options have prioritized sessions. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **af** *boolean*

| | |
|---|---|
| Synopsis | Prioritize traffic from AF forwarding classes |
| Context | **configure** service nat firewall-policy *external-named-item* priority-sessions fc af *boolean* |


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| | |
|---|---|
| Tree | af |
| Description | When configured to **true**, traffic from Assured Forwarding (AF) FC sessions is prioritized. When configured to **false**, AF traffic is not prioritized. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **be** *boolean*

| | |
|---|---|
| Synopsis | Prioritize traffic from BE forwarding classes |
| Context | **configure** service nat firewall-policy *external-named-item* priority-sessions fc be *boolean* |
| Tree | be |
| Description | When configured to **true**, traffic from Best Effort (BE) FC sessions is prioritized. When configured to **false**, BE traffic is not prioritized. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ef** *boolean*

| | |
|---|---|
| Synopsis | Prioritize traffic from EF forwarding classes |
| Context | **configure** service nat firewall-policy *external-named-item* priority-sessions fc ef *boolean* |
| Tree | ef |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **h1** *boolean*

| | |
|---|---|
| Synopsis | Prioritize traffic from H1 forwarding classes |
| Context | **configure** service nat firewall-policy *external-named-item* priority-sessions fc h1 *boolean* |
| Tree | h1 |
| Description | When configured to **true**, traffic from H1 sessions is prioritized. When configured to false, H1 traffic is not prioritized. |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **h2** *boolean*

| | |
|---|---|
| Synopsis | Prioritize traffic from H2 forwarding classes |
| Context | **configure** service nat firewall-policy *external-named-item* priority-sessions fc h2 *boolean* |
| Tree | h2 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **l1** *boolean*

| | |
|---|---|
| Synopsis | Prioritize traffic from L1 forwarding classes |
| Context | **configure** service nat firewall-policy *external-named-item* priority-sessions fc l1 *boolean* |
| Tree | l1 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **l2** *boolean*

| | |
|---|---|
| Synopsis | Prioritize traffic from L2 forwarding classes |
| Context | **configure** service nat firewall-policy *external-named-item* priority-sessions fc l2 *boolean* |
| Tree | l2 |
| Description | When configured to **true**, traffic from L2 sessions is prioritized. When configured to false, L2 traffic is not prioritized. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **nc** *boolean*

| | |
|---|---|
| Synopsis | Prioritize traffic from NC forwarding classes |
| Context | **configure** service nat firewall-policy *external-named-item* priority-sessions fc nc *boolean* |
| Tree | nc |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **session-limits**

| | |
|---|---|
| Synopsis | Enter the **session-limits** context |
| Context | **configure** service nat firewall-policy *external-named-item* session-limits |
| Tree | session-limits |
| Description | Commands in this context configure session-limit attributes for the policy. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **max** *number*

| | |
|---|---|
| Synopsis | Maximum number of sessions per subscriber |
| Context | **configure** service nat firewall-policy *external-named-item* session-limits max *number* |
| Tree | max |
| Range | 1 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **reserved** *number*

| | |
|---|---|
| Synopsis | Number of sessions reserved for prioritized sessions |
| Context | **configure** service nat firewall-policy *external-named-item* session-limits reserved *number* |
| Tree | reserved |
| Description | This command configures the number of sessions per block that are reserved for prioritized sessions. |


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| | |
|---|---|
| Range | 1 to 65534 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## watermarks

| | |
|---|---|
| Synopsis | Enable the **watermarks** context |
| Context | **configure** service nat firewall-policy *external-named-item* session-limits watermarks |
| Tree | watermarks |
| Description | This command configures watermarks for NAT resources. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## high *number*

| | |
|---|---|
| Synopsis | High watermark percentage |
| Context | **configure** service nat firewall-policy *external-named-item* session-limits watermarks high *number* |
| Tree | high |
| Description | This command configures the high threshold value as a percentage of the total port-block space in a NAT pool. |
| Range | 0 to 100 |
| Units | percent |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## low *number*

| | |
|---|---|
| Synopsis | Low watermark percentage |
| Context | **configure** service nat firewall-policy *external-named-item* session-limits watermarks low *number* |
| Tree | low |
| Description | This command configures the low threshold value as a percentage of the total port-block space in a NAT pool. |
| Range | 0 to 100 |


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| | |
|---|---|
| Units | percent |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## tcp

| | |
|---|---|
| Synopsis | Enter the **tcp** context |
| Context | **configure** service nat firewall-policy *external-named-item* tcp |
| Tree | tcp |
| Description | Commands in this context configure the transmission control protocol (TCP) attributes of the policy. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## mss-adjust *number*

| | |
|---|---|
| Synopsis | TCP MSS adjustment value |
| Context | **configure** service nat firewall-policy *external-named-item* tcp mss-adjust *number* |
| Tree | mss-adjust |
| Description | This command configures the value to use to adjust the TCP Maximum Segment Size (MSS) option, if not already present or the present value is higher. |
| Range | 160 to 10240 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## timeouts

| | |
|---|---|
| Synopsis | Enter the **timeouts** context |
| Context | **configure** service nat firewall-policy *external-named-item* timeouts |
| Tree | timeouts |
| Description | Commands in this context configure the attributes of session idle timeouts for the policy. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **icmp6-query** *number*

| | |
|---|---|
| Synopsis | Timeout applied to an ICMPv6 Query session |
| Context | **configure** service nat firewall-policy *external-named-item* timeouts icmp6-query *number* |
| Tree | icmp6-query |
| Range | 60 to 240 |
| Units | seconds |
| Default | 60 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **sip** *number*

| | |
|---|---|
| Synopsis | SIP inactive media timeout |
| Context | **configure** service nat firewall-policy *external-named-item* timeouts sip *number* |
| Tree | sip |
| Range | 10 to 7200 |
| Units | seconds |
| Default | 120 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **tcp**

| | |
|---|---|
| Synopsis | Enter the **tcp** context |
| Context | **configure** service nat firewall-policy *external-named-item* timeouts tcp |
| Tree | tcp |
| Description | Commands in this context configure TCP timeout attributes. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **established** *number*

| | |
|---|---|
| Synopsis | Idle timeout for TCP session in established state |


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| | |
|---|---|
| Context | **configure** service nat firewall-policy *external-named-item* timeouts tcp established *number* |
| Tree | established |
| Range | 60 to 86400 |
| Units | seconds |
| Default | 7440 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **rst** *number*

| | |
|---|---|
| Synopsis | Suspend time for TCP connection ports closed by RST |
| Context | **configure** service nat firewall-policy *external-named-item* timeouts tcp rst *number* |
| Tree | rst |
| Description | This command configures the suspend time for outside TCP ports that are used in translations for TCP connections, when they are closed by TCP Reset (RST). After the timer expires, the outside ports can be reused for new TCP translations. |
| Range | 0 to 240 |
| Units | seconds |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **syn** *number*

| | |
|---|---|
| Synopsis | TCP session timeout when synchronizing initial sequence |
| Context | **configure** service nat firewall-policy *external-named-item* timeouts tcp syn *number* |
| Tree | syn |
| Range | 6 to 86400 |
| Units | seconds |
| Default | 15 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **time-wait** *number*

| | |
|---|---|
| Synopsis | Timeout applied to a TCP session in the time-wait state |
| Context | **configure** service nat firewall-policy *external-named-item* timeouts tcp time-wait *number* |
| Tree | time-wait |
| Range | 0 to 240 |
| Units | seconds |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **transitory** *number*

| | |
|---|---|
| Synopsis | Idle timeout for TCP session in transitory state |
| Context | **configure** service nat firewall-policy *external-named-item* timeouts tcp transitory *number* |
| Tree | transitory |
| Range | 60 to 86400 |
| Units | seconds |
| Default | 240 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **udp**

| | |
|---|---|
| Synopsis | Enter the **udp** context |
| Context | **configure** service nat firewall-policy *external-named-item* timeouts udp |
| Tree | udp |
| Description | Commands in this context configure the User Datagram Protocol (UDP) mapping timeout attributes. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **dns** *number*

| | |
|---|---|
| Synopsis | Timeout applied to UDP session with destination port 53 |


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| | |
|---|---|
| Context | **configure** service nat firewall-policy *external-named-item* timeouts udp dns *number* |
| Tree | dns |
| Range | 15 to 86400 |
| Units | seconds |
| Default | 15 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **initial** *number*

| | |
|---|---|
| Synopsis | UDP mapping timeout applied to new sessions |
| Context | **configure** service nat firewall-policy *external-named-item* timeouts udp initial *number* |
| Tree | initial |
| Range | 10 to 300 |
| Units | seconds |
| Default | 15 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **normal** *number*

| | |
|---|---|
| Synopsis | UDP mapping timeout |
| Context | **configure** service nat firewall-policy *external-named-item* timeouts udp normal *number* |
| Tree | normal |
| Range | 60 to 86400 |
| Units | seconds |
| Default | 300 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **unknown-protocol** *number*

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.


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| | |
|---|---|
| Synopsis | Timeout for flows with an unknown protocol |
| Context | **configure** service nat firewall-policy *external-named-item* timeouts unknown-protocol *number* |
| Tree | unknown-protocol |
| Range | 60 to 86400 |
| Units | seconds |
| Default | 300 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## udp

| | |
|---|---|
| Synopsis | Enter the **udp** context |
| Context | **configure** service nat firewall-policy *external-named-item* udp |
| Tree | udp |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## inbound-refresh *boolean*

| | |
|---|---|
| Synopsis | Extend UDP session timeout on inbound traffic |
| Context | **configure** service nat firewall-policy *external-named-item* udp inbound-refresh *boolean* |
| Tree | inbound-refresh |
| Description | When configured to **true**, this command extends the UDP session timeout on inbound traffic.<br>When configured to **false**, the UDP session timeout is not extended. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## unknown-protocols

| | |
|---|---|
| Synopsis | Enter the **unknown-protocols** context |
| Context | **configure** service nat firewall-policy *external-named-item* unknown-protocols |
| Tree | unknown-protocols |


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| | |
|---|---|
| Description | Commands in this context configure the treatment of flows of unknown Layer 4 protocols that cannot be natively handled by the system. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## all

| | |
|---|---|
| Synopsis | Allow all protocols to create unknown flows |
| Context | **configure** service nat firewall-policy *external-named-item* unknown-protocols all |
| Tree | all |
| Description | This command specifies that all protocols are permitted to create unknown flows. Protocol or IPv6 extension header values that are explicitly supported by SR OS are not treated as unknown protocols. |
| Notes | The following elements are part of a choice: **all** or **protocol**. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## protocol *number*

| | |
|---|---|
| Synopsis | IANA number of protocol allowed to create unknown flow |
| Context | **configure** service nat firewall-policy *external-named-item* unknown-protocols protocol *number* |
| Tree | protocol |
| Description | This command specifies the Internet Assigned Numbers Authority (IANA) number of a protocol that is permitted to create unknown flows. Protocol or IPv6 extension header values that are explicitly supported by SR OS can be configured but are not treated as unknown protocols. |
| Range | 0 to 255 |
| Max. instances | 8 |
| Notes | The following elements are part of a choice: **all** or **protocol**. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## map-t

| | |
|---|---|
| Synopsis | Enter the **map-t** context |


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| | |
|---|---|
| Context | **configure** service nat map-t |
| Tree | map-t |
| Description | Commands in this context create a MAP domain template, which defines MAP rules and options specific to the MAP domain. A MAP domain represents a set of CEs that share the same default gateway (Border Relay (BR) IPv6 prefix - DMR rule) and a set of basic MAP rules (BMRs). As a bordering node between the IPv6 and IPv4 realm, the BR performs stateless IPv4 and IPv6 translation based on MAP rules.<br>A MAP domain can be instantiated within a routing context by referencing an existing MAP domain template. |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s, VSR |

## **domain** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **domain** list instance |
| Context | **configure** service nat map-t domain *named-item* |
| Tree | domain |
| Description | Commands in this context configure MAP rules and options for this MAP-T domain.<br>A MAP-T domain represents a set of CEs that share the same default gateway (Border Relay (BR) IPv6 prefix - DMR rule) and a set of basic MAP rules (BMRs). As a bordering node between the IPv6 and IPv4 realm, the BR performs stateless IPv4 and IPv6 translation based on MAP rules.<br>A MAP-T domain can be instantiated within a routing context by referencing an existing MAP-T domain profile within this routing context. |
| Max. instances | 63 |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s, VSR |

## [**name**] *named-item*

| | |
|---|---|
| Synopsis | MAP domain name |
| Context | **configure** service nat map-t domain *named-item* |
| Tree | domain |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s, VSR |


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## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the MAP-T domain |
| Context | **configure** service nat map-t domain *named-item* admin-state *keyword* |
| Tree | admin-state |
| Description | This command configures the administrative state of the MAP-T domain.<br>A MAP-T domain can be administratively enabled only when the DMR prefix is configured. Disabling an instantiated domain withdraws all routes associated with it. |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s, VSR |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service nat map-t domain *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s, VSR |

## **dmr-prefix** *ipv6-prefix*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Default mapping rule prefix |
| Context | **configure** service nat map-t domain *named-item* dmr-prefix *ipv6-prefix* |
| Tree | dmr-prefix |
| Description | This command configures the IPv6 prefix (**dmr-prefix**) of the Border Relay (BR) that is used as a default map rule (route) in the CEs.<br>Each MAP domain in the SR has a unique **dmr-prefix**. |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s, VSR |


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## **fpe** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | FPE and domain association |
| Context | **configure** service nat map-t domain *named-item* fpe *reference* |
| Tree | fpe |
| Description | This command configures the association between the FPE and the domain. |
| Reference | **configure** fwd-path-ext fpe *number* |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s |

## **ip-fragmentation**

| | |
|---|---|
| Synopsis | Enter the **ip-fragmentation** context |
| Context | **configure** service nat map-t domain *named-item* ip-fragmentation |
| Tree | ip-fragmentation |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s, VSR |

## **v6-frag-header** *boolean*

| | |
|---|---|
| Synopsis | Enable insertion of fragmentation header in IPv6 packet |
| Context | **configure** service nat map-t domain *named-item* ip-fragmentation v6-frag-header *boolean* |
| Tree | v6-frag-header |
| Description | When configured to **true**, this command enables the insertion of the fragmentation header in an IPv6 packet when translating non-fragmented IPv4 packets with DF=0.<br>When configured to **false**, this command disables the insertion of the fragmentation header in an IPv6 packet. The size of the IPv6 packet is reduced by 8 bytes. |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s, VSR |


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### **map-t-group** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | MAP-T group with domain association |
| Context | **configure** service nat map-t domain *named-item* map-t-group *reference* |
| Tree | map-t-group |
| Reference | **configure** isa map-t-group *number* |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s |

### **mapping-rule** [rule-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **mapping-rule** list instance |
| Context | **configure** service nat map-t domain *named-item* mapping-rule *named-item* |
| Tree | mapping-rule |
| Description | Commands in this context configure MAP-T rules. |
| Max. instances | 16383 |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s, VSR |

### [**rule-name**] *named-item*

| | |
|---|---|
| Synopsis | Mapping rule name |
| Context | **configure** service nat map-t domain *named-item* mapping-rule *named-item* |
| Tree | mapping-rule |
| Description | This command configures a mapping rule name.<br>The name has a local significance. |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s, VSR |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the MAP-T rule |
| Context | **configure** service nat map-t domain *named-item* mapping-rule *named-item* admin-state *keyword* |
| Tree | admin-state |
| Description | This command configures the administrative state of the MAP-T rule.<br>A MAP-T rule can be enabled only when all the options within the rule are defined. Disabling a rule within an instantiated MAP domain withdraws the IPv4 routes and disables forwarding for the rule. |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service nat map-t domain *named-item* mapping-rule *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s, VSR |

### **ea-length** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Embedded address bits of the rule |
| Context | **configure** service nat map-t domain *named-item* mapping-rule *named-item* ea-length *number* |
| Tree | ea-length |
| Description | This command configures the length of the embedded address (EA) bits in the MAP rule. |


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| | |
|---|---|
| Range | 0 to 48 |
| Default | 0 |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s, VSR |

## **ipv4-prefix** *ipv4-prefix*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IPv4 prefix of the mapping rule |
| Context | **configure** service nat map-t domain *named-item* mapping-rule *named-item* ipv4-prefix *ipv4-prefix* |
| Tree | ipv4-prefix |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s, VSR |

## **psid-offset** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | PSID offset |
| Context | **configure** service nat map-t domain *named-item* mapping-rule *named-item* psid-offset *number* |
| Tree | psid-offset |
| Description | This command configures the starting bit position of the port set ID (PSID) field within the IPv6 address. |
| Range | 0 to 16 |
| Default | 6 |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s, VSR |


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## **rule-prefix** *ipv6-prefix*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | MAP-T rule prefix |
| Context | **configure** service nat map-t domain *named-item* mapping-rule *named-item* rule-prefix *ipv6-prefix* |
| Tree | rule-prefix |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s, VSR |

## **statistics-collection** *boolean*

| | |
|---|---|
| Synopsis | Enable statistics collection |
| Context | **configure** service nat map-t domain *named-item* mapping-rule *named-item* statistics-collection *boolean* |
| Tree | statistics-collection |
| Description | When configured to **true**, the router collects detailed statistics for the MAP-T rule. This command must be configured for each rule for which detailed statistics tracking is required.<br>This command must be set to **true** for each rule requiring detailed statistics tracking. |
| Default | false |
| Introduced | 24.7.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s, VSR |

## **mtu** *number*

| | |
|---|---|
| Synopsis | IPv6 MTU for the domain |
| Context | **configure** service nat map-t domain *named-item* mtu *number* |
| Tree | mtu |
| Description | This command configures the IPv6 MTU of the translated packet in a MAP domain. The configured MTU applies to traffic in the downstream direction, toward the CE. The configured MTU value must be lower than the MTU of the outgoing port for the traffic, which includes Layer 2 overhead. |
| Range | 160 to 8686 |
| Default | 8686 |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s, VSR |

### **tcp-mss-adjust** *number*

| | |
|---|---|
| Synopsis | TCP maximum segment size |
| Context | **configure** service nat map-t domain *named-item* tcp-mss-adjust *number* |
| Tree | tcp-mss-adjust |
| Description | This command configures the TCP maximum segment size (MSS) adjustments in a MAP domain. The TCP SYN and SYN-ACK packets are intercepted in both directions, and if their MSS value is larger than the one configured using this command, the MSS value in the packet is rewritten (lowered) to the configured value. The end hosts use the lowest setting of the two hosts. The MSS value does not account for the IP or TCP header length.<br>If the MSS value in the SYN or SYN-ACK is not found, a new value is added and set to the configured value. |
| Range | 0 \| 160 to 8626 |
| Default | 0 |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s, VSR |

### **nat-policy** [name] *external-named-item*

| | |
|---|---|
| Synopsis | Enter the **nat-policy** list instance |
| Context | **configure** service nat nat-policy *external-named-item* |
| Tree | nat-policy |
| Max. instances | 4096 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *external-named-item*

| | |
|---|---|
| Synopsis | NAT policy name |
| Context | **configure** service nat nat-policy *external-named-item* |
| Tree | nat-policy |
| String length | 1 to 32 |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## alg

| | |
|---|---|
| Synopsis | Enter the **alg** context |
| Context | **configure** service nat nat-policy *external-named-item* alg |
| Tree | alg |
| Description | Commands in this context configure the Application Layer Gateway (ALG) attributes of the policy. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## ftp *boolean*

| | |
|---|---|
| Synopsis | Use FTP ALG for the policy |
| Context | **configure** service nat nat-policy *external-named-item* alg ftp *boolean* |
| Tree | ftp |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## pptp *boolean*

| | |
|---|---|
| Synopsis | Use PPTP ALG for the policy |
| Context | **configure** service nat nat-policy *external-named-item* alg pptp *boolean* |
| Tree | pptp |
| Description | When configured to **true**, the policy uses Point-to-Point Tunneling Protocol (PPTP) ALG.<br>PPTP sessions can only be initiated from NAT inside.<br>GRE traffic is allowed through NAT only if the corresponding mapping exists.<br>There can be seven calls (GRE tunnels) per control session.<br>When configured to **false**, PPTP ALG is not used. |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **rtsp** *boolean*

| | |
|---|---|
| Synopsis | Use RTSP ALG for the policy |
| Context | **configure** service nat nat-policy *external-named-item* alg rtsp *boolean* |
| Tree | rtsp |
| Description | When configured to **true**, Real-Time Streaming Protocol (RTSP) ALG is used for the policy. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **sip** *boolean*

| | |
|---|---|
| Synopsis | Use SIP ALG for the policy |
| Context | **configure** service nat nat-policy *external-named-item* alg sip *boolean* |
| Tree | sip |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **block-limit** *number*

| | |
|---|---|
| Synopsis | Maximum number of port blocks per subscriber |
| Context | **configure** service nat nat-policy *external-named-item* block-limit *number* |
| Tree | block-limit |
| Range | 1 to 40 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service nat nat-policy *external-named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **dnat**

| | |
|---|---|
| Synopsis | Enter the **dnat** context |
| Context | **configure** service nat nat-policy *external-named-item* dnat |
| Tree | dnat |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **classifier** *reference*

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

| | |
|---|---|
| Synopsis | NAT classifier |
| Context | **configure** service nat nat-policy *external-named-item* dnat classifier *reference* |
| Tree | classifier |
| Description | When configured within the NAT policy, this command references a NAT classifier that activates DNAT functionality. The configuration uses a filter-like approach to identify the traffic that is subjected to DNAT. It is required for translation of the destination IP address. |
| Reference | **configure** service nat classifier *named-item* |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **dnat-only**

| | |
|---|---|
| Synopsis | Enable the **dnat-only** context |


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| | |
|---|---|
| Context | **configure** service nat nat-policy *external-named-item* dnat-only |
| Tree | dnat-only |
| Description | Commands in this context configure the attributes of DNAT-only. When DNAT-only is configured, no source or port NAT (SNAPT) is performed. Only the destination IP address (going from inside to outside) is translated; the source IP address and port are not translated. |
| Notes | The following elements are part of a choice: **dnat-only**, **l2-outside**, or **pool**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **nat-group** *reference*

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | NAT group |
| Context | **configure** service nat nat-policy *external-named-item* dnat-only nat-group *reference* |
| Tree | nat-group |
| Description | This command configures the NAT group in which DNAT translation takes place for the outside routing context. |
| Reference | **configure** isa nat-group *number* |
| Notes | The following elements are part of a mandatory choice: **nat-group** or **wlan-gw-group**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **router-instance** *string*

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

| | |
|---|---|
| Synopsis | Router name or VPRN service name |
| Context | **configure** service nat nat-policy *external-named-item* dnat-only router-instance *string* |
| Tree | router-instance |


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| | |
|---|---|
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **wlan-gw-group** *reference*

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | WLAN GW group used for NAT |
| Context | **configure** service nat nat-policy *external-named-item* dnat-only wlan-gw-group *reference* |
| Tree | wlan-gw-group |
| Description | This command configures the NAT WLAN Gateway (GW) group in which DNAT translation takes place for the outside routing context. |
| Reference | **configure** isa wlan-gw-group *number* |
| Notes | The following elements are part of a mandatory choice: **nat-group** or **wlan-gw-group**. |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **filtering** *keyword*

| | |
|---|---|
| Synopsis | Filtering method for inbound traffic for the policy |
| Context | **configure** service nat nat-policy *external-named-item* filtering *keyword* |
| Tree | filtering |
| Options | endpoint-independent, address-and-port-dependent |
| Default | endpoint-independent |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **flow-log-policy**

| | |
|---|---|
| Synopsis | Enter the **flow-log-policy** context |


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| | |
|---|---|
| Context | **configure** service nat nat-policy *external-named-item* flow-log-policy |
| Tree | flow-log-policy |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **ipfix** *reference*

| | |
|---|---|
| Synopsis | IPFIX export policy |
| Context | **configure** service nat nat-policy *external-named-item* flow-log-policy ipfix *reference* |
| Tree | ipfix |
| Description | This command specifies an IP flow information export policy for the flow-log policy. |
| Reference | **configure** service ipfix export-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **syslog** *reference*

| | |
|---|---|
| Synopsis | Syslog export policy name |
| Context | **configure** service nat nat-policy *external-named-item* flow-log-policy syslog *reference* |
| Tree | syslog |
| Description | This command configures a syslog export policy with a set of transport parameters used to transmit NAT flow records in syslog format to an external collector node. The policy name is referenced from the NAT policy applied to an inside routing context. |
| Reference | **configure** service nat syslog export-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **l2-outside**

| | |
|---|---|
| Synopsis | Use Layer 2 outside service address location |
| Context | **configure** service nat nat-policy *external-named-item* l2-outside |
| Tree | l2-outside |
| Description | This command specifies Layer 2 outside service address location for the NAT policy instead of Layer 3 outside service. |
| Notes | The following elements are part of a choice: **dnat-only**, **l2-outside**, or **pool**. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## pool

| | |
|---|---|
| Synopsis | Enter the **pool** context |
| Context | **configure** service nat nat-policy *external-named-item* pool |
| Tree | pool |
| Notes | The following elements are part of a choice: **dnat-only**, **l2-outside**, or **pool**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## name *named-item*

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

| | |
|---|---|
| Synopsis | NAT pool name |
| Context | **configure** service nat nat-policy *external-named-item* pool name *named-item* |
| Tree | name |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## router-instance *string*

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

| | |
|---|---|
| Synopsis | Router or VPRN service name |
| Context | **configure** service nat nat-policy *external-named-item* pool router-instance *string* |
| Tree | router-instance |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **port-forwarding-range-end** *number*

| | |
|---|---|
| Synopsis | End of the port forwarding range |
| Context | **configure** service nat nat-policy *external-named-item* port-forwarding-range-end *number* |
| Tree | port-forwarding-range-end |
| Description | This command specifies the end of the port range available for port forwarding. The start of the range is always equal to one.<br>The number of ports that can be configured is half of the available block => 64512 / 2 = 32256. In combination with the configured value for **port-forwarding-range-end**, the formulas are:<br>max port-reservation blocks = 65535 - port-forwarding-range-end<br>max port-reservation ports = (65535 - port-forwarding-range-end) / 2<br>If **port-reservation** is already configured, the following applies for the maximum port-forwarding-range-end:<br>max port-forwarding-range-end = 65535 - port-reservation blocksmax port-forwarding-range-end = 65535 - (port-reservation ports * 2) |
| Range | 1023 to 65535 |
| Default | 1023 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **port-limits**

| | |
|---|---|
| Synopsis | Enter the **port-limits** context |
| Context | **configure** service nat nat-policy *external-named-item* port-limits |
| Tree | port-limits |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **dynamic-ports** *number*

| | |
|---|---|
| Synopsis | Maximum number of dynamic ports per subscriber |
| Context | **configure** service nat nat-policy *external-named-item* port-limits dynamic-ports *number* |
| Tree | dynamic-ports |


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| | |
|---|---|
| Description | This command limits the number of ports per protocol on an outside IP address for a subscriber regardless of the pool pairing mode. This command applies to LSN44 pools with flexible port allocation. |
| Range | 1 to 65536 |
| Default | 65536 |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **forwarding** *number*

| | |
|---|---|
| Synopsis | Maximum number of port forwarding entries |
| Context | **configure** service nat nat-policy *external-named-item* port-limits forwarding *number* |
| Tree | forwarding |
| Range | 1 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **reserved** *number*

| | |
|---|---|
| Synopsis | Number of ports reserved for prioritized sessions |
| Context | **configure** service nat nat-policy *external-named-item* port-limits reserved *number* |
| Tree | reserved |
| Description | This command configures the number of ports per block that are reserved for prioritized sessions. |
| Range | 1 to 65534 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **watermarks**

| | |
|---|---|
| Synopsis | Enable the **watermarks** context |
| Context | **configure** service nat nat-policy *external-named-item* port-limits watermarks |
| Tree | watermarks |
| Description | This command configures watermarks for NAT resources. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **high** *number*

| | |
|---|---|
| Synopsis | High watermark percentage |
| Context | **configure** service nat nat-policy *external-named-item* port-limits watermarks high *number* |
| Tree | high |
| Description | This command configures the high threshold value as a percentage of the total port-block space in a NAT pool. |
| Range | 0 to 100 |
| Units | percent |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **low** *number*

| | |
|---|---|
| Synopsis | Low watermark percentage |
| Context | **configure** service nat nat-policy *external-named-item* port-limits watermarks low *number* |
| Tree | low |
| Description | This command configures the low threshold value as a percentage of the total port-block space in a NAT pool. |
| Range | 0 to 100 |
| Units | percent |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **priority-sessions**

| | |
|---|---|
| Synopsis | Enter the **priority-sessions** context |
| Context | **configure** service nat nat-policy *external-named-item* priority-sessions |
| Tree | priority-sessions |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## fc

| | |
|---|---|
| Synopsis | Enter the **fc** context |
| Context | **configure** service nat nat-policy *external-named-item* priority-sessions fc |
| Tree | fc |
| Description | Commands in this context specify which Forwarding Class (FC) options have prioritized sessions. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **af** *boolean*

| | |
|---|---|
| Synopsis | Prioritize traffic from AF forwarding classes |
| Context | **configure** service nat nat-policy *external-named-item* priority-sessions fc af *boolean* |
| Tree | af |
| Description | When configured to **true**, traffic from Assured Forwarding (AF) FC sessions is prioritized. When configured to **false**, AF traffic is not prioritized. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **be** *boolean*

| | |
|---|---|
| Synopsis | Prioritize traffic from BE forwarding classes |
| Context | **configure** service nat nat-policy *external-named-item* priority-sessions fc be *boolean* |
| Tree | be |
| Description | When configured to **true**, traffic from Best Effort (BE) FC sessions is prioritized. When configured to **false**, BE traffic is not prioritized. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **ef** *boolean*

| | |
|---|---|
| Synopsis | Prioritize traffic from EF forwarding classes |
| Context | **configure** service nat nat-policy *external-named-item* priority-sessions fc ef *boolean* |
| Tree | ef |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **h1** *boolean*

| | |
|---|---|
| Synopsis | Prioritize traffic from H1 forwarding classes |
| Context | **configure** service nat nat-policy *external-named-item* priority-sessions fc h1 *boolean* |
| Tree | h1 |
| Description | When configured to **true**, traffic from H1 sessions is prioritized. When configured to false, H1 traffic is not prioritized. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **h2** *boolean*

| | |
|---|---|
| Synopsis | Prioritize traffic from H2 forwarding classes |
| Context | **configure** service nat nat-policy *external-named-item* priority-sessions fc h2 *boolean* |
| Tree | h2 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **l1** *boolean*

| | |
|---|---|
| Synopsis | Prioritize traffic from L1 forwarding classes |
| Context | **configure** service nat nat-policy *external-named-item* priority-sessions fc l1 *boolean* |
| Tree | l1 |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **l2** *boolean*

| | |
|---|---|
| Synopsis | Prioritize traffic from L2 forwarding classes |
| Context | **configure** service nat nat-policy *external-named-item* priority-sessions fc l2 *boolean* |
| Tree | l2 |
| Description | When configured to **true**, traffic from L2 sessions is prioritized. When configured to false, L2 traffic is not prioritized. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **nc** *boolean*

| | |
|---|---|
| Synopsis | Prioritize traffic from NC forwarding classes |
| Context | **configure** service nat nat-policy *external-named-item* priority-sessions fc nc *boolean* |
| Tree | nc |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **session-limits**

| | |
|---|---|
| Synopsis | Enter the **session-limits** context |
| Context | **configure** service nat nat-policy *external-named-item* session-limits |
| Tree | session-limits |
| Description | Commands in this context configure session-limit attributes for the policy. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **max** *number*

| | |
|---|---|
| Synopsis | Maximum number of sessions per subscriber |


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| | |
|---|---|
| Context | **configure** service nat nat-policy *external-named-item* session-limits max *number* |
| Tree | max |
| Range | 1 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **reserved** *number*

| | |
|---|---|
| Synopsis | Number of sessions reserved for prioritized sessions |
| Context | **configure** service nat nat-policy *external-named-item* session-limits reserved *number* |
| Tree | reserved |
| Description | This command configures the number of sessions per block that are reserved for prioritized sessions. |
| Range | 1 to 65534 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **watermarks**

| | |
|---|---|
| Synopsis | Enable the **watermarks** context |
| Context | **configure** service nat nat-policy *external-named-item* session-limits watermarks |
| Tree | watermarks |
| Description | This command configures watermarks for NAT resources. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **high** *number*

| | |
|---|---|
| Synopsis | High watermark percentage |
| Context | **configure** service nat nat-policy *external-named-item* session-limits watermarks high *number* |
| Tree | high |
| Description | This command configures the high threshold value as a percentage of the total port-block space in a NAT pool. |
| Range | 0 to 100 |
| Units | percent |


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| | |
|---|---|
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **low** *number*

| | |
|---|---|
| Synopsis | Low watermark percentage |
| Context | **configure** service nat nat-policy *external-named-item* session-limits watermarks low *number* |
| Tree | low |
| Description | This command configures the low threshold value as a percentage of the total port-block space in a NAT pool. |
| Range | 0 to 100 |
| Units | percent |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **tcp**

| | |
|---|---|
| Synopsis | Enter the **tcp** context |
| Context | **configure** service nat nat-policy *external-named-item* tcp |
| Tree | tcp |
| Description | Commands in this context configure the transmission control protocol (TCP) attributes of the policy. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **mss-adjust** *number*

| | |
|---|---|
| Synopsis | TCP MSS adjustment value |
| Context | **configure** service nat nat-policy *external-named-item* tcp mss-adjust *number* |
| Tree | mss-adjust |
| Description | This command configures the value to use to adjust the TCP Maximum Segment Size (MSS) option, if not already present or the present value is higher. |
| Range | 160 to 10240 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **reset-unknown** *boolean*

| | |
|---|---|
| Synopsis | Generate TCP reset for packets from unknown flows |
| Context | **configure** service nat nat-policy *external-named-item* tcp reset-unknown *boolean* |
| Tree | reset-unknown |
| Description | When configured to **true**, TCP packets are dropped and a TCP reset is generated if the NAT inside receives a TCP packet without the SYN flag set for an unknown flow.<br>When configured to **false**, no TCP reset is generated. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **timeouts**

| | |
|---|---|
| Synopsis | Enter the **timeouts** context |
| Context | **configure** service nat nat-policy *external-named-item* timeouts |
| Tree | timeouts |
| Description | Commands in this context configure the attributes of session idle timeouts for the policy. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **icmp-query** *number*

| | |
|---|---|
| Synopsis | Timeout applied to an ICMP Query session |
| Context | **configure** service nat nat-policy *external-named-item* timeouts icmp-query *number* |
| Tree | icmp-query |
| Range | 60 to 240 |
| Units | seconds |
| Default | 60 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **sip** *number*

| | |
|---|---|
| Synopsis | SIP inactive media timeout |
| Context | **configure** service nat nat-policy *external-named-item* timeouts sip *number* |
| Tree | sip |
| Range | 10 to 7200 |
| Units | seconds |
| Default | 120 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **subscriber-retention** *number*

| | |
|---|---|
| Synopsis | IP address hold time after host and port blocks expire |
| Context | **configure** service nat nat-policy *external-named-item* timeouts subscriber-retention *number* |
| Tree | subscriber-retention |
| Description | This command configures the time to keep a NAT subscriber and its associated IP address after all hosts and associated port blocks expire. If a NAT subscriber host appears before the retention timeout elapses, it is given the same outside IP address. |
| Range | 0 to 1440 |
| Units | minutes |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **tcp**

| | |
|---|---|
| Synopsis | Enter the **tcp** context |
| Context | **configure** service nat nat-policy *external-named-item* timeouts tcp |
| Tree | tcp |
| Description | Commands in this context configure TCP timeout attributes. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **established** *number*

| | |
|---|---|
| Synopsis | Idle timeout for TCP session in established state |
| Context | **configure** service nat nat-policy *external-named-item* timeouts tcp established *number* |
| Tree | established |
| Range | 60 to 86400 |
| Units | seconds |
| Default | 7440 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **rst** *number*

| | |
|---|---|
| Synopsis | Suspend time for TCP connection ports closed by RST |
| Context | **configure** service nat nat-policy *external-named-item* timeouts tcp rst *number* |
| Tree | rst |
| Description | This command configures the suspend time for outside TCP ports that are used in translations for TCP connections, when they are closed by TCP Reset (RST). After the timer expires, the outside ports can be reused for new TCP translations. |
| Range | 0 to 240 |
| Units | seconds |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **syn** *number*

| | |
|---|---|
| Synopsis | TCP session timeout when synchronizing initial sequence |
| Context | **configure** service nat nat-policy *external-named-item* timeouts tcp syn *number* |
| Tree | syn |
| Range | 6 to 86400 |
| Units | seconds |
| Default | 15 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **time-wait** *number*

| | |
|---|---|
| Synopsis | Timeout applied to a TCP session in the time-wait state |
| Context | **configure** service nat nat-policy *external-named-item* timeouts tcp time-wait *number* |
| Tree | time-wait |
| Range | 0 to 240 |
| Units | seconds |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **transitory** *number*

| | |
|---|---|
| Synopsis | Idle timeout for TCP session in transitory state |
| Context | **configure** service nat nat-policy *external-named-item* timeouts tcp transitory *number* |
| Tree | transitory |
| Range | 60 to 86400 |
| Units | seconds |
| Default | 240 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **udp**

| | |
|---|---|
| Synopsis | Enter the **udp** context |
| Context | **configure** service nat nat-policy *external-named-item* timeouts udp |
| Tree | udp |
| Description | Commands in this context configure the User Datagram Protocol (UDP) mapping timeout attributes. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **dns** *number*

| | |
|---|---|
| Synopsis | Timeout applied to UDP session with destination port 53 |


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| | |
|---|---|
| Context | **configure** service nat nat-policy *external-named-item* timeouts udp dns *number* |
| Tree | dns |
| Range | 15 to 86400 |
| Units | seconds |
| Default | 15 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **initial** *number*

| | |
|---|---|
| Synopsis | UDP mapping timeout applied to new sessions |
| Context | **configure** service nat nat-policy *external-named-item* timeouts udp initial *number* |
| Tree | initial |
| Range | 10 to 300 |
| Units | seconds |
| Default | 15 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **normal** *number*

| | |
|---|---|
| Synopsis | UDP mapping timeout |
| Context | **configure** service nat nat-policy *external-named-item* timeouts udp normal *number* |
| Tree | normal |
| Range | 60 to 86400 |
| Units | seconds |
| Default | 300 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **udp**

| | |
|---|---|
| Synopsis | Enter the **udp** context |
| Context | **configure** service nat nat-policy *external-named-item* udp |
| Tree | udp |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **inbound-refresh** *boolean*

| | |
|---|---|
| Synopsis | Extend UDP session timeout on inbound traffic |
| Context | **configure** service nat nat-policy *external-named-item* udp inbound-refresh *boolean* |
| Tree | inbound-refresh |
| Description | When configured to **true**, this command extends the UDP session timeout on inbound traffic.<br>When configured to **false**, the UDP session timeout is not extended. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **pcp-server-policy** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **pcp-server-policy** list instance |
| Context | **configure** service nat pcp-server-policy *named-item* |
| Tree | pcp-server-policy |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | PCP server policy name |
| Context | **configure** service nat pcp-server-policy *named-item* |
| Tree | pcp-server-policy |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service nat pcp-server-policy *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **lifetime**

| | |
|---|---|
| Synopsis | Enter the **lifetime** context |
| Context | **configure** service nat pcp-server-policy *named-item* lifetime |
| Tree | lifetime |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **maximum** *number*

| | |
|---|---|
| Synopsis | Maximum lifetime of explicit mappings made by the PCP servers |
| Context | **configure** service nat pcp-server-policy *named-item* lifetime maximum *number* |
| Tree | maximum |
| Range | 61 to 86400 |
| Default | 86400 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **minimum** *number*

| | |
|---|---|
| Synopsis | Minimum lifetime of explicit mappings made by the PCP servers |
| Context | **configure** service nat pcp-server-policy *named-item* lifetime minimum *number* |
| Tree | minimum |
| Range | 60 to 86399 |
| Default | 120 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **max-description-size** *number*

| | |
|---|---|
| Synopsis | Maximum length of mapping descriptions made by the PCP servers |
| Context | **configure** service nat pcp-server-policy *named-item* max-description-size *number* |
| Tree | max-description-size |
| Range | 1 to 64 |
| Default | 64 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **opcode**

| | |
|---|---|
| Synopsis | Enter the **opcode** context |
| Context | **configure** service nat pcp-server-policy *named-item* opcode |
| Tree | opcode |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **announce** *boolean*

| | |
|---|---|
| Synopsis | Process the announce PCP requests |
| Context | **configure** service nat pcp-server-policy *named-item* opcode announce *boolean* |
| Tree | announce |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **get** *boolean*

| | |
|---|---|
| Synopsis | Process the get PCP requests |
| Context | **configure** service nat pcp-server-policy *named-item* opcode get *boolean* |
| Tree | get |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **map** *boolean*

| | |
|---|---|
| Synopsis | Process the map PCP requests |
| Context | **configure** service nat pcp-server-policy *named-item* opcode map *boolean* |
| Tree | map |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **option**

| | |
|---|---|
| Synopsis | Enter the **option** context |
| Context | **configure** service nat pcp-server-policy *named-item* option |
| Tree | option |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *boolean*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service nat pcp-server-policy *named-item* option description *boolean* |
| Tree | description |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **next** *boolean*

| | |
|---|---|
| Synopsis | Process the PCP requests that contain the next option |
| Context | **configure** service nat pcp-server-policy *named-item* option next *boolean* |
| Tree | next |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **port-reservation** *boolean*

| | |
|---|---|
| Synopsis | Process the PCP requests that contain the prefer failure option |
| Context | **configure** service nat pcp-server-policy *named-item* option port-reservation *boolean* |
| Tree | port-reservation |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **port-set** *boolean*

| | |
|---|---|
| Synopsis | Support the PORT_SET option in PCP MAP requests |
| Context | **configure** service nat pcp-server-policy *named-item* option port-set *boolean* |
| Tree | port-set |
| Description | When configured to **true**, the PCP MAP option optimizes PCP performance for applications that require multiple sets of port forwards. A range of consecutive port forwards can be requested by the PCP client with a single PCP request.<br>When configured to **false**, the default behavior is applied, where a plain MAP option is used to allocate a single port in a single request. |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **prefer-failure** *boolean*

| | |
|---|---|
| Synopsis | Process the PCP requests that contain the port reservation option |
| Context | **configure** service nat pcp-server-policy *named-item* option prefer-failure *boolean* |
| Tree | prefer-failure |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **third-party** *boolean*

| | |
|---|---|
| Synopsis | Process the PCP requests that contain the third party option |
| Context | **configure** service nat pcp-server-policy *named-item* option third-party *boolean* |
| Tree | third-party |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **reuse-external-ip-address** *boolean*

| | |
|---|---|
| Synopsis | Reuse external IP address for NAT subscriber |
| Context | **configure** service nat pcp-server-policy *named-item* reuse-external-ip-address *boolean* |
| Tree | reuse-external-ip-address |
| Description | When configured to **true**, the system reuses the external IP address assigned to a subscriber when the requested well-known port or external IP mapping is not available.<br>When configured to **false**, a request for a well-known port is allocated as requested on a different external IP address if the port is already allocated to another subscriber sharing the same external IP address. The existing external IP address is initially allocated to the subscriber as a result of the initial traffic flow.<br>This configuration flag can be set dynamically but the flag affects only PCP port forwards that are created after the flag has been set. |
| Default | false |
| Introduced | 19.10.R3 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **version**

| | |
|---|---|
| Synopsis | Enter the **version** context |
| Context | **configure** service nat pcp-server-policy *named-item* version |
| Tree | version |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **maximum** *number*

| | |
|---|---|
| Synopsis | Maximum protocol version supported by the PCP servers |


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| | |
|---|---|
| Context | **configure** service nat pcp-server-policy *named-item* version maximum *number* |
| Tree | maximum |
| Range | 1 to 255 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **minimum** *number*

| | |
|---|---|
| Synopsis | Minimum protocol version supported by the PCP servers |
| Context | **configure** service nat pcp-server-policy *named-item* version minimum *number* |
| Tree | minimum |
| Range | 1 to 255 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **prefix-list** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **prefix-list** list instance |
| Context | **configure** service nat prefix-list *named-item* |
| Tree | prefix-list |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | NAT prefix list name |
| Context | **configure** service nat prefix-list *named-item* |
| Tree | prefix-list |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **application** *keyword*

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Prefix list for the application |
| Context | **configure** service nat prefix-list *named-item* application *keyword* |
| Tree | application |
| Options | l2-aware-dest-to-policy, dnat-only-subscribers |
| Default | l2-aware-dest-to-policy |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **prefix** [ip-prefix] *ipv4-prefix*

| | |
|---|---|
| Synopsis | Enter the **prefix** list instance |
| Context | **configure** service nat prefix-list *named-item* prefix *ipv4-prefix* |
| Tree | prefix |
| Max. instances | 1024 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## [**ip-prefix**] *ipv4-prefix*

| | |
|---|---|
| Synopsis | NAT prefix |
| Context | **configure** service nat prefix-list *named-item* prefix *ipv4-prefix* |
| Tree | prefix |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **nat-policy** *reference*

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | NAT policy for LSN |
| Context | **configure** service nat prefix-list *named-item* prefix *ipv4-prefix* nat-policy *reference* |
| Tree | nat-policy |
| Reference | **configure** service nat nat-policy *external-named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **syslog**

| | |
|---|---|
| Synopsis | Enter the **syslog** context |
| Context | **configure** service nat syslog |
| Tree | syslog |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **export-policy** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **export-policy** list instance |
| Context | **configure** service nat syslog export-policy *named-item* |
| Tree | export-policy |
| Max. instances | 8 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## [**name**] *named-item*

| | |
|---|---|
| Synopsis | Syslog export policy name |


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| | |
|---|---|
| Context | **configure** service nat syslog export-policy *named-item* |
| Tree | export-policy |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **collector** router-instance *string* ip-address *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Enter the **collector** list instance |
| Context | **configure** service nat syslog export-policy *named-item* collector router-instance *string* ip-address *ipv4-unicast-address* |
| Tree | collector |
| Max. instances | 2 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **router-instance** *string*

| | |
|---|---|
| Synopsis | Router instance |
| Context | **configure** service nat syslog export-policy *named-item* collector router-instance *string* ip-address *ipv4-unicast-address* |
| Tree | collector |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ip-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IPv4 address of the external collector node |
| Context | **configure** service nat syslog export-policy *named-item* collector router-instance *string* ip-address *ipv4-unicast-address* |
| Tree | collector |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the collector node |
| Context | **configure** service nat syslog export-policy *named-item* collector router-instance *string* ip-address *ipv4-unicast-address* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **destination-port** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Destination port |
| Context | **configure** service nat syslog export-policy *named-item* collector router-instance *string* ip-address *ipv4-unicast-address* destination-port *number* |
| Tree | destination-port |
| Range | 1 to 65535 |
| Default | 514 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ipv4-source-address** *ipv4-unicast-address*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IPv4 source address |
| Context | **configure** service nat syslog export-policy *named-item* collector router-instance *string* ip-address *ipv4-unicast-address* ipv4-source-address *ipv4-unicast-address* |
| Tree | ipv4-source-address |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service nat syslog export-policy *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **facility** *keyword*

| | |
|---|---|
| Synopsis | Facility number in the PRI part of the NAT SYSLOG messages |
| Context | **configure** service nat syslog export-policy *named-item* facility *keyword* |
| Tree | facility |
| Options | kernel, user, mail, systemd, auth, syslogd, printer, netnews, uucp, cron, authpriv, ftp, ntp, logaudit, logalert, cron2, local0, local1, local2, local3, local4, local5, local6, local7 |
| Default | local0 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **include**

| | |
|---|---|
| Synopsis | Enter the **include** context |
| Context | **configure** service nat syslog export-policy *named-item* include |
| Tree | include |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **destination-ip** *boolean*

| | |
|---|---|
| Synopsis | Include the translated destination IP address |
| Context | **configure** service nat syslog export-policy *named-item* include destination-ip *boolean* |
| Tree | destination-ip |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **foreign-ip** *boolean*

| | |
|---|---|
| Synopsis | Include the original destination IPv4 address |
| Context | **configure** service nat syslog export-policy *named-item* include foreign-ip *boolean* |
| Tree | foreign-ip |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **foreign-port** *boolean*

| | |
|---|---|
| Synopsis | Include the original destination port |
| Context | **configure** service nat syslog export-policy *named-item* include foreign-port *boolean* |
| Tree | foreign-port |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **nat-policy-name** *boolean*

| | |
|---|---|
| Synopsis | Include the NAT policy name in the flow log |
| Context | **configure** service nat syslog export-policy *named-item* include nat-policy-name *boolean* |
| Tree | nat-policy-name |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **sub-id** *boolean*

| | |
|---|---|
| Synopsis | Subscriber ID in subscriber aware NAT |
| Context | **configure** service nat syslog export-policy *named-item* include sub-id *boolean* |


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| | |
|---|---|
| Tree | sub-id |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **log-prefix** *named-item*

| | |
|---|---|
| Synopsis | Optional prefix text in the MSG part of the NAT syslog messages |
| Context | **configure** service nat syslog export-policy *named-item* log-prefix *named-item* |
| Tree | log-prefix |
| String length | 1 to 32 |
| Default | TMNX |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **max-tx-delay** *number*

| | |
|---|---|
| Synopsis | Maximum time a syslog message delays in the output buffer to aggregate multiple events |
| Context | **configure** service nat syslog export-policy *named-item* max-tx-delay *number* |
| Tree | max-tx-delay |
| Range | 0 to 100 |
| Units | deciseconds |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **mtu** *number*

| | |
|---|---|
| Synopsis | Maximum transmission unit |
| Context | **configure** service nat syslog export-policy *named-item* mtu *number* |
| Tree | mtu |
| Range | 512 to 9000 |
| Default | 1500 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **rate-limit** *number*

| | |
|---|---|
| Synopsis | Frame limit |
| Context | **configure** service nat syslog export-policy *named-item* rate-limit *number* |
| Tree | rate-limit |
| Range | 10 to 2147483647 |
| Units | packets per second |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **severity-level** *keyword*

| | |
|---|---|
| Synopsis | Severity level in the PRI part of the syslog messages |
| Context | **configure** service nat syslog export-policy *named-item* severity-level *keyword* |
| Tree | severity-level |
| Options | emergency, alert, critical, error, warning, notice, info, debug |
| Default | info |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **up-nat-policy** [name] *external-named-item*

| | |
|---|---|
| Synopsis | Enter the **up-nat-policy** list instance |
| Context | **configure** service nat up-nat-policy *external-named-item* |
| Tree | up-nat-policy |
| Max. instances | 32 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *external-named-item*

| | |
|---|---|
| Synopsis | UP NAT policy name |
| Context | **configure** service nat up-nat-policy *external-named-item* |


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| | |
|---|---|
| Tree | up-nat-policy |
| Description | This command specifies the UP NAT policy name. The name default has a special meaning representing the default UP NAT policy template. The system uses the default template when the BNG CPF does not receive a more specific name when the subscriber is instantiated. |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## alg

| | |
|---|---|
| Synopsis | Enter the **alg** context |
| Context | **configure** service nat up-nat-policy *external-named-item* alg |
| Tree | alg |
| Description | Commands in this context configure the Application Layer Gateway (ALG) attributes of the policy. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **ftp** *boolean*

| | |
|---|---|
| Synopsis | Use FTP ALG for the policy |
| Context | **configure** service nat up-nat-policy *external-named-item* alg ftp *boolean* |
| Tree | ftp |
| Default | true |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **pptp** *boolean*

| | |
|---|---|
| Synopsis | Use PPTP ALG for the policy |
| Context | **configure** service nat up-nat-policy *external-named-item* alg pptp *boolean* |
| Tree | pptp |
| Description | When configured to **true**, the policy uses Point-to-Point Tunneling Protocol (PPTP) ALG. |


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PPTP sessions can only be initiated from NAT inside.

GRE traffic is allowed through NAT only if the corresponding mapping exists.

There can be seven calls (GRE tunnels) per control session.

When configured to **false**, PPTP ALG is not used.

| | |
|---|---|
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **rtsp** *boolean*

| | |
|---|---|
| Synopsis | Use RTSP ALG for the policy |
| Context | **configure** service nat up-nat-policy *external-named-item* alg rtsp *boolean* |
| Tree | rtsp |
| Description | When configured to **true**, Real-Time Streaming Protocol (RTSP) ALG is used for the policy. |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **sip** *boolean*

| | |
|---|---|
| Synopsis | Use SIP ALG for the policy |
| Context | **configure** service nat up-nat-policy *external-named-item* alg sip *boolean* |
| Tree | sip |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **block-limit** *number*

| | |
|---|---|
| Synopsis | Maximum number of port blocks per NAT subscriber |
| Context | **configure** service nat up-nat-policy *external-named-item* block-limit *number* |
| Tree | block-limit |
| Range | 1 to 10 |
| Default | 1 |


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| | |
|---|---|
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## default-host

| | |
|---|---|
| Synopsis | Enable the **default-host** context |
| Context | **configure** service nat up-nat-policy *external-named-item* default-host |
| Tree | default-host |
| Description | Commands in this context configure the default DMZ host options. A default DMZ host is a node on the inside to which all unknown traffic is redirected by changing the destination IPv4 address in the traffic header. During this operation, the checksums in the Layer 3 and Layer 4 header (UDP and TCP) are recalculated.<br>Unknown traffic in NAT represent all unmatched traffic arriving from the outside (where there is no pinhole or a matching flow record created by traffic initiated from the inside). The purpose of the default DMZ host is to capture and analyze the unknown traffic as part of threat analysis.<br>The rate of redirected unknown traffic can be restricted by configuration. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## inside-router-instance *string*

| | |
|---|---|
| Synopsis | Router instance of the DMZ |
| Context | **configure** service nat up-nat-policy *external-named-item* default-host inside-router-instance *string* |
| Tree | inside-router-instance |
| Description | This command configures the router instance on the inside where the default DMZ host resides. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## ip-address *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IP address of the default DMZ host |
| Context | **configure** service nat up-nat-policy *external-named-item* default-host ip-address *ipv4-unicast-address* |
| Tree | ip-address |


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| | |
|---|---|
| Description | This command configures the IP address of the default DMZ host. Redirection to the default DMZ host is achieved by replacing the destination IP address in the traffic header in the unknown traffic initiated from the outside with the one of the default DMZ host. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **rate-limit** *number*

| | |
|---|---|
| Synopsis | Rate limit for unknown traffic sent to default DMZ host |
| Context | **configure** service nat up-nat-policy *external-named-item* default-host rate-limit *number* |
| Tree | rate-limit |
| Description | This command configures the rate limit of the unknown traffic sent to the default DMZ host.<br>Unknown traffic sent to the default DMZ host is rate limited by a configurable value expressed in mbps. The rate limit is configurable per NAT pool per ISA, vISA, or ESA-VM. |
| Range | 1 to 10000 |
| Units | megabps |
| Default | 10 |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service nat up-nat-policy *external-named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **filtering** *keyword*

| | |
|---|---|
| Synopsis | Filtering method for inbound traffic for the policy |
| Context | **configure** service nat up-nat-policy *external-named-item* filtering *keyword* |
| Tree | filtering |


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| | |
|---|---|
| Options | endpoint-independent, address-and-port-dependent |
| Default | endpoint-independent |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## flow-log-policy

| | |
|---|---|
| Synopsis | Enter the **flow-log-policy** context |
| Context | **configure** service nat up-nat-policy *external-named-item* flow-log-policy |
| Tree | flow-log-policy |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## ipfix *reference*

| | |
|---|---|
| Synopsis | IPFIX export policy |
| Context | **configure** service nat up-nat-policy *external-named-item* flow-log-policy ipfix *reference* |
| Tree | ipfix |
| Description | This command specifies an IP flow information export policy for the flow-log policy. |
| Reference | **configure** service ipfix export-policy *named-item* |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## icmp-echo-reply *boolean*

| | |
|---|---|
| Synopsis | Enable replies to ICMP Echo Request messages |
| Context | **configure** service nat up-nat-policy *external-named-item* icmp-echo-reply *boolean* |
| Tree | icmp-echo-reply |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## port-block-extension

| | |
|---|---|
| Synopsis | Enable the **port-block-extension** context |


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| | |
|---|---|
| Context | **configure** service nat up-nat-policy *external-named-item* port-block-extension |
| Tree | port-block-extension |
| Description | Commands in this context configure the attributes for dynamic allocation of NAT port-blocks beyond the initial port-blocks. |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **ports** *number*

| | |
|---|---|
| Synopsis | Number of ports per dynamic port block |
| Context | **configure** service nat up-nat-policy *external-named-item* port-block-extension ports *number* |
| Tree | ports |
| Range | 10 to 5000 |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **watermarks**

| | |
|---|---|
| Synopsis | Enable the **watermarks** context |
| Context | **configure** service nat up-nat-policy *external-named-item* port-block-extension watermarks |
| Tree | watermarks |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **high** *number*

| | |
|---|---|
| Synopsis | High watermark percentage |
| Context | **configure** service nat up-nat-policy *external-named-item* port-block-extension watermarks high *number* |
| Tree | high |
| Description | This command configures the high threshold value as a percentage of the total port-block space in a NAT pool. |
| Range | 0 to 100 |


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| | |
|---|---|
| Units | percent |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **low** *number*

| | |
|---|---|
| Synopsis | Low watermark percentage |
| Context | **configure** service nat up-nat-policy *external-named-item* port-block-extension watermarks low *number* |
| Tree | low |
| Description | This command configures the low threshold value as a percentage of the total port-block space in a NAT pool. |
| Range | 0 to 100 |
| Units | percent |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **port-limits**

| | |
|---|---|
| Synopsis | Enter the **port-limits** context |
| Context | **configure** service nat up-nat-policy *external-named-item* port-limits |
| Tree | port-limits |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **dynamic-ports** *number*

| | |
|---|---|
| Synopsis | Maximum number of dynamic ports per subscriber |
| Context | **configure** service nat up-nat-policy *external-named-item* port-limits dynamic-ports *number* |
| Tree | dynamic-ports |
| Description | This command limits the number of ports per protocol on an outside IP address for a subscriber regardless of the pool pairing mode. This command applies to LSN44 pools with flexible port allocation. |


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| | |
|---|---|
| Range | 1 to 65536 |
| Default | 65536 |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **reserved** *number*

| | |
|---|---|
| Synopsis | Number of ports reserved for prioritized sessions |
| Context | **configure** service nat up-nat-policy *external-named-item* port-limits reserved *number* |
| Tree | reserved |
| Description | This command configures the number of ports per block that are reserved for prioritized sessions. |
| Range | 1 to 65534 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **watermarks**

| | |
|---|---|
| Synopsis | Enable the **watermarks** context |
| Context | **configure** service nat up-nat-policy *external-named-item* port-limits watermarks |
| Tree | watermarks |
| Description | This command configures watermarks for NAT resources. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **high** *number*

| | |
|---|---|
| Synopsis | High watermark percentage |
| Context | **configure** service nat up-nat-policy *external-named-item* port-limits watermarks high *number* |
| Tree | high |
| Description | This command configures the high threshold value as a percentage of the total port-block space in a NAT pool. |
| Range | 0 to 100 |
| Units | percent |


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| | |
|---|---|
| Notes | This element is mandatory. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **low** *number*

| | |
|---|---|
| Synopsis | Low watermark percentage |
| Context | **configure** service nat up-nat-policy *external-named-item* port-limits watermarks low *number* |
| Tree | low |
| Description | This command configures the low threshold value as a percentage of the total port-block space in a NAT pool. |
| Range | 0 to 100 |
| Units | percent |
| Notes | This element is mandatory. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **priority-sessions**

| | |
|---|---|
| Synopsis | Enter the **priority-sessions** context |
| Context | **configure** service nat up-nat-policy *external-named-item* priority-sessions |
| Tree | priority-sessions |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **fc**

| | |
|---|---|
| Synopsis | Enter the **fc** context |
| Context | **configure** service nat up-nat-policy *external-named-item* priority-sessions fc |
| Tree | fc |
| Description | Commands in this context specify which Forwarding Class (FC) options have prioritized sessions. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **af** *boolean*

| | |
|---|---|
| Synopsis | Prioritize traffic from AF forwarding classes |
| Context | **configure** service nat up-nat-policy *external-named-item* priority-sessions fc af *boolean* |
| Tree | af |
| Description | When configured to **true**, traffic from Assured Forwarding (AF) FC sessions is prioritized. When configured to **false**, AF traffic is not prioritized. |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **be** *boolean*

| | |
|---|---|
| Synopsis | Prioritize traffic from BE forwarding classes |
| Context | **configure** service nat up-nat-policy *external-named-item* priority-sessions fc be *boolean* |
| Tree | be |
| Description | When configured to **true**, traffic from Best Effort (BE) FC sessions is prioritized. When configured to **false**, BE traffic is not prioritized. |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ef** *boolean*

| | |
|---|---|
| Synopsis | Prioritize traffic from EF forwarding classes |
| Context | **configure** service nat up-nat-policy *external-named-item* priority-sessions fc ef *boolean* |
| Tree | ef |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **h1** *boolean*

| | |
|---|---|
| Synopsis | Prioritize traffic from H1 forwarding classes |
| Context | **configure** service nat up-nat-policy *external-named-item* priority-sessions fc h1 *boolean* |


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| | |
|---|---|
| Tree | h1 |
| Description | When configured to **true**, traffic from H1 sessions is prioritized. When configured to false, H1 traffic is not prioritized. |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **h2** *boolean*

| | |
|---|---|
| Synopsis | Prioritize traffic from H2 forwarding classes |
| Context | **configure** service nat up-nat-policy *external-named-item* priority-sessions fc h2 *boolean* |
| Tree | h2 |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **l1** *boolean*

| | |
|---|---|
| Synopsis | Prioritize traffic from L1 forwarding classes |
| Context | **configure** service nat up-nat-policy *external-named-item* priority-sessions fc l1 *boolean* |
| Tree | l1 |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **l2** *boolean*

| | |
|---|---|
| Synopsis | Prioritize traffic from L2 forwarding classes |
| Context | **configure** service nat up-nat-policy *external-named-item* priority-sessions fc l2 *boolean* |
| Tree | l2 |
| Description | When configured to **true**, traffic from L2 sessions is prioritized. When configured to false, L2 traffic is not prioritized. |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **nc** *boolean*

| | |
|---|---|
| Synopsis | Prioritize traffic from NC forwarding classes |
| Context | **configure** service nat up-nat-policy *external-named-item* priority-sessions fc nc *boolean* |
| Tree | nc |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **session-limits**

| | |
|---|---|
| Synopsis | Enter the **session-limits** context |
| Context | **configure** service nat up-nat-policy *external-named-item* session-limits |
| Tree | session-limits |
| Description | Commands in this context configure session-limit attributes for the policy. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **max** *number*

| | |
|---|---|
| Synopsis | Maximum number of sessions per subscriber |
| Context | **configure** service nat up-nat-policy *external-named-item* session-limits max *number* |
| Tree | max |
| Range | 1 to 65535 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **reserved** *number*

| | |
|---|---|
| Synopsis | Number of sessions reserved for prioritized sessions |
| Context | **configure** service nat up-nat-policy *external-named-item* session-limits reserved *number* |
| Tree | reserved |
| Description | This command configures the number of sessions per block that are reserved for prioritized sessions. |


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| | |
|---|---|
| Range | 1 to 65534 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## watermarks

| | |
|---|---|
| Synopsis | Enable the **watermarks** context |
| Context | **configure** service nat up-nat-policy *external-named-item* session-limits watermarks |
| Tree | watermarks |
| Description | This command configures watermarks for NAT resources. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## high *number*

| | |
|---|---|
| Synopsis | High watermark percentage |
| Context | **configure** service nat up-nat-policy *external-named-item* session-limits watermarks high *number* |
| Tree | high |
| Description | This command configures the high threshold value as a percentage of the total port-block space in a NAT pool. |
| Range | 0 to 100 |
| Units | percent |
| Notes | This element is mandatory. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## low *number*

| | |
|---|---|
| Synopsis | Low watermark percentage |
| Context | **configure** service nat up-nat-policy *external-named-item* session-limits watermarks low *number* |
| Tree | low |
| Description | This command configures the low threshold value as a percentage of the total port-block space in a NAT pool. |
| Range | 0 to 100 |


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| | |
|---|---|
| Units | percent |
| Notes | This element is mandatory. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## tcp

| | |
|---|---|
| Synopsis | Enter the **tcp** context |
| Context | **configure** service nat up-nat-policy *external-named-item* tcp |
| Tree | tcp |
| Description | Commands in this context configure the transmission control protocol (TCP) attributes of the policy. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## mss-adjust *number*

| | |
|---|---|
| Synopsis | TCP MSS adjustment value |
| Context | **configure** service nat up-nat-policy *external-named-item* tcp mss-adjust *number* |
| Tree | mss-adjust |
| Description | This command configures the value to use to adjust the TCP Maximum Segment Size (MSS) option, if not already present or the present value is higher. |
| Range | 160 to 10240 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## reset-unknown *boolean*

| | |
|---|---|
| Synopsis | Generate TCP reset for packets from unknown flows |
| Context | **configure** service nat up-nat-policy *external-named-item* tcp reset-unknown *boolean* |
| Tree | reset-unknown |
| Description | When configured to **true**, TCP packets are dropped and a TCP reset is generated if the NAT inside receives a TCP packet without the SYN flag set for an unknown flow.<br>When configured to **false**, no TCP reset is generated. |
| Default | false |
| Introduced | 20.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## timeouts

| | |
|---|---|
| Synopsis | Enter the **timeouts** context |
| Context | **configure** service nat up-nat-policy *external-named-item* timeouts |
| Tree | timeouts |
| Description | Commands in this context configure the attributes of session idle timeouts for the policy. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## icmp-query *number*

| | |
|---|---|
| Synopsis | Timeout applied to an ICMP Query session |
| Context | **configure** service nat up-nat-policy *external-named-item* timeouts icmp-query *number* |
| Tree | icmp-query |
| Range | 60 to 240 |
| Units | seconds |
| Default | 60 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## sip *number*

| | |
|---|---|
| Synopsis | SIP inactive media timeout |
| Context | **configure** service nat up-nat-policy *external-named-item* timeouts sip *number* |
| Tree | sip |
| Range | 10 to 7200 |
| Units | seconds |
| Default | 120 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **subscriber-retention** *number*

| | |
|---|---|
| Synopsis | IP address hold time after host and port blocks expire |
| Context | **configure** service nat up-nat-policy *external-named-item* timeouts subscriber-retention *number* |
| Tree | subscriber-retention |
| Description | This command configures the time to keep a NAT subscriber and its associated IP address after all hosts and associated port blocks expire. If a NAT subscriber host appears before the retention timeout elapses, it is given the same outside IP address. |
| Range | 0 to 1440 |
| Units | minutes |
| Default | 0 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **tcp**

| | |
|---|---|
| Synopsis | Enter the **tcp** context |
| Context | **configure** service nat up-nat-policy *external-named-item* timeouts tcp |
| Tree | tcp |
| Description | Commands in this context configure TCP timeout attributes. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **established** *number*

| | |
|---|---|
| Synopsis | Idle timeout for TCP session in established state |
| Context | **configure** service nat up-nat-policy *external-named-item* timeouts tcp established *number* |
| Tree | established |
| Range | 60 to 86400 |
| Units | seconds |
| Default | 7440 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **rst** *number*

| | |
|---|---|
| Synopsis | Suspend time for TCP connection ports closed by RST |
| Context | **configure** service nat up-nat-policy *external-named-item* timeouts tcp rst *number* |
| Tree | rst |
| Description | This command configures the suspend time for outside TCP ports that are used in translations for TCP connections, when they are closed by TCP Reset (RST). After the timer expires, the outside ports can be reused for new TCP translations. |
| Range | 0 to 240 |
| Units | seconds |
| Default | 0 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **syn** *number*

| | |
|---|---|
| Synopsis | TCP session timeout when synchronizing initial sequence |
| Context | **configure** service nat up-nat-policy *external-named-item* timeouts tcp syn *number* |
| Tree | syn |
| Range | 6 to 86400 |
| Units | seconds |
| Default | 15 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **time-wait** *number*

| | |
|---|---|
| Synopsis | Timeout applied to a TCP session in the time-wait state |
| Context | **configure** service nat up-nat-policy *external-named-item* timeouts tcp time-wait *number* |
| Tree | time-wait |
| Range | 0 to 240 |
| Units | seconds |
| Default | 0 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **transitory** *number*

| | |
|---|---|
| Synopsis | Idle timeout for TCP session in transitory state |
| Context | **configure** service nat up-nat-policy *external-named-item* timeouts tcp transitory *number* |
| Tree | transitory |
| Range | 60 to 86400 |
| Units | seconds |
| Default | 240 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **udp**

| | |
|---|---|
| Synopsis | Enter the **udp** context |
| Context | **configure** service nat up-nat-policy *external-named-item* timeouts udp |
| Tree | udp |
| Description | Commands in this context configure the User Datagram Protocol (UDP) mapping timeout attributes. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **dns** *number*

| | |
|---|---|
| Synopsis | Timeout applied to UDP session with destination port 53 |
| Context | **configure** service nat up-nat-policy *external-named-item* timeouts udp dns *number* |
| Tree | dns |
| Range | 15 to 86400 |
| Units | seconds |
| Default | 15 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **initial** *number*

| | |
|---|---|
| Synopsis | UDP mapping timeout applied to new sessions |


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| | |
|---|---|
| Context | **configure** service nat up-nat-policy *external-named-item* timeouts udp initial *number* |
| Tree | initial |
| Range | 10 to 300 |
| Units | seconds |
| Default | 15 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **normal** *number*

| | |
|---|---|
| Synopsis | UDP mapping timeout |
| Context | **configure** service nat up-nat-policy *external-named-item* timeouts udp normal *number* |
| Tree | normal |
| Range | 60 to 86400 |
| Units | seconds |
| Default | 300 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **udp**

| | |
|---|---|
| Synopsis | Enter the **udp** context |
| Context | **configure** service nat up-nat-policy *external-named-item* udp |
| Tree | udp |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **inbound-refresh** *boolean*

| | |
|---|---|
| Synopsis | Extend UDP session timeout on inbound traffic |
| Context | **configure** service nat up-nat-policy *external-named-item* udp inbound-refresh *boolean* |
| Tree | inbound-refresh |
| Description | When configured to **true**, this command extends the UDP session timeout on inbound traffic.<br>When configured to **false**, the UDP session timeout is not extended. |


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| | |
|---|---|
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **oper-group** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **oper-group** list instance |
| Context | **configure** service oper-group *named-item* |
| Tree | oper-group |
| Max. instances | 32768 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | Operational group name |
| Context | **configure** service oper-group *named-item* |
| Tree | oper-group |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bfd-liveness**

| | |
|---|---|
| Synopsis | Enable the **bfd-liveness** context |
| Context | **configure** service oper-group *named-item* bfd-liveness |
| Tree | bfd-liveness |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **dest-ip** *ipv4-unicast-address*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Destination address for BFD |
| Context | **configure** service oper-group *named-item* bfd-liveness dest-ip *ipv4-unicast-address* |
| Tree | dest-ip |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **interface-name** *interface-name*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Source interface name |
| Context | **configure** service oper-group *named-item* bfd-liveness interface-name *interface-name* |
| Tree | interface-name |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **router-instance** *string*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Routing context used for route lookup |
| Context | **configure** service oper-group *named-item* bfd-liveness router-instance *string* |
| Tree | router-instance |
| Notes | This element is mandatory. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## hold-time

| | |
|---|---|
| Synopsis | Enter the **hold-time** context |
| Context | **configure** service oper-group *named-item* hold-time |
| Tree | hold-time |
| Introduced | 16.0.R1 |
| Platforms | All |

## down *number*

| | |
|---|---|
| Synopsis | Oper group hold down time |
| Context | **configure** service oper-group *named-item* hold-time down *number* |
| Tree | down |
| Range | 1 to 3600 |
| Units | seconds |
| Introduced | 16.0.R3 |
| Platforms | All |

## up *number*

| | |
|---|---|
| Synopsis | Oper group hold up time |
| Context | **configure** service oper-group *named-item* hold-time up *number* |
| Tree | up |
| Range | 0 to 3600 |
| Units | seconds |
| Default | 4 |
| Introduced | 16.0.R3 |
| Platforms | All |

## pbb

| | |
|---|---|
| Synopsis | Enter the **pbb** context |


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| | |
|---|---|
| Context | **configure** service pbb |
| Tree | pbb |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mac** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **mac** list instance |
| Context | **configure** service pbb mac *named-item* |
| Tree | mac |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | MAC name for the MAC address |
| Context | **configure** service pbb mac *named-item* |
| Tree | mac |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **address** *mac-unicast-address-no-zero*

| | |
|---|---|
| Synopsis | IEEE address assigned to the MAC name |
| Context | **configure** service pbb mac *named-item* address *mac-unicast-address-no-zero* |
| Tree | address |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mac-notification**

| | |
|---|---|
| Synopsis | Enter the **mac-notification** context |


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| | |
|---|---|
| Context | **configure** service pbb mac-notification |
| Tree | mac-notification |
| Introduced | 16.0.R1 |
| Platforms | All |

### **count** *number*

| | |
|---|---|
| Synopsis | MAC notification messages count |
| Context | **configure** service pbb mac-notification count *number* |
| Tree | count |
| Range | 1 to 10 |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **interval** *number*

| | |
|---|---|
| Synopsis | Interval for MAC-notification messages |
| Context | **configure** service pbb mac-notification interval *number* |
| Tree | interval |
| Range | 1 to 100 |
| Units | deciseconds |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **source-bmac**

| | |
|---|---|
| Synopsis | Enter the **source-bmac** context |
| Context | **configure** service pbb source-bmac |
| Tree | source-bmac |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **address** *mac-unicast-address-no-zero*

| | |
|---|---|
| Synopsis | Source B-VPLS MAC address to use with PBB |
| Context | **configure** service pbb source-bmac address *mac-unicast-address-no-zero* |
| Tree | address |
| Introduced | 16.0.R1 |
| Platforms | All |

### **evpn-etree-leaf-address** *mac-unicast-address-no-zero*

| | |
|---|---|
| Synopsis | Source Backbone VPLS MAC address to use with Provider Backbone Bridging (PBB) |
| Context | **configure** service pbb source-bmac evpn-etree-leaf-address *mac-unicast-address-no-zero* |
| Tree | evpn-etree-leaf-address |
| Introduced | 16.0.R1 |
| Platforms | All |

### **proxy-arp-nd**

| | |
|---|---|
| Synopsis | Enter the **proxy-arp-nd** context |
| Context | **configure** service proxy-arp-nd |
| Tree | proxy-arp-nd |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mac-list**

| | |
|---|---|
| Synopsis | Enter the **mac-list** context |
| Context | **configure** service proxy-arp-nd mac-list |
| Tree | mac-list |
| Introduced | 16.0.R1 |
| Platforms | All |

### **list** [list-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **list** list instance |


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| | |
|---|---|
| Context | **configure** service proxy-arp-nd mac-list list *named-item* |
| Tree | list |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**list-name**] *named-item*

| | |
|---|---|
| Synopsis | Specify name for mac list |
| Context | **configure** service proxy-arp-nd mac-list list *named-item* |
| Tree | list |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mac** [address] *mac-unicast-address-no-zero*

| | |
|---|---|
| Synopsis | Add a list entry for **mac** |
| Context | **configure** service proxy-arp-nd mac-list list *named-item* mac *mac-unicast-address-no-zero* |
| Tree | mac |
| Max. instances | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**address**] *mac-unicast-address-no-zero*

| | |
|---|---|
| Synopsis | MAC address to be added to the list |
| Context | **configure** service proxy-arp-nd mac-list list *named-item* mac *mac-unicast-address-no-zero* |
| Tree | mac |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **pw-template** [pw-template-name] *pw-template-name*

| | |
|---|---|
| Synopsis | Enter the **pw-template** list instance |
| Context | **configure** service pw-template *pw-template-name* |
| Tree | pw-template |
| Max. instances | 2048 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**pw-template-name**] *pw-template-name*

| | |
|---|---|
| Synopsis | SDP template name |
| Context | **configure** service pw-template *pw-template-name* |
| Tree | pw-template |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **accounting-policy** *number*

| | |
|---|---|
| Synopsis | Accounting policy |
| Context | **configure** service pw-template *pw-template-name* accounting-policy *number* |
| Tree | accounting-policy |
| Range | 1 to 99 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **allow-fragmentation** *boolean*

| | |
|---|---|
| Synopsis | Allow packets to be sent without setting DF bit |
| Context | **configure** service pw-template *pw-template-name* allow-fragmentation *boolean* |
| Tree | allow-fragmentation |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## **auto-gre-sdp** *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Use a GRE tunnel to automatically create an SDP |
| Context | **configure** service pw-template *pw-template-name* auto-gre-sdp *boolean* |
| Tree | auto-gre-sdp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **block-on-peer-fault** *boolean*

| | |
|---|---|
| Synopsis | Enable block traffic on peer fault |
| Context | **configure** service pw-template *pw-template-name* block-on-peer-fault *boolean* |
| Tree | block-on-peer-fault |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **collect-stats** *boolean*

| | |
|---|---|
| Synopsis | Collect statistics |
| Context | **configure** service pw-template *pw-template-name* collect-stats *boolean* |
| Tree | collect-stats |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **control-word** *boolean*

| | |
|---|---|
| Synopsis | Enable/Disable the use of ControlWord |
| Context | **configure** service pw-template *pw-template-name* control-word *boolean* |
| Tree | control-word |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **egress**

| | |
|---|---|
| Synopsis | Enter the **egress** context |
| Context | **configure** service pw-template *pw-template-name* egress |
| Tree | egress |
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter**

| | |
|---|---|
| Synopsis | Enter the **filter** context |
| Context | **configure** service pw-template *pw-template-name* egress filter |
| Tree | filter |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ip** *named-item-64*

| | |
|---|---|
| Synopsis | IPv4 filter policy name |
| Context | **configure** service pw-template *pw-template-name* egress filter ip *named-item-64* |
| Tree | ip |
| String length | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **ipv6** *named-item-64*

| | |
|---|---|
| Synopsis | IPv6 filter policy name |
| Context | **configure** service pw-template *pw-template-name* egress filter ipv6 *named-item-64* |
| Tree | ipv6 |
| String length | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mac** *named-item-64*

| | |
|---|---|
| Synopsis | MAC filter policy name |
| Context | **configure** service pw-template *pw-template-name* egress filter mac *named-item-64* |
| Tree | mac |
| String length | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mfib-allowed-mda-destinations**

| | |
|---|---|
| Synopsis | Enter the **mfib-allowed-mda-destinations** context |
| Context | **configure** service pw-template *pw-template-name* egress mfib-allowed-mda-destinations |
| Tree | mfib-allowed-mda-destinations |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mda** [mda-id] *slot-mda*

| | |
|---|---|
| Synopsis | Add a list entry for **mda** |
| Context | **configure** service pw-template *pw-template-name* egress mfib-allowed-mda-destinations mda *slot-mda* |
| Tree | mda |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**mda-id**] *slot-mda*

| | |
|---|---|
| Synopsis | MFIB allowed MDA destination |
| Context | **configure** service pw-template *pw-template-name* egress mfib-allowed-mda-destinations mda *slot-mda* |
| Tree | mda |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### qos

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** service pw-template *pw-template-name* egress qos |
| Tree | qos |
| Introduced | 16.0.R1 |
| Platforms | All |

### network

| | |
|---|---|
| Synopsis | Enter the **network** context |
| Context | **configure** service pw-template *pw-template-name* egress qos network |
| Tree | network |
| Introduced | 16.0.R1 |
| Platforms | All |

### **policy-name** *named-item-64*

| | |
|---|---|
| Synopsis | Network policy ID |
| Context | **configure** service pw-template *pw-template-name* egress qos network policy-name *named-item-64* |
| Tree | policy-name |
| String length | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | All |


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## port-redirect-group

| | |
|---|---|
| Synopsis | Enter the **port-redirect-group** context |
| Context | **configure** service pw-template *pw-template-name* egress qos network port-redirect-group |
| Tree | port-redirect-group |
| Introduced | 16.0.R1 |
| Platforms | All |

## group-name *named-item*

| | |
|---|---|
| Synopsis | Name of the egress port queue group template |
| Context | **configure** service pw-template *pw-template-name* egress qos network port-redirect-group group-name *named-item* |
| Tree | group-name |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | All |

## instance *number*

| | |
|---|---|
| Synopsis | Instance for FP ingress queue group |
| Context | **configure** service pw-template *pw-template-name* egress qos network port-redirect-group instance *number* |
| Tree | instance |
| Range | 1 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

## encryption-keygroup

| | |
|---|---|
| Synopsis | Enter the **encryption-keygroup** context |
| Context | **configure** service pw-template *pw-template-name* encryption-keygroup |
| Tree | encryption-keygroup |
| Introduced | 19.10.R1 |
| Platforms | VSR |


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### **inbound** *number*

| | |
|---|---|
| Synopsis | Keygroup identifier in the inbound direction |
| Context | **configure** service pw-template *pw-template-name* encryption-keygroup inbound *number* |
| Tree | inbound |
| Range | 1 to 127 |
| Introduced | 19.10.R1 |
| Platforms | VSR |

### **outbound** *number*

| | |
|---|---|
| Synopsis | Keygroup identifier in the outbound direction |
| Context | **configure** service pw-template *pw-template-name* encryption-keygroup outbound *number* |
| Tree | outbound |
| Range | 1 to 127 |
| Introduced | 19.10.R1 |
| Platforms | VSR |

### **entropy-label**

| | |
|---|---|
| Synopsis | Enable the use of an entropy label |
| Context | **configure** service pw-template *pw-template-name* entropy-label |
| Tree | entropy-label |
| Notes | The following elements are part of a choice: **entropy-label** or **hash-label**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **fdb**

| | |
|---|---|
| Synopsis | Enter the **fdb** context |
| Context | **configure** service pw-template *pw-template-name* fdb |
| Tree | fdb |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **auto-learn-mac-protect** *boolean*

| | |
|---|---|
| Synopsis | Enable automatic update of MAC protect list |
| Context | **configure** service pw-template *pw-template-name* fdb auto-learn-mac-protect *boolean* |
| Tree | auto-learn-mac-protect |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **auto-learn-mac-protect-exclude-list** *named-item*

| | |
|---|---|
| Synopsis | Name of the MAC protect exclusion list |
| Context | **configure** service pw-template *pw-template-name* fdb auto-learn-mac-protect-exclude-list *named-item* |
| Tree | auto-learn-mac-protect-exclude-list |
| Description | This command configures the name of a MAC protect exclusion list.<br>Dynamically-learned MAC Source Addresses (SA) are protected if they are learned on an object with ALMP configured and no exclusion list is associated with the object, or if the MAC SA does not match any entry in an associated exclusion list.<br>An exclusion list can be used in multiple objects of a service. If a list is empty, ALMP does not exclude any learned MAC SAs from protection on the object. |
| String length | 1 to 32 |
| Introduced | 20.5.R1 |
| Platforms | All |

### **discard-unknown-source** *boolean*

| | |
|---|---|
| Synopsis | Discard frames with unknown source |
| Context | **configure** service pw-template *pw-template-name* fdb discard-unknown-source *boolean* |
| Tree | discard-unknown-source |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **limit-mac-move** *keyword*

| | |
|---|---|
| Synopsis | MAC move limit |
| Context | **configure** service pw-template *pw-template-name* fdb limit-mac-move *keyword* |
| Tree | limit-mac-move |
| Options | blockable, non-blockable |
| Default | blockable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mac-learning**

| | |
|---|---|
| Synopsis | Enter the **mac-learning** context |
| Context | **configure** service pw-template *pw-template-name* fdb mac-learning |
| Tree | mac-learning |
| Introduced | 16.0.R1 |
| Platforms | All |

### **aging** *boolean*

| | |
|---|---|
| Synopsis | Enable aging of MAC addresses |
| Context | **configure** service pw-template *pw-template-name* fdb mac-learning aging *boolean* |
| Tree | aging |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **learning** *boolean*

| | |
|---|---|
| Synopsis | Enable learning of new MAC addresses |
| Context | **configure** service pw-template *pw-template-name* fdb mac-learning learning *boolean* |
| Tree | learning |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **mac-pinning** *boolean*

| | |
|---|---|
| Synopsis | Enable MAC address pinning on this spoke SDP |
| Context | **configure** service pw-template *pw-template-name* fdb mac-pinning *boolean* |
| Tree | mac-pinning |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **maximum-mac-addresses** *number*

| | |
|---|---|
| Synopsis | Maximum number of MAC address entries in the FDB |
| Context | **configure** service pw-template *pw-template-name* fdb maximum-mac-addresses *number* |
| Tree | maximum-mac-addresses |
| Description | This command specifies the maximum number of FDB entries for both learned and static MAC addresses for this PW template.<br>When the configured limit is reached, no new addresses are learned from the SAP or spoke SDP until at least one FDB entry is aged out or cleared.<br>When the configured limit is reached and the **configure service pw-template fdb discard-unknown-source** command is set to **true** for this PW template, packets with unknown source MAC addresses are discarded. If **discard-unknown-source** is set to **false**, the packets are forwarded if their destination MAC addresses are known, or flooded if their destination MAC addresses are unknown.<br>However, if the **configure service vpls fdb discard-unknown** command is set to **true**, packets with unknown destination MAC addresses are discarded, even if the limit of FDB entries on the specific VPLS instance is not reached.<br>When unconfigured, the PW template uses the global MAC learning limitations. |
| Range | 1 to 511999 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **protected-src-mac-violation-action** *keyword*

| | |
|---|---|
| Synopsis | Action for protected source MAC restriction |
| Context | **configure** service pw-template *pw-template-name* fdb protected-src-mac-violation-action *keyword* |
| Tree | protected-src-mac-violation-action |


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| | |
|---|---|
| Options | sdp-bind-oper-down, alarm-only, discard |
| Introduced | 16.0.R1 |
| Platforms | All |

## **force-vc-forwarding** *keyword*

| | |
|---|---|
| Synopsis | VC forwarding action |
| Context | **configure** service pw-template *pw-template-name* force-vc-forwarding *keyword* |
| Tree | force-vc-forwarding |
| Options | vlan, qinq-c-tag-c-tag, qinq-s-tag-c-tag |
| Introduced | 16.0.R1 |
| Platforms | All |

## **hash-label**

| | |
|---|---|
| Synopsis | Enable the **hash-label** context |
| Context | **configure** service pw-template *pw-template-name* hash-label |
| Tree | hash-label |
| Description | Commands in this context configure the use of hash labels for egress datapaths.<br>For information about hash-label handling, see the "Hash labels" section of the *7450 ESS, 7750 SR, 7950 XRS, and VSR MPLS Guide*. |
| Notes | The following elements are part of a choice: **entropy-label** or **hash-label**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **signal-capability**

| | |
|---|---|
| Synopsis | Signal hash label capability to the remote PE |
| Context | **configure** service pw-template *pw-template-name* hash-label signal-capability |
| Tree | signal-capability |
| Description | When configured, this command enables the signaling and negotiating of the hash label between the local and remote PE nodes.<br>The signaling process outcome determines whether the local PE inserts the hash label on the user packets. This outcome can override the local PE configuration. The node must withdraw the label it sent to its peer and send a new label mapping message with the new value of the F-bit in the flow label interface option sub-TLV of the pseudowire ID FEC element. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## igmp-snooping

| | |
|---|---|
| Synopsis | Enter the **igmp-snooping** context |
| Context | **configure** service pw-template *pw-template-name* igmp-snooping |
| Tree | igmp-snooping |
| Introduced | 16.0.R1 |
| Platforms | All |

## fast-leave *boolean*

| | |
|---|---|
| Synopsis | Allow IGMP fast leave processing |
| Context | **configure** service pw-template *pw-template-name* igmp-snooping fast-leave *boolean* |
| Tree | fast-leave |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## import-policy *named-item*

| | |
|---|---|
| Synopsis | Import policy that filters IGMP packets |
| Context | **configure** service pw-template *pw-template-name* igmp-snooping import-policy *named-item* |
| Tree | import-policy |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | All |

## maximum-number-groups *number*

| | |
|---|---|
| Synopsis | Maximum multicast groups |
| Context | **configure** service pw-template *pw-template-name* igmp-snooping maximum-number-groups *number* |
| Tree | maximum-number-groups |


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| | |
|---|---|
| Range | 1 to 1000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **query-interval** *number*

| | |
|---|---|
| Synopsis | Time between two consecutive host-query messages |
| Context | **configure** service pw-template *pw-template-name* igmp-snooping query-interval *number* |
| Tree | query-interval |
| Range | 2 to 1024 |
| Units | seconds |
| Default | 125 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **query-last-member-interval** *number*

| | |
|---|---|
| Synopsis | Time between group-specific query messages |
| Context | **configure** service pw-template *pw-template-name* igmp-snooping query-last-member-interval *number* |
| Tree | query-last-member-interval |
| Range | 1 to 50 |
| Units | deciseconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **query-response-interval** *number*

| | |
|---|---|
| Synopsis | Time to wait for a response to the host-query messages |
| Context | **configure** service pw-template *pw-template-name* igmp-snooping query-response-interval *number* |
| Tree | query-response-interval |
| Range | 1 to 1023 |
| Units | seconds |
| Default | 10 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **robust-count** *number*

| | |
|---|---|
| Synopsis | Number of retries after expected message loss |
| Context | **configure** service pw-template *pw-template-name* igmp-snooping robust-count *number* |
| Tree | robust-count |
| Range | 2 to 7 |
| Default | 2 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **send-queries** *boolean*

| | |
|---|---|
| Synopsis | Generate IGMP general queries |
| Context | **configure** service pw-template *pw-template-name* igmp-snooping send-queries *boolean* |
| Tree | send-queries |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **version** *keyword*

| | |
|---|---|
| Synopsis | IGMP version |
| Context | **configure** service pw-template *pw-template-name* igmp-snooping version *keyword* |
| Tree | version |
| Options | 1, 2, 3 |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ingress**

| | |
|---|---|
| Synopsis | Enter the **ingress** context |


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| | |
|---|---|
| Context | **configure** service pw-template *pw-template-name* ingress |
| Tree | ingress |
| Introduced | 16.0.R1 |
| Platforms | All |

### filter

| | |
|---|---|
| Synopsis | Enter the **filter** context |
| Context | **configure** service pw-template *pw-template-name* ingress filter |
| Tree | filter |
| Introduced | 16.0.R1 |
| Platforms | All |

### ip *named-item-64*

| | |
|---|---|
| Synopsis | IPv4 filter policy name |
| Context | **configure** service pw-template *pw-template-name* ingress filter ip *named-item-64* |
| Tree | ip |
| String length | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | All |

### ipv6 *named-item-64*

| | |
|---|---|
| Synopsis | IPv6 filter policy name |
| Context | **configure** service pw-template *pw-template-name* ingress filter ipv6 *named-item-64* |
| Tree | ipv6 |
| String length | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | All |

### mac *named-item-64*

| | |
|---|---|
| Synopsis | MAC filter policy name |
| Context | **configure** service pw-template *pw-template-name* ingress filter mac *named-item-64* |


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| | |
|---|---|
| Tree | mac |
| String length | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | All |

## qos

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** service pw-template *pw-template-name* ingress qos |
| Tree | qos |
| Introduced | 16.0.R1 |
| Platforms | All |

## network

| | |
|---|---|
| Synopsis | Enter the **network** context |
| Context | **configure** service pw-template *pw-template-name* ingress qos network |
| Tree | network |
| Introduced | 16.0.R1 |
| Platforms | All |

## fp-redirect-group

| | |
|---|---|
| Synopsis | Enter the **fp-redirect-group** context |
| Context | **configure** service pw-template *pw-template-name* ingress qos network fp-redirect-group |
| Tree | fp-redirect-group |
| Introduced | 16.0.R1 |
| Platforms | All |

## group-name *named-item*

| | |
|---|---|
| Synopsis | Name of the forwarding plane queue group template |
| Context | **configure** service pw-template *pw-template-name* ingress qos network fp-redirect-group group-name *named-item* |
| Tree | group-name |
| String length | 1 to 32 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## **instance** *number*

| | |
|---|---|
| Synopsis | Instance for FP ingress queue group |
| Context | **configure** service pw-template *pw-template-name* ingress qos network fp-redirect-group instance *number* |
| Tree | instance |
| Range | 1 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **policy-name** *named-item-64*

| | |
|---|---|
| Synopsis | Network policy ID |
| Context | **configure** service pw-template *pw-template-name* ingress qos network policy-name *named-item-64* |
| Tree | policy-name |
| String length | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **l2pt**

| | |
|---|---|
| Synopsis | Enter the **l2pt** context |
| Context | **configure** service pw-template *pw-template-name* l2pt |
| Tree | l2pt |
| Introduced | 16.0.R1 |
| Platforms | All |

## **termination**

| | |
|---|---|
| Synopsis | Enable the **termination** context |
| Context | **configure** service pw-template *pw-template-name* l2pt termination |
| Tree | termination |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## protocols

| | |
|---|---|
| Synopsis | Enter the **protocols** context |
| Context | **configure** service pw-template *pw-template-name* l2pt termination protocols |
| Tree | protocols |
| Introduced | 16.0.R1 |
| Platforms | All |

## cdp *boolean*

| | |
|---|---|
| Synopsis | Enable Cisco discovery protocol |
| Context | **configure** service pw-template *pw-template-name* l2pt termination protocols cdp *boolean* |
| Tree | cdp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## dtp *boolean*

| | |
|---|---|
| Synopsis | Enable dynamic trunking protocol |
| Context | **configure** service pw-template *pw-template-name* l2pt termination protocols dtp *boolean* |
| Tree | dtp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## pagp *boolean*

| | |
|---|---|
| Synopsis | Enable port aggregation protocol |
| Context | **configure** service pw-template *pw-template-name* l2pt termination protocols pagp *boolean* |


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| | |
|---|---|
| Tree | pagp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **stp** *boolean*

| | |
|---|---|
| Synopsis | Enable all spanning tree protocols |
| Context | **configure** service pw-template *pw-template-name* l2pt termination protocols stp *boolean* |
| Tree | stp |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **udld** *boolean*

| | |
|---|---|
| Synopsis | Enable unidirectional link detection |
| Context | **configure** service pw-template *pw-template-name* l2pt termination protocols udld *boolean* |
| Tree | udld |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **vtp** *boolean*

| | |
|---|---|
| Synopsis | Enable virtual trunk protocol |
| Context | **configure** service pw-template *pw-template-name* l2pt termination protocols vtp *boolean* |
| Tree | vtp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **path-mtu** *number*

| | |
|---|---|
| Synopsis | MTU the SDP can transmit |
| Context | **configure** service pw-template *pw-template-name* path-mtu *number* |
| Tree | path-mtu |
| Description | This command configures the path MTU that the SDP can transmit.<br>When an SDP created using the PW template is in use by a service, the path MTU cannot be modified.<br>When not configured, the path MTU is derived from the network interface IP MTU. |
| Range | 576 to 9782 |
| Introduced | 24.7.R1 |
| Platforms | All |

### **provisioned-sdp** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Provisioned SDP type |
| Context | **configure** service pw-template *pw-template-name* provisioned-sdp *keyword* |
| Tree | provisioned-sdp |
| Options | use, prefer |
| Introduced | 16.0.R1 |
| Platforms | All |

### **pw-template-id** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | PW template ID |
| Context | **configure** service pw-template *pw-template-name* pw-template-id *number* |
| Tree | pw-template-id |
| Range | 1 to 2147483647 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **sdp-exclude** [group-name] *reference*

| | |
|---|---|
| Synopsis | Add a list entry for **sdp-exclude** |
| Context | **configure** service pw-template *pw-template-name* sdp-exclude *reference* |
| Tree | sdp-exclude |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**group-name**] *reference*

| | |
|---|---|
| Synopsis | SDP group name |
| Context | **configure** service pw-template *pw-template-name* sdp-exclude *reference* |
| Tree | sdp-exclude |
| Reference | **configure** service sdp-group group-name *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sdp-include** [group-name] *reference*

| | |
|---|---|
| Synopsis | Add a list entry for **sdp-include** |
| Context | **configure** service pw-template *pw-template-name* sdp-include *reference* |
| Tree | sdp-include |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**group-name**] *reference*

| | |
|---|---|
| Synopsis | SDP group name |
| Context | **configure** service pw-template *pw-template-name* sdp-include *reference* |
| Tree | sdp-include |
| Reference | **configure** service sdp-group group-name *named-item* |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## split-horizon-group

| | |
|---|---|
| Synopsis | Enter the **split-horizon-group** context |
| Context | **configure** service pw-template *pw-template-name* split-horizon-group |
| Tree | split-horizon-group |
| Introduced | 16.0.R1 |
| Platforms | All |

## description *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service pw-template *pw-template-name* split-horizon-group description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

## fdb

| | |
|---|---|
| Synopsis | Enter the **fdb** context |
| Context | **configure** service pw-template *pw-template-name* split-horizon-group fdb |
| Tree | fdb |
| Introduced | 16.0.R1 |
| Platforms | All |

## saps

| | |
|---|---|
| Synopsis | Enter the **saps** context |
| Context | **configure** service pw-template *pw-template-name* split-horizon-group fdb saps |
| Tree | saps |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **auto-learn-mac-protect** *boolean*

| | |
|---|---|
| Synopsis | Enable automatic update of MAC protect list |
| Context | **configure** service pw-template *pw-template-name* split-horizon-group fdb saps auto-learn-mac-protect *boolean* |
| Tree | auto-learn-mac-protect |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **discard-unprotected-dest-mac** *boolean*

| | |
|---|---|
| Synopsis | Enable/disable unprotected dest MAC restriction |
| Context | **configure** service pw-template *pw-template-name* split-horizon-group fdb saps discard-unprotected-dest-mac *boolean* |
| Tree | discard-unprotected-dest-mac |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **protected-src-mac-violation-action** *keyword*

| | |
|---|---|
| Synopsis | Action for protected source MAC restriction |
| Context | **configure** service pw-template *pw-template-name* split-horizon-group fdb saps protected-src-mac-violation-action *keyword* |
| Tree | protected-src-mac-violation-action |
| Options | sap-oper-down, alarm-only, discard |
| Introduced | 16.0.R1 |
| Platforms | All |

### **name** *named-item*

| | |
|---|---|
| Synopsis | Split horizon group name to which the SDP belongs |
| Context | **configure** service pw-template *pw-template-name* split-horizon-group name *named-item* |


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| | |
|---|---|
| Tree | name |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | All |

## stp

| | |
|---|---|
| Synopsis | Enter the **stp** context |
| Context | **configure** service pw-template *pw-template-name* stp |
| Tree | stp |
| Introduced | 16.0.R4 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of STP |
| Context | **configure** service pw-template *pw-template-name* stp admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Introduced | 16.0.R4 |
| Platforms | All |

## auto-edge *boolean*

| | |
|---|---|
| Synopsis | Enable automatic detection of edge port characteristics |
| Context | **configure** service pw-template *pw-template-name* stp auto-edge *boolean* |
| Tree | auto-edge |
| Description | When configured to **true**, the router automatically detects the edge port characteristics of the SAP or spoke SDP. The STP concludes there is no bridge behind the spoke SDP, the OPER_EDGE variable is dynamically set to **true**. If a BPDU is received, the OPER_EDGE variable is dynamically set to **false**.<br><br>When configured to **false**, the router disables automatic detection. |
| Default | true |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **edge-port** *boolean*

| | |
|---|---|
| Synopsis | Designate SAP or SDP as an edge port |
| Context | **configure** service pw-template *pw-template-name* stp edge-port *boolean* |
| Tree | edge-port |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **link-type** *keyword*

| | |
|---|---|
| Synopsis | Configure STP link-type |
| Context | **configure** service pw-template *pw-template-name* stp link-type *keyword* |
| Tree | link-type |
| Options | pt-pt, shared |
| Default | pt-pt |
| Introduced | 16.0.R4 |
| Platforms | All |

### **path-cost** *number*

| | |
|---|---|
| Synopsis | Configure path-cost |
| Context | **configure** service pw-template *pw-template-name* stp path-cost *number* |
| Tree | path-cost |
| Range | 1 to 200000000 |
| Default | 10 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **priority** *number*

| | |
|---|---|
| Synopsis | Configure STP priority |
| Context | **configure** service pw-template *pw-template-name* stp priority *number* |
| Tree | priority |
| Range | 0 to 255 |


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| | |
|---|---|
| Default | 128 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **root-guard** *boolean*

| | |
|---|---|
| Synopsis | Enable/disable STP root-guard |
| Context | **configure** service pw-template *pw-template-name* stp root-guard *boolean* |
| Tree | root-guard |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **vc-type** *keyword*

| | |
|---|---|
| Synopsis | Virtual circuit type associated with the SDP bind |
| Context | **configure** service pw-template *pw-template-name* vc-type *keyword* |
| Tree | vc-type |
| Options | ether, vlan |
| Default | ether |
| Introduced | 16.0.R1 |
| Platforms | All |

### **vlan-vc-tag** *number*

| | |
|---|---|
| Synopsis | VLAN VC tag |
| Context | **configure** service pw-template *pw-template-name* vlan-vc-tag *number* |
| Tree | vlan-vc-tag |
| Range | 0 to 4094 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sdp** [sdp-id] *number*

| | |
|---|---|
| Synopsis | Enter the **sdp** list instance |


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| | |
|---|---|
| Context | **configure** service sdp *number* |
| Tree | sdp |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**sdp-id**] *number*

| | |
|---|---|
| Synopsis | Service Destination Point (SDP) ID |
| Context | **configure** service sdp *number* |
| Tree | sdp |
| Range | 1 to 32767 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **accounting-policy** *reference*

| | |
|---|---|
| Synopsis | Accounting policy associated with an SDP |
| Context | **configure** service sdp *number* accounting-policy *reference* |
| Tree | accounting-policy |
| Description | This command associates an accounting policy with an SDP.<br>When unconfigured, there is no accounting policy applied to the SDP. |
| Reference | **configure** log accounting-policy *number* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the SDP |
| Context | **configure** service sdp *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **adv-mtu-override** *boolean*

| | |
|---|---|
| Synopsis | Override the advertised VC-type MTU using the SDP ID |
| Context | **configure** service sdp *number* adv-mtu-override *boolean* |
| Tree | adv-mtu-override |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **allow-fragmentation** *boolean*

| | |
|---|---|
| Synopsis | Allow packets to be sent without setting DF bit |
| Context | **configure** service sdp *number* allow-fragmentation *boolean* |
| Tree | allow-fragmentation |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bgp-tunnel** *boolean*

| | |
|---|---|
| Synopsis | Allow use of BGP route tunnels to reach far-end nodes |
| Context | **configure** service sdp *number* bgp-tunnel *boolean* |
| Tree | bgp-tunnel |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **booking-factor** *number*

| | |
|---|---|
| Synopsis | Percentage of SDP max available bandwidth for VLL CAC |
| Context | **configure** service sdp *number* booking-factor *number* |
| Tree | booking-factor |
| Range | 0 to 1000 |
| Default | 100 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## class-forwarding

| | |
|---|---|
| Synopsis | Enable the **class-forwarding** context |
| Context | **configure** service sdp *number* class-forwarding |
| Tree | class-forwarding |
| Introduced | 16.0.R1 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of class-based forwarding |
| Context | **configure** service sdp *number* class-forwarding admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

## default-lsp *reference*

| | |
|---|---|
| Synopsis | Default LSP for class-based forwarding on the SDP |
| Context | **configure** service sdp *number* class-forwarding default-lsp *reference* |
| Tree | default-lsp |
| Reference | **configure** service sdp *number* lsp *named-item-64* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## enforce-diffserv-lsp-fc *boolean*

| | |
|---|---|
| Synopsis | Enable RSVP validation of FC support by the LSP |
| Context | **configure** service sdp *number* class-forwarding enforce-diffserv-lsp-fc *boolean* |
| Tree | enforce-diffserv-lsp-fc |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **fc** [fc-name] *keyword*

| | |
|---|---|
| Synopsis | Enter the **fc** list instance |
| Context | **configure** service sdp *number* class-forwarding fc *keyword* |
| Tree | fc |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**fc-name**] *keyword*

| | |
|---|---|
| Synopsis | Forwarding class to LSP mapping |
| Context | **configure** service sdp *number* class-forwarding fc *keyword* |
| Tree | fc |
| Options | be – Best effort<br>l2 – Low 2 (best effort)<br>af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority)<br>ef – Expedited forwarding (high priority)<br>h1 – High 1 (high priority)<br>nc – Network control (high priority) |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lsp** *reference*

| | |
|---|---|
| Synopsis | LSP name used to forward service packets |
| Context | **configure** service sdp *number* class-forwarding fc *keyword* lsp *reference* |
| Tree | lsp |
| Reference | **configure** service sdp *number* lsp *named-item-64* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **multicast-lsp** *reference*

| | |
|---|---|
| Synopsis | LSP to forward all multicast traffic |
| Context | **configure** service sdp *number* class-forwarding multicast-lsp *reference* |
| Tree | multicast-lsp |
| Reference | **configure** service sdp *number* lsp *named-item-64* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **collect-stats** *boolean*

| | |
|---|---|
| Synopsis | Collect accounting statistics for this SDP |
| Context | **configure** service sdp *number* collect-stats *boolean* |
| Tree | collect-stats |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **delivery-type** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Delivery type used by the SDP |
| Context | **configure** service sdp *number* delivery-type *keyword* |
| Tree | delivery-type |
| Options | gre, mpls, l2tpv3, gre-eth-bridged |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |


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| | |
|---|---|
| Context | **configure** service sdp *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

## far-end

| | |
|---|---|
| Synopsis | Enter the **far-end** context |
| Context | **configure** service sdp *number* far-end |
| Tree | far-end |
| Introduced | 16.0.R1 |
| Platforms | All |

## ip-address *(ipv4-address-no-zone | ipv6-address-no-zone)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IP address of the far end destination router |
| Context | **configure** service sdp *number* far-end ip-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | ip-address |
| Introduced | 16.0.R3 |
| Platforms | All |

## keep-alive

| | |
|---|---|
| Synopsis | Enter the **keep-alive** context |
| Context | **configure** service sdp *number* keep-alive |
| Tree | keep-alive |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of keepalive mechanism for the SDP |
| Context | **configure** service sdp *number* keep-alive admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hello-time** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Time period between SDP keepalive messages |
| Context | **configure** service sdp *number* keep-alive hello-time *number* |
| Tree | hello-time |
| Range | 1 to 3600 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hold-down-time** *number*

| | |
|---|---|
| Synopsis | Minimum time the SDP remains in the down state |
| Context | **configure** service sdp *number* keep-alive hold-down-time *number* |
| Tree | hold-down-time |
| Range | 0 to 3600 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **maximum-drop-count** *number*

| | |
|---|---|
| Synopsis | Maximum failed request attempts when SDP is down |
| Context | **configure** service sdp *number* keep-alive maximum-drop-count *number* |
| Tree | maximum-drop-count |
| Range | 1 to 5 |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **message-length** *number*

| | |
|---|---|
| Synopsis | Length of the keepalive request messages transmitted |
| Context | **configure** service sdp *number* keep-alive message-length *number* |
| Tree | message-length |
| Range | 40 to 9198 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **timeout** *number*

| | |
|---|---|
| Synopsis | Time SDP waits before tearing down the session |
| Context | **configure** service sdp *number* keep-alive timeout *number* |
| Tree | timeout |
| Range | 1 to 10 |
| Units | seconds |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ldp** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.


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| | |
|---|---|
| Synopsis | Enable LDP-signaled LSPs |
| Context | **configure** service sdp *number* ldp *boolean* |
| Tree | ldp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **local-end** *(ipv4-address-no-zone | ipv6-address-no-zone)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Local end address of tunnel defined by the SDP |
| Context | **configure** service sdp *number* local-end *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | local-end |
| Introduced | 16.0.R1 |
| Platforms | All |

## **lsp** [lsp-name] *named-item-64*

| | |
|---|---|
| Synopsis | Add a list entry for **lsp** |
| Context | **configure** service sdp *number* lsp *named-item-64* |
| Tree | lsp |
| Max. instances | 16 |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**lsp-name**] *named-item-64*

| | |
|---|---|
| Synopsis | LSP name to associate with the SDP |
| Context | **configure** service sdp *number* lsp *named-item-64* |
| Tree | lsp |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **metric** *number*

| | |
|---|---|
| Synopsis | Metric used in tunnel table manager for decision making |
| Context | **configure** service sdp *number* metric *number* |
| Tree | metric |
| Range | 1 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mixed-lsp-mode**

| | |
|---|---|
| Synopsis | Enable the **mixed-lsp-mode** context |
| Context | **configure** service sdp *number* mixed-lsp-mode |
| Tree | mixed-lsp-mode |
| Introduced | 16.0.R1 |
| Platforms | All |

### **revert-time** *(number | keyword)*

| | |
|---|---|
| Synopsis | Delay before SDP can revert to higher priority LSP type |
| Context | **configure** service sdp *number* mixed-lsp-mode revert-time *(number | keyword)* |
| Tree | revert-time |
| Range | 1 to 600 |
| Units | seconds |
| Options | never, immediate |
| Default | immediate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **network-domain** *reference*

| | |
|---|---|
| Synopsis | Network domain name associated with the SDP |


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| | |
|---|---|
| Context | **configure** service sdp *number* network-domain *reference* |
| Tree | network-domain |
| Reference | **configure** router *named-item-64* network-domains network-domain *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **path-mtu** *number*

| | |
|---|---|
| Synopsis | Maximum Transmission Unit (MTU) the SDP can transmit |
| Context | **configure** service sdp *number* path-mtu *number* |
| Tree | path-mtu |
| Range | 576 to 9782 |
| Units | bytes |
| Introduced | 16.0.R1 |
| Platforms | All |

## **pbb-etype** *etype-value*

| | |
|---|---|
| Synopsis | Ethertype used for PBB |
| Context | **configure** service sdp *number* pbb-etype *etype-value* |
| Tree | pbb-etype |
| String length | 5 to 6 |
| Default | 0x88E7 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **pw-port**

| | |
|---|---|
| Synopsis | Enter the **pw-port** context |
| Context | **configure** service sdp *number* pw-port |
| Tree | pw-port |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **binding-port** *port-named*

| | |
|---|---|
| Synopsis | Binding port |
| Context | **configure** service sdp *number* pw-port binding-port *port-named* |
| Tree | binding-port |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **sdp-group** [group-name] *reference*

| | |
|---|---|
| Synopsis | Add a list entry for **sdp-group** |
| Context | **configure** service sdp *number* sdp-group *reference* |
| Tree | sdp-group |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**group-name**] *reference*

| | |
|---|---|
| Synopsis | SDP administrative group name |
| Context | **configure** service sdp *number* sdp-group *reference* |
| Tree | sdp-group |
| Reference | **configure** service sdp-group group-name *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **signaling** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Signaling protocol used to obtain pseudowire labels |
| Context | **configure** service sdp *number* signaling *keyword* |
| Tree | signaling |


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Description This command specifies the signaling protocol used to obtain the ingress and egress pseudowire labels in frames transmitted and received on the SDP. The signaling value can only be changed while the administrative status of the SDP is down. Additionally, the signaling can only be changed on an SDP if the SDP is not in use by BGP-AD or BGP-VPLS. BGP signaling can only be enabled if the SDP does not already have pseudowires signaled over it. Also, BGP signaling is not supported with mixed mode LSP SDPs.

**Note**: If the **tldp** option is selected as the mechanism for exchanging service labels over an MPLS or GRE SDP and the T-LDP session is automatically established, an explicit T-LDP session that is subsequently configured takes precedence over the automatic T-LDP session. However, if the explicit, manually-configured session is then removed, the system does not revert to the automatic session and the automatic session is also deleted. To address this, recreate the T-LDP session by using the **admin-state** command to administratively disable and then enable the SDP.

Options off, tldp, bgp

Introduced 16.0.R1

Platforms All

## source-bmac-lsb

Synopsis Enter the **source-bmac-lsb** context

Context **configure** service sdp *number* source-bmac-lsb

Tree source-bmac-lsb

Introduced 16.0.R1

Platforms All

## control-pw-vc-id *number*

Synopsis VC ID of the control pseudowire

Context **configure** service sdp *number* source-bmac-lsb control-pw-vc-id *number*

Tree control-pw-vc-id

Range 1 to 4294967295

Introduced 16.0.R1

Platforms All

## value *bmac-lsb-no-zero*

Synopsis 16 least significant bits of virtual backbone MAC

Context **configure** service sdp *number* source-bmac-lsb value *bmac-lsb-no-zero*


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| | |
|---|---|
| Tree | value |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sr-isis** *boolean*

| | |
|---|---|
| Synopsis | Enable Segment Routing for IS-IS |
| Context | **configure** service sdp *number* sr-isis *boolean* |
| Tree | sr-isis |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sr-ospf** *boolean*

| | |
|---|---|
| Synopsis | Enable an MPLS SDP of LSP type OSPF Segment Routing |
| Context | **configure** service sdp *number* sr-ospf *boolean* |
| Tree | sr-ospf |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **tunnel-far-end** *(ipv4-address-no-zone | ipv6-address-no-zone)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | System address of the far-end router for the SDP |
| Context | **configure** service sdp *number* tunnel-far-end *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | tunnel-far-end |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **vlan-vc-etype** *etype-value*

| | |
|---|---|
| Synopsis | VLAN VC Ethertype |
| Context | **configure** service sdp *number* vlan-vc-etype *etype-value* |
| Tree | vlan-vc-etype |
| String length | 5 to 6 |
| Default | 0x8100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **weighted-ecmp** *boolean*

| | |
|---|---|
| Synopsis | Allow weighted load-balancing on an SDP |
| Context | **configure** service sdp *number* weighted-ecmp *boolean* |
| Tree | weighted-ecmp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sdp-group**

| | |
|---|---|
| Synopsis | Enter the **sdp-group** context |
| Context | **configure** service sdp-group |
| Tree | sdp-group |
| Introduced | 16.0.R1 |
| Platforms | All |

### **group-name** [group-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **group-name** list instance |
| Context | **configure** service sdp-group group-name *named-item* |
| Tree | group-name |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**group-name**] *named-item*

| | |
|---|---|
| Synopsis | SDP administrative group name |
| Context | **configure** service sdp-group group-name *named-item* |
| Tree | group-name |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **value** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Unique group value associated with the SDP admin group |
| Context | **configure** service sdp-group group-name *named-item* value *number* |
| Tree | value |
| Range | 0 to 31 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **system**

| | |
|---|---|
| Synopsis | Enter the **system** context |
| Context | **configure** service system |
| Tree | system |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bgp**

| | |
|---|---|
| Synopsis | Enter the **bgp** context |
| Context | **configure** service system bgp |


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| | |
|---|---|
| Tree | bgp |
| Introduced | 16.0.R1 |
| Platforms | All |

## evpn

| | |
|---|---|
| Synopsis | Enter the **evpn** context |
| Context | **configure** service system bgp evpn |
| Tree | evpn |
| Description | Commands in this context configure BGP EVPN options. |
| Introduced | 16.0.R1 |
| Platforms | All |

## ad-per-es-route

| | |
|---|---|
| Synopsis | Enter the **ad-per-es-route** context |
| Context | **configure** service system bgp evpn ad-per-es-route |
| Tree | ad-per-es-route |
| Introduced | 16.0.R1 |
| Platforms | All |

## extended-evi-range *boolean*

| | |
|---|---|
| Synopsis | Reserve extended RD comm-values for AD per-ES routes |
| Context | **configure** service system bgp evpn ad-per-es-route extended-evi-range *boolean* |
| Tree | extended-evi-range |
| Description | When configured to **true**, the system reserves the Route Distinguisher (RD) comm-values 1 to 65535 out of the type 1 RD that is used for AD per-ES routes. If **ad-per-es-route route-target-type** is also configured to **evi-route-target-set**, the system can pack the maximum number of EVI route targets in the AD per-ES routes<br>When configured to **false**, this command only reserves comm-values 1 to 512. |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | All |


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### **route-distinguisher-ip-address** *ipv4-address*

| | |
|---|---|
| Synopsis | IP address for route distinguisher for EVPN AD-ES routes |
| Context | **configure** service system bgp evpn ad-per-es-route route-distinguisher-ip-address *ipv4-address* |
| Tree | route-distinguisher-ip-address |
| Introduced | 16.0.R1 |
| Platforms | All |

### **route-target-type** *keyword*

| | |
|---|---|
| Synopsis | Method for the AD per-ES routes advertisement |
| Context | **configure** service system bgp evpn ad-per-es-route route-target-type *keyword* |
| Tree | route-target-type |
| Options | evi-route-target, evi-route-target-set |
| Default | evi-route-target |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ad-per-evi-routes**

| | |
|---|---|
| Synopsis | Enter the **ad-per-evi-routes** context |
| Context | **configure** service system bgp evpn ad-per-evi-routes |
| Tree | ad-per-evi-routes |
| Introduced | 23.10.R1 |
| Platforms | All |

### **attribute-propagation** *boolean*

| | |
|---|---|
| Synopsis | Enable propagation of BGP path attributes |
| Context | **configure** service system bgp evpn ad-per-evi-routes attribute-propagation *boolean* |
| Tree | attribute-propagation |
| Description | When configured to **true**, the router propagates the attributes in multi-instance Epipe services.<br>When configured to **false**, the router disables the propagation of the attributes, including D-PATH, even if the **domain-id** is configured in the service. |


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| | |
|---|---|
| Default | false |
| Introduced | 23.10.R1 |
| Platforms | All |

## **bgp-path-selection** *boolean*

| | |
|---|---|
| Synopsis | Enable BGP path selection |
| Context | **configure** service system bgp evpn ad-per-evi-routes bgp-path-selection *boolean* |
| Tree | bgp-path-selection |
| Description | When configured to **true**, the router compares the received EVPN VPWS AD per-EVI routes based on the BGP path attributes.<br>The **attribute-propagation** command must be configured to **true**.<br>When configured to **false**, the router does not compare the routes. |
| Default | false |
| Introduced | 23.10.R1 |
| Platforms | All |

## **d-path-ignore** *boolean*

| | |
|---|---|
| Synopsis | Ignore D-PATH for BGP path selection |
| Context | **configure** service system bgp evpn ad-per-evi-routes d-path-ignore *boolean* |
| Tree | d-path-ignore |
| Description | When configured to **true**, the router ignores the Domain PATH attribute (D-PATH) when BGP computes the best path selection for received routes.<br>When configured to **false**, the router considers the D-PATH length and value as a tiebreaker in determining the best-path selection. In accordance with *draft-sr-bess-evpn-dpath*, the router compares the D-PATH attribute received in AD per-EVI routes with the same key (same or different RD) as follows:<br>• Routes with the shortest D-PATH are preferred; therefore, routes not tied for the shortest D-PATH are removed. Routes without D-PATH are considered zero-length D-PATH.<br>• Routes with the numerically lowest left-most Domain-ID are preferred; therefore, routes not tied for the numerically lowest left-most Domain-ID are removed from consideration. |
| Default | false |
| Introduced | 23.10.R1 |
| Platforms | All |


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## **ethernet-segment** [ethernet-segment-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **ethernet-segment** list instance |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* |
| Tree | ethernet-segment |
| Max. instances | 20480 |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**ethernet-segment-name**] *named-item*

| | |
|---|---|
| Synopsis | Specify name for Ethernet segment |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* |
| Tree | ethernet-segment |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **ac-df-capability** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | AC-influenced DF election capability |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* ac-df-capability *keyword* |
| Tree | ac-df-capability |
| Description | This command configures the Attachment Circuit-influenced (AC-influenced) designated forwarder (DF) election capability (AC-DF) into the DF election for the Ethernet Segment (ES).<br><br>AC-DF supports EVPN Auto-Discovery per EVI/ES (AD per EVI/ES) routes for a specific PE, to ensure the PE is included in the candidate DF election list.<br><br>When AC-DF is excluded on a specific ES, the presence or absence of the AD per EVI/ES routes from the ES peers does not modify the candidate DF election list for |


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| | |
|---|---|
| | the ES. Excluding the AC-DF is recommended in ESs that use an operational group monitored by the access LAG to signal the standby LACP or to power-off. |
| Options | include, exclude |
| Default | include |
| Introduced | 21.5.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the Ethernet segment instance |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **association**

| | |
|---|---|
| Synopsis | Enter the **association** context |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association |
| Tree | association |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lag** [lag-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **lag** list instance |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association lag *reference* |
| Tree | lag |
| Max. instances | 1 |
| Notes | The following elements are part of a choice: **lag**, **network-interconnect-vxlan**, **port**, **pw-port**, **sdp**, or **vprn-next-hop**. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### [**lag-name**] *reference*

| | |
|---|---|
| Synopsis | LAG multi-homed with the Ethernet segment entry |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association lag *reference* |
| Tree | lag |
| Reference | **configure** lag *lag-interface* |
| Notes | This element is part of a list key. |
| Introduced | 21.2.R1 |
| Platforms | All |

### virtual-ranges

| | |
|---|---|
| Synopsis | Enter the **virtual-ranges** context |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association lag *reference* virtual-ranges |
| Tree | virtual-ranges |
| Introduced | 16.0.R4 |
| Platforms | All |

### dot1q

| | |
|---|---|
| Synopsis | Enter the **dot1q** context |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association lag *reference* virtual-ranges dot1q |
| Tree | dot1q |
| Introduced | 16.0.R4 |
| Platforms | All |

### **q-tag** [start] *(number | keyword)*

| | |
|---|---|
| Synopsis | Enter the **q-tag** list instance |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association lag *reference* virtual-ranges dot1q q-tag *(number | keyword)* |


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| | |
|---|---|
| Tree | q-tag |
| Max. instances | 8 |
| Introduced | 16.0.R4 |
| Platforms | All |

### [**start**] *(number | keyword)*

| | |
|---|---|
| Synopsis | Lower bound of the q-tag VLAN ID range |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association lag *reference* virtual-ranges dot1q q-tag *(number | keyword)* |
| Tree | q-tag |
| Range | 0 to 4094 |
| Options | tag-* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **end** *(number | keyword)*

| | |
|---|---|
| Synopsis | Upper bound of the q-tag VLAN ID range |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association lag *reference* virtual-ranges dot1q q-tag *(number | keyword)* end *(number | keyword)* |
| Tree | end |
| Range | 0 to 4094 |
| Options | tag-* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **qinq**

| | |
|---|---|
| Synopsis | Enter the **qinq** context |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association lag *reference* virtual-ranges qinq |
| Tree | qinq |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | All |

### **s-tag** [start] *(number | keyword)*

| | |
|---|---|
| Synopsis | Enter the **s-tag** list instance |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association lag *reference* virtual-ranges qinq s-tag *(number | keyword)* |
| Tree | s-tag |
| Max. instances | 8 |
| Introduced | 16.0.R4 |
| Platforms | All |

### [**start**] *(number | keyword)*

| | |
|---|---|
| Synopsis | Lower bound of the s-tag VLAN ID range |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association lag *reference* virtual-ranges qinq s-tag *(number | keyword)* |
| Tree | s-tag |
| Range | 0 to 4094 |
| Options | tag-* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **end** *(number | keyword)*

| | |
|---|---|
| Synopsis | Upper bound of the s-tag VLAN ID range |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association lag *reference* virtual-ranges qinq s-tag *(number | keyword)* end *(number | keyword)* |
| Tree | end |
| Range | 0 to 4094 |
| Options | tag-* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |


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| | |
|---|---|
| Platforms | All |

### **s-tag-c-tag** [s-tag] *(number | keyword)* c-tag-start *(number | keyword)*

| | |
|---|---|
| Synopsis | Enter the **s-tag-c-tag** list instance |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association lag *reference* virtual-ranges qinq s-tag-c-tag *(number | keyword)* c-tag-start *(number | keyword)* |
| Tree | s-tag-c-tag |
| Max. instances | 8 |
| Introduced | 16.0.R4 |
| Platforms | All |

### [**s-tag**] *(number | keyword)*

| | |
|---|---|
| Synopsis | Starting value of the qinq s-tag range associated with a virtual ethernet segment |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association lag *reference* virtual-ranges qinq s-tag-c-tag *(number | keyword)* c-tag-start *(number | keyword)* |
| Tree | s-tag-c-tag |
| Range | 0 to 4094 |
| Options | tag-*, null |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **c-tag-start** *(number | keyword)*

| | |
|---|---|
| Synopsis | Starting value of the qinq c-tag range |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association lag *reference* virtual-ranges qinq s-tag-c-tag *(number | keyword)* c-tag-start *(number | keyword)* |
| Tree | s-tag-c-tag |
| Range | 0 to 4094 |
| Options | tag-*, null |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | All |

### **c-tag-end** *(number | keyword)*

| | |
|---|---|
| Synopsis | End value of the qinq c-tag range |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association lag *reference* virtual-ranges qinq s-tag-c-tag *(number | keyword)* c-tag-start *(number | keyword)* c-tag-end *(number | keyword)* |
| Tree | c-tag-end |
| Range | 0 to 4094 |
| Options | tag-*, null |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **network-interconnect-vxlan** [network-interconnect-vxlan-id] *number*

| | |
|---|---|
| Synopsis | Enter the **network-interconnect-vxlan** list instance |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association network-interconnect-vxlan *number* |
| Tree | network-interconnect-vxlan |
| Max. instances | 1 |
| Notes | The following elements are part of a choice: **lag**, **network-interconnect-vxlan**, **port**, **pw-port**, **sdp**, or **vprn-next-hop**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**network-interconnect-vxlan-id**] *number*

| | |
|---|---|
| Synopsis | VXLAN instance ID associated with the virtual ES |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association network-interconnect-vxlan *number* |
| Tree | network-interconnect-vxlan |
| Range | 1 |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | All |

### virtual-ranges

| | |
|---|---|
| Synopsis | Enter the **virtual-ranges** context |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association network-interconnect-vxlan *number* virtual-ranges |
| Tree | virtual-ranges |
| Introduced | 16.0.R4 |
| Platforms | All |

### **service-id** [start] *number*

| | |
|---|---|
| Synopsis | Enter the **service-id** list instance |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association network-interconnect-vxlan *number* virtual-ranges service-id *number* |
| Tree | service-id |
| Max. instances | 8 |
| Introduced | 16.0.R4 |
| Platforms | All |

### [**start**] *number*

| | |
|---|---|
| Synopsis | Lower bound of the service ID range |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association network-interconnect-vxlan *number* virtual-ranges service-id *number* |
| Tree | service-id |
| Range | 1 to 2147483647 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the service ID range |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association network-interconnect-vxlan *number* virtual-ranges service-id *number* end *number* |
| Tree | end |
| Range | 1 to 2147483647 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **port** [port-id] *reference*

| | |
|---|---|
| Synopsis | Enter the **port** list instance |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association port *reference* |
| Tree | port |
| Max. instances | 1 |
| Notes | The following elements are part of a choice: **lag**, **network-interconnect-vxlan**, **port**, **pw-port**, **sdp**, or **vprn-next-hop**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**port-id**] *reference*

| | |
|---|---|
| Synopsis | Port multi-homed with this Ethernet segment entry |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association port *reference* |
| Tree | port |
| Reference | **configure** port *port* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |


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### virtual-ranges

| | |
|---|---|
| Synopsis | Enter the **virtual-ranges** context |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association port *reference* virtual-ranges |
| Tree | virtual-ranges |
| Introduced | 16.0.R4 |
| Platforms | All |

### dot1q

| | |
|---|---|
| Synopsis | Enter the **dot1q** context |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association port *reference* virtual-ranges dot1q |
| Tree | dot1q |
| Introduced | 16.0.R4 |
| Platforms | All |

### **q-tag** [start] *(number | keyword)*

| | |
|---|---|
| Synopsis | Enter the **q-tag** list instance |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association port *reference* virtual-ranges dot1q q-tag *(number | keyword)* |
| Tree | q-tag |
| Max. instances | 8 |
| Introduced | 16.0.R4 |
| Platforms | All |

### [**start**] *(number | keyword)*

| | |
|---|---|
| Synopsis | Lower bound of the q-tag VLAN ID range |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association port *reference* virtual-ranges dot1q q-tag *(number | keyword)* |
| Tree | q-tag |
| Range | 0 to 4094 |
| Options | tag-* |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **end** *(number | keyword)*

| | |
|---|---|
| Synopsis | Upper bound of the q-tag VLAN ID range |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association port *reference* virtual-ranges dot1q q-tag *(number | keyword)* end *(number | keyword)* |
| Tree | end |
| Range | 0 to 4094 |
| Options | tag-* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **qinq**

| | |
|---|---|
| Synopsis | Enter the **qinq** context |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association port *reference* virtual-ranges qinq |
| Tree | qinq |
| Introduced | 16.0.R4 |
| Platforms | All |

### **s-tag** [start] *(number | keyword)*

| | |
|---|---|
| Synopsis | Enter the **s-tag** list instance |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association port *reference* virtual-ranges qinq s-tag *(number | keyword)* |
| Tree | s-tag |
| Max. instances | 8 |
| Introduced | 16.0.R4 |
| Platforms | All |


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### [**start**] *(number | keyword)*

| | |
|---|---|
| Synopsis | Lower bound of the s-tag VLAN ID range |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association port *reference* virtual-ranges qinq s-tag *(number | keyword)* |
| Tree | s-tag |
| Range | 0 to 4094 |
| Options | tag-* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **end** *(number | keyword)*

| | |
|---|---|
| Synopsis | Upper bound of the s-tag VLAN ID range |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association port *reference* virtual-ranges qinq s-tag *(number | keyword)* end *(number | keyword)* |
| Tree | end |
| Range | 0 to 4094 |
| Options | tag-* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **s-tag-c-tag** [s-tag] *(number | keyword)* c-tag-start *(number | keyword)*

| | |
|---|---|
| Synopsis | Enter the **s-tag-c-tag** list instance |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association port *reference* virtual-ranges qinq s-tag-c-tag *(number | keyword)* c-tag-start *(number | keyword)* |
| Tree | s-tag-c-tag |
| Max. instances | 8 |
| Introduced | 16.0.R4 |
| Platforms | All |


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### [**s-tag**] *(number | keyword)*

| | |
|---|---|
| Synopsis | Starting value of the qinq s-tag range associated with a virtual ethernet segment |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association port *reference* virtual-ranges qinq s-tag-c-tag *(number \| keyword)* c-tag-start *(number \| keyword)* |
| Tree | s-tag-c-tag |
| Range | 0 to 4094 |
| Options | tag-*, null |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **c-tag-start** *(number | keyword)*

| | |
|---|---|
| Synopsis | Starting value of the qinq c-tag range |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association port *reference* virtual-ranges qinq s-tag-c-tag *(number \| keyword)* c-tag-start *(number \| keyword)* |
| Tree | s-tag-c-tag |
| Range | 0 to 4094 |
| Options | tag-*, null |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **c-tag-end** *(number | keyword)*

| | |
|---|---|
| Synopsis | End value of the qinq c-tag range |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association port *reference* virtual-ranges qinq s-tag-c-tag *(number \| keyword)* c-tag-start *(number \| keyword)* c-tag-end *(number \| keyword)* |
| Tree | c-tag-end |
| Range | 0 to 4094 |
| Options | tag-*, null |
| Notes | This element is mandatory. |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | All |

## **pw-port** [pw-port-id] *reference*

| | |
|---|---|
| Synopsis | Enter the **pw-port** list instance |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association pw-port *reference* |
| Tree | pw-port |
| Max. instances | 1 |
| Notes | The following elements are part of a choice: **lag**, **network-interconnect-vxlan**, **port**, **pw-port**, **sdp**, or **vprn-next-hop**. |
| Introduced | 16.0.R4 |
| Platforms | All |

## [**pw-port-id**] *reference*

| | |
|---|---|
| Synopsis | Pw-port multi-homed with this Ethernet segment entry |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association pw-port *reference* |
| Tree | pw-port |
| Reference | **configure** pw-port *number* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

## **pw-port-headend** *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Control state of PW SAPs on PW port using EVPN |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association pw-port *reference* pw-port-headend *boolean* |
| Tree | pw-port-headend |


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| | |
|---|---|
| Description | When configured to **true,** this command allows EVPN and its multi-homing procedures to control the state of the PW SAPs on the PW port.<br>When configured to **false**, this command disallows EVPN and its multi-homing procedures to control the state of the PW SAPs on the PW port. |
| Default | false |
| Introduced | 22.2.R1 |
| Platforms | All |

## virtual-ranges

| | |
|---|---|
| Synopsis | Enter the **virtual-ranges** context |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association pw-port *reference* virtual-ranges |
| Tree | virtual-ranges |
| Introduced | 16.0.R4 |
| Platforms | All |

## dot1q

| | |
|---|---|
| Synopsis | Enter the **dot1q** context |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association pw-port *reference* virtual-ranges dot1q |
| Tree | dot1q |
| Introduced | 16.0.R4 |
| Platforms | All |

## q-tag [start] *(number | keyword)*

| | |
|---|---|
| Synopsis | Enter the **q-tag** list instance |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association pw-port *reference* virtual-ranges dot1q q-tag *(number | keyword)* |
| Tree | q-tag |
| Max. instances | 8 |
| Introduced | 16.0.R4 |
| Platforms | All |


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### [**start**] *(number | keyword)*

| | |
|---|---|
| Synopsis | Lower bound of the q-tag VLAN ID range |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association pw-port *reference* virtual-ranges dot1q q-tag *(number | keyword)* |
| Tree | q-tag |
| Range | 0 to 4094 |
| Options | tag-* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **end** *(number | keyword)*

| | |
|---|---|
| Synopsis | Upper bound of the q-tag VLAN ID range |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association pw-port *reference* virtual-ranges dot1q q-tag *(number | keyword)* end *(number | keyword)* |
| Tree | end |
| Range | 0 to 4094 |
| Options | tag-* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **qinq**

| | |
|---|---|
| Synopsis | Enter the **qinq** context |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association pw-port *reference* virtual-ranges qinq |
| Tree | qinq |
| Introduced | 16.0.R4 |
| Platforms | All |

### **s-tag** [start] *(number | keyword)*

| | |
|---|---|
| Synopsis | Enter the **s-tag** list instance |


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| | |
|---|---|
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association pw-port *reference* virtual-ranges qinq s-tag *(number \| keyword)* |
| Tree | s-tag |
| Max. instances | 8 |
| Introduced | 16.0.R4 |
| Platforms | All |

### [**start**] *(number | keyword)*

| | |
|---|---|
| Synopsis | Lower bound of the s-tag VLAN ID range |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association pw-port *reference* virtual-ranges qinq s-tag *(number \| keyword)* |
| Tree | s-tag |
| Range | 0 to 4094 |
| Options | tag-* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **end** *(number | keyword)*

| | |
|---|---|
| Synopsis | Upper bound of the s-tag VLAN ID range |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association pw-port *reference* virtual-ranges qinq s-tag *(number \| keyword)* end *(number \| keyword)* |
| Tree | end |
| Range | 0 to 4094 |
| Options | tag-* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **s-tag-c-tag** [s-tag] *(number | keyword)* c-tag-start *(number | keyword)*

| | |
|---|---|
| Synopsis | Enter the **s-tag-c-tag** list instance |


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| | |
|---|---|
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association pw-port *reference* virtual-ranges qinq s-tag-c-tag *(number* \| *keyword)* c-tag-start *(number* \| *keyword)* |
| Tree | s-tag-c-tag |
| Max. instances | 8 |
| Introduced | 16.0.R4 |
| Platforms | All |

### [**s-tag**] *(number* | *keyword)*

| | |
|---|---|
| Synopsis | Starting value of the qinq s-tag range associated with a virtual ethernet segment |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association pw-port *reference* virtual-ranges qinq s-tag-c-tag *(number* \| *keyword)* c-tag-start *(number* \| *keyword)* |
| Tree | s-tag-c-tag |
| Range | 0 to 4094 |
| Options | tag-*, null |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **c-tag-start** *(number* | *keyword)*

| | |
|---|---|
| Synopsis | Starting value of the qinq c-tag range |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association pw-port *reference* virtual-ranges qinq s-tag-c-tag *(number* \| *keyword)* c-tag-start *(number* \| *keyword)* |
| Tree | s-tag-c-tag |
| Range | 0 to 4094 |
| Options | tag-*, null |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **c-tag-end** *(number | keyword)*

| | |
|---|---|
| Synopsis | End value of the qinq c-tag range |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association pw-port *reference* virtual-ranges qinq s-tag-c-tag *(number \| keyword)* c-tag-start *(number \| keyword)* c-tag-end *(number \| keyword)* |
| Tree | c-tag-end |
| Range | 0 to 4094 |
| Options | tag-*, null |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **sdp** [sdp-id] *reference*

| | |
|---|---|
| Synopsis | Enter the **sdp** list instance |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association sdp *reference* |
| Tree | sdp |
| Max. instances | 1 |
| Notes | The following elements are part of a choice: **lag**, **network-interconnect-vxlan**, **port**, **pw-port**, **sdp**, or **vprn-next-hop**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**sdp-id**] *reference*

| | |
|---|---|
| Synopsis | Sdp multi-homed with this Ethernet segment entry |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association sdp *reference* |
| Tree | sdp |
| Reference | **configure** service sdp *number* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |


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### virtual-ranges

| | |
|---|---|
| Synopsis | Enter the **virtual-ranges** context |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association sdp *reference* virtual-ranges |
| Tree | virtual-ranges |
| Introduced | 16.0.R4 |
| Platforms | All |

### **vc-id** [start] *number*

| | |
|---|---|
| Synopsis | Enter the **vc-id** list instance |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association sdp *reference* virtual-ranges vc-id *number* |
| Tree | vc-id |
| Max. instances | 8 |
| Introduced | 16.0.R4 |
| Platforms | All |

### [**start**] *number*

| | |
|---|---|
| Synopsis | Lower bound of the VC-ID range |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association sdp *reference* virtual-ranges vc-id *number* |
| Tree | vc-id |
| Range | 1 to 4294967295 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the VC-ID range |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association sdp *reference* virtual-ranges vc-id *number* end *number* |
| Tree | end |


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| | |
|---|---|
| Range | 1 to 4294967295 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

## **vprn-next-hop** [ip-address] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Enter the **vprn-next-hop** list instance |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association vprn-next-hop *(ipv4-address-no-zone | ipv6-address-no-zone)* |
| Tree | vprn-next-hop |
| Description | Commands in this list instance are used to associate an IPv4 or IPv6 address to an Ethernet segment. A virtual Ethernet segment using this VPRN next-hop association represents a Layer 3 Ethernet segment as described in *draft-sajassi-bess-evpn-ip-aliasing*. This IP address must be installed in the route table of the VPRN service identified by the EVI so that the Auto-Discovery per-ES or EVI routes for the ES are advertised. Only one VPRN next hop is supported per Ethernet segment. |
| Max. instances | 1 |
| Notes | The following elements are part of a choice: **lag**, **network-interconnect-vxlan**, **port**, **pw-port**, **sdp**, or **vprn-next-hop**. |
| Introduced | 22.10.R1 |
| Platforms | All |

## [**ip-address**] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | VPRN next-hop address |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association vprn-next-hop *(ipv4-address-no-zone | ipv6-address-no-zone)* |
| Tree | vprn-next-hop |
| Notes | This element is part of a list key. |
| Introduced | 22.10.R1 |
| Platforms | All |

## **virtual-ranges**

| | |
|---|---|
| Synopsis | Enter the **virtual-ranges** context |


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| | |
|---|---|
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association vprn-next-hop *(ipv4-address-no-zone \| ipv6-address-no-zone)* virtual-ranges |
| Tree | virtual-ranges |
| Introduced | 22.10.R1 |
| Platforms | All |

### **evi** [start] *number*

| | |
|---|---|
| Synopsis | Add a list entry for **evi** |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association vprn-next-hop *(ipv4-address-no-zone \| ipv6-address-no-zone)* virtual-ranges evi *number* |
| Tree | evi |
| Max. instances | 1 |
| Introduced | 22.10.R1 |
| Platforms | All |

### [**start**] *number*

| | |
|---|---|
| Synopsis | EVI range start information |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* association vprn-next-hop *(ipv4-address-no-zone \| ipv6-address-no-zone)* virtual-ranges evi *number* |
| Tree | evi |
| Range | 1 to 16777215 |
| Notes | This element is part of a list key. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **auto-esi** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | EVPN Ethernet segment auto-ESI type |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* auto-esi *keyword* |
| Tree | auto-esi |


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| | |
|---|---|
| Description | This command configures the auto-ESI type to use in the Ethernet segment (ES).When **type-1** is configured, a manual ESI cannot be configured and the ESI is automatically derived in accordance with the RFC 7432 ESI type 1 definition.When configured to **none**, a manual ESI must be configured. |
| Options | none, type-1 |
| Default | none |
| Introduced | 21.5.R1 |
| Platforms | All |

## df-election

| | |
|---|---|
| Synopsis | Enter the **df-election** context |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* df-election |
| Tree | df-election |
| Introduced | 16.0.R1 |
| Platforms | All |

## es-activation-timer *number*

| | |
|---|---|
| Synopsis | Activation timer per Ethernet segment |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* df-election es-activation-timer *number* |
| Tree | es-activation-timer |
| Range | 0 to 100 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

## manual

| | |
|---|---|
| Synopsis | Enter the **manual** context |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* df-election manual |
| Tree | manual |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **evi** [start] *number*

| | |
|---|---|
| Synopsis | Enter the **evi** list instance |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* df-election manual evi *number* |
| Tree | evi |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**start**] *number*

| | |
|---|---|
| Synopsis | Lower bound of EVI range for which the PE is primary |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* df-election manual evi *number* |
| Tree | evi |
| Range | 1 to 16777215 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of EVI range for which the PE is primary |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* df-election manual evi *number* end *number* |
| Tree | end |
| Range | 1 to 16777215 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **isid** [start] *number*

| | |
|---|---|
| Synopsis | Enter the **isid** list instance |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* df-election manual isid *number* |


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| | |
|---|---|
| Tree | isid |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**start**] *number*

| | |
|---|---|
| Synopsis | Lower bound of ISID range for which the PE is primary |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* df-election manual isid *number* |
| Tree | isid |
| Range | 1 to 16777215 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of ISID range for which the PE is primary |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* df-election manual isid *number* end *number* |
| Tree | end |
| Range | 1 to 16777215 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **preference**

| | |
|---|---|
| Synopsis | Enable the **preference** context |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* df-election manual preference |
| Tree | preference |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **mode** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Method used to elect the DF |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* df-election manual preference mode *keyword* |
| Tree | mode |
| Options | revertive, non-revertive |
| Default | revertive |
| Introduced | 16.0.R1 |
| Platforms | All |

### **value** *number*

| | |
|---|---|
| Synopsis | Preference that is used to elect the designated forwarder |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* df-election manual preference value *number* |
| Tree | value |
| Range | 0 to 65535 |
| Default | 32767 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **service-carving-mode** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Mode of service carving enabled per EVPN associated with this Ethernet segment entry |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* df-election service-carving-mode *keyword* |
| Tree | service-carving-mode |
| Options | auto, manual, off |


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| | |
|---|---|
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | All |

## **esi** *ethernet-segment-id-mac-based*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Ethernet segment identifier |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* esi *ethernet-segment-id-mac-based* |
| Tree | esi |
| Introduced | 16.0.R1 |
| Platforms | All |

## **multi-homing-mode** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Multihoming mode of the Ethernet segment |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* multi-homing-mode *keyword* |
| Tree | multi-homing-mode |
| Description | This command configures the multihoming mode for the Ethernet segment as defined in RFC 7432.<br>By default, the use of ESI label is enabled for **all-active** and **single-active** as defined in RFC 7432 (for **single-active multi-homing,** the ESI label is used to avoid transient loops).<br>When **single-active no-esi-label** or **all-active no-esi-label** is specified, the system does not allocate a label for the ESI; and therefore, advertises ESI label 0 to peers. Even if the ESI is configured not to send the ESI label, on reception of an ESI label from a peer, the PE always sends traffic to that peer using the received ESI label. |
| Options | none, single-active, single-active-no-esi-label, all-active, all-active-no-esi-label |
| Default | none |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **oper-group** *reference*

| | |
|---|---|
| Synopsis | Operational group ID |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* oper-group *reference* |
| Tree | oper-group |
| Reference | **configure** service oper-group *named-item* |
| Introduced | 19.10.R1 |
| Platforms | All |

### **orig-ip** *(ipv4-address-no-zone | ipv6-address-no-zone)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Originating IP address advertised in the ES route |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* orig-ip *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | orig-ip |
| Introduced | 16.0.R4 |
| Platforms | All |

### **pbb**

| | |
|---|---|
| Synopsis | Enter the **pbb** context |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* pbb |
| Tree | pbb |
| Introduced | 16.0.R1 |
| Platforms | All |

### **es-bmac-table-size** *number*

| | |
|---|---|
| Synopsis | Size of virtual backbone mac table for this ethernet segment |


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| | |
|---|---|
| Context | **configure** service system bgp evpn ethernet-segment *named-item* pbb es-bmac-table-size *number* |
| Tree | es-bmac-table-size |
| Range | 1 to 511999 |
| Default | 8 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **source-bmac-lsb** *bmac-lsb-no-zero*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Least significant bytes of the B-MAC for packet source |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* pbb source-bmac-lsb *bmac-lsb-no-zero* |
| Tree | source-bmac-lsb |
| Introduced | 16.0.R1 |
| Platforms | All |

## **route-next-hop** *(ipv4-address-no-zone | ipv6-address-no-zone)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Next-hop IP address for ES and AD per ES routes |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* route-next-hop *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | route-next-hop |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **type** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Ethernet Segment type |
| Context | **configure** service system bgp evpn ethernet-segment *named-item* type *keyword* |
| Tree | type |
| Options | none, virtual |
| Default | none |
| Introduced | 16.0.R1 |
| Platforms | All |

### **etree-leaf-label** *boolean*

| | |
|---|---|
| Synopsis | Enable E-Tree leaf label for PE |
| Context | **configure** service system bgp evpn etree-leaf-label *boolean* |
| Tree | etree-leaf-label |
| Description | When configured to **true**, this command enables EVPN Ethernet-Tree (E-Tree) VPLS services on the router (not B-VPLS), allocates an E-Tree leaf label for the Provider Edge (PE) device, and configures the ILM entry.This command ensures that in-flight traffic can perform an ILM entry lookup at any time, and avoids discards when administratively enabling or disabling services, or reduces the timing window so that it does not occur during normal operation or configuration. The value for the E-Tree leaf label is set via the **etree-leaf-label-value** command.<br>When configured to **false**, PE leaf labels are not supported. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **etree-leaf-label-value** *(number | keyword)*

| | |
|---|---|
| Synopsis | Global E-tree leaf label for PE in EVPN E-Tree services |
| Context | **configure** service system bgp evpn etree-leaf-label-value *(number \| keyword)* |
| Tree | etree-leaf-label-value |
| Range | 32 to 524526 |
| Options | dynamic |


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| | |
|---|---|
| Default | dynamic |
| Introduced | 21.7.R1 |
| Platforms | All |

## ip-prefix-routes

| | |
|---|---|
| Synopsis | Enter the **ip-prefix-routes** context |
| Context | **configure** service system bgp evpn ip-prefix-routes |
| Tree | ip-prefix-routes |
| Introduced | 21.2.R1 |
| Platforms | All |

## interface-ful

| | |
|---|---|
| Synopsis | Enter the **interface-ful** context |
| Context | **configure** service system bgp evpn ip-prefix-routes interface-ful |
| Tree | interface-ful |
| Description | Commands in this context configure IP prefix routes for Interface-ful (IFF) configurations. |
| Introduced | 24.3.R1 |
| Platforms | All |

## attribute-uniform-propagation *boolean*

| | |
|---|---|
| Synopsis | Enable attribute uniform propagation |
| Context | **configure** service system bgp evpn ip-prefix-routes interface-ful attribute-uniform-propagation *boolean* |
| Tree | attribute-uniform-propagation |
| Description | When configured to **true**, the system enables the uniform propagation of BGP attributes for EVPN-IFF routes.<br>When configured to **false**, the system re-originates the BGP path attributes when propagating EVPN-IFF routes into other inter-subnet forwarding families. |
| Default | false |
| Introduced | 24.3.R1 |
| Platforms | All |


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### **bgp-path-selection** *boolean*

| | |
|---|---|
| Synopsis | Enable BGP path selection |
| Context | **configure** service system bgp evpn ip-prefix-routes interface-ful bgp-path-selection *boolean* |
| Tree | bgp-path-selection |
| Description | When configured to **true**, the system enables BGP path selection for EVPN-IFF routes. The EVPN-IFF routes are ordered and selected in a similar manner as IP-VPN or EVPN-IFL routes, that is, based on the regular BGP path selection process.<br><br>When configured to **false**, the system orders EVPN-IFF routes based on their {R-VPLS Ifindex, RD, Ethernet Tag}. For example, if two EVPN-IFF routes with different Route Distinguishers (RDs) are received for the same prefix on the same R-VPLS, the route with the lowest RD is selected. |
| Default | false |
| Introduced | 24.3.R1 |
| Platforms | All |

### **d-path-length-ignore** *boolean*

| | |
|---|---|
| Synopsis | Ignore the D-PATH length when using BGP path selection |
| Context | **configure** service system bgp evpn ip-prefix-routes interface-ful d-path-length-ignore *boolean* |
| Tree | d-path-length-ignore |
| Default | false |
| Introduced | 24.3.R1 |
| Platforms | All |

### **interface-less**

| | |
|---|---|
| Synopsis | Enter the **interface-less** context |
| Context | **configure** service system bgp evpn ip-prefix-routes interface-less |
| Tree | interface-less |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |


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### **vxlan-router-mac** *mac-unicast-address-no-zero*

| | |
|---|---|
| Synopsis | VXLAN router MAC address |
| Context | **configure** service system bgp evpn ip-prefix-routes interface-less vxlan-router-mac *mac-unicast-address-no-zero* |
| Tree | vxlan-router-mac |
| Description | This command configures the router MAC address of the VXLAN instance in the VPRN. This MAC address is encoded in the router MAC extended community that is advertised with the IP prefix routes with VXLAN encapsulation. This MAC address is configured at the system level and used by all the VPRN services configured with VXLAN instances.<br><br>When unconfigured, the chassis base MAC is used as the inner source MAC in the originated packets for all the EVPN IFL VXLAN instances, as well as in the MAC extended community of the router. |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### **multicast-leave-sync-propagation** *number*

| | |
|---|---|
| Synopsis | Multicast leave group synchronization delay |
| Context | **configure** service system bgp evpn multicast-leave-sync-propagation *number* |
| Tree | multicast-leave-sync-propagation |
| Description | This command configures the additional amount of time that the system waits before removing a multicast state that was synchronized in an Ethernet Segment via Multicast Join or Leave Synch routes. This value represents a delta corresponding to the time it takes for a BGP advertisement to propagate to ES peers.<br><br>The node triggering the route computes the maximum response time as the product of the locally configured values, Last Member Query Count and Last Member Query Interval, and adds the delta value to the maximum response time. The query count value is configured in the **configure services vrpn igmp robust-count** command. The query interval value is taken from the **configure service vpls sap igmp-snooping query-last-member-interval** or the **configure service vpls spoke-sdp igmp-snooping query-last-member-interval** configuration, depending on the Ethernet Segment.<br><br>Increasing the maximum response time by this value can help minimize the churn of removing and recreating the state on the node.<br><br>This value should be configured consistently in all ES peers. |
| Range | 0 to 300 |
| Units | seconds |
| Default | 5 |
| Introduced | 20.7.R1 |
| Platforms | All |


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### **route-distinguisher** *vpn-route-distinguisher*

| | |
|---|---|
| Synopsis | Route distinguisher for ES routes |
| Context | **configure** service system bgp evpn route-distinguisher *vpn-route-distinguisher* |
| Tree | route-distinguisher |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bgp-auto-rd-range**

| | |
|---|---|
| Synopsis | Enter the **bgp-auto-rd-range** context |
| Context | **configure** service system bgp-auto-rd-range |
| Tree | bgp-auto-rd-range |
| Introduced | 16.0.R1 |
| Platforms | All |

### **community-value**

| | |
|---|---|
| Synopsis | Enter the **community-value** context |
| Context | **configure** service system bgp-auto-rd-range community-value |
| Tree | community-value |
| Introduced | 16.0.R1 |
| Platforms | All |

### **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of BGP route distinguisher community range |
| Context | **configure** service system bgp-auto-rd-range community-value end *number* |
| Tree | end |
| Range | 1 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of BGP route distinguisher community range |
| Context | **configure** service system bgp-auto-rd-range community-value start *number* |
| Tree | start |
| Range | 1 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ip-address** *ipv4-address*

| | |
|---|---|
| Synopsis | IP address used for selecting the route distinguisher |
| Context | **configure** service system bgp-auto-rd-range ip-address *ipv4-address* |
| Tree | ip-address |
| Introduced | 16.0.R1 |
| Platforms | All |

### **extended-default-qinq-sap-lookup** *boolean*

| | |
|---|---|
| Synopsis | Control the forwarding of the packets |
| Context | **configure** service system extended-default-qinq-sap-lookup *boolean* |
| Tree | extended-default-qinq-sap-lookup |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-1, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e, VSR |

### **fdb**

| | |
|---|---|
| Synopsis | Enter the **fdb** context |
| Context | **configure** service system fdb |
| Tree | fdb |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **table-size** *number*

| | |
|---|---|
| Synopsis | Maximum FDB entries in the system |
| Context | **configure** service system fdb table-size *number* |
| Tree | table-size |
| Description | This command configures the maximum system FDB table size, which is dependent on the chassis type.<br>CPMs with at least 16 GB of memory are required when exceeding 500 000 MAC addresses in a system. This command cannot be set to a value lower than the default, which is chassis-dependent. The maximum system FDB table size also limits the maximum FDB table size of any card within the system.<br>The command default depends on the chassis type and available memory. |
| Range | 4095 to 2047999 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **gre-eth-bridged**

| | |
|---|---|
| Synopsis | Enter the **gre-eth-bridged** context |
| Context | **configure** service system gre-eth-bridged |
| Tree | gre-eth-bridged |
| Introduced | 16.0.R1 |
| Platforms | All |

### **tunnel-termination** [ip-address] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Enter the **tunnel-termination** list instance |
| Context | **configure** service system gre-eth-bridged tunnel-termination *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | tunnel-termination |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ip-address**] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Tunnel end-point IP address in the SR OS node |


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| | |
|---|---|
| Context | **configure** service system gre-eth-bridged tunnel-termination *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | tunnel-termination |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **fpe-id** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | FPE ID |
| Context | **configure** service system gre-eth-bridged tunnel-termination *(ipv4-address-no-zone \| ipv6-address-no-zone)* fpe-id *reference* |
| Tree | fpe-id |
| Reference | **configure** fwd-path-ext fpe *number* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **pw-port-list**

| | |
|---|---|
| Synopsis | Enter the **pw-port-list** context |
| Context | **configure** service system pw-port-list |
| Tree | pw-port-list |
| Introduced | 16.0.R6 |
| Platforms | VSR |

## **port** [port-id] *port*

| | |
|---|---|
| Synopsis | Add a list entry for **port** |
| Context | **configure** service system pw-port-list port *port* |
| Tree | port |
| Introduced | 16.0.R6 |


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| | |
|---|---|
| Platforms | VSR |

### [**port-id**] *port*

| | |
|---|---|
| Synopsis | Port ID |
| Context | **configure** service system pw-port-list port *port* |
| Tree | port |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R6 |
| Platforms | VSR |

### **vpn-gre-source-ip** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | VPN GRE source ip-address |
| Context | **configure** service system vpn-gre-source-ip *ipv4-unicast-address* |
| Tree | vpn-gre-source-ip |
| Introduced | 16.0.R4 |
| Platforms | All |

### **vxlan**

| | |
|---|---|
| Synopsis | Enter the **vxlan** context |
| Context | **configure** service system vxlan |
| Tree | vxlan |
| Introduced | 16.0.R1 |
| Platforms | All |

### **assisted-replication**

| | |
|---|---|
| Synopsis | Enter the **assisted-replication** context |
| Context | **configure** service system vxlan assisted-replication |
| Tree | assisted-replication |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **ip-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IP address for assisted replication in the router |
| Context | **configure** service system vxlan assisted-replication ip-address *ipv4-unicast-address* |
| Tree | ip-address |
| Introduced | 16.0.R1 |
| Platforms | All |

### **tunnel-termination** [ip-address] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Enter the **tunnel-termination** list instance |
| Context | **configure** service system vxlan tunnel-termination *(ipv4-address-no-zone | ipv6-address-no-zone)* |
| Tree | tunnel-termination |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ip-address**] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Non-system IP address that terminates the VXLAN |
| Context | **configure** service system vxlan tunnel-termination *(ipv4-address-no-zone | ipv6-address-no-zone)* |
| Tree | tunnel-termination |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **fpe-id** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | FPE id for this entry |
| Context | **configure** service system vxlan tunnel-termination *(ipv4-address-no-zone | ipv6-address-no-zone)* fpe-id *reference* |
| Tree | fpe-id |


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| | |
|---|---|
| Reference | **configure** fwd-path-ext fpe *number* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### template

| | |
|---|---|
| Synopsis | Enter the **template** context |
| Context | **configure** service template |
| Tree | template |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### epipe-sap-template [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **epipe-sap-template** list instance |
| Context | **configure** service template epipe-sap-template *named-item* |
| Tree | epipe-sap-template |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | SAP template name |
| Context | **configure** service template epipe-sap-template *named-item* |
| Tree | epipe-sap-template |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### egress

| | |
|---|---|
| Synopsis | Enter the **egress** context |
| Context | **configure** service template epipe-sap-template *named-item* egress |


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| | |
|---|---|
| Tree | egress |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### filter

| | |
|---|---|
| Synopsis | Enter the **filter** context |
| Context | **configure** service template epipe-sap-template *named-item* egress filter |
| Tree | filter |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### ip *reference*

| | |
|---|---|
| Synopsis | IPv4 filter policy name |
| Context | **configure** service template epipe-sap-template *named-item* egress filter ip *reference* |
| Tree | ip |
| Reference | **configure** filter ip-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### ipv6 *reference*

| | |
|---|---|
| Synopsis | IPv6 filter policy name |
| Context | **configure** service template epipe-sap-template *named-item* egress filter ipv6 *reference* |
| Tree | ipv6 |
| Reference | **configure** filter ipv6-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### mac *reference*

| | |
|---|---|
| Synopsis | MAC filter policy name |
| Context | **configure** service template epipe-sap-template *named-item* egress filter mac *reference* |
| Tree | mac |


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| | |
|---|---|
| Reference | **configure** filter mac-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## qos

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** service template epipe-sap-template *named-item* egress qos |
| Tree | qos |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## policy-name *reference*

| | |
|---|---|
| Synopsis | SAP egress QoS policy name to apply to the SAP |
| Context | **configure** service template epipe-sap-template *named-item* egress qos policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos sap-egress *qos-policy-name* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## ingress

| | |
|---|---|
| Synopsis | Enter the **ingress** context |
| Context | **configure** service template epipe-sap-template *named-item* ingress |
| Tree | ingress |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## filter

| | |
|---|---|
| Synopsis | Enter the **filter** context |
| Context | **configure** service template epipe-sap-template *named-item* ingress filter |
| Tree | filter |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ip** *reference*

| | |
|---|---|
| Synopsis | IPv4 filter policy name |
| Context | **configure** service template epipe-sap-template *named-item* ingress filter ip *reference* |
| Tree | ip |
| Reference | **configure** filter ip-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ipv6** *reference*

| | |
|---|---|
| Synopsis | IPv6 filter policy name |
| Context | **configure** service template epipe-sap-template *named-item* ingress filter ipv6 *reference* |
| Tree | ipv6 |
| Reference | **configure** filter ipv6-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **mac** *reference*

| | |
|---|---|
| Synopsis | MAC filter policy name |
| Context | **configure** service template epipe-sap-template *named-item* ingress filter mac *reference* |
| Tree | mac |
| Reference | **configure** filter mac-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **qos**

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** service template epipe-sap-template *named-item* ingress qos |
| Tree | qos |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **policy-name** *reference*

| | |
|---|---|
| Synopsis | SAP ingress QoS policy name to apply to the SAP |
| Context | **configure** service template epipe-sap-template *named-item* ingress qos policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos sap-ingress *qos-policy-name* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **queuing-type** *keyword*

| | |
|---|---|
| Synopsis | Queuing type |
| Context | **configure** service template epipe-sap-template *named-item* ingress qos queuing-type *keyword* |
| Tree | queuing-type |
| Options | shared, multipoint-shared |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **upnp**

| | |
|---|---|
| Synopsis | Enter the **upnp** context |
| Context | **configure** service upnp |
| Tree | upnp |
| Description | Commands in this context configure Universal Plug 'n Play (UPnP) for the service. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **policy** [name] *external-named-item*

| | |
|---|---|
| Synopsis | Enter the **policy** list instance |
| Context | **configure** service upnp policy *external-named-item* |


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| | |
|---|---|
| Tree | policy |
| Description | Commands in this context configure the attributes of the UPnP policy. |
| Max. instances | 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *external-named-item*

| | |
|---|---|
| Synopsis | UPnP policy name |
| Context | **configure** service upnp policy *external-named-item* |
| Tree | policy |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service upnp policy *external-named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **mapping-limit** *number*

| | |
|---|---|
| Synopsis | Maximum number of UPnP mappings per subscriber |
| Context | **configure** service upnp policy *external-named-item* mapping-limit *number* |
| Tree | mapping-limit |
| Range | 1 to 256 |
| Default | 256 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **port** *number*

| | |
|---|---|
| Synopsis | HTTP TCP port to which the UPnP IGD listens |
| Context | **configure** service upnp policy *external-named-item* port *number* |
| Tree | port |
| Range | 1 to 65535 |
| Default | 5000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **strict-mode** *boolean*

| | |
|---|---|
| Synopsis | Enable UPnP strict mode |
| Context | **configure** service upnp policy *external-named-item* strict-mode *boolean* |
| Tree | strict-mode |
| Description | When configured to **true**, this command enables UPnP strict mode, in which the system only allows changes to an existing UPnP mapping if the request comes from the same UPnP client. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **vpls** [service-name] *service-name*

| | |
|---|---|
| Synopsis | Enter the **vpls** list instance |
| Context | **configure** service vpls *service-name* |
| Tree | vpls |
| Description | Commands in this context create or edit a Virtual Private LAN Services (VPLS) instance. |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**service-name**] *service-name*

| | |
|---|---|
| Synopsis | Administrative service name |
| Context | **configure** service vpls *service-name* |


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| | |
|---|---|
| Tree | vpls |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the service |
| Context | **configure** service vpls *service-name* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bgp** [bgp-instance] *number*

| | |
|---|---|
| Synopsis | Enter the **bgp** list instance |
| Context | **configure** service vpls *service-name* bgp *number* |
| Tree | bgp |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**bgp-instance**] *number*

| | |
|---|---|
| Synopsis | BGP instance |
| Context | **configure** service vpls *service-name* bgp *number* |
| Tree | bgp |
| Range | 1 to 2 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **adv-service-mtu** *number*

| | |
|---|---|
| Synopsis | Advertised service MTU value |
| Context | **configure** service vpls *service-name* bgp *number* adv-service-mtu *number* |
| Tree | adv-service-mtu |
| Description | This command configures the MTU signaled value used in the BGP for BGP-VPLS service and in the LDP for BGP-AD service. The router uses the value for signaling and for validation with the received MTU instead of the service MTU. However, the value does not affect the locally enforced value, which is still based on the service MTU. |
| Range | 0 to 9782 |
| Introduced | 22.2.R1 |
| Platforms | All |

### **pw-template-binding** [pw-template-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **pw-template-binding** list instance |
| Context | **configure** service vpls *service-name* bgp *number* pw-template-binding *reference* |
| Tree | pw-template-binding |
| Max. instances | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**pw-template-name**] *reference*

| | |
|---|---|
| Synopsis | Policy name |
| Context | **configure** service vpls *service-name* bgp *number* pw-template-binding *reference* |
| Tree | pw-template-binding |
| Reference | **configure** service pw-template *pw-template-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bfd-liveness** *boolean*

| | |
|---|---|
| Synopsis | Enable BFD |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* bgp *number* pw-template-binding *reference* bfd-liveness *boolean* |
| Tree | bfd-liveness |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **bfd-template** *reference*

| | |
|---|---|
| Synopsis | BFD template name for PW-Template binding |
| Context | **configure** service vpls *service-name* bgp *number* pw-template-binding *reference* bfd-template *reference* |
| Tree | bfd-template |
| Reference | **configure** bfd bfd-template *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **import-rt** *route-target*

| | |
|---|---|
| Synopsis | Import route-target communities |
| Context | **configure** service vpls *service-name* bgp *number* pw-template-binding *reference* import-rt *route-target* |
| Tree | import-rt |
| String length | 10 to 28 |
| Max. instances | 5 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **monitor-oper-group** *reference*

| | |
|---|---|
| Synopsis | Operational group to monitor |
| Context | **configure** service vpls *service-name* bgp *number* pw-template-binding *reference* monitor-oper-group *reference* |
| Tree | monitor-oper-group |
| Reference | **configure** service oper-group *named-item* |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **monitor-oper-group** or **oper-group**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **oper-group** *reference*

| | |
|---|---|
| Synopsis | Operational group |
| Context | **configure** service vpls *service-name* bgp *number* pw-template-binding *reference* oper-group *reference* |
| Tree | oper-group |
| Reference | **configure** service oper-group *named-item* |
| Notes | The following elements are part of a choice: **monitor-oper-group** or **oper-group**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **split-horizon-group** *named-item*

| | |
|---|---|
| Synopsis | Split horizon group |
| Context | **configure** service vpls *service-name* bgp *number* pw-template-binding *reference* split-horizon-group *named-item* |
| Tree | split-horizon-group |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **route-distinguisher** *(keyword | vpn-route-distinguisher)*

| | |
|---|---|
| Synopsis | High-order 6 bytes that are used as string to compose VSI-ID for use in NLRI |
| Context | **configure** service vpls *service-name* bgp *number* route-distinguisher *(keyword | vpn-route-distinguisher)* |
| Tree | route-distinguisher |
| Options | auto-rd |
| Introduced | 16.0.R1 |
| Platforms | All |


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## route-target

| | |
|---|---|
| Synopsis | Enter the **route-target** context |
| Context | **configure** service vpls *service-name* bgp *number* route-target |
| Tree | route-target |
| Introduced | 16.0.R1 |
| Platforms | All |

## export *route-target*

| | |
|---|---|
| Synopsis | Extended community name for default import policy |
| Context | **configure** service vpls *service-name* bgp *number* route-target export *route-target* |
| Tree | export |
| String length | 10 to 28 |
| Introduced | 16.0.R1 |
| Platforms | All |

## import *route-target*

| | |
|---|---|
| Synopsis | Extended community name for default import policy |
| Context | **configure** service vpls *service-name* bgp *number* route-target import *route-target* |
| Tree | import |
| String length | 10 to 28 |
| Introduced | 16.0.R1 |
| Platforms | All |

## vsi-export *reference*

| | |
|---|---|
| Synopsis | VSI export policies |
| Context | **configure** service vpls *service-name* bgp *number* vsi-export *reference* |
| Tree | vsi-export |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **vsi-import** *reference*

| | |
|---|---|
| Synopsis | VSI import policies |
| Context | **configure** service vpls *service-name* bgp *number* vsi-import *reference* |
| Tree | vsi-import |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bgp-ad**

| | |
|---|---|
| Synopsis | Enable the **bgp-ad** context |
| Context | **configure** service vpls *service-name* bgp-ad |
| Tree | bgp-ad |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of BGP Auto-Discovery |
| Context | **configure** service vpls *service-name* bgp-ad admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **vpls-id** *vpls-id*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | VPLS identifier as a 8-byte route distinguisher |
| Context | **configure** service vpls *service-name* bgp-ad vpls-id *vpls-id* |
| Tree | vpls-id |
| Introduced | 16.0.R1 |
| Platforms | All |

### **vsi-id-prefix** *ipv4-address*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | VSI prefix value |
| Context | **configure** service vpls *service-name* bgp-ad vsi-id-prefix *ipv4-address* |
| Tree | vsi-id-prefix |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bgp-evpn**

| | |
|---|---|
| Synopsis | Enable the **bgp-evpn** context |
| Context | **configure** service vpls *service-name* bgp-evpn |
| Tree | bgp-evpn |
| Description | Commands in this context to configure the BGP-EVPN options. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **accept-ivpls-evpn-flush** *boolean*

| | |
|---|---|
| Synopsis | Accept and process non-zero ethernet-tag MAC routes |
| Context | **configure** service vpls *service-name* bgp-evpn accept-ivpls-evpn-flush *boolean* |


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| | |
|---|---|
| Tree | accept-ivpls-evpn-flush |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **evi** *number*

| | |
|---|---|
| Synopsis | EVPN ID |
| Context | **configure** service vpls *service-name* bgp-evpn evi *number* |
| Tree | evi |
| Description | This command configures a 2-byte EVPN instance (EVI) unique in the system. It is used for the service-carving algorithm for multi-homing and auto-deriving route target and route distinguishers.<br>If not specified, the EVPN ID value is zero and no route distinguisher or route targets are auto-derived from it.<br>If the EVI ID value is specified and no other **route-distinguisher** or **route-target** is configured in the service, the following rules apply:<br>• the route distinguisher is derived from <system_ip>:evi<br>• the route target is derived from <autonomous-system>:evi<br>If VSI import and export policies are configured, the route target must be configured in the policies and those values take precedence over the auto-derived route targets. If **bgp-ad vpls-id** and **bgp-evpn evi** are both configured on the same service, the VPLS ID auto-derived route target or route distinguisher takes precedence over the values auto-derived from the EVI. Use the **show service id bgp** command to display the operational route target for a service. |
| Range | 1 to 16777215 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **ignore-mtu-mismatch** *boolean*

| | |
|---|---|
| Synopsis | Ignore MTU mismatch |
| Context | **configure** service vpls *service-name* bgp-evpn ignore-mtu-mismatch *boolean* |
| Tree | ignore-mtu-mismatch |
| Description | When configured to **true**, the system ignores the received Layer 2 MTU in the L2 Attributes extended community of the IMET route for a peer.<br>When configured to **false**, the system compares the local service MTU against the received Layer 2 MTU and if there is a mismatch, keeps the EVPN destination to the peer with operational state down. |


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| | |
|---|---|
| Default | false |
| Introduced | 23.3.R1 |
| Platforms | All |

### **incl-mcast-orig-ip** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Originating IP address |
| Context | **configure** service vpls *service-name* bgp-evpn incl-mcast-orig-ip *ipv4-unicast-address* |
| Tree | incl-mcast-orig-ip |
| Introduced | 16.0.R1 |
| Platforms | All |

### **isid-route-target**

| | |
|---|---|
| Synopsis | Enter the **isid-route-target** context |
| Context | **configure** service vpls *service-name* bgp-evpn isid-route-target |
| Tree | isid-route-target |
| Introduced | 16.0.R1 |
| Platforms | All |

### **range** [start] *number*

| | |
|---|---|
| Synopsis | Enter the **range** list instance |
| Context | **configure** service vpls *service-name* bgp-evpn isid-route-target range *number* |
| Tree | range |
| Max. instances | 8192 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**start**] *number*

| | |
|---|---|
| Synopsis | Lower bound of the ISID range |
| Context | **configure** service vpls *service-name* bgp-evpn isid-route-target range *number* |
| Tree | range |
| Range | 1 to 16777215 |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the ISID range |
| Context | **configure** service vpls *service-name* bgp-evpn isid-route-target range *number* end *number* |
| Tree | end |
| Range | 1 to 16777215 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **route-target** *route-target*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Route for the ISID range |
| Context | **configure** service vpls *service-name* bgp-evpn isid-route-target range *number* route-target *route-target* |
| Tree | route-target |
| String length | 10 to 28 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **type** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Method used to support the PBB-EVPN ISID-based route target advertisement |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* bgp-evpn isid-route-target range *number* type *keyword* |
| Tree | type |
| Options | auto, configured |
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | All |

## mac-duplication

| | |
|---|---|
| Synopsis | Enter the **mac-duplication** context |
| Context | **configure** service vpls *service-name* bgp-evpn mac-duplication |
| Tree | mac-duplication |
| Description | Commands in this context configure the BGP EVPN MAC duplication command options. |
| Introduced | 16.0.R1 |
| Platforms | All |

## blackhole *boolean*

| | |
|---|---|
| Synopsis | Use duplicated MAC as a black-hole MAC |
| Context | **configure** service vpls *service-name* bgp-evpn mac-duplication blackhole *boolean* |
| Tree | blackhole |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## detect

| | |
|---|---|
| Synopsis | Enter the **detect** context |
| Context | **configure** service vpls *service-name* bgp-evpn mac-duplication detect |
| Tree | detect |
| Description | Commands in this context monitor the number of moves of a MAC address for a period of time (window). |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **num-moves** *number*

| | |
|---|---|
| Synopsis | BGP EVPN MAC duplication detection number of moves |
| Context | **configure** service vpls *service-name* bgp-evpn mac-duplication detect num-moves *number* |
| Tree | num-moves |
| Range | 3 to 10 |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **trusted-mac-move-factor** *number*

| | |
|---|---|
| Synopsis | Trusted MAC move factor |
| Context | **configure** service vpls *service-name* bgp-evpn mac-duplication detect trusted-mac-move-factor *number* |
| Tree | trusted-mac-move-factor |
| Description | This command configures the factor by which the number of moves is multiplied when detecting a MAC duplication event for trusted MACs. For example, if the number of moves is 5 and the trusted MAC move factor is 3, 5 moves, within the window, is enough to declare a non-trusted MAC as duplicate. However, 15 moves are needed to declare a trusted MAC as duplicate.<br>By default the factor for a trusted MAC is the same as for a non-trusted MAC. This provides a backwards compatible solution upon upgrade of the node. |
| Range | 1 to 10 |
| Default | 1 |
| Introduced | 23.7.R1 |
| Platforms | All |

### **window** *number*

| | |
|---|---|
| Synopsis | BGP EVPN MAC duplication detection window |
| Context | **configure** service vpls *service-name* bgp-evpn mac-duplication detect window *number* |
| Tree | window |
| Range | 1 to 15 |
| Units | minutes |
| Default | 3 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **retry** *(number | keyword)*

| | |
|---|---|
| Synopsis | BGP EVPN MAC duplication retry time |
| Context | **configure** service vpls *service-name* bgp-evpn mac-duplication retry *(number | keyword)* |
| Tree | retry |
| Range | 2 to 60 |
| Units | minutes |
| Options | never |
| Default | 9 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **trusted-mac-time** *number*

| | |
|---|---|
| Synopsis | Trusted MAC time |
| Context | **configure** service vpls *service-name* bgp-evpn mac-duplication trusted-mac-time *number* |
| Tree | trusted-mac-time |
| Description | This command configures how long a MAC address needs to stay in the FDB as type learned without being flushed or changed in its type so the MAC is declared as trusted for the MAC duplication procedures. If the MAC changes from SAP to SAP within the same VPLS service and node, the MAC does not reset its trusted MAC timer. |
| Range | 1 to 15 |
| Units | minutes |
| Default | 5 |
| Introduced | 23.7.R1 |
| Platforms | All |

### **mpls** [bgp-instance] *number*

| | |
|---|---|
| Synopsis | Enter the **mpls** list instance |
| Context | **configure** service vpls *service-name* bgp-evpn mpls *number* |


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| | |
|---|---|
| Tree | mpls |
| Description | Commands in this context configure the BGP-EVPN MPLS options. |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**bgp-instance**] *number*

| | |
|---|---|
| Synopsis | BGP instance |
| Context | **configure** service vpls *service-name* bgp-evpn mpls *number* |
| Tree | mpls |
| Range | 1 to 2 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of BGP EVPN MPLS |
| Context | **configure** service vpls *service-name* bgp-evpn mpls *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **auto-bind-tunnel**

| | |
|---|---|
| Synopsis | Enter the **auto-bind-tunnel** context |
| Context | **configure** service vpls *service-name* bgp-evpn mpls *number* auto-bind-tunnel |
| Tree | auto-bind-tunnel |
| Description | Commands in this context configure automatic binding of a VPRN service using tunnels to MP-BGP peers. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **allow-flex-algo-fallback** *boolean*

| | |
|---|---|
| Synopsis | Enable flexible algorithm fallback |
| Context | **configure** service vpls *service-name* bgp-evpn mpls *number* auto-bind-tunnel allow-flex-algo-fallback *boolean* |
| Tree | allow-flex-algo-fallback |
| Description | When configured to **true**, a BGP router with a Flex-Algorithm action configured (via the **configure policy-options policy-statement entry action flex-algo** command) can resolve to a tunnel with algorithm 0 if no target Flex-Algorithm tunnel is available**.**<br><br>When configured to **false**, the BGP router can resolve only to the intended Flex-Algorithm tunnel, which may cause traffic loss if no corresponding Flex-Algorithm tunnel is available. |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | All |

### **ecmp** *number*

| | |
|---|---|
| Synopsis | Maximum ECMP routes information |
| Context | **configure** service vpls *service-name* bgp-evpn mpls *number* auto-bind-tunnel ecmp *number* |
| Tree | ecmp |
| Range | 1 to 32 |
| Default | 1 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **enforce-strict-tunnel-tagging** *boolean*

| | |
|---|---|
| Synopsis | Enable/disable enforcement of strict tunnel tagging |
| Context | **configure** service vpls *service-name* bgp-evpn mpls *number* auto-bind-tunnel enforce-strict-tunnel-tagging *boolean* |
| Tree | enforce-strict-tunnel-tagging |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |


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## **enforce-untagged-route** *keyword*

| | |
|---|---|
| Synopsis | Untagged route type enforcement |
| Context | **configure** service vpls *service-name* bgp-evpn mpls *number* auto-bind-tunnel enforce-untagged-route *keyword* |
| Tree | enforce-untagged-route |
| Description | This command configures the enforcement of BGP routes with no administrative tag policy applied by modifying the next-hop resolution behavior for autobind services.<br><br>If the **untagged-tunnel** option is configured, untagged routes only bind to LSPs with no administrative tag configured. If both tagged and untagged tunnels to the next hop exist, the system only considers the untagged tunnels. If no untagged tunnels to the next hop exist, the resolution of untagged routes fails.<br><br>The **untagged-tunnel** option can be used in combination with the **enforce-strict-tunnel-tagging** command configured to **true**, in which case tagged routes resolve to tagged LSPs, and untagged routes only resolve to untagged LSPs.<br><br>When unconfigured, untagged routes can bind to tagged or untagged LSPs. |
| Options | none – Untagged routes can bind to tagged or untagged LSPs<br>untagged-tunnel – Untagged routes only bind to LSPs without an admin tag |
| Default | none |
| Introduced | 24.10.R1 |
| Platforms | All |

## **resolution** *keyword*

| | |
|---|---|
| Synopsis | Resolution method for tunnel selection |
| Context | **configure** service vpls *service-name* bgp-evpn mpls *number* auto-bind-tunnel resolution *keyword* |
| Tree | resolution |
| Options | none, filter, any |
| Default | none |
| Introduced | 16.0.R1 |
| Platforms | All |

## **resolution-filter**

| | |
|---|---|
| Synopsis | Enter the **resolution-filter** context |
| Context | **configure** service vpls *service-name* bgp-evpn mpls *number* auto-bind-tunnel resolution-filter |


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| | |
|---|---|
| Tree | resolution-filter |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bgp** *boolean*

| | |
|---|---|
| Synopsis | Use BGP tunneling for next-hop resolution |
| Context | **configure** service vpls *service-name* bgp-evpn mpls *number* auto-bind-tunnel resolution-filter bgp *boolean* |
| Tree | bgp |
| Description | When configured to **true**, BGP searches the BGP LSP for the address of the BGP next hop.<br>When configured to **false**, BGP tunneling is not used and inter-area or inter-as prefixes are not resolved. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ldp** *boolean*

| | |
|---|---|
| Synopsis | Use LDP tunneling for next-hop resolution |
| Context | **configure** service vpls *service-name* bgp-evpn mpls *number* auto-bind-tunnel resolution-filter ldp *boolean* |
| Tree | ldp |
| Description | When configured to **true**, BGP searches for an LDP LSP with a FEC prefix corresponding to the address of the BGP next hop.<br>When configured to **false**, LDP tunneling is not used for next-hop resolution. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mpls-fwd-policy** *boolean*

| | |
|---|---|
| Synopsis | Use MPLS forwarding policy for next-hop resolution |
| Context | **configure** service vpls *service-name* bgp-evpn mpls *number* auto-bind-tunnel resolution-filter mpls-fwd-policy *boolean* |
| Tree | mpls-fwd-policy |


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| | |
|---|---|
| Description | When configured to **true**, BGP uses the MPLS forwarding policy to determine the address of the BGP next hop.<br>When configured to **false**, the MPLS forwarding policy is not used for next-hop resolution. |
| Default | false |
| Introduced | 19.5.R1 |
| Platforms | All |

### **rib-api** *boolean*

| | |
|---|---|
| Synopsis | Use RIB API gRPC service for next-hop resolution |
| Context | **configure** service vpls *service-name* bgp-evpn mpls *number* auto-bind-tunnel resolution-filter rib-api *boolean* |
| Tree | rib-api |
| Description | When configured to **true**, BGP uses tunnels programmed using the RIB API gRPC service to resolve the next hops of routes imported into the EVPN service.<br>When configured to **false**, the RIB API service tunnels are not used for next-hop resolution. |
| Default | false |
| Introduced | 19.5.R1 |
| Platforms | All |

### **rsvp** *boolean*

| | |
|---|---|
| Synopsis | Use RSVP tunneling for next-hop resolution |
| Context | **configure** service vpls *service-name* bgp-evpn mpls *number* auto-bind-tunnel resolution-filter rsvp *boolean* |
| Tree | rsvp |
| Description | When configured to **true**, BGP searches the best metric RSVP LSP to determine the address of the BGP next hop. This address can correspond to the system interface or to another loopback interface used by the BGP instance on the remote node. The LSP metric is provided by MPLS in the tunnel table. In the case of multiple RSVP LSPs with the same lowest metric, BGP selects the LSP with the lowest tunnel ID.<br>When configured to **false**, the RSVP LSP is not used for next-hop resolution. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **sr-isis** *boolean*

| | |
|---|---|
| Synopsis | Use IS-IS SR tunneling for next-hop resolution |
| Context | **configure** service vpls *service-name* bgp-evpn mpls *number* auto-bind-tunnel resolution-filter sr-isis *boolean* |
| Tree | sr-isis |
| Description | When configured to **true**, BGP uses an IS-IS tunnel type to determine the address of the BGP next hop.<br>The SR tunnel to the BGP next hop is selected in the TTM from the lowest-numbered IS-IS instance.<br>When configured to **false**, IS-IS tunneling is not used for next-hop resolution. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sr-ospf** *boolean*

| | |
|---|---|
| Synopsis | Use OSPF SR tunneling for next-hop resolution |
| Context | **configure** service vpls *service-name* bgp-evpn mpls *number* auto-bind-tunnel resolution-filter sr-ospf *boolean* |
| Tree | sr-ospf |
| Description | When configured to **true**, BGP uses an OSPF tunnel type to determine the address of the BGP next hop.<br>The SR tunnel to the BGP next hop is selected in the TTM from the lowest-numbered OPSF instance.<br>When configured to **false**, OSPF tunneling is not used for next-hop resolution. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sr-ospf3** *boolean*

| | |
|---|---|
| Synopsis | Use OSPFv3 SR tunneling for next-hop resolution |
| Context | **configure** service vpls *service-name* bgp-evpn mpls *number* auto-bind-tunnel resolution-filter sr-ospf3 *boolean* |
| Tree | sr-ospf3 |
| Description | When configured to **true**, BGP uses an OSPF3 tunnel type to determine the address of the BGP next hop. |


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The SR tunnel to the BGP next hop is selected in the TTM from the lowest-numbered OPSF3 instance.

When configured to **false**, OSPF3 tunneling is not used for next-hop resolution.

| | |
|---|---|
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **sr-policy** *boolean*

| | |
|---|---|
| Synopsis | Use SR policies for next-hop resolution |
| Context | **configure** service vpls *service-name* bgp-evpn mpls *number* auto-bind-tunnel resolution-filter sr-policy *boolean* |
| Tree | sr-policy |
| Description | When configured to **true**, this command instructs BGP to use an SR policy to determine the address of the BGP next hop. The SR policy search criteria includes a non-null endpoint and color value that matches the BGP next hop and color extended community value, respectively, of the EVPN route.<br>When configured to **false**, SR policies are not used for next-hop resolution. |
| Default | false |
| Introduced | 19.5.R1 |
| Platforms | All |

### **sr-te** *boolean*

| | |
|---|---|
| Synopsis | Use SR-TE tunneling for next-hop resolution |
| Context | **configure** service vpls *service-name* bgp-evpn mpls *number* auto-bind-tunnel resolution-filter sr-te *boolean* |
| Tree | sr-te |
| Description | When configured to **true**, BGP uses an SR-TE tunnel type to determine the address of the BGP next hop.<br>The SR tunnel to the BGP next hop is selected in the TTM from the lowest-numbered tunnel ID.<br>When configured to **false**, SR-TE tunneling is not used for next-hop resolution. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **udp** *boolean*

| | |
|---|---|
| Synopsis | Use MPLS over UDP tunneling for next-hop resolution |
| Context | **configure** service vpls *service-name* bgp-evpn mpls *number* auto-bind-tunnel resolution-filter udp *boolean* |
| Tree | udp |
| Description | When configured to **true**, BGP uses an MPLS over UDP tunnel type to determine the address of the BGP next hop.<br>When configured to **false**, MPLS over UDP tunneling is not used for next-hop resolution. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **weighted-ecmp** *boolean*

| | |
|---|---|
| Synopsis | Allow weighted load balancing |
| Context | **configure** service vpls *service-name* bgp-evpn mpls *number* auto-bind-tunnel weighted-ecmp *boolean* |
| Tree | weighted-ecmp |
| Description | When configured to **true**, this router enables weighted ECMP for packets using tunnels that a VPLS or Epipe automatically binds to. Packets are sprayed across LSPs in the ECMP according to the outcome of the hash algorithm and the configured load balancing weight of each LSP.<br>When configured to **false**, this command disables weighted ECMP for next-hop tunnel selection. |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | All |

### **control-word** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable control word support |
| Context | **configure** service vpls *service-name* bgp-evpn mpls *number* control-word *boolean* |
| Tree | control-word |


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| | |
|---|---|
| Description | When configured to **true**, the router enables the transmission and reception of the control word for all EVPN-MPLS destinations at the same time. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **default-route-tag** *one-byte-value*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Default route tag |
| Context | **configure** service vpls *service-name* bgp-evpn mpls *number* default-route-tag *one-byte-value* |
| Tree | default-route-tag |
| Description | This command configures a route tag that is used when sending a route to the BGP application (for the corresponding service and BGP instance). If the corresponding BGP instance is enabled, the command cannot be changed.<br>When used for BGP EVPN contexts, only one route tag can be passed to BGP for matching on export policies. In case of a conflict with other route tags pushed by EVPN, the default route tag has the least priority. |
| Introduced | 16.0.R4 |
| Platforms | All |

## **dynamic-egress-label-limit** *boolean*

| | |
|---|---|
| Synopsis | Enables dynamic egress label limit |
| Context | **configure** service vpls *service-name* bgp-evpn mpls *number* dynamic-egress-label-limit *boolean* |
| Tree | dynamic-egress-label-limit |
| Description | When configured to **true**, this command relaxes the egress MPLS label limit check when resolving BGP next hops in the tunnel table.<br>For VPRN services, the OAM label is never computed and, therefore, one more egress label is allowed.<br>For EVPN (Epipe and VPLS) services, the system only computes the control word and ESI label if they are used. For the control word, the system reduces the egress label limit by one label if the control word is configured in the service. When configured, the ESI label is not counted for Epipes or VPLS services without an ES. |


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When configured to **false** this command, for EVPN, Epipe, and VPLS services, always accounts for the ESI label and control word.

| | |
|---|---|
| Default | false |
| Introduced | 22.2.R1 |
| Platforms | All |

### **ecmp** *number*

| | |
|---|---|
| Synopsis | Maximum ECMP routes information |
| Context | **configure** service vpls *service-name* bgp-evpn mpls *number* ecmp *number* |
| Tree | ecmp |
| Range | 1 to 32 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **entropy-label** *boolean*

| | |
|---|---|
| Synopsis | Allow use of entropy labels for spoke SDPs |
| Context | **configure** service vpls *service-name* bgp-evpn mpls *number* entropy-label *boolean* |
| Tree | entropy-label |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **evi-three-byte-auto-rt** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Auto-derive the BGP EVPN route target |
| Context | **configure** service vpls *service-name* bgp-evpn mpls *number* evi-three-byte-auto-rt *boolean* |
| Tree | evi-three-byte-auto-rt |
| Description | When configured to **true**, the BGP-EVPN instance import and export route target is auto-derived as described in RFC 8365 (Global-Administrator:A/Type/D-ID/Service-ID). |


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Where:

- Global Administrator – is the configured 2-octet AS number; if the configured ASN exceeds the 2 byte limit, the low order 16-bit value is taken
- A=0 (for auto-derivation)
- Type=4 (EVI-based route-target)
- D-ID= [1..2] – encodes the BGP instance, which allows the auto-derivation of different route-targets in multi-instance services; the value is inherited from the corresponding BGP instance
- Service ID=3-octet EVI

When configured to **false**, route target derivation is not allowed.

| | |
|---|---|
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | All |

## fdb

| | |
|---|---|
| Synopsis | Enter the **fdb** context |
| Context | **configure** service vpls *service-name* bgp-evpn mpls *number* fdb |
| Tree | fdb |
| Introduced | 16.0.R1 |
| Platforms | All |

## protected-src-mac-violation-action *keyword*

| | |
|---|---|
| Synopsis | Relearn request for a protected MAC is received action |
| Context | **configure** service vpls *service-name* bgp-evpn mpls *number* fdb protected-src-mac-violation-action *keyword* |
| Tree | protected-src-mac-violation-action |
| Options | discard |
| Introduced | 16.0.R1 |
| Platforms | All |

## force-vc-forwarding *keyword*

| | |
|---|---|
| Synopsis | VC forwarding action |
| Context | **configure** service vpls *service-name* bgp-evpn mpls *number* force-vc-forwarding *keyword* |


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| | |
|---|---|
| Tree | force-vc-forwarding |
| Options | vlan, qinq-c-tag-c-tag, qinq-s-tag-c-tag |
| Introduced | 16.0.R1 |
| Platforms | All |

## **hash-label** *boolean*

| | |
|---|---|
| Synopsis | Default profile when the CP-provided profile is unknown |
| Context | **configure** service vpls *service-name* bgp-evpn mpls *number* hash-label *boolean* |
| Tree | hash-label |
| Description | When configured to **true**, the router pushes the hash label.<br>The hash label is never used for BUM packets.<br>The hash-label push is based on the following:<br>• If **advertise-l2-attributes** (in the **configure service vpls bgp-evpn routes incl-mcast** context) is set to **false**, the hash label is pushed to a unicast EVPN destination.<br>• If **advertise-l2-attributes** is set to **true**, the F bit is set to 1 in the Layer 2 Attributes Extended Community of the EVPN IMET route for the service. The hash label is pushed only if the remote PE signaled support for hash label (received F bit is set to 1). |
| Default | false |
| Introduced | 23.10.R1 |
| Platforms | All |

## **ingress-replication-bum-label** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Use the same label as the one advertised for unicast traffic |
| Context | **configure** service vpls *service-name* bgp-evpn mpls *number* ingress-replication-bum-label *boolean* |
| Tree | ingress-replication-bum-label |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **mh-mode** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Multihoming mode |
| Context | **configure** service vpls *service-name* bgp-evpn mpls *number* mh-mode *keyword* |
| Tree | mh-mode |
| Description | This command configures the multihoming mode for BGP-EVPN. Users can configure only one network instance for the service.<br>If a provider tunnel is enabled for the service instance, this command must be configured using the **network** option. |
| Options | access, network |
| Default | network |
| Introduced | 21.10.R1 |
| Platforms | All |

## **oper-group** *reference*

| | |
|---|---|
| Synopsis | Operational group ID |
| Context | **configure** service vpls *service-name* bgp-evpn mpls *number* oper-group *reference* |
| Tree | oper-group |
| Reference | **configure** service oper-group *named-item* |
| Introduced | 19.10.R1 |
| Platforms | All |

## **route-next-hop**

| | |
|---|---|
| Synopsis | Enter the **route-next-hop** context |
| Context | **configure** service vpls *service-name* bgp-evpn mpls *number* route-next-hop |
| Tree | route-next-hop |
| Description | Commands in this context configure the next hop of the EVPN routes. |
| Introduced | 19.10.R1 |
| Platforms | All |


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## **ip-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IP address of the next-hop for the service EVPN route |
| Context | **configure** service vpls *service-name* bgp-evpn mpls *number* route-next-hop ip-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | ip-address |
| Notes | The following elements are part of a choice: **ip-address**, **system-ipv4**, or **system-ipv6**. |
| Introduced | 19.10.R1 |
| Platforms | All |

## system-ipv4

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | System IPv4 address for service EVPN route next hop |
| Context | **configure** service vpls *service-name* bgp-evpn mpls *number* route-next-hop system-ipv4 |
| Tree | system-ipv4 |
| Notes | The following elements are part of a choice: **ip-address**, **system-ipv4**, or **system-ipv6**. |
| Introduced | 19.10.R1 |
| Platforms | All |

## system-ipv6

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | System IPv6 address for service EVPN route next hop |
| Context | **configure** service vpls *service-name* bgp-evpn mpls *number* route-next-hop system-ipv6 |
| Tree | system-ipv6 |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **ip-address**, **system-ipv4**, or **system-ipv6**. |
| Introduced | 19.10.R1 |
| Platforms | All |

## send-tunnel-encap

| | |
|---|---|
| Synopsis | Enter the **send-tunnel-encap** context |
| Context | **configure** service vpls *service-name* bgp-evpn mpls *number* send-tunnel-encap |
| Tree | send-tunnel-encap |
| Introduced | 16.0.R1 |
| Platforms | All |

## mpls *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable MPLS encapsulation |
| Context | **configure** service vpls *service-name* bgp-evpn mpls *number* send-tunnel-encap mpls *boolean* |
| Tree | mpls |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

## mpls-over-udp *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable MPLS over UDP encapsulation |
| Context | **configure** service vpls *service-name* bgp-evpn mpls *number* send-tunnel-encap mpls-over-udp *boolean* |
| Tree | mpls-over-udp |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## **split-horizon-group** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Split horizon group |
| Context | **configure** service vpls *service-name* bgp-evpn mpls *number* split-horizon-group *reference* |
| Tree | split-horizon-group |
| Description | This command configures the value of split-horizon group for all BGP-EVPN segment routing v6 instances. |
| Reference | **configure** service vpls *service-name* split-horizon-group *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

## routes

| | |
|---|---|
| Synopsis | Enter the **routes** context |
| Context | **configure** service vpls *service-name* bgp-evpn routes |
| Tree | routes |
| Introduced | 16.0.R1 |
| Platforms | All |

## incl-mcast

| | |
|---|---|
| Synopsis | Enter the **incl-mcast** context |
| Context | **configure** service vpls *service-name* bgp-evpn routes incl-mcast |
| Tree | incl-mcast |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **advertise-ingress-replication** *boolean*

| | |
|---|---|
| Synopsis | BGP EVPN IMET-IR route advertisement |
| Context | **configure** service vpls *service-name* bgp-evpn routes incl-mcast advertise-ingress-replication *boolean* |
| Tree | advertise-ingress-replication |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **advertise-l2-attributes** *boolean*

| | |
|---|---|
| Synopsis | Advertise Layer 2 attributes |
| Context | **configure** service vpls *service-name* bgp-evpn routes incl-mcast advertise-l2-attributes *boolean* |
| Tree | advertise-l2-attributes |
| Description | When configured to **true**, the router advertises the Layer 2 Attributes Extended Community including:<br>• the service MTU in the Layer 2 MTU field<br>• the F bit, which is set to 1 if the **hash-label** command is set to true (in the **configure service vpls bgp-evpn mpls** context); otherwise, the F bit is set to 0<br>• the C bit, which is set to 1 if the **control-word** command is set to true (in the **configure service vpls bgp-evpn mpls** context); otherwise, the C bit is set to 0<br>The router compares the received Layer 2 MTU from a peer with the local service MTU. If there is a mismatch, the operation state of the EVPN destination is set to down, except if the **configure service vpls bgp-evpn ignore-mtu-mistmatch** command is set to **true**.<br>A mismatch between the received C bit and the local **control-word** setting (in the **configure service vpls bgp-evpn mpls** context) results in the operational state of the EVPN destination being set to down.<br>A mismatch between the received F bit and the local F bit (via the hash label configuration) results in the operational state of the EVPN destination being set to down.<br>When configured to **false**, the Layer 2 Attributes Extended Community is not advertised with the Inclusive Multicast Ethernet Tag route for the service. |
| Default | false |
| Introduced | 23.3.R1 |
| Platforms | All |


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## ip-prefix

| | |
|---|---|
| Synopsis | Enter the **ip-prefix** context |
| Context | **configure** service vpls *service-name* bgp-evpn routes ip-prefix |
| Tree | ip-prefix |
| Introduced | 16.0.R1 |
| Platforms | All |

## advertise *boolean*

| | |
|---|---|
| Synopsis | Advertise IP prefixes |
| Context | **configure** service vpls *service-name* bgp-evpn routes ip-prefix advertise *boolean* |
| Tree | advertise |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## domain-id *domain-id*

| | |
|---|---|
| Synopsis | Domain ID of received BGP route before readvertisement |
| Context | **configure** service vpls *service-name* bgp-evpn routes ip-prefix domain-id *domain-id* |
| Tree | domain-id |
| Description | This command specifies the domain ID. The domain ID identifies the network from which the BGP route was received before the RTM advertises it to a different neighbor. The domain ID is part of a domain, represented as domain-id:isf_safi_type in the D-PATH attribute, as described in *draft-ietf-bess-evpn-ipvpn-interworking*. Gateway routers modify the D-PATH attribute. A gateway is a PE where a VPRN is instantiated. The VPRN in this case advertises or receives routes from multiple BGP owners (for example, EVPN-IFL and BGP-IPVPN) or multiple instances of the same owner (for example, VPRN with two BGP-IPVPN instances).<br><br>Gateways use the D-PATH attribute to detect loops (for received routes where the D-PATH contains a local domain ID) and to make BGP best-path selection decisions based on the D-PATH length (shorter D-PATH is preferred).<br><br>In the following example, suppose a gateway receives prefix P in an EVPN-IFL instance with the following D-PATH from neighbor N:<br><br>Seg Len=1 / 65000:1:128<br><br>If the router imports the route in VPRN-1, BGP-EVPN SRv6 instance with domain 65000:2, it readvertises it to its BGP-IPVPN MPLS instance as follows:<br><br>Seg Len=2 / 65000:2:70 / 65000:1:128 |


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That is, the gateway prepends the local domain ID and family to the D-PATH before readvertising the route into a different instance.

| | |
|---|---|
| Introduced | 21.10.R1 |
| Platforms | All |

## **include-direct-interface-host** *boolean*

| | |
|---|---|
| Synopsis | Advertise the interface host address in EVPN |
| Context | **configure** service vpls *service-name* bgp-evpn routes ip-prefix include-direct-interface-host *boolean* |
| Tree | include-direct-interface-host |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **link-bandwidth**

| | |
|---|---|
| Synopsis | Enter the **link-bandwidth** context |
| Context | **configure** service vpls *service-name* bgp-evpn routes ip-prefix link-bandwidth |
| Tree | link-bandwidth |
| Introduced | 22.7.R1 |
| Platforms | All |

## **advertise**

| | |
|---|---|
| Synopsis | Enable the **advertise** context |
| Context | **configure** service vpls *service-name* bgp-evpn routes ip-prefix link-bandwidth advertise |
| Tree | advertise |
| Introduced | 22.7.R1 |
| Platforms | All |

## **max-dynamic-weight** *number*

| | |
|---|---|
| Synopsis | Maximum weight of the advertised evpn-iff route |
| Context | **configure** service vpls *service-name* bgp-evpn routes ip-prefix link-bandwidth advertise max-dynamic-weight *number* |


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| | |
|---|---|
| Tree | max-dynamic-weight |
| Range | 1 to 128 |
| Default | 128 |
| Introduced | 22.7.R1 |
| Platforms | All |

### **weight** *(number | keyword)*

| | |
|---|---|
| Synopsis | Weight of the advertised evpn-iff route |
| Context | **configure** service vpls *service-name* bgp-evpn routes ip-prefix link-bandwidth advertise weight *(number | keyword)* |
| Tree | weight |
| Range | 1 to 128 |
| Options | dynamic |
| Default | dynamic |
| Introduced | 22.7.R1 |
| Platforms | All |

### **weighted-ecmp** *boolean*

| | |
|---|---|
| Synopsis | Enable weighted ECMP |
| Context | **configure** service vpls *service-name* bgp-evpn routes ip-prefix link-bandwidth weighted-ecmp *boolean* |
| Tree | weighted-ecmp |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | All |

### **mac-ip**

| | |
|---|---|
| Synopsis | Enter the **mac-ip** context |
| Context | **configure** service vpls *service-name* bgp-evpn routes mac-ip |
| Tree | mac-ip |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **advertise** *boolean*

| | |
|---|---|
| Synopsis | Advertise BGP-EVPN MAC/IP routes |
| Context | **configure** service vpls *service-name* bgp-evpn routes mac-ip advertise *boolean* |
| Tree | advertise |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **arp-nd-extended-community** *boolean*

| | |
|---|---|
| Synopsis | Enable ARP/ND extended community |
| Context | **configure** service vpls *service-name* bgp-evpn routes mac-ip arp-nd-extended-community *boolean* |
| Tree | arp-nd-extended-community |
| Description | When configured to **true**, the system advertises the RFC9047 ARP/ND extended community along with the MAC/IP routes advertised for local static and dynamic proxy ARP or ND entries. The system also processes the ARP/ND extended community and selects the ARP or ND entries based on the immutable flag.<br>When configured to **false**, the system does not advertise the RFC9047 ARP/ND extended community. |
| Default | false |
| Introduced | 23.3.R1 |
| Platforms | All |

### **arp-nd-only-with-fdb-advertisement** *boolean*

| | |
|---|---|
| Synopsis | Advertise ARP/ND entries if local MAC is in the FDB |
| Context | **configure** service vpls *service-name* bgp-evpn routes mac-ip arp-nd-only-with-fdb-advertisement *boolean* |
| Tree | arp-nd-only-with-fdb-advertisement |
| Description | When configured to **true**, the router advertises local ARP/ND entries of VPRN interfaces using this VPLS in this BGP-EVPN service when the corresponding local MAC is programmed in the FDB.<br>When configured to **false**, the router does not advertise local ARP/ND entries. |
| Default | false |
| Introduced | 23.10.R3 |


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| | |
|---|---|
| Platforms | All |

### **cfm-mac** *boolean*

| | |
|---|---|
| Synopsis | Enable advertisement and withdrawal of MAC address |
| Context | **configure** service vpls *service-name* bgp-evpn routes mac-ip cfm-mac *boolean* |
| Tree | cfm-mac |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **unknown-mac** *boolean*

| | |
|---|---|
| Synopsis | Enable advertisement of unknown MAC route in BGP |
| Context | **configure** service vpls *service-name* bgp-evpn routes mac-ip unknown-mac *boolean* |
| Tree | unknown-mac |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sel-mcast**

| | |
|---|---|
| Synopsis | Enter the **sel-mcast** context |
| Context | **configure** service vpls *service-name* bgp-evpn routes sel-mcast |
| Tree | sel-mcast |
| Introduced | 19.10.R2 |
| Platforms | All |

### **advertise** *boolean*

| | |
|---|---|
| Synopsis | Advertise Selective Multicast Ethernet Tag routes |
| Context | **configure** service vpls *service-name* bgp-evpn routes sel-mcast advertise *boolean* |
| Tree | advertise |
| Default | false |
| Introduced | 19.10.R2 |


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| | |
|---|---|
| Platforms | All |

### **vlan-aware-bundle-eth-tag** *number*

| | |
|---|---|
| Synopsis | Ethernet tag associated with VPLS service |
| Context | **configure** service vpls *service-name* bgp-evpn routes vlan-aware-bundle-eth-tag *number* |
| Tree | vlan-aware-bundle-eth-tag |
| Description | This command configures the Ethernet Tag ID in the EVPN routes for control-plane interoperability mode with VLAN-aware bundle services. The configuration of a non-default value requires the previous configuration of a VLAN-aware bundle name on the service.<br>When set to a non-zero value, the EVPN routes advertised for the VPLS service are advertised with this value into the Ethernet Tag ID field of the routes.<br>On reception of EVPN routes with non-zero Ethernet Tag ID, BGP imports the routes based on the import route target as usual. However, the system checks the received Ethernet Tag ID field and only processes those routes whose Ethernet Tag ID matches the local VLAN-aware bundle Ethernet Tag ID. |
| Range | 1 to 16777215 |
| Introduced | 24.3.R1 |
| Platforms | All |

### **segment-routing-v6** [bgp-instance] *number*

| | |
|---|---|
| Synopsis | Enter the **segment-routing-v6** list instance |
| Context | **configure** service vpls *service-name* bgp-evpn segment-routing-v6 *number* |
| Tree | segment-routing-v6 |
| Description | Commands in this context configure the SRv6 instance used in the service. |
| Max. instances | 1 |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### [**bgp-instance**] *number*

| | |
|---|---|
| Synopsis | BGP instance |
| Context | **configure** service vpls *service-name* bgp-evpn segment-routing-v6 *number* |
| Tree | segment-routing-v6 |


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| | |
|---|---|
| Range | 1 to 2 |
| Notes | This element is part of a list key. |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of segment routing over IPv6 |
| Context | **configure** service vpls *service-name* bgp-evpn segment-routing-v6 *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **default-route-tag** *one-byte-value*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Default route tag |
| Context | **configure** service vpls *service-name* bgp-evpn segment-routing-v6 *number* default-route-tag *one-byte-value* |
| Tree | default-route-tag |
| Description | This command configures a route tag that is used when sending a route to the BGP application (for the corresponding service and BGP instance). If the corresponding BGP instance is enabled, the command cannot be changed.<br>When used for BGP EVPN contexts, only one route tag can be passed to BGP for matching on export policies. In case of a conflict with other route tags pushed by EVPN, the default route tag has the least priority. |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **ecmp** *number*

| | |
|---|---|
| Synopsis | Maximum ECMP value configured on the service |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* bgp-evpn segment-routing-v6 *number* ecmp *number* |
| Tree | ecmp |
| Range | 1 to 32 |
| Default | 1 |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **evi-three-byte-auto-rt** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Auto-derive the BGP EVPN route target |
| Context | **configure** service vpls *service-name* bgp-evpn segment-routing-v6 *number* evi-three-byte-auto-rt *boolean* |
| Tree | evi-three-byte-auto-rt |
| Description | When configured to **true**, the BGP-EVPN instance import and export route target is auto-derived as described in RFC 8365 (Global-Administrator:A/Type/D-ID/Service-ID).<br>Where:<br>• Global Administrator – is the configured 2-octet AS number; if the configured ASN exceeds the 2 byte limit, the low order 16-bit value is taken<br>• A=0 (for auto-derivation)<br>• Type=4 (EVI-based route-target)<br>• D-ID= [1..2] – encodes the BGP instance, which allows the auto-derivation of different route-targets in multi-instance services; the value is inherited from the corresponding BGP instance<br>• Service ID=3-octet EVI<br>When configured to **false**, route target derivation is not allowed. |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **fdb**

| | |
|---|---|
| Synopsis | Enter the **fdb** context |
| Context | **configure** service vpls *service-name* bgp-evpn segment-routing-v6 *number* fdb |


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| | |
|---|---|
| Tree | fdb |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **protected-src-mac-violation-action** *keyword*

| | |
|---|---|
| Synopsis | Relearn request for a protected MAC is received action |
| Context | **configure** service vpls *service-name* bgp-evpn segment-routing-v6 *number* fdb protected-src-mac-violation-action *keyword* |
| Tree | protected-src-mac-violation-action |
| Options | discard |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **force-vc-forwarding** *keyword*

| | |
|---|---|
| Synopsis | Datapath forwarding to force vlan-vc-type |
| Context | **configure** service vpls *service-name* bgp-evpn segment-routing-v6 *number* force-vc-forwarding *keyword* |
| Tree | force-vc-forwarding |
| Description | This command allows the system to preserve the VLAN ID and 802.1p bits of the service-delimiting qtag in a new tag added in the customer frame before sending it to the EVPN destinations.<br>This command may be used in conjunction with the **sap ingress vlan-translation** command. If so used, the configured translated VLAN ID is the VLAN ID sent to the EVPN destinations as opposed to the service-delimiting tag VLAN ID. If the ingress SAP/SDP binding is 'null'-encapsulated, the output VLAN ID and pbits is zero. |
| Options | vlan, qinq-c-tag-c-tag, qinq-s-tag-c-tag |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **mh-mode** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Multihoming mode |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* bgp-evpn segment-routing-v6 *number* mh-mode *keyword* |
| Tree | mh-mode |
| Options | access, network |
| Default | network |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **oper-group** *reference*

| | |
|---|---|
| Synopsis | Operational group |
| Context | **configure** service vpls *service-name* bgp-evpn segment-routing-v6 *number* oper-group *reference* |
| Tree | oper-group |
| Description | This command adds the BGP EVPN SRv6 instance or an Ethernet Segment (ES) as a member of the operational group.<br>When configured on a BGP EVPN instance, the operational group is up when it is either empty (meaning that the operational group has no members) or at least an EVPN destination is created under the EVPN instance added as member. When configured, no other SAP, SDP binding, or BGP EVPN instance can be added to the same operational group within the same or different service.<br>The operational group is down when it is applied on a BGP EVPN instance as well as:<br>• the service is administratively disabled<br>• the BGP EVPN MPLS and VXLAN is administratively disabled<br>• all the EVPN destinations in the instance are removed<br>When configured on an ES, the state of the operational group depends on the state of the SAPs contained in the ES. The operational group transitions to up if at least one SAP in the ES is up. The operational group goes down when all the associated SAPs are operationally down. Monitor the ES operational group on the LAG associated with the ES, along with single-active multihoming, so that the NDF state can be signaled to the CE by LAG standby signaling. |
| Reference | **configure** service oper-group *named-item* |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **resolution** *keyword*

| | |
|---|---|
| Synopsis | Resolution options for routes |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* bgp-evpn segment-routing-v6 *number* resolution *keyword* |
| Tree | resolution |
| Options | route-table, tunnel-table, fallback-tunnel-to-route-table |
| Default | route-table |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## route-next-hop

| | |
|---|---|
| Synopsis | Enter the **route-next-hop** context |
| Context | **configure** service vpls *service-name* bgp-evpn segment-routing-v6 *number* route-next-hop |
| Tree | route-next-hop |
| Description | Commands in this context configure the next hop of the EVPN routes. |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## ip-address *(ipv4-address-no-zone | ipv6-address-no-zone)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IP address of the next-hop for the service EVPN route |
| Context | **configure** service vpls *service-name* bgp-evpn segment-routing-v6 *number* route-next-hop ip-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | ip-address |
| Notes | The following elements are part of a choice: **ip-address**, **system-ipv4**, or **system-ipv6**. |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |


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## system-ipv4

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | System IPv4 address for service EVPN route next hop |
| Context | **configure** service vpls *service-name* bgp-evpn segment-routing-v6 *number* route-next-hop system-ipv4 |
| Tree | system-ipv4 |
| Notes | The following elements are part of a choice: **ip-address**, **system-ipv4**, or **system-ipv6**. |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## system-ipv6

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | System IPv6 address for service EVPN route next hop |
| Context | **configure** service vpls *service-name* bgp-evpn segment-routing-v6 *number* route-next-hop system-ipv6 |
| Tree | system-ipv6 |
| Notes | The following elements are part of a choice: **ip-address**, **system-ipv4**, or **system-ipv6**. |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## source-address *ipv6-unicast-address*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Source IPv6 address |
| Context | **configure** service vpls *service-name* bgp-evpn segment-routing-v6 *number* source-address *ipv6-unicast-address* |
| Tree | source-address |


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| | |
|---|---|
| Description | When configured, this command specifies the source IPv6 address used in the SA field of the outer IPv6 header of the SRv6 encapsulated packet.<br>When not configured, the source IPv6 address is inherited from the configuration of the global default address in the **router "base" segment-routing segment-routing-v6 source-address** context.<br>A source IPv6 address must be configured in this context or in the base router context.<br>The system does not check if the address entered is a valid local address. |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **split-horizon-group** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Split horizon group |
| Context | **configure** service vpls *service-name* bgp-evpn segment-routing-v6 *number* split-horizon-group *reference* |
| Tree | split-horizon-group |
| Description | This command configures the value of split-horizon group for all BGP-EVPN segment routing v6 instances. |
| Reference | **configure** service vpls *service-name* split-horizon-group *named-item* |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## srv6

| | |
|---|---|
| Synopsis | Enter the **srv6** context |
| Context | **configure** service vpls *service-name* bgp-evpn segment-routing-v6 *number* srv6 |
| Tree | srv6 |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |


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## **default-locator** *string*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Default route locator |
| Context | **configure** service vpls *service-name* bgp-evpn segment-routing-v6 *number* srv6 default-locator *string* |
| Tree | default-locator |
| Description | This command specifies the locator that exists in the SRv6 service instance and is used as the default locator for the service. |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **instance** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Segment Routing SRv6 instance |
| Context | **configure** service vpls *service-name* bgp-evpn segment-routing-v6 *number* srv6 instance *reference* |
| Tree | instance |
| Reference | **configure** service vpls *service-name* segment-routing-v6 *number* |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **vlan-aware-bundle** *named-item*

| | |
|---|---|
| Synopsis | VLAN aware bundle name |
| Context | **configure** service vpls *service-name* bgp-evpn vlan-aware-bundle *named-item* |
| Tree | vlan-aware-bundle |
| Description | This command configures the name that identifies a group of bundled VPLS services (broadcast domains). This name allows the user to execute **show** commands that are relevant to all the broadcast domains in a VLAN-aware bundle service group. |
| String length | 1 to 32 |


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| | |
|---|---|
| Introduced | 24.3.R1 |
| Platforms | All |

### **vxlan** [bgp-instance] *number*

| | |
|---|---|
| Synopsis | Enter the **vxlan** list instance |
| Context | **configure** service vpls *service-name* bgp-evpn vxlan *number* |
| Tree | vxlan |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**bgp-instance**] *number*

| | |
|---|---|
| Synopsis | BGP instance |
| Context | **configure** service vpls *service-name* bgp-evpn vxlan *number* |
| Tree | vxlan |
| Range | 1 to 2 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of VXLAN auto-bindings creation |
| Context | **configure** service vpls *service-name* bgp-evpn vxlan *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **default-route-tag** *one-byte-value*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Default route tag |
| Context | **configure** service vpls *service-name* bgp-evpn vxlan *number* default-route-tag *one-byte-value* |
| Tree | default-route-tag |
| Description | This command configures a route tag that is used when sending a route to the BGP application (for the corresponding service and BGP instance). If the corresponding BGP instance is enabled, the command cannot be changed.<br>When used for BGP EVPN contexts, only one route tag can be passed to BGP for matching on export policies. In case of a conflict with other route tags pushed by EVPN, the default route tag has the least priority. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **ecmp** *number*

| | |
|---|---|
| Synopsis | Number of paths to reach a specified MAC address |
| Context | **configure** service vpls *service-name* bgp-evpn vxlan *number* ecmp *number* |
| Tree | ecmp |
| Range | 1 to 32 |
| Default | 1 |
| Introduced | 19.5.R1 |
| Platforms | All |

### **evi-three-byte-auto-rt** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Auto-derive the BGP EVPN route target |
| Context | **configure** service vpls *service-name* bgp-evpn vxlan *number* evi-three-byte-auto-rt *boolean* |


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| | |
|---|---|
| Tree | evi-three-byte-auto-rt |
| Description | When configured to **true**, the BGP-EVPN instance import and export route target is auto-derived as described in RFC 8365 (Global-Administrator:A/Type/D-ID/Service-ID).<br>Where:<br>• Global Administrator – is the configured 2-octet AS number; if the configured ASN exceeds the 2 byte limit, the low order 16-bit value is taken<br>• A=0 (for auto-derivation)<br>• Type=4 (EVI-based route-target)<br>• D-ID= [1..2] – encodes the BGP instance, which allows the auto-derivation of different route-targets in multi-instance services; the value is inherited from the corresponding BGP instance<br>• Service ID=3-octet EVI<br>When configured to **false**, route target derivation is not allowed. |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | All |

## **mh-mode** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Multi-homing mode |
| Context | **configure** service vpls *service-name* bgp-evpn vxlan *number* mh-mode *keyword* |
| Tree | mh-mode |
| Options | access, network |
| Default | access |
| Introduced | 19.5.R1 |
| Platforms | All |

## **oper-group** *reference*

| | |
|---|---|
| Synopsis | Operational group ID |
| Context | **configure** service vpls *service-name* bgp-evpn vxlan *number* oper-group *reference* |
| Tree | oper-group |
| Reference | **configure** service oper-group *named-item* |


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| | |
|---|---|
| Introduced | 19.10.R1 |
| Platforms | All |

## routes

| | |
|---|---|
| Synopsis | Enter the **routes** context |
| Context | **configure** service vpls *service-name* bgp-evpn vxlan *number* routes |
| Tree | routes |
| Introduced | 19.5.R1 |
| Platforms | All |

## auto-disc

| | |
|---|---|
| Synopsis | Enter the **auto-disc** context |
| Context | **configure** service vpls *service-name* bgp-evpn vxlan *number* routes auto-disc |
| Tree | auto-disc |
| Introduced | 19.5.R1 |
| Platforms | All |

## advertise *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Advertise routes on auto-discovery |
| Context | **configure** service vpls *service-name* bgp-evpn vxlan *number* routes auto-disc advertise *boolean* |
| Tree | advertise |
| Default | false |
| Introduced | 19.5.R1 |
| Platforms | All |


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## **send-incl-mcast-ir-on-ndf** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Allow IMET-IR on NDF |
| Context | **configure** service vpls *service-name* bgp-evpn vxlan *number* send-incl-mcast-ir-on-ndf *boolean* |
| Tree | send-incl-mcast-ir-on-ndf |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

## **send-tunnel-encap** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Send VXLAN value in encapsulation extended community |
| Context | **configure** service vpls *service-name* bgp-evpn vxlan *number* send-tunnel-encap *boolean* |
| Tree | send-tunnel-encap |
| Description | When configured to **true**, this command sends the VXLAN value in the encapsulation that is advertised with the EVPN routes for the service. The encapsulation is encoded in RFC5512-based tunnel encapsulation extended communities.<br>When configured to **false**, no encapsulation extended community is sent. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

## **vxlan-instance** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | VXLAN instance |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* bgp-evpn vxlan *number* vxlan-instance *reference* |
| Tree | vxlan-instance |
| Reference | **configure** service vpls *service-name* vxlan instance *number* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bgp-mh-site** [site-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **bgp-mh-site** list instance |
| Context | **configure** service vpls *service-name* bgp-mh-site *named-item* |
| Tree | bgp-mh-site |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**site-name**] *named-item*

| | |
|---|---|
| Synopsis | Name for the specific site |
| Context | **configure** service vpls *service-name* bgp-mh-site *named-item* |
| Tree | bgp-mh-site |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **activation-timer** *number*

| | |
|---|---|
| Synopsis | Time that the local sites are in standby status, waiting for BGP updates |
| Context | **configure** service vpls *service-name* bgp-mh-site *named-item* activation-timer *number* |
| Tree | activation-timer |
| Range | 0 to 100 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the VPLS BGP multi-homing site |
| Context | **configure** service vpls *service-name* bgp-mh-site *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **boot-timer** *number*

| | |
|---|---|
| Synopsis | Wait time after reboot to run the DF election algorithm |
| Context | **configure** service vpls *service-name* bgp-mh-site *named-item* boot-timer *number* |
| Tree | boot-timer |
| Range | 0 to 600 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **failed-threshold** *(number | keyword)*

| | |
|---|---|
| Synopsis | Threshold for the site to be declared down |
| Context | **configure** service vpls *service-name* bgp-mh-site *named-item* failed-threshold *(number \| keyword)* |
| Tree | failed-threshold |
| Range | 1 to 1000 |
| Options | all |
| Default | all |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **id** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Site ID |
| Context | **configure** service vpls *service-name* bgp-mh-site *named-item* id *number* |
| Tree | id |
| Range | 1 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **mesh-sdp-binds**

| | |
|---|---|
| Synopsis | Specify if a mesh-sdp-binding is associated with this site |
| Context | **configure** service vpls *service-name* bgp-mh-site *named-item* mesh-sdp-binds |
| Tree | mesh-sdp-binds |
| Notes | The following elements are part of a choice: **mesh-sdp-binds**, **sap**, **shg-name**, or **spoke-sdp**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **min-down-timer** *number*

| | |
|---|---|
| Synopsis | Minimum downtime for BGP multi-homing site after transition from up to down |
| Context | **configure** service vpls *service-name* bgp-mh-site *named-item* min-down-timer *number* |
| Tree | min-down-timer |
| Range | 0 to 100 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

## **monitor-oper-group** *reference*

| | |
|---|---|
| Synopsis | Operational group to monitor |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* bgp-mh-site *named-item* monitor-oper-group *reference* |
| Tree | monitor-oper-group |
| Reference | **configure** service oper-group *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **sap** *sap*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | SAP to be associated with this site |
| Context | **configure** service vpls *service-name* bgp-mh-site *named-item* sap *sap* |
| Tree | sap |
| String length | 1 to 45 |
| Notes | The following elements are part of a choice: **mesh-sdp-binds**, **sap**, **shg-name**, or **spoke-sdp**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **shg-name** *named-item*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | SHG name to be associated with the site |
| Context | **configure** service vpls *service-name* bgp-mh-site *named-item* shg-name *named-item* |
| Tree | shg-name |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **mesh-sdp-binds**, **sap**, **shg-name**, or **spoke-sdp**. |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **spoke-sdp** *sdp-bind-id*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | SDP associated with the site |
| Context | **configure** service vpls *service-name* bgp-mh-site *named-item* spoke-sdp *sdp-bind-id* |
| Tree | spoke-sdp |
| String length | 3 to 16 |
| Notes | The following elements are part of a choice: **mesh-sdp-binds**, **sap**, **shg-name**, or **spoke-sdp**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **bgp-vpls**

| | |
|---|---|
| Synopsis | Enable the **bgp-vpls** context |
| Context | **configure** service vpls *service-name* bgp-vpls |
| Tree | bgp-vpls |
| Introduced | 16.0.R1 |
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the BGP-VPLS instance |
| Context | **configure** service vpls *service-name* bgp-vpls admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

## **maximum-ve-id** *number*

| | |
|---|---|
| Synopsis | Maximum vpls-edge id for BGP-VPLS |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* bgp-vpls maximum-ve-id *number* |
| Tree | maximum-ve-id |
| Range | 1 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

### ve

| | |
|---|---|
| Synopsis | Enter the **ve** context |
| Context | **configure** service vpls *service-name* bgp-vpls ve |
| Tree | ve |
| Introduced | 16.0.R1 |
| Platforms | All |

### id *number*

| | |
|---|---|
| Synopsis | VPLS edge ID |
| Context | **configure** service vpls *service-name* bgp-vpls ve id *number* |
| Tree | id |
| Range | 1 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

### name *named-item*

| | |
|---|---|
| Synopsis | VPLS Edge instance name |
| Context | **configure** service vpls *service-name* bgp-vpls ve name *named-item* |
| Tree | name |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | All |

### capture-sap [sap-id] *sap*

| | |
|---|---|
| Synopsis | Enter the **capture-sap** list instance |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* capture-sap *sap* |
| Tree | capture-sap |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**sap-id**] *sap*

| | |
|---|---|
| Synopsis | SAP identifier |
| Context | **configure** service vpls *service-name* capture-sap *sap* |
| Tree | capture-sap |
| String length | 1 to 45 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the SAP |
| Context | **configure** service vpls *service-name* capture-sap *sap* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **allow-dot1q-msaps** *boolean*

| | |
|---|---|
| Synopsis | Enable support for triggering managed SAP creation |
| Context | **configure** service vpls *service-name* capture-sap *sap* allow-dot1q-msaps *boolean* |
| Tree | allow-dot1q-msaps |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **bandwidth** *number*

| | |
|---|---|
| Synopsis | SAP bandwidth |
| Context | **configure** service vpls *service-name* capture-sap *sap* bandwidth *number* |
| Tree | bandwidth |
| Range | 1 to 6400000000 |
| Units | kilobps |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **cpu-protection**

| | |
|---|---|
| Synopsis | Enter the **cpu-protection** context |
| Context | **configure** service vpls *service-name* capture-sap *sap* cpu-protection |
| Tree | cpu-protection |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s |

### **mac-monitoring**

| | |
|---|---|
| Synopsis | Monitor MAC for CPU protection |
| Context | **configure** service vpls *service-name* capture-sap *sap* cpu-protection mac-monitoring |
| Tree | mac-monitoring |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s |

### **policy-id** *reference*

| | |
|---|---|
| Synopsis | CPM protection policy |
| Context | **configure** service vpls *service-name* capture-sap *sap* cpu-protection policy-id *reference* |
| Tree | policy-id |
| Reference | **configure** system security cpu-protection policy *number* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s |


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### **description** *long-description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vpls *service-name* capture-sap *sap* description *long-description* |
| Tree | description |
| String length | 1 to 160 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **dhcp**

| | |
|---|---|
| Synopsis | Enter the **dhcp** context |
| Context | **configure** service vpls *service-name* capture-sap *sap* dhcp |
| Tree | dhcp |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **python-policy** *reference*

| | |
|---|---|
| Synopsis | Python policy |
| Context | **configure** service vpls *service-name* capture-sap *sap* dhcp python-policy *reference* |
| Tree | python-policy |
| Reference | **configure** python python-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **user-db** *reference*

| | |
|---|---|
| Synopsis | Local user database |
| Context | **configure** service vpls *service-name* capture-sap *sap* dhcp user-db *reference* |
| Tree | user-db |
| Reference | **configure** subscriber-mgmt local-user-db *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### dhcp6

| | |
|---|---|
| Synopsis | Enter the **dhcp6** context |
| Context | **configure** service vpls *service-name* capture-sap *sap* dhcp6 |
| Tree | dhcp6 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### python-policy *reference*

| | |
|---|---|
| Synopsis | Python policy |
| Context | **configure** service vpls *service-name* capture-sap *sap* dhcp6 python-policy *reference* |
| Tree | python-policy |
| Reference | **configure** python python-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### user-db *reference*

| | |
|---|---|
| Synopsis | Local user database |
| Context | **configure** service vpls *service-name* capture-sap *sap* dhcp6 user-db *reference* |
| Tree | user-db |
| Reference | **configure** subscriber-mgmt local-user-db *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### dist-cpu-protection *reference*

| | |
|---|---|
| Synopsis | Distributed CPU protection policy for SAP |
| Context | **configure** service vpls *service-name* capture-sap *sap* dist-cpu-protection *reference* |
| Tree | dist-cpu-protection |
| Reference | **configure** system security dist-cpu-protection policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **host-lockout-policy** *reference*

| | |
|---|---|
| Synopsis | Host lockout policy |
| Context | **configure** service vpls *service-name* capture-sap *sap* host-lockout-policy *reference* |
| Tree | host-lockout-policy |
| Reference | **configure** subscriber-mgmt host-lockout-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ingress**

| | |
|---|---|
| Synopsis | Enter the **ingress** context |
| Context | **configure** service vpls *service-name* capture-sap *sap* ingress |
| Tree | ingress |
| Introduced | 19.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **filter**

| | |
|---|---|
| Synopsis | Enter the **filter** context |
| Context | **configure** service vpls *service-name* capture-sap *sap* ingress filter |
| Tree | filter |
| Introduced | 19.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **mac** *reference*

| | |
|---|---|
| Synopsis | MAC filter policy name |
| Context | **configure** service vpls *service-name* capture-sap *sap* ingress filter mac *reference* |
| Tree | mac |
| Reference | **configure** filter mac-filter *filter-name* |
| Introduced | 19.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## ipoe-session

| | |
|---|---|
| Synopsis | Enter the **ipoe-session** context |
| Context | **configure** service vpls *service-name* capture-sap *sap* ipoe-session |
| Tree | ipoe-session |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of IPoE session management |
| Context | **configure** service vpls *service-name* capture-sap *sap* ipoe-session admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## description *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vpls *service-name* capture-sap *sap* ipoe-session description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ipoe-session-policy *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IPoE Session policy to be used for new sessions |
| Context | **configure** service vpls *service-name* capture-sap *sap* ipoe-session ipoe-session-policy *reference* |


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| | |
|---|---|
| Tree | ipoe-session-policy |
| Reference | **configure** subscriber-mgmt ipoe-session-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **user-db** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Local user database for IPoE session authentication |
| Context | **configure** service vpls *service-name* capture-sap *sap* ipoe-session user-db *reference* |
| Tree | user-db |
| Reference | **configure** subscriber-mgmt local-user-db *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **msap-defaults**

| | |
|---|---|
| Synopsis | Enter the **msap-defaults** context |
| Context | **configure** service vpls *service-name* capture-sap *sap* msap-defaults |
| Tree | msap-defaults |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **group-interface** *interface-name*

| | |
|---|---|
| Synopsis | Group interface |
| Context | **configure** service vpls *service-name* capture-sap *sap* msap-defaults group-interface *interface-name* |
| Tree | group-interface |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **policy** *reference*

| | |
|---|---|
| Synopsis | MSAP policy |
| Context | **configure** service vpls *service-name* capture-sap *sap* msap-defaults policy *reference* |
| Tree | policy |
| Reference | **configure** subscriber-mgmt msap-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **service-name** *service-name*

| | |
|---|---|
| Synopsis | Administrative service name |
| Context | **configure** service vpls *service-name* capture-sap *sap* msap-defaults service-name *service-name* |
| Tree | service-name |
| String length | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **nasreq-auth-policy** *reference*

| | |
|---|---|
| Synopsis | Diameter NASREQ application policy to use for authentication |
| Context | **configure** service vpls *service-name* capture-sap *sap* nasreq-auth-policy *reference* |
| Tree | nasreq-auth-policy |
| Reference | **configure** subscriber-mgmt diameter-nasreq-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **pfcp**

| | |
|---|---|
| Synopsis | Enter the **pfcp** context |
| Context | **configure** service vpls *service-name* capture-sap *sap* pfcp |
| Tree | pfcp |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **association** *reference*

| | |
|---|---|
| Synopsis | Association used for PFCP messages on the capture SAP |
| Context | **configure** service vpls *service-name* capture-sap *sap* pfcp association *reference* |
| Tree | association |
| Description | This command links the capture SAP to a PFCP association. This enables CUPS for the capture SAP and any trigger packets are forwarded to the BNG CUPS CPF. |
| Reference | **configure** subscriber-mgmt pfcp association *named-item* |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **l2-access-id-alias** *string*

| | |
|---|---|
| Synopsis | String used as Layer 2 access ID for the capture SAP |
| Context | **configure** service vpls *service-name* capture-sap *sap* pfcp l2-access-id-alias *string* |
| Tree | l2-access-id-alias |
| Description | This command defines a Layer 2 access ID alias for the capture SAP. It replaces the default underlying port-based or LAG-based Layer 2 access ID. Different capture SAPs on the same underlying port or LAG can have different Layer 2 access ID aliases. |
| String length | 1 to 32 |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **up-resiliency**

| | |
|---|---|
| Synopsis | Enter the **up-resiliency** context |
| Context | **configure** service vpls *service-name* capture-sap *sap* pfcp up-resiliency |
| Tree | up-resiliency |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **monitor-oper-group** [oper-group] *reference*

| | |
|---|---|
| Synopsis | Enter the **monitor-oper-group** list instance |
| Context | **configure** service vpls *service-name* capture-sap *sap* pfcp up-resiliency monitor-oper-group *reference* |


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| | |
|---|---|
| Tree | monitor-oper-group |
| Description | Commands in this context define parameters to derive the service health based on monitored operational groups. The BNG-UP sends the health value to the MAG-c. The MAG-c uses the value to determine the need for a BNG-UP status change (active or standby).<br><br>**Note:** The following is only applicable for the **configure service vpls capture-sap** context. If the configured groups are not the same for all capture SAPs sharing the same underlying port or LAG, the configuration of a Layer 2 access ID alias is required, or else the system chooses arbitrarily one set of configured groups. |
| Max. instances | 2 |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## [**oper-group**] *reference*

| | |
|---|---|
| Synopsis | Operational group name |
| Context | **configure** service vpls *service-name* capture-sap *sap* pfcp up-resiliency monitor-oper-group *reference* |
| Tree | monitor-oper-group |
| Reference | **configure** service oper-group *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **health-drop** *number*

| | |
|---|---|
| Synopsis | Number subtracted from the health value per failure |
| Context | **configure** service vpls *service-name* capture-sap *sap* pfcp up-resiliency monitor-oper-group *reference* health-drop *number* |
| Tree | health-drop |
| Description | This command configures the drop in the health value for every operational group member failure. Every failure of an operational group member decreases the base health value to a possible minimum of 0. |
| Range | 1 to 100 |
| Default | 1 |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### pppoe

| | |
|---|---|
| Synopsis | Enter the **pppoe** context |
| Context | **configure** service vpls *service-name* capture-sap *sap* pppoe |
| Tree | pppoe |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### policy *reference*

| | |
|---|---|
| Synopsis | PPP policy |
| Context | **configure** service vpls *service-name* capture-sap *sap* pppoe policy *reference* |
| Tree | policy |
| Reference | **configure** subscriber-mgmt ppp-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### python-policy *reference*

| | |
|---|---|
| Synopsis | Python policy |
| Context | **configure** service vpls *service-name* capture-sap *sap* pppoe python-policy *reference* |
| Tree | python-policy |
| Reference | **configure** python python-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### user-db *reference*

| | |
|---|---|
| Synopsis | Local user database |
| Context | **configure** service vpls *service-name* capture-sap *sap* pppoe user-db *reference* |
| Tree | user-db |
| Reference | **configure** subscriber-mgmt local-user-db *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **radius-auth-policy** *reference*

| | |
|---|---|
| Synopsis | RADIUS authentication policy |
| Context | **configure** service vpls *service-name* capture-sap *sap* radius-auth-policy *reference* |
| Tree | radius-auth-policy |
| Reference | **configure** subscriber-mgmt radius-authentication-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **router-solicit**

| | |
|---|---|
| Synopsis | Enter the **router-solicit** context |
| Context | **configure** service vpls *service-name* capture-sap *sap* router-solicit |
| Tree | router-solicit |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **user-db** *reference*

| | |
|---|---|
| Synopsis | Local user database |
| Context | **configure** service vpls *service-name* capture-sap *sap* router-solicit user-db *reference* |
| Tree | user-db |
| Reference | **configure** subscriber-mgmt local-user-db *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **track-srrp** *number*

| | |
|---|---|
| Synopsis | SRRP instance that this capture SAP tracks |
| Context | **configure** service vpls *service-name* capture-sap *sap* track-srrp *number* |
| Tree | track-srrp |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## trigger-packet

| | |
|---|---|
| Synopsis | Enter the **trigger-packet** context |
| Context | **configure** service vpls *service-name* capture-sap *sap* trigger-packet |
| Tree | trigger-packet |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## arp *boolean*

| | |
|---|---|
| Synopsis | ARP packet |
| Context | **configure** service vpls *service-name* capture-sap *sap* trigger-packet arp *boolean* |
| Tree | arp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## data *boolean*

| | |
|---|---|
| Synopsis | Data packet |
| Context | **configure** service vpls *service-name* capture-sap *sap* trigger-packet data *boolean* |
| Tree | data |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## dhcp *boolean*

| | |
|---|---|
| Synopsis | DHCP packet |
| Context | **configure** service vpls *service-name* capture-sap *sap* trigger-packet dhcp *boolean* |
| Tree | dhcp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **dhcp6** *boolean*

| | |
|---|---|
| Synopsis | DHCP6 packet |
| Context | **configure** service vpls *service-name* capture-sap *sap* trigger-packet dhcp6 *boolean* |
| Tree | dhcp6 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **pppoe** *boolean*

| | |
|---|---|
| Synopsis | PPPoE packet |
| Context | **configure** service vpls *service-name* capture-sap *sap* trigger-packet pppoe *boolean* |
| Tree | pppoe |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **rtr-solicit** *boolean*

| | |
|---|---|
| Synopsis | Router-solicit packet |
| Context | **configure** service vpls *service-name* capture-sap *sap* trigger-packet rtr-solicit *boolean* |
| Tree | rtr-solicit |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **customer** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Service customer ID |
| Context | **configure** service vpls *service-name* customer *reference* |
| Tree | customer |


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| | |
|---|---|
| Reference | **configure** service customer *customer-name* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vpls *service-name* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **endpoint** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **endpoint** list instance |
| Context | **configure** service vpls *service-name* endpoint *named-item* |
| Tree | endpoint |
| Max. instances | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | Service endpoint name |
| Context | **configure** service vpls *service-name* endpoint *named-item* |
| Tree | endpoint |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **block-on-mesh-failure** *boolean*

| | |
|---|---|
| Synopsis | Enable blocking after the endpoints are in a down state |
| Context | **configure** service vpls *service-name* endpoint *named-item* block-on-mesh-failure *boolean* |
| Tree | block-on-mesh-failure |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vpls *service-name* endpoint *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **fdb**

| | |
|---|---|
| Synopsis | Enter the **fdb** context |
| Context | **configure** service vpls *service-name* endpoint *named-item* fdb |
| Tree | fdb |
| Introduced | 16.0.R1 |
| Platforms | All |

### **auto-learn-mac-protect** *boolean*

| | |
|---|---|
| Synopsis | Populate automatically MAC protect list with MAC addresses learned on SDP with this endpoint |
| Context | **configure** service vpls *service-name* endpoint *named-item* fdb auto-learn-mac-protect *boolean* |
| Tree | auto-learn-mac-protect |
| Default | false |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## **mac-pinning** *boolean*

| | |
|---|---|
| Synopsis | Activate MAC address pinning on this endpoint |
| Context | **configure** service vpls *service-name* endpoint *named-item* fdb mac-pinning *boolean* |
| Tree | mac-pinning |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **maximum-mac-addresses** *number*

| | |
|---|---|
| Synopsis | Maximum number of MAC address entries in the FDB |
| Context | **configure** service vpls *service-name* endpoint *named-item* fdb maximum-mac-addresses *number* |
| Tree | maximum-mac-addresses |
| Description | This command specifies the maximum number of FDB entries for both learned and static MAC addresses for this endpoint.<br>When the configured limit is reached, no new addresses are learned from the SAP or spoke SDP until at least one FDB entry is aged out or cleared. Packets with unknown source MAC addresses are still forwarded if their destination MAC addresses are known, or flooded if their destination MAC addresses are unknown.<br>However, if the **configure service vpls fdb discard-unknown** command is set to **true**, packets with unknown destination MAC addresses are discarded, even if the limit of FDB entries on the specific VPLS instance is not reached.<br>When unconfigured, the endpoint uses the global MAC learning limitations. |
| Range | 1 to 511999 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **protected-src-mac-violation-action** *keyword*

| | |
|---|---|
| Synopsis | Action when a relearn request for a protected MAC is received on the SDP |
| Context | **configure** service vpls *service-name* endpoint *named-item* fdb protected-src-mac-violation-action *keyword* |
| Tree | protected-src-mac-violation-action |
| Options | sdp-bind-oper-down, alarm-only, discard |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **ignore-standby-signaling** *boolean*

| | |
|---|---|
| Synopsis | Ignore standby-bit received from TLDP peers when performing internal tasks |
| Context | **configure** service vpls *service-name* endpoint *named-item* ignore-standby-signaling *boolean* |
| Tree | ignore-standby-signaling |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mc-endpoint** [mc-ep-id] *number*

| | |
|---|---|
| Synopsis | Enter the **mc-endpoint** list instance |
| Context | **configure** service vpls *service-name* endpoint *named-item* mc-endpoint *number* |
| Tree | mc-endpoint |
| Max. instances | 1 |
| Introduced | 22.10.R1 |
| Platforms | All |

### [**mc-ep-id**] *number*

| | |
|---|---|
| Synopsis | MC-EP ID |
| Context | **configure** service vpls *service-name* endpoint *named-item* mc-endpoint *number* |
| Tree | mc-endpoint |
| Description | This command configures the identifier associated with the MC-EP. The ID must be the same on both MC-EP peers. |
| Range | 1 to 4294967295 |
| Notes | This element is part of a list key. |
| Introduced | 22.10.R1 |
| Platforms | All |


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### mc-ep-peer

| | |
|---|---|
| Synopsis | Enter the **mc-ep-peer** context |
| Context | **configure** service vpls *service-name* endpoint *named-item* mc-endpoint *number* mc-ep-peer |
| Tree | mc-ep-peer |
| Introduced | 22.10.R1 |
| Platforms | All |

### name *named-item*

| | |
|---|---|
| Synopsis | Name of the MC-EP peer |
| Context | **configure** service vpls *service-name* endpoint *named-item* mc-endpoint *number* mc-ep-peer name *named-item* |
| Tree | name |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **name** or **peer-address**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### peer-address *reference*

| | |
|---|---|
| Synopsis | IP address of the MC-EP peer |
| Context | **configure** service vpls *service-name* endpoint *named-item* mc-endpoint *number* mc-ep-peer peer-address *reference* |
| Tree | peer-address |
| Reference | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Notes | The following elements are part of a choice: **name** or **peer-address**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### revert-time *(number | keyword)*

| | |
|---|---|
| Synopsis | Time to wait before reverting to primary spoke SDP |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* endpoint *named-item* revert-time *(number \| keyword)* |
| Tree | revert-time |
| Range | 1 to 600 |
| Units | seconds |
| Options | never, immediate |
| Default | immediate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **suppress-standby-signaling** *boolean*

| | |
|---|---|
| Synopsis | Do not send pseudowire standby bit to TLDP peer when specified spoke SDP is selected as standby |
| Context | **configure** service vpls *service-name* endpoint *named-item* suppress-standby-signaling *boolean* |
| Tree | suppress-standby-signaling |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **eth-cfm**

| | |
|---|---|
| Synopsis | Enter the **eth-cfm** context |
| Context | **configure** service vpls *service-name* eth-cfm |
| Tree | eth-cfm |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **mep** md-admin-name *reference* ma-admin-name *reference* mep-id *number*

| | |
|---|---|
| Synopsis | Enter the **mep** list instance |
| Context | **configure** service vpls *service-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |
| Tree | mep |
| Introduced | 16.0.R4 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **md-admin-name** *reference*

| | |
|---|---|
| Synopsis | Maintenance Domain (MD) name |
| Context | **configure** service vpls *service-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |
| Tree | mep |
| Reference | **configure** eth-cfm domain *admin-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ma-admin-name** *reference*

| | |
|---|---|
| Synopsis | Maintenance Association (MA) name |
| Context | **configure** service vpls *service-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |
| Tree | mep |
| Reference | **configure** eth-cfm domain *admin-name* association *admin-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **mep-id** *number*

| | |
|---|---|
| Synopsis | Maintenance Endpoint (MEP) ID |
| Context | **configure** service vpls *service-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |
| Tree | mep |
| Range | 1 to 8191 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the MEP |
| Context | **configure** service vpls *service-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **alarm-notification**

| | |
|---|---|
| Synopsis | Enter the **alarm-notification** context |
| Context | **configure** service vpls *service-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* alarm-notification |
| Tree | alarm-notification |
| Description | Commands in this context configure the Fault Notification Generator (FNG) time values to raise an alarm or reset the CCM defect alarm.<br>Use these timers for network management processes. The timers are not tied into delaying the notification to the fault management system on the network element and do not affect fault propagation mechanisms. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **fng-alarm-time** *number*

| | |
|---|---|
| Synopsis | Time that must expire before an FNG alarm is raised |
| Context | **configure** service vpls *service-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* alarm-notification fng-alarm-time *number* |
| Tree | fng-alarm-time |
| Range | 250 \| 500 \| 1000 |
| Units | centiseconds |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **fng-reset-time** *number*

| | |
|---|---|
| Synopsis | Time that must expire before an FNG alarm is reset |
| Context | **configure** service vpls *service-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* alarm-notification fng-reset-time *number* |
| Tree | fng-reset-time |
| Range | 250 \| 500 \| 1000 |
| Units | centiseconds |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ccm** *boolean*

| | |
|---|---|
| Synopsis | Generate CCM messages |
| Context | **configure** service vpls *service-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ccm *boolean* |
| Tree | ccm |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ccm-ltm-priority** *number*

| | |
|---|---|
| Synopsis | Priority of CCM and LTM messages transmitted by the MEP |
| Context | **configure** service vpls *service-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ccm-ltm-priority *number* |
| Tree | ccm-ltm-priority |
| Range | 0 to 7 |
| Default | 7 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ccm-padding-size** *number*

| | |
|---|---|
| Synopsis | Number of octets of padding to insert in CCM packets |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ccm-padding-size *number* |
| Tree | ccm-padding-size |
| Description | This command sets the byte size of the optional Data TLV to be included in the ETH-CC PDU.<br>This command increases the size of the ETH-CC PDU by the configured value. The base size of the ETH-CC PDU, including the Interface Status TLV and Port Status TLV, is 83 bytes not including the Layer 2 encapsulation. CCM padding is not supported when the CCM interval (configured through **configure eth-cfm domain association ccm-interval)** is less than 1 second. |
| Range | 3 to 1500 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **cfm-vlan-tag** *one-or-two-vlan-tags*

| | |
|---|---|
| Synopsis | VLAN tags to apply to CFM PDUs for egress processing |
| Context | **configure** service vpls *service-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* cfm-vlan-tag *one-or-two-vlan-tags* |
| Tree | cfm-vlan-tag |
| Description | This command allows the CFM function to include additional VLAN tags to the CFM packet that are carried to the egress and treated as service delimited. Typically, this function is used to influence the VLAN carried over a binding that uses the **vc-type vlan** or the binding forces the use of one or more VLAN tag that results in a mismatch between the service data arriving at the binding and the locally generated ETH-CFM PDUs arriving at the same egress. When this command is included under the MEP or MIP configuration, the tags used as part of the configuration typically match the SAP service delimited configuration. |
| String length | 1 to 9 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vpls *service-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* description *description* |
| Tree | description |
| String length | 1 to 80 |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## eth-test

| | |
|---|---|
| Synopsis | Enable the **eth-test** context |
| Context | **configure** service vpls *service-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test |
| Tree | eth-test |
| Description | Commands in this context configure information used by the Ethernet Test (ETH-TST) packet. The commands must be configured on both the sender and the receiver nodes. The test packets are used with the **oam eth-cfm eth-test** command. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## bit-error-threshold *number*

| | |
|---|---|
| Synopsis | Lowest priority defect allowed to generate fault alarm |
| Context | **configure** service vpls *service-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test bit-error-threshold *number* |
| Tree | bit-error-threshold |
| Range | 0 to 11840 |
| Units | bit errors |
| Default | 1 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## test-pattern

| | |
|---|---|
| Synopsis | Enter the **test-pattern** context |
| Context | **configure** service vpls *service-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test test-pattern |
| Tree | test-pattern |
| Description | Commands in this context specify the test pattern for the ETH-TST frames. The pattern does not have to be the same on the sender and the receiver. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **crc-tlv** *boolean*

| | |
|---|---|
| Synopsis | Generate a CRC checksum |
| Context | **configure** service vpls *service-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test test-pattern crc-tlv *boolean* |
| Tree | crc-tlv |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **pattern** *keyword*

| | |
|---|---|
| Synopsis | Test pattern for Ethernet Test frames |
| Context | **configure** service vpls *service-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test test-pattern pattern *keyword* |
| Tree | pattern |
| Description | This command specifies the test pattern of the Ethernet Test (ETH-TST) frames. This does not have to be configured the same on the sender and the receiver. |
| Options | all-zeros, all-ones |
| Default | all-zeros |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **grace**

| | |
|---|---|
| Synopsis | Enter the **grace** context |
| Context | **configure** service vpls *service-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace |
| Tree | grace |
| Description | Commands in this context configure the Nokia ETH-CFM Grace function and the ITU-T Y.1731 Ethernet Expected Default (ETH-ED) function. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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## eth-ed

| | |
|---|---|
| Synopsis | Enter the **eth-ed** context |
| Context | **configure** service vpls *service-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed |
| Tree | eth-ed |
| Description | Commands in this context configure the ITU-T Y.1731 ETH-ED function. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## max-rx-defect-window *number*

| | |
|---|---|
| Synopsis | Maximum received ETH-ED expected defect window duration |
| Context | **configure** service vpls *service-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed max-rx-defect-window *number* |
| Tree | max-rx-defect-window |
| Range | 1 to 86400 |
| Units | seconds |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## priority *number*

| | |
|---|---|
| Synopsis | Transmission priority for ETH-ED PDUs |
| Context | **configure** service vpls *service-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed priority *number* |
| Tree | priority |
| Range | 0 to 7 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## rx-eth-ed *boolean*

| | |
|---|---|
| Synopsis | Receive and process ETH-ED ITU-T Y.1731 PDUs on the MEP |
| Context | **configure** service vpls *service-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed rx-eth-ed *boolean* |


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| | |
|---|---|
| Tree | rx-eth-ed |
| Description | This command enables the reception and processing of the ITU-T Y.1731 ETH-ED PDU on the MEP. |
| Default | true |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **tx-eth-ed** *boolean*

| | |
|---|---|
| Synopsis | Transmit ETH-ED PDUs from the MEP |
| Context | **configure** service vpls *service-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed tx-eth-ed *boolean* |
| Tree | tx-eth-ed |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **eth-vsm-grace**

| | |
|---|---|
| Synopsis | Enter the **eth-vsm-grace** context |
| Context | **configure** service vpls *service-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-vsm-grace |
| Tree | eth-vsm-grace |
| Description | Commands in this context configure the Nokia ETH-CFM Grace function. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **rx-eth-vsm-grace** *boolean*

| | |
|---|---|
| Synopsis | Receive and process Nokia ETH-CFM Grace PDU on the MEP |
| Context | **configure** service vpls *service-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-vsm-grace rx-eth-vsm-grace *boolean* |
| Tree | rx-eth-vsm-grace |
| Description | When configured to **true**, the router enables the Nokia Grace function, which is a vendor-specific PDU that informs MEP peers that the local node may be entering a period of expected defect.<br>When configured to **false**, the router disables the Nokia Grace function. |


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| | |
|---|---|
| Default | true |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **tx-eth-vsm-grace** *boolean*

| | |
|---|---|
| Synopsis | Transmit ETH-ED PDUs from the MEP |
| Context | **configure** service vpls *service-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-vsm-grace tx-eth-vsm-grace *boolean* |
| Tree | tx-eth-vsm-grace |
| Description | When configured to **true**, the router can transmit the Nokia ETH-CFM Grace PDU from the MEP when a system soft reset notification is received for one or more cards.<br>The Nokia Grace function is a vendor-specific PDU that informs MEP peers that the local node may be entering a period of expected defect.<br>The operator must configure the **configure system eth-cfm grace** command to instruct the system that the node is capable of transmitting expected-defect windows to peers. The system can only transmit one form of ETH-CFM grace (Nokia ETH-CFM Grace or ITU-T Y.1731 ETH-ED).<br>When configured to **false**, the router disables the transmission of the Nokia ETH-CFM Grace PDU from the MEP. |
| Default | true |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **low-priority-defect** *keyword*

| | |
|---|---|
| Synopsis | Lowest priority defect allowed to generate fault alarm |
| Context | **configure** service vpls *service-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* low-priority-defect *keyword* |
| Tree | low-priority-defect |
| Options | all-def, mac-rem-err-xcon, rem-err-xcon, err-xcon, xcon, no-xcon |
| Default | mac-rem-err-xcon |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **mac-address** *mac-unicast-address-no-zero*

| | |
|---|---|
| Synopsis | MAC address of the MEP |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* mac-address *mac-unicast-address-no-zero* |
| Tree | mac-address |
| Description | This command specifies the MAC address of the MEP.<br>When unconfigured, the MAC address of the port (if the MEP is on a SAP) or the MAC address of a bridge (if the MEP is on a spoke) is used. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## one-way-delay-threshold *number*

| | |
|---|---|
| Synopsis | Threshold time limit for the one-way delay test |
| Context | **configure** service vpls *service-name* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* one-way-delay-threshold *number* |
| Tree | one-way-delay-threshold |
| Range | 0 to 600 |
| Units | seconds |
| Default | 3 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## etree *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Use VPLS service as an E-Tree VPLS |
| Context | **configure** service vpls *service-name* etree *boolean* |
| Tree | etree |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## fdb

| | |
|---|---|
| Synopsis | Enter the **fdb** context |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* fdb |
| Tree | fdb |
| Introduced | 16.0.R1 |
| Platforms | All |

### **discard-unknown** *boolean*

| | |
|---|---|
| Synopsis | Discard packets with unknown destination MAC addresses |
| Context | **configure** service vpls *service-name* fdb discard-unknown *boolean* |
| Tree | discard-unknown |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mac-learning**

| | |
|---|---|
| Synopsis | Enter the **mac-learning** context |
| Context | **configure** service vpls *service-name* fdb mac-learning |
| Tree | mac-learning |
| Introduced | 16.0.R1 |
| Platforms | All |

### **aging** *boolean*

| | |
|---|---|
| Synopsis | Enable aging of MAC addresses |
| Context | **configure** service vpls *service-name* fdb mac-learning aging *boolean* |
| Tree | aging |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **learning** *boolean*

| | |
|---|---|
| Synopsis | Enable learning of new MAC addresses |
| Context | **configure** service vpls *service-name* fdb mac-learning learning *boolean* |


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| | |
|---|---|
| Tree | learning |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

## **local-age-time** *number*

| | |
|---|---|
| Synopsis | Aging time for locally learned MAC addresses |
| Context | **configure** service vpls *service-name* fdb mac-learning local-age-time *number* |
| Tree | local-age-time |
| Description | This command configures the aging time for locally learned MAC addresses in the forwarding database (FDB) for the Virtual Private LAN Service (VPLS) instance. In a VPLS service, MAC addresses are associated with a Service Access Point (SAP) or a Service Destination Point (SDP). MACs associated with a SAP are classified as local MACs, and MACs associated with an SDP are remote MACs. In each VPLS service instance, there are independent aging timers for locally learned MAC and remotely learned MAC entries in the FDB.<br>As in a Layer 2 switch, learned MACs can be aged out if no packets are sourced from the MAC address for a period of time (the aging time). |
| Range | 60 to 86400 |
| Default | 300 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **remote-age-time** *number*

| | |
|---|---|
| Synopsis | Aging time for remotely learned MAC addresses |
| Context | **configure** service vpls *service-name* fdb mac-learning remote-age-time *number* |
| Tree | remote-age-time |
| Description | This command configures the aging time for remotely learned MAC addresses in the forwarding database (FDB) for the Virtual Private LAN Service (VPLS) instance. In a VPLS service, MAC addresses are associated with a Service Access Point (SAP) or a Service Destination Point (SDP). MACs associated with a SAP are classified as local MACs, and MACs associated with an SDP are remote MACs. In each VPLS service instance, there are independent aging timers for locally learned MAC and remotely learned MAC entries in the FDB.<br>As in a Layer 2 switch, learned MACs can be aged out if no packets are sourced from the MAC address for a period of time (the aging time). To reduce the amount of signaling required between switches, configure this time larger than the **local-age-time** command. |


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| | |
|---|---|
| Range | 60 to 86400 |
| Default | 900 |
| Introduced | 16.0.R1 |
| Platforms | All |

## mac-move

| | |
|---|---|
| Synopsis | Enter the **mac-move** context |
| Context | **configure** service vpls *service-name* fdb mac-move |
| Tree | mac-move |
| Introduced | 16.0.R1 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of MAC move |
| Context | **configure** service vpls *service-name* fdb mac-move admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

## hold-down-time *number*

| | |
|---|---|
| Synopsis | Wait time before re-enabling disabled SAP |
| Context | **configure** service vpls *service-name* fdb mac-move hold-down-time *number* |
| Tree | hold-down-time |
| Range | 0 to 600 |
| Units | seconds |
| Default | 10 |
| Introduced | 19.7.R1 |
| Platforms | All |


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### **move-frequency** *number*

| | |
|---|---|
| Synopsis | Maximum rate MACs can be re-learned in the VPLS service |
| Context | **configure** service vpls *service-name* fdb mac-move move-frequency *number* |
| Tree | move-frequency |
| Range | 1 to 10 |
| Default | 2 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **primary-cumulative-factor** *number*

| | |
|---|---|
| Synopsis | Factor for MAC-relearn periods for MAC-relearn rate |
| Context | **configure** service vpls *service-name* fdb mac-move primary-cumulative-factor *number* |
| Tree | primary-cumulative-factor |
| Range | 3 to 10 |
| Default | 3 |
| Introduced | 19.7.R1 |
| Platforms | All |

### **retry-count** *(number | keyword)*

| | |
|---|---|
| Synopsis | Number of retries for re-enabling the SAP or SDP |
| Context | **configure** service vpls *service-name* fdb mac-move retry-count *(number | keyword)* |
| Tree | retry-count |
| Range | 1 to 255 |
| Options | unlimited |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sap** [sap-id] *reference*

| | |
|---|---|
| Synopsis | Enter the **sap** list instance |
| Context | **configure** service vpls *service-name* fdb mac-move sap *reference* |


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| | |
|---|---|
| Tree | sap |
| Introduced | 19.7.R1 |
| Platforms | All |

### [**sap-id**] *reference*

| | |
|---|---|
| Synopsis | SAP identifier |
| Context | **configure** service vpls *service-name* fdb mac-move sap *reference* |
| Tree | sap |
| Reference | **configure** service vpls *service-name* sap *sap* |
| Notes | This element is part of a list key. |
| Introduced | 19.7.R1 |
| Platforms | All |

### **level** *keyword*

| | |
|---|---|
| Synopsis | Primary or secondary port level |
| Context | **configure** service vpls *service-name* fdb mac-move sap *reference* level *keyword* |
| Tree | level |
| Options | primary, secondary |
| Notes | This element is mandatory. |
| Introduced | 19.7.R1 |
| Platforms | All |

### **secondary-cumulative-factor** *number*

| | |
|---|---|
| Synopsis | Number of periods to measure mac-relearn rate |
| Context | **configure** service vpls *service-name* fdb mac-move secondary-cumulative-factor *number* |
| Tree | secondary-cumulative-factor |
| Range | 2 to 9 |
| Default | 2 |
| Introduced | 19.7.R1 |
| Platforms | All |


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### **spoke-sdp** [sdp-bind-id] *reference*

| | |
|---|---|
| Synopsis | Enter the **spoke-sdp** list instance |
| Context | **configure** service vpls *service-name* fdb mac-move spoke-sdp *reference* |
| Tree | spoke-sdp |
| Introduced | 19.7.R1 |
| Platforms | All |

### [**sdp-bind-id**] *reference*

| | |
|---|---|
| Synopsis | SDP binding ID |
| Context | **configure** service vpls *service-name* fdb mac-move spoke-sdp *reference* |
| Tree | spoke-sdp |
| Reference | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* |
| Notes | This element is part of a list key. |
| Introduced | 19.7.R1 |
| Platforms | All |

### **level** *keyword*

| | |
|---|---|
| Synopsis | Primary or secondary port level |
| Context | **configure** service vpls *service-name* fdb mac-move spoke-sdp *reference* level *keyword* |
| Tree | level |
| Options | primary, secondary |
| Notes | This element is mandatory. |
| Introduced | 19.7.R1 |
| Platforms | All |

### **mac-subnet-length** *number*

| | |
|---|---|
| Synopsis | Number of bits performing MAC learning or MAC switching |
| Context | **configure** service vpls *service-name* fdb mac-subnet-length *number* |
| Tree | mac-subnet-length |
| Range | 24 to 48 |
| Default | 48 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **selective-learning** *boolean*

| | |
|---|---|
| Synopsis | Allocate FDB entries on selectively learned line cards |
| Context | **configure** service vpls *service-name* fdb selective-learning *boolean* |
| Tree | selective-learning |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **static-mac**

| | |
|---|---|
| Synopsis | Enter the **static-mac** context |
| Context | **configure** service vpls *service-name* fdb static-mac |
| Tree | static-mac |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mac** [mac-address] *mac-unicast-address-no-zero*

| | |
|---|---|
| Synopsis | Enter the **mac** list instance |
| Context | **configure** service vpls *service-name* fdb static-mac mac *mac-unicast-address-no-zero* |
| Tree | mac |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**mac-address**] *mac-unicast-address-no-zero*

| | |
|---|---|
| Synopsis | Static MAC address to SAP/SDP-binding or black-hole |
| Context | **configure** service vpls *service-name* fdb static-mac mac *mac-unicast-address-no-zero* |
| Tree | mac |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## blackhole

**WARNING:**
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| | |
|---|---|
| Synopsis | Create a static FDB entry for the MAC address to black-hole traffic |
| Context | **configure** service vpls *service-name* fdb static-mac mac *mac-unicast-address-no-zero* blackhole |
| Tree | blackhole |
| Notes | The following elements are part of a mandatory choice: **blackhole**, **endpoint**, **mesh-sdp**, **sap**, or **spoke-sdp**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## endpoint *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Endpoint associated with the MAC |
| Context | **configure** service vpls *service-name* fdb static-mac mac *mac-unicast-address-no-zero* endpoint *reference* |
| Tree | endpoint |
| Reference | **configure** service vpls *service-name* endpoint *named-item* |
| Notes | The following elements are part of a mandatory choice: **blackhole**, **endpoint**, **mesh-sdp**, **sap**, or **spoke-sdp**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## mesh-sdp *reference*

**WARNING:**
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| | |
|---|---|
| Synopsis | Mesh SDP bind associated with this MAC |
| Context | **configure** service vpls *service-name* fdb static-mac mac *mac-unicast-address-no-zero* mesh-sdp *reference* |
| Tree | mesh-sdp |
| Reference | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* |
| Notes | The following elements are part of a mandatory choice: **blackhole**, **endpoint**, **mesh-sdp**, **sap**, or **spoke-sdp**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **monitor** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Entity to be monitored to decide whether this entry can be installed in the FDB |
| Context | **configure** service vpls *service-name* fdb static-mac mac *mac-unicast-address-no-zero* monitor *keyword* |
| Tree | monitor |
| Options | none, forward-status |
| Default | none |
| Introduced | 16.0.R1 |
| Platforms | All |

## **sap** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | SAP associated with this MAC |
| Context | **configure** service vpls *service-name* fdb static-mac mac *mac-unicast-address-no-zero* sap *reference* |
| Tree | sap |
| Reference | **configure** service vpls *service-name* sap *sap* |
| Notes | The following elements are part of a mandatory choice: **blackhole**, **endpoint**, **mesh-sdp**, **sap**, or **spoke-sdp**. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## **spoke-sdp** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Spoke SDP bind associated with this MAC |
| Context | **configure** service vpls *service-name* fdb static-mac mac *mac-unicast-address-no-zero* spoke-sdp *reference* |
| Tree | spoke-sdp |
| Reference | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* |
| Notes | The following elements are part of a mandatory choice: **blackhole**, **endpoint**, **mesh-sdp**, **sap**, or **spoke-sdp**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **table**

| | |
|---|---|
| Synopsis | Enter the **table** context |
| Context | **configure** service vpls *service-name* fdb table |
| Tree | table |
| Introduced | 16.0.R1 |
| Platforms | All |

## **high-wmark** *number*

| | |
|---|---|
| Synopsis | High watermark for the FDB table |
| Context | **configure** service vpls *service-name* fdb table high-wmark *number* |
| Tree | high-wmark |
| Range | 0 to 100 |
| Default | 95 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **low-wmark** *number*

| | |
|---|---|
| Synopsis | Low watermark for the FDB table |
| Context | **configure** service vpls *service-name* fdb table low-wmark *number* |
| Tree | low-wmark |
| Range | 0 to 100 |
| Default | 90 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **size** *number*

| | |
|---|---|
| Synopsis | Maximum MAC entries in the FDB |
| Context | **configure** service vpls *service-name* fdb table size *number* |
| Tree | size |
| Range | 1 to 511999 |
| Default | 250 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **gsmp**

| | |
|---|---|
| Synopsis | Enter the **gsmp** context |
| Context | **configure** service vpls *service-name* gsmp |
| Tree | gsmp |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of GSMP |
| Context | **configure** service vpls *service-name* gsmp admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **group** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **group** list instance |
| Context | **configure** service vpls *service-name* gsmp group *named-item* |
| Tree | group |
| Max. instances | 1024 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | GSMP group name |
| Context | **configure** service vpls *service-name* gsmp group *named-item* |
| Tree | group |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the GSMP group |
| Context | **configure** service vpls *service-name* gsmp group *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |


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## ancp

| | |
|---|---|
| Synopsis | Enter the **ancp** context |
| Context | **configure** service vpls *service-name* gsmp group *named-item* ancp |
| Tree | ancp |
| Introduced | 16.0.R1 |
| Platforms | All |

## dynamic-topology-discovery *boolean*

| | |
|---|---|
| Synopsis | Enable the ANCP dynamic topology discovery capability |
| Context | **configure** service vpls *service-name* gsmp group *named-item* ancp dynamic-topology-discovery *boolean* |
| Tree | dynamic-topology-discovery |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

## oam *boolean*

| | |
|---|---|
| Synopsis | Enable GSMP ANCP OAM capability at startup of GSMP connection |
| Context | **configure** service vpls *service-name* gsmp group *named-item* ancp oam *boolean* |
| Tree | oam |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## description *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vpls *service-name* gsmp group *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **hold-multiplier** *number*

| | |
|---|---|
| Synopsis | Hold-multiplier for the GSMP connections in this group |
| Context | **configure** service vpls *service-name* gsmp group *named-item* hold-multiplier *number* |
| Tree | hold-multiplier |
| Range | 1 to 100 |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **idle-filter** *boolean*

| | |
|---|---|
| Synopsis | Filter ANCP messages from IDLE DSL lines |
| Context | **configure** service vpls *service-name* gsmp group *named-item* idle-filter *boolean* |
| Tree | idle-filter |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **keepalive** *number*

| | |
|---|---|
| Synopsis | Keepalive value for the GSMP connections in this group |
| Context | **configure** service vpls *service-name* gsmp group *named-item* keepalive *number* |
| Tree | keepalive |
| Range | 1 to 25 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **neighbor** [remote-address] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Enter the **neighbor** list instance |
| Context | **configure** service vpls *service-name* gsmp group *named-item* neighbor *ipv4-unicast-address* |


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| | |
|---|---|
| Tree | neighbor |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**remote-address**] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | GSMP neighbor remote IP address |
| Context | **configure** service vpls *service-name* gsmp group *named-item* neighbor *ipv4-unicast-address* |
| Tree | neighbor |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the GSMP neighbor |
| Context | **configure** service vpls *service-name* gsmp group *named-item* neighbor *ipv4-unicast-address* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vpls *service-name* gsmp group *named-item* neighbor *ipv4-unicast-address* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **local-address** *ipv4-unicast-address*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Restrict connections to this local address only within the service running ANCP |
| Context | **configure** service vpls *service-name* gsmp group *named-item* neighbor *ipv4-unicast-address* local-address *ipv4-unicast-address* |
| Tree | local-address |
| Introduced | 16.0.R1 |
| Platforms | All |

## **priority-marking**

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **priority-marking** context |
| Context | **configure** service vpls *service-name* gsmp group *named-item* neighbor *ipv4-unicast-address* priority-marking |
| Tree | priority-marking |
| Introduced | 16.0.R1 |
| Platforms | All |

## **dscp** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | DSCP that is used while remarking the in profile packets |
| Context | **configure** service vpls *service-name* gsmp group *named-item* neighbor *ipv4-unicast-address* priority-marking dscp *keyword* |
| Tree | dscp |
| Options | be, cp1, cp2, cp3, cp4, cp5, cp6, cp7, cs1, cp9, af11, cp11, af12, cp13, af13, cp15, cs2, cp17, af21, cp19, af22, cp21, af23, cp23, cs3, cp25, af31, cp27, af32, cp29, af33, cp31, cs4, cp33, af41, cp35, af42, cp37, af43, cp39, cs5, cp41, cp42, cp43, cp44, cp45, ef, |


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| | |
|---|---|
| | cp47, nc1, cp49, cp50, cp51, cp52, cp53, cp54, cp55, nc2, cp57, cp58, cp59, cp60, cp61, cp62, cp63 |
| Notes | The following elements are part of a choice: **dscp** or **prec**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **prec** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Precedence priority marking |
| Context | **configure** service vpls *service-name* gsmp group *named-item* neighbor *ipv4-unicast-address* priority-marking prec *number* |
| Tree | prec |
| Range | 0 to 7 |
| Notes | The following elements are part of a choice: **dscp** or **prec**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **persistency** *boolean*

| | |
|---|---|
| Synopsis | Store DSL line information when the GSMP connection terminates |
| Context | **configure** service vpls *service-name* gsmp group *named-item* persistency *boolean* |
| Tree | persistency |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **igmp-host-tracking**

| | |
|---|---|
| Synopsis | Enter the **igmp-host-tracking** context |
| Context | **configure** service vpls *service-name* igmp-host-tracking |
| Tree | igmp-host-tracking |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of IGMP host tracking |
| Context | **configure** service vpls *service-name* igmp-host-tracking admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **expiry-time** *number*

| | |
|---|---|
| Synopsis | Time that the system continues to track inactive hosts |
| Context | **configure** service vpls *service-name* igmp-host-tracking expiry-time *number* |
| Tree | expiry-time |
| Range | 1 to 65535 |
| Units | seconds |
| Default | 260 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **igmp-snooping**

| | |
|---|---|
| Synopsis | Enter the **igmp-snooping** context |
| Context | **configure** service vpls *service-name* igmp-snooping |
| Tree | igmp-snooping |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of snooping |
| Context | **configure** service vpls *service-name* igmp-snooping admin-state *keyword* |


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| | |
|---|---|
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### evpn-proxy

| | |
|---|---|
| Synopsis | Enter the **evpn-proxy** context |
| Context | **configure** service vpls *service-name* igmp-snooping evpn-proxy |
| Tree | evpn-proxy |
| Introduced | 20.10.R1 |
| Platforms | All |

### admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of EVPN proxy |
| Context | **configure** service vpls *service-name* igmp-snooping evpn-proxy admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 20.10.R1 |
| Platforms | All |

### mvr

| | |
|---|---|
| Synopsis | Enter the **mvr** context |
| Context | **configure** service vpls *service-name* igmp-snooping mvr |
| Tree | mvr |
| Introduced | 16.0.R1 |
| Platforms | All |

### admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of MVR |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* igmp-snooping mvr admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vpls *service-name* igmp-snooping mvr description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **group-policy** *named-item*

| | |
|---|---|
| Synopsis | Policy that applies MVR |
| Context | **configure** service vpls *service-name* igmp-snooping mvr group-policy *named-item* |
| Tree | group-policy |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **query-interval** *number*

| | |
|---|---|
| Synopsis | Time between two consecutive host-query messages |
| Context | **configure** service vpls *service-name* igmp-snooping query-interval *number* |
| Tree | query-interval |
| Range | 1 to 65535 |
| Units | seconds |
| Default | 125 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **query-source-address** *(keyword | ipv4-address)*

| | |
|---|---|
| Synopsis | Source address for IGMP queries |
| Context | **configure** service vpls *service-name* igmp-snooping query-source-address *(keyword \| ipv4-address)* |
| Tree | query-source-address |
| Options | system |
| Default | system |
| Introduced | 16.0.R1 |
| Platforms | All |

### **report-source-address** *ipv4-address*

| | |
|---|---|
| Synopsis | Source IP address used when generating IGMP reports |
| Context | **configure** service vpls *service-name* igmp-snooping report-source-address *ipv4-address* |
| Tree | report-source-address |
| Introduced | 16.0.R1 |
| Platforms | All |

### **robust-count** *number*

| | |
|---|---|
| Synopsis | Number of retries after expected message loss |
| Context | **configure** service vpls *service-name* igmp-snooping robust-count *number* |
| Tree | robust-count |
| Range | 1 to 255 |
| Default | 2 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ignore-l2vpn-mtu-mismatch** *boolean*

| | |
|---|---|
| Synopsis | Ignore the L2 VPN MTU mismatch with local service MTU |
| Context | **configure** service vpls *service-name* ignore-l2vpn-mtu-mismatch *boolean* |
| Tree | ignore-l2vpn-mtu-mismatch |


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| | |
|---|---|
| Description | When configured to **true**, the router ignores the value of the Layer 2 MTU in the Layer 2 Info Extended Community received in a BGP update message or the value of the MTU interface parameter received in an LDP label mapping message against the local service MTU or locally signaled MTU. It may, therefore, bring up the VPLS service regardless of any MTU mismatch.<br>When configured to **false**, an MTU mismatch prevents the system from bringing up a VPLS service. |
| Default | false |
| Introduced | 22.2.R1 |
| Platforms | All |

### **interface** [interface-name] *interface-name*

| | |
|---|---|
| Synopsis | Enter the **interface** list instance |
| Context | **configure** service vpls *service-name* interface *interface-name* |
| Tree | interface |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**interface-name**] *interface-name*

| | |
|---|---|
| Synopsis | IP interface name |
| Context | **configure** service vpls *service-name* interface *interface-name* |
| Tree | interface |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the interface |
| Context | **configure** service vpls *service-name* interface *interface-name* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## **description** *very-long-description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vpls *service-name* interface *interface-name* description *very-long-description* |
| Tree | description |
| String length | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

## hold-time

| | |
|---|---|
| Synopsis | Enter the **hold-time** context |
| Context | **configure** service vpls *service-name* interface *interface-name* hold-time |
| Tree | hold-time |
| Introduced | 16.0.R1 |
| Platforms | All |

## ipv4

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |
| Context | **configure** service vpls *service-name* interface *interface-name* hold-time ipv4 |
| Tree | ipv4 |
| Introduced | 16.0.R1 |
| Platforms | All |

## down

| | |
|---|---|
| Synopsis | Enter the **down** context |
| Context | **configure** service vpls *service-name* interface *interface-name* hold-time ipv4 down |
| Tree | down |
| Description | Commands in this context configure the down hold timer, which specifies the delay before activating the associated interface. The delay is invoked whenever the system |


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attempts to bring the associated IP interface up, unless an operator configures the **init-only** command.

Introduced 16.0.R1

Platforms All

### **init-only** *boolean*

Synopsis Apply delay only at interface configuration or reboot

Context **configure** service vpls *service-name* interface *interface-name* hold-time ipv4 down init-only *boolean*

Tree init-only

Description This command applies a delay only when the IP interface is first configured or after a system reboot.

Default false

Introduced 16.0.R1

Platforms All

### **seconds** *number*

Synopsis Down hold time for the IP interface

Context **configure** service vpls *service-name* interface *interface-name* hold-time ipv4 down seconds *number*

Tree seconds

Range 1 to 1200

Units seconds

Introduced 16.0.R1

Platforms All

### **up**

Synopsis Enter the **up** context

Context **configure** service vpls *service-name* interface *interface-name* hold-time ipv4 up

Tree up

Description Commands in this context configure the up hold timer, which specifies the delay before deactivation of the associated interface. The delay is invoked whenever the system attempts to bring the associated IP interface down.

Introduced 16.0.R1


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| | |
|---|---|
| Platforms | All |

### **seconds** *number*

| | |
|---|---|
| Synopsis | Up hold time for the IP interface |
| Context | **configure** service vpls *service-name* interface *interface-name* hold-time ipv4 up seconds *number* |
| Tree | seconds |
| Range | 1 to 1200 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv4**

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |
| Context | **configure** service vpls *service-name* interface *interface-name* ipv4 |
| Tree | ipv4 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **neighbor-discovery**

| | |
|---|---|
| Synopsis | Enter the **neighbor-discovery** context |
| Context | **configure** service vpls *service-name* interface *interface-name* ipv4 neighbor-discovery |
| Tree | neighbor-discovery |
| Introduced | 16.0.R1 |
| Platforms | All |

### **static-neighbor** [ipv4-address] *ipv4-address*

| | |
|---|---|
| Synopsis | Enter the **static-neighbor** list instance |
| Context | **configure** service vpls *service-name* interface *interface-name* ipv4 neighbor-discovery static-neighbor *ipv4-address* |
| Tree | static-neighbor |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### [**ipv4-address**] *ipv4-address*

| | |
|---|---|
| Synopsis | IPv4 address that corresponds to the physical address |
| Context | **configure** service vpls *service-name* interface *interface-name* ipv4 neighbor-discovery static-neighbor *ipv4-address* |
| Tree | static-neighbor |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mac-address** *mac-address*

| | |
|---|---|
| Synopsis | MAC address for the static neighbor |
| Context | **configure** service vpls *service-name* interface *interface-name* ipv4 neighbor-discovery static-neighbor *ipv4-address* mac-address *mac-address* |
| Tree | mac-address |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **timeout** *number*

| | |
|---|---|
| Synopsis | ARP timeout value to determine how long an ARP entry remains in the ARP cache |
| Context | **configure** service vpls *service-name* interface *interface-name* ipv4 neighbor-discovery timeout *number* |
| Tree | timeout |
| Range | 0 to 65535 |
| Units | seconds |
| Default | 14400 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### primary

| | |
|---|---|
| Synopsis | Enable the **primary** context |
| Context | **configure** service vpls *service-name* interface *interface-name* ipv4 primary |
| Tree | primary |
| Introduced | 16.0.R1 |
| Platforms | All |

### address *ipv4-address*

| | |
|---|---|
| Synopsis | IP address of the interface |
| Context | **configure** service vpls *service-name* interface *interface-name* ipv4 primary address *ipv4-address* |
| Tree | address |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### prefix-length *number*

| | |
|---|---|
| Synopsis | IPv4 address prefix length |
| Context | **configure** service vpls *service-name* interface *interface-name* ipv4 primary prefix-length *number* |
| Tree | prefix-length |
| Range | 0 to 31 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### mac *mac-unicast-address*

| | |
|---|---|
| Synopsis | MAC address for the interface |
| Context | **configure** service vpls *service-name* interface *interface-name* mac *mac-unicast-address* |
| Tree | mac |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### isid-policy

| | |
|---|---|
| Synopsis | Enter the **isid-policy** context |
| Context | **configure** service vpls *service-name* isid-policy |
| Tree | isid-policy |
| Introduced | 19.10.R1 |
| Platforms | All |

### **entry** [range-entry-id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** service vpls *service-name* isid-policy entry *number* |
| Tree | entry |
| Introduced | 19.10.R1 |
| Platforms | All |

### [**range-entry-id**] *number*

| | |
|---|---|
| Synopsis | ISID policy entry ID |
| Context | **configure** service vpls *service-name* isid-policy entry *number* |
| Tree | entry |
| Range | 1 to 8191 |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **advertise-local** *boolean*

| | |
|---|---|
| Synopsis | Advertise locally-defined I-VPLS ISIDs or static ISIDs |
| Context | **configure** service vpls *service-name* isid-policy entry *number* advertise-local *boolean* |
| Tree | advertise-local |
| Default | true |
| Introduced | 19.10.R1 |


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| | |
|---|---|
| Platforms | All |

### range

| | |
|---|---|
| Synopsis | Enter the **range** context |
| Context | **configure** service vpls *service-name* isid-policy entry *number* range |
| Tree | range |
| Introduced | 19.10.R1 |
| Platforms | All |

### end *number*

| | |
|---|---|
| Synopsis | Upper bound of the ISID range |
| Context | **configure** service vpls *service-name* isid-policy entry *number* range end *number* |
| Tree | end |
| Range | 1 to 16777215 |
| Introduced | 19.10.R1 |
| Platforms | All |

### start *number*

| | |
|---|---|
| Synopsis | Lower bound of the ISID range |
| Context | **configure** service vpls *service-name* isid-policy entry *number* range start *number* |
| Tree | start |
| Range | 1 to 16777215 |
| Introduced | 19.10.R1 |
| Platforms | All |

### use-def-mcast *boolean*

| | |
|---|---|
| Synopsis | Use default multicast tree to propagate ISIS range |
| Context | **configure** service vpls *service-name* isid-policy entry *number* use-def-mcast *boolean* |
| Tree | use-def-mcast |
| Default | false |
| Introduced | 19.10.R1 |


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| | |
|---|---|
| Platforms | All |

## load-balancing

| | |
|---|---|
| Synopsis | Enter the **load-balancing** context |
| Context | **configure** service vpls *service-name* load-balancing |
| Tree | load-balancing |
| Introduced | 16.0.R1 |
| Platforms | All |

## lbl-eth-or-ip-l4-teid *boolean*

| | |
|---|---|
| Synopsis | Enable hashing of MPLS ethernet and IP packets on SAPs |
| Context | **configure** service vpls *service-name* load-balancing lbl-eth-or-ip-l4-teid *boolean* |
| Tree | lbl-eth-or-ip-l4-teid |
| Description | When configured to **true**, this command enables hashing of MPLS Ethernet and MPLS IP packets received on the Epipe and VPLS service SAP using the MPLS labels, the inner IP addresses, the port numbers, and the GTP TEID field, if read by the system. This capability is supported on line cards that are FP4-based and later. |
| Default | false |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## per-service-hashing *boolean*

| | |
|---|---|
| Synopsis | Enable per-service hashing for Ethernet services |
| Context | **configure** service vpls *service-name* load-balancing per-service-hashing *boolean* |
| Tree | per-service-hashing |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## spi-load-balancing *boolean*

| | |
|---|---|
| Synopsis | Allow use of SPI (Security Parameter Index) in hashing for ESP/AH encrypted IPv4/IPv6 traffic |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* load-balancing spi-load-balancing *boolean* |
| Tree | spi-load-balancing |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **teid-load-balancing** *boolean*

| | |
|---|---|
| Synopsis | Include TEID in hashing algorithm for GTP-U/C encapsulated traffic |
| Context | **configure** service vpls *service-name* load-balancing teid-load-balancing *boolean* |
| Tree | teid-load-balancing |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **m-vpls** *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Specify whether this is a management VPLS |
| Context | **configure** service vpls *service-name* m-vpls *boolean* |
| Tree | m-vpls |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **mac-flush**

| | |
|---|---|
| Synopsis | Enter the **mac-flush** context |
| Context | **configure** service vpls *service-name* mac-flush |
| Tree | mac-flush |
| Introduced | 16.0.R1 |
| Platforms | All |


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### tldp

| | |
|---|---|
| Synopsis | Enter the **tldp** context |
| Context | **configure** service vpls *service-name* mac-flush tldp |
| Tree | tldp |
| Introduced | 16.0.R1 |
| Platforms | All |

### propagate *boolean*

| | |
|---|---|
| Synopsis | Propagate MAC flush messages received from the T-LDP |
| Context | **configure** service vpls *service-name* mac-flush tldp propagate *boolean* |
| Tree | propagate |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### send-on-failure *boolean*

| | |
|---|---|
| Synopsis | Send MAC withdraw message on SAP/Spoke-SDP failure |
| Context | **configure** service vpls *service-name* mac-flush tldp send-on-failure *boolean* |
| Tree | send-on-failure |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### mac-protect

| | |
|---|---|
| Synopsis | Enter the **mac-protect** context |
| Context | **configure** service vpls *service-name* mac-protect |
| Tree | mac-protect |
| Introduced | 19.10.R1 |
| Platforms | All |


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### **mac** [mac-address] *mac-address*

| | |
|---|---|
| Synopsis | Add a list entry for **mac** |
| Context | **configure** service vpls *service-name* mac-protect mac *mac-address* |
| Tree | mac |
| Introduced | 19.10.R1 |
| Platforms | All |

### [**mac-address**] *mac-address*

| | |
|---|---|
| Synopsis | Protected MAC address |
| Context | **configure** service vpls *service-name* mac-protect mac *mac-address* |
| Tree | mac |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **mcast-ipv6-snooping-scope** *keyword*

| | |
|---|---|
| Synopsis | IPv6 multicast snooping scope |
| Context | **configure** service vpls *service-name* mcast-ipv6-snooping-scope *keyword* |
| Tree | mcast-ipv6-snooping-scope |
| Options | sg-based, mac-based |
| Default | mac-based |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mcr-default-gtw**

| | |
|---|---|
| Synopsis | Enter the **mcr-default-gtw** context |
| Context | **configure** service vpls *service-name* mcr-default-gtw |
| Tree | mcr-default-gtw |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **ip** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Multi-chassis ring default gateway IP address |
| Context | **configure** service vpls *service-name* mcr-default-gtw ip *ipv4-unicast-address* |
| Tree | ip |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mac** *mac-address*

| | |
|---|---|
| Synopsis | Multi-chassis ring default gateway MAC address |
| Context | **configure** service vpls *service-name* mcr-default-gtw mac *mac-address* |
| Tree | mac |
| Default | 00:00:00:00:00:00 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mesh-sdp** [sdp-bind-id] *sdp-bind-id*

| | |
|---|---|
| Synopsis | Enter the **mesh-sdp** list instance |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* |
| Tree | mesh-sdp |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**sdp-bind-id**] *sdp-bind-id*

| | |
|---|---|
| Synopsis | SDP binding ID |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* |
| Tree | mesh-sdp |
| String length | 3 to 16 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **accounting-policy** *reference*

| | |
|---|---|
| Synopsis | Policy to collect accounting statistics |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* accounting-policy *reference* |
| Tree | accounting-policy |
| Reference | **configure** log accounting-policy *number* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the SDP binding to the service |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **adv-service-mtu** *number*

| | |
|---|---|
| Synopsis | Advertise service MTU value |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* adv-service-mtu *number* |
| Tree | adv-service-mtu |
| Description | This command configures the MTU value that is signaled in the targeted LDP for the spoke-SDP. The router uses the value for signaling and for validation with the received MTU instead of the service MTU. However, the value does not affect the locally enforced value, which is still based on the service MTU.<br>This command cannot be configured on a spoke-SDP that is bound to an SDP with the **adv-mtu-override** command. |
| Range | 0 to 9782 |
| Introduced | 24.7.R1 |
| Platforms | All |


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## bfd

| | |
|---|---|
| Synopsis | Enter the **bfd** context |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* bfd |
| Tree | bfd |
| Introduced | 21.2.R1 |
| Platforms | All |

## bfd-liveness

| | |
|---|---|
| Synopsis | Enable the **bfd-liveness** context |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* bfd bfd-liveness |
| Tree | bfd-liveness |
| Introduced | 21.2.R1 |
| Platforms | All |

## encap *keyword*

| | |
|---|---|
| Synopsis | BFD encapsulation used on the SDP binding |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* bfd bfd-liveness encap *keyword* |
| Tree | encap |
| Options | ipv4 |
| Default | ipv4 |
| Introduced | 21.2.R1 |
| Platforms | All |

## bfd-template *reference*

| | |
|---|---|
| Synopsis | BFD template associated with the SDP binding |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* bfd bfd-template *reference* |
| Tree | bfd-template |
| Description | This command configures a named BFD template to be used by VCCV BFD on PWs belonging to the VLL service. The template specifies parameters, such as the minimum transmit and receive control packet timer intervals, used by the BFD session. Template parameters are configured under the **configure router bfd** context. |


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| | |
|---|---|
| Reference | **configure** bfd bfd-template *named-item* |
| Introduced | 21.2.R1 |
| Platforms | All |

### **collect-stats** *boolean*

| | |
|---|---|
| Synopsis | Allow agent to collect accounting statistics |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* collect-stats *boolean* |
| Tree | collect-stats |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **control-word** *boolean*

| | |
|---|---|
| Synopsis | Use the control word as preferred |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* control-word *boolean* |
| Tree | control-word |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cpu-protection**

| | |
|---|---|
| Synopsis | Enter the **cpu-protection** context |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* cpu-protection |
| Tree | cpu-protection |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

### **eth-cfm-monitoring**

| | |
|---|---|
| Synopsis | Enable the **eth-cfm-monitoring** context |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* cpu-protection eth-cfm-monitoring |


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| | |
|---|---|
| Tree | eth-cfm-monitoring |
| Notes | The following elements are part of a choice: **eth-cfm-monitoring** or **mac-monitoring**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

## aggregate

| | |
|---|---|
| Synopsis | Apply rate limit to the sum of the per peer packet rates |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* cpu-protection eth-cfm-monitoring aggregate |
| Tree | aggregate |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

## car

| | |
|---|---|
| Synopsis | Ignore Ethernet CFM packets when enforcing overall rate |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* cpu-protection eth-cfm-monitoring car |
| Tree | car |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

## mac-monitoring

| | |
|---|---|
| Synopsis | Monitor MAC for CPU protection |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* cpu-protection mac-monitoring |
| Tree | mac-monitoring |
| Notes | The following elements are part of a choice: **eth-cfm-monitoring** or **mac-monitoring**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

## policy-id *reference*

| | |
|---|---|
| Synopsis | CPM protection policy |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* cpu-protection policy-id *reference* |
| Tree | policy-id |
| Reference | **configure** system security cpu-protection policy *number* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **dhcp**

| | |
|---|---|
| Synopsis | Enter the **dhcp** context |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* dhcp |
| Tree | dhcp |
| Introduced | 16.0.R1 |
| Platforms | All |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* dhcp description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **snoop** *boolean*

| | |
|---|---|
| Synopsis | Allow DHCP snooping of DHCP messages on the SAP or SDP |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* dhcp snoop *boolean* |
| Tree | snoop |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **egress**

| | |
|---|---|
| Synopsis | Enter the **egress** context |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* egress |
| Tree | egress |
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter**

| | |
|---|---|
| Synopsis | Enter the **filter** context |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* egress filter |
| Tree | filter |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ip** *reference*

| | |
|---|---|
| Synopsis | IPv4 filter policy name |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* egress filter ip *reference* |
| Tree | ip |
| Reference | **configure** filter ip-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **ipv6** *reference*

| | |
|---|---|
| Synopsis | IPv6 filter policy name |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* egress filter ipv6 *reference* |
| Tree | ipv6 |
| Reference | **configure** filter ipv6-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mac** *reference*

| | |
|---|---|
| Synopsis | MAC filter policy name |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* egress filter mac *reference* |
| Tree | mac |
| Reference | **configure** filter mac-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mfib-allowed-mda-destinations**

| | |
|---|---|
| Synopsis | Enter the **mfib-allowed-mda-destinations** context |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* egress mfib-allowed-mda-destinations |
| Tree | mfib-allowed-mda-destinations |
| Introduced | 16.0.R4 |
| Platforms | All |

### **mda** [mda-id] *slot-mda*

| | |
|---|---|
| Synopsis | Add a list entry for **mda** |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* egress mfib-allowed-mda-destinations mda *slot-mda* |
| Tree | mda |
| Introduced | 16.0.R4 |
| Platforms | All |


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### [**mda-id**] *slot-mda*

| | |
|---|---|
| Synopsis | MFIB allowed MDA destination |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* egress mfib-allowed-mda-destinations mda *slot-mda* |
| Tree | mda |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

### qos

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* egress qos |
| Tree | qos |
| Introduced | 16.0.R1 |
| Platforms | All |

### network

| | |
|---|---|
| Synopsis | Enter the **network** context |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* egress qos network |
| Tree | network |
| Introduced | 16.0.R1 |
| Platforms | All |

### policy-name *reference*

| | |
|---|---|
| Synopsis | Network policy ID |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* egress qos network policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos network *network-policy-name* |
| Introduced | 16.0.R1 |
| Platforms | All |


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## port-redirect-group

| | |
|---|---|
| Synopsis | Enter the **port-redirect-group** context |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* egress qos network port-redirect-group |
| Tree | port-redirect-group |
| Introduced | 16.0.R1 |
| Platforms | All |

## group-name *reference*

| | |
|---|---|
| Synopsis | Name of the egress port queue group |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* egress qos network port-redirect-group group-name *reference* |
| Tree | group-name |
| Reference | **configure** qos queue-group-templates egress queue-group *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

## instance *number*

| | |
|---|---|
| Synopsis | Queue-group instance ID |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* egress qos network port-redirect-group instance *number* |
| Tree | instance |
| Range | 1 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

## vc-label *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Egress MPLS VC label to send packets to the far end |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* egress vc-label *number* |


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| | |
|---|---|
| Tree | vc-label |
| Range | 16 to 1048575 |
| Introduced | 16.0.R1 |
| Platforms | All |

## entropy-label

| | |
|---|---|
| Synopsis | Enable the use of entropy labels for spoke SDPs |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* entropy-label |
| Tree | entropy-label |
| Notes | The following elements are part of a choice: **entropy-label** or **hash-label**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## eth-cfm

| | |
|---|---|
| Synopsis | Enter the **eth-cfm** context |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* eth-cfm |
| Tree | eth-cfm |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## collect-lmm-fc-stats

| | |
|---|---|
| Synopsis | Enter the **collect-lmm-fc-stats** context |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* eth-cfm collect-lmm-fc-stats |
| Tree | collect-lmm-fc-stats |
| Description | Commands in this context configure per forwarding class (FC) LMM information collection.<br>The commands **fc-in-profile** and **fc** in this context are mutually exclusive. The commands apply to either profile-aware or profile-unaware FCs respectively.<br>This command and the **collect-lmm-stats** command are mutually exclusive when there is entity resource contention. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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## **fc** *keyword*

| | |
|---|---|
| Synopsis | Forwarding class name for profile-unaware counter |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* eth-cfm collect-lmm-fc-stats fc *keyword* |
| Tree | fc |
| Description | This command configures individual counters for the specified FCs without regard for profile. The system includes all countable packets that match a configured FC, regardless of profile, in this counter.<br>An FC specified as part of this command and for this specific context cannot be specified as a profile-aware FC using the **fc-in-profile** command under the **collect-lmm-fc-stats** context.<br>When this command is reentered, a differential is performed. Omitted FCs stop counting, newly added FCs start counting, and unchanged FCs continue to count. |
| Options | be, l2, af, l1, h2, ef, h1, nc |
| Max. instances | 8 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **fc-in-profile** *keyword*

| | |
|---|---|
| Synopsis | Forwarding class name for profile-aware counter |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* eth-cfm collect-lmm-fc-stats fc-in-profile *keyword* |
| Tree | fc-in-profile |
| Description | This command configures individual counters for the specified FCs with regard to profile. The system includes all countable packets that match a configured FC and that are deemed to be in-profile in this counter.<br>An FC specified as part of this command and for this specific context cannot be specified as a profile-unaware FC using the **fc** command under the **collect-lmm-fc-stats** context.<br>When this command is reentered, a differential is performed. Omitted FCs stop counting, newly added FCs start counting, and unchanged FCs continue to count. |
| Options | be, l2, af, l1, h2, ef, h1, nc |
| Max. instances | 8 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **collect-lmm-stats** *boolean*

| | |
|---|---|
| Synopsis | Collect statistics for loss measurement message tests |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* eth-cfm collect-lmm-stats *boolean* |
| Tree | collect-lmm-stats |
| Description | When configured to **true**, the router instantiates the statistical counter to transmit and receive packets for the LAG facility MEP bindings.<br>The **show eth-cfm collect-lmm-stats** command displays entities that have been enabled to collect transit and receive counters.<br>When configured to **false**, the router does not instantiate the counter and the LMM PDU associated with the MEP does not populate the counters in the packet. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **mep** md-admin-name *reference* ma-admin-name *reference* mep-id *number*

| | |
|---|---|
| Synopsis | Enter the **mep** list instance |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |
| Tree | mep |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **md-admin-name** *reference*

| | |
|---|---|
| Synopsis | Maintenance Domain (MD) name |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |
| Tree | mep |
| Reference | **configure** eth-cfm domain *admin-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **ma-admin-name** *reference*

| | |
|---|---|
| Synopsis | Maintenance Association (MA) name |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |
| Tree | mep |
| Reference | **configure** eth-cfm domain *admin-name* association *admin-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **mep-id** *number*

| | |
|---|---|
| Synopsis | Maintenance Endpoint (MEP) ID |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |
| Tree | mep |
| Range | 1 to 8191 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the MEP |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ais**

| | |
|---|---|
| Synopsis | Enable the **ais** context |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ais |
| Tree | ais |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **client-meg-level** *number*

| | |
|---|---|
| Synopsis | Client MEG level for AIS message generation |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ais client-meg-level *number* |
| Tree | client-meg-level |
| Range | 1 to 7 |
| Max. instances | 7 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **interface-support** *boolean*

| | |
|---|---|
| Synopsis | Enable generation of AIS PDUs based on endpoint state |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ais interface-support *boolean* |
| Tree | interface-support |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **interval** *number*

| | |
|---|---|
| Synopsis | Transmission interval for AIS messages |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ais interval *number* |
| Tree | interval |
| Range | 1 \| 60 |
| Units | seconds |


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| | |
|---|---|
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **low-priority-defect** *keyword*

| | |
|---|---|
| Synopsis | Lowest priority defect allowed to generate fault alarm |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ais low-priority-defect *keyword* |
| Tree | low-priority-defect |
| Options | all-def, mac-rem-err-xcon |
| Default | all-def |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **priority** *number*

| | |
|---|---|
| Synopsis | Priority of the AIS messages generated by the node |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ais priority *number* |
| Tree | priority |
| Range | 0 to 7 |
| Default | 7 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **alarm-notification**

| | |
|---|---|
| Synopsis | Enter the **alarm-notification** context |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* alarm-notification |
| Tree | alarm-notification |
| Description | Commands in this context configure the Fault Notification Generator (FNG) time values to raise an alarm or reset the CCM defect alarm. |


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Use these timers for network management processes. The timers are not tied into delaying the notification to the fault management system on the network element and do not affect fault propagation mechanisms.

| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **fng-alarm-time** *number*

| | |
|---|---|
| Synopsis | Time that must expire before an FNG alarm is raised |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* alarm-notification fng-alarm-time *number* |
| Tree | fng-alarm-time |
| Range | 250 \| 500 \| 1000 |
| Units | centiseconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **fng-reset-time** *number*

| | |
|---|---|
| Synopsis | Time that must expire before an FNG alarm is reset |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* alarm-notification fng-reset-time *number* |
| Tree | fng-reset-time |
| Range | 250 \| 500 \| 1000 |
| Units | centiseconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ccm** *boolean*

| | |
|---|---|
| Synopsis | Generate CCM messages |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ccm *boolean* |
| Tree | ccm |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ccm-ltm-priority** *number*

| | |
|---|---|
| Synopsis | Priority of CCM and LTM messages transmitted by the MEP |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ccm-ltm-priority *number* |
| Tree | ccm-ltm-priority |
| Range | 0 to 7 |
| Default | 7 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ccm-padding-size** *number*

| | |
|---|---|
| Synopsis | Number of octets of padding to insert in CCM packets |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ccm-padding-size *number* |
| Tree | ccm-padding-size |
| Description | This command sets the byte size of the optional Data TLV to be included in the ETH-CC PDU.<br>This command increases the size of the ETH-CC PDU by the configured value. The base size of the ETH-CC PDU, including the Interface Status TLV and Port Status TLV, is 83 bytes not including the Layer 2 encapsulation. CCM padding is not supported when the CCM interval (configured through **configure eth-cfm domain association ccm-interval)** is less than 1 second. |
| Range | 3 to 1500 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **cfm-vlan-tag** *one-or-two-vlan-tags*

| | |
|---|---|
| Synopsis | VLAN tags to apply to CFM PDUs for egress processing |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* cfm-vlan-tag *one-or-two-vlan-tags* |
| Tree | cfm-vlan-tag |


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| | |
|---|---|
| Description | This command allows the CFM function to include additional VLAN tags to the CFM packet that are carried to the egress and treated as service delimited. Typically, this function is used to influence the VLAN carried over a binding that uses the **vc-type vlan** or the binding forces the use of one or more VLAN tag that results in a mismatch between the service data arriving at the binding and the locally generated ETH-CFM PDUs arriving at the same egress. When this command is included under the MEP or MIP configuration, the tags used as part of the configuration typically match the SAP service delimited configuration. |
| String length | 1 to 9 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## csf

| | |
|---|---|
| Synopsis | Enable the **csf** context |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* csf |
| Tree | csf |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## multiplier *decimal-number*

| | |
|---|---|
| Synopsis | Multiplication factor used to clear the CSF condition |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* csf multiplier *decimal-number* |
| Tree | multiplier |
| Range | 0.0 \| 2.0 to 30.0 |
| Default | 3.5 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## description *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* description *description* |


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| | |
|---|---|
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **direction** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Direction the MEP faces |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* direction *keyword* |
| Tree | direction |
| Options | down, up |
| Default | down |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **eth-test**

| | |
|---|---|
| Synopsis | Enable the **eth-test** context |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test |
| Tree | eth-test |
| Description | Commands in this context configure information used by the Ethernet Test (ETH-TST) packet. The commands must be configured on both the sender and the receiver nodes. The test packets are used with the **oam eth-cfm eth-test** command. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **bit-error-threshold** *number*

| | |
|---|---|
| Synopsis | Lowest priority defect allowed to generate fault alarm |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test bit-error-threshold *number* |


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| | |
|---|---|
| Tree | bit-error-threshold |
| Range | 0 to 11840 |
| Units | bit errors |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## test-pattern

| | |
|---|---|
| Synopsis | Enter the **test-pattern** context |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test test-pattern |
| Tree | test-pattern |
| Description | Commands in this context specify the test pattern for the ETH-TST frames. The pattern does not have to be the same on the sender and the receiver. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## crc-tlv *boolean*

| | |
|---|---|
| Synopsis | Generate a CRC checksum |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test test-pattern crc-tlv *boolean* |
| Tree | crc-tlv |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## pattern *keyword*

| | |
|---|---|
| Synopsis | Test pattern for Ethernet Test frames |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test test-pattern pattern *keyword* |
| Tree | pattern |


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| | |
|---|---|
| Description | This command specifies the test pattern of the Ethernet Test (ETH-TST) frames. This does not have to be configured the same on the sender and the receiver. |
| Options | all-zeros, all-ones |
| Default | all-zeros |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **fault-propagation** *keyword*

| | |
|---|---|
| Synopsis | Fault propagation for the MEP |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* fault-propagation *keyword* |
| Tree | fault-propagation |
| Options | use-if-status-tlv, suspend-ccm |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **grace**

| | |
|---|---|
| Synopsis | Enter the **grace** context |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace |
| Tree | grace |
| Description | Commands in this context configure the Nokia ETH-CFM Grace function and the ITU-T Y.1731 Ethernet Expected Default (ETH-ED) function. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **eth-ed**

| | |
|---|---|
| Synopsis | Enter the **eth-ed** context |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed |
| Tree | eth-ed |
| Description | Commands in this context configure the ITU-T Y.1731 ETH-ED function. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **max-rx-defect-window** *number*

| | |
|---|---|
| Synopsis | Maximum received ETH-ED expected defect window duration |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed max-rx-defect-window *number* |
| Tree | max-rx-defect-window |
| Range | 1 to 86400 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **priority** *number*

| | |
|---|---|
| Synopsis | Transmission priority for ETH-ED PDUs |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed priority *number* |
| Tree | priority |
| Range | 0 to 7 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **rx-eth-ed** *boolean*

| | |
|---|---|
| Synopsis | Receive and process ETH-ED ITU-T Y.1731 PDUs on the MEP |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed rx-eth-ed *boolean* |
| Tree | rx-eth-ed |
| Description | This command enables the reception and processing of the ITU-T Y.1731 ETH-ED PDU on the MEP. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **tx-eth-ed** *boolean*

| | |
|---|---|
| Synopsis | Transmit ETH-ED PDUs from the MEP |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed tx-eth-ed *boolean* |
| Tree | tx-eth-ed |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **eth-vsm-grace**

| | |
|---|---|
| Synopsis | Enter the **eth-vsm-grace** context |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-vsm-grace |
| Tree | eth-vsm-grace |
| Description | Commands in this context configure the Nokia ETH-CFM Grace function. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **rx-eth-vsm-grace** *boolean*

| | |
|---|---|
| Synopsis | Receive and process Nokia ETH-CFM Grace PDU on the MEP |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-vsm-grace rx-eth-vsm-grace *boolean* |
| Tree | rx-eth-vsm-grace |
| Description | When configured to **true**, the router enables the Nokia Grace function, which is a vendor-specific PDU that informs MEP peers that the local node may be entering a period of expected defect.<br>When configured to **false**, the router disables the Nokia Grace function. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **tx-eth-vsm-grace** *boolean*

| | |
|---|---|
| Synopsis | Transmit ETH-ED PDUs from the MEP |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-vsm-grace tx-eth-vsm-grace *boolean* |
| Tree | tx-eth-vsm-grace |
| Description | When configured to **true**, the router can transmit the Nokia ETH-CFM Grace PDU from the MEP when a system soft reset notification is received for one or more cards.<br>The Nokia Grace function is a vendor-specific PDU that informs MEP peers that the local node may be entering a period of expected defect.<br>The operator must configure the **configure system eth-cfm grace** command to instruct the system that the node is capable of transmitting expected-defect windows to peers. The system can only transmit one form of ETH-CFM grace (Nokia ETH-CFM Grace or ITU-T Y.1731 ETH-ED).<br>When configured to **false**, the router disables the transmission of the Nokia ETH-CFM Grace PDU from the MEP. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **lbm-svc-act-responder** *boolean*

| | |
|---|---|
| Synopsis | Process service activation streams in ETH-CFM LBM |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* lbm-svc-act-responder *boolean* |
| Tree | lbm-svc-act-responder |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **low-priority-defect** *keyword*

| | |
|---|---|
| Synopsis | Lowest priority defect allowed to generate fault alarm |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* low-priority-defect *keyword* |
| Tree | low-priority-defect |
| Options | all-def, mac-rem-err-xcon, rem-err-xcon, err-xcon, xcon, no-xcon |


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| | |
|---|---|
| Default | mac-rem-err-xcon |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **mac-address** *mac-unicast-address-no-zero*

| | |
|---|---|
| Synopsis | MAC address of the MEP |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* mac-address *mac-unicast-address-no-zero* |
| Tree | mac-address |
| Description | This command specifies the MAC address of the MEP.<br>When unconfigured, the MAC address of the port (if the MEP is on a SAP) or the MAC address of a bridge (if the MEP is on a spoke) is used. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **one-way-delay-threshold** *number*

| | |
|---|---|
| Synopsis | Threshold time limit for the one-way delay test |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* one-way-delay-threshold *number* |
| Tree | one-way-delay-threshold |
| Range | 0 to 600 |
| Units | seconds |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **primary-vlan** *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | MEP provisioned using MA primary VLAN ID |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* primary-vlan *boolean* |
| Tree | primary-vlan |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **mip** primary-vlan *(number | keyword)*

| | |
|---|---|
| Synopsis | Enter the **mip** list instance |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* eth-cfm mip primary-vlan *(number | keyword)* |
| Tree | mip |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **primary-vlan** *(number | keyword)*

| | |
|---|---|
| Synopsis | VLAN ID to which the MIP is attached |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* eth-cfm mip primary-vlan *(number | keyword)* |
| Tree | mip |
| Description | This command provides an option for linking a MIP with a Primary VLAN number or none. When the **none** option is provided, the MIP does not include the primary vlan. |
| Range | 1 to 4094 |
| Options | none |
| Notes | This element is part of a list key. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **cfm-vlan-tag** *one-or-two-vlan-tags*

| | |
|---|---|
| Synopsis | VLAN tags to apply to CFM PDUs for egress processing |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* eth-cfm mip primary-vlan *(number | keyword)* cfm-vlan-tag *one-or-two-vlan-tags* |
| Tree | cfm-vlan-tag |


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| | |
|---|---|
| Description | This command allows the CFM function to include additional VLAN tags to the CFM packet that are carried to the egress and treated as service delimited. Typically, this function is used to influence the VLAN carried over a binding that uses the vc-type vlan or the binding forces the use of one or more VLAN tag that results in a mismatch between the service data arriving at the binding and the locally generated ETH-CFM PDUs arriving at the same egress. When this command is included under the MEP or MIP configuration, the tags used as part of the configuration typically match the SAP service delimited configuration. |
| String length | 1 to 9 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **mac-address** *mac-unicast-address-no-zero*

| | |
|---|---|
| Synopsis | MAC address of the MIP |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* eth-cfm mip primary-vlan *(number \| keyword)* mac-address *mac-unicast-address-no-zero* |
| Tree | mac-address |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **squelch-ingress-ctag-levels** *number*

| | |
|---|---|
| Synopsis | Squelch levels using additional VLAN C-Tag space |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* eth-cfm squelch-ingress-ctag-levels *number* |
| Tree | squelch-ingress-ctag-levels |
| Description | This command defines the levels of the ETH-CFM packets that are silently discarded on ingress into the SAP or SDP binding from the wire that matches the service delineation of the SAP or SDP binding plus an additional VLAN, up to a maximum tag length of two tags. All ETH-CFM packets inbound to the SAP or SDP binding that match the configured levels are dropped without regard for any other ETH-CFM criteria. No statistical information or drop count is available for any ETH-CFM packet that is silently discarded by this option.<br><br>The list of levels must be a complete contiguous list from 0 up to the highest level to be dropped. |
| Range | 0 to 7 |
| Max. instances | 8 |
| Introduced | 21.2.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **squelch-ingress-levels** *number*

| | |
|---|---|
| Synopsis | Levels for which ETH-CFM packets are silently discarded |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* eth-cfm squelch-ingress-levels *number* |
| Tree | squelch-ingress-levels |
| Description | This command defines the levels of the ETH-CFM packets that are silently discarded on ingress into the SAP or SDP binding from the wire that matches the service delineation of the SAP or SDP binding. All ETH-CFM packets inbound to the SAP or SDP binding that match the configured levels are dropped without regard for any other ETH-CFM criteria. No statistical information or drop count is available for any ETH-CFM packet that is silently discarded by this option.<br><br>The list of levels must be a complete contiguous list from 0 up to the highest level that will be dropped. |
| Range | 0 to 7 |
| Max. instances | 8 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **vmep-filter** *boolean*

| | |
|---|---|
| Synopsis | Suppress eth-cfm PDUs based on level lower than or equal to configured Virtual MEP |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* eth-cfm vmep-filter *boolean* |
| Tree | vmep-filter |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **etree-leaf** *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable etree leaf access-circuit status |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* etree-leaf *boolean* |
| Tree | etree-leaf |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **etree-root-leaf-tag** *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Status for E-tree root leaf tag |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* etree-root-leaf-tag *boolean* |
| Tree | etree-root-leaf-tag |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **fdb**

| | |
|---|---|
| Synopsis | Enter the **fdb** context |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* fdb |
| Tree | fdb |
| Introduced | 16.0.R1 |
| Platforms | All |

## **auto-learn-mac-protect** *boolean*

| | |
|---|---|
| Synopsis | Enable automatic population of the MAC protect list |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* fdb auto-learn-mac-protect *boolean* |
| Tree | auto-learn-mac-protect |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **auto-learn-mac-protect-exclude-list** *reference*

| | |
|---|---|
| Synopsis | Referenced MAC protect exclusion list name |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* fdb auto-learn-mac-protect-exclude-list *reference* |
| Tree | auto-learn-mac-protect-exclude-list |
| Description | This command references the name of a MAC protect exclusion list.<br>Dynamically-learned MAC Source Addresses (SA) are protected if they are learned on an object with ALMP configured and no exclusion list is associated with the object, or if the MAC SA does not match any entry in an associated exclusion list.<br>An exclusion list can be used in multiple objects of a service. If a list is empty, ALMP does not exclude any learned MAC SAs from protection on the object. |
| Reference | **configure** service mac-list *named-item* |
| Introduced | 20.5.R1 |
| Platforms | All |

### **mac-pinning** *boolean*

| | |
|---|---|
| Synopsis | MAC address pinning in active status |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* fdb mac-pinning *boolean* |
| Tree | mac-pinning |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **protected-src-mac-violation-action** *keyword*

| | |
|---|---|
| Synopsis | Action to take whenever a relearn request for a protected MAC is received |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* fdb protected-src-mac-violation-action *keyword* |
| Tree | protected-src-mac-violation-action |
| Options | sdp-bind-oper-down, alarm-only, discard |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **force-vc-forwarding** *keyword*

| | |
|---|---|
| Synopsis | VC forwarding action |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* force-vc-forwarding *keyword* |
| Tree | force-vc-forwarding |
| Options | vlan, qinq-c-tag-c-tag, qinq-s-tag-c-tag |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hash-label**

| | |
|---|---|
| Synopsis | Enable the **hash-label** context |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* hash-label |
| Tree | hash-label |
| Description | Commands in this context configure the use of hash labels for egress datapaths.<br>For information about hash-label handling, see the "Hash labels" section of the *7450 ESS, 7750 SR, 7950 XRS, and VSR MPLS Guide*. |
| Notes | The following elements are part of a choice: **entropy-label** or **hash-label**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **signal-capability**

| | |
|---|---|
| Synopsis | Signal hash label capability to the remote PE |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* hash-label signal-capability |
| Tree | signal-capability |
| Description | When configured, this command enables the signaling and negotiating of the hash label between the local and remote PE nodes.<br>The signaling process outcome determines whether the local PE inserts the hash label on the user packets. This outcome can override the local PE configuration. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **igmp-snooping**

| | |
|---|---|
| Synopsis | Enter the **igmp-snooping** context |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* igmp-snooping |
| Tree | igmp-snooping |
| Introduced | 16.0.R1 |
| Platforms | All |

### **fast-leave** *boolean*

| | |
|---|---|
| Synopsis | Allow IGMP fast leave processing |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* igmp-snooping fast-leave *boolean* |
| Tree | fast-leave |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **import-policy** *reference*

| | |
|---|---|
| Synopsis | Import policy that filters IGMP packets |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* igmp-snooping import-policy *reference* |
| Tree | import-policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **maximum-number-group-sources** *number*

| | |
|---|---|
| Synopsis | Maximum group source combinations |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* igmp-snooping maximum-number-group-sources *number* |
| Tree | maximum-number-group-sources |
| Range | 1 to 32000 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **maximum-number-groups** *number*

| | |
|---|---|
| Synopsis | Maximum groups allowed |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* igmp-snooping maximum-number-groups *number* |
| Tree | maximum-number-groups |
| Range | 1 to 16000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **maximum-number-sources** *number*

| | |
|---|---|
| Synopsis | Maximum sources that are allowed per group |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* igmp-snooping maximum-number-sources *number* |
| Tree | maximum-number-sources |
| Range | 1 to 1000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mcac**

| | |
|---|---|
| Synopsis | Enter the **mcac** context |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* igmp-snooping mcac |
| Tree | mcac |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bandwidth**

| | |
|---|---|
| Synopsis | Enter the **bandwidth** context |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* igmp-snooping mcac bandwidth |
| Tree | bandwidth |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **mandatory** *(number | keyword)*

| | |
|---|---|
| Synopsis | Pre-reserved bandwidth for all mandatory channels |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* igmp-snooping mcac bandwidth mandatory *(number | keyword)* |
| Tree | mandatory |
| Range | 0 to 2147483647 |
| Options | unlimited |
| Default | unlimited |
| Introduced | 16.0.R1 |
| Platforms | All |

### **total** *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum allowed bandwidth |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* igmp-snooping mcac bandwidth total *(number | keyword)* |
| Tree | total |
| Range | 0 to 2147483647 |
| Options | unlimited |
| Default | unlimited |
| Introduced | 16.0.R1 |
| Platforms | All |

### **interface-policy** *reference*

| | |
|---|---|
| Synopsis | Name of multicast CAC interface policy |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* igmp-snooping mcac interface-policy *reference* |
| Tree | interface-policy |
| Reference | **configure** mcac interface-policy *string* |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **policy** *reference*

| | |
|---|---|
| Synopsis | Multicast CAC policy name |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* igmp-snooping mcac policy *reference* |
| Tree | policy |
| Description | This command configures the name of the global channel bandwidth definition policy that is used for (H)MCAC and HQoS adjustment.<br>Within the scope of HQoS adjustment, the channel definition policy under the group interface is used if redirection is unconfigured. In this case, the HQoS adjustment can be applied to IPoE subscribers in per-SAP replication mode.<br>If redirection is configured, the channel bandwidth definition policy applied under the Layer 3 redirected interface is in effect.<br>Hierarchical MCAC (HMCAC) is supported on two levels simultaneously:<br>• subscriber level and redirected interface when redirection is configured<br>• subscriber level and group-interface level when redirection is unconfigured<br>In HMCAC, the subscriber is checked against its bandwidth limits first, then against the bandwidth limits of the redirected or group interface. If redirection is configured but the policy is referenced only under the group interface, no admission control is executed (HMCAC or MCAC). |
| Reference | **configure** mcac policy *string* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **mrouter-port** *boolean*

| | |
|---|---|
| Synopsis | Operate port as a multicast router port |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* igmp-snooping mrouter-port *boolean* |
| Tree | mrouter-port |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **query-interval** *number*

| | |
|---|---|
| Synopsis | Time between two consecutive host-query messages |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* igmp-snooping query-interval *number* |
| Tree | query-interval |
| Range | 2 to 1024 |
| Units | seconds |
| Default | 125 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **query-last-member-interval** *number*

| | |
|---|---|
| Synopsis | Time between group-specific query messages |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* igmp-snooping query-last-member-interval *number* |
| Tree | query-last-member-interval |
| Range | 1 to 50 |
| Units | deciseconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **query-response-interval** *number*

| | |
|---|---|
| Synopsis | Time to wait for a response to the host-query messages |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* igmp-snooping query-response-interval *number* |
| Tree | query-response-interval |
| Range | 1 to 1023 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **robust-count** *number*

| | |
|---|---|
| Synopsis | Number of retries after expected message loss |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* igmp-snooping robust-count *number* |
| Tree | robust-count |
| Range | 2 to 7 |
| Default | 2 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **router-alert-check** *boolean*

| | |
|---|---|
| Synopsis | Enable IP router alert check option |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* igmp-snooping router-alert-check *boolean* |
| Tree | router-alert-check |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

## **send-queries** *boolean*

| | |
|---|---|
| Synopsis | Generate IGMP general queries |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* igmp-snooping send-queries *boolean* |
| Tree | send-queries |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **static**

| | |
|---|---|
| Synopsis | Enter the **static** context |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* igmp-snooping static |
| Tree | static |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **group** [group-address] *ipv4-multicast-address*

| | |
|---|---|
| Synopsis | Enter the **group** list instance |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* igmp-snooping static group *ipv4-multicast-address* |
| Tree | group |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**group-address**] *ipv4-multicast-address*

| | |
|---|---|
| Synopsis | Group address of static IGMP multicast channel |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* igmp-snooping static group *ipv4-multicast-address* |
| Tree | group |
| Description | This command configures an address that receives data on an interface. The IP address must be unique for each static group. |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **source** [source-address] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Add a list entry for **source** |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* igmp-snooping static group *ipv4-multicast-address* source *ipv4-unicast-address* |
| Tree | source |
| Notes | The following elements are part of a mandatory choice: **source** or **starg**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**source-address**] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Source IP address of multicast channel sending data |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* igmp-snooping static group *ipv4-multicast-address* source *ipv4-unicast-address* |


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| | |
|---|---|
| Tree | source |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R2 |
| Platforms | All |

## starg

| | |
|---|---|
| Synopsis | any source address (*,G) |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* igmp-snooping static group *ipv4-multicast-address* starg |
| Tree | starg |
| Notes | The following elements are part of a mandatory choice: **source** or **starg**. |
| Introduced | 16.0.R2 |
| Platforms | All |

## version *keyword*

| | |
|---|---|
| Synopsis | IGMP protocol version |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* igmp-snooping version *keyword* |
| Tree | version |
| Options | 1, 2, 3 |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | All |

## ingress

| | |
|---|---|
| Synopsis | Enter the **ingress** context |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* ingress |
| Tree | ingress |
| Introduced | 16.0.R1 |
| Platforms | All |


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### filter

| | |
|---|---|
| Synopsis | Enter the **filter** context |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* ingress filter |
| Tree | filter |
| Introduced | 16.0.R1 |
| Platforms | All |

### ip *reference*

| | |
|---|---|
| Synopsis | IPv4 filter policy name |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* ingress filter ip *reference* |
| Tree | ip |
| Reference | **configure** filter ip-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### ipv6 *reference*

| | |
|---|---|
| Synopsis | IPv6 filter policy name |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* ingress filter ipv6 *reference* |
| Tree | ipv6 |
| Reference | **configure** filter ipv6-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### mac *reference*

| | |
|---|---|
| Synopsis | MAC filter policy name |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* ingress filter mac *reference* |
| Tree | mac |
| Reference | **configure** filter mac-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |


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## qos

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* ingress qos |
| Tree | qos |
| Introduced | 16.0.R1 |
| Platforms | All |

## network

| | |
|---|---|
| Synopsis | Enter the **network** context |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* ingress qos network |
| Tree | network |
| Introduced | 16.0.R1 |
| Platforms | All |

## fp-redirect-group

| | |
|---|---|
| Synopsis | Enter the **fp-redirect-group** context |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* ingress qos network fp-redirect-group |
| Tree | fp-redirect-group |
| Introduced | 16.0.R1 |
| Platforms | All |

## group-name *reference*

| | |
|---|---|
| Synopsis | Name of the forwarding plane queue group template |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* ingress qos network fp-redirect-group group-name *reference* |
| Tree | group-name |
| Reference | **configure** qos queue-group-templates ingress queue-group *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **instance** *number*

| | |
|---|---|
| Synopsis | Instance of FP ingress queue group for the SDP binding |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* ingress qos network fp-redirect-group instance *number* |
| Tree | instance |
| Range | 1 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **policy-name** *reference*

| | |
|---|---|
| Synopsis | Network policy ID |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* ingress qos network policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos network *network-policy-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **vc-label** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Ingress MPLS VC label to send packets to the far end |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* ingress vc-label *number* |
| Tree | vc-label |
| Range | 1 to 1048575 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mld-snooping**

| | |
|---|---|
| Synopsis | Enter the **mld-snooping** context |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* mld-snooping |
| Tree | mld-snooping |
| Introduced | 16.0.R1 |
| Platforms | All |

### **fast-leave** *boolean*

| | |
|---|---|
| Synopsis | Allow IGMP fast leave processing |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* mld-snooping fast-leave *boolean* |
| Tree | fast-leave |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **import-policy** *reference*

| | |
|---|---|
| Synopsis | Import policy that filters IGMP packets |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* mld-snooping import-policy *reference* |
| Tree | import-policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **maximum-number-groups** *number*

| | |
|---|---|
| Synopsis | Maximum groups allowed |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* mld-snooping maximum-number-groups *number* |
| Tree | maximum-number-groups |
| Range | 1 to 16000 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **mrouter-port** *boolean*

| | |
|---|---|
| Synopsis | Operate port as a multicast router port |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* mld-snooping mrouter-port *boolean* |
| Tree | mrouter-port |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **query-interval** *number*

| | |
|---|---|
| Synopsis | Time between two consecutive host-query messages |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* mld-snooping query-interval *number* |
| Tree | query-interval |
| Range | 2 to 1024 |
| Units | seconds |
| Default | 125 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **query-last-member-interval** *number*

| | |
|---|---|
| Synopsis | Time between group-specific query messages |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* mld-snooping query-last-member-interval *number* |
| Tree | query-last-member-interval |
| Range | 1 to 50 |
| Units | deciseconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **query-response-interval** *number*

| | |
|---|---|
| Synopsis | Time to wait for a response to the host-query messages |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* mld-snooping query-response-interval *number* |
| Tree | query-response-interval |
| Range | 1 to 1023 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **robust-count** *number*

| | |
|---|---|
| Synopsis | Number of retries after expected message loss |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* mld-snooping robust-count *number* |
| Tree | robust-count |
| Range | 2 to 7 |
| Default | 2 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **router-alert-check** *boolean*

| | |
|---|---|
| Synopsis | Enable IP router alert check option |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* mld-snooping router-alert-check *boolean* |
| Tree | router-alert-check |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **send-queries** *boolean*

| | |
|---|---|
| Synopsis | Generate IGMP general queries |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* mld-snooping send-queries *boolean* |
| Tree | send-queries |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## static

| | |
|---|---|
| Synopsis | Enter the **static** context |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* mld-snooping static |
| Tree | static |
| Introduced | 16.0.R1 |
| Platforms | All |

## **group** [group-address] *ipv6-multicast-address*

| | |
|---|---|
| Synopsis | Enter the **group** list instance |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* mld-snooping static group *ipv6-multicast-address* |
| Tree | group |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**group-address**] *ipv6-multicast-address*

| | |
|---|---|
| Synopsis | Group address of multicast channel |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* mld-snooping static group *ipv6-multicast-address* |
| Tree | group |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **source** [source-address] *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Add a list entry for **source** |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* mld-snooping static group *ipv6-multicast-address* source *ipv6-unicast-address* |
| Tree | source |
| Notes | The following elements are part of a mandatory choice: **source** or **starg**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**source-address**] *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Source IP address |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* mld-snooping static group *ipv6-multicast-address* source *ipv6-unicast-address* |
| Tree | source |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R2 |
| Platforms | All |

### **starg**

| | |
|---|---|
| Synopsis | any source address (*,G) |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* mld-snooping static group *ipv6-multicast-address* starg |
| Tree | starg |
| Notes | The following elements are part of a mandatory choice: **source** or **starg**. |
| Introduced | 16.0.R2 |
| Platforms | All |

### **version** *keyword*

| | |
|---|---|
| Synopsis | Version of MLD running on the SAP or SDP |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* mld-snooping version *keyword* |
| Tree | version |


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| | |
|---|---|
| Options | 1, 2 |
| Default | 2 |
| Introduced | 16.0.R1 |
| Platforms | All |

## mrp

| | |
|---|---|
| Synopsis | Enter the **mrp** context |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* mrp |
| Tree | mrp |
| Introduced | 20.10.R1 |
| Platforms | All |

## join-time *number*

| | |
|---|---|
| Synopsis | Maximum rate for attribute join messages sent on SDP |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* mrp join-time *number* |
| Tree | join-time |
| Range | 1 to 10 |
| Units | deciseconds |
| Default | 2 |
| Introduced | 20.10.R1 |
| Platforms | All |

## leave-all-time *number*

| | |
|---|---|
| Synopsis | Frequency of LeaveAll PDUs by LeaveAll state machine |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* mrp leave-all-time *number* |
| Tree | leave-all-time |
| Range | 60 to 300 |
| Units | deciseconds |
| Default | 100 |
| Introduced | 20.10.R1 |
| Platforms | All |


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### **leave-time** *number*

| | |
|---|---|
| Synopsis | Time in LV state before transition to MT state |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* mrp leave-time *number* |
| Tree | leave-time |
| Range | 30 to 60 |
| Units | deciseconds |
| Default | 30 |
| Introduced | 20.10.R1 |
| Platforms | All |

### **periodic-time** *number*

| | |
|---|---|
| Synopsis | Frequency of periodic events generated by state machine |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* mrp periodic-time *number* |
| Tree | periodic-time |
| Range | 10 to 100 |
| Units | deciseconds |
| Default | 10 |
| Introduced | 20.10.R1 |
| Platforms | All |

### **periodic-timer** *boolean*

| | |
|---|---|
| Synopsis | Enable the Periodic Transmission Timer |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* mrp periodic-timer *boolean* |
| Tree | periodic-timer |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | All |

### **policy** *reference*

| | |
|---|---|
| Synopsis | MRP policy to control Group B-MAC attributes |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* mrp policy *reference* |


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| | |
|---|---|
| Tree | policy |
| Reference | **configure** service mrp policy *named-item* |
| Introduced | 20.10.R1 |
| Platforms | All |

## pbb

| | |
|---|---|
| Synopsis | Enter the **pbb** context |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* pbb |
| Tree | pbb |
| Introduced | 20.10.R1 |
| Platforms | All |

## fault-propagation

| | |
|---|---|
| Synopsis | Enter the **fault-propagation** context |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* pbb fault-propagation |
| Tree | fault-propagation |
| Introduced | 20.10.R1 |
| Platforms | All |

## **backbone-mac-address** [address] *mac-unicast-address-no-zero*

| | |
|---|---|
| Synopsis | Add a list entry for **backbone-mac-address** |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* pbb fault-propagation backbone-mac-address *mac-unicast-address-no-zero* |
| Tree | backbone-mac-address |
| Introduced | 20.10.R1 |
| Platforms | All |

## [**address**] *mac-unicast-address-no-zero*

| | |
|---|---|
| Synopsis | Backbone MAC address |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* pbb fault-propagation backbone-mac-address *mac-unicast-address-no-zero* |
| Tree | backbone-mac-address |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | All |

### **backbone-mac-name** [name] *reference*

| | |
|---|---|
| Synopsis | Add a list entry for **backbone-mac-name** |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* pbb fault-propagation backbone-mac-name *reference* |
| Tree | backbone-mac-name |
| Introduced | 20.10.R1 |
| Platforms | All |

### [**name**] *reference*

| | |
|---|---|
| Synopsis | Backbone MAC address name |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* pbb fault-propagation backbone-mac-name *reference* |
| Tree | backbone-mac-name |
| Reference | **configure** service pbb mac *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | All |

### **vc-type** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Type of virtual circuit (VC) associated with the SDP binding; VPLS not supported |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* vc-type *keyword* |
| Tree | vc-type |
| Options | ether, vlan |
| Default | ether |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **vlan-vc-tag** *number*

| | |
|---|---|
| Synopsis | SDP bind VC tag |
| Context | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* vlan-vc-tag *number* |
| Tree | vlan-vc-tag |
| Range | 0 to 4094 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mfib**

| | |
|---|---|
| Synopsis | Enter the **mfib** context |
| Context | **configure** service vpls *service-name* mfib |
| Tree | mfib |
| Introduced | 16.0.R1 |
| Platforms | All |

### **table**

| | |
|---|---|
| Synopsis | Enter the **table** context |
| Context | **configure** service vpls *service-name* mfib table |
| Tree | table |
| Introduced | 16.0.R1 |
| Platforms | All |

### **high-wmark** *number*

| | |
|---|---|
| Synopsis | High watermark for the MFIB table |
| Context | **configure** service vpls *service-name* mfib table high-wmark *number* |
| Tree | high-wmark |
| Range | 0 to 100 |
| Default | 95 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **low-wmark** *number*

| | |
|---|---|
| Synopsis | Low watermark for the MFIB table |
| Context | **configure** service vpls *service-name* mfib table low-wmark *number* |
| Tree | low-wmark |
| Range | 0 to 100 |
| Default | 90 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **size** *number*

| | |
|---|---|
| Synopsis | Maximum SG entries in the MFIB |
| Context | **configure** service vpls *service-name* mfib table size *number* |
| Tree | size |
| Range | 1 to 40959 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mld-snooping**

| | |
|---|---|
| Synopsis | Enter the **mld-snooping** context |
| Context | **configure** service vpls *service-name* mld-snooping |
| Tree | mld-snooping |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of snooping |
| Context | **configure** service vpls *service-name* mld-snooping admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |


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| | |
|---|---|
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

## evpn-proxy

| | |
|---|---|
| Synopsis | Enter the **evpn-proxy** context |
| Context | **configure** service vpls *service-name* mld-snooping evpn-proxy |
| Tree | evpn-proxy |
| Introduced | 20.10.R1 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of EVPN proxy |
| Context | **configure** service vpls *service-name* mld-snooping evpn-proxy admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 20.10.R1 |
| Platforms | All |

## mvr

| | |
|---|---|
| Synopsis | Enter the **mvr** context |
| Context | **configure** service vpls *service-name* mld-snooping mvr |
| Tree | mvr |
| Introduced | 16.0.R1 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of MVR |
| Context | **configure** service vpls *service-name* mld-snooping mvr admin-state *keyword* |
| Tree | admin-state |


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| | |
|---|---|
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vpls *service-name* mld-snooping mvr description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **group-policy** *named-item*

| | |
|---|---|
| Synopsis | Policy that applies MVR |
| Context | **configure** service vpls *service-name* mld-snooping mvr group-policy *named-item* |
| Tree | group-policy |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **query-interval** *number*

| | |
|---|---|
| Synopsis | Time between two consecutive host-query messages |
| Context | **configure** service vpls *service-name* mld-snooping query-interval *number* |
| Tree | query-interval |
| Range | 1 to 65535 |
| Units | seconds |
| Default | 125 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **query-source-address** *(keyword | ipv6-address)*

| | |
|---|---|
| Synopsis | Source IP address used in MLD queries |
| Context | **configure** service vpls *service-name* mld-snooping query-source-address *(keyword \| ipv6-address)* |
| Tree | query-source-address |
| Options | system |
| Default | system |
| Introduced | 16.0.R1 |
| Platforms | All |

### **report-source-address** *ipv6-address*

| | |
|---|---|
| Synopsis | Source IP address used when generating MLD reports |
| Context | **configure** service vpls *service-name* mld-snooping report-source-address *ipv6-address* |
| Tree | report-source-address |
| Introduced | 16.0.R1 |
| Platforms | All |

### **robust-count** *number*

| | |
|---|---|
| Synopsis | Number of retries after expected message loss |
| Context | **configure** service vpls *service-name* mld-snooping robust-count *number* |
| Tree | robust-count |
| Range | 1 to 255 |
| Default | 2 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mrp**

| | |
|---|---|
| Synopsis | Enter the **mrp** context |
| Context | **configure** service vpls *service-name* mrp |
| Tree | mrp |
| Introduced | 20.10.R1 |


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| | |
|---|---|
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of MRP |
| Context | **configure** service vpls *service-name* mrp admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 20.10.R1 |
| Platforms | All |

### **mmrp**

| | |
|---|---|
| Synopsis | Enter the **mmrp** context |
| Context | **configure** service vpls *service-name* mrp mmrp |
| Tree | mmrp |
| Introduced | 20.10.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of MMRP |
| Context | **configure** service vpls *service-name* mrp mmrp admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Introduced | 20.10.R1 |
| Platforms | All |

### **attribute-table**

| | |
|---|---|
| Synopsis | Enter the **attribute-table** context |
| Context | **configure** service vpls *service-name* mrp mmrp attribute-table |
| Tree | attribute-table |
| Introduced | 20.10.R1 |


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| | |
|---|---|
| Platforms | All |

### **high-wmark** *number*

| | |
|---|---|
| Synopsis | High watermark for the MMRP attribute table |
| Context | **configure** service vpls *service-name* mrp mmrp attribute-table high-wmark *number* |
| Tree | high-wmark |
| Range | 0 to 100 |
| Default | 95 |
| Introduced | 20.10.R1 |
| Platforms | All |

### **low-wmark** *number*

| | |
|---|---|
| Synopsis | Low watermark for the MMRP attribute table |
| Context | **configure** service vpls *service-name* mrp mmrp attribute-table low-wmark *number* |
| Tree | low-wmark |
| Range | 0 to 100 |
| Default | 90 |
| Introduced | 20.10.R1 |
| Platforms | All |

### **size** *number*

| | |
|---|---|
| Synopsis | Maximum number of attributes accepted by B-VPLS |
| Context | **configure** service vpls *service-name* mrp mmrp attribute-table size *number* |
| Tree | size |
| Range | 1 to 8192 |
| Default | 2048 |
| Introduced | 20.10.R1 |
| Platforms | All |

### **end-station-only** *boolean*

| | |
|---|---|
| Synopsis | Prevent generation or processing of MMRP messages |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* mrp mmrp end-station-only *boolean* |
| Tree | end-station-only |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | All |

### **flood-time** *number*

| | |
|---|---|
| Synopsis | Time when traffic is flooded after status change |
| Context | **configure** service vpls *service-name* mrp mmrp flood-time *number* |
| Tree | flood-time |
| Range | 3 to 600 |
| Introduced | 20.10.R1 |
| Platforms | All |

### **multicast-info-policy** *reference*

| | |
|---|---|
| Synopsis | Multicast information policy |
| Context | **configure** service vpls *service-name* multicast-info-policy *reference* |
| Tree | multicast-info-policy |
| Reference | **configure** multicast-management multicast-info-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **pbb**

| | |
|---|---|
| Synopsis | Enter the **pbb** context |
| Context | **configure** service vpls *service-name* pbb |
| Tree | pbb |
| Introduced | 16.0.R1 |
| Platforms | All |

### **backbone-vpls** [backbone-vpls-service-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **backbone-vpls** list instance |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* pbb backbone-vpls *reference* |
| Tree | backbone-vpls |
| Max. instances | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**backbone-vpls-service-name**] *reference*

| | |
|---|---|
| Synopsis | Service name |
| Context | **configure** service vpls *service-name* pbb backbone-vpls *reference* |
| Tree | backbone-vpls |
| Reference | **configure** service vpls *service-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## fdb

| | |
|---|---|
| Synopsis | Enter the **fdb** context |
| Context | **configure** service vpls *service-name* pbb backbone-vpls *reference* fdb |
| Tree | fdb |
| Introduced | 20.2.R1 |
| Platforms | All |

## protected-src-mac-violation-action *keyword*

| | |
|---|---|
| Synopsis | Action taken upon a relearn request for protected MAC |
| Context | **configure** service vpls *service-name* pbb backbone-vpls *reference* fdb protected-src-mac-violation-action *keyword* |
| Tree | protected-src-mac-violation-action |
| Options | discard |
| Introduced | 20.5.R1 |
| Platforms | All |


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## igmp-snooping

| | |
|---|---|
| Synopsis | Enter the **igmp-snooping** context |
| Context | **configure** service vpls *service-name* pbb backbone-vpls *reference* igmp-snooping |
| Tree | igmp-snooping |
| Introduced | 16.0.R1 |
| Platforms | All |

## mrouter-destination [mac-reference] *reference*

| | |
|---|---|
| Synopsis | Add a list entry for **mrouter-destination** |
| Context | **configure** service vpls *service-name* pbb backbone-vpls *reference* igmp-snooping mrouter-destination *reference* |
| Tree | mrouter-destination |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**mac-reference**] *reference*

| | |
|---|---|
| Synopsis | Mac name reference |
| Context | **configure** service vpls *service-name* pbb backbone-vpls *reference* igmp-snooping mrouter-destination *reference* |
| Tree | mrouter-destination |
| Reference | **configure** service pbb mac *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## isid *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Backbone VPLS ISID |
| Context | **configure** service vpls *service-name* pbb backbone-vpls *reference* isid *number* |


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| | |
|---|---|
| Tree | isid |
| Range | 0 to 16777215 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mesh-sdp** [sdp-bind-id] *reference*

| | |
|---|---|
| Synopsis | Enter the **mesh-sdp** list instance |
| Context | **configure** service vpls *service-name* pbb backbone-vpls *reference* mesh-sdp *reference* |
| Tree | mesh-sdp |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**sdp-bind-id**] *reference*

| | |
|---|---|
| Synopsis | Backbone VPLS SDP Binding ID |
| Context | **configure** service vpls *service-name* pbb backbone-vpls *reference* mesh-sdp *reference* |
| Tree | mesh-sdp |
| Reference | **configure** service vpls *service-name* mesh-sdp *sdp-bind-id* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **igmp-snooping**

| | |
|---|---|
| Synopsis | Enter the **igmp-snooping** context |
| Context | **configure** service vpls *service-name* pbb backbone-vpls *reference* mesh-sdp *reference* igmp-snooping |
| Tree | igmp-snooping |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **mrouter-port** *boolean*

| | |
|---|---|
| Synopsis | Operate port as a multicast router port |
| Context | **configure** service vpls *service-name* pbb backbone-vpls *reference* mesh-sdp *reference* igmp-snooping mrouter-port *boolean* |
| Tree | mrouter-port |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mld-snooping**

| | |
|---|---|
| Synopsis | Enter the **mld-snooping** context |
| Context | **configure** service vpls *service-name* pbb backbone-vpls *reference* mesh-sdp *reference* mld-snooping |
| Tree | mld-snooping |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mrouter-port** *boolean*

| | |
|---|---|
| Synopsis | Operate port as a multicast router port |
| Context | **configure** service vpls *service-name* pbb backbone-vpls *reference* mesh-sdp *reference* mld-snooping mrouter-port *boolean* |
| Tree | mrouter-port |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mld-snooping**

| | |
|---|---|
| Synopsis | Enter the **mld-snooping** context |
| Context | **configure** service vpls *service-name* pbb backbone-vpls *reference* mld-snooping |
| Tree | mld-snooping |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **mrouter-destination** [mac-reference] *reference*

| | |
|---|---|
| Synopsis | Add a list entry for **mrouter-destination** |
| Context | **configure** service vpls *service-name* pbb backbone-vpls *reference* mld-snooping mrouter-destination *reference* |
| Tree | mrouter-destination |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**mac-reference**] *reference*

| | |
|---|---|
| Synopsis | Mac name reference |
| Context | **configure** service vpls *service-name* pbb backbone-vpls *reference* mld-snooping mrouter-destination *reference* |
| Tree | mrouter-destination |
| Reference | **configure** service pbb mac *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sap** [sap-id] *reference*

| | |
|---|---|
| Synopsis | Enter the **sap** list instance |
| Context | **configure** service vpls *service-name* pbb backbone-vpls *reference* sap *reference* |
| Tree | sap |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**sap-id**] *reference*

| | |
|---|---|
| Synopsis | Backbone VPLS SAP |
| Context | **configure** service vpls *service-name* pbb backbone-vpls *reference* sap *reference* |
| Tree | sap |
| Reference | **configure** service vpls *service-name* sap *sap* |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## igmp-snooping

| | |
|---|---|
| Synopsis | Enter the **igmp-snooping** context |
| Context | **configure** service vpls *service-name* pbb backbone-vpls *reference* sap *reference* igmp-snooping |
| Tree | igmp-snooping |
| Introduced | 16.0.R1 |
| Platforms | All |

## mrouter-port *boolean*

| | |
|---|---|
| Synopsis | Operate port as a multicast router port |
| Context | **configure** service vpls *service-name* pbb backbone-vpls *reference* sap *reference* igmp-snooping mrouter-port *boolean* |
| Tree | mrouter-port |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## mld-snooping

| | |
|---|---|
| Synopsis | Enter the **mld-snooping** context |
| Context | **configure** service vpls *service-name* pbb backbone-vpls *reference* sap *reference* mld-snooping |
| Tree | mld-snooping |
| Introduced | 16.0.R1 |
| Platforms | All |

## mrouter-port *boolean*

| | |
|---|---|
| Synopsis | Operate port as a multicast router port |
| Context | **configure** service vpls *service-name* pbb backbone-vpls *reference* sap *reference* mld-snooping mrouter-port *boolean* |
| Tree | mrouter-port |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **spoke-sdp** [sdp-bind-id] *reference*

| | |
|---|---|
| Synopsis | Enter the **spoke-sdp** list instance |
| Context | **configure** service vpls *service-name* pbb backbone-vpls *reference* spoke-sdp *reference* |
| Tree | spoke-sdp |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**sdp-bind-id**] *reference*

| | |
|---|---|
| Synopsis | Backbone VPLS SDP Binding ID |
| Context | **configure** service vpls *service-name* pbb backbone-vpls *reference* spoke-sdp *reference* |
| Tree | spoke-sdp |
| Reference | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **igmp-snooping**

| | |
|---|---|
| Synopsis | Enter the **igmp-snooping** context |
| Context | **configure** service vpls *service-name* pbb backbone-vpls *reference* spoke-sdp *reference* igmp-snooping |
| Tree | igmp-snooping |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mrouter-port** *boolean*

| | |
|---|---|
| Synopsis | Operate port as a multicast router port |
| Context | **configure** service vpls *service-name* pbb backbone-vpls *reference* spoke-sdp *reference* igmp-snooping mrouter-port *boolean* |


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| | |
|---|---|
| Tree | mrouter-port |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## mld-snooping

| | |
|---|---|
| Synopsis | Enter the **mld-snooping** context |
| Context | **configure** service vpls *service-name* pbb backbone-vpls *reference* spoke-sdp *reference* mld-snooping |
| Tree | mld-snooping |
| Introduced | 16.0.R1 |
| Platforms | All |

## mrouter-port *boolean*

| | |
|---|---|
| Synopsis | Operate port as a multicast router port |
| Context | **configure** service vpls *service-name* pbb backbone-vpls *reference* spoke-sdp *reference* mld-snooping mrouter-port *boolean* |
| Tree | mrouter-port |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## force-qtag-forwarding *boolean*

| | |
|---|---|
| Synopsis | Add an IEEE 802.1q tag after C-MAC addresses PBB header |
| Context | **configure** service vpls *service-name* pbb force-qtag-forwarding *boolean* |
| Tree | force-qtag-forwarding |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## i-vpls-mac-flush

| | |
|---|---|
| Synopsis | Enter the **i-vpls-mac-flush** context |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* pbb i-vpls-mac-flush |
| Tree | i-vpls-mac-flush |
| Introduced | 16.0.R1 |
| Platforms | All |

## bgp-evpn

| | |
|---|---|
| Synopsis | Enter the **bgp-evpn** context |
| Context | **configure** service vpls *service-name* pbb i-vpls-mac-flush bgp-evpn |
| Tree | bgp-evpn |
| Introduced | 16.0.R1 |
| Platforms | All |

## send-to-bvpls *boolean*

| | |
|---|---|
| Synopsis | Send b-VPLS EVPN flush |
| Context | **configure** service vpls *service-name* pbb i-vpls-mac-flush bgp-evpn send-to-bvpls *boolean* |
| Tree | send-to-bvpls |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## tldp

| | |
|---|---|
| Synopsis | Enter the **tldp** context |
| Context | **configure** service vpls *service-name* pbb i-vpls-mac-flush tldp |
| Tree | tldp |
| Introduced | 16.0.R1 |
| Platforms | All |

## propagate-from-bvpls *boolean*

| | |
|---|---|
| Synopsis | Propagate MAC flush message from B-VPLS into local I-VPLS |
| Context | **configure** service vpls *service-name* pbb i-vpls-mac-flush tldp propagate-from-bvpls *boolean* |


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| | |
|---|---|
| Tree | propagate-from-bvpls |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **send-on-bvpls-failure** *boolean*

| | |
|---|---|
| Synopsis | Send negative flush message (flush-all-from-me) on B-VPLS failure |
| Context | **configure** service vpls *service-name* pbb i-vpls-mac-flush tldp send-on-bvpls-failure *boolean* |
| Tree | send-on-bvpls-failure |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **send-to-bvpls**

| | |
|---|---|
| Synopsis | Enter the **send-to-bvpls** context |
| Context | **configure** service vpls *service-name* pbb i-vpls-mac-flush tldp send-to-bvpls |
| Tree | send-to-bvpls |
| Introduced | 16.0.R1 |
| Platforms | All |

### **all-but-mine** *boolean*

| | |
|---|---|
| Synopsis | Generate LDP MAC withdraw message to b-VPLS |
| Context | **configure** service vpls *service-name* pbb i-vpls-mac-flush tldp send-to-bvpls all-but-mine *boolean* |
| Tree | all-but-mine |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **all-from-me** *boolean*

| | |
|---|---|
| Synopsis | Generate LDP MAC withdraw all from me message to b-VPLS |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* pbb i-vpls-mac-flush tldp send-to-bvpls all-from-me *boolean* |
| Tree | all-from-me |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## mac-notification

| | |
|---|---|
| Synopsis | Enter the **mac-notification** context |
| Context | **configure** service vpls *service-name* pbb mac-notification |
| Tree | mac-notification |
| Introduced | 16.0.R1 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of MAC notification messages |
| Context | **configure** service vpls *service-name* pbb mac-notification admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

## count *number*

| | |
|---|---|
| Synopsis | MAC notification messages count |
| Context | **configure** service vpls *service-name* pbb mac-notification count *number* |
| Tree | count |
| Range | 1 to 10 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **interval** *number*

| | |
|---|---|
| Synopsis | Interval for MAC notification messages |
| Context | **configure** service vpls *service-name* pbb mac-notification interval *number* |
| Tree | interval |
| Range | 1 to 100 |
| Units | deciseconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **renotify** *(number | keyword)*

| | |
|---|---|
| Synopsis | Re-notify interval for MAC-notification messages |
| Context | **configure** service vpls *service-name* pbb mac-notification renotify *(number | keyword)* |
| Tree | renotify |
| Range | 240 to 840 |
| Units | seconds |
| Options | none |
| Default | none |
| Introduced | 16.0.R1 |
| Platforms | All |

### **source-bmac**

| | |
|---|---|
| Synopsis | Enter the **source-bmac** context |
| Context | **configure** service vpls *service-name* pbb source-bmac |
| Tree | source-bmac |
| Introduced | 16.0.R1 |
| Platforms | All |

### **address** *mac-unicast-address-no-zero*

| | |
|---|---|
| Synopsis | Base source B-MAC address for the B-VPLS |
| Context | **configure** service vpls *service-name* pbb source-bmac address *mac-unicast-address-no-zero* |


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| | |
|---|---|
| Tree | address |
| Introduced | 16.0.R1 |
| Platforms | All |

### **use-es-bmac-lsb** *boolean*

| | |
|---|---|
| Synopsis | Use LSB from Ethernet-segment backbone MAC |
| Context | **configure** service vpls *service-name* pbb source-bmac use-es-bmac-lsb *boolean* |
| Tree | use-es-bmac-lsb |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **use-mclag-bmac-lsb** *boolean*

| | |
|---|---|
| Synopsis | Use MC LAG backbone MAC LSB |
| Context | **configure** service vpls *service-name* pbb source-bmac use-mclag-bmac-lsb *boolean* |
| Tree | use-mclag-bmac-lsb |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **pbb-type** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | PBB VPLS type |
| Context | **configure** service vpls *service-name* pbb-type *keyword* |
| Tree | pbb-type |
| Options | b-vpls, i-vpls |
| Introduced | 16.0.R1 |
| Platforms | All |


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## pim-snooping

| | |
|---|---|
| Synopsis | Enable the **pim-snooping** context |
| Context | **configure** service vpls *service-name* pim-snooping |
| Tree | pim-snooping |
| Introduced | 16.0.R1 |
| Platforms | All |

## group-policy *display-string*

| | |
|---|---|
| Synopsis | Group policy name |
| Context | **configure** service vpls *service-name* pim-snooping group-policy *display-string* |
| Tree | group-policy |
| String length | 1 to 255 |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

## hold-time *number*

| | |
|---|---|
| Synopsis | Duration that allows the PIM-snooping switch to snoop all the PIM states in the VPLS |
| Context | **configure** service vpls *service-name* pim-snooping hold-time *number* |
| Tree | hold-time |
| Range | 0 to 300 |
| Units | seconds |
| Default | 90 |
| Introduced | 16.0.R1 |
| Platforms | All |

## ipv4

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |
| Context | **configure** service vpls *service-name* pim-snooping ipv4 |


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| | |
|---|---|
| Tree | ipv4 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of snooping for multicast traffic |
| Context | **configure** service vpls *service-name* pim-snooping ipv4 admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv6**

| | |
|---|---|
| Synopsis | Enter the **ipv6** context |
| Context | **configure** service vpls *service-name* pim-snooping ipv6 |
| Tree | ipv6 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of snooping for multicast traffic |
| Context | **configure** service vpls *service-name* pim-snooping ipv6 admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **provider-tunnel**

| | |
|---|---|
| Synopsis | Enable the **provider-tunnel** context |
| Context | **configure** service vpls *service-name* provider-tunnel |
| Tree | provider-tunnel |


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| | |
|---|---|
| Introduced | 19.7.R1 |
| Platforms | All |

## inclusive

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **inclusive** context |
| Context | **configure** service vpls *service-name* provider-tunnel inclusive |
| Tree | inclusive |
| Introduced | 19.7.R1 |
| Platforms | All |

## admin-state *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Administrative state of P2MP LSP as the I-PMSI |
| Context | **configure** service vpls *service-name* provider-tunnel inclusive admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 19.7.R1 |
| Platforms | All |

## data-delay-interval *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | I-PMSI data delay timer |
| Context | **configure** service vpls *service-name* provider-tunnel inclusive data-delay-interval *number* |


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| | |
|---|---|
| Tree | data-delay-interval |
| Range | 3 to 180 |
| Units | seconds |
| Default | 15 |
| Introduced | 19.7.R1 |
| Platforms | All |

## mldp

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable/Disable MLDP |
| Context | **configure** service vpls *service-name* provider-tunnel inclusive mldp |
| Tree | mldp |
| Notes | The following elements are part of a choice: **mldp** or **rsvp**. |
| Introduced | 19.7.R1 |
| Platforms | All |

## owner *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Configure provider-tunnel owner |
| Context | **configure** service vpls *service-name* provider-tunnel inclusive owner *keyword* |
| Tree | owner |
| Options | bgp-ad, bgp-vpls, bgp-evpn-mpls |
| Introduced | 19.7.R1 |
| Platforms | All |


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### **root-and-leaf** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Configure whether the provider tunnel acts as a leaf or both a root and leaf |
| Context | **configure** service vpls *service-name* provider-tunnel inclusive root-and-leaf *boolean* |
| Tree | root-and-leaf |
| Default | false |
| Introduced | 19.7.R1 |
| Platforms | All |

### **rsvp**

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable the **rsvp** context |
| Context | **configure** service vpls *service-name* provider-tunnel inclusive rsvp |
| Tree | rsvp |
| Notes | The following elements are part of a choice: **mldp** or **rsvp**. |
| Introduced | 19.7.R1 |
| Platforms | All |

### **lsp-template** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Configure LSP template name |
| Context | **configure** service vpls *service-name* provider-tunnel inclusive rsvp lsp-template *reference* |
| Tree | lsp-template |
| Reference | **configure** router *named-item-64* mpls lsp-template *named-item* |


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| | |
|---|---|
| Introduced | 19.7.R1 |
| Platforms | All |

## selective

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **selective** context |
| Context | **configure** service vpls *service-name* provider-tunnel selective |
| Tree | selective |
| Introduced | 23.3.R1 |
| Platforms | All |

## admin-state *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Administrative state of the selective provider tunnel |
| Context | **configure** service vpls *service-name* provider-tunnel selective admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 23.3.R1 |
| Platforms | All |

## data-delay-interval *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | S-PMSI data delay timer |
| Context | **configure** service vpls *service-name* provider-tunnel selective data-delay-interval *number* |


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| | |
|---|---|
| Tree | data-delay-interval |
| Description | This command configures the S-PMSI data delay timer.<br>The data delay interval determines the time the router takes to switch over the traffic from the Ingress Replication binds to the wildcard S-PMSI or from the wildcard S-PMSI to the S-PMSI, after the S-PMSI is created. This time should account for the time it takes for BGP to propagate the S-PMSI A-D route to the downstream PEs and the time it takes the downstream PEs to join the tree all the way up to the root. |
| Range | 3 to 180 |
| Units | seconds |
| Default | 3 |
| Introduced | 23.3.R1 |
| Platforms | All |

## data-threshold

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **data-threshold** context |
| Context | **configure** service vpls *service-name* provider-tunnel selective data-threshold |
| Tree | data-threshold |
| Description | Commands in this context specify the data rate threshold that triggers the switch from the inclusive provider tunnel to the selective provider tunnel for (C-S, C-G) within the group range.<br>Optionally, PE thresholds to create or delete ng-MVPN S-PMSI may also be specified. Omitting the PE thresholds preserves the currently set value (or defaults if never set). Multiple statements (one per a unique group) are allowed in the configuration.<br>This command is not applicable to multistream S-PMSI.<br>This command for S-PMSI trees can also be used in EVPN services. The command options are used in the same way as in MVPN when applied to EVPN, in particular the rate and PE thresholds. |
| Introduced | 23.3.R1 |
| Platforms | All |

## **group-prefix** [ip-group-prefix] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Enter the **group-prefix** list instance |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* provider-tunnel selective data-threshold group-prefix *(ipv4-prefix* \| *ipv6-prefix)* |
| Tree | group-prefix |
| Introduced | 23.3.R1 |
| Platforms | All |

### [**ip-group-prefix**] *(ipv4-prefix* | *ipv6-prefix)*

| | |
|---|---|
| Synopsis | Multicast group prefix |
| Context | **configure** service vpls *service-name* provider-tunnel selective data-threshold group-prefix *(ipv4-prefix* \| *ipv6-prefix)* |
| Tree | group-prefix |
| Notes | This element is part of a list key. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **pe-threshold-add** *number*

| | |
|---|---|
| Synopsis | Number of receiver PEs for S-PMSI tunnel creation |
| Context | **configure** service vpls *service-name* provider-tunnel selective data-threshold group-prefix *(ipv4-prefix* \| *ipv6-prefix)* pe-threshold-add *number* |
| Tree | pe-threshold-add |
| Description | This command specifies the number of Receiver PEs for creating S-PMSI.<br>A S-PMSI is created when the following apply:<br>• The number of receiver PEs for a multicast group is non-zero.<br>• The number of receiver PEs is below the threshold.<br>• The BW threshold is satisfied. |
| Range | 1 to 65535 |
| Default | 65535 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **pe-threshold-delete** *number*

| | |
|---|---|
| Synopsis | Number of receiver PEs for S-PMSI tunnel deletion |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* provider-tunnel selective data-threshold group-prefix *(ipv4-prefix* \| *ipv6-prefix)* pe-threshold-delete *number* |
| Tree | pe-threshold-delete |
| Description | This command specifies the number of Receiver PEs to delete S-PMSI. When the number of receiver PEs for a multicast group configuration is above the threshold, S-PMSI is deleted and the multicast group is moved to IR or a wildcard S-PMSI. Nokia recommends that the delete threshold be configured to be significantly larger than the add threshold to avoid re-signaling of S-PMSI as the Receiver PE count fluctuates |
| Range | 2 to 65535 |
| Default | 65535 |
| Introduced | 23.3.R1 |
| Platforms | All |

## **threshold** *number*

| | |
|---|---|
| Synopsis | Threshold rate for a group prefix |
| Context | **configure** service vpls *service-name* provider-tunnel selective data-threshold group-prefix *(ipv4-prefix* \| *ipv6-prefix)* threshold *number* |
| Tree | threshold |
| Description | This command specifies the threshold rate for a group prefix. If the rate for a (C-S, C-G) within the specified group range exceeds the threshold, traffic for the (C-S, C-G) is switched to the selective provider tunnel. |
| Range | 0 to 4294967294 |
| Units | kilobps |
| Notes | This element is mandatory. |
| Introduced | 23.3.R1 |
| Platforms | All |

## **maximum-p2mp-spmsi** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum number of P2MP S-PMSIi tunnels |
| Context | **configure** service vpls *service-name* provider-tunnel selective maximum-p2mp-spmsi *number* |
| Tree | maximum-p2mp-spmsi |


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| | |
|---|---|
| Description | This command specifies the maximum number of S-PMSI tunnels for the EVPN service. When the limit is reached, no more RSVP P2MP S-PMSI or LDP P2MP S-PMSI are created and traffic over the data threshold value stays on I-PMSI |
| Range | 1 to 4000 |
| Default | 10 |
| Introduced | 23.3.R1 |
| Platforms | All |

## **mldp** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable MLDP |
| Context | **configure** service vpls *service-name* provider-tunnel selective mldp *boolean* |
| Tree | mldp |
| Description | When configured to **true**, this command enables the use of MLDP as a protocol for an LDP P2MP LSP that is used for forwarding Broadcast, Unicast unknown, and Multicast (BUM) packets of a VPLS or B-VPLS instance. This command is also used used for forwarding IP multicast packets of an EVPN VPLS or R-VPLS service.<br>When configured to **false**, this command disables the use of MLDP as a protocol to set up the P2MP LSP. |
| Default | false |
| Introduced | 23.3.R1 |
| Platforms | All |

## **owner** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Provider-tunnel selective owner |
| Context | **configure** service vpls *service-name* provider-tunnel selective owner *keyword* |
| Tree | owner |
| Description | This command selects the owner protocol of the S-PMSI tunnel in the service.<br>The owner must be explicitly set before the provider tunnel can be enabled. |


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| | |
|---|---|
| Options | bgp-evpn-mpls |
| Introduced | 23.3.R1 |
| Platforms | All |

## **wildcard-spmsi** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable wildcard S-PMSI support |
| Context | **configure** service vpls *service-name* provider-tunnel selective wildcard-spmsi *boolean* |
| Tree | wildcard-spmsi |
| Description | When configured to **true**, the system enables RFC 6625 (C-*, C-*) S-PMSI functionality for EVPN VPLS or R-VPLS services. When enabled, (C-*, C-*) S-PMSI is used instead of I-PMSI for this EVPN VPLS or RVPLS service.<br>The **configure service vprn pim rp auto-rp-discovery** command and this command are mutually exclusive.<br>When configured to **false**, the system disables the (C-*, C-*) S-PMSI functionality. |
| Default | false |
| Introduced | 23.3.R1 |
| Platforms | All |

## **proxy-arp**

| | |
|---|---|
| Synopsis | Enable the **proxy-arp** context |
| Context | **configure** service vpls *service-name* proxy-arp |
| Tree | proxy-arp |
| Introduced | 16.0.R1 |
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the proxy |
| Context | **configure** service vpls *service-name* proxy-arp admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |


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| | |
|---|---|
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **age-time** *(number | keyword)*

| | |
|---|---|
| Synopsis | Aging timer for proxy entries, where entries are flushed upon timer expiry |
| Context | **configure** service vpls *service-name* proxy-arp age-time *(number \| keyword)* |
| Tree | age-time |
| Range | 60 to 86400 |
| Units | seconds |
| Options | never |
| Default | never |
| Introduced | 16.0.R1 |
| Platforms | All |

### **duplicate-detect**

| | |
|---|---|
| Synopsis | Enter the **duplicate-detect** context |
| Context | **configure** service vpls *service-name* proxy-arp duplicate-detect |
| Tree | duplicate-detect |
| Introduced | 16.0.R1 |
| Platforms | All |

### **anti-spoof-mac** *mac-unicast-address-no-zero*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | MAC address to replace the proxy-ARP/ND offending entry's MAC |
| Context | **configure** service vpls *service-name* proxy-arp duplicate-detect anti-spoof-mac *mac-unicast-address-no-zero* |
| Tree | anti-spoof-mac |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **hold-down-time** *(number | keyword)*

| | |
|---|---|
| Synopsis | Hold down time for a duplicate entry |
| Context | **configure** service vpls *service-name* proxy-arp duplicate-detect hold-down-time *(number \| keyword)* |
| Tree | hold-down-time |
| Range | 2 to 60 |
| Units | minutes |
| Options | max |
| Default | 9 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **num-moves** *number*

| | |
|---|---|
| Synopsis | Number of moves required to declare a duplicate entry |
| Context | **configure** service vpls *service-name* proxy-arp duplicate-detect num-moves *number* |
| Tree | num-moves |
| Range | 3 to 10 |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **static-blackhole** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Consider anti-spoof MAC as black-hole static MAC in FDB |
| Context | **configure** service vpls *service-name* proxy-arp duplicate-detect static-blackhole *boolean* |
| Tree | static-blackhole |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **window** *number*

| | |
|---|---|
| Synopsis | Time to monitor the MAC address in the anti-spoofing mechanism |
| Context | **configure** service vpls *service-name* proxy-arp duplicate-detect window *number* |
| Tree | window |
| Range | 1 to 15 |
| Units | minutes |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **dynamic-arp**

| | |
|---|---|
| Synopsis | Enter the **dynamic-arp** context |
| Context | **configure** service vpls *service-name* proxy-arp dynamic-arp |
| Tree | dynamic-arp |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ip-address** [ipv4-address] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Enter the **ip-address** list instance |
| Context | **configure** service vpls *service-name* proxy-arp dynamic-arp ip-address *ipv4-unicast-address* |
| Tree | ip-address |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ipv4-address**] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Proxy ARP IPv4 address |
| Context | **configure** service vpls *service-name* proxy-arp dynamic-arp ip-address *ipv4-unicast-address* |
| Tree | ip-address |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **mac-list** *reference*

| | |
|---|---|
| Synopsis | MAC list for the dynamic entry |
| Context | **configure** service vpls *service-name* proxy-arp dynamic-arp ip-address *ipv4-unicast-address* mac-list *reference* |
| Tree | mac-list |
| Reference | **configure** service proxy-arp-nd mac-list list *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **resolve-retry-time** *number*

| | |
|---|---|
| Synopsis | Frequency at which the resolve messages are sent |
| Context | **configure** service vpls *service-name* proxy-arp dynamic-arp ip-address *ipv4-unicast-address* resolve-retry-time *number* |
| Tree | resolve-retry-time |
| Range | 1 to 60 |
| Units | minutes |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sap** [sap-id] *reference*

| | |
|---|---|
| Synopsis | Add a list entry for **sap** |
| Context | **configure** service vpls *service-name* proxy-arp dynamic-arp ip-address *ipv4-unicast-address* sap *reference* |
| Tree | sap |
| Description | Commands in this context configure the proxy ARP or ND entry for creation when the ARP or neighbor advertisement (NA) packet for the configured IP address is received on the configured SAP, when configured under the **dynamic-arp ip-address** context. This command can be configured in combination with the **mac-list** for the entry, in which case, the MAC of the ARP or NA message and the SAP on which the ARP or NA packet is received are both checked before creating the entry. |
| Max. instances | 1 |


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| | |
|---|---|
| Introduced | 24.10.R1 |
| Platforms | All |

### [**sap-id**] *reference*

| | |
|---|---|
| Synopsis | SAP identifier |
| Context | **configure** service vpls *service-name* proxy-arp dynamic-arp ip-address *ipv4-unicast-address* sap *reference* |
| Tree | sap |
| Reference | **configure** service vpls *service-name* sap *sap* |
| Notes | This element is part of a list key. |
| Introduced | 24.10.R1 |
| Platforms | All |

### **dynamic-populate** *boolean*

| | |
|---|---|
| Synopsis | Populate proxy ARP entries from snooped GARP/ARP/ND messages on SAPs/SDP-bindings |
| Context | **configure** service vpls *service-name* proxy-arp dynamic-populate *boolean* |
| Tree | dynamic-populate |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **evpn**

| | |
|---|---|
| Synopsis | Enter the **evpn** context |
| Context | **configure** service vpls *service-name* proxy-arp evpn |
| Tree | evpn |
| Introduced | 16.0.R1 |
| Platforms | All |

### **flood**

| | |
|---|---|
| Synopsis | Enter the **flood** context |
| Context | **configure** service vpls *service-name* proxy-arp evpn flood |


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| | |
|---|---|
| Tree | flood |
| Introduced | 16.0.R1 |
| Platforms | All |

### **gratuitous-arp** *boolean*

| | |
|---|---|
| Synopsis | Flood GARP-requests/GARP-replies to the EVPN |
| Context | **configure** service vpls *service-name* proxy-arp evpn flood gratuitous-arp *boolean* |
| Tree | gratuitous-arp |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **unknown-arp-req** *boolean*

| | |
|---|---|
| Synopsis | Flood ARP-requests (with source squelching) if there is no active proxy-ARP entry for requested IP |
| Context | **configure** service vpls *service-name* proxy-arp evpn flood unknown-arp-req *boolean* |
| Tree | unknown-arp-req |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **route-tag** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Route tag used on export policies to match MAC/IP routes generated by proxy-ARP or proxy-ND module |
| Context | **configure** service vpls *service-name* proxy-arp evpn route-tag *number* |
| Tree | route-tag |
| Range | 0 \| 1 to 255 |
| Default | 0 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## flood

| | |
|---|---|
| Synopsis | Enter the **flood** context |
| Context | **configure** service vpls *service-name* proxy-arp flood |
| Tree | flood |
| Introduced | 24.10.R1 |
| Platforms | All |

## received-gratuitous-arp *boolean*

| | |
|---|---|
| Synopsis | Allow GARP requests or replies to flood the service |
| Context | **configure** service vpls *service-name* proxy-arp flood received-gratuitous-arp *boolean* |
| Tree | received-gratuitous-arp |
| Description | When configured to **true**, the system floods GARP requests and replies received on a SAP (or SDP-bind) to the service flood-list (which includes EVPN destinations and other SAPs and SDP-binds).<br>The GARPs impacted by this command are identified by the sender IP address being equal to the target IP address and the MAC DA that is broadcast. |
| Default | true |
| Introduced | 24.10.R1 |
| Platforms | All |

## received-unknown-arp-req *boolean*

| | |
|---|---|
| Synopsis | Allow unknown ARP requests to flood the service |
| Context | **configure** service vpls *service-name* proxy-arp flood received-unknown-arp-req *boolean* |
| Tree | received-unknown-arp-req |
| Description | When configured to **true**, the unknown ARP requests received on a SAP (or SDP-bind) are flooded to the service flood-list (which includes EVPN destinations and other SAPs and SDP-binds).<br>By default if there is no active proxy ARP entry for the requested IP address, the system floods ARP requests, including EVPN (with source squelching). |
| Default | true |
| Introduced | 24.10.R1 |
| Platforms | All |


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### **process-arp-probes** *boolean*

| | |
|---|---|
| Synopsis | Enable replies to DAD ARP probes |
| Context | **configure** service vpls *service-name* proxy-arp process-arp-probes *boolean* |
| Tree | process-arp-probes |
| Default | true |
| Introduced | 22.7.R1 |
| Platforms | All |

### **restrict-non-configured-ip-address**

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable the **restrict-non-configured-ip-address** context |
| Context | **configure** service vpls *service-name* proxy-arp restrict-non-configured-ip-address |
| Tree | restrict-non-configured-ip-address |
| Description | Commands in this context configure whether all the configured dynamic IP address entries are considered the only authorized entries in the proxy ARP or ND table. ARP or ND packets coming from a unauthorized sender IP are dropped. Therefore, unauthorized IP addresses are not learned in the proxy ARP or ND table, and ARP requests or neighbor solicitations (NS) coming from a unauthorized sender IP are not replied (unless the **sponge-mac** command option is configured). |
| Introduced | 24.10.R1 |
| Platforms | All |

### **sponge-mac** *mac-unicast-address-no-zero*

| | |
|---|---|
| Synopsis | Sponge MAC used to reply to unauthorized requests |
| Context | **configure** service vpls *service-name* proxy-arp restrict-non-configured-ip-address sponge-mac *mac-unicast-address-no-zero* |
| Tree | sponge-mac |
| Description | This command configures the system to ignore ARP requests or neighbor solicitations from an unauthorized IP address. These requests are not learned in the proxy ARP or ND table (when the **restrict-non-configured-ip-address** command is configured), and the system replies with the configured sponge MAC address. Any IP address that is not configured as proxy ARP, ND dynamic ARP, or neighbor IP address is considered unauthorized and there is no reply. |


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The configured sponge MAC address is not installed in the FDB or advertised in EVPN. If needed, the sponge MAC address can be configured as a static MAC in the same service in the node or a remote node.

This command supersedes the operation of the **restrict-non-configured-ip-address** command for replies to ARP requests or neighbor solicitation:

- If only **restrict-non-configured-ip-address** is configured, all ARP or ND packets from unauthorized IPs are dropped.
- If **restrict-non-configured-ip-address sponge-mac** is configured, ARP or ND packets from unauthorized IPs are dropped except for ARP requests or neighbor solicitation messages, to which the system replies with the configured sponge MAC address.

| | |
|---|---|
| Introduced | 24.10.R1 |
| Platforms | All |

### **send-refresh** *(number | keyword)*

| | |
|---|---|
| Synopsis | Time at which to send a refresh message |
| Context | **configure** service vpls *service-name* proxy-arp send-refresh *(number | keyword)* |
| Tree | send-refresh |
| Range | 120 to 86400 |
| Options | never |
| Default | never |
| Introduced | 16.0.R1 |
| Platforms | All |

### **static-arp**

| | |
|---|---|
| Synopsis | Enter the **static-arp** context |
| Context | **configure** service vpls *service-name* proxy-arp static-arp |
| Tree | static-arp |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ip-address** [ipv4-address] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Enter the **ip-address** list instance |
| Context | **configure** service vpls *service-name* proxy-arp static-arp ip-address *ipv4-unicast-address* |


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| | |
|---|---|
| Tree | ip-address |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ipv4-address**] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Proxy ARP IPv4 address |
| Context | **configure** service vpls *service-name* proxy-arp static-arp ip-address *ipv4-unicast-address* |
| Tree | ip-address |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mac** *mac-unicast-address-no-zero*

| | |
|---|---|
| Synopsis | Proxy ARP MAC address for static entry |
| Context | **configure** service vpls *service-name* proxy-arp static-arp ip-address *ipv4-unicast-address* mac *mac-unicast-address-no-zero* |
| Tree | mac |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **table-size** *number*

| | |
|---|---|
| Synopsis | Maximum number of learned and static entries allowed in the proxy table of this service |
| Context | **configure** service vpls *service-name* proxy-arp table-size *number* |
| Tree | table-size |
| Range | 1 to 16383 |
| Default | 250 |
| Introduced | 16.0.R1 |
| Platforms | All |


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## proxy-nd

| | |
|---|---|
| Synopsis | Enable the **proxy-nd** context |
| Context | **configure** service vpls *service-name* proxy-nd |
| Tree | proxy-nd |
| Introduced | 16.0.R1 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the proxy |
| Context | **configure** service vpls *service-name* proxy-nd admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

## age-time *(number | keyword)*

| | |
|---|---|
| Synopsis | Aging timer for proxy entries, where entries are flushed upon timer expiry |
| Context | **configure** service vpls *service-name* proxy-nd age-time *(number | keyword)* |
| Tree | age-time |
| Range | 60 to 86400 |
| Units | seconds |
| Options | never |
| Default | never |
| Introduced | 16.0.R1 |
| Platforms | All |

## duplicate-detect

| | |
|---|---|
| Synopsis | Enter the **duplicate-detect** context |
| Context | **configure** service vpls *service-name* proxy-nd duplicate-detect |
| Tree | duplicate-detect |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **anti-spoof-mac** *mac-unicast-address-no-zero*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | MAC address to replace the proxy-ARP/ND offending entry's MAC |
| Context | **configure** service vpls *service-name* proxy-nd duplicate-detect anti-spoof-mac *mac-unicast-address-no-zero* |
| Tree | anti-spoof-mac |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hold-down-time** *(number | keyword)*

| | |
|---|---|
| Synopsis | Hold down time for a duplicate entry |
| Context | **configure** service vpls *service-name* proxy-nd duplicate-detect hold-down-time *(number \| keyword)* |
| Tree | hold-down-time |
| Range | 2 to 60 |
| Units | minutes |
| Options | max |
| Default | 9 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **num-moves** *number*

| | |
|---|---|
| Synopsis | Number of moves required to declare a duplicate entry |
| Context | **configure** service vpls *service-name* proxy-nd duplicate-detect num-moves *number* |
| Tree | num-moves |
| Range | 3 to 10 |
| Default | 5 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## **static-blackhole** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Consider anti-spoof MAC as black-hole static MAC in FDB |
| Context | **configure** service vpls *service-name* proxy-nd duplicate-detect static-blackhole *boolean* |
| Tree | static-blackhole |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **window** *number*

| | |
|---|---|
| Synopsis | Time to monitor the MAC address in the anti-spoofing mechanism |
| Context | **configure** service vpls *service-name* proxy-nd duplicate-detect window *number* |
| Tree | window |
| Range | 1 to 15 |
| Units | minutes |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **dynamic-neighbor**

| | |
|---|---|
| Synopsis | Enter the **dynamic-neighbor** context |
| Context | **configure** service vpls *service-name* proxy-nd dynamic-neighbor |
| Tree | dynamic-neighbor |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **ip-address** [ipv6-address] *ipv6-address*

| | |
|---|---|
| Synopsis | Enter the **ip-address** list instance |
| Context | **configure** service vpls *service-name* proxy-nd dynamic-neighbor ip-address *ipv6-address* |
| Tree | ip-address |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ipv6-address**] *ipv6-address*

| | |
|---|---|
| Synopsis | Proxy ND IPv6 address |
| Context | **configure** service vpls *service-name* proxy-nd dynamic-neighbor ip-address *ipv6-address* |
| Tree | ip-address |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mac-list** *reference*

| | |
|---|---|
| Synopsis | MAC list for the dynamic entry |
| Context | **configure** service vpls *service-name* proxy-nd dynamic-neighbor ip-address *ipv6-address* mac-list *reference* |
| Tree | mac-list |
| Reference | **configure** service proxy-arp-nd mac-list list *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **resolve-retry-time** *number*

| | |
|---|---|
| Synopsis | Frequency at which the resolve messages are sent |
| Context | **configure** service vpls *service-name* proxy-nd dynamic-neighbor ip-address *ipv6-address* resolve-retry-time *number* |
| Tree | resolve-retry-time |
| Range | 1 to 60 |


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| | |
|---|---|
| Units | minutes |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sap** [sap-id] *reference*

| | |
|---|---|
| Synopsis | Add a list entry for **sap** |
| Context | **configure** service vpls *service-name* proxy-nd dynamic-neighbor ip-address *ipv6-address* sap *reference* |
| Tree | sap |
| Description | Commands in this context configure the proxy ARP or ND entry for creation when the ARP or neighbor advertisement (NA) packet for the configured IP address is received on the configured SAP, when configured under the **dynamic-arp ip-address** context. This command can be configured in combination with the **mac-list** for the entry, in which case, the MAC of the ARP or NA message and the SAP on which the ARP or NA packet is received are both checked before creating the entry. |
| Max. instances | 1 |
| Introduced | 24.10.R1 |
| Platforms | All |

### [**sap-id**] *reference*

| | |
|---|---|
| Synopsis | SAP identifier |
| Context | **configure** service vpls *service-name* proxy-nd dynamic-neighbor ip-address *ipv6-address* sap *reference* |
| Tree | sap |
| Reference | **configure** service vpls *service-name* sap *sap* |
| Notes | This element is part of a list key. |
| Introduced | 24.10.R1 |
| Platforms | All |

### **dynamic-populate** *boolean*

| | |
|---|---|
| Synopsis | Populate proxy ARP entries from snooped GARP/ARP/ND messages on SAPs/SDP-bindings |
| Context | **configure** service vpls *service-name* proxy-nd dynamic-populate *boolean* |


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| | |
|---|---|
| Tree | dynamic-populate |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## evpn

| | |
|---|---|
| Synopsis | Enter the **evpn** context |
| Context | **configure** service vpls *service-name* proxy-nd evpn |
| Tree | evpn |
| Introduced | 16.0.R1 |
| Platforms | All |

## advertise-neighbor-type *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Advertisement type of static or dynamic entries in EVPN |
| Context | **configure** service vpls *service-name* proxy-nd evpn advertise-neighbor-type *keyword* |
| Tree | advertise-neighbor-type |
| Description | This command enables the advertisement of static or dynamic entries that are learned as host, router, or host and router (only one option is possible in a specified service). It also determines the R flag (host or router) when sending Neighbor Advertisement (NA) messages for existing EVPN entries in the proxy-ND table.<br><br>The **router-host** command option is only possible when the ARP/ND extended community is advertised along with the MAC/IP routes. It determines that both host and router (dynamic and static) entries are advertised in MAC/IP routes, with an indication whether the entry is host or router in the R flag. These EVPN entries are installed as host or router entries depending on the R flag of the route, and NA messages for them are sent with the proper host or router indication. |
| Options | router, host, router-host |
| Default | router |
| Introduced | 16.0.R1 |
| Platforms | All |


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## flood

| | |
|---|---|
| Synopsis | Enter the **flood** context |
| Context | **configure** service vpls *service-name* proxy-nd evpn flood |
| Tree | flood |
| Introduced | 16.0.R1 |
| Platforms | All |

## unknown-neighbor-advertise-host *boolean*

| | |
|---|---|
| Synopsis | Flood host unsolicited Neighbor Advertisement (NA) replies to EVPN |
| Context | **configure** service vpls *service-name* proxy-nd evpn flood unknown-neighbor-advertise-host *boolean* |
| Tree | unknown-neighbor-advertise-host |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

## unknown-neighbor-advertise-router *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Flood router unsolicited Neighbor Advertisement (NA) replies to EVPN |
| Context | **configure** service vpls *service-name* proxy-nd evpn flood unknown-neighbor-advertise-router *boolean* |
| Tree | unknown-neighbor-advertise-router |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

## unknown-neighbor-solicitation *boolean*

| | |
|---|---|
| Synopsis | Flood unsolicited Neighbor Solicitation messages (with source squelching) into EVPN network |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* proxy-nd evpn flood unknown-neighbor-solicitation *boolean* |
| Tree | unknown-neighbor-solicitation |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

## **route-tag** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Route tag used on export policies to match MAC/IP routes generated by proxy-ARP or proxy-ND module |
| Context | **configure** service vpls *service-name* proxy-nd evpn route-tag *number* |
| Tree | route-tag |
| Range | 0 \| 1 to 255 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **flood**

| | |
|---|---|
| Synopsis | Enter the **flood** context |
| Context | **configure** service vpls *service-name* proxy-nd flood |
| Tree | flood |
| Introduced | 24.10.R1 |
| Platforms | All |

## **received-unknown-neighbor-advertise-host** *boolean*

| | |
|---|---|
| Synopsis | Allow unknown NA host messages to flood the service |
| Context | **configure** service vpls *service-name* proxy-nd flood received-unknown-neighbor-advertise-host *boolean* |
| Tree | received-unknown-neighbor-advertise-host |


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| | |
|---|---|
| Description | When configured to **true**, the system floods received unsolicited NAs into the VPLS service (to EVPN destinations and SAPs or SDP-binds).<br>When configured to **false**, the system does not flood unsolicited NAs regardless of the **configure service vpls proxy-nd evpn flood unknown-neighbor-advertise-host** command configuration.<br>The NA messages impacted by this command are NA messages with the following flags: S=0 and R=0. |
| Default | true |
| Introduced | 24.10.R1 |
| Platforms | All |

## **received-unknown-neighbor-advertise-router** *boolean*

| | |
|---|---|
| Synopsis | Allow unknown router NA host messages to flood service |
| Context | **configure** service vpls *service-name* proxy-nd flood received-unknown-neighbor-advertise-router *boolean* |
| Tree | received-unknown-neighbor-advertise-router |
| Description | When configured to **true**, the system floods received unsolicited router NAs into the VPLS service (to EVPN destinations and SAPs or SDP-binds).<br>When configured to **false**, the system does not flood unsolicited router NAs regardless of the **configure service vpls proxy-nd evpn flood unknown-neighbor-advertise-router** command configuration.<br>The NA messages impacted by this command are NA messages with the following flags: S=0 and R=1. |
| Default | true |
| Introduced | 24.10.R1 |
| Platforms | All |

## **received-unknown-neighbor-solicitation** *boolean*

| | |
|---|---|
| Synopsis | Allow unknown NS messages to flood the service |
| Context | **configure** service vpls *service-name* proxy-nd flood received-unknown-neighbor-solicitation *boolean* |
| Tree | received-unknown-neighbor-solicitation |
| Description | When configured to **true**, the system floods unknown NS messages into the VPLS service (to EVPN destinations and SAPs or SDP-binds).<br>When configured to **false**, the system does not flood unknown NS messages regardless of the **configure service vpls proxy-nd evpn flood unknown-neighbor-solicitation** command configuration. |


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| | |
|---|---|
| Default | true |
| Introduced | 24.10.R1 |
| Platforms | All |

## **process-dad-neighbor-solicitations** *boolean*

| | |
|---|---|
| Synopsis | Enable replies to DAD neighbor solicitations |
| Context | **configure** service vpls *service-name* proxy-nd process-dad-neighbor-solicitations *boolean* |
| Tree | process-dad-neighbor-solicitations |
| Default | true |
| Introduced | 22.7.R1 |
| Platforms | All |

## **restrict-non-configured-ip-address**

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable the **restrict-non-configured-ip-address** context |
| Context | **configure** service vpls *service-name* proxy-nd restrict-non-configured-ip-address |
| Tree | restrict-non-configured-ip-address |
| Description | Commands in this context configure whether all the configured dynamic IP address entries are considered the only authorized entries in the proxy ARP or ND table. ARP or ND packets coming from a unauthorized sender IP are dropped. Therefore, unauthorized IP addresses are not learned in the proxy ARP or ND table, and ARP requests or neighbor solicitations (NS) coming from a unauthorized sender IP are not replied (unless the **sponge-mac** command option is configured). |
| Introduced | 24.10.R1 |
| Platforms | All |

## **sponge-mac** *mac-unicast-address-no-zero*

| | |
|---|---|
| Synopsis | Sponge MAC used to reply to unauthorized requests |
| Context | **configure** service vpls *service-name* proxy-nd restrict-non-configured-ip-address sponge-mac *mac-unicast-address-no-zero* |
| Tree | sponge-mac |


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Description This command configures the system to ignore ARP requests or neighbor solicitations from an unauthorized IP address. These requests are not learned in the proxy ARP or ND table (when the **restrict-non-configured-ip-address** command is configured), and the system replies with the configured sponge MAC address. Any IP address that is not configured as proxy ARP, ND dynamic ARP, or neighbor IP address is considered unauthorized and there is no reply.

The configured sponge MAC address is not installed in the FDB or advertised in EVPN. If needed, the sponge MAC address can be configured as a static MAC in the same service in the node or a remote node.

This command supersedes the operation of the **restrict-non-configured-ip-address** command for replies to ARP requests or neighbor solicitation:

- If only **restrict-non-configured-ip-address** is configured, all ARP or ND packets from unauthorized IPs are dropped.
- If **restrict-non-configured-ip-address sponge-mac** is configured, ARP or ND packets from unauthorized IPs are dropped except for ARP requests or neighbor solicitation messages, to which the system replies with the configured sponge MAC address.

Introduced 24.10.R1

Platforms All

## **send-refresh** *(number | keyword)*

Synopsis Time at which to send a refresh message

Context **configure** service vpls *service-name* proxy-nd send-refresh *(number | keyword)*

Tree send-refresh

Range 120 to 86400

Options never

Default never

Introduced 16.0.R1

Platforms All

## **static-neighbor**

Synopsis Enter the **static-neighbor** context

Context **configure** service vpls *service-name* proxy-nd static-neighbor

Tree static-neighbor

Introduced 16.0.R1

Platforms All


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### **ip-address** [ipv6-address] *ipv6-address*

| | |
|---|---|
| Synopsis | Enter the **ip-address** list instance |
| Context | **configure** service vpls *service-name* proxy-nd static-neighbor ip-address *ipv6-address* |
| Tree | ip-address |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ipv6-address**] *ipv6-address*

| | |
|---|---|
| Synopsis | Proxy ND IPv6 address |
| Context | **configure** service vpls *service-name* proxy-nd static-neighbor ip-address *ipv6-address* |
| Tree | ip-address |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mac** *mac-unicast-address-no-zero*

| | |
|---|---|
| Synopsis | Proxy ARP MAC address for static entry |
| Context | **configure** service vpls *service-name* proxy-nd static-neighbor ip-address *ipv6-address* mac *mac-unicast-address-no-zero* |
| Tree | mac |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **type** *keyword*

| | |
|---|---|
| Synopsis | Entry type |
| Context | **configure** service vpls *service-name* proxy-nd static-neighbor ip-address *ipv6-address* type *keyword* |
| Tree | type |
| Options | host, router |
| Default | router |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **table-size** *number*

| | |
|---|---|
| Synopsis | Maximum number of learned and static entries allowed in the proxy table of this service |
| Context | **configure** service vpls *service-name* proxy-nd table-size *number* |
| Tree | table-size |
| Range | 1 to 16383 |
| Default | 250 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **routed-vpls**

| | |
|---|---|
| Synopsis | Enable the **routed-vpls** context |
| Context | **configure** service vpls *service-name* routed-vpls |
| Tree | routed-vpls |
| Introduced | 16.0.R1 |
| Platforms | All |

### **evpn-mpls-ecmp** *boolean*

| | |
|---|---|
| Synopsis | Enable ECMP behavior on R-VPLS services |
| Context | **configure** service vpls *service-name* routed-vpls evpn-mpls-ecmp *boolean* |
| Tree | evpn-mpls-ecmp |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **multicast**

| | |
|---|---|
| Synopsis | Enter the **multicast** context |
| Context | **configure** service vpls *service-name* routed-vpls multicast |
| Tree | multicast |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## evpn-gateway

| | |
|---|---|
| Synopsis | Enable the **evpn-gateway** context |
| Context | **configure** service vpls *service-name* routed-vpls multicast evpn-gateway |
| Tree | evpn-gateway |
| Introduced | 21.10.R1 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the multicast EVPN gateway |
| Context | **configure** service vpls *service-name* routed-vpls multicast evpn-gateway admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.10.R1 |
| Platforms | All |

## advertise *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Type of the multicast EVPN gateway |
| Context | **configure** service vpls *service-name* routed-vpls multicast evpn-gateway advertise *keyword* |
| Tree | advertise |
| Description | This command configures EVPN OISM to advertise the type of OISM gateway function in the Inclusive Multicast Ethernet Tag routes. |
| Options | mvpn-pim, mvpn-only, pim-only |
| Default | mvpn-pim |
| Introduced | 21.10.R1 |


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| | |
|---|---|
| Platforms | All |

## **dr-activation-timer** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | DR activation timer for the EVPN gateway |
| Context | **configure** service vpls *service-name* routed-vpls multicast evpn-gateway dr-activation-timer *number* |
| Tree | dr-activation-timer |
| Description | This command configures the the designated router (DR) activation timer for the EVPN gateway.<br>After the DR activation timer expires, each provider edge router (PE) runs the MEG or PEG DR election. The timer allows the PE to collect Inclusive Multicast Ethernet Tag routes from other MEG or PEG gateways and avoids running the DR election multiple times. |
| Range | 0 to 100 |
| Units | seconds |
| Default | 3 |
| Introduced | 21.10.R1 |
| Platforms | All |

## **non-dr-attract-traffic** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Multicast traffic attraction option on non-DR router GW |
| Context | **configure** service vpls *service-name* routed-vpls multicast evpn-gateway non-dr-attract-traffic *keyword* |
| Tree | non-dr-attract-traffic |
| Options | none, from-evpn, from-pim-mvpn, from-evpn-pim-mvpn |
| Default | from-pim-mvpn |
| Introduced | 21.10.R1 |
| Platforms | All |


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### **ip-multicast-ecmp** *boolean*

| | |
|---|---|
| Synopsis | ECMP behaviour for multicast traffic on bgp-evpn mpls and vxlan |
| Context | **configure** service vpls *service-name* routed-vpls multicast ip-multicast-ecmp *boolean* |
| Tree | ip-multicast-ecmp |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **ipv4**

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |
| Context | **configure** service vpls *service-name* routed-vpls multicast ipv4 |
| Tree | ipv4 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **forward-to-ip-interface** *boolean*

| | |
|---|---|
| Synopsis | Forward IPv4 multicast from RVPLS to L3 interface |
| Context | **configure** service vpls *service-name* routed-vpls multicast ipv4 forward-to-ip-interface *boolean* |
| Tree | forward-to-ip-interface |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **igmp-snooping**

| | |
|---|---|
| Synopsis | Enter the **igmp-snooping** context |
| Context | **configure** service vpls *service-name* routed-vpls multicast ipv4 igmp-snooping |
| Tree | igmp-snooping |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **mrouter-port** *boolean*

| | |
|---|---|
| Synopsis | Operate VPLS L3 interface as a multicast router port |
| Context | **configure** service vpls *service-name* routed-vpls multicast ipv4 igmp-snooping mrouter-port *boolean* |
| Tree | mrouter-port |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv6**

| | |
|---|---|
| Synopsis | Enter the **ipv6** context |
| Context | **configure** service vpls *service-name* routed-vpls multicast ipv6 |
| Tree | ipv6 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **forward-to-ip-interface** *boolean*

| | |
|---|---|
| Synopsis | Forward IPv6 multicast from RVPLS to L3 interface |
| Context | **configure** service vpls *service-name* routed-vpls multicast ipv6 forward-to-ip-interface *boolean* |
| Tree | forward-to-ip-interface |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mld-snooping**

| | |
|---|---|
| Synopsis | Enter the **mld-snooping** context |
| Context | **configure** service vpls *service-name* routed-vpls multicast ipv6 mld-snooping |
| Tree | mld-snooping |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **mrouter-port** *boolean*

| | |
|---|---|
| Synopsis | Operate VPLS L3 interface as a multicast router port |
| Context | **configure** service vpls *service-name* routed-vpls multicast ipv6 mld-snooping mrouter-port *boolean* |
| Tree | mrouter-port |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **vxlan-ipv4-tep-ecmp** *boolean*

| | |
|---|---|
| Synopsis | Use ECMP on VXLAN IPv4 destinations for R-VPLS services |
| Context | **configure** service vpls *service-name* routed-vpls vxlan-ipv4-tep-ecmp *boolean* |
| Tree | vxlan-ipv4-tep-ecmp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sap** [sap-id] *sap*

| | |
|---|---|
| Synopsis | Enter the **sap** list instance |
| Context | **configure** service vpls *service-name* sap *sap* |
| Tree | sap |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**sap-id**] *sap*

| | |
|---|---|
| Synopsis | SAP identifier |
| Context | **configure** service vpls *service-name* sap *sap* |
| Tree | sap |
| String length | 1 to 45 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **accounting-policy** *reference*

| | |
|---|---|
| Synopsis | Accounting policy |
| Context | **configure** service vpls *service-name* sap *sap* accounting-policy *reference* |
| Tree | accounting-policy |
| Reference | **configure** log accounting-policy *number* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the SAP |
| Context | **configure** service vpls *service-name* sap *sap* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **anti-spoof** *keyword*

| | |
|---|---|
| Synopsis | Type of anti-spoof filtering |
| Context | **configure** service vpls *service-name* sap *sap* anti-spoof *keyword* |
| Tree | anti-spoof |
| Options | source-ip-addr, source-mac-addr, source-ip-and-mac-addr, next-hop-ip-and-mac-addr |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **app-profile** *reference*

| | |
|---|---|
| Synopsis | Application profile name |
| Context | **configure** service vpls *service-name* sap *sap* app-profile *reference* |
| Tree | app-profile |


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| | |
|---|---|
| Reference | **configure** application-assurance group *number* partition *number* policy app-profile *named-item* |
| Introduced | 16.0.R2 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## arp-host

| | |
|---|---|
| Synopsis | Enter the **arp-host** context |
| Context | **configure** service vpls *service-name* sap *sap* arp-host |
| Tree | arp-host |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of ARP hosts |
| Context | **configure** service vpls *service-name* sap *sap* arp-host admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## host-limit *number*

| | |
|---|---|
| Synopsis | Maximum number of ARP triggered hosts |
| Context | **configure** service vpls *service-name* sap *sap* arp-host host-limit *number* |
| Tree | host-limit |
| Range | 1 to 131071 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## min-auth-interval *number*

| | |
|---|---|
| Synopsis | Minimum authentication interval |
| Context | **configure** service vpls *service-name* sap *sap* arp-host min-auth-interval *number* |


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| | |
|---|---|
| Tree | min-auth-interval |
| Range | 1 to 6000 |
| Units | minutes |
| Default | 15 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **arp-reply-agent** *keyword*

| | |
|---|---|
| Synopsis | Enable arp-reply-agent function |
| Context | **configure** service vpls *service-name* sap *sap* arp-reply-agent *keyword* |
| Tree | arp-reply-agent |
| Options | true, with-subscr-ident |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bandwidth** *number*

| | |
|---|---|
| Synopsis | SAP bandwidth |
| Context | **configure** service vpls *service-name* sap *sap* bandwidth *number* |
| Tree | bandwidth |
| Range | 1 to 6400000000 |
| Units | kilobps |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bgp-vpls-mh-veid** *number*

| | |
|---|---|
| Synopsis | BGP-VPLS multi-homing VE-ID |
| Context | **configure** service vpls *service-name* sap *sap* bgp-vpls-mh-veid *number* |
| Tree | bgp-vpls-mh-veid |
| Description | This command specifies a VE ID that is configured on SAPs that are part of an EVPN single-active Ethernet Segment. The configuration of this command allows the advertisement of L2VPN routes that indicate the state of multi-homed SAPs to the remote BGP-VPLS PEs, which can trigger a MAC flush operation on the service to avoid traffic from being blackholed when a failure occurs in the active PE. |


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When unconfigured from the SAP, L2VPN routes are withdrawn, which causes MAC flush processing on the remote BGP-VPLS.

| | |
|---|---|
| Range | 1 to 65535 |
| Introduced | 20.5.R1 |
| Platforms | All |

### **bpdu-translation** *keyword*

| | |
|---|---|
| Synopsis | Bpdu translation on this SAP |
| Context | **configure** service vpls *service-name* sap *sap* bpdu-translation *keyword* |
| Tree | bpdu-translation |
| Options | auto, pvst, stp, pvst-rw, auto-rw |
| Introduced | 16.0.R1 |
| Platforms | All |

### **calling-station-id** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | Calling station ID |
| Context | **configure** service vpls *service-name* sap *sap* calling-station-id *string-not-all-spaces* |
| Tree | calling-station-id |
| String length | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **cflowd** *boolean*

| | |
|---|---|
| Synopsis | Enable Cflowd collection and analysis on this SAP |
| Context | **configure** service vpls *service-name* sap *sap* cflowd *boolean* |
| Tree | cflowd |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **collect-stats** *boolean*

| | |
|---|---|
| Synopsis | Collect accounting statistics |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* sap *sap* collect-stats *boolean* |
| Tree | collect-stats |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## cpu-protection

| | |
|---|---|
| Synopsis | Enter the **cpu-protection** context |
| Context | **configure** service vpls *service-name* sap *sap* cpu-protection |
| Tree | cpu-protection |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

## eth-cfm-monitoring

| | |
|---|---|
| Synopsis | Enable the **eth-cfm-monitoring** context |
| Context | **configure** service vpls *service-name* sap *sap* cpu-protection eth-cfm-monitoring |
| Tree | eth-cfm-monitoring |
| Notes | The following elements are part of a choice: **eth-cfm-monitoring** or **mac-monitoring**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

## aggregate

| | |
|---|---|
| Synopsis | Apply rate limit to the sum of the per peer packet rates |
| Context | **configure** service vpls *service-name* sap *sap* cpu-protection eth-cfm-monitoring aggregate |
| Tree | aggregate |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

## car

| | |
|---|---|
| Synopsis | Ignore Ethernet CFM packets when enforcing overall rate |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* sap *sap* cpu-protection eth-cfm-monitoring car |
| Tree | car |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

## mac-monitoring

| | |
|---|---|
| Synopsis | Monitor MAC for CPU protection |
| Context | **configure** service vpls *service-name* sap *sap* cpu-protection mac-monitoring |
| Tree | mac-monitoring |
| Notes | The following elements are part of a choice: **eth-cfm-monitoring** or **mac-monitoring**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

## policy-id *reference*

| | |
|---|---|
| Synopsis | CPM protection policy |
| Context | **configure** service vpls *service-name* sap *sap* cpu-protection policy-id *reference* |
| Tree | policy-id |
| Reference | **configure** system security cpu-protection policy *number* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

## description *long-description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vpls *service-name* sap *sap* description *long-description* |
| Tree | description |
| String length | 1 to 160 |
| Introduced | 16.0.R1 |
| Platforms | All |

## dhcp

| | |
|---|---|
| Synopsis | Enter the **dhcp** context |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* sap *sap* dhcp |
| Tree | dhcp |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of DHCP |
| Context | **configure** service vpls *service-name* sap *sap* dhcp admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vpls *service-name* sap *sap* dhcp description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lease-populate**

| | |
|---|---|
| Synopsis | Enter the **lease-populate** context |
| Context | **configure** service vpls *service-name* sap *sap* dhcp lease-populate |
| Tree | lease-populate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **max-leases** *number*

| | |
|---|---|
| Synopsis | Maximum number of DHCPv4 leases |
| Context | **configure** service vpls *service-name* sap *sap* dhcp lease-populate max-leases *number* |


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| | |
|---|---|
| Tree | max-leases |
| Range | 0 to 131071 |
| Introduced | 16.0.R1 |
| Platforms | All |

## option-82

| | |
|---|---|
| Synopsis | Enter the **option-82** context |
| Context | **configure** service vpls *service-name* sap *sap* dhcp option-82 |
| Tree | option-82 |
| Description | Commands in this context configure the processing required when the router receives a DHCP request that already has an Option 82 field in the packet. |
| Introduced | 16.0.R1 |
| Platforms | All |

## action *keyword*

| | |
|---|---|
| Synopsis | Action to take with received DHCP Option 82 |
| Context | **configure** service vpls *service-name* sap *sap* dhcp option-82 action *keyword* |
| Tree | action |
| Options | replace, drop, keep |
| Default | keep |
| Introduced | 16.0.R1 |
| Platforms | All |

## circuit-id

| | |
|---|---|
| Synopsis | Enter the **circuit-id** context |
| Context | **configure** service vpls *service-name* sap *sap* dhcp option-82 circuit-id |
| Tree | circuit-id |
| Introduced | 16.0.R1 |
| Platforms | All |


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### ascii-tuple

| | |
|---|---|
| Synopsis | Use the ASCII-encoded tuple for the circuit ID |
| Context | **configure** service vpls *service-name* sap *sap* dhcp option-82 circuit-id ascii-tuple |
| Tree | ascii-tuple |
| Notes | The following elements are part of a choice: **ascii-tuple**, **hex-string**, **none**, or **vlan-ascii-tuple**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### hex-string *hex-string*

| | |
|---|---|
| Synopsis | User-defined hexadeciaml value of the option |
| Context | **configure** service vpls *service-name* sap *sap* dhcp option-82 circuit-id hex-string *hex-string* |
| Tree | hex-string |
| String length | 1 to 66 |
| Notes | The following elements are part of a choice: **ascii-tuple**, **hex-string**, **none**, or **vlan-ascii-tuple**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### none

| | |
|---|---|
| Synopsis | Do not include the circuit ID |
| Context | **configure** service vpls *service-name* sap *sap* dhcp option-82 circuit-id none |
| Tree | none |
| Notes | The following elements are part of a choice: **ascii-tuple**, **hex-string**, **none**, or **vlan-ascii-tuple**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### vlan-ascii-tuple

| | |
|---|---|
| Synopsis | Include the VLAN ID and dot1p bits in the ASCII tuple |
| Context | **configure** service vpls *service-name* sap *sap* dhcp option-82 circuit-id vlan-ascii-tuple |


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| | |
|---|---|
| Tree | vlan-ascii-tuple |
| Description | When configured, the router includes the VLAN ID and dot1p bits with the ASCII-tuple information. This only occurs on dot1q and QinQ-encapsulated ports. When the Option 82 bits are stripped, dot1p bits are copied to the Ethernet header of the outgoing packet.<br>When unconfigured, the router leaves the circuit ID sub-option of the DHCP packet empty. |
| Notes | The following elements are part of a choice: **ascii-tuple**, **hex-string**, **none**, or **vlan-ascii-tuple**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## remote-id

| | |
|---|---|
| Synopsis | Enter the **remote-id** context |
| Context | **configure** service vpls *service-name* sap *sap* dhcp option-82 remote-id |
| Tree | remote-id |
| Description | Commands in this context configure the remote IP sub-option of the DHCP packet with the identity of the remote host end (typically the DHCP client). |
| Introduced | 16.0.R1 |
| Platforms | All |

## ascii-string *string-not-all-spaces*

| | |
|---|---|
| Synopsis | User-defined ASCII string for the remote ID |
| Context | **configure** service vpls *service-name* sap *sap* dhcp option-82 remote-id ascii-string *string-not-all-spaces* |
| Tree | ascii-string |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **ascii-string**, **hex-string**, **mac**, or **none**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## hex-string *hex-string*

| | |
|---|---|
| Synopsis | Option as a hexadecimal string |
| Context | **configure** service vpls *service-name* sap *sap* dhcp option-82 remote-id hex-string *hex-string* |


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| | |
|---|---|
| Tree | hex-string |
| String length | 1 to 66 |
| Notes | The following elements are part of a choice: **ascii-string**, **hex-string**, **mac**, or **none**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## mac

| | |
|---|---|
| Synopsis | Use the MAC address for the remote ID |
| Context | **configure** service vpls *service-name* sap *sap* dhcp option-82 remote-id mac |
| Tree | mac |
| Notes | The following elements are part of a choice: **ascii-string**, **hex-string**, **mac**, or **none**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## none

| | |
|---|---|
| Synopsis | Do not include the remote ID |
| Context | **configure** service vpls *service-name* sap *sap* dhcp option-82 remote-id none |
| Tree | none |
| Notes | The following elements are part of a choice: **ascii-string**, **hex-string**, **mac**, or **none**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## vendor-specific-option

| | |
|---|---|
| Synopsis | Enter the **vendor-specific-option** context |
| Context | **configure** service vpls *service-name* sap *sap* dhcp option-82 vendor-specific-option |
| Tree | vendor-specific-option |
| Description | Commands in this context configure the Nokia Vendor-Specific Option (VSO) of the DHCP packet. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **client-mac-address** *boolean*

| | |
|---|---|
| Synopsis | Send the MAC address in the VSO |
| Context | **configure** service vpls *service-name* sap *sap* dhcp option-82 vendor-specific-option client-mac-address *boolean* |
| Tree | client-mac-address |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sap-id** *boolean*

| | |
|---|---|
| Synopsis | Send SAP ID in the sub-option of the DHCP relay packet |
| Context | **configure** service vpls *service-name* sap *sap* dhcp option-82 vendor-specific-option sap-id *boolean* |
| Tree | sap-id |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **service-id** *boolean*

| | |
|---|---|
| Synopsis | Send the service ID in the Vendor Specific Option |
| Context | **configure** service vpls *service-name* sap *sap* dhcp option-82 vendor-specific-option service-id *boolean* |
| Tree | service-id |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **string** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | User-defined ASCII string for the VSO |
| Context | **configure** service vpls *service-name* sap *sap* dhcp option-82 vendor-specific-option string *string-not-all-spaces* |
| Tree | string |


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| | |
|---|---|
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **system-id** *boolean*

| | |
|---|---|
| Synopsis | Send the system ID in the VSO |
| Context | **configure** service vpls *service-name* sap *sap* dhcp option-82 vendor-specific-option system-id *boolean* |
| Tree | system-id |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **proxy-server**

| | |
|---|---|
| Synopsis | Enter the **proxy-server** context |
| Context | **configure** service vpls *service-name* sap *sap* dhcp proxy-server |
| Tree | proxy-server |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the DHCP proxy server |
| Context | **configure** service vpls *service-name* sap *sap* dhcp proxy-server admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **emulated-server** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IP address used as DHCP server address in SAP context |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* sap *sap* dhcp proxy-server emulated-server *ipv4-unicast-address* |
| Tree | emulated-server |
| Introduced | 16.0.R1 |
| Platforms | All |

## lease-time

| | |
|---|---|
| Synopsis | Enter the **lease-time** context |
| Context | **configure** service vpls *service-name* sap *sap* dhcp proxy-server lease-time |
| Tree | lease-time |
| Introduced | 16.0.R1 |
| Platforms | All |

## radius-override *boolean*

| | |
|---|---|
| Synopsis | Use lease time information provided by RADIUS server |
| Context | **configure** service vpls *service-name* sap *sap* dhcp proxy-server lease-time radius-override *boolean* |
| Tree | radius-override |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## value *number*

| | |
|---|---|
| Synopsis | DHCP lease time |
| Context | **configure** service vpls *service-name* sap *sap* dhcp proxy-server lease-time value *number* |
| Tree | value |
| Range | 300 to 315446399 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **snoop** *boolean*

| | |
|---|---|
| Synopsis | Enable DHCP snooping on the SAP |
| Context | **configure** service vpls *service-name* sap *sap* dhcp snoop *boolean* |
| Tree | snoop |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **dhcp6**

| | |
|---|---|
| Synopsis | Enter the **dhcp6** context |
| Context | **configure** service vpls *service-name* sap *sap* dhcp6 |
| Tree | dhcp6 |
| Introduced | 23.10.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vpls *service-name* sap *sap* dhcp6 description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 23.10.R1 |
| Platforms | All |

### **ldra**

| | |
|---|---|
| Synopsis | Enable the **ldra** context |
| Context | **configure** service vpls *service-name* sap *sap* dhcp6 ldra |
| Tree | ldra |
| Introduced | 23.10.R1 |
| Platforms | All |


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## **interface-type** *keyword*

| | |
|---|---|
| Synopsis | LDRA interface type |
| Context | **configure** service vpls *service-name* sap *sap* dhcp6 ldra interface-type *keyword* |
| Tree | interface-type |
| Description | This command specifies the LDRA interface type.<br>**client-facing** - configure the SAP as an untrusted client-facing interface. Only DHCPv6 client messages are accepted and encapsulated in a Relay-Forward message. It is mandatory to configure an interface ID for client-facing SAPs. Relay-Forward, Relay-Reply, and DHCPv6 server messages are silently dropped when received on a client-facing SAP.<br>**network-facing** - configure the SAP as a network-facing interface. Only Relay-Reply messages are accepted: the server message is extracted from the Relay-Reply message and forwarded in the VPLS. All other DHCPv6 message types are silently dropped when received on a network-facing SAP. |
| Options | client-facing, network-facing |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | All |

## **options**

| | |
|---|---|
| Synopsis | Enter the **options** context |
| Context | **configure** service vpls *service-name* sap *sap* dhcp6 ldra options |
| Tree | options |
| Introduced | 23.10.R1 |
| Platforms | All |

## **interface-id**

| | |
|---|---|
| Synopsis | Enable the **interface-id** context |
| Context | **configure** service vpls *service-name* sap *sap* dhcp6 ldra options interface-id |
| Tree | interface-id |
| Introduced | 23.10.R1 |
| Platforms | All |


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## ascii-tuple

| | |
|---|---|
| Synopsis | Use an ASCII-encoded concatenated tuple |
| Context | **configure** service vpls *service-name* sap *sap* dhcp6 ldra options interface-id ascii-tuple |
| Tree | ascii-tuple |
| Description | This command specifies the use of the ASCII-encoded concatenated tuple, which consists of the system name, service ID, and SAP ID separated by "\|". |
| Notes | The following elements are part of a mandatory choice: **ascii-tuple** or **vlan-ascii-tuple**. |
| Introduced | 23.10.R1 |
| Platforms | All |

## vlan-ascii-tuple

| | |
|---|---|
| Synopsis | Use an enhanced ASCII-encoded concatenated tuple |
| Context | **configure** service vpls *service-name* sap *sap* dhcp6 ldra options interface-id vlan-ascii-tuple |
| Tree | vlan-ascii-tuple |
| Description | This command specifies the use of the ASCII-encoded concatenated tuple enhanced with VLAN ID and dot1p bits, consisting of the system name, service ID, SAP ID, dot1p inner VLAN, and inner VLAN ID separated by "\|". |
| Notes | The following elements are part of a mandatory choice: **ascii-tuple** or **vlan-ascii-tuple**. |
| Introduced | 23.10.R1 |
| Platforms | All |

## remote-id

| | |
|---|---|
| Synopsis | Enter the **remote-id** context |
| Context | **configure** service vpls *service-name* sap *sap* dhcp6 ldra options remote-id |
| Tree | remote-id |
| Description | Commands in this context configure the Relay-Agent remote ID contents inserted by the LDRA. |
| Introduced | 23.10.R1 |
| Platforms | All |


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### mac

| | |
|---|---|
| Synopsis | Use the DHCPv6 client source MAC address |
| Context | **configure** service vpls *service-name* sap *sap* dhcp6 ldra options remote-id mac |
| Tree | mac |
| Description | This command sets the enterprise number field of the Relay Agent remote ID to 6527 and configures the DHCPv6 client source MAC address as six hexadecimal numbers. |
| Notes | The following elements are part of a choice: **mac** or **string**. |
| Introduced | 23.10.R1 |
| Platforms | All |

### string *string*

| | |
|---|---|
| Synopsis | User-defined ASCII string |
| Context | **configure** service vpls *service-name* sap *sap* dhcp6 ldra options remote-id string *string* |
| Tree | string |
| Description | This command sets the enterprise number field of the Relay-Agent remote ID to 6527 and configures the ASCII-encoded string. |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **mac** or **string**. |
| Introduced | 23.10.R1 |
| Platforms | All |

### dist-cpu-protection *reference*

| | |
|---|---|
| Synopsis | Distributed CPU protection policy for SAP |
| Context | **configure** service vpls *service-name* sap *sap* dist-cpu-protection *reference* |
| Tree | dist-cpu-protection |
| Reference | **configure** system security dist-cpu-protection policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### egress

| | |
|---|---|
| Synopsis | Enter the **egress** context |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* sap *sap* egress |
| Tree | egress |
| Introduced | 16.0.R1 |
| Platforms | All |

## agg-rate

| | |
|---|---|
| Synopsis | Enter the **agg-rate** context |
| Context | **configure** service vpls *service-name* sap *sap* egress agg-rate |
| Tree | agg-rate |
| Notes | The following elements are part of a choice: **agg-rate** or **percent-agg-rate**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## adaptation-rule *keyword*

| | |
|---|---|
| Synopsis | Adaptation rule to compute the operational PIR value when an aggregate shaper is used |
| Context | **configure** service vpls *service-name* sap *sap* egress agg-rate adaptation-rule *keyword* |
| Tree | adaptation-rule |
| Options | max, min, closest |
| Default | closest |
| Introduced | 22.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

## burst-limit *(number | keyword)*

| | |
|---|---|
| Synopsis | Shaping burst size when an aggregate shaper is used |
| Context | **configure** service vpls *service-name* sap *sap* egress agg-rate burst-limit *(number \| keyword)* |
| Tree | burst-limit |
| Range | 1 to 14000000 |
| Units | bytes |
| Options | auto |
| Default | auto |
| Introduced | 22.10.R1 |


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| | |
|---|---|
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### **limit-unused-bandwidth** *boolean*

| | |
|---|---|
| Synopsis | Enable aggregate rate overrun protection |
| Context | **configure** service vpls *service-name* sap *sap* egress agg-rate limit-unused-bandwidth *boolean* |
| Tree | limit-unused-bandwidth |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **queue-frame-based-accounting** *boolean*

| | |
|---|---|
| Synopsis | Enable frame based accounting on policers and queues |
| Context | **configure** service vpls *service-name* sap *sap* egress agg-rate queue-frame-based-accounting *boolean* |
| Tree | queue-frame-based-accounting |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rate** *number*

| | |
|---|---|
| Synopsis | Enforced aggregate rate for all queues |
| Context | **configure** service vpls *service-name* sap *sap* egress agg-rate rate *number* |
| Tree | rate |
| Range | 1 to 6400000000 |
| Units | kilobps |
| Introduced | 16.0.R1 |
| Platforms | All |

### **dest-mac-rewrite** *mac-unicast-address-no-zero*

| | |
|---|---|
| Synopsis | Destination MAC overwrite for unicast |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* sap *sap* egress dest-mac-rewrite *mac-unicast-address-no-zero* |
| Tree | dest-mac-rewrite |
| Introduced | 16.0.R5 |
| Platforms | All |

## filter

| | |
|---|---|
| Synopsis | Enter the **filter** context |
| Context | **configure** service vpls *service-name* sap *sap* egress filter |
| Tree | filter |
| Introduced | 16.0.R1 |
| Platforms | All |

## ip *reference*

| | |
|---|---|
| Synopsis | IPv4 filter policy name |
| Context | **configure** service vpls *service-name* sap *sap* egress filter ip *reference* |
| Tree | ip |
| Reference | **configure** filter ip-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

## ipv6 *reference*

| | |
|---|---|
| Synopsis | IPv6 filter policy name |
| Context | **configure** service vpls *service-name* sap *sap* egress filter ipv6 *reference* |
| Tree | ipv6 |
| Reference | **configure** filter ipv6-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

## mac *reference*

| | |
|---|---|
| Synopsis | MAC filter policy name |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* sap *sap* egress filter mac *reference* |
| Tree | mac |
| Reference | **configure** filter mac-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

## qos

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** service vpls *service-name* sap *sap* egress qos |
| Tree | qos |
| Introduced | 16.0.R1 |
| Platforms | All |

## latency-budget *number*

| | |
|---|---|
| Synopsis | SAP egress latency budget |
| Context | **configure** service vpls *service-name* sap *sap* egress qos latency-budget *number* |
| Tree | latency-budget |
| Range | 1 to 1000000 |
| Units | microseconds |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## policer-control-policy

| | |
|---|---|
| Synopsis | Enter the **policer-control-policy** context |
| Context | **configure** service vpls *service-name* sap *sap* egress qos policer-control-policy |
| Tree | policer-control-policy |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## overrides

| | |
|---|---|
| Synopsis | Enable the **overrides** context |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* sap *sap* egress qos policer-control-policy overrides |
| Tree | overrides |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## root

| | |
|---|---|
| Synopsis | Enter the **root** context |
| Context | **configure** service vpls *service-name* sap *sap* egress qos policer-control-policy overrides root |
| Tree | root |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## max-rate *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum frame-based bandwidth limit |
| Context | **configure** service vpls *service-name* sap *sap* egress qos policer-control-policy overrides root max-rate *(number \| keyword)* |
| Tree | max-rate |
| Range | 1 to 6400000000 |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## priority-mbs-thresholds

| | |
|---|---|
| Synopsis | Enter the **priority-mbs-thresholds** context |
| Context | **configure** service vpls *service-name* sap *sap* egress qos policer-control-policy overrides root priority-mbs-thresholds |
| Tree | priority-mbs-thresholds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |


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### **min-thresh-separation** *(number | keyword)*

| | |
|---|---|
| Synopsis | Minimum amount of separation buffer space |
| Context | **configure** service vpls *service-name* sap *sap* egress qos policer-control-policy overrides root priority-mbs-thresholds min-thresh-separation *(number \| keyword)* |
| Tree | min-thresh-separation |
| Range | 0 to 16777216 |
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **priority** [priority-level] *number*

| | |
|---|---|
| Synopsis | Enter the **priority** list instance |
| Context | **configure** service vpls *service-name* sap *sap* egress qos policer-control-policy overrides root priority-mbs-thresholds priority *number* |
| Tree | priority |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### [**priority-level**] *number*

| | |
|---|---|
| Synopsis | Priority level |
| Context | **configure** service vpls *service-name* sap *sap* egress qos policer-control-policy overrides root priority-mbs-thresholds priority *number* |
| Tree | priority |
| Range | 1 to 8 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **mbs-contribution** *(number | keyword)*

| | |
|---|---|
| Synopsis | Minimum amount of cumulative buffer space allowed |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* sap *sap* egress qos policer-control-policy overrides root priority-mbs-thresholds priority *number* mbs-contribution *(number \| keyword)* |
| Tree | mbs-contribution |
| Range | 0 to 16777216 |
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## **policy-name** *reference*

| | |
|---|---|
| Synopsis | Policer control policy name |
| Context | **configure** service vpls *service-name* sap *sap* egress qos policer-control-policy policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos policer-control-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## **qinq-mark-top-only** *boolean*

| | |
|---|---|
| Synopsis | Mark top Q-tags |
| Context | **configure** service vpls *service-name* sap *sap* egress qos qinq-mark-top-only *boolean* |
| Tree | qinq-mark-top-only |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **sap-egress**

| | |
|---|---|
| Synopsis | Enter the **sap-egress** context |
| Context | **configure** service vpls *service-name* sap *sap* egress qos sap-egress |
| Tree | sap-egress |
| Introduced | 16.0.R1 |
| Platforms | All |


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### overrides

| | |
|---|---|
| Synopsis | Enter the **overrides** context |
| Context | **configure** service vpls *service-name* sap *sap* egress qos sap-egress overrides |
| Tree | overrides |
| Introduced | 16.0.R1 |
| Platforms | All |

### hs-secondary-shaper *named-item*

| | |
|---|---|
| Synopsis | HS Secondary Shaper |
| Context | **configure** service vpls *service-name* sap *sap* egress qos sap-egress overrides hs-secondary-shaper *named-item* |
| Tree | hs-secondary-shaper |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### hs-wrr-group [group-id] *reference*

| | |
|---|---|
| Synopsis | Enter the **hs-wrr-group** list instance |
| Context | **configure** service vpls *service-name* sap *sap* egress qos sap-egress overrides hs-wrr-group *reference* |
| Tree | hs-wrr-group |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### [group-id] *reference*

| | |
|---|---|
| Synopsis | HS WRR group identifier |
| Context | **configure** service vpls *service-name* sap *sap* egress qos sap-egress overrides hs-wrr-group *reference* |
| Tree | hs-wrr-group |
| Reference | **configure** qos sap-egress *qos-policy-name* hs-wrr-group *number* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7750 SR-7/12/12e |

### **hs-class-weight** *number*

| | |
|---|---|
| Synopsis | Class weight override of the WRR group |
| Context | **configure** service vpls *service-name* sap *sap* egress qos sap-egress overrides hs-wrr-group *reference* hs-class-weight *number* |
| Tree | hs-class-weight |
| Range | 1 \| 2 \| 4 \| 8 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **percent-rate** *decimal-number*

| | |
|---|---|
| Synopsis | Percent rate override applied to the HS WRR group |
| Context | **configure** service vpls *service-name* sap *sap* egress qos sap-egress overrides hs-wrr-group *reference* percent-rate *decimal-number* |
| Tree | percent-rate |
| Range | 0.01 to 100.00 |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **rate** *(number | keyword)*

| | |
|---|---|
| Synopsis | Scheduling rate override applied to the HS WRR group |
| Context | **configure** service vpls *service-name* sap *sap* egress qos sap-egress overrides hs-wrr-group *reference* rate *(number \| keyword)* |
| Tree | rate |
| Range | 1 to 2000000000 |
| Units | kilobps |
| Options | max |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |


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### **policer** [policer-id] *reference*

| | |
|---|---|
| Synopsis | Enter the **policer** list instance |
| Context | **configure** service vpls *service-name* sap *sap* egress qos sap-egress overrides policer *reference* |
| Tree | policer |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### [**policer-id**] *reference*

| | |
|---|---|
| Synopsis | Policer unique ID |
| Context | **configure** service vpls *service-name* sap *sap* egress qos sap-egress overrides policer *reference* |
| Tree | policer |
| Reference | **configure** qos sap-egress *qos-policy-name* policer *number* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **cbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | CBS |
| Context | **configure** service vpls *service-name* sap *sap* egress qos sap-egress overrides policer *reference* cbs *(number | keyword)* |
| Tree | cbs |
| Range | 0 to 268435456 |
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **mbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | MBS |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* sap *sap* egress qos sap-egress overrides policer *reference* mbs *(number \| keyword)* |
| Tree | mbs |
| Range | 0 to 268435456 |
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **packet-byte-offset** *number*

| | |
|---|---|
| Synopsis | Packet size modification for policing information |
| Context | **configure** service vpls *service-name* sap *sap* egress qos sap-egress overrides policer *reference* packet-byte-offset *number* |
| Tree | packet-byte-offset |
| Range | -64 to 31 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **percent-rate**

| | |
|---|---|
| Synopsis | Enter the **percent-rate** context |
| Context | **configure** service vpls *service-name* sap *sap* egress qos sap-egress overrides policer *reference* percent-rate |
| Tree | percent-rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **cir** *decimal-number*

| | |
|---|---|
| Synopsis | CIR percent rate |
| Context | **configure** service vpls *service-name* sap *sap* egress qos sap-egress overrides policer *reference* percent-rate cir *decimal-number* |
| Tree | cir |
| Range | 0.00 to 100.00 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **pir** *decimal-number*

| | |
|---|---|
| Synopsis | PIR percent rate |
| Context | **configure** service vpls *service-name* sap *sap* egress qos sap-egress overrides policer *reference* percent-rate pir *decimal-number* |
| Tree | pir |
| Range | 0.01 to 100.00 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **rate**

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** service vpls *service-name* sap *sap* egress qos sap-egress overrides policer *reference* rate |
| Tree | rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **cir** *(number | keyword)*

| | |
|---|---|
| Synopsis | CIR rate |
| Context | **configure** service vpls *service-name* sap *sap* egress qos sap-egress overrides policer *reference* rate cir *(number | keyword)* |
| Tree | cir |
| Range | 0 to 6400000000 |
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |


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### **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | PIR rate |
| Context | **configure** service vpls *service-name* sap *sap* egress qos sap-egress overrides policer *reference* rate pir *(number | keyword)* |
| Tree | pir |
| Range | 1 to 6400000000 |
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **stat-mode** *keyword*

| | |
|---|---|
| Synopsis | Mode of statistics collected by the policer |
| Context | **configure** service vpls *service-name* sap *sap* egress qos sap-egress overrides policer *reference* stat-mode *keyword* |
| Tree | stat-mode |
| Options | no-stats, minimal, offered-profile-no-cir, offered-total-cir, offered-profile-cir, offered-limited-capped-cir, offered-profile-capped-cir, offered-total-cir-exceed, offered-four-profile-no-cir, offered-total-cir-four-profile |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **queue** [queue-id] *reference*

| | |
|---|---|
| Synopsis | Enter the **queue** list instance |
| Context | **configure** service vpls *service-name* sap *sap* egress qos sap-egress overrides queue *reference* |
| Tree | queue |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**queue-id**] *reference*

| | |
|---|---|
| Synopsis | Policer unique ID |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* sap *sap* egress qos sap-egress overrides queue *reference* |
| Tree | queue |
| Reference | **configure** qos sap-egress *qos-policy-name* queue *number* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## adaptation-rule

| | |
|---|---|
| Synopsis | Enter the **adaptation-rule** context |
| Context | **configure** service vpls *service-name* sap *sap* egress qos sap-egress overrides queue *reference* adaptation-rule |
| Tree | adaptation-rule |
| Introduced | 16.0.R1 |
| Platforms | All |

## **cir** *keyword*

| | |
|---|---|
| Synopsis | Constraint used when deriving the operational CIR value |
| Context | **configure** service vpls *service-name* sap *sap* egress qos sap-egress overrides queue *reference* adaptation-rule cir *keyword* |
| Tree | cir |
| Options | max, min, closest |
| Introduced | 16.0.R1 |
| Platforms | All |

## **pir** *keyword*

| | |
|---|---|
| Synopsis | Constraint used when deriving the operational PIR value |
| Context | **configure** service vpls *service-name* sap *sap* egress qos sap-egress overrides queue *reference* adaptation-rule pir *keyword* |
| Tree | pir |
| Options | max, min, closest |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **avg-frame-overhead** *decimal-number*

| | |
|---|---|
| Synopsis | Average packet-to-frame encapsulation overhead |
| Context | **configure** service vpls *service-name* sap *sap* egress qos sap-egress overrides queue *reference* avg-frame-overhead *decimal-number* |
| Tree | avg-frame-overhead |
| Description | This command configures overrides for the average frame overhead. The overrides supersede the average frame overhead configuration under the queue.<br>For a full description of this command, see the **configure qos network-queue queue avg-frame-overhead** and **configure qos sap-egress queue avg-frame-overhead** contexts. |
| Range | 0.00 to 100.00 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **burst-limit** *(number | keyword)*

| | |
|---|---|
| Synopsis | Explicit shaping burst size for the queue |
| Context | **configure** service vpls *service-name* sap *sap* egress qos sap-egress overrides queue *reference* burst-limit *(number \| keyword)* |
| Tree | burst-limit |
| Range | 1 to 14000000 |
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | CBS |
| Context | **configure** service vpls *service-name* sap *sap* egress qos sap-egress overrides queue *reference* cbs *(number \| keyword)* |
| Tree | cbs |
| Range | 0 to 1048576 |
| Units | kilobytes |
| Options | auto |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## drop-tail

| | |
|---|---|
| Synopsis | Enter the **drop-tail** context |
| Context | **configure** service vpls *service-name* sap *sap* egress qos sap-egress overrides queue *reference* drop-tail |
| Tree | drop-tail |
| Introduced | 16.0.R1 |
| Platforms | All |

## low

| | |
|---|---|
| Synopsis | Enter the **low** context |
| Context | **configure** service vpls *service-name* sap *sap* egress qos sap-egress overrides queue *reference* drop-tail low |
| Tree | low |
| Introduced | 16.0.R1 |
| Platforms | All |

## percent-reduction-from-mbs *(number | keyword)*

| | |
|---|---|
| Synopsis | Percentage reduction from the MBS for a queue drop tail |
| Context | **configure** service vpls *service-name* sap *sap* egress qos sap-egress overrides queue *reference* drop-tail low percent-reduction-from-mbs *(number \| keyword)* |
| Tree | percent-reduction-from-mbs |
| Range | 0 to 100 |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | All |

## hs-class-weight *number*

| | |
|---|---|
| Synopsis | Class weight override for the queue |
| Context | **configure** service vpls *service-name* sap *sap* egress qos sap-egress overrides queue *reference* hs-class-weight *number* |
| Tree | hs-class-weight |


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| | |
|---|---|
| Range | 1 \| 2 \| 4 \| 8 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

## hs-wred-queue

| | |
|---|---|
| Synopsis | Enter the **hs-wred-queue** context |
| Context | **configure** service vpls *service-name* sap *sap* egress qos sap-egress overrides queue *reference* hs-wred-queue |
| Tree | hs-wred-queue |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

## policy *reference*

| | |
|---|---|
| Synopsis | Slope policy applied to the HSQ queue group queue |
| Context | **configure** service vpls *service-name* sap *sap* egress qos sap-egress overrides queue *reference* hs-wred-queue policy *reference* |
| Tree | policy |
| Reference | **configure** qos slope-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

## hs-wrr-weight *number*

| | |
|---|---|
| Synopsis | WRR weight to parent with the queue into the scheduler |
| Context | **configure** service vpls *service-name* sap *sap* egress qos sap-egress overrides queue *reference* hs-wrr-weight *number* |
| Tree | hs-wrr-weight |
| Range | 1 to 127 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |


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### **mbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | MBS |
| Context | **configure** service vpls *service-name* sap *sap* egress qos sap-egress overrides queue *reference* mbs *(number \| keyword)* |
| Tree | mbs |
| Range | 0 to 1073741824 |
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | All |

### **monitor-queue-depth**

| | |
|---|---|
| Synopsis | Enable the **monitor-queue-depth** context |
| Context | **configure** service vpls *service-name* sap *sap* egress qos sap-egress overrides queue *reference* monitor-queue-depth |
| Tree | monitor-queue-depth |
| Description | Commands in this context configure queue depth monitoring for the specified queue. |
| Introduced | 20.10.R1 |
| Platforms | All |

### **fast-polling** *boolean*

| | |
|---|---|
| Synopsis | Enable fast polling of the queue depth |
| Context | **configure** service vpls *service-name* sap *sap* egress qos sap-egress overrides queue *reference* monitor-queue-depth fast-polling *boolean* |
| Tree | fast-polling |
| Description | When configured to **true**, this command enables fast polling of the queue depth. Faster polling allows a more accurate view of the actual depth. |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | All |


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### **violation-threshold** *decimal-number*

| | |
|---|---|
| Synopsis | Threshold for queue depth before violation is raised |
| Context | **configure** service vpls *service-name* sap *sap* egress qos sap-egress overrides queue *reference* monitor-queue-depth violation-threshold *decimal-number* |
| Tree | violation-threshold |
| Description | This command specifies the threshold for the queue MBS. When the queue depth exceeds the threshold value, a violation is registered. |
| Range | 0.01 to 99.99 |
| Introduced | 20.10.R1 |
| Platforms | All |

### **parent**

| | |
|---|---|
| Synopsis | Enter the **parent** context |
| Context | **configure** service vpls *service-name* sap *sap* egress qos sap-egress overrides queue *reference* parent |
| Tree | parent |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cir-weight** *number*

| | |
|---|---|
| Synopsis | CIR parameter that overrides parent for queue group |
| Context | **configure** service vpls *service-name* sap *sap* egress qos sap-egress overrides queue *reference* parent cir-weight *number* |
| Tree | cir-weight |
| Range | 0 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **weight** *number*

| | |
|---|---|
| Synopsis | PIR parameter that overrides parent for queue group |
| Context | **configure** service vpls *service-name* sap *sap* egress qos sap-egress overrides queue *reference* parent weight *number* |
| Tree | weight |


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| | |
|---|---|
| Range | 0 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

## percent-rate

| | |
|---|---|
| Synopsis | Enter the **percent-rate** context |
| Context | **configure** service vpls *service-name* sap *sap* egress qos sap-egress overrides queue *reference* percent-rate |
| Tree | percent-rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **cir** *decimal-number*

| | |
|---|---|
| Synopsis | CIR percent rate |
| Context | **configure** service vpls *service-name* sap *sap* egress qos sap-egress overrides queue *reference* percent-rate cir *decimal-number* |
| Tree | cir |
| Range | 0.00 to 100.00 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **pir** *decimal-number*

| | |
|---|---|
| Synopsis | PIR percent rate |
| Context | **configure** service vpls *service-name* sap *sap* egress qos sap-egress overrides queue *reference* percent-rate pir *decimal-number* |
| Tree | pir |
| Range | 0.01 to 100.00 |
| Introduced | 16.0.R1 |
| Platforms | All |


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## rate

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** service vpls *service-name* sap *sap* egress qos sap-egress overrides queue *reference* rate |
| Tree | rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## cir *(number | keyword)*

| | |
|---|---|
| Synopsis | CIR rate |
| Context | **configure** service vpls *service-name* sap *sap* egress qos sap-egress overrides queue *reference* rate cir *(number | keyword)* |
| Tree | cir |
| Range | 0 to 6400000000 |
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | All |

## pir *(number | keyword)*

| | |
|---|---|
| Synopsis | PIR rate |
| Context | **configure** service vpls *service-name* sap *sap* egress qos sap-egress overrides queue *reference* rate pir *(number | keyword)* |
| Tree | pir |
| Range | 1 to 6400000000 |
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **policy-name** *reference*

| | |
|---|---|
| Synopsis | Policy ID to associate with SAP for mirrored service |
| Context | **configure** service vpls *service-name* sap *sap* egress qos sap-egress policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos sap-egress *qos-policy-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **port-redirect-group**

| | |
|---|---|
| Synopsis | Enter the **port-redirect-group** context |
| Context | **configure** service vpls *service-name* sap *sap* egress qos sap-egress port-redirect-group |
| Tree | port-redirect-group |
| Introduced | 16.0.R1 |
| Platforms | All |

### **group-name** *reference*

| | |
|---|---|
| Synopsis | Name of the queue group redirect list policy |
| Context | **configure** service vpls *service-name* sap *sap* egress qos sap-egress port-redirect-group group-name *reference* |
| Tree | group-name |
| Reference | **configure** qos queue-group-templates egress queue-group *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **instance** *number*

| | |
|---|---|
| Synopsis | Instance of port queue group |
| Context | **configure** service vpls *service-name* sap *sap* egress qos sap-egress port-redirect-group instance *number* |
| Tree | instance |
| Range | 1 to 65535 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## scheduler-policy

| | |
|---|---|
| Synopsis | Enter the **scheduler-policy** context |
| Context | **configure** service vpls *service-name* sap *sap* egress qos scheduler-policy |
| Tree | scheduler-policy |
| Introduced | 16.0.R1 |
| Platforms | All |

## overrides

| | |
|---|---|
| Synopsis | Enter the **overrides** context |
| Context | **configure** service vpls *service-name* sap *sap* egress qos scheduler-policy overrides |
| Tree | overrides |
| Introduced | 16.0.R1 |
| Platforms | All |

## **scheduler** [scheduler-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **scheduler** list instance |
| Context | **configure** service vpls *service-name* sap *sap* egress qos scheduler-policy overrides scheduler *named-item* |
| Tree | scheduler |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**scheduler-name**] *named-item*

| | |
|---|---|
| Synopsis | Scheduler name |
| Context | **configure** service vpls *service-name* sap *sap* egress qos scheduler-policy overrides scheduler *named-item* |
| Tree | scheduler |
| Description | This command specifies the scheduler name which is composed of printable 7-bit ASCII characters. If the string contains special characters (#, $, spaces, and so on), the entire string must be enclosed within double quotes. Each scheduler must have a unique name within the context of the scheduler policy. However, the same name can |


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be reused in multiple scheduler policies. If the scheduler name already exists within the policy tier level, the context changes to that scheduler name for the purpose of editing the scheduler commands.

If the scheduler name exists within the policy on a different tier, an error occurs and the current context does not change. If the scheduler name does not exist in this or another tier within the scheduler policy, it is assumed that an attempt is being made to create a scheduler of that name.

If the provided scheduler name is invalid, a name syntax error occurs, the command does not execute, and the context is not change.

| | |
|---|---|
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## parent

| | |
|---|---|
| Synopsis | Enter the **parent** context |
| Context | **configure** service vpls *service-name* sap *sap* egress qos scheduler-policy overrides scheduler *named-item* parent |
| Tree | parent |
| Introduced | 16.0.R1 |
| Platforms | All |

## cir-weight *number*

| | |
|---|---|
| Synopsis | Weight used at the within-CIR port priority level |
| Context | **configure** service vpls *service-name* sap *sap* egress qos scheduler-policy overrides scheduler *named-item* parent cir-weight *number* |
| Tree | cir-weight |
| Range | 0 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

## weight *number*

| | |
|---|---|
| Synopsis | Relative weight of the scheduler to feed the queue |
| Context | **configure** service vpls *service-name* sap *sap* egress qos scheduler-policy overrides scheduler *named-item* parent weight *number* |


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| | |
|---|---|
| Tree | weight |
| Range | 0 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### rate

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** service vpls *service-name* sap *sap* egress qos scheduler-policy overrides scheduler *named-item* rate |
| Tree | rate |
| Introduced | 16.0.R1 |
| Platforms | All |

### cir *(number | keyword)*

| | |
|---|---|
| Synopsis | CIR at which the queue it to operate |
| Context | **configure** service vpls *service-name* sap *sap* egress qos scheduler-policy overrides scheduler *named-item* rate cir *(number | keyword)* |
| Tree | cir |
| Range | 0 to 6400000000 |
| Units | kilobps |
| Options | sum, max |
| Introduced | 16.0.R1 |
| Platforms | All |

### pir *(number | keyword)*

| | |
|---|---|
| Synopsis | PIR at which the queue is to operate |
| Context | **configure** service vpls *service-name* sap *sap* egress qos scheduler-policy overrides scheduler *named-item* rate pir *(number | keyword)* |
| Tree | pir |
| Range | 1 to 6400000000 |
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## **policy-name** *reference*

| | |
|---|---|
| Synopsis | Scheduler policy name |
| Context | **configure** service vpls *service-name* sap *sap* egress qos scheduler-policy policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos scheduler-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **virtual-port**

| | |
|---|---|
| Synopsis | Enter the **virtual-port** context |
| Context | **configure** service vpls *service-name* sap *sap* egress virtual-port |
| Tree | virtual-port |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **vport-name** *reference*

| | |
|---|---|
| Synopsis | Virtual port assigned to the SAP |
| Context | **configure** service vpls *service-name* sap *sap* egress virtual-port vport-name *reference* |
| Tree | vport-name |
| Reference | **configure** port *port* ethernet access egress virtual-port *named-item* |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **eth-cfm**

| | |
|---|---|
| Synopsis | Enter the **eth-cfm** context |
| Context | **configure** service vpls *service-name* sap *sap* eth-cfm |
| Tree | eth-cfm |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## collect-lmm-fc-stats

| | |
|---|---|
| Synopsis | Enter the **collect-lmm-fc-stats** context |
| Context | **configure** service vpls *service-name* sap *sap* eth-cfm collect-lmm-fc-stats |
| Tree | collect-lmm-fc-stats |
| Description | Commands in this context configure per forwarding class (FC) LMM information collection.<br>The commands **fc-in-profile** and **fc** in this context are mutually exclusive. The commands apply to either profile-aware or profile-unaware FCs respectively.<br>This command and the **collect-lmm-stats** command are mutually exclusive when there is entity resource contention. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **fc** *keyword*

| | |
|---|---|
| Synopsis | Forwarding class name for profile-unaware counter |
| Context | **configure** service vpls *service-name* sap *sap* eth-cfm collect-lmm-fc-stats fc *keyword* |
| Tree | fc |
| Description | This command configures individual counters for the specified FCs without regard for profile. The system includes all countable packets that match a configured FC, regardless of profile, in this counter.<br>An FC specified as part of this command and for this specific context cannot be specified as a profile-aware FC using the **fc-in-profile** command under the **collect-lmm-fc-stats** context.<br>When this command is reentered, a differential is performed. Omitted FCs stop counting, newly added FCs start counting, and unchanged FCs continue to count. |
| Options | be, l2, af, l1, h2, ef, h1, nc |
| Max. instances | 8 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **fc-in-profile** *keyword*

| | |
|---|---|
| Synopsis | Forwarding class name for profile-aware counter |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* sap *sap* eth-cfm collect-lmm-fc-stats fc-in-profile *keyword* |
| Tree | fc-in-profile |
| Description | This command configures individual counters for the specified FCs with regard to profile. The system includes all countable packets that match a configured FC and that are deemed to be in-profile in this counter.<br>An FC specified as part of this command and for this specific context cannot be specified as a profile-unaware FC using the **fc** command under the **collect-lmm-fc-stats** context.<br>When this command is reentered, a differential is performed. Omitted FCs stop counting, newly added FCs start counting, and unchanged FCs continue to count. |
| Options | be, l2, af, l1, h2, ef, h1, nc |
| Max. instances | 8 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **collect-lmm-stats** *boolean*

| | |
|---|---|
| Synopsis | Collect statistics for loss measurement message tests |
| Context | **configure** service vpls *service-name* sap *sap* eth-cfm collect-lmm-stats *boolean* |
| Tree | collect-lmm-stats |
| Description | When configured to **true**, the router instantiates the statistical counter to transmit and receive packets for the LAG facility MEP bindings.<br>The **show eth-cfm collect-lmm-stats** command displays entities that have been enabled to collect transit and receive counters.<br>When configured to **false**, the router does not instantiate the counter and the LMM PDU associated with the MEP does not populate the counters in the packet. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **mep** md-admin-name *reference* ma-admin-name *reference* mep-id *number*

| | |
|---|---|
| Synopsis | Enter the **mep** list instance |
| Context | **configure** service vpls *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |
| Tree | mep |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **md-admin-name** *reference*

| | |
|---|---|
| Synopsis | Maintenance Domain (MD) name |
| Context | **configure** service vpls *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |
| Tree | mep |
| Reference | **configure** eth-cfm domain *admin-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **ma-admin-name** *reference*

| | |
|---|---|
| Synopsis | Maintenance Association (MA) name |
| Context | **configure** service vpls *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |
| Tree | mep |
| Reference | **configure** eth-cfm domain *admin-name* association *admin-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **mep-id** *number*

| | |
|---|---|
| Synopsis | Maintenance Endpoint (MEP) ID |
| Context | **configure** service vpls *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |
| Tree | mep |
| Range | 1 to 8191 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the MEP |
| Context | **configure** service vpls *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ais**

| | |
|---|---|
| Synopsis | Enable the **ais** context |
| Context | **configure** service vpls *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ais |
| Tree | ais |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **client-meg-level** *number*

| | |
|---|---|
| Synopsis | Client MEG level for AIS message generation |
| Context | **configure** service vpls *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ais client-meg-level *number* |
| Tree | client-meg-level |
| Range | 1 to 7 |
| Max. instances | 7 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **interface-support** *boolean*

| | |
|---|---|
| Synopsis | Enable generation of AIS PDUs based on endpoint state |
| Context | **configure** service vpls *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ais interface-support *boolean* |


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| | |
|---|---|
| Tree | interface-support |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **interval** *number*

| | |
|---|---|
| Synopsis | Transmission interval for AIS messages |
| Context | **configure** service vpls *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ais interval *number* |
| Tree | interval |
| Range | 1 \| 60 |
| Units | seconds |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **low-priority-defect** *keyword*

| | |
|---|---|
| Synopsis | Lowest priority defect allowed to generate fault alarm |
| Context | **configure** service vpls *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ais low-priority-defect *keyword* |
| Tree | low-priority-defect |
| Options | all-def, mac-rem-err-xcon |
| Default | all-def |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **priority** *number*

| | |
|---|---|
| Synopsis | Priority of the AIS messages generated by the node |
| Context | **configure** service vpls *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ais priority *number* |
| Tree | priority |
| Range | 0 to 7 |
| Default | 7 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## alarm-notification

| | |
|---|---|
| Synopsis | Enter the **alarm-notification** context |
| Context | **configure** service vpls *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* alarm-notification |
| Tree | alarm-notification |
| Description | Commands in this context configure the Fault Notification Generator (FNG) time values to raise an alarm or reset the CCM defect alarm.<br>Use these timers for network management processes. The timers are not tied into delaying the notification to the fault management system on the network element and do not affect fault propagation mechanisms. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## fng-alarm-time *number*

| | |
|---|---|
| Synopsis | Time that must expire before an FNG alarm is raised |
| Context | **configure** service vpls *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* alarm-notification fng-alarm-time *number* |
| Tree | fng-alarm-time |
| Range | 250 \| 500 \| 1000 |
| Units | centiseconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## fng-reset-time *number*

| | |
|---|---|
| Synopsis | Time that must expire before an FNG alarm is reset |
| Context | **configure** service vpls *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* alarm-notification fng-reset-time *number* |
| Tree | fng-reset-time |
| Range | 250 \| 500 \| 1000 |
| Units | centiseconds |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ccm** *boolean*

| | |
|---|---|
| Synopsis | Generate CCM messages |
| Context | **configure** service vpls *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ccm *boolean* |
| Tree | ccm |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ccm-ltm-priority** *number*

| | |
|---|---|
| Synopsis | Priority of CCM and LTM messages transmitted by the MEP |
| Context | **configure** service vpls *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ccm-ltm-priority *number* |
| Tree | ccm-ltm-priority |
| Range | 0 to 7 |
| Default | 7 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ccm-padding-size** *number*

| | |
|---|---|
| Synopsis | Number of octets of padding to insert in CCM packets |
| Context | **configure** service vpls *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ccm-padding-size *number* |
| Tree | ccm-padding-size |
| Description | This command sets the byte size of the optional Data TLV to be included in the ETH-CC PDU.<br><br>This command increases the size of the ETH-CC PDU by the configured value. The base size of the ETH-CC PDU, including the Interface Status TLV and Port Status TLV, is 83 bytes not including the Layer 2 encapsulation. CCM padding is not supported when the CCM interval (configured through **configure eth-cfm domain association ccm-interval)** is less than 1 second. |
| Range | 3 to 1500 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **cfm-vlan-tag** *one-or-two-vlan-tags*

| | |
|---|---|
| Synopsis | VLAN tags to apply to CFM PDUs for egress processing |
| Context | **configure** service vpls *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* cfm-vlan-tag *one-or-two-vlan-tags* |
| Tree | cfm-vlan-tag |
| Description | This command allows the CFM function to include additional VLAN tags to the CFM packet that are carried to the egress and treated as service delimited. Typically, this function is used to influence the VLAN carried over a binding that uses the **vc-type vlan** or the binding forces the use of one or more VLAN tag that results in a mismatch between the service data arriving at the binding and the locally generated ETH-CFM PDUs arriving at the same egress. When this command is included under the MEP or MIP configuration, the tags used as part of the configuration typically match the SAP service delimited configuration. |
| String length | 1 to 9 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **csf**

| | |
|---|---|
| Synopsis | Enable the **csf** context |
| Context | **configure** service vpls *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* csf |
| Tree | csf |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **multiplier** *decimal-number*

| | |
|---|---|
| Synopsis | Multiplication factor used to clear the CSF condition |
| Context | **configure** service vpls *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* csf multiplier *decimal-number* |
| Tree | multiplier |
| Range | 0.0 \| 2.0 to 30.0 |
| Default | 3.5 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vpls *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **direction** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Direction the MEP faces |
| Context | **configure** service vpls *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* direction *keyword* |
| Tree | direction |
| Options | down, up |
| Default | down |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **eth-test**

| | |
|---|---|
| Synopsis | Enable the **eth-test** context |
| Context | **configure** service vpls *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test |
| Tree | eth-test |
| Description | Commands in this context configure information used by the Ethernet Test (ETH-TST) packet. The commands must be configured on both the sender and the receiver nodes. The test packets are used with the **oam eth-cfm eth-test** command. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **bit-error-threshold** *number*

| | |
|---|---|
| Synopsis | Lowest priority defect allowed to generate fault alarm |
| Context | **configure** service vpls *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test bit-error-threshold *number* |
| Tree | bit-error-threshold |
| Range | 0 to 11840 |
| Units | bit errors |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **test-pattern**

| | |
|---|---|
| Synopsis | Enter the **test-pattern** context |
| Context | **configure** service vpls *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test test-pattern |
| Tree | test-pattern |
| Description | Commands in this context specify the test pattern for the ETH-TST frames. The pattern does not have to be the same on the sender and the receiver. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **crc-tlv** *boolean*

| | |
|---|---|
| Synopsis | Generate a CRC checksum |
| Context | **configure** service vpls *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test test-pattern crc-tlv *boolean* |
| Tree | crc-tlv |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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## **pattern** *keyword*

| | |
|---|---|
| Synopsis | Test pattern for Ethernet Test frames |
| Context | **configure** service vpls *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test test-pattern pattern *keyword* |
| Tree | pattern |
| Description | This command specifies the test pattern of the Ethernet Test (ETH-TST) frames. This does not have to be configured the same on the sender and the receiver. |
| Options | all-zeros, all-ones |
| Default | all-zeros |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **fault-propagation** *keyword*

| | |
|---|---|
| Synopsis | Fault propagation for the MEP |
| Context | **configure** service vpls *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* fault-propagation *keyword* |
| Tree | fault-propagation |
| Options | use-if-status-tlv, suspend-ccm |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **grace**

| | |
|---|---|
| Synopsis | Enter the **grace** context |
| Context | **configure** service vpls *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace |
| Tree | grace |
| Description | Commands in this context configure the Nokia ETH-CFM Grace function and the ITU-T Y.1731 Ethernet Expected Default (ETH-ED) function. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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## eth-ed

| | |
|---|---|
| Synopsis | Enter the **eth-ed** context |
| Context | **configure** service vpls *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed |
| Tree | eth-ed |
| Description | Commands in this context configure the ITU-T Y.1731 ETH-ED function. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## max-rx-defect-window *number*

| | |
|---|---|
| Synopsis | Maximum received ETH-ED expected defect window duration |
| Context | **configure** service vpls *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed max-rx-defect-window *number* |
| Tree | max-rx-defect-window |
| Range | 1 to 86400 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## priority *number*

| | |
|---|---|
| Synopsis | Transmission priority for ETH-ED PDUs |
| Context | **configure** service vpls *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed priority *number* |
| Tree | priority |
| Range | 0 to 7 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## rx-eth-ed *boolean*

| | |
|---|---|
| Synopsis | Receive and process ETH-ED ITU-T Y.1731 PDUs on the MEP |
| Context | **configure** service vpls *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed rx-eth-ed *boolean* |


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| | |
|---|---|
| Tree | rx-eth-ed |
| Description | This command enables the reception and processing of the ITU-T Y.1731 ETH-ED PDU on the MEP. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **tx-eth-ed** *boolean*

| | |
|---|---|
| Synopsis | Transmit ETH-ED PDUs from the MEP |
| Context | **configure** service vpls *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed tx-eth-ed *boolean* |
| Tree | tx-eth-ed |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **eth-vsm-grace**

| | |
|---|---|
| Synopsis | Enter the **eth-vsm-grace** context |
| Context | **configure** service vpls *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-vsm-grace |
| Tree | eth-vsm-grace |
| Description | Commands in this context configure the Nokia ETH-CFM Grace function. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **rx-eth-vsm-grace** *boolean*

| | |
|---|---|
| Synopsis | Receive and process Nokia ETH-CFM Grace PDU on the MEP |
| Context | **configure** service vpls *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-vsm-grace rx-eth-vsm-grace *boolean* |
| Tree | rx-eth-vsm-grace |
| Description | When configured to **true**, the router enables the Nokia Grace function, which is a vendor-specific PDU that informs MEP peers that the local node may be entering a period of expected defect. |


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When configured to **false**, the router disables the Nokia Grace function.

Default true

Introduced 16.0.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS

## **tx-eth-vsm-grace** *boolean*

Synopsis Transmit ETH-ED PDUs from the MEP

Context **configure** service vpls *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-vsm-grace tx-eth-vsm-grace *boolean*

Tree tx-eth-vsm-grace

Description When configured to **true**, the router can transmit the Nokia ETH-CFM Grace PDU from the MEP when a system soft reset notification is received for one or more cards.

The Nokia Grace function is a vendor-specific PDU that informs MEP peers that the local node may be entering a period of expected defect.

The operator must configure the **configure system eth-cfm grace** command to instruct the system that the node is capable of transmitting expected-defect windows to peers. The system can only transmit one form of ETH-CFM grace (Nokia ETH-CFM Grace or ITU-T Y.1731 ETH-ED).

When configured to **false**, the router disables the transmission of the Nokia ETH-CFM Grace PDU from the MEP.

Default true

Introduced 16.0.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS

## **lbm-svc-act-responder** *boolean*

Synopsis Process service activation streams in ETH-CFM LBM

Context **configure** service vpls *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* lbm-svc-act-responder *boolean*

Tree lbm-svc-act-responder

Introduced 16.0.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS

## **low-priority-defect** *keyword*

Synopsis Lowest priority defect allowed to generate fault alarm


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| | |
|---|---|
| Context | **configure** service vpls *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* low-priority-defect *keyword* |
| Tree | low-priority-defect |
| Options | all-def, mac-rem-err-xcon, rem-err-xcon, err-xcon, xcon, no-xcon |
| Default | mac-rem-err-xcon |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **mac-address** *mac-unicast-address-no-zero*

| | |
|---|---|
| Synopsis | MAC address of the MEP |
| Context | **configure** service vpls *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* mac-address *mac-unicast-address-no-zero* |
| Tree | mac-address |
| Description | This command specifies the MAC address of the MEP.<br>When unconfigured, the MAC address of the port (if the MEP is on a SAP) or the MAC address of a bridge (if the MEP is on a spoke) is used. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **monitor-oper-group** *reference*

| | |
|---|---|
| Synopsis | Operational group to monitor |
| Context | **configure** service vpls *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* monitor-oper-group *reference* |
| Tree | monitor-oper-group |
| Description | This command operationally affects the state of the SAP based on the state of the operational group. When the monitoring function detects an operationally down state for the operational group, the SAP is set to operationally down and any CFM defects that were present on the MEP are cleared. The MEP enters a pseudo down state and does not try to transmit CFM packets and it is not expecting to receive CFM packets. When the monitoring function detects an operationally up state for the operational group, the CFM reason code that brought the SAP operationally down is removed. Assuming no other conditions prevent this, the SAP transitions to operationally up and the MEP is initialized.<br>This command is applicable to MEPs with a direction of down (**configure service sap eth-cfm mep direction down**) and a **configure eth-cfm domain association ccm-interval** of 1 second or higher. |
| Reference | **configure** service oper-group *named-item* |


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| | |
|---|---|
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **one-way-delay-threshold** *number*

| | |
|---|---|
| Synopsis | Threshold time limit for the one-way delay test |
| Context | **configure** service vpls *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* one-way-delay-threshold *number* |
| Tree | one-way-delay-threshold |
| Range | 0 to 600 |
| Units | seconds |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **primary-vlan** *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | MEP provisioned using MA primary VLAN ID |
| Context | **configure** service vpls *service-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* primary-vlan *boolean* |
| Tree | primary-vlan |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **mip** primary-vlan *(number | keyword)*

| | |
|---|---|
| Synopsis | Enter the **mip** list instance |
| Context | **configure** service vpls *service-name* sap *sap* eth-cfm mip primary-vlan *(number | keyword)* |
| Tree | mip |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **primary-vlan** *(number | keyword)*

| | |
|---|---|
| Synopsis | VLAN ID to which the MIP is attached |
| Context | **configure** service vpls *service-name* sap *sap* eth-cfm mip primary-vlan *(number \| keyword)* |
| Tree | mip |
| Description | This command provides an option for linking a MIP with a Primary VLAN number or none. When the **none** option is provided, the MIP does not include the primary vlan. |
| Range | 1 to 4094 |
| Options | none |
| Notes | This element is part of a list key. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **cfm-vlan-tag** *one-or-two-vlan-tags*

| | |
|---|---|
| Synopsis | VLAN tags to apply to CFM PDUs for egress processing |
| Context | **configure** service vpls *service-name* sap *sap* eth-cfm mip primary-vlan *(number \| keyword)* cfm-vlan-tag *one-or-two-vlan-tags* |
| Tree | cfm-vlan-tag |
| Description | This command allows the CFM function to include additional VLAN tags to the CFM packet that are carried to the egress and treated as service delimited. Typically, this function is used to influence the VLAN carried over a binding that uses the vc-type vlan or the binding forces the use of one or more VLAN tag that results in a mismatch between the service data arriving at the binding and the locally generated ETH-CFM PDUs arriving at the same egress. When this command is included under the MEP or MIP configuration, the tags used as part of the configuration typically match the SAP service delimited configuration. |
| String length | 1 to 9 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **mac-address** *mac-unicast-address-no-zero*

| | |
|---|---|
| Synopsis | MAC address of the MIP |
| Context | **configure** service vpls *service-name* sap *sap* eth-cfm mip primary-vlan *(number \| keyword)* mac-address *mac-unicast-address-no-zero* |
| Tree | mac-address |


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| | |
|---|---|
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **squelch-ingress-ctag-levels** *number*

| | |
|---|---|
| Synopsis | Squelch levels using additional VLAN C-Tag space |
| Context | **configure** service vpls *service-name* sap *sap* eth-cfm squelch-ingress-ctag-levels *number* |
| Tree | squelch-ingress-ctag-levels |
| Description | This command defines the levels of the ETH-CFM packets that are silently discarded on ingress into the SAP or SDP binding from the wire that matches the service delineation of the SAP or SDP binding plus an additional VLAN, up to a maximum tag length of two tags. All ETH-CFM packets inbound to the SAP or SDP binding that match the configured levels are dropped without regard for any other ETH-CFM criteria. No statistical information or drop count is available for any ETH-CFM packet that is silently discarded by this option.<br><br>The list of levels must be a complete contiguous list from 0 up to the highest level to be dropped. |
| Range | 0 to 7 |
| Max. instances | 8 |
| Introduced | 21.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **squelch-ingress-levels** *number*

| | |
|---|---|
| Synopsis | Levels for which ETH-CFM packets are silently discarded |
| Context | **configure** service vpls *service-name* sap *sap* eth-cfm squelch-ingress-levels *number* |
| Tree | squelch-ingress-levels |
| Description | This command defines the levels of the ETH-CFM packets that are silently discarded.<br><br>At ingress, ETH-CFM packets that meet the following conditions are silently discarded:<br>• The packet is ingressing into the SAP or SDP binding from the wire that matches the service delineation of the SAP or SDP binding.<br>• The packet level matches the configured levels.<br><br>All ETH-CFM packets ingressing to the SAP or SDP binding that match the configured levels are dropped without regard for other ETH-CFM criteria. No statistical information or drop count is available for any ETH-CFM packet that is silently discarded by this option. |


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| | |
|---|---|
| | The list of levels must be a complete contiguous list from 0 up to the highest level that is to be dropped. |
| Range | 0 to 7 |
| Max. instances | 8 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **vmep-filter** *boolean*

| | |
|---|---|
| Synopsis | Suppress eth-cfm PDUs based on level lower than or equal to configured Virtual MEP |
| Context | **configure** service vpls *service-name* sap *sap* eth-cfm vmep-filter *boolean* |
| Tree | vmep-filter |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **eth-ring** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Ethernet ring operation |
| Context | **configure** service vpls *service-name* sap *sap* eth-ring *number* |
| Tree | eth-ring |
| Range | 1 to 128 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **etree-leaf** *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable etree leaf access-circuit status |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* sap *sap* etree-leaf *boolean* |
| Tree | etree-leaf |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## etree-root-leaf-tag

| | |
|---|---|
| Synopsis | Enable the **etree-root-leaf-tag** context |
| Context | **configure** service vpls *service-name* sap *sap* etree-root-leaf-tag |
| Tree | etree-root-leaf-tag |
| Introduced | 16.0.R1 |
| Platforms | All |

## leaf *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Leaf tag value |
| Context | **configure** service vpls *service-name* sap *sap* etree-root-leaf-tag leaf *number* |
| Tree | leaf |
| Range | 1 to 4094 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## fdb

| | |
|---|---|
| Synopsis | Enter the **fdb** context |
| Context | **configure** service vpls *service-name* sap *sap* fdb |
| Tree | fdb |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **auto-learn-mac-protect** *boolean*

| | |
|---|---|
| Synopsis | Enable automatic update of MAC protect list |
| Context | **configure** service vpls *service-name* sap *sap* fdb auto-learn-mac-protect *boolean* |
| Tree | auto-learn-mac-protect |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **auto-learn-mac-protect-exclude-list** *reference*

| | |
|---|---|
| Synopsis | Referenced MAC protect exclusion list |
| Context | **configure** service vpls *service-name* sap *sap* fdb auto-learn-mac-protect-exclude-list *reference* |
| Tree | auto-learn-mac-protect-exclude-list |
| Description | This command references the name of a MAC protect exclusion list.<br>Dynamically-learned MAC Source Addresses (SA) are protected if they are learned on an object with ALMP configured and no exclusion list is associated with the object, or if the MAC SA does not match any entry in an associated exclusion list.<br>An exclusion list can be used in multiple objects of a service. If a list is empty, ALMP does not exclude any learned MAC SAs from protection on the object. |
| Reference | **configure** service mac-list *named-item* |
| Introduced | 20.5.R1 |
| Platforms | All |

### **discard-unknown-source** *boolean*

| | |
|---|---|
| Synopsis | Discard frames with unknown source |
| Context | **configure** service vpls *service-name* sap *sap* fdb discard-unknown-source *boolean* |
| Tree | discard-unknown-source |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **discard-unprotected-dest-mac** *boolean*

| | |
|---|---|
| Synopsis | Discard packet with unprotected destination MAC address |
| Context | **configure** service vpls *service-name* sap *sap* fdb discard-unprotected-dest-mac *boolean* |
| Tree | discard-unprotected-dest-mac |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **limit-mac-move** *keyword*

| | |
|---|---|
| Synopsis | MAC move |
| Context | **configure** service vpls *service-name* sap *sap* fdb limit-mac-move *keyword* |
| Tree | limit-mac-move |
| Options | blockable, non-blockable |
| Default | blockable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mac-learning**

| | |
|---|---|
| Synopsis | Enter the **mac-learning** context |
| Context | **configure** service vpls *service-name* sap *sap* fdb mac-learning |
| Tree | mac-learning |
| Introduced | 16.0.R1 |
| Platforms | All |

### **aging** *boolean*

| | |
|---|---|
| Synopsis | Enable aging of MAC addresses |
| Context | **configure** service vpls *service-name* sap *sap* fdb mac-learning aging *boolean* |
| Tree | aging |
| Default | true |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **learning** *boolean*

| | |
|---|---|
| Synopsis | Enable learning of new MAC addresses |
| Context | **configure** service vpls *service-name* sap *sap* fdb mac-learning learning *boolean* |
| Tree | learning |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mac-pinning** *boolean*

| | |
|---|---|
| Synopsis | Enable MAC address pinning on this SAP |
| Context | **configure** service vpls *service-name* sap *sap* fdb mac-pinning *boolean* |
| Tree | mac-pinning |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **maximum-mac-addresses** *number*

| | |
|---|---|
| Synopsis | Maximum number of MAC address entries in the FDB |
| Context | **configure** service vpls *service-name* sap *sap* fdb maximum-mac-addresses *number* |
| Tree | maximum-mac-addresses |
| Description | This command specifies the maximum number of FDB entries for both learned and static MAC addresses for this SAP.<br><br>When the configured limit is reached, no new addresses are learned from the SAP or spoke SDP until at least one FDB entry is aged out or cleared.<br><br>When the configured limit is reached and the **configure service pw-template fdb discard-unknown-source** command is set to **true** for this SAP, packets with unknown source MAC addresses are discarded. If **discard-unknown-source** is set to **false**, the packets are forwarded if their destination MAC addresses are known, or flooded if their destination MAC addresses are unknown.<br><br>However, if the **configure service vpls fdb discard-unknown** command is set to **true**, packets with unknown destination MAC addresses are discarded, even if the limit of FDB entries on the specific VPLS instance is not reached.<br><br>When unconfigured, the SAP uses the global MAC learning limitations. |


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| | |
|---|---|
| Range | 1 to 511999 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **protected-src-mac-violation-action** *keyword*

| | |
|---|---|
| Synopsis | Action to take whenever a relearn request for a protected MAC is received |
| Context | **configure** service vpls *service-name* sap *sap* fdb protected-src-mac-violation-action *keyword* |
| Tree | protected-src-mac-violation-action |
| Options | sap-oper-down, alarm-only, discard |
| Introduced | 16.0.R1 |
| Platforms | All |

### **host-admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the hosts |
| Context | **configure** service vpls *service-name* sap *sap* host-admin-state *keyword* |
| Tree | host-admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **host-lockout-policy** *reference*

| | |
|---|---|
| Synopsis | Host lockout policy |
| Context | **configure** service vpls *service-name* sap *sap* host-lockout-policy *reference* |
| Tree | host-lockout-policy |
| Reference | **configure** subscriber-mgmt host-lockout-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## i-vpls-mac-flush

| | |
|---|---|
| Synopsis | Enter the **i-vpls-mac-flush** context |
| Context | **configure** service vpls *service-name* sap *sap* i-vpls-mac-flush |
| Tree | i-vpls-mac-flush |
| Introduced | 16.0.R1 |
| Platforms | All |

## bgp-evpn

| | |
|---|---|
| Synopsis | Enter the **bgp-evpn** context |
| Context | **configure** service vpls *service-name* sap *sap* i-vpls-mac-flush bgp-evpn |
| Tree | bgp-evpn |
| Introduced | 16.0.R1 |
| Platforms | All |

## send-to-bvpls *boolean*

| | |
|---|---|
| Synopsis | Send B-VPLS EVPN flush |
| Context | **configure** service vpls *service-name* sap *sap* i-vpls-mac-flush bgp-evpn send-to-bvpls *boolean* |
| Tree | send-to-bvpls |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

## igmp-host-tracking

| | |
|---|---|
| Synopsis | Enter the **igmp-host-tracking** context |
| Context | **configure** service vpls *service-name* sap *sap* igmp-host-tracking |
| Tree | igmp-host-tracking |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **expiry-time** *number*

| | |
|---|---|
| Synopsis | Time that the system continues to track inactive hosts |
| Context | **configure** service vpls *service-name* sap *sap* igmp-host-tracking expiry-time *number* |
| Tree | expiry-time |
| Range | 1 to 65535 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **import-policy** *reference*

| | |
|---|---|
| Synopsis | Import policy that filters IGMP packets |
| Context | **configure** service vpls *service-name* sap *sap* igmp-host-tracking import-policy *reference* |
| Tree | import-policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **maximum-number-group-sources** *number*

| | |
|---|---|
| Synopsis | Maximum number of multicast groups to track per group |
| Context | **configure** service vpls *service-name* sap *sap* igmp-host-tracking maximum-number-group-sources *number* |
| Tree | maximum-number-group-sources |
| Range | 1 to 32000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **maximum-number-groups** *number*

| | |
|---|---|
| Synopsis | Maximum number of multicast groups to be tracked |
| Context | **configure** service vpls *service-name* sap *sap* igmp-host-tracking maximum-number-groups *number* |
| Tree | maximum-number-groups |
| Range | 1 to 16000 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **maximum-number-sources** *number*

| | |
|---|---|
| Synopsis | Maximum number of multicast sources to be tracked |
| Context | **configure** service vpls *service-name* sap *sap* igmp-host-tracking maximum-number-sources *number* |
| Tree | maximum-number-sources |
| Range | 1 to 1000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **router-alert-check** *boolean*

| | |
|---|---|
| Synopsis | Enable IGMP router alert check option |
| Context | **configure** service vpls *service-name* sap *sap* igmp-host-tracking router-alert-check *boolean* |
| Tree | router-alert-check |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **igmp-snooping**

| | |
|---|---|
| Synopsis | Enter the **igmp-snooping** context |
| Context | **configure** service vpls *service-name* sap *sap* igmp-snooping |
| Tree | igmp-snooping |
| Introduced | 16.0.R1 |
| Platforms | All |

### **fast-leave** *boolean*

| | |
|---|---|
| Synopsis | Allow IGMP fast leave processing |
| Context | **configure** service vpls *service-name* sap *sap* igmp-snooping fast-leave *boolean* |
| Tree | fast-leave |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **import-policy** *reference*

| | |
|---|---|
| Synopsis | Import policy that filters IGMP packets |
| Context | **configure** service vpls *service-name* sap *sap* igmp-snooping import-policy *reference* |
| Tree | import-policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **maximum-number-group-sources** *number*

| | |
|---|---|
| Synopsis | Maximum group source combinations |
| Context | **configure** service vpls *service-name* sap *sap* igmp-snooping maximum-number-group-sources *number* |
| Tree | maximum-number-group-sources |
| Range | 1 to 32000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **maximum-number-groups** *number*

| | |
|---|---|
| Synopsis | Maximum groups allowed |
| Context | **configure** service vpls *service-name* sap *sap* igmp-snooping maximum-number-groups *number* |
| Tree | maximum-number-groups |
| Range | 1 to 16000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **maximum-number-sources** *number*

| | |
|---|---|
| Synopsis | Maximum sources that are allowed per group |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* sap *sap* igmp-snooping maximum-number-sources *number* |
| Tree | maximum-number-sources |
| Range | 1 to 1000 |
| Introduced | 16.0.R1 |
| Platforms | All |

## mcac

| | |
|---|---|
| Synopsis | Enter the **mcac** context |
| Context | **configure** service vpls *service-name* sap *sap* igmp-snooping mcac |
| Tree | mcac |
| Introduced | 16.0.R1 |
| Platforms | All |

## bandwidth

| | |
|---|---|
| Synopsis | Enter the **bandwidth** context |
| Context | **configure** service vpls *service-name* sap *sap* igmp-snooping mcac bandwidth |
| Tree | bandwidth |
| Introduced | 16.0.R1 |
| Platforms | All |

## mandatory *(number | keyword)*

| | |
|---|---|
| Synopsis | Pre-reserved bandwidth for all mandatory channels |
| Context | **configure** service vpls *service-name* sap *sap* igmp-snooping mcac bandwidth mandatory *(number \| keyword)* |
| Tree | mandatory |
| Range | 0 to 2147483647 |
| Options | unlimited |
| Default | unlimited |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **total** *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum allowed bandwidth |
| Context | **configure** service vpls *service-name* sap *sap* igmp-snooping mcac bandwidth total *(number | keyword)* |
| Tree | total |
| Range | 0 to 2147483647 |
| Options | unlimited |
| Default | unlimited |
| Introduced | 16.0.R1 |
| Platforms | All |

### **interface-policy** *reference*

| | |
|---|---|
| Synopsis | Name of multicast CAC interface policy |
| Context | **configure** service vpls *service-name* sap *sap* igmp-snooping mcac interface-policy *reference* |
| Tree | interface-policy |
| Reference | **configure** mcac interface-policy *string* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mc-constraints**

| | |
|---|---|
| Synopsis | Enter the **mc-constraints** context |
| Context | **configure** service vpls *service-name* sap *sap* igmp-snooping mcac mc-constraints |
| Tree | mc-constraints |
| Introduced | 16.0.R1 |
| Platforms | All |

### **level** [level-id] *number*

| | |
|---|---|
| Synopsis | Enter the **level** list instance |
| Context | **configure** service vpls *service-name* sap *sap* igmp-snooping mcac mc-constraints level *number* |
| Tree | level |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### [**level-id**] *number*

| | |
|---|---|
| Synopsis | Bandwidth level ID for an MCAC constraint |
| Context | **configure** service vpls *service-name* sap *sap* igmp-snooping mcac mc-constraints level *number* |
| Tree | level |
| Range | 1 to 8 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bandwidth** *number*

| | |
|---|---|
| Synopsis | Bandwidth available for this level |
| Context | **configure** service vpls *service-name* sap *sap* igmp-snooping mcac mc-constraints level *number* bandwidth *number* |
| Tree | bandwidth |
| Range | 0 to 2147483647 |
| Units | kilobps |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **number-down** [number-lag-port-down] *number*

| | |
|---|---|
| Synopsis | Enter the **number-down** list instance |
| Context | **configure** service vpls *service-name* sap *sap* igmp-snooping mcac mc-constraints number-down *number* |
| Tree | number-down |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**number-lag-port-down**] *number*

| | |
|---|---|
| Synopsis | Number of ports that are down in this LAG link |
| Context | **configure** service vpls *service-name* sap *sap* igmp-snooping mcac mc-constraints number-down *number* |
| Tree | number-down |
| Range | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **level** *number*

| | |
|---|---|
| Synopsis | Level ID to associate with number of down LAG ports |
| Context | **configure** service vpls *service-name* sap *sap* igmp-snooping mcac mc-constraints number-down *number* level *number* |
| Tree | level |
| Description | This command specifies the bandwidth for a given level. Level 1 has the highest priority and level 8 has the lowest priority. |
| Range | 1 to 8 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **use-lag-port-weight** *boolean*

| | |
|---|---|
| Synopsis | Use LAG port weight in calculating MCAC constraints |
| Context | **configure** service vpls *service-name* sap *sap* igmp-snooping mcac mc-constraints use-lag-port-weight *boolean* |
| Tree | use-lag-port-weight |
| Description | When configured to **true**, port weight is used when determining available bandwidth per level when LAG ports go down or come up. This command is required for proper operation on mixed port-speed LAGs and can also be used for unmixed port-speed LAGs. |
| Default | false |
| Introduced | 16.0.R1 |


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Platforms All

## **policy** *reference*

Synopsis Multicast CAC policy name

Context **configure** service vpls *service-name* sap *sap* igmp-snooping mcac policy *reference*

Tree policy

Description This command configures the name of the global channel bandwidth definition policy that is used for (H)MCAC and HQoS adjustment.

Within the scope of HQoS adjustment, the channel definition policy under the group interface is used if redirection is unconfigured. In this case, the HQoS adjustment can be applied to IPoE subscribers in per-SAP replication mode.

If redirection is configured, the channel bandwidth definition policy applied under the Layer 3 redirected interface is in effect.

Hierarchical MCAC (HMCAC) is supported on two levels simultaneously:

- subscriber level and redirected interface when redirection is configured
- subscriber level and group-interface level when redirection is unconfigured

In HMCAC, the subscriber is checked against its bandwidth limits first, then against the bandwidth limits of the redirected or group interface. If redirection is configured but the policy is referenced only under the group interface, no admission control is executed (HMCAC or MCAC).

Reference **configure** mcac policy *string*

Introduced 16.0.R1

Platforms All

## **mrouter-port** *boolean*

Synopsis Operate port as a multicast router port

Context **configure** service vpls *service-name* sap *sap* igmp-snooping mrouter-port *boolean*

Tree mrouter-port

Default false

Introduced 16.0.R1

Platforms All

## **mvr**

Synopsis Enter the **mvr** context


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| | |
|---|---|
| Context | **configure** service vpls *service-name* sap *sap* igmp-snooping mvr |
| Tree | mvr |
| Introduced | 16.0.R1 |
| Platforms | All |

### **from-vpls** *reference*

| | |
|---|---|
| Synopsis | MVR VPLS from which the multicast channels are taken |
| Context | **configure** service vpls *service-name* sap *sap* igmp-snooping mvr from-vpls *reference* |
| Tree | from-vpls |
| Reference | **configure** service vpls *service-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **to-sap** *sap*

| | |
|---|---|
| Synopsis | Multicast channels copied to SAP |
| Context | **configure** service vpls *service-name* sap *sap* igmp-snooping mvr to-sap *sap* |
| Tree | to-sap |
| String length | 1 to 45 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **query-interval** *number*

| | |
|---|---|
| Synopsis | Time between two consecutive host-query messages |
| Context | **configure** service vpls *service-name* sap *sap* igmp-snooping query-interval *number* |
| Tree | query-interval |
| Range | 2 to 1024 |
| Units | seconds |
| Default | 125 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **query-last-member-interval** *number*

| | |
|---|---|
| Synopsis | Time between group-specific query messages |
| Context | **configure** service vpls *service-name* sap *sap* igmp-snooping query-last-member-interval *number* |
| Tree | query-last-member-interval |
| Range | 1 to 50 |
| Units | deciseconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **query-response-interval** *number*

| | |
|---|---|
| Synopsis | Time to wait for a response to the host-query messages |
| Context | **configure** service vpls *service-name* sap *sap* igmp-snooping query-response-interval *number* |
| Tree | query-response-interval |
| Range | 1 to 1023 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **robust-count** *number*

| | |
|---|---|
| Synopsis | Number of retries after expected message loss |
| Context | **configure** service vpls *service-name* sap *sap* igmp-snooping robust-count *number* |
| Tree | robust-count |
| Range | 2 to 7 |
| Default | 2 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **router-alert-check** *boolean*

| | |
|---|---|
| Synopsis | Enable IP router alert check option |
| Context | **configure** service vpls *service-name* sap *sap* igmp-snooping router-alert-check *boolean* |
| Tree | router-alert-check |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **send-queries** *boolean*

| | |
|---|---|
| Synopsis | Generate IGMP general queries |
| Context | **configure** service vpls *service-name* sap *sap* igmp-snooping send-queries *boolean* |
| Tree | send-queries |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **static**

| | |
|---|---|
| Synopsis | Enter the **static** context |
| Context | **configure** service vpls *service-name* sap *sap* igmp-snooping static |
| Tree | static |
| Introduced | 16.0.R1 |
| Platforms | All |

### **group** [group-address] *ipv4-multicast-address*

| | |
|---|---|
| Synopsis | Enter the **group** list instance |
| Context | **configure** service vpls *service-name* sap *sap* igmp-snooping static group *ipv4-multicast-address* |
| Tree | group |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**group-address**] *ipv4-multicast-address*

| | |
|---|---|
| Synopsis | Group address of static IGMP multicast channel |
| Context | **configure** service vpls *service-name* sap *sap* igmp-snooping static group *ipv4-multicast-address* |
| Tree | group |
| Description | This command configures an address that receives data on an interface. The IP address must be unique for each static group. |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **source** [source-address] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Add a list entry for **source** |
| Context | **configure** service vpls *service-name* sap *sap* igmp-snooping static group *ipv4-multicast-address* source *ipv4-unicast-address* |
| Tree | source |
| Notes | The following elements are part of a mandatory choice: **source** or **starg**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**source-address**] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Source IP address of multicast channel sending data |
| Context | **configure** service vpls *service-name* sap *sap* igmp-snooping static group *ipv4-multicast-address* source *ipv4-unicast-address* |
| Tree | source |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R2 |
| Platforms | All |

### **starg**

| | |
|---|---|
| Synopsis | any source address (*,G) |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* sap *sap* igmp-snooping static group *ipv4-multicast-address* starg |
| Tree | starg |
| Notes | The following elements are part of a mandatory choice: **source** or **starg**. |
| Introduced | 16.0.R2 |
| Platforms | All |

## **version** *keyword*

| | |
|---|---|
| Synopsis | IGMP protocol version |
| Context | **configure** service vpls *service-name* sap *sap* igmp-snooping version *keyword* |
| Tree | version |
| Options | 1, 2, 3 |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **ingress**

| | |
|---|---|
| Synopsis | Enter the **ingress** context |
| Context | **configure** service vpls *service-name* sap *sap* ingress |
| Tree | ingress |
| Introduced | 16.0.R1 |
| Platforms | All |

## **filter**

| | |
|---|---|
| Synopsis | Enter the **filter** context |
| Context | **configure** service vpls *service-name* sap *sap* ingress filter |
| Tree | filter |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **ip** *reference*

| | |
|---|---|
| Synopsis | IPv4 filter policy name |
| Context | **configure** service vpls *service-name* sap *sap* ingress filter ip *reference* |
| Tree | ip |
| Reference | **configure** filter ip-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv6** *reference*

| | |
|---|---|
| Synopsis | IPv6 filter policy name |
| Context | **configure** service vpls *service-name* sap *sap* ingress filter ipv6 *reference* |
| Tree | ipv6 |
| Reference | **configure** filter ipv6-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mac** *reference*

| | |
|---|---|
| Synopsis | MAC filter policy name |
| Context | **configure** service vpls *service-name* sap *sap* ingress filter mac *reference* |
| Tree | mac |
| Reference | **configure** filter mac-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **qos**

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** service vpls *service-name* sap *sap* ingress qos |
| Tree | qos |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **match-qinq-dot1p** *keyword*

| | |
|---|---|
| Synopsis | Ingress match QinQ Dot1p |
| Context | **configure** service vpls *service-name* sap *sap* ingress qos match-qinq-dot1p *keyword* |
| Tree | match-qinq-dot1p |
| Options | top, bottom |
| Introduced | 16.0.R1 |
| Platforms | All |

### **policer-control-policy**

| | |
|---|---|
| Synopsis | Enter the **policer-control-policy** context |
| Context | **configure** service vpls *service-name* sap *sap* ingress qos policer-control-policy |
| Tree | policer-control-policy |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **overrides**

| | |
|---|---|
| Synopsis | Enable the **overrides** context |
| Context | **configure** service vpls *service-name* sap *sap* ingress qos policer-control-policy overrides |
| Tree | overrides |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **root**

| | |
|---|---|
| Synopsis | Enter the **root** context |
| Context | **configure** service vpls *service-name* sap *sap* ingress qos policer-control-policy overrides root |
| Tree | root |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |


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### **max-rate** *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum frame-based bandwidth limit |
| Context | **configure** service vpls *service-name* sap *sap* ingress qos policer-control-policy overrides root max-rate *(number | keyword)* |
| Tree | max-rate |
| Range | 1 to 6400000000 |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **priority-mbs-thresholds**

| | |
|---|---|
| Synopsis | Enter the **priority-mbs-thresholds** context |
| Context | **configure** service vpls *service-name* sap *sap* ingress qos policer-control-policy overrides root priority-mbs-thresholds |
| Tree | priority-mbs-thresholds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **min-thresh-separation** *(number | keyword)*

| | |
|---|---|
| Synopsis | Minimum amount of separation buffer space |
| Context | **configure** service vpls *service-name* sap *sap* ingress qos policer-control-policy overrides root priority-mbs-thresholds min-thresh-separation *(number | keyword)* |
| Tree | min-thresh-separation |
| Range | 0 to 16777216 |
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **priority** [priority-level] *number*

| | |
|---|---|
| Synopsis | Enter the **priority** list instance |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* sap *sap* ingress qos policer-control-policy overrides root priority-mbs-thresholds priority *number* |
| Tree | priority |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### [**priority-level**] *number*

| | |
|---|---|
| Synopsis | Priority level |
| Context | **configure** service vpls *service-name* sap *sap* ingress qos policer-control-policy overrides root priority-mbs-thresholds priority *number* |
| Tree | priority |
| Range | 1 to 8 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **mbs-contribution** *(number | keyword)*

| | |
|---|---|
| Synopsis | Minimum amount of cumulative buffer space allowed |
| Context | **configure** service vpls *service-name* sap *sap* ingress qos policer-control-policy overrides root priority-mbs-thresholds priority *number* mbs-contribution *(number | keyword)* |
| Tree | mbs-contribution |
| Range | 0 to 16777216 |
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **policy-name** *reference*

| | |
|---|---|
| Synopsis | Policer control policy name |
| Context | **configure** service vpls *service-name* sap *sap* ingress qos policer-control-policy policy-name *reference* |
| Tree | policy-name |


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| | |
|---|---|
| Reference | **configure** qos policer-control-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## sap-ingress

| | |
|---|---|
| Synopsis | Enter the **sap-ingress** context |
| Context | **configure** service vpls *service-name* sap *sap* ingress qos sap-ingress |
| Tree | sap-ingress |
| Introduced | 16.0.R1 |
| Platforms | All |

## fp-redirect-group

| | |
|---|---|
| Synopsis | Enter the **fp-redirect-group** context |
| Context | **configure** service vpls *service-name* sap *sap* ingress qos sap-ingress fp-redirect-group |
| Tree | fp-redirect-group |
| Introduced | 16.0.R1 |
| Platforms | All |

## group-name *reference*

| | |
|---|---|
| Synopsis | Queue group template name created on forwarding plane |
| Context | **configure** service vpls *service-name* sap *sap* ingress qos sap-ingress fp-redirect-group group-name *reference* |
| Tree | group-name |
| Reference | **configure** qos queue-group-templates ingress queue-group *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

## instance *number*

| | |
|---|---|
| Synopsis | Queue group instance |
| Context | **configure** service vpls *service-name* sap *sap* ingress qos sap-ingress fp-redirect-group instance *number* |
| Tree | instance |


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| | |
|---|---|
| Range | 1 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

## overrides

| | |
|---|---|
| Synopsis | Enter the **overrides** context |
| Context | **configure** service vpls *service-name* sap *sap* ingress qos sap-ingress overrides |
| Tree | overrides |
| Introduced | 16.0.R1 |
| Platforms | All |

## ip-criteria

| | |
|---|---|
| Synopsis | Enter the **ip-criteria** context |
| Context | **configure** service vpls *service-name* sap *sap* ingress qos sap-ingress overrides ip-criteria |
| Tree | ip-criteria |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## activate-entry-tag *number*

| | |
|---|---|
| Synopsis | Tag ID activated for IPv4 criteria |
| Context | **configure** service vpls *service-name* sap *sap* ingress qos sap-ingress overrides ip-criteria activate-entry-tag *number* |
| Tree | activate-entry-tag |
| Range | 1 to 255 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## ipv6-criteria

| | |
|---|---|
| Synopsis | Enter the **ipv6-criteria** context |
| Context | **configure** service vpls *service-name* sap *sap* ingress qos sap-ingress overrides ipv6-criteria |


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| | |
|---|---|
| Tree | ipv6-criteria |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **activate-entry-tag** *number*

| | |
|---|---|
| Synopsis | Tag ID activated for IPv6 criteria |
| Context | **configure** service vpls *service-name* sap *sap* ingress qos sap-ingress overrides ipv6-criteria activate-entry-tag *number* |
| Tree | activate-entry-tag |
| Range | 1 to 255 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **policer** [policer-id] *reference*

| | |
|---|---|
| Synopsis | Enter the **policer** list instance |
| Context | **configure** service vpls *service-name* sap *sap* ingress qos sap-ingress overrides policer *reference* |
| Tree | policer |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### [**policer-id**] *reference*

| | |
|---|---|
| Synopsis | Policer unique ID |
| Context | **configure** service vpls *service-name* sap *sap* ingress qos sap-ingress overrides policer *reference* |
| Tree | policer |
| Reference | **configure** qos sap-ingress *qos-policy-name* policer *number* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |


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### **cbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | CBS |
| Context | **configure** service vpls *service-name* sap *sap* ingress qos sap-ingress overrides policer *reference* cbs *(number | keyword)* |
| Tree | cbs |
| Range | 0 to 268435456 |
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **mbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | MBS |
| Context | **configure** service vpls *service-name* sap *sap* ingress qos sap-ingress overrides policer *reference* mbs *(number | keyword)* |
| Tree | mbs |
| Range | 0 to 268435456 |
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **packet-byte-offset** *number*

| | |
|---|---|
| Synopsis | Packet size modification for policing information |
| Context | **configure** service vpls *service-name* sap *sap* ingress qos sap-ingress overrides policer *reference* packet-byte-offset *number* |
| Tree | packet-byte-offset |
| Range | -32 to 31 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |


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## percent-rate

| | |
|---|---|
| Synopsis | Enter the **percent-rate** context |
| Context | **configure** service vpls *service-name* sap *sap* ingress qos sap-ingress overrides policer *reference* percent-rate |
| Tree | percent-rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## cir *decimal-number*

| | |
|---|---|
| Synopsis | CIR percent rate |
| Context | **configure** service vpls *service-name* sap *sap* ingress qos sap-ingress overrides policer *reference* percent-rate cir *decimal-number* |
| Tree | cir |
| Range | 0.00 to 100.00 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## pir *decimal-number*

| | |
|---|---|
| Synopsis | PIR percent rate |
| Context | **configure** service vpls *service-name* sap *sap* ingress qos sap-ingress overrides policer *reference* percent-rate pir *decimal-number* |
| Tree | pir |
| Range | 0.01 to 100.00 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## rate

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** service vpls *service-name* sap *sap* ingress qos sap-ingress overrides policer *reference* rate |
| Tree | rate |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **cir** *(number | keyword)*

| | |
|---|---|
| Synopsis | CIR rate |
| Context | **configure** service vpls *service-name* sap *sap* ingress qos sap-ingress overrides policer *reference* rate cir *(number | keyword)* |
| Tree | cir |
| Range | 0 to 6400000000 |
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | PIR rate |
| Context | **configure** service vpls *service-name* sap *sap* ingress qos sap-ingress overrides policer *reference* rate pir *(number | keyword)* |
| Tree | pir |
| Range | 1 to 6400000000 |
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **stat-mode** *keyword*

| | |
|---|---|
| Synopsis | Mode of statistics collected by the policer |
| Context | **configure** service vpls *service-name* sap *sap* ingress qos sap-ingress overrides policer *reference* stat-mode *keyword* |
| Tree | stat-mode |


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| | |
|---|---|
| Options | no-stats, minimal, offered-profile-no-cir, offered-total-cir, offered-priority-no-cir, offered-profile-cir, offered-priority-cir, offered-limited-profile-cir, offered-profile-capped-cir, offered-limited-capped-cir |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **queue** [queue-id] *reference*

| | |
|---|---|
| Synopsis | Enter the **queue** list instance |
| Context | **configure** service vpls *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* |
| Tree | queue |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**queue-id**] *reference*

| | |
|---|---|
| Synopsis | Policer unique ID |
| Context | **configure** service vpls *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* |
| Tree | queue |
| Reference | **configure** qos sap-ingress *qos-policy-name* queue *number* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **adaptation-rule**

| | |
|---|---|
| Synopsis | Enter the **adaptation-rule** context |
| Context | **configure** service vpls *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* adaptation-rule |
| Tree | adaptation-rule |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **cir** *keyword*

| | |
|---|---|
| Synopsis | Constraint used when deriving the operational CIR value |
| Context | **configure** service vpls *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* adaptation-rule cir *keyword* |
| Tree | cir |
| Options | max, min, closest |
| Introduced | 16.0.R1 |
| Platforms | All |

### **pir** *keyword*

| | |
|---|---|
| Synopsis | Constraint used when deriving the operational PIR value |
| Context | **configure** service vpls *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* adaptation-rule pir *keyword* |
| Tree | pir |
| Options | max, min, closest |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | CBS |
| Context | **configure** service vpls *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* cbs *(number | keyword)* |
| Tree | cbs |
| Range | 0 to 1048576 |
| Units | kilobytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | All |

### **drop-tail**

| | |
|---|---|
| Synopsis | Enter the **drop-tail** context |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* drop-tail |
| Tree | drop-tail |
| Introduced | 16.0.R1 |
| Platforms | All |

## low

| | |
|---|---|
| Synopsis | Enter the **low** context |
| Context | **configure** service vpls *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* drop-tail low |
| Tree | low |
| Introduced | 16.0.R1 |
| Platforms | All |

## percent-reduction-from-mbs *(number | keyword)*

| | |
|---|---|
| Synopsis | Percentage reduction from the MBS for a queue drop tail |
| Context | **configure** service vpls *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* drop-tail low percent-reduction-from-mbs *(number \| keyword)* |
| Tree | percent-reduction-from-mbs |
| Range | 0 to 100 |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | All |

## mbs *(number | keyword)*

| | |
|---|---|
| Synopsis | MBS |
| Context | **configure** service vpls *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* mbs *(number \| keyword)* |
| Tree | mbs |
| Range | 0 to 1073741824 |
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## monitor-queue-depth

| | |
|---|---|
| Synopsis | Enable the **monitor-queue-depth** context |
| Context | **configure** service vpls *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* monitor-queue-depth |
| Tree | monitor-queue-depth |
| Introduced | 21.7.R1 |
| Platforms | All |

## fast-polling *boolean*

| | |
|---|---|
| Synopsis | Enable fast polling of the queue depth |
| Context | **configure** service vpls *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* monitor-queue-depth fast-polling *boolean* |
| Tree | fast-polling |
| Default | false |
| Introduced | 21.7.R1 |
| Platforms | All |

## parent

| | |
|---|---|
| Synopsis | Enter the **parent** context |
| Context | **configure** service vpls *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* parent |
| Tree | parent |
| Introduced | 16.0.R1 |
| Platforms | All |

## cir-weight *number*

| | |
|---|---|
| Synopsis | CIR parameter that overrides parent for queue group |
| Context | **configure** service vpls *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* parent cir-weight *number* |
| Tree | cir-weight |
| Range | 0 to 100 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **weight** *number*

| | |
|---|---|
| Synopsis | PIR parameter that overrides parent for queue group |
| Context | **configure** service vpls *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* parent weight *number* |
| Tree | weight |
| Range | 0 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **percent-rate**

| | |
|---|---|
| Synopsis | Enter the **percent-rate** context |
| Context | **configure** service vpls *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* percent-rate |
| Tree | percent-rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cir** *decimal-number*

| | |
|---|---|
| Synopsis | CIR percent rate |
| Context | **configure** service vpls *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* percent-rate cir *decimal-number* |
| Tree | cir |
| Range | 0.00 to 100.00 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **pir** *decimal-number*

| | |
|---|---|
| Synopsis | PIR percent rate |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* percent-rate pir *decimal-number* |
| Tree | pir |
| Range | 0.01 to 100.00 |
| Introduced | 16.0.R1 |
| Platforms | All |

## rate

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** service vpls *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* rate |
| Tree | rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## cir *(number | keyword)*

| | |
|---|---|
| Synopsis | CIR rate |
| Context | **configure** service vpls *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* rate cir *(number | keyword)* |
| Tree | cir |
| Range | 0 to 6400000000 |
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | All |

## pir *(number | keyword)*

| | |
|---|---|
| Synopsis | PIR rate |
| Context | **configure** service vpls *service-name* sap *sap* ingress qos sap-ingress overrides queue *reference* rate pir *(number | keyword)* |
| Tree | pir |
| Range | 1 to 6400000000 |


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| | |
|---|---|
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | All |

## **policy-name** *reference*

| | |
|---|---|
| Synopsis | Policy ID |
| Context | **configure** service vpls *service-name* sap *sap* ingress qos sap-ingress policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos sap-ingress *qos-policy-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **queuing-type** *keyword*

| | |
|---|---|
| Synopsis | Queuing type |
| Context | **configure** service vpls *service-name* sap *sap* ingress qos sap-ingress queuing-type *keyword* |
| Tree | queuing-type |
| Options | shared, multipoint-shared |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e, VSR |

## **scheduler-policy**

| | |
|---|---|
| Synopsis | Enter the **scheduler-policy** context |
| Context | **configure** service vpls *service-name* sap *sap* ingress qos scheduler-policy |
| Tree | scheduler-policy |
| Introduced | 16.0.R1 |
| Platforms | All |

## **overrides**

| | |
|---|---|
| Synopsis | Enter the **overrides** context |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* sap *sap* ingress qos scheduler-policy overrides |
| Tree | overrides |
| Introduced | 16.0.R1 |
| Platforms | All |

## **scheduler** [scheduler-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **scheduler** list instance |
| Context | **configure** service vpls *service-name* sap *sap* ingress qos scheduler-policy overrides scheduler *named-item* |
| Tree | scheduler |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**scheduler-name**] *named-item*

| | |
|---|---|
| Synopsis | Scheduler name |
| Context | **configure** service vpls *service-name* sap *sap* ingress qos scheduler-policy overrides scheduler *named-item* |
| Tree | scheduler |
| Description | This command specifies the scheduler name which is composed of printable 7-bit ASCII characters. If the string contains special characters (#, $, spaces, and so on), the entire string must be enclosed within double quotes. Each scheduler must have a unique name within the context of the scheduler policy. However, the same name can be reused in multiple scheduler policies. If the scheduler name already exists within the policy tier level, the context changes to that scheduler name for the purpose of editing the scheduler commands.<br><br>If the scheduler name exists within the policy on a different tier, an error occurs and the current context does not change. If the scheduler name does not exist in this or another tier within the scheduler policy, it is assumed that an attempt is being made to create a scheduler of that name.<br><br>If the provided scheduler name is invalid, a name syntax error occurs, the command does not execute, and the context is not change. |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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## parent

| | |
|---|---|
| Synopsis | Enter the **parent** context |
| Context | **configure** service vpls *service-name* sap *sap* ingress qos scheduler-policy overrides scheduler *named-item* parent |
| Tree | parent |
| Introduced | 16.0.R1 |
| Platforms | All |

## cir-weight *number*

| | |
|---|---|
| Synopsis | Weight used at the within-CIR port priority level |
| Context | **configure** service vpls *service-name* sap *sap* ingress qos scheduler-policy overrides scheduler *named-item* parent cir-weight *number* |
| Tree | cir-weight |
| Range | 0 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

## weight *number*

| | |
|---|---|
| Synopsis | Relative weight of the scheduler to feed the queue |
| Context | **configure** service vpls *service-name* sap *sap* ingress qos scheduler-policy overrides scheduler *named-item* parent weight *number* |
| Tree | weight |
| Range | 0 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

## rate

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** service vpls *service-name* sap *sap* ingress qos scheduler-policy overrides scheduler *named-item* rate |
| Tree | rate |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **cir** *(number | keyword)*

| | |
|---|---|
| Synopsis | CIR at which the queue it to operate |
| Context | **configure** service vpls *service-name* sap *sap* ingress qos scheduler-policy overrides scheduler *named-item* rate cir *(number | keyword)* |
| Tree | cir |
| Range | 0 to 6400000000 |
| Units | kilobps |
| Options | sum, max |
| Introduced | 16.0.R1 |
| Platforms | All |

### **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | PIR at which the queue is to operate |
| Context | **configure** service vpls *service-name* sap *sap* ingress qos scheduler-policy overrides scheduler *named-item* rate pir *(number | keyword)* |
| Tree | pir |
| Range | 1 to 6400000000 |
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | All |

### **policy-name** *reference*

| | |
|---|---|
| Synopsis | Scheduler policy name |
| Context | **configure** service vpls *service-name* sap *sap* ingress qos scheduler-policy policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos scheduler-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |


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## qtag-manipulation

| | |
|---|---|
| Synopsis | Enter the **qtag-manipulation** context |
| Context | **configure** service vpls *service-name* sap *sap* ingress qtag-manipulation |
| Tree | qtag-manipulation |
| Introduced | 16.0.R1 |
| Platforms | All |

## c-tag *(number | keyword)*

| | |
|---|---|
| Synopsis | Inner ingress vlan translation for two service delimiting vlan values |
| Context | **configure** service vpls *service-name* sap *sap* ingress qtag-manipulation c-tag *(number \| keyword)* |
| Tree | c-tag |
| Range | 0 to 4094 |
| Options | tag-* |
| Notes | The following elements are part of a choice: **push-dot1q-vlan** or (**c-tag** and **s-tag**). |
| Introduced | 22.10.R1 |
| Platforms | All |

## push-dot1q-vlan *(number | keyword)*

| | |
|---|---|
| Synopsis | VLAN translation information |
| Context | **configure** service vpls *service-name* sap *sap* ingress qtag-manipulation push-dot1q-vlan *(number \| keyword)* |
| Tree | push-dot1q-vlan |
| Range | 0 to 4094 |
| Options | use-sap-svlan |
| Notes | The following elements are part of a choice: **push-dot1q-vlan** or (**c-tag** and **s-tag**). |
| Introduced | 16.0.R1 |
| Platforms | All |

## s-tag *number*

| | |
|---|---|
| Synopsis | Outer ingress VLAN translation for two service delimiting VLAN values |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* sap *sap* ingress qtag-manipulation s-tag *number* |
| Tree | s-tag |
| Range | 0 to 4094 |
| Notes | The following elements are part of a choice: **push-dot1q-vlan** or (**c-tag** and **s-tag**). |
| Introduced | 22.10.R1 |
| Platforms | All |

## l2pt

| | |
|---|---|
| Synopsis | Enter the **l2pt** context |
| Context | **configure** service vpls *service-name* sap *sap* l2pt |
| Tree | l2pt |
| Introduced | 16.0.R1 |
| Platforms | All |

## force-boundary

| | |
|---|---|
| Synopsis | Enable the **force-boundary** context |
| Context | **configure** service vpls *service-name* sap *sap* l2pt force-boundary |
| Tree | force-boundary |
| Introduced | 16.0.R1 |
| Platforms | All |

## protocols

| | |
|---|---|
| Synopsis | Enter the **protocols** context |
| Context | **configure** service vpls *service-name* sap *sap* l2pt force-boundary protocols |
| Tree | protocols |
| Introduced | 16.0.R1 |
| Platforms | All |

## cdp *boolean*

| | |
|---|---|
| Synopsis | Enable Cisco discovery protocol |
| Context | **configure** service vpls *service-name* sap *sap* l2pt force-boundary protocols cdp *boolean* |


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| | |
|---|---|
| Tree | cdp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **dtp** *boolean*

| | |
|---|---|
| Synopsis | Enable dynamic trunking protocol |
| Context | **configure** service vpls *service-name* sap *sap* l2pt force-boundary protocols dtp *boolean* |
| Tree | dtp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **pagp** *boolean*

| | |
|---|---|
| Synopsis | Enable port aggregation protocol |
| Context | **configure** service vpls *service-name* sap *sap* l2pt force-boundary protocols pagp *boolean* |
| Tree | pagp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **stp** *boolean*

| | |
|---|---|
| Synopsis | Enable all spanning tree protocols |
| Context | **configure** service vpls *service-name* sap *sap* l2pt force-boundary protocols stp *boolean* |
| Tree | stp |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **udld** *boolean*

| | |
|---|---|
| Synopsis | Enable unidirectional link detection |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* sap *sap* l2pt force-boundary protocols udld *boolean* |
| Tree | udld |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **vtp** *boolean*

| | |
|---|---|
| Synopsis | Enable virtual trunk protocol |
| Context | **configure** service vpls *service-name* sap *sap* l2pt force-boundary protocols vtp *boolean* |
| Tree | vtp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **termination**

| | |
|---|---|
| Synopsis | Enable the **termination** context |
| Context | **configure** service vpls *service-name* sap *sap* l2pt termination |
| Tree | termination |
| Introduced | 16.0.R1 |
| Platforms | All |

## **protocols**

| | |
|---|---|
| Synopsis | Enter the **protocols** context |
| Context | **configure** service vpls *service-name* sap *sap* l2pt termination protocols |
| Tree | protocols |
| Introduced | 16.0.R1 |
| Platforms | All |

## **cdp** *boolean*

| | |
|---|---|
| Synopsis | Enable Cisco discovery protocol |
| Context | **configure** service vpls *service-name* sap *sap* l2pt termination protocols cdp *boolean* |


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| | |
|---|---|
| Tree | cdp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **dtp** *boolean*

| | |
|---|---|
| Synopsis | Enable dynamic trunking protocol |
| Context | **configure** service vpls *service-name* sap *sap* l2pt termination protocols dtp *boolean* |
| Tree | dtp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **pagp** *boolean*

| | |
|---|---|
| Synopsis | Enable port aggregation protocol |
| Context | **configure** service vpls *service-name* sap *sap* l2pt termination protocols pagp *boolean* |
| Tree | pagp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **stp** *boolean*

| | |
|---|---|
| Synopsis | Enable all spanning tree protocols |
| Context | **configure** service vpls *service-name* sap *sap* l2pt termination protocols stp *boolean* |
| Tree | stp |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **udld** *boolean*

| | |
|---|---|
| Synopsis | Enable unidirectional link detection |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* sap *sap* l2pt termination protocols udld *boolean* |
| Tree | udld |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **vtp** *boolean*

| | |
|---|---|
| Synopsis | Enable virtual trunk protocol |
| Context | **configure** service vpls *service-name* sap *sap* l2pt termination protocols vtp *boolean* |
| Tree | vtp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## l2tpv3-session

| | |
|---|---|
| Synopsis | Enable the **l2tpv3-session** context |
| Context | **configure** service vpls *service-name* sap *sap* l2tpv3-session |
| Tree | l2tpv3-session |
| Introduced | 16.0.R4 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the session for the service |
| Context | **configure** service vpls *service-name* sap *sap* l2tpv3-session admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R4 |
| Platforms | All |


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## pseudo-wire

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **pseudo-wire** context |
| Context | **configure** service vpls *service-name* sap *sap* l2tpv3-session pseudo-wire |
| Tree | pseudo-wire |
| Introduced | 16.0.R4 |
| Platforms | All |

## ethernet

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable the Ethernet PW-type for the L2TPv3 session |
| Context | **configure** service vpls *service-name* sap *sap* l2tpv3-session pseudo-wire ethernet |
| Tree | ethernet |
| Notes | The following elements are part of a choice: **ethernet** or **ethernet-vlan-id**. |
| Introduced | 16.0.R4 |
| Platforms | All |

## ethernet-vlan-id *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Ethernet-VLAN PW-type ID for the L2TPv3 session |
| Context | **configure** service vpls *service-name* sap *sap* l2tpv3-session pseudo-wire ethernet-vlan-id *number* |
| Tree | ethernet-vlan-id |
| Range | 0 to 4095 |
| Notes | The following elements are part of a choice: **ethernet** or **ethernet-vlan-id**. |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | All |

## router

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **router** context |
| Context | **configure** service vpls *service-name* sap *sap* l2tpv3-session router |
| Tree | router |
| Introduced | 16.0.R4 |
| Platforms | All |

## group *named-item*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Tunnel group name |
| Context | **configure** service vpls *service-name* sap *sap* l2tpv3-session router group *named-item* |
| Tree | group |
| String length | 1 to 32 |
| Introduced | 16.0.R4 |
| Platforms | All |

## router-instance *router-instance-base-vprn-loose*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Router name used to identify the router instance |
| Context | **configure** service vpls *service-name* sap *sap* l2tpv3-session router router-instance *router-instance-base-vprn-loose* |
| Tree | router-instance |


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| | |
|---|---|
| String length | 1 to 64 |
| Introduced | 16.0.R4 |
| Platforms | All |

## **vc-id** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | VC ID for the L2TPv3 session |
| Context | **configure** service vpls *service-name* sap *sap* l2tpv3-session vc-id *number* |
| Tree | vc-id |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R4 |
| Platforms | All |

## **lag**

| | |
|---|---|
| Synopsis | Enter the **lag** context |
| Context | **configure** service vpls *service-name* sap *sap* lag |
| Tree | lag |
| Introduced | 16.0.R1 |
| Platforms | All |

## **link-map-profile** *number*

| | |
|---|---|
| Synopsis | LAG link map profile for a SAP or network interface |
| Context | **configure** service vpls *service-name* sap *sap* lag link-map-profile *number* |
| Tree | link-map-profile |
| Description | This command assigns a preconfigured LAG link map profile to a SAP or network interface configured on a LAG or a PW port that exists on a LAG. After an operator assigns a LAG link map profile, the system rehashes the SAP or network interface egress traffic over the LAG as required by the new configuration.<br><br>If the LAG link map profile for a SAP or network interface is deleted, the system reverts back to per-flow hashing. |
| Range | 1 to 64 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### per-link-hash

| | |
|---|---|
| Synopsis | Enter the **per-link-hash** context |
| Context | **configure** service vpls *service-name* sap *sap* lag per-link-hash |
| Tree | per-link-hash |
| Introduced | 16.0.R1 |
| Platforms | All |

### **class** *number*

| | |
|---|---|
| Synopsis | Class used on LAG egress using weighted per-link-hash |
| Context | **configure** service vpls *service-name* sap *sap* lag per-link-hash class *number* |
| Tree | class |
| Range | 1 to 3 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **weight** *number*

| | |
|---|---|
| Synopsis | Weight used on LAG egress using weighted per-link-hash |
| Context | **configure** service vpls *service-name* sap *sap* lag per-link-hash weight *number* |
| Tree | weight |
| Range | 1 to 1024 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### managed-vlan-list

| | |
|---|---|
| Synopsis | Enter the **managed-vlan-list** context |
| Context | **configure** service vpls *service-name* sap *sap* managed-vlan-list |


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| | |
|---|---|
| Tree | managed-vlan-list |
| Introduced | 19.10.R1 |
| Platforms | All |

### **range** [vlan-range] *string*

| | |
|---|---|
| Synopsis | Add a list entry for **range** |
| Context | **configure** service vpls *service-name* sap *sap* managed-vlan-list range *string* |
| Tree | range |
| Introduced | 19.10.R1 |
| Platforms | All |

### [**vlan-range**] *string*

| | |
|---|---|
| Synopsis | Range of VLANs associated with the M-VPLS SAP |
| Context | **configure** service vpls *service-name* sap *sap* managed-vlan-list range *string* |
| Tree | range |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **mc-ring**

| | |
|---|---|
| Synopsis | Enable the **mc-ring** context |
| Context | **configure** service vpls *service-name* sap *sap* mc-ring |
| Tree | mc-ring |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ring-node** *named-item*

| | |
|---|---|
| Synopsis | Name for the ring node associated with this SAP |
| Context | **configure** service vpls *service-name* sap *sap* mc-ring ring-node *named-item* |
| Tree | ring-node |
| String length | 1 to 32 |


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| | |
|---|---|
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## mld-snooping

| | |
|---|---|
| Synopsis | Enter the **mld-snooping** context |
| Context | **configure** service vpls *service-name* sap *sap* mld-snooping |
| Tree | mld-snooping |
| Introduced | 16.0.R1 |
| Platforms | All |

## fast-leave *boolean*

| | |
|---|---|
| Synopsis | Allow IGMP fast leave processing |
| Context | **configure** service vpls *service-name* sap *sap* mld-snooping fast-leave *boolean* |
| Tree | fast-leave |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## import-policy *reference*

| | |
|---|---|
| Synopsis | Import policy that filters IGMP packets |
| Context | **configure** service vpls *service-name* sap *sap* mld-snooping import-policy *reference* |
| Tree | import-policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Introduced | 16.0.R1 |
| Platforms | All |

## maximum-number-groups *number*

| | |
|---|---|
| Synopsis | Maximum groups allowed |
| Context | **configure** service vpls *service-name* sap *sap* mld-snooping maximum-number-groups *number* |


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| | |
|---|---|
| Tree | maximum-number-groups |
| Range | 1 to 16000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mrouter-port** *boolean*

| | |
|---|---|
| Synopsis | Operate port as a multicast router port |
| Context | **configure** service vpls *service-name* sap *sap* mld-snooping mrouter-port *boolean* |
| Tree | mrouter-port |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mvr**

| | |
|---|---|
| Synopsis | Enter the **mvr** context |
| Context | **configure** service vpls *service-name* sap *sap* mld-snooping mvr |
| Tree | mvr |
| Introduced | 16.0.R1 |
| Platforms | All |

### **from-vpls** *reference*

| | |
|---|---|
| Synopsis | MVR VPLS from which the multicast channels are taken |
| Context | **configure** service vpls *service-name* sap *sap* mld-snooping mvr from-vpls *reference* |
| Tree | from-vpls |
| Reference | **configure** service vpls *service-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **to-sap** *sap*

| | |
|---|---|
| Synopsis | SAP to which the multicast channels are copied |
| Context | **configure** service vpls *service-name* sap *sap* mld-snooping mvr to-sap *sap* |


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| | |
|---|---|
| Tree | to-sap |
| String length | 1 to 45 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **query-interval** *number*

| | |
|---|---|
| Synopsis | Time between two consecutive host-query messages |
| Context | **configure** service vpls *service-name* sap *sap* mld-snooping query-interval *number* |
| Tree | query-interval |
| Range | 2 to 1024 |
| Units | seconds |
| Default | 125 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **query-last-member-interval** *number*

| | |
|---|---|
| Synopsis | Time between group-specific query messages |
| Context | **configure** service vpls *service-name* sap *sap* mld-snooping query-last-member-interval *number* |
| Tree | query-last-member-interval |
| Range | 1 to 50 |
| Units | deciseconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **query-response-interval** *number*

| | |
|---|---|
| Synopsis | Time to wait for a response to the host-query messages |
| Context | **configure** service vpls *service-name* sap *sap* mld-snooping query-response-interval *number* |
| Tree | query-response-interval |
| Range | 1 to 1023 |
| Units | seconds |


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| | |
|---|---|
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **robust-count** *number*

| | |
|---|---|
| Synopsis | Number of retries after expected message loss |
| Context | **configure** service vpls *service-name* sap *sap* mld-snooping robust-count *number* |
| Tree | robust-count |
| Range | 2 to 7 |
| Default | 2 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **router-alert-check** *boolean*

| | |
|---|---|
| Synopsis | Enable IP router alert check option |
| Context | **configure** service vpls *service-name* sap *sap* mld-snooping router-alert-check *boolean* |
| Tree | router-alert-check |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **send-queries** *boolean*

| | |
|---|---|
| Synopsis | Generate IGMP general queries |
| Context | **configure** service vpls *service-name* sap *sap* mld-snooping send-queries *boolean* |
| Tree | send-queries |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **static**

| | |
|---|---|
| Synopsis | Enter the **static** context |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* sap *sap* mld-snooping static |
| Tree | static |
| Introduced | 16.0.R1 |
| Platforms | All |

### **group** [group-address] *ipv6-multicast-address*

| | |
|---|---|
| Synopsis | Enter the **group** list instance |
| Context | **configure** service vpls *service-name* sap *sap* mld-snooping static group *ipv6-multicast-address* |
| Tree | group |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**group-address**] *ipv6-multicast-address*

| | |
|---|---|
| Synopsis | Group address of multicast channel |
| Context | **configure** service vpls *service-name* sap *sap* mld-snooping static group *ipv6-multicast-address* |
| Tree | group |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **source** [source-address] *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Add a list entry for **source** |
| Context | **configure** service vpls *service-name* sap *sap* mld-snooping static group *ipv6-multicast-address* source *ipv6-unicast-address* |
| Tree | source |
| Notes | The following elements are part of a mandatory choice: **source** or **starg**. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**source-address**] *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Source IP address |
| Context | **configure** service vpls *service-name* sap *sap* mld-snooping static group *ipv6-multicast-address* source *ipv6-unicast-address* |
| Tree | source |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R2 |
| Platforms | All |

### **starg**

| | |
|---|---|
| Synopsis | any source address (*,G) |
| Context | **configure** service vpls *service-name* sap *sap* mld-snooping static group *ipv6-multicast-address* starg |
| Tree | starg |
| Notes | The following elements are part of a mandatory choice: **source** or **starg**. |
| Introduced | 16.0.R2 |
| Platforms | All |

### **version** *keyword*

| | |
|---|---|
| Synopsis | Version of MLD running on the SAP or SDP |
| Context | **configure** service vpls *service-name* sap *sap* mld-snooping version *keyword* |
| Tree | version |
| Options | 1, 2 |
| Default | 2 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **monitor-oper-group** *reference*

| | |
|---|---|
| Synopsis | Monitor operational group |
| Context | **configure** service vpls *service-name* sap *sap* monitor-oper-group *reference* |
| Tree | monitor-oper-group |


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| | |
|---|---|
| Reference | **configure** service oper-group *named-item* |
| Notes | The following elements are part of a choice: **monitor-oper-group** or **oper-group**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## mrp

| | |
|---|---|
| Synopsis | Enter the **mrp** context |
| Context | **configure** service vpls *service-name* sap *sap* mrp |
| Tree | mrp |
| Introduced | 20.10.R1 |
| Platforms | All |

## join-time *number*

| | |
|---|---|
| Synopsis | Interval between transmit opportunities |
| Context | **configure** service vpls *service-name* sap *sap* mrp join-time *number* |
| Tree | join-time |
| Range | 1 to 10 |
| Default | 2 |
| Introduced | 20.10.R1 |
| Platforms | All |

## leave-all-time *number*

| | |
|---|---|
| Synopsis | Frequency that LeaveAll PDUs are generated |
| Context | **configure** service vpls *service-name* sap *sap* mrp leave-all-time *number* |
| Tree | leave-all-time |
| Range | 60 to 300 |
| Default | 100 |
| Introduced | 20.10.R1 |
| Platforms | All |


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### **leave-time** *number*

| | |
|---|---|
| Synopsis | Time in leave state before transitioning to MT state |
| Context | **configure** service vpls *service-name* sap *sap* mrp leave-time *number* |
| Tree | leave-time |
| Range | 30 to 60 |
| Default | 30 |
| Introduced | 20.10.R1 |
| Platforms | All |

### **periodic-time** *number*

| | |
|---|---|
| Synopsis | Frequency of periodic events generation |
| Context | **configure** service vpls *service-name* sap *sap* mrp periodic-time *number* |
| Tree | periodic-time |
| Range | 10 to 100 |
| Default | 10 |
| Introduced | 20.10.R1 |
| Platforms | All |

### **periodic-timer** *boolean*

| | |
|---|---|
| Synopsis | Enable the periodic transmission timer |
| Context | **configure** service vpls *service-name* sap *sap* mrp periodic-timer *boolean* |
| Tree | periodic-timer |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | All |

### **policy** *reference*

| | |
|---|---|
| Synopsis | MMRP policy name |
| Context | **configure** service vpls *service-name* sap *sap* mrp policy *reference* |
| Tree | policy |
| Reference | **configure** service mrp policy *named-item* |


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| | |
|---|---|
| Introduced | 20.10.R1 |
| Platforms | All |

### **multi-service-site** *reference*

| | |
|---|---|
| Synopsis | Multi service site name |
| Context | **configure** service vpls *service-name* sap *sap* multi-service-site *reference* |
| Tree | multi-service-site |
| Reference | **configure** service customer *customer-name* multi-service-site *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **oper-group** *reference*

| | |
|---|---|
| Synopsis | Operational group |
| Context | **configure** service vpls *service-name* sap *sap* oper-group *reference* |
| Tree | oper-group |
| Reference | **configure** service oper-group *named-item* |
| Notes | The following elements are part of a choice: **monitor-oper-group** or **oper-group**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **pbb**

| | |
|---|---|
| Synopsis | Enter the **pbb** context |
| Context | **configure** service vpls *service-name* sap *sap* pbb |
| Tree | pbb |
| Introduced | 20.10.R1 |
| Platforms | All |

### **fault-propagation**

| | |
|---|---|
| Synopsis | Enter the **fault-propagation** context |
| Context | **configure** service vpls *service-name* sap *sap* pbb fault-propagation |
| Tree | fault-propagation |


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| | |
|---|---|
| Introduced | 20.10.R1 |
| Platforms | All |

### **backbone-mac-address** [address] *mac-unicast-address-no-zero*

| | |
|---|---|
| Synopsis | Add a list entry for **backbone-mac-address** |
| Context | **configure** service vpls *service-name* sap *sap* pbb fault-propagation backbone-mac-address *mac-unicast-address-no-zero* |
| Tree | backbone-mac-address |
| Introduced | 20.10.R1 |
| Platforms | All |

### [**address**] *mac-unicast-address-no-zero*

| | |
|---|---|
| Synopsis | Backbone MAC address |
| Context | **configure** service vpls *service-name* sap *sap* pbb fault-propagation backbone-mac-address *mac-unicast-address-no-zero* |
| Tree | backbone-mac-address |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | All |

### **backbone-mac-name** [name] *reference*

| | |
|---|---|
| Synopsis | Add a list entry for **backbone-mac-name** |
| Context | **configure** service vpls *service-name* sap *sap* pbb fault-propagation backbone-mac-name *reference* |
| Tree | backbone-mac-name |
| Introduced | 20.10.R1 |
| Platforms | All |

### [**name**] *reference*

| | |
|---|---|
| Synopsis | Backbone MAC address name |
| Context | **configure** service vpls *service-name* sap *sap* pbb fault-propagation backbone-mac-name *reference* |


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| | |
|---|---|
| Tree | backbone-mac-name |
| Reference | **configure** service pbb mac *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | All |

## pim-snooping

| | |
|---|---|
| Synopsis | Enter the **pim-snooping** context |
| Context | **configure** service vpls *service-name* sap *sap* pim-snooping |
| Tree | pim-snooping |
| Introduced | 16.0.R1 |
| Platforms | All |

## maximum-number-groups *number*

| | |
|---|---|
| Synopsis | Maximum groups for this interface |
| Context | **configure** service vpls *service-name* sap *sap* pim-snooping maximum-number-groups *number* |
| Tree | maximum-number-groups |
| Range | 1 to 16000 |
| Introduced | 16.0.R1 |
| Platforms | All |

## process-cpm-traffic-on-sap-down *boolean*

| | |
|---|---|
| Synopsis | Process CPM traffic on SAP down event |
| Context | **configure** service vpls *service-name* sap *sap* process-cpm-traffic-on-sap-down *boolean* |
| Tree | process-cpm-traffic-on-sap-down |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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## qtag-normalization

| | |
|---|---|
| Synopsis | Enable the **qtag-normalization** context |
| Context | **configure** service vpls *service-name* sap *sap* qtag-normalization |
| Tree | qtag-normalization |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

## double-tag

| | |
|---|---|
| Synopsis | Enter the **double-tag** context |
| Context | **configure** service vpls *service-name* sap *sap* qtag-normalization double-tag |
| Tree | double-tag |
| Notes | The following elements are part of a choice: **double-tag** or **single-tag**. |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

## c-tag *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | C-tag value used for the tag normalization |
| Context | **configure** service vpls *service-name* sap *sap* qtag-normalization double-tag c-tag *number* |
| Tree | c-tag |
| Description | This command configures the normalized C-tag for the SAP. When configured, the tag value is pushed as the C-tag (inner tag) into the frames coming from this SAP and sent to EVPN. On network ingress, the inner and outer VLAN tags are looked up and the frames matching this value and the normalized S-tag value are sent to the associated SAP.<br><br>When unconfigured, the normalized C-tag is derived from the service delimiting C-tag. |
| Range | 0 to 4094 |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |


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## **s-tag** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | S-tag value used for the tag normalization |
| Context | **configure** service vpls *service-name* sap *sap* qtag-normalization double-tag s-tag *number* |
| Tree | s-tag |
| Description | This command configures the normalized S-tag for the SAP. When configured, the tag value is pushed as the S-tag (outer tag) into the frames coming from this SAP and sent to EVPN. On network ingress, the inner and outer VLAN tags are looked up and the frames matching this value and the normalized C-tag value are sent to the associated SAP.<br>When unconfigured, the normalized S-tag is derived from the service delimiting S-tag. |
| Range | 0 to 4094 |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

## **single-tag**

| | |
|---|---|
| Synopsis | Enter the **single-tag** context |
| Context | **configure** service vpls *service-name* sap *sap* qtag-normalization single-tag |
| Tree | single-tag |
| Notes | The following elements are part of a choice: **double-tag** or **single-tag**. |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

## **tag** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Tag normalization value |
| Context | **configure** service vpls *service-name* sap *sap* qtag-normalization single-tag tag *number* |
| Tree | tag |


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| | |
|---|---|
| Description | This command configures the normalized S-tag for the SAP. When configured, the tag value is pushed as the S-tag (outer tag) into the frames coming from this SAP and sent to EVPN. On network ingress, the inner and outer VLAN tags are looked up and the frames matching this value and the normalized C-tag value are sent to the associated SAP.<br>When unconfigured, the normalized S-tag is derived from the service delimiting S-tag. |
| Range | 0 to 4094 |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

## **radius-auth-policy** *reference*

| | |
|---|---|
| Synopsis | RADIUS authentication policy |
| Context | **configure** service vpls *service-name* sap *sap* radius-auth-policy *reference* |
| Tree | radius-auth-policy |
| Reference | **configure** subscriber-mgmt radius-authentication-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **shcv-policy-ipv4** *reference*

| | |
|---|---|
| Synopsis | Subscriber host connectivity verification policy for IPv4 |
| Context | **configure** service vpls *service-name* sap *sap* shcv-policy-ipv4 *reference* |
| Tree | shcv-policy-ipv4 |
| Reference | **configure** subscriber-mgmt shcv-policy *external-named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **spb**

| | |
|---|---|
| Synopsis | Enable the **spb** context |
| Context | **configure** service vpls *service-name* sap *sap* spb |
| Tree | spb |
| Introduced | 21.10.R1 |
| Platforms | All |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Admin state |
| Context | **configure** service vpls *service-name* sap *sap* spb admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.10.R1 |
| Platforms | All |

### **level** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **level** list instance |
| Context | **configure** service vpls *service-name* sap *sap* spb level *number* |
| Tree | level |
| Introduced | 21.10.R1 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | Level identifier |
| Context | **configure** service vpls *service-name* sap *sap* spb level *number* |
| Tree | level |
| Range | 1 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | All |

### **hello-interval** *number*

| | |
|---|---|
| Synopsis | Hello interval |
| Context | **configure** service vpls *service-name* sap *sap* spb level *number* hello-interval *number* |
| Tree | hello-interval |
| Range | 1 to 20000 |
| Units | seconds |


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| | |
|---|---|
| Default | 9 |
| Introduced | 21.10.R1 |
| Platforms | All |

### **hello-multiplier** *number*

| | |
|---|---|
| Synopsis | Hello multiplier |
| Context | **configure** service vpls *service-name* sap *sap* spb level *number* hello-multiplier *number* |
| Tree | hello-multiplier |
| Range | 2 to 100 |
| Default | 3 |
| Introduced | 21.10.R1 |
| Platforms | All |

### **metric** *number*

| | |
|---|---|
| Synopsis | Metric |
| Context | **configure** service vpls *service-name* sap *sap* spb level *number* metric *number* |
| Tree | metric |
| Range | 0 to 16777215 |
| Default | 0 |
| Introduced | 21.10.R1 |
| Platforms | All |

### **lsp-pacing-interval** *number*

| | |
|---|---|
| Synopsis | Lsp pacing interval |
| Context | **configure** service vpls *service-name* sap *sap* spb lsp-pacing-interval *number* |
| Tree | lsp-pacing-interval |
| Range | 0 to 65535 |
| Units | milliseconds |
| Default | 100 |
| Introduced | 21.10.R1 |
| Platforms | All |


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### **retransmit-interval** *number*

| | |
|---|---|
| Synopsis | Retransmit interval |
| Context | **configure** service vpls *service-name* sap *sap* spb retransmit-interval *number* |
| Tree | retransmit-interval |
| Range | 1 to 65535 |
| Units | seconds |
| Default | 5 |
| Introduced | 21.10.R1 |
| Platforms | All |

### **split-horizon-group** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Split horizon group |
| Context | **configure** service vpls *service-name* sap *sap* split-horizon-group *reference* |
| Tree | split-horizon-group |
| Reference | **configure** service vpls *service-name* split-horizon-group *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **static-host**

| | |
|---|---|
| Synopsis | Enter the **static-host** context |
| Context | **configure** service vpls *service-name* sap *sap* static-host |
| Tree | static-host |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ipv4** [ip] *ipv4-address* mac *mac-unicast-address*

| | |
|---|---|
| Synopsis | Enter the **ipv4** list instance |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* sap *sap* static-host ipv4 *ipv4-address* mac *mac-unicast-address* |
| Tree | ipv4 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**ip**] *ipv4-address*

| | |
|---|---|
| Synopsis | IP address |
| Context | **configure** service vpls *service-name* sap *sap* static-host ipv4 *ipv4-address* mac *mac-unicast-address* |
| Tree | ipv4 |
| MD-CLI default | 0.0.0.0 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **mac** *mac-unicast-address*

| | |
|---|---|
| Synopsis | MAC address |
| Context | **configure** service vpls *service-name* sap *sap* static-host ipv4 *ipv4-address* mac *mac-unicast-address* |
| Tree | ipv4 |
| MD-CLI default | 00:00:00:00:00:00 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the static host |
| Context | **configure** service vpls *service-name* sap *sap* static-host ipv4 *ipv4-address* mac *mac-unicast-address* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |


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| | |
|---|---|
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **ancp-string** *ancp-string*

| | |
|---|---|
| Synopsis | ANCP string |
| Context | **configure** service vpls *service-name* sap *sap* static-host ipv4 *ipv4-address* mac *mac-unicast-address* ancp-string *ancp-string* |
| Tree | ancp-string |
| String length | 1 to 63 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **app-profile**

| | |
|---|---|
| Synopsis | Enter the **app-profile** context |
| Context | **configure** service vpls *service-name* sap *sap* static-host ipv4 *ipv4-address* mac *mac-unicast-address* app-profile |
| Tree | app-profile |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **profile** *reference*

| | |
|---|---|
| Synopsis | Application profile used by the static host |
| Context | **configure** service vpls *service-name* sap *sap* static-host ipv4 *ipv4-address* mac *mac-unicast-address* app-profile profile *reference* |
| Tree | profile |
| Reference | **configure** application-assurance group *number* partition *number* policy app-profile *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **int-dest-id** *int-dest-id*

| | |
|---|---|
| Synopsis | Intermediate destination ID |
| Context | **configure** service vpls *service-name* sap *sap* static-host ipv4 *ipv4-address* mac *mac-unicast-address* int-dest-id *int-dest-id* |
| Tree | int-dest-id |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **shcv**

| | |
|---|---|
| Synopsis | Enter the **shcv** context |
| Context | **configure** service vpls *service-name* sap *sap* static-host ipv4 *ipv4-address* mac *mac-unicast-address* shcv |
| Tree | shcv |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sla-profile** *reference*

| | |
|---|---|
| Synopsis | SLA profile name |
| Context | **configure** service vpls *service-name* sap *sap* static-host ipv4 *ipv4-address* mac *mac-unicast-address* sla-profile *reference* |
| Tree | sla-profile |
| Reference | **configure** subscriber-mgmt sla-profile *external-named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sub-profile** *reference*

| | |
|---|---|
| Synopsis | Sub-profile name |
| Context | **configure** service vpls *service-name* sap *sap* static-host ipv4 *ipv4-address* mac *mac-unicast-address* sub-profile *reference* |
| Tree | sub-profile |
| Reference | **configure** subscriber-mgmt sub-profile *external-named-item* |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## subscriber-id

| | |
|---|---|
| Synopsis | Enter the **subscriber-id** context |
| Context | **configure** service vpls *service-name* sap *sap* static-host ipv4 *ipv4-address* mac *mac-unicast-address* subscriber-id |
| Tree | subscriber-id |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## string *subscriber-id*

| | |
|---|---|
| Synopsis | Subscriber identification |
| Context | **configure** service vpls *service-name* sap *sap* static-host ipv4 *ipv4-address* mac *mac-unicast-address* subscriber-id string *subscriber-id* |
| Tree | string |
| String length | 1 to 64 |
| Notes | The following elements are part of a choice: **string** or **use-sap-id**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## use-sap-id

| | |
|---|---|
| Synopsis | Use the SAP id as subscriber ID |
| Context | **configure** service vpls *service-name* sap *sap* static-host ipv4 *ipv4-address* mac *mac-unicast-address* subscriber-id use-sap-id |
| Tree | use-sap-id |
| Notes | The following elements are part of a choice: **string** or **use-sap-id**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## static-isid

| | |
|---|---|
| Synopsis | Enter the **static-isid** context |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* sap *sap* static-isid |
| Tree | static-isid |
| Introduced | 19.10.R1 |
| Platforms | All |

### **range** [range-id] *number*

| | |
|---|---|
| Synopsis | Enter the **range** list instance |
| Context | **configure** service vpls *service-name* sap *sap* static-isid range *number* |
| Tree | range |
| Introduced | 19.10.R1 |
| Platforms | All |

### [**range-id**] *number*

| | |
|---|---|
| Synopsis | Range ID for static ISID |
| Context | **configure** service vpls *service-name* sap *sap* static-isid range *number* |
| Tree | range |
| Range | 1 to 8191 |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the ISID range |
| Context | **configure** service vpls *service-name* sap *sap* static-isid range *number* end *number* |
| Tree | end |
| Range | 1 to 16777215 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of the ISID range |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* sap *sap* static-isid range *number* start *number* |
| Tree | start |
| Range | 1 to 16777215 |
| Introduced | 19.10.R1 |
| Platforms | All |

## stp

| | |
|---|---|
| Synopsis | Enter the **stp** context |
| Context | **configure** service vpls *service-name* sap *sap* stp |
| Tree | stp |
| Introduced | 16.0.R4 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of STP |
| Context | **configure** service vpls *service-name* sap *sap* stp admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Introduced | 16.0.R4 |
| Platforms | All |

## auto-edge *boolean*

| | |
|---|---|
| Synopsis | Enable automatic detection of edge port characteristics |
| Context | **configure** service vpls *service-name* sap *sap* stp auto-edge *boolean* |
| Tree | auto-edge |
| Description | When configured to **true**, the router automatically detects the edge port characteristics of the SAP or spoke SDP. The STP concludes there is no bridge behind the spoke SDP, the OPER_EDGE variable is dynamically set to **true**. If a BPDU is received, the OPER_EDGE variable is dynamically set to **false**.<br>When configured to **false**, the router disables automatic detection. |
| Default | true |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **edge-port** *boolean*

| | |
|---|---|
| Synopsis | Designate SAP or SDP as an edge port |
| Context | **configure** service vpls *service-name* sap *sap* stp edge-port *boolean* |
| Tree | edge-port |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **link-type** *keyword*

| | |
|---|---|
| Synopsis | Configure STP link-type |
| Context | **configure** service vpls *service-name* sap *sap* stp link-type *keyword* |
| Tree | link-type |
| Options | pt-pt, shared |
| Default | pt-pt |
| Introduced | 16.0.R4 |
| Platforms | All |

### **mst-instance** [mst-inst-number] *number*

| | |
|---|---|
| Synopsis | Enter the **mst-instance** list instance |
| Context | **configure** service vpls *service-name* sap *sap* stp mst-instance *number* |
| Tree | mst-instance |
| Introduced | 19.10.R1 |
| Platforms | All |

### [**mst-inst-number**] *number*

| | |
|---|---|
| Synopsis | Multiple Spanning Tree Instance number |
| Context | **configure** service vpls *service-name* sap *sap* stp mst-instance *number* |
| Tree | mst-instance |
| Range | 1 to 4094 |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |


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| | |
|---|---|
| Platforms | All |

### **mst-path-cost** *number*

| | |
|---|---|
| Synopsis | MSTI path cost |
| Context | **configure** service vpls *service-name* sap *sap* stp mst-instance *number* mst-path-cost *number* |
| Tree | mst-path-cost |
| Range | 1 to 200000000 |
| Default | 10 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **mst-port-priority** *number*

| | |
|---|---|
| Synopsis | MSTI port priority |
| Context | **configure** service vpls *service-name* sap *sap* stp mst-instance *number* mst-port-priority *number* |
| Tree | mst-port-priority |
| Range | 0 \| 16 \| 32 \| 48 \| 64 \| 80 \| 96 \| 112 \| 128 \| 144 \| 160 \| 176 \| 192 \| 208 \| 224 \| 240 |
| Default | 128 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **path-cost** *number*

| | |
|---|---|
| Synopsis | Configure path-cost |
| Context | **configure** service vpls *service-name* sap *sap* stp path-cost *number* |
| Tree | path-cost |
| Range | 1 to 200000000 |
| Default | 10 |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **port-num** *number*

| | |
|---|---|
| Synopsis | Configure virtual port number |
| Context | **configure** service vpls *service-name* sap *sap* stp port-num *number* |
| Tree | port-num |
| Range | 1 to 2047 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **priority** *number*

| | |
|---|---|
| Synopsis | Configure STP priority |
| Context | **configure** service vpls *service-name* sap *sap* stp priority *number* |
| Tree | priority |
| Range | 0 to 255 |
| Default | 128 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **root-guard** *boolean*

| | |
|---|---|
| Synopsis | Enable/disable STP root-guard |
| Context | **configure** service vpls *service-name* sap *sap* stp root-guard *boolean* |
| Tree | root-guard |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **sub-sla-mgmt**

| | |
|---|---|
| Synopsis | Enter the **sub-sla-mgmt** context |
| Context | **configure** service vpls *service-name* sap *sap* sub-sla-mgmt |
| Tree | sub-sla-mgmt |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of SAP subscriber management |
| Context | **configure** service vpls *service-name* sap *sap* sub-sla-mgmt admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **defaults**

| | |
|---|---|
| Synopsis | Enter the **defaults** context |
| Context | **configure** service vpls *service-name* sap *sap* sub-sla-mgmt defaults |
| Tree | defaults |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **app-profile** *reference*

| | |
|---|---|
| Synopsis | Default application profile name for this SAP |
| Context | **configure** service vpls *service-name* sap *sap* sub-sla-mgmt defaults app-profile *reference* |
| Tree | app-profile |
| Reference | **configure** application-assurance group *number* partition *number* policy app-profile *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **int-dest-id**

| | |
|---|---|
| Synopsis | Enter the **int-dest-id** context |
| Context | **configure** service vpls *service-name* sap *sap* sub-sla-mgmt defaults int-dest-id |
| Tree | int-dest-id |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **string** *int-dest-id*

| | |
|---|---|
| Synopsis | Use the configured string |
| Context | **configure** service vpls *service-name* sap *sap* sub-sla-mgmt defaults int-dest-id string *int-dest-id* |
| Tree | string |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **string** or **top-q-tag**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **top-q-tag**

| | |
|---|---|
| Synopsis | Use the top Q-tag of this SAP |
| Context | **configure** service vpls *service-name* sap *sap* sub-sla-mgmt defaults int-dest-id top-q-tag |
| Tree | top-q-tag |
| Notes | The following elements are part of a choice: **string** or **top-q-tag**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sla-profile** *reference*

| | |
|---|---|
| Synopsis | Default SLA profile for hosts on this SAP |
| Context | **configure** service vpls *service-name* sap *sap* sub-sla-mgmt defaults sla-profile *reference* |
| Tree | sla-profile |
| Reference | **configure** subscriber-mgmt sla-profile *external-named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sub-profile** *reference*

| | |
|---|---|
| Synopsis | Default subscriber profile for the SAP |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* sap *sap* sub-sla-mgmt defaults sub-profile *reference* |
| Tree | sub-profile |
| Reference | **configure** subscriber-mgmt sub-profile *external-named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## subscriber-id

| | |
|---|---|
| Synopsis | Enter the **subscriber-id** context |
| Context | **configure** service vpls *service-name* sap *sap* sub-sla-mgmt defaults subscriber-id |
| Tree | subscriber-id |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## auto-id

| | |
|---|---|
| Synopsis | Use auto-generated subscriber identification string |
| Context | **configure** service vpls *service-name* sap *sap* sub-sla-mgmt defaults subscriber-id auto-id |
| Tree | auto-id |
| Notes | The following elements are part of a choice: **auto-id**, **sap-id**, or **string**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## sap-id

| | |
|---|---|
| Synopsis | Use SAP ID as default subscriber identification string |
| Context | **configure** service vpls *service-name* sap *sap* sub-sla-mgmt defaults subscriber-id sap-id |
| Tree | sap-id |
| Notes | The following elements are part of a choice: **auto-id**, **sap-id**, or **string**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **string** *subscriber-id*

| | |
|---|---|
| Synopsis | Default subscriber identification string for the SAP |
| Context | **configure** service vpls *service-name* sap *sap* sub-sla-mgmt defaults subscriber-id string *subscriber-id* |
| Tree | string |
| String length | 1 to 64 |
| Notes | The following elements are part of a choice: **auto-id**, **sap-id**, or **string**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **mac-da-hashing** *boolean*

| | |
|---|---|
| Synopsis | Use destination MAC address instead of subscriber ID to select egress LAG link |
| Context | **configure** service vpls *service-name* sap *sap* sub-sla-mgmt mac-da-hashing *boolean* |
| Tree | mac-da-hashing |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **single-sub-parameters**

| | |
|---|---|
| Synopsis | Enter the **single-sub-parameters** context |
| Context | **configure** service vpls *service-name* sap *sap* sub-sla-mgmt single-sub-parameters |
| Tree | single-sub-parameters |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **non-sub-traffic**

| | |
|---|---|
| Synopsis | Enable the **non-sub-traffic** context |
| Context | **configure** service vpls *service-name* sap *sap* sub-sla-mgmt single-sub-parameters non-sub-traffic |
| Tree | non-sub-traffic |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **app-profile** *reference*

| | |
|---|---|
| Synopsis | Application profile name for all non-subscriber traffic |
| Context | **configure** service vpls *service-name* sap *sap* sub-sla-mgmt single-sub-parameters non-sub-traffic app-profile *reference* |
| Tree | app-profile |
| Reference | **configure** application-assurance group *number* partition *number* policy app-profile *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **sla-profile** *reference*

| | |
|---|---|
| Synopsis | SLA profile applicable for all non-subscriber traffic |
| Context | **configure** service vpls *service-name* sap *sap* sub-sla-mgmt single-sub-parameters non-sub-traffic sla-profile *reference* |
| Tree | sla-profile |
| Reference | **configure** subscriber-mgmt sla-profile *external-named-item* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sub-profile** *reference*

| | |
|---|---|
| Synopsis | Subscriber profile all non-subscriber traffic |
| Context | **configure** service vpls *service-name* sap *sap* sub-sla-mgmt single-sub-parameters non-sub-traffic sub-profile *reference* |
| Tree | sub-profile |
| Reference | **configure** subscriber-mgmt sub-profile *external-named-item* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **subscriber-id** *subscriber-id*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Subscriber ID applied for all non-subscriber traffic |
| Context | **configure** service vpls *service-name* sap *sap* sub-sla-mgmt single-sub-parameters non-sub-traffic subscriber-id *subscriber-id* |
| Tree | subscriber-id |
| String length | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **profiled-traffic-only** *boolean*

| | |
|---|---|
| Synopsis | Include all traffic in subscriber profile |
| Context | **configure** service vpls *service-name* sap *sap* sub-sla-mgmt single-sub-parameters profiled-traffic-only *boolean* |
| Tree | profiled-traffic-only |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sub-ident-policy** *reference*

| | |
|---|---|
| Synopsis | Subscriber identification policy used on this SAP |
| Context | **configure** service vpls *service-name* sap *sap* sub-sla-mgmt sub-ident-policy *reference* |
| Tree | sub-ident-policy |
| Reference | **configure** subscriber-mgmt sub-ident-policy *external-named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **subscriber-limit** *(keyword | number)*

| | |
|---|---|
| Synopsis | Maximum number of subscribers on this SAP |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* sap *sap* sub-sla-mgmt subscriber-limit *(keyword \| number)* |
| Tree | subscriber-limit |
| Range | 1 to 131071 |
| Options | no-limit |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## transit-policy

| | |
|---|---|
| Synopsis | Enable the **transit-policy** context |
| Context | **configure** service vpls *service-name* sap *sap* transit-policy |
| Tree | transit-policy |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## ip *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IP transit policy ID |
| Context | **configure** service vpls *service-name* sap *sap* transit-policy ip *reference* |
| Tree | ip |
| Reference | **configure** application-assurance group *number* partition *number* transit-ip-policy *number* |
| Notes | The following elements are part of a mandatory choice: **ip** or **prefix**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **prefix** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IP prefix policy ID |
| Context | **configure** service vpls *service-name* sap *sap* transit-policy prefix *reference* |
| Tree | prefix |
| Reference | **configure** application-assurance group *number* partition *number* transit-prefix-policy *number* |
| Notes | The following elements are part of a mandatory choice: **ip** or **prefix**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **segment-routing-v6** [instance] *number*

| | |
|---|---|
| Synopsis | Enter the **segment-routing-v6** list instance |
| Context | **configure** service vpls *service-name* segment-routing-v6 *number* |
| Tree | segment-routing-v6 |
| Max. instances | 1 |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### [**instance**] *number*

| | |
|---|---|
| Synopsis | Segment routing v6 instance |
| Context | **configure** service vpls *service-name* segment-routing-v6 *number* |
| Tree | segment-routing-v6 |
| Range | 1 |
| Notes | This element is part of a list key. |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |


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### **locator** [locator-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **locator** list instance |
| Context | **configure** service vpls *service-name* segment-routing-v6 *number* locator *reference* |
| Tree | locator |
| Max. instances | 1 |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### [**locator-name**] *reference*

| | |
|---|---|
| Synopsis | SRv6 locator name |
| Context | **configure** service vpls *service-name* segment-routing-v6 *number* locator *reference* |
| Tree | locator |
| Reference | **configure** router *named-item-64* segment-routing segment-routing-v6 locator *named-item-64* |
| Notes | This element is part of a list key. |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **function**

| | |
|---|---|
| Synopsis | Enter the **function** context |
| Context | **configure** service vpls *service-name* segment-routing-v6 *number* locator *reference* function |
| Tree | function |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **end-dt2m**

| | |
|---|---|
| Synopsis | Enable the **end-dt2m** context |
| Context | **configure** service vpls *service-name* segment-routing-v6 *number* locator *reference* function end-dt2m |
| Tree | end-dt2m |


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| | |
|---|---|
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **value** *number*

| | |
|---|---|
| Synopsis | SRv6 function value |
| Context | **configure** service vpls *service-name* segment-routing-v6 *number* locator *reference* function end-dt2m value *number* |
| Tree | value |
| Description | This command assigns the optional static function value for the routes in the VPRN, VPLS, or Epipe instance.<br>When unconfigured, the system allocates a value dynamically. |
| Range | 1 to 1048575 |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **end-dt2u**

| | |
|---|---|
| Synopsis | Enable the **end-dt2u** context |
| Context | **configure** service vpls *service-name* segment-routing-v6 *number* locator *reference* function end-dt2u |
| Tree | end-dt2u |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **value** *number*

| | |
|---|---|
| Synopsis | SRv6 function value |
| Context | **configure** service vpls *service-name* segment-routing-v6 *number* locator *reference* function end-dt2u value *number* |
| Tree | value |
| Description | This command assigns the optional static function value for the routes in the VPRN, VPLS, or Epipe instance.<br>When unconfigured, the system allocates a value dynamically. |
| Range | 1 to 1048575 |
| Introduced | 22.7.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **micro-segment-locator** [locator-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **micro-segment-locator** list instance |
| Context | **configure** service vpls *service-name* segment-routing-v6 *number* micro-segment-locator *reference* |
| Tree | micro-segment-locator |
| Max. instances | 1 |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## [**locator-name**] *reference*

| | |
|---|---|
| Synopsis | Micro-segment SRv6 locator name |
| Context | **configure** service vpls *service-name* segment-routing-v6 *number* micro-segment-locator *reference* |
| Tree | micro-segment-locator |
| Description | This command associates a pre-defined micro-segment SRv6 locator (defined in the **configure router segment-routing segment-routing-v6** context) with the SRv6 instance in the service. The same micro-segment locator can be referenced in multiple BGP instances used by IPVPN or EVPN. |
| Reference | **configure** router *named-item-64* segment-routing segment-routing-v6 micro-segment-locator *named-item-64* |
| Notes | This element is part of a list key. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **function**

| | |
|---|---|
| Synopsis | Enter the **function** context |
| Context | **configure** service vpls *service-name* segment-routing-v6 *number* micro-segment-locator *reference* function |
| Tree | function |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |


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## udt2m

| | |
|---|---|
| Synopsis | Enable the **udt2m** context |
| Context | **configure** service vpls *service-name* segment-routing-v6 *number* micro-segment-locator *reference* function udt2m |
| Tree | udt2m |
| Description | Commands in this context configure the SRv6 uDT2M behavior and the function value that is associated to the SRv6 instance in the service. When configured, decapsulation and table lookup for IPv6 prefixes occurs in the VPLS service. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## value *number*

| | |
|---|---|
| Synopsis | SRv6 function value |
| Context | **configure** service vpls *service-name* segment-routing-v6 *number* micro-segment-locator *reference* function udt2m value *number* |
| Tree | value |
| Description | This command assigns the optional static function value for the routes in the VPRN, VPLS, or Epipe instance.<br>When unconfigured, the system allocates a value dynamically. |
| Range | 1 to 1048575 |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## udt2u

| | |
|---|---|
| Synopsis | Enable the **udt2u** context |
| Context | **configure** service vpls *service-name* segment-routing-v6 *number* micro-segment-locator *reference* function udt2u |
| Tree | udt2u |
| Description | Commands in this context configure the SRv6 uDT2U behavior and the function value that is associated to the SRv6 instance in the service. When configured, decapsulation and table lookup for IPv6 prefixes occurs in the VPLS service. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |


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### **value** *number*

| | |
|---|---|
| Synopsis | SRv6 function value |
| Context | **configure** service vpls *service-name* segment-routing-v6 *number* micro-segment-locator *reference* function udt2u value *number* |
| Tree | value |
| Description | This command assigns the optional static function value for the routes in the VPRN, VPLS, or Epipe instance.<br>When unconfigured, the system allocates a value dynamically. |
| Range | 1 to 1048575 |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **service-id** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Service ID |
| Context | **configure** service vpls *service-name* service-id *number* |
| Tree | service-id |
| Range | 1 to 2147483647 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **service-mtu** *number*

| | |
|---|---|
| Synopsis | MTU size |
| Context | **configure** service vpls *service-name* service-mtu *number* |
| Tree | service-mtu |
| Description | This command configures the Maximum Transmission Unit (MTU) value (payload) for the service. The system uses the value to validate the operational state of the SAP and SDP binding within the service. The value overrides the default MTU for the service type.<br>The service MTU and a SAP's service delineation encapsulation overhead (4 bytes for a dot1q tag) are used to derive the required MTU of the physical port or channel on which the SAP was created. If the required payload is larger than the port or channel MTU, the |


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SAP is placed in an inoperative state. If the required MTU is equal to or less than the port or channel MTU, the SAP transitions to the operative state.

When binding an SDP to a service, the service MTU is compared to the path MTU associated with the SDP. The path MTU can be administratively defined in the context of the SDP. The default or administrative path MTU can be dynamically reduced due to the MTU capabilities discovered by the tunneling mechanism of the SDP or the egress interface MTU capabilities based on the next hop in the tunnel path. If the service MTU is larger than the path MTU, the SDP binding for the service is placed in an inoperative state. If the service MTU is equal to or less than the path MTU, the SDP binding is placed in an operational state.

If a service MTU, port or channel MTU, or path MTU is dynamically or administratively modified, all associated SAP and SDP binding operational states are automatically reevaluated.

Binding operational states are automatically reevaluated.

For I-VPLS and Epipes bound to a B-VPLS, the service MTU must be at least 18 bytes smaller than the B-VPLS service MTU to accommodate the PBB header.

Because this connects a Layer 2 to a Layer 3 service, adjust the service MTU under the Epipe service. The MTU that is advertised from the Epipe side is service MTU minus EtherHeaderSize.

In the **configure service epipe spoke-sdp** context, the **adv-service-mtu** command can be used to override the configured MTU value used in T-LDP signaling to the far-end of an Epipe spoke-sdp. The **adv-service-mtu** command is also used to validate the value signaled by the far-end PE.

| | |
|---|---|
| Range | 1 to 9782 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **shcv-policy-ipv4** *reference*

| | |
|---|---|
| Synopsis | Subscriber host connectivity verification policy for IPv4 |
| Context | **configure** service vpls *service-name* shcv-policy-ipv4 *reference* |
| Tree | shcv-policy-ipv4 |
| Reference | **configure** subscriber-mgmt shcv-policy *external-named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **spb**

| | |
|---|---|
| Synopsis | Enable the **spb** context |
| Context | **configure** service vpls *service-name* spb |


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| | |
|---|---|
| Tree | spb |
| Introduced | 21.10.R1 |
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of SPB |
| Context | **configure** service vpls *service-name* spb admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.10.R1 |
| Platforms | All |

## **fid** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | FID identifier |
| Context | **configure** service vpls *service-name* spb fid *number* |
| Tree | fid |
| Range | 1 to 4095 |
| Default | 1 |
| Introduced | 21.10.R1 |
| Platforms | All |

## **isis-instance** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | ISIS instance |
| Context | **configure** service vpls *service-name* spb isis-instance *number* |
| Tree | isis-instance |


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| | |
|---|---|
| Range | 1024 to 2047 |
| Default | 1024 |
| Introduced | 21.10.R1 |
| Platforms | All |

### **level** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **level** list instance |
| Context | **configure** service vpls *service-name* spb level *number* |
| Tree | level |
| Introduced | 21.10.R1 |
| Platforms | All |

### [**id**] *number*

| | |
|---|---|
| Synopsis | Level identifier |
| Context | **configure** service vpls *service-name* spb level *number* |
| Tree | level |
| Range | 1 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | All |

### **bridge-priority** *number*

| | |
|---|---|
| Synopsis | SPB Bridge priority |
| Context | **configure** service vpls *service-name* spb level *number* bridge-priority *number* |
| Tree | bridge-priority |
| Range | 0 to 15 |
| Default | 8 |
| Introduced | 21.10.R1 |
| Platforms | All |


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### **ect-high-path-fid** [fid] *number*

| | |
|---|---|
| Synopsis | Add a list entry for **ect-high-path-fid** |
| Context | **configure** service vpls *service-name* spb level *number* ect-high-path-fid *number* |
| Tree | ect-high-path-fid |
| Introduced | 21.10.R1 |
| Platforms | All |

### [**fid**] *number*

| | |
|---|---|
| Synopsis | SPB control vpls FID |
| Context | **configure** service vpls *service-name* spb level *number* ect-high-path-fid *number* |
| Tree | ect-high-path-fid |
| Range | 1 to 4095 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | All |

### **forwarding-tree**

| | |
|---|---|
| Synopsis | Enter the **forwarding-tree** context |
| Context | **configure** service vpls *service-name* spb level *number* forwarding-tree |
| Tree | forwarding-tree |
| Introduced | 21.10.R1 |
| Platforms | All |

### **topology** *keyword*

| | |
|---|---|
| Synopsis | Topology |
| Context | **configure** service vpls *service-name* spb level *number* forwarding-tree topology *keyword* |
| Tree | topology |
| Options | spf, st |
| Default | spf |
| Introduced | 21.10.R1 |


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| | |
|---|---|
| Platforms | All |

### **lsp-lifetime** *number*

| | |
|---|---|
| Synopsis | Time LSP is considered valid by other routers |
| Context | **configure** service vpls *service-name* spb lsp-lifetime *number* |
| Tree | lsp-lifetime |
| Range | 350 to 65535 |
| Default | 1200 |
| Introduced | 21.10.R1 |
| Platforms | All |

### **lsp-refresh-interval**

| | |
|---|---|
| Synopsis | Enter the **lsp-refresh-interval** context |
| Context | **configure** service vpls *service-name* spb lsp-refresh-interval |
| Tree | lsp-refresh-interval |
| Introduced | 21.10.R1 |
| Platforms | All |

### **half-lifetime** *boolean*

| | |
|---|---|
| Synopsis | Refresh LSP interval at half the LSP lifetime |
| Context | **configure** service vpls *service-name* spb lsp-refresh-interval half-lifetime *boolean* |
| Tree | half-lifetime |
| Default | true |
| Introduced | 21.10.R1 |
| Platforms | All |

### **interval** *number*

| | |
|---|---|
| Synopsis | Specify the interval at which LSPs are refreshed |
| Context | **configure** service vpls *service-name* spb lsp-refresh-interval interval *number* |
| Tree | interval |
| Range | 150 to 65535 |


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| | |
|---|---|
| Default | 600 |
| Introduced | 21.10.R1 |
| Platforms | All |

### overload

| | |
|---|---|
| Synopsis | Enable the **overload** context |
| Context | **configure** service vpls *service-name* spb overload |
| Tree | overload |
| Introduced | 21.10.R1 |
| Platforms | All |

### timeout *number*

| | |
|---|---|
| Synopsis | Time the router operates in overloaded state |
| Context | **configure** service vpls *service-name* spb overload timeout *number* |
| Tree | timeout |
| Range | 0 \| 60 to 1800 |
| Units | seconds |
| Default | 0 |
| Introduced | 21.10.R1 |
| Platforms | All |

### overload-on-boot

| | |
|---|---|
| Synopsis | Enable the **overload-on-boot** context |
| Context | **configure** service vpls *service-name* spb overload-on-boot |
| Tree | overload-on-boot |
| Introduced | 21.10.R1 |
| Platforms | All |

### timeout *number*

| | |
|---|---|
| Synopsis | Time the router operates in overloaded state |
| Context | **configure** service vpls *service-name* spb overload-on-boot timeout *number* |


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| | |
|---|---|
| Tree | timeout |
| Range | 0 \| 60 to 1800 |
| Units | seconds |
| Default | 0 |
| Introduced | 21.10.R1 |
| Platforms | All |

## timers

| | |
|---|---|
| Synopsis | Enter the **timers** context |
| Context | **configure** service vpls *service-name* spb timers |
| Tree | timers |
| Introduced | 21.10.R1 |
| Platforms | All |

## lsp-wait

| | |
|---|---|
| Synopsis | Enable the **lsp-wait** context |
| Context | **configure** service vpls *service-name* spb timers lsp-wait |
| Tree | lsp-wait |
| Introduced | 21.10.R1 |
| Platforms | All |

## initial-wait *number*

| | |
|---|---|
| Synopsis | Initial wait |
| Context | **configure** service vpls *service-name* spb timers lsp-wait initial-wait *number* |
| Tree | initial-wait |
| Range | 10 to 100000 |
| Units | milliseconds |
| Default | 10 |
| Introduced | 21.10.R1 |
| Platforms | All |


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### **max-wait** *number*

| | |
|---|---|
| Synopsis | Max wait time |
| Context | **configure** service vpls *service-name* spb timers lsp-wait max-wait *number* |
| Tree | max-wait |
| Range | 10 to 120000 |
| Units | milliseconds |
| Default | 5000 |
| Introduced | 21.10.R1 |
| Platforms | All |

### **second-wait** *number*

| | |
|---|---|
| Synopsis | Second wait |
| Context | **configure** service vpls *service-name* spb timers lsp-wait second-wait *number* |
| Tree | second-wait |
| Range | 10 to 100000 |
| Units | milliseconds |
| Default | 1000 |
| Introduced | 21.10.R1 |
| Platforms | All |

### **spf-wait**

| | |
|---|---|
| Synopsis | Enable the **spf-wait** context |
| Context | **configure** service vpls *service-name* spb timers spf-wait |
| Tree | spf-wait |
| Introduced | 21.10.R1 |
| Platforms | All |

### **initial-wait** *number*

| | |
|---|---|
| Synopsis | Initial wait |
| Context | **configure** service vpls *service-name* spb timers spf-wait initial-wait *number* |
| Tree | initial-wait |


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| | |
|---|---|
| Range | 10 to 100000 |
| Units | milliseconds |
| Default | 1000 |
| Introduced | 21.10.R1 |
| Platforms | All |

### **max-wait** *number*

| | |
|---|---|
| Synopsis | Max wait time |
| Context | **configure** service vpls *service-name* spb timers spf-wait max-wait *number* |
| Tree | max-wait |
| Range | 10 to 120000 |
| Units | milliseconds |
| Default | 10000 |
| Introduced | 21.10.R1 |
| Platforms | All |

### **second-wait** *number*

| | |
|---|---|
| Synopsis | Second wait |
| Context | **configure** service vpls *service-name* spb timers spf-wait second-wait *number* |
| Tree | second-wait |
| Range | 10 to 100000 |
| Units | milliseconds |
| Default | 1000 |
| Introduced | 21.10.R1 |
| Platforms | All |

### **spbm-control-vpls**

| | |
|---|---|
| Synopsis | Enter the **spbm-control-vpls** context |
| Context | **configure** service vpls *service-name* spbm-control-vpls |
| Tree | spbm-control-vpls |
| Introduced | 21.10.R1 |
| Platforms | All |


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### **fid** *number*

| | |
|---|---|
| Synopsis | SPB control vpls FID |
| Context | **configure** service vpls *service-name* spbm-control-vpls fid *number* |
| Tree | fid |
| Range | 1 to 4095 |
| Introduced | 21.10.R1 |
| Platforms | All |

### **service-name** *service-name*

| | |
|---|---|
| Synopsis | SPB control vpls service |
| Context | **configure** service vpls *service-name* spbm-control-vpls service-name *service-name* |
| Tree | service-name |
| String length | 1 to 64 |
| Introduced | 21.10.R1 |
| Platforms | All |

### **split-horizon-group** [shg-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **split-horizon-group** list instance |
| Context | **configure** service vpls *service-name* split-horizon-group *named-item* |
| Tree | split-horizon-group |
| Description | Commands in this context configure the split-horizon group options used in the VPLS instance. |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**shg-name**] *named-item*

| | |
|---|---|
| Synopsis | SHG name to which the SDP belongs |
| Context | **configure** service vpls *service-name* split-horizon-group *named-item* |
| Tree | split-horizon-group |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vpls *service-name* split-horizon-group *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **fdb**

| | |
|---|---|
| Synopsis | Enter the **fdb** context |
| Context | **configure** service vpls *service-name* split-horizon-group *named-item* fdb |
| Tree | fdb |
| Introduced | 16.0.R1 |
| Platforms | All |

### **saps**

| | |
|---|---|
| Synopsis | Enter the **saps** context |
| Context | **configure** service vpls *service-name* split-horizon-group *named-item* fdb saps |
| Tree | saps |
| Introduced | 16.0.R1 |
| Platforms | All |

### **auto-learn-mac-protect** *boolean*

| | |
|---|---|
| Synopsis | Populate automatically MAC protect list with MAC addresses learned on SDP with split horizon group |
| Context | **configure** service vpls *service-name* split-horizon-group *named-item* fdb saps auto-learn-mac-protect *boolean* |
| Tree | auto-learn-mac-protect |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **auto-learn-mac-protect-exclude-list** *reference*

| | |
|---|---|
| Synopsis | Referenced MAC protect exclusion list name |
| Context | **configure** service vpls *service-name* split-horizon-group *named-item* fdb saps auto-learn-mac-protect-exclude-list *reference* |
| Tree | auto-learn-mac-protect-exclude-list |
| Description | This command references the name of a MAC protect exclusion list.<br>Dynamically-learned MAC Source Addresses (SA) are protected if they are learned on an object with ALMP configured and no exclusion list is associated with the object, or if the MAC SA does not match any entry in an associated exclusion list.<br>An exclusion list can be used in multiple objects of a service. If a list is empty, ALMP does not exclude any learned MAC SAs from protection on the object. |
| Reference | **configure** service mac-list *named-item* |
| Introduced | 20.5.R1 |
| Platforms | All |

### **discard-unprotected-dest-mac** *boolean*

| | |
|---|---|
| Synopsis | Discard packet with unprotected destination MAC address |
| Context | **configure** service vpls *service-name* split-horizon-group *named-item* fdb saps discard-unprotected-dest-mac *boolean* |
| Tree | discard-unprotected-dest-mac |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **protected-src-mac-violation-action** *keyword*

| | |
|---|---|
| Synopsis | Action to take whenever a relearn request for a protected MAC is received |
| Context | **configure** service vpls *service-name* split-horizon-group *named-item* fdb saps protected-src-mac-violation-action *keyword* |
| Tree | protected-src-mac-violation-action |
| Options | sap-oper-down, alarm-only, discard |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## **residential** *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Define as a residential split horizon group |
| Context | **configure** service vpls *service-name* split-horizon-group *named-item* residential *boolean* |
| Tree | residential |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **spoke-sdp** [sdp-bind-id] *sdp-bind-id*

| | |
|---|---|
| Synopsis | Enter the **spoke-sdp** list instance |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* |
| Tree | spoke-sdp |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**sdp-bind-id**] *sdp-bind-id*

| | |
|---|---|
| Synopsis | SDP binding ID |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* |
| Tree | spoke-sdp |
| String length | 3 to 16 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **accounting-policy** *reference*

| | |
|---|---|
| Synopsis | Policy to collect accounting statistics |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* accounting-policy *reference* |
| Tree | accounting-policy |
| Reference | **configure** log accounting-policy *number* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the SDP binding to the service |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **adv-service-mtu** *number*

| | |
|---|---|
| Synopsis | Advertise service MTU value |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* adv-service-mtu *number* |
| Tree | adv-service-mtu |
| Description | This command configures the MTU value that is signaled in the targeted LDP for the spoke-SDP. The router uses the value for signaling and for validation with the received MTU instead of the service MTU. However, the value does not affect the locally enforced value, which is still based on the service MTU.<br>This command cannot be configured on a spoke-SDP that is bound to an SDP with the **adv-mtu-override** command. |
| Range | 0 to 9782 |
| Introduced | 24.7.R1 |
| Platforms | All |


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### **app-profile** *reference*

| | |
|---|---|
| Synopsis | ISA-AA application profile name for this SDP |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* app-profile *reference* |
| Tree | app-profile |
| Reference | **configure** application-assurance group *number* partition *number* policy app-profile *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **bfd**

| | |
|---|---|
| Synopsis | Enter the **bfd** context |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* bfd |
| Tree | bfd |
| Introduced | 21.2.R1 |
| Platforms | All |

### **bfd-liveness**

| | |
|---|---|
| Synopsis | Enable the **bfd-liveness** context |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* bfd bfd-liveness |
| Tree | bfd-liveness |
| Introduced | 21.2.R1 |
| Platforms | All |

### **encap** *keyword*

| | |
|---|---|
| Synopsis | BFD encapsulation used on the SDP binding |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* bfd bfd-liveness encap *keyword* |
| Tree | encap |
| Options | ipv4 |
| Default | ipv4 |
| Introduced | 21.2.R1 |


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| | |
|---|---|
| Platforms | All |

## **bfd-template** *reference*

| | |
|---|---|
| Synopsis | BFD template associated with the SDP binding |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* bfd bfd-template *reference* |
| Tree | bfd-template |
| Description | This command configures a named BFD template to be used by VCCV BFD on PWs belonging to the VLL service. The template specifies parameters, such as the minimum transmit and receive control packet timer intervals, used by the BFD session. Template parameters are configured under the **configure router bfd** context. |
| Reference | **configure** bfd bfd-template *named-item* |
| Introduced | 21.2.R1 |
| Platforms | All |

## **failure-action** *keyword*

| | |
|---|---|
| Synopsis | VCCV BFD action taken on the SDP binding |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* bfd failure-action *keyword* |
| Tree | failure-action |
| Description | This command configures a named BFD template to be used by VCCV BFD on PWs belonging to the VLL service. The template specifies parameters, such as the minimum transmit and receive control packet timer intervals, used by the BFD session. Template parameters are configured under the **configure router bfd** context. |
| Options | none, down |
| Default | none |
| Introduced | 21.2.R1 |
| Platforms | All |

## **wait-for-up-timer** *number*

| | |
|---|---|
| Synopsis | Time waited for BFD up status |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* bfd wait-for-up-timer *number* |
| Tree | wait-for-up-timer |
| Description | This command configures the time interval that is used to wait for a BFD session to come up. |


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This command is triggered when a spoke-SDP is first administratively enabled and a VCCV BFD session transitions from up to down. The command is required to allow time for BFD sessions to come up, and for BFD to settle before selecting the active spoke-SDP for use in a redundant set. In the case where a VCCV BFD session is bouncing, the timer prevents excessive flapping of the operational state of a spoke-SDP.

| | |
|---|---|
| Range | 1 to 60 |
| Units | seconds |
| Introduced | 21.2.R1 |
| Platforms | All |

### **block-on-mesh-failure** *boolean*

| | |
|---|---|
| Synopsis | Enable blocking after all SDPs are operationally down |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* block-on-mesh-failure *boolean* |
| Tree | block-on-mesh-failure |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bpdu-translation** *keyword*

| | |
|---|---|
| Synopsis | BPDU format |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* bpdu-translation *keyword* |
| Tree | bpdu-translation |
| Options | auto, pvst, stp, pvst-rw, auto-rw |
| Introduced | 16.0.R1 |
| Platforms | All |

### **collect-stats** *boolean*

| | |
|---|---|
| Synopsis | Allow agent to collect accounting statistics |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* collect-stats *boolean* |
| Tree | collect-stats |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **control-word** *boolean*

| | |
|---|---|
| Synopsis | Use the control word as preferred |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* control-word *boolean* |
| Tree | control-word |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### cpu-protection

| | |
|---|---|
| Synopsis | Enter the **cpu-protection** context |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* cpu-protection |
| Tree | cpu-protection |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

### eth-cfm-monitoring

| | |
|---|---|
| Synopsis | Enable the **eth-cfm-monitoring** context |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* cpu-protection eth-cfm-monitoring |
| Tree | eth-cfm-monitoring |
| Notes | The following elements are part of a choice: **eth-cfm-monitoring** or **mac-monitoring**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

### aggregate

| | |
|---|---|
| Synopsis | Apply rate limit to the sum of the per peer packet rates |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* cpu-protection eth-cfm-monitoring aggregate |
| Tree | aggregate |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |


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### car

| | |
|---|---|
| Synopsis | Ignore Ethernet CFM packets when enforcing overall rate |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* cpu-protection eth-cfm-monitoring car |
| Tree | car |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

### mac-monitoring

| | |
|---|---|
| Synopsis | Monitor MAC for CPU protection |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* cpu-protection mac-monitoring |
| Tree | mac-monitoring |
| Notes | The following elements are part of a choice: **eth-cfm-monitoring** or **mac-monitoring**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

### policy-id *reference*

| | |
|---|---|
| Synopsis | CPM protection policy |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* cpu-protection policy-id *reference* |
| Tree | policy-id |
| Reference | **configure** system security cpu-protection policy *number* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

### description *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## dhcp

| | |
|---|---|
| Synopsis | Enter the **dhcp** context |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* dhcp |
| Tree | dhcp |
| Introduced | 16.0.R1 |
| Platforms | All |

## description *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* dhcp description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

## snoop *boolean*

| | |
|---|---|
| Synopsis | Allow DHCP snooping of DHCP messages on the SAP or SDP |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* dhcp snoop *boolean* |
| Tree | snoop |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## egress

| | |
|---|---|
| Synopsis | Enter the **egress** context |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* egress |
| Tree | egress |
| Introduced | 16.0.R1 |
| Platforms | All |


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### filter

| | |
|---|---|
| Synopsis | Enter the **filter** context |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* egress filter |
| Tree | filter |
| Introduced | 16.0.R1 |
| Platforms | All |

### ip *reference*

| | |
|---|---|
| Synopsis | IPv4 filter policy name |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* egress filter ip *reference* |
| Tree | ip |
| Reference | **configure** filter ip-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### ipv6 *reference*

| | |
|---|---|
| Synopsis | IPv6 filter policy name |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* egress filter ipv6 *reference* |
| Tree | ipv6 |
| Reference | **configure** filter ipv6-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### mac *reference*

| | |
|---|---|
| Synopsis | MAC filter policy name |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* egress filter mac *reference* |
| Tree | mac |
| Reference | **configure** filter mac-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |


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### mfib-allowed-mda-destinations

| | |
|---|---|
| Synopsis | Enter the **mfib-allowed-mda-destinations** context |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* egress mfib-allowed-mda-destinations |
| Tree | mfib-allowed-mda-destinations |
| Introduced | 16.0.R4 |
| Platforms | All |

### **mda** [mda-id] *slot-mda*

| | |
|---|---|
| Synopsis | Add a list entry for **mda** |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* egress mfib-allowed-mda-destinations mda *slot-mda* |
| Tree | mda |
| Introduced | 16.0.R4 |
| Platforms | All |

### [**mda-id**] *slot-mda*

| | |
|---|---|
| Synopsis | MFIB allowed MDA destination |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* egress mfib-allowed-mda-destinations mda *slot-mda* |
| Tree | mda |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

### qos

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* egress qos |
| Tree | qos |
| Introduced | 16.0.R1 |
| Platforms | All |


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## network

| | |
|---|---|
| Synopsis | Enter the **network** context |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* egress qos network |
| Tree | network |
| Introduced | 16.0.R1 |
| Platforms | All |

## policy-name *reference*

| | |
|---|---|
| Synopsis | Network policy ID |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* egress qos network policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos network *network-policy-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

## port-redirect-group

| | |
|---|---|
| Synopsis | Enter the **port-redirect-group** context |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* egress qos network port-redirect-group |
| Tree | port-redirect-group |
| Introduced | 16.0.R1 |
| Platforms | All |

## group-name *reference*

| | |
|---|---|
| Synopsis | Name of the egress port queue group |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* egress qos network port-redirect-group group-name *reference* |
| Tree | group-name |
| Reference | **configure** qos queue-group-templates egress queue-group *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **instance** *number*

| | |
|---|---|
| Synopsis | Queue-group instance ID |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* egress qos network port-redirect-group instance *number* |
| Tree | instance |
| Range | 1 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **vc-label** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Egress MPLS VC label to send packets to the far end |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* egress vc-label *number* |
| Tree | vc-label |
| Range | 16 to 1048575 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **endpoint**

| | |
|---|---|
| Synopsis | Enter the **endpoint** context |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* endpoint |
| Tree | endpoint |
| Introduced | 16.0.R1 |
| Platforms | All |

### **name** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.


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| | |
|---|---|
| Synopsis | Name of service endpoint to which SDP bind is attached |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* endpoint name *reference* |
| Tree | name |
| Reference | **configure** service vpls *service-name* endpoint *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **precedence** *(number | keyword)*

| | |
|---|---|
| Synopsis | Precedence of this SDP bind when there are multiple SDP binds attached to one service endpoint |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* endpoint precedence *(number | keyword)* |
| Tree | precedence |
| Range | 1 to 4 |
| Options | primary |
| Default | 4 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **entropy-label**

| | |
|---|---|
| Synopsis | Enable the use of entropy labels for spoke SDPs |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* entropy-label |
| Tree | entropy-label |
| Notes | The following elements are part of a choice: **entropy-label** or **hash-label**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **eth-cfm**

| | |
|---|---|
| Synopsis | Enter the **eth-cfm** context |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* eth-cfm |
| Tree | eth-cfm |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## collect-lmm-fc-stats

| | |
|---|---|
| Synopsis | Enter the **collect-lmm-fc-stats** context |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* eth-cfm collect-lmm-fc-stats |
| Tree | collect-lmm-fc-stats |
| Description | Commands in this context configure per forwarding class (FC) LMM information collection.<br>The commands **fc-in-profile** and **fc** in this context are mutually exclusive. The commands apply to either profile-aware or profile-unaware FCs respectively.<br>This command and the **collect-lmm-stats** command are mutually exclusive when there is entity resource contention. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **fc** *keyword*

| | |
|---|---|
| Synopsis | Forwarding class name for profile-unaware counter |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* eth-cfm collect-lmm-fc-stats fc *keyword* |
| Tree | fc |
| Description | This command configures individual counters for the specified FCs without regard for profile. The system includes all countable packets that match a configured FC, regardless of profile, in this counter.<br>An FC specified as part of this command and for this specific context cannot be specified as a profile-aware FC using the **fc-in-profile** command under the **collect-lmm-fc-stats** context.<br>When this command is reentered, a differential is performed. Omitted FCs stop counting, newly added FCs start counting, and unchanged FCs continue to count. |
| Options | be, l2, af, l1, h2, ef, h1, nc |
| Max. instances | 8 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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## **fc-in-profile** *keyword*

| | |
|---|---|
| Synopsis | Forwarding class name for profile-aware counter |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* eth-cfm collect-lmm-fc-stats fc-in-profile *keyword* |
| Tree | fc-in-profile |
| Description | This command configures individual counters for the specified FCs with regard to profile. The system includes all countable packets that match a configured FC and that are deemed to be in-profile in this counter.<br>An FC specified as part of this command and for this specific context cannot be specified as a profile-unaware FC using the **fc** command under the **collect-lmm-fc-stats** context.<br>When this command is reentered, a differential is performed. Omitted FCs stop counting, newly added FCs start counting, and unchanged FCs continue to count. |
| Options | be, l2, af, l1, h2, ef, h1, nc |
| Max. instances | 8 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **collect-lmm-stats** *boolean*

| | |
|---|---|
| Synopsis | Collect statistics for loss measurement message tests |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* eth-cfm collect-lmm-stats *boolean* |
| Tree | collect-lmm-stats |
| Description | When configured to **true**, the router instantiates the statistical counter to transmit and receive packets for the LAG facility MEP bindings.<br>The **show eth-cfm collect-lmm-stats** command displays entities that have been enabled to collect transit and receive counters.<br>When configured to **false**, the router does not instantiate the counter and the LMM PDU associated with the MEP does not populate the counters in the packet. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **mep** md-admin-name *reference* ma-admin-name *reference* mep-id *number*

| | |
|---|---|
| Synopsis | Enter the **mep** list instance |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |
| Tree | mep |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **md-admin-name** *reference*

| | |
|---|---|
| Synopsis | Maintenance Domain (MD) name |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |
| Tree | mep |
| Reference | **configure** eth-cfm domain *admin-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ma-admin-name** *reference*

| | |
|---|---|
| Synopsis | Maintenance Association (MA) name |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |
| Tree | mep |
| Reference | **configure** eth-cfm domain *admin-name* association *admin-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **mep-id** *number*

| | |
|---|---|
| Synopsis | Maintenance Endpoint (MEP) ID |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |


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| | |
|---|---|
| Tree | mep |
| Range | 1 to 8191 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the MEP |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **ais**

| | |
|---|---|
| Synopsis | Enable the **ais** context |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ais |
| Tree | ais |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **client-meg-level** *number*

| | |
|---|---|
| Synopsis | Client MEG level for AIS message generation |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ais client-meg-level *number* |
| Tree | client-meg-level |
| Range | 1 to 7 |
| Max. instances | 7 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **interface-support** *boolean*

| | |
|---|---|
| Synopsis | Enable generation of AIS PDUs based on endpoint state |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ais interface-support *boolean* |
| Tree | interface-support |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **interval** *number*

| | |
|---|---|
| Synopsis | Transmission interval for AIS messages |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ais interval *number* |
| Tree | interval |
| Range | 1 \| 60 |
| Units | seconds |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **low-priority-defect** *keyword*

| | |
|---|---|
| Synopsis | Lowest priority defect allowed to generate fault alarm |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ais low-priority-defect *keyword* |
| Tree | low-priority-defect |
| Options | all-def, mac-rem-err-xcon |
| Default | all-def |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **priority** *number*

| | |
|---|---|
| Synopsis | Priority of the AIS messages generated by the node |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ais priority *number* |
| Tree | priority |
| Range | 0 to 7 |
| Default | 7 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **alarm-notification**

| | |
|---|---|
| Synopsis | Enter the **alarm-notification** context |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* alarm-notification |
| Tree | alarm-notification |
| Description | Commands in this context configure the Fault Notification Generator (FNG) time values to raise an alarm or reset the CCM defect alarm.<br>Use these timers for network management processes. The timers are not tied into delaying the notification to the fault management system on the network element and do not affect fault propagation mechanisms. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **fng-alarm-time** *number*

| | |
|---|---|
| Synopsis | Time that must expire before an FNG alarm is raised |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* alarm-notification fng-alarm-time *number* |
| Tree | fng-alarm-time |
| Range | 250 \| 500 \| 1000 |
| Units | centiseconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **fng-reset-time** *number*

| | |
|---|---|
| Synopsis | Time that must expire before an FNG alarm is reset |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* alarm-notification fng-reset-time *number* |
| Tree | fng-reset-time |
| Range | 250 \| 500 \| 1000 |
| Units | centiseconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ccm** *boolean*

| | |
|---|---|
| Synopsis | Generate CCM messages |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ccm *boolean* |
| Tree | ccm |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ccm-ltm-priority** *number*

| | |
|---|---|
| Synopsis | Priority of CCM and LTM messages transmitted by the MEP |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ccm-ltm-priority *number* |
| Tree | ccm-ltm-priority |
| Range | 0 to 7 |
| Default | 7 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ccm-padding-size** *number*

| | |
|---|---|
| Synopsis | Number of octets of padding to insert in CCM packets |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ccm-padding-size *number* |
| Tree | ccm-padding-size |
| Description | This command sets the byte size of the optional Data TLV to be included in the ETH-CC PDU.<br>This command increases the size of the ETH-CC PDU by the configured value. The base size of the ETH-CC PDU, including the Interface Status TLV and Port Status TLV, is 83 bytes not including the Layer 2 encapsulation. CCM padding is not supported when the CCM interval (configured through **configure eth-cfm domain association ccm-interval)** is less than 1 second. |
| Range | 3 to 1500 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **cfm-vlan-tag** *one-or-two-vlan-tags*

| | |
|---|---|
| Synopsis | VLAN tags to apply to CFM PDUs for egress processing |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* cfm-vlan-tag *one-or-two-vlan-tags* |
| Tree | cfm-vlan-tag |
| Description | This command allows the CFM function to include additional VLAN tags to the CFM packet that are carried to the egress and treated as service delimited. Typically, this function is used to influence the VLAN carried over a binding that uses the **vc-type vlan** or the binding forces the use of one or more VLAN tag that results in a mismatch between the service data arriving at the binding and the locally generated ETH-CFM PDUs arriving at the same egress. When this command is included under the MEP or MIP configuration, the tags used as part of the configuration typically match the SAP service delimited configuration. |
| String length | 1 to 9 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **csf**

| | |
|---|---|
| Synopsis | Enable the **csf** context |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* csf |
| Tree | csf |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **multiplier** *decimal-number*

| | |
|---|---|
| Synopsis | Multiplication factor used to clear the CSF condition |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* csf multiplier *decimal-number* |
| Tree | multiplier |
| Range | 0.0 \| 2.0 to 30.0 |
| Default | 3.5 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **direction** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Direction the MEP faces |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* direction *keyword* |
| Tree | direction |
| Options | down, up |
| Default | down |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## eth-test

| | |
|---|---|
| Synopsis | Enable the **eth-test** context |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test |
| Tree | eth-test |
| Description | Commands in this context configure information used by the Ethernet Test (ETH-TST) packet. The commands must be configured on both the sender and the receiver nodes. The test packets are used with the **oam eth-cfm eth-test** command. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## bit-error-threshold *number*

| | |
|---|---|
| Synopsis | Lowest priority defect allowed to generate fault alarm |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test bit-error-threshold *number* |
| Tree | bit-error-threshold |
| Range | 0 to 11840 |
| Units | bit errors |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## test-pattern

| | |
|---|---|
| Synopsis | Enter the **test-pattern** context |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test test-pattern |
| Tree | test-pattern |
| Description | Commands in this context specify the test pattern for the ETH-TST frames. The pattern does not have to be the same on the sender and the receiver. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **crc-tlv** *boolean*

| | |
|---|---|
| Synopsis | Generate a CRC checksum |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test test-pattern crc-tlv *boolean* |
| Tree | crc-tlv |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **pattern** *keyword*

| | |
|---|---|
| Synopsis | Test pattern for Ethernet Test frames |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test test-pattern pattern *keyword* |
| Tree | pattern |
| Description | This command specifies the test pattern of the Ethernet Test (ETH-TST) frames. This does not have to be configured the same on the sender and the receiver. |
| Options | all-zeros, all-ones |
| Default | all-zeros |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **fault-propagation** *keyword*

| | |
|---|---|
| Synopsis | Fault propagation for the MEP |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* fault-propagation *keyword* |
| Tree | fault-propagation |
| Options | use-if-status-tlv, suspend-ccm |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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## grace

| | |
|---|---|
| Synopsis | Enter the **grace** context |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace |
| Tree | grace |
| Description | Commands in this context configure the Nokia ETH-CFM Grace function and the ITU-T Y.1731 Ethernet Expected Default (ETH-ED) function. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## eth-ed

| | |
|---|---|
| Synopsis | Enter the **eth-ed** context |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed |
| Tree | eth-ed |
| Description | Commands in this context configure the ITU-T Y.1731 ETH-ED function. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## max-rx-defect-window *number*

| | |
|---|---|
| Synopsis | Maximum received ETH-ED expected defect window duration |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed max-rx-defect-window *number* |
| Tree | max-rx-defect-window |
| Range | 1 to 86400 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## priority *number*

| | |
|---|---|
| Synopsis | Transmission priority for ETH-ED PDUs |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed priority *number* |
| Tree | priority |
| Range | 0 to 7 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **rx-eth-ed** *boolean*

| | |
|---|---|
| Synopsis | Receive and process ETH-ED ITU-T Y.1731 PDUs on the MEP |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed rx-eth-ed *boolean* |
| Tree | rx-eth-ed |
| Description | This command enables the reception and processing of the ITU-T Y.1731 ETH-ED PDU on the MEP. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **tx-eth-ed** *boolean*

| | |
|---|---|
| Synopsis | Transmit ETH-ED PDUs from the MEP |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed tx-eth-ed *boolean* |
| Tree | tx-eth-ed |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **eth-vsm-grace**

| | |
|---|---|
| Synopsis | Enter the **eth-vsm-grace** context |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-vsm-grace |
| Tree | eth-vsm-grace |


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| | |
|---|---|
| Description | Commands in this context configure the Nokia ETH-CFM Grace function. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **rx-eth-vsm-grace** *boolean*

| | |
|---|---|
| Synopsis | Receive and process Nokia ETH-CFM Grace PDU on the MEP |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-vsm-grace rx-eth-vsm-grace *boolean* |
| Tree | rx-eth-vsm-grace |
| Description | When configured to **true**, the router enables the Nokia Grace function, which is a vendor-specific PDU that informs MEP peers that the local node may be entering a period of expected defect.<br>When configured to **false**, the router disables the Nokia Grace function. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **tx-eth-vsm-grace** *boolean*

| | |
|---|---|
| Synopsis | Transmit ETH-ED PDUs from the MEP |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-vsm-grace tx-eth-vsm-grace *boolean* |
| Tree | tx-eth-vsm-grace |
| Description | When configured to **true**, the router can transmit the Nokia ETH-CFM Grace PDU from the MEP when a system soft reset notification is received for one or more cards.<br>The Nokia Grace function is a vendor-specific PDU that informs MEP peers that the local node may be entering a period of expected defect.<br>The operator must configure the **configure system eth-cfm grace** command to instruct the system that the node is capable of transmitting expected-defect windows to peers. The system can only transmit one form of ETH-CFM grace (Nokia ETH-CFM Grace or ITU-T Y.1731 ETH-ED).<br>When configured to **false**, the router disables the transmission of the Nokia ETH-CFM Grace PDU from the MEP. |
| Default | true |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **lbm-svc-act-responder** *boolean*

| | |
|---|---|
| Synopsis | Process service activation streams in ETH-CFM LBM |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* lbm-svc-act-responder *boolean* |
| Tree | lbm-svc-act-responder |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **low-priority-defect** *keyword*

| | |
|---|---|
| Synopsis | Lowest priority defect allowed to generate fault alarm |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* low-priority-defect *keyword* |
| Tree | low-priority-defect |
| Options | all-def, mac-rem-err-xcon, rem-err-xcon, err-xcon, xcon, no-xcon |
| Default | mac-rem-err-xcon |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **mac-address** *mac-unicast-address-no-zero*

| | |
|---|---|
| Synopsis | MAC address of the MEP |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* mac-address *mac-unicast-address-no-zero* |
| Tree | mac-address |
| Description | This command specifies the MAC address of the MEP.<br>When unconfigured, the MAC address of the port (if the MEP is on a SAP) or the MAC address of a bridge (if the MEP is on a spoke) is used. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **one-way-delay-threshold** *number*

| | |
|---|---|
| Synopsis | Threshold time limit for the one-way delay test |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* one-way-delay-threshold *number* |
| Tree | one-way-delay-threshold |
| Range | 0 to 600 |
| Units | seconds |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **primary-vlan** *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | MEP provisioned using MA primary VLAN ID |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* primary-vlan *boolean* |
| Tree | primary-vlan |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **mip** primary-vlan *(number | keyword)*

| | |
|---|---|
| Synopsis | Enter the **mip** list instance |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* eth-cfm mip primary-vlan *(number \| keyword)* |
| Tree | mip |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **primary-vlan** *(number | keyword)*

| | |
|---|---|
| Synopsis | VLAN ID to which the MIP is attached |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* eth-cfm mip primary-vlan *(number \| keyword)* |
| Tree | mip |
| Description | This command provides an option for linking a MIP with a Primary VLAN number or none. When the **none** option is provided, the MIP does not include the primary vlan. |
| Range | 1 to 4094 |
| Options | none |
| Notes | This element is part of a list key. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **cfm-vlan-tag** *one-or-two-vlan-tags*

| | |
|---|---|
| Synopsis | VLAN tags to apply to CFM PDUs for egress processing |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* eth-cfm mip primary-vlan *(number \| keyword)* cfm-vlan-tag *one-or-two-vlan-tags* |
| Tree | cfm-vlan-tag |
| Description | This command allows the CFM function to include additional VLAN tags to the CFM packet that are carried to the egress and treated as service delimited. Typically, this function is used to influence the VLAN carried over a binding that uses the vc-type vlan or the binding forces the use of one or more VLAN tag that results in a mismatch between the service data arriving at the binding and the locally generated ETH-CFM PDUs arriving at the same egress. When this command is included under the MEP or MIP configuration, the tags used as part of the configuration typically match the SAP service delimited configuration. |
| String length | 1 to 9 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **mac-address** *mac-unicast-address-no-zero*

| | |
|---|---|
| Synopsis | MAC address of the MIP |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* eth-cfm mip primary-vlan *(number \| keyword)* mac-address *mac-unicast-address-no-zero* |
| Tree | mac-address |


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| | |
|---|---|
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **squelch-ingress-ctag-levels** *number*

| | |
|---|---|
| Synopsis | Squelch levels using additional VLAN C-Tag space |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* eth-cfm squelch-ingress-ctag-levels *number* |
| Tree | squelch-ingress-ctag-levels |
| Description | This command defines the levels of the ETH-CFM packets that are silently discarded on ingress into the SAP or SDP binding from the wire that matches the service delineation of the SAP or SDP binding plus an additional VLAN, up to a maximum tag length of two tags. All ETH-CFM packets inbound to the SAP or SDP binding that match the configured levels are dropped without regard for any other ETH-CFM criteria. No statistical information or drop count is available for any ETH-CFM packet that is silently discarded by this option.<br><br>The list of levels must be a complete contiguous list from 0 up to the highest level to be dropped. |
| Range | 0 to 7 |
| Max. instances | 8 |
| Introduced | 21.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **squelch-ingress-levels** *number*

| | |
|---|---|
| Synopsis | Levels for which ETH-CFM packets are silently discarded |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* eth-cfm squelch-ingress-levels *number* |
| Tree | squelch-ingress-levels |
| Description | This command defines the levels of the ETH-CFM packets that are silently discarded on ingress into the SAP or SDP binding from the wire that matches the service delineation of the SAP or SDP binding. All ETH-CFM packets inbound to the SAP or SDP binding that match the configured levels are dropped without regard for any other ETH-CFM criteria. No statistical information or drop count is available for any ETH-CFM packet that is silently discarded by this option.<br><br>The list of levels must be a complete contiguous list from 0 up to the highest level that will be dropped. |
| Range | 0 to 7 |


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| | |
|---|---|
| Max. instances | 8 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **vmep-filter** *boolean*

| | |
|---|---|
| Synopsis | Suppress eth-cfm PDUs based on level lower than or equal to configured Virtual MEP |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* eth-cfm vmep-filter *boolean* |
| Tree | vmep-filter |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **etree-leaf** *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable etree leaf access-circuit status |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* etree-leaf *boolean* |
| Tree | etree-leaf |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **etree-root-leaf-tag** *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | E-tree root leaf tag status |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* etree-root-leaf-tag *boolean* |
| Tree | etree-root-leaf-tag |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## fdb

| | |
|---|---|
| Synopsis | Enter the **fdb** context |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* fdb |
| Tree | fdb |
| Introduced | 16.0.R1 |
| Platforms | All |

## auto-learn-mac-protect *boolean*

| | |
|---|---|
| Synopsis | Populate automatically MAC protect list with source MAC addresses learned on SDP |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* fdb auto-learn-mac-protect *boolean* |
| Tree | auto-learn-mac-protect |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## auto-learn-mac-protect-exclude-list *reference*

| | |
|---|---|
| Synopsis | Referenced MAC protect exclusion list name |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* fdb auto-learn-mac-protect-exclude-list *reference* |
| Tree | auto-learn-mac-protect-exclude-list |
| Description | This command references the name of a MAC protect exclusion list.<br>Dynamically-learned MAC Source Addresses (SA) are protected if they are learned on an object with ALMP configured and no exclusion list is associated with the object, or if the MAC SA does not match any entry in an associated exclusion list.<br>An exclusion list can be used in multiple objects of a service. If a list is empty, ALMP does not exclude any learned MAC SAs from protection on the object. |
| Reference | **configure** service mac-list *named-item* |
| Introduced | 20.5.R1 |
| Platforms | All |


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### **discard-unknown-source** *boolean*

| | |
|---|---|
| Synopsis | Discard packets with unknown destination MAC addresses |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* fdb discard-unknown-source *boolean* |
| Tree | discard-unknown-source |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **limit-mac-move** *keyword*

| | |
|---|---|
| Synopsis | MAC move |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* fdb limit-mac-move *keyword* |
| Tree | limit-mac-move |
| Options | blockable, non-blockable |
| Default | blockable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mac-learning**

| | |
|---|---|
| Synopsis | Enter the **mac-learning** context |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* fdb mac-learning |
| Tree | mac-learning |
| Introduced | 16.0.R1 |
| Platforms | All |

### **aging** *boolean*

| | |
|---|---|
| Synopsis | Enable aging of MAC addresses |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* fdb mac-learning aging *boolean* |
| Tree | aging |
| Default | true |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## **learning** *boolean*

| | |
|---|---|
| Synopsis | Enable learning of new MAC addresses |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* fdb mac-learning learning *boolean* |
| Tree | learning |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

## **mac-pinning** *boolean*

| | |
|---|---|
| Synopsis | MAC address pinning in active status |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* fdb mac-pinning *boolean* |
| Tree | mac-pinning |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **maximum-mac-addresses** *number*

| | |
|---|---|
| Synopsis | Maximum number of MAC address entries in the FDB |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* fdb maximum-mac-addresses *number* |
| Tree | maximum-mac-addresses |
| Description | This command specifies the maximum number of FDB entries for both learned and static MAC addresses for this spoke SDP.<br><br>When the configured limit is reached, no new addresses are learned from the SAP or spoke SDP until at least one FDB entry is aged out or cleared.<br><br>When the configured limit is reached and the **configure service spoke-sdp fdb discard-unknown-source** command is set to **true** for this spoke SDP, packets with unknown source MAC addresses are discarded. If **discard-unknown-source** is set to **false**, the packets are forwarded if their destination MAC addresses are known, or flooded if their destination MAC addresses are unknown. |


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However, if the **configure service vpls fdb discard-unknown** command is set to **true**, packets with unknown destination MAC addresses are discarded, even if the limit of FDB entries on the specific VPLS instance is not reached.

When unconfigured, the spoke SDP uses the global MAC learning limitations.

| | |
|---|---|
| Range | 1 to 511999 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **protected-src-mac-violation-action** *keyword*

| | |
|---|---|
| Synopsis | Action when a relearn request for a protected MAC is received on the SDP |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* fdb protected-src-mac-violation-action *keyword* |
| Tree | protected-src-mac-violation-action |
| Options | sdp-bind-oper-down, alarm-only, discard |
| Introduced | 16.0.R1 |
| Platforms | All |

## **force-vc-forwarding** *keyword*

| | |
|---|---|
| Synopsis | VC forwarding action |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* force-vc-forwarding *keyword* |
| Tree | force-vc-forwarding |
| Options | vlan, qinq-c-tag-c-tag, qinq-s-tag-c-tag |
| Introduced | 16.0.R1 |
| Platforms | All |

## **hash-label**

| | |
|---|---|
| Synopsis | Enable the **hash-label** context |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* hash-label |
| Tree | hash-label |
| Description | Commands in this context configure the use of hash labels for egress datapaths.<br>For information about hash-label handling, see the "Hash labels" section of the *7450 ESS, 7750 SR, 7950 XRS, and VSR MPLS Guide*. |
| Notes | The following elements are part of a choice: **entropy-label** or **hash-label**. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## signal-capability

| | |
|---|---|
| Synopsis | Signal hash label capability to the remote PE |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* hash-label signal-capability |
| Tree | signal-capability |
| Description | When configured, this command enables the signaling and negotiating of the hash label between the local and remote PE nodes.<br>The signaling process outcome determines whether the local PE inserts the hash label on the user packets. This outcome can override the local PE configuration. |
| Introduced | 16.0.R1 |
| Platforms | All |

## i-vpls-mac-flush

| | |
|---|---|
| Synopsis | Enter the **i-vpls-mac-flush** context |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* i-vpls-mac-flush |
| Tree | i-vpls-mac-flush |
| Introduced | 16.0.R1 |
| Platforms | All |

## bgp-evpn

| | |
|---|---|
| Synopsis | Enter the **bgp-evpn** context |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* i-vpls-mac-flush bgp-evpn |
| Tree | bgp-evpn |
| Introduced | 16.0.R1 |
| Platforms | All |

## send-to-bvpls *boolean*

| | |
|---|---|
| Synopsis | Send B-VPLS EVPN flush |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* i-vpls-mac-flush bgp-evpn send-to-bvpls *boolean* |


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| | |
|---|---|
| Tree | send-to-bvpls |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

## igmp-snooping

| | |
|---|---|
| Synopsis | Enter the **igmp-snooping** context |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* igmp-snooping |
| Tree | igmp-snooping |
| Introduced | 16.0.R1 |
| Platforms | All |

## fast-leave *boolean*

| | |
|---|---|
| Synopsis | Allow IGMP fast leave processing |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* igmp-snooping fast-leave *boolean* |
| Tree | fast-leave |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## import-policy *reference*

| | |
|---|---|
| Synopsis | Import policy that filters IGMP packets |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* igmp-snooping import-policy *reference* |
| Tree | import-policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Introduced | 16.0.R1 |
| Platforms | All |

## maximum-number-group-sources *number*

| | |
|---|---|
| Synopsis | Maximum group source combinations |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* igmp-snooping maximum-number-group-sources *number* |
| Tree | maximum-number-group-sources |
| Range | 1 to 32000 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **maximum-number-groups** *number*

| | |
|---|---|
| Synopsis | Maximum groups allowed |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* igmp-snooping maximum-number-groups *number* |
| Tree | maximum-number-groups |
| Range | 1 to 16000 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **maximum-number-sources** *number*

| | |
|---|---|
| Synopsis | Maximum sources that are allowed per group |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* igmp-snooping maximum-number-sources *number* |
| Tree | maximum-number-sources |
| Range | 1 to 1000 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **mcac**

| | |
|---|---|
| Synopsis | Enter the **mcac** context |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* igmp-snooping mcac |
| Tree | mcac |
| Introduced | 16.0.R1 |
| Platforms | All |


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### bandwidth

| | |
|---|---|
| Synopsis | Enter the **bandwidth** context |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* igmp-snooping mcac bandwidth |
| Tree | bandwidth |
| Introduced | 16.0.R1 |
| Platforms | All |

### mandatory *(number | keyword)*

| | |
|---|---|
| Synopsis | Pre-reserved bandwidth for all mandatory channels |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* igmp-snooping mcac bandwidth mandatory *(number | keyword)* |
| Tree | mandatory |
| Range | 0 to 2147483647 |
| Options | unlimited |
| Default | unlimited |
| Introduced | 16.0.R1 |
| Platforms | All |

### total *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum allowed bandwidth |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* igmp-snooping mcac bandwidth total *(number | keyword)* |
| Tree | total |
| Range | 0 to 2147483647 |
| Options | unlimited |
| Default | unlimited |
| Introduced | 16.0.R1 |
| Platforms | All |

### interface-policy *reference*

| | |
|---|---|
| Synopsis | Name of multicast CAC interface policy |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* igmp-snooping mcac interface-policy *reference* |
| Tree | interface-policy |
| Reference | **configure** mcac interface-policy *string* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **policy** *reference*

| | |
|---|---|
| Synopsis | Multicast CAC policy name |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* igmp-snooping mcac policy *reference* |
| Tree | policy |
| Description | This command configures the name of the global channel bandwidth definition policy that is used for (H)MCAC and HQoS adjustment.<br>Within the scope of HQoS adjustment, the channel definition policy under the group interface is used if redirection is unconfigured. In this case, the HQoS adjustment can be applied to IPoE subscribers in per-SAP replication mode.<br>If redirection is configured, the channel bandwidth definition policy applied under the Layer 3 redirected interface is in effect.<br>Hierarchical MCAC (HMCAC) is supported on two levels simultaneously:<br>• subscriber level and redirected interface when redirection is configured<br>• subscriber level and group-interface level when redirection is unconfigured<br>In HMCAC, the subscriber is checked against its bandwidth limits first, then against the bandwidth limits of the redirected or group interface. If redirection is configured but the policy is referenced only under the group interface, no admission control is executed (HMCAC or MCAC). |
| Reference | **configure** mcac policy *string* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **mrouter-port** *boolean*

| | |
|---|---|
| Synopsis | Operate port as a multicast router port |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* igmp-snooping mrouter-port *boolean* |
| Tree | mrouter-port |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **query-interval** *number*

| | |
|---|---|
| Synopsis | Time between two consecutive host-query messages |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* igmp-snooping query-interval *number* |
| Tree | query-interval |
| Range | 2 to 1024 |
| Units | seconds |
| Default | 125 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **query-last-member-interval** *number*

| | |
|---|---|
| Synopsis | Time between group-specific query messages |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* igmp-snooping query-last-member-interval *number* |
| Tree | query-last-member-interval |
| Range | 1 to 50 |
| Units | deciseconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **query-response-interval** *number*

| | |
|---|---|
| Synopsis | Time to wait for a response to the host-query messages |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* igmp-snooping query-response-interval *number* |
| Tree | query-response-interval |
| Range | 1 to 1023 |
| Units | seconds |
| Default | 10 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **robust-count** *number*

| | |
|---|---|
| Synopsis | Number of retries after expected message loss |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* igmp-snooping robust-count *number* |
| Tree | robust-count |
| Range | 2 to 7 |
| Default | 2 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **router-alert-check** *boolean*

| | |
|---|---|
| Synopsis | Enable IP router alert check option |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* igmp-snooping router-alert-check *boolean* |
| Tree | router-alert-check |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **send-queries** *boolean*

| | |
|---|---|
| Synopsis | Generate IGMP general queries |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* igmp-snooping send-queries *boolean* |
| Tree | send-queries |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### static

| | |
|---|---|
| Synopsis | Enter the **static** context |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* igmp-snooping static |
| Tree | static |
| Introduced | 16.0.R1 |
| Platforms | All |

### **group** [group-address] *ipv4-multicast-address*

| | |
|---|---|
| Synopsis | Enter the **group** list instance |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* igmp-snooping static group *ipv4-multicast-address* |
| Tree | group |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**group-address**] *ipv4-multicast-address*

| | |
|---|---|
| Synopsis | Group address of static IGMP multicast channel |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* igmp-snooping static group *ipv4-multicast-address* |
| Tree | group |
| Description | This command configures an address that receives data on an interface. The IP address must be unique for each static group. |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **source** [source-address] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Add a list entry for **source** |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* igmp-snooping static group *ipv4-multicast-address* source *ipv4-unicast-address* |
| Tree | source |
| Notes | The following elements are part of a mandatory choice: **source** or **starg**. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### [**source-address**] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Source IP address of multicast channel sending data |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* igmp-snooping static group *ipv4-multicast-address* source *ipv4-unicast-address* |
| Tree | source |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R2 |
| Platforms | All |

### **starg**

| | |
|---|---|
| Synopsis | any source address (*,G) |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* igmp-snooping static group *ipv4-multicast-address* starg |
| Tree | starg |
| Notes | The following elements are part of a mandatory choice: **source** or **starg**. |
| Introduced | 16.0.R2 |
| Platforms | All |

### **version** *keyword*

| | |
|---|---|
| Synopsis | IGMP protocol version |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* igmp-snooping version *keyword* |
| Tree | version |
| Options | 1, 2, 3 |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### ignore-standby-signaling *boolean*

| | |
|---|---|
| Synopsis | Ignore standby-bit received from TLDP peers when performing internal tasks |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* ignore-standby-signaling *boolean* |
| Tree | ignore-standby-signaling |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### ingress

| | |
|---|---|
| Synopsis | Enter the **ingress** context |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* ingress |
| Tree | ingress |
| Introduced | 16.0.R1 |
| Platforms | All |

### filter

| | |
|---|---|
| Synopsis | Enter the **filter** context |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* ingress filter |
| Tree | filter |
| Introduced | 16.0.R1 |
| Platforms | All |

### ip *reference*

| | |
|---|---|
| Synopsis | IPv4 filter policy name |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* ingress filter ip *reference* |
| Tree | ip |
| Reference | **configure** filter ip-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **ipv6** *reference*

| | |
|---|---|
| Synopsis | IPv6 filter policy name |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* ingress filter ipv6 *reference* |
| Tree | ipv6 |
| Reference | **configure** filter ipv6-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mac** *reference*

| | |
|---|---|
| Synopsis | MAC filter policy name |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* ingress filter mac *reference* |
| Tree | mac |
| Reference | **configure** filter mac-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **qos**

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* ingress qos |
| Tree | qos |
| Introduced | 16.0.R1 |
| Platforms | All |

### **network**

| | |
|---|---|
| Synopsis | Enter the **network** context |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* ingress qos network |
| Tree | network |
| Introduced | 16.0.R1 |
| Platforms | All |


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## fp-redirect-group

| | |
|---|---|
| Synopsis | Enter the **fp-redirect-group** context |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* ingress qos network fp-redirect-group |
| Tree | fp-redirect-group |
| Introduced | 16.0.R1 |
| Platforms | All |

## group-name *reference*

| | |
|---|---|
| Synopsis | Name of the forwarding plane queue group template |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* ingress qos network fp-redirect-group group-name *reference* |
| Tree | group-name |
| Reference | **configure** qos queue-group-templates ingress queue-group *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

## instance *number*

| | |
|---|---|
| Synopsis | Instance of FP ingress queue group for the SDP binding |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* ingress qos network fp-redirect-group instance *number* |
| Tree | instance |
| Range | 1 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

## policy-name *reference*

| | |
|---|---|
| Synopsis | Network policy ID |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* ingress qos network policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos network *network-policy-name* |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## **vc-label** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Ingress MPLS VC label to send packets to the far end |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* ingress vc-label *number* |
| Tree | vc-label |
| Range | 1 to 1048575 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **l2pt**

| | |
|---|---|
| Synopsis | Enter the **l2pt** context |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* l2pt |
| Tree | l2pt |
| Introduced | 16.0.R1 |
| Platforms | All |

## **termination**

| | |
|---|---|
| Synopsis | Enable the **termination** context |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* l2pt termination |
| Tree | termination |
| Introduced | 16.0.R1 |
| Platforms | All |

## **protocols**

| | |
|---|---|
| Synopsis | Enter the **protocols** context |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* l2pt termination protocols |


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| | |
|---|---|
| Tree | protocols |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cdp** *boolean*

| | |
|---|---|
| Synopsis | Enable Cisco discovery protocol |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* l2pt termination protocols cdp *boolean* |
| Tree | cdp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **dtp** *boolean*

| | |
|---|---|
| Synopsis | Enable dynamic trunking protocol |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* l2pt termination protocols dtp *boolean* |
| Tree | dtp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **pagp** *boolean*

| | |
|---|---|
| Synopsis | Enable port aggregation protocol |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* l2pt termination protocols pagp *boolean* |
| Tree | pagp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **stp** *boolean*

| | |
|---|---|
| Synopsis | Enable all spanning tree protocols |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* l2pt termination protocols stp *boolean* |
| Tree | stp |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **udld** *boolean*

| | |
|---|---|
| Synopsis | Enable unidirectional link detection |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* l2pt termination protocols udld *boolean* |
| Tree | udld |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **vtp** *boolean*

| | |
|---|---|
| Synopsis | Enable virtual trunk protocol |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* l2pt termination protocols vtp *boolean* |
| Tree | vtp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mld-snooping**

| | |
|---|---|
| Synopsis | Enter the **mld-snooping** context |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* mld-snooping |
| Tree | mld-snooping |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **fast-leave** *boolean*

| | |
|---|---|
| Synopsis | Allow IGMP fast leave processing |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* mld-snooping fast-leave *boolean* |
| Tree | fast-leave |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **import-policy** *reference*

| | |
|---|---|
| Synopsis | Import policy that filters IGMP packets |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* mld-snooping import-policy *reference* |
| Tree | import-policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **maximum-number-groups** *number*

| | |
|---|---|
| Synopsis | Maximum groups allowed |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* mld-snooping maximum-number-groups *number* |
| Tree | maximum-number-groups |
| Range | 1 to 16000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mrouter-port** *boolean*

| | |
|---|---|
| Synopsis | Operate port as a multicast router port |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* mld-snooping mrouter-port *boolean* |
| Tree | mrouter-port |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **query-interval** *number*

| | |
|---|---|
| Synopsis | Time between two consecutive host-query messages |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* mld-snooping query-interval *number* |
| Tree | query-interval |
| Range | 2 to 1024 |
| Units | seconds |
| Default | 125 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **query-last-member-interval** *number*

| | |
|---|---|
| Synopsis | Time between group-specific query messages |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* mld-snooping query-last-member-interval *number* |
| Tree | query-last-member-interval |
| Range | 1 to 50 |
| Units | deciseconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **query-response-interval** *number*

| | |
|---|---|
| Synopsis | Time to wait for a response to the host-query messages |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* mld-snooping query-response-interval *number* |


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| | |
|---|---|
| Tree | query-response-interval |
| Range | 1 to 1023 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **robust-count** *number*

| | |
|---|---|
| Synopsis | Number of retries after expected message loss |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* mld-snooping robust-count *number* |
| Tree | robust-count |
| Range | 2 to 7 |
| Default | 2 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **router-alert-check** *boolean*

| | |
|---|---|
| Synopsis | Enable IP router alert check option |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* mld-snooping router-alert-check *boolean* |
| Tree | router-alert-check |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **send-queries** *boolean*

| | |
|---|---|
| Synopsis | Generate IGMP general queries |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* mld-snooping send-queries *boolean* |
| Tree | send-queries |
| Default | false |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## static

| | |
|---|---|
| Synopsis | Enter the **static** context |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* mld-snooping static |
| Tree | static |
| Introduced | 16.0.R1 |
| Platforms | All |

## **group** [group-address] *ipv6-multicast-address*

| | |
|---|---|
| Synopsis | Enter the **group** list instance |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* mld-snooping static group *ipv6-multicast-address* |
| Tree | group |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**group-address**] *ipv6-multicast-address*

| | |
|---|---|
| Synopsis | Group address of multicast channel |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* mld-snooping static group *ipv6-multicast-address* |
| Tree | group |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **source** [source-address] *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Add a list entry for **source** |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* mld-snooping static group *ipv6-multicast-address* source *ipv6-unicast-address* |
| Tree | source |
| Notes | The following elements are part of a mandatory choice: **source** or **starg**. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### [**source-address**] *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Source IP address |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* mld-snooping static group *ipv6-multicast-address* source *ipv6-unicast-address* |
| Tree | source |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R2 |
| Platforms | All |

### **starg**

| | |
|---|---|
| Synopsis | any source address (*,G) |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* mld-snooping static group *ipv6-multicast-address* starg |
| Tree | starg |
| Notes | The following elements are part of a mandatory choice: **source** or **starg**. |
| Introduced | 16.0.R2 |
| Platforms | All |

### **version** *keyword*

| | |
|---|---|
| Synopsis | Version of MLD running on the SAP or SDP |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* mld-snooping version *keyword* |
| Tree | version |
| Options | 1, 2 |
| Default | 2 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **monitor-oper-group** *reference*

| | |
|---|---|
| Synopsis | Operational group that affects state of the SDP bind |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* monitor-oper-group *reference* |
| Tree | monitor-oper-group |
| Reference | **configure** service oper-group *named-item* |
| Notes | The following elements are part of a choice: **monitor-oper-group** or **oper-group**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mrp**

| | |
|---|---|
| Synopsis | Enter the **mrp** context |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* mrp |
| Tree | mrp |
| Introduced | 20.10.R1 |
| Platforms | All |

### **join-time** *number*

| | |
|---|---|
| Synopsis | Maximum rate for attribute join messages sent on SDP |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* mrp join-time *number* |
| Tree | join-time |
| Range | 1 to 10 |
| Units | deciseconds |
| Default | 2 |
| Introduced | 20.10.R1 |
| Platforms | All |

### **leave-all-time** *number*

| | |
|---|---|
| Synopsis | Frequency of LeaveAll PDUs by LeaveAll state machine |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* mrp leave-all-time *number* |
| Tree | leave-all-time |


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| | |
|---|---|
| Range | 60 to 300 |
| Units | deciseconds |
| Default | 100 |
| Introduced | 20.10.R1 |
| Platforms | All |

### **leave-time** *number*

| | |
|---|---|
| Synopsis | Time in LV state before transition to MT state |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* mrp leave-time *number* |
| Tree | leave-time |
| Range | 30 to 60 |
| Units | deciseconds |
| Default | 30 |
| Introduced | 20.10.R1 |
| Platforms | All |

### **periodic-time** *number*

| | |
|---|---|
| Synopsis | Frequency of periodic events generated by state machine |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* mrp periodic-time *number* |
| Tree | periodic-time |
| Range | 10 to 100 |
| Units | deciseconds |
| Default | 10 |
| Introduced | 20.10.R1 |
| Platforms | All |

### **periodic-timer** *boolean*

| | |
|---|---|
| Synopsis | Enable the Periodic Transmission Timer |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* mrp periodic-timer *boolean* |
| Tree | periodic-timer |
| Default | false |
| Introduced | 20.10.R1 |


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| | |
|---|---|
| Platforms | All |

## **policy** *reference*

| | |
|---|---|
| Synopsis | MRP policy to control Group B-MAC attributes |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* mrp policy *reference* |
| Tree | policy |
| Reference | **configure** service mrp policy *named-item* |
| Introduced | 20.10.R1 |
| Platforms | All |

## **oper-group** *reference*

| | |
|---|---|
| Synopsis | Operational group identifier |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* oper-group *reference* |
| Tree | oper-group |
| Reference | **configure** service oper-group *named-item* |
| Notes | The following elements are part of a choice: **monitor-oper-group** or **oper-group**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **pbb**

| | |
|---|---|
| Synopsis | Enter the **pbb** context |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* pbb |
| Tree | pbb |
| Introduced | 20.10.R1 |
| Platforms | All |

## **fault-propagation**

| | |
|---|---|
| Synopsis | Enter the **fault-propagation** context |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* pbb fault-propagation |
| Tree | fault-propagation |
| Introduced | 20.10.R1 |


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| | |
|---|---|
| Platforms | All |

### **backbone-mac-address** [address] *mac-unicast-address-no-zero*

| | |
|---|---|
| Synopsis | Add a list entry for **backbone-mac-address** |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* pbb fault-propagation backbone-mac-address *mac-unicast-address-no-zero* |
| Tree | backbone-mac-address |
| Introduced | 20.10.R1 |
| Platforms | All |

### [**address**] *mac-unicast-address-no-zero*

| | |
|---|---|
| Synopsis | Backbone MAC address |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* pbb fault-propagation backbone-mac-address *mac-unicast-address-no-zero* |
| Tree | backbone-mac-address |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | All |

### **backbone-mac-name** [name] *reference*

| | |
|---|---|
| Synopsis | Add a list entry for **backbone-mac-name** |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* pbb fault-propagation backbone-mac-name *reference* |
| Tree | backbone-mac-name |
| Introduced | 20.10.R1 |
| Platforms | All |

### [**name**] *reference*

| | |
|---|---|
| Synopsis | Backbone MAC address name |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* pbb fault-propagation backbone-mac-name *reference* |
| Tree | backbone-mac-name |


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| | |
|---|---|
| Reference | **configure** service pbb mac *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | All |

## pim-snooping

| | |
|---|---|
| Synopsis | Enter the **pim-snooping** context |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* pim-snooping |
| Tree | pim-snooping |
| Introduced | 16.0.R1 |
| Platforms | All |

## maximum-number-groups *number*

| | |
|---|---|
| Synopsis | Maximum groups for this interface |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* pim-snooping maximum-number-groups *number* |
| Tree | maximum-number-groups |
| Range | 1 to 16000 |
| Introduced | 16.0.R1 |
| Platforms | All |

## pw-status

| | |
|---|---|
| Synopsis | Enter the **pw-status** context |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* pw-status |
| Tree | pw-status |
| Introduced | 16.0.R1 |
| Platforms | All |

## signaling *boolean*

| | |
|---|---|
| Synopsis | Enable the use of pseudowire status signaling |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* pw-status signaling *boolean* |


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| | |
|---|---|
| Tree | signaling |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### spb

| | |
|---|---|
| Synopsis | Enable the **spb** context |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* spb |
| Tree | spb |
| Introduced | 21.10.R1 |
| Platforms | All |

### admin-state *keyword*

| | |
|---|---|
| Synopsis | Admin state |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* spb admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.10.R1 |
| Platforms | All |

### level [id] *number*

| | |
|---|---|
| Synopsis | Enter the **level** list instance |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* spb level *number* |
| Tree | level |
| Introduced | 21.10.R1 |
| Platforms | All |

### [id] *number*

| | |
|---|---|
| Synopsis | Level identifier |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* spb level *number* |


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| | |
|---|---|
| Tree | level |
| Range | 1 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | All |

### **hello-interval** *number*

| | |
|---|---|
| Synopsis | Hello interval |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* spb level *number* hello-interval *number* |
| Tree | hello-interval |
| Range | 1 to 20000 |
| Units | seconds |
| Default | 9 |
| Introduced | 21.10.R1 |
| Platforms | All |

### **hello-multiplier** *number*

| | |
|---|---|
| Synopsis | Hello multiplier |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* spb level *number* hello-multiplier *number* |
| Tree | hello-multiplier |
| Range | 2 to 100 |
| Default | 3 |
| Introduced | 21.10.R1 |
| Platforms | All |

### **metric** *number*

| | |
|---|---|
| Synopsis | Metric |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* spb level *number* metric *number* |
| Tree | metric |
| Range | 0 to 16777215 |


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| | |
|---|---|
| Default | 0 |
| Introduced | 21.10.R1 |
| Platforms | All |

## **lsp-pacing-interval** *number*

| | |
|---|---|
| Synopsis | Lsp pacing interval |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* spb lsp-pacing-interval *number* |
| Tree | lsp-pacing-interval |
| Range | 0 to 65535 |
| Units | milliseconds |
| Default | 100 |
| Introduced | 21.10.R1 |
| Platforms | All |

## **retransmit-interval** *number*

| | |
|---|---|
| Synopsis | Retransmit interval |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* spb retransmit-interval *number* |
| Tree | retransmit-interval |
| Range | 1 to 65535 |
| Units | seconds |
| Default | 5 |
| Introduced | 21.10.R1 |
| Platforms | All |

## **split-horizon-group** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Name of the split horizon group where the spoke SDP bind belongs to |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* split-horizon-group *reference* |


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| | |
|---|---|
| Tree | split-horizon-group |
| Reference | **configure** service vpls *service-name* split-horizon-group *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### static-isid

| | |
|---|---|
| Synopsis | Enter the **static-isid** context |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* static-isid |
| Tree | static-isid |
| Introduced | 19.10.R1 |
| Platforms | All |

### **range** [range-id] *number*

| | |
|---|---|
| Synopsis | Enter the **range** list instance |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* static-isid range *number* |
| Tree | range |
| Introduced | 19.10.R1 |
| Platforms | All |

### [**range-id**] *number*

| | |
|---|---|
| Synopsis | Range ID for static ISID |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* static-isid range *number* |
| Tree | range |
| Range | 1 to 8191 |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the ISID range |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* static-isid range *number* end *number* |
| Tree | end |
| Range | 1 to 16777215 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of the ISID range |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* static-isid range *number* start *number* |
| Tree | start |
| Range | 1 to 16777215 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **stp**

| | |
|---|---|
| Synopsis | Enter the **stp** context |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* stp |
| Tree | stp |
| Introduced | 16.0.R4 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of STP |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* stp admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **auto-edge** *boolean*

| | |
|---|---|
| Synopsis | Enable automatic detection of edge port characteristics |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* stp auto-edge *boolean* |
| Tree | auto-edge |
| Description | When configured to **true**, the router automatically detects the edge port characteristics of the SAP or spoke SDP. The STP concludes there is no bridge behind the spoke SDP, the OPER_EDGE variable is dynamically set to **true**. If a BPDU is received, the OPER_EDGE variable is dynamically set to **false**.<br>When configured to **false**, the router disables automatic detection. |
| Default | true |
| Introduced | 16.0.R4 |
| Platforms | All |

### **edge-port** *boolean*

| | |
|---|---|
| Synopsis | Designate SAP or SDP as an edge port |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* stp edge-port *boolean* |
| Tree | edge-port |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **link-type** *keyword*

| | |
|---|---|
| Synopsis | Configure STP link-type |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* stp link-type *keyword* |
| Tree | link-type |
| Options | pt-pt, shared |
| Default | pt-pt |
| Introduced | 16.0.R4 |
| Platforms | All |

### **path-cost** *number*

| | |
|---|---|
| Synopsis | Configure path-cost |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* stp path-cost *number* |
| Tree | path-cost |
| Range | 1 to 200000000 |
| Default | 10 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **port-num** *number*

| | |
|---|---|
| Synopsis | Virtual port number |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* stp port-num *number* |
| Tree | port-num |
| Range | 1 to 2047 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **priority** *number*

| | |
|---|---|
| Synopsis | Configure STP priority |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* stp priority *number* |
| Tree | priority |
| Range | 0 to 255 |
| Default | 128 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **root-guard** *boolean*

| | |
|---|---|
| Synopsis | Enable/disable STP root-guard |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* stp root-guard *boolean* |
| Tree | root-guard |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |


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## transit-policy

| | |
|---|---|
| Synopsis | Enable the **transit-policy** context |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* transit-policy |
| Tree | transit-policy |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## prefix *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IP prefix policy ID |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* transit-policy prefix *reference* |
| Tree | prefix |
| Reference | **configure** application-assurance group *number* partition *number* transit-prefix-policy *number* |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## vc-type *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Type of virtual circuit (VC) associated with the SDP binding; VPLS not supported |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* vc-type *keyword* |
| Tree | vc-type |
| Options | ether, vlan |
| Default | ether |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **vlan-vc-tag** *number*

| | |
|---|---|
| Synopsis | SDP bind VC tag |
| Context | **configure** service vpls *service-name* spoke-sdp *sdp-bind-id* vlan-vc-tag *number* |
| Tree | vlan-vc-tag |
| Range | 0 to 4094 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **stp**

| | |
|---|---|
| Synopsis | Enter the **stp** context |
| Context | **configure** service vpls *service-name* stp |
| Tree | stp |
| Introduced | 16.0.R4 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of STP |
| Context | **configure** service vpls *service-name* stp admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R4 |
| Platforms | All |

### **forward-delay** *number*

| | |
|---|---|
| Synopsis | Configure forward-delay |
| Context | **configure** service vpls *service-name* stp forward-delay *number* |
| Tree | forward-delay |
| Range | 4 to 30 |
| Default | 15 |
| Introduced | 16.0.R4 |


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| | |
|---|---|
| Platforms | All |

### **hello-time** *number*

| | |
|---|---|
| Synopsis | Configure hello-time |
| Context | **configure** service vpls *service-name* stp hello-time *number* |
| Tree | hello-time |
| Range | 1 to 10 |
| Default | 2 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **hold-count** *number*

| | |
|---|---|
| Synopsis | Configure BPDU transmit hold count |
| Context | **configure** service vpls *service-name* stp hold-count *number* |
| Tree | hold-count |
| Range | 1 to 20 |
| Default | 6 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **maximum-age** *number*

| | |
|---|---|
| Synopsis | Configure maximum STP information age |
| Context | **configure** service vpls *service-name* stp maximum-age *number* |
| Tree | maximum-age |
| Range | 6 to 40 |
| Default | 20 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **mode** *keyword*

| | |
|---|---|
| Synopsis | Configure protocol version |


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| | |
|---|---|
| Context | **configure** service vpls *service-name* stp mode *keyword* |
| Tree | mode |
| Options | rstp, comp-dot1w, dot1w, mstp, pmstp |
| Default | rstp |
| Introduced | 16.0.R4 |
| Platforms | All |

### **mst-instance** [mst-inst-number] *number*

| | |
|---|---|
| Synopsis | Enter the **mst-instance** list instance |
| Context | **configure** service vpls *service-name* stp mst-instance *number* |
| Tree | mst-instance |
| Introduced | 19.10.R1 |
| Platforms | All |

### [**mst-inst-number**] *number*

| | |
|---|---|
| Synopsis | Multiple Spanning Tree Instance number |
| Context | **configure** service vpls *service-name* stp mst-instance *number* |
| Tree | mst-instance |
| Range | 1 to 4094 |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **mst-priority** *number*

| | |
|---|---|
| Synopsis | Priority of multiple spanning tree instance |
| Context | **configure** service vpls *service-name* stp mst-instance *number* mst-priority *number* |
| Tree | mst-priority |
| Range | 0 \| 4096 \| 8192 \| 12288 \| 16384 \| 20480 \| 24576 \| 28672 \| 32768 \| 36864 \| 40960 \| 45056 \| 49152 \| 53248 \| 57344 \| 61440 |
| Default | 32768 |
| Introduced | 19.10.R1 |
| Platforms | All |


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### **vlan-range** [range] *string*

| | |
|---|---|
| Synopsis | Add a list entry for **vlan-range** |
| Context | **configure** service vpls *service-name* stp mst-instance *number* vlan-range *string* |
| Tree | vlan-range |
| Introduced | 19.10.R1 |
| Platforms | All |

### [**range**] *string*

| | |
|---|---|
| Synopsis | Range of VLANs associated with the M-VPLS SAP |
| Context | **configure** service vpls *service-name* stp mst-instance *number* vlan-range *string* |
| Tree | vlan-range |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **mst-maximum-hops** *number*

| | |
|---|---|
| Synopsis | Maximum number of hops in an MSTP region |
| Context | **configure** service vpls *service-name* stp mst-maximum-hops *number* |
| Tree | mst-maximum-hops |
| Range | 1 to 40 |
| Default | 20 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **mst-name** *named-item*

| | |
|---|---|
| Synopsis | MST region name |
| Context | **configure** service vpls *service-name* stp mst-name *named-item* |
| Tree | mst-name |
| String length | 1 to 32 |
| Introduced | 19.10.R1 |
| Platforms | All |


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### **mst-revision** *number*

| | |
|---|---|
| Synopsis | MST configuration revision |
| Context | **configure** service vpls *service-name* stp mst-revision *number* |
| Tree | mst-revision |
| Range | 0 to 65535 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **priority** *number*

| | |
|---|---|
| Synopsis | STP bridge priority |
| Context | **configure** service vpls *service-name* stp priority *number* |
| Tree | priority |
| Range | 0 to 65535 |
| Default | 32768 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **temp-flooding** *number*

| | |
|---|---|
| Synopsis | Temporary flooding |
| Context | **configure** service vpls *service-name* temp-flooding *number* |
| Tree | temp-flooding |
| Range | 3 to 600 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **tunnel-elmi** *boolean*

| | |
|---|---|
| Synopsis | Allow E-LMI tunneling |
| Context | **configure** service vpls *service-name* tunnel-elmi *boolean* |
| Tree | tunnel-elmi |


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| | |
|---|---|
| Description | When configured to **true**, the router allows E-LMI packets in a VPLS service to be tunneled. The following must also be the case for this command to function:<br>• the **configure port ethernet elmi mode uni-n** command is not configured<br>• the E-LMI packets map to that VPLS service<br>When configured to **false**, tunneling of the E-LMI packets for a VPLS service is disabled. |
| Default | false |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **vpn-id** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | VPN identifier for the service |
| Context | **configure** service vpls *service-name* vpn-id *number* |
| Tree | vpn-id |
| Range | 1 to 2147483647 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **vxlan**

| | |
|---|---|
| Synopsis | Enter the **vxlan** context |
| Context | **configure** service vpls *service-name* vxlan |
| Tree | vxlan |
| Introduced | 16.0.R1 |
| Platforms | All |

## **instance** [vxlan-instance] *number*

| | |
|---|---|
| Synopsis | Enter the **instance** list instance |
| Context | **configure** service vpls *service-name* vxlan instance *number* |
| Tree | instance |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### [**vxlan-instance**] *number*

| | |
|---|---|
| Synopsis | VXLAN instance |
| Context | **configure** service vpls *service-name* vxlan instance *number* |
| Tree | instance |
| Range | 1 to 2 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **assisted-replication**

| | |
|---|---|
| Synopsis | Enter the **assisted-replication** context |
| Context | **configure** service vpls *service-name* vxlan instance *number* assisted-replication |
| Tree | assisted-replication |
| Introduced | 16.0.R1 |
| Platforms | All |

### **leaf**

| | |
|---|---|
| Synopsis | Enable the **leaf** context |
| Context | **configure** service vpls *service-name* vxlan instance *number* assisted-replication leaf |
| Tree | leaf |
| Notes | The following elements are part of a choice: **leaf** or **replicator**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **acttime** *number*

| | |
|---|---|
| Synopsis | Time for the leaf to wait before sending traffic to a new replicator |
| Context | **configure** service vpls *service-name* vxlan instance *number* assisted-replication leaf acttime *number* |
| Tree | acttime |


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| | |
|---|---|
| Range | 1 to 255 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### replicator

| | |
|---|---|
| Synopsis | AR role as replicator |
| Context | **configure** service vpls *service-name* vxlan instance *number* assisted-replication replicator |
| Tree | replicator |
| Notes | The following elements are part of a choice: **leaf** or **replicator**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **egress-vtep** [ip-address] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Add a list entry for **egress-vtep** |
| Context | **configure** service vpls *service-name* vxlan instance *number* egress-vtep *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | egress-vtep |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### [**ip-address**] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | VTEP IP address used when originating VXLAN packets |
| Context | **configure** service vpls *service-name* vxlan instance *number* egress-vtep *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | egress-vtep |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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## fdb

| | |
|---|---|
| Synopsis | Enter the **fdb** context |
| Context | **configure** service vpls *service-name* vxlan instance *number* fdb |
| Tree | fdb |
| Introduced | 16.0.R1 |
| Platforms | All |

## discard-unknown-source *boolean*

| | |
|---|---|
| Synopsis | Discard frames with unknown source |
| Context | **configure** service vpls *service-name* vxlan instance *number* fdb discard-unknown-source *boolean* |
| Tree | discard-unknown-source |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## mac-learning

| | |
|---|---|
| Synopsis | Enter the **mac-learning** context |
| Context | **configure** service vpls *service-name* vxlan instance *number* fdb mac-learning |
| Tree | mac-learning |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## aging *boolean*

| | |
|---|---|
| Synopsis | Enable/disable aging of MAC addresses |
| Context | **configure** service vpls *service-name* vxlan instance *number* fdb mac-learning aging *boolean* |
| Tree | aging |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **learning** *boolean*

| | |
|---|---|
| Synopsis | Enable learning of new MAC addresses |
| Context | **configure** service vpls *service-name* vxlan instance *number* fdb mac-learning learning *boolean* |
| Tree | learning |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **maximum-mac-addresses** *number*

| | |
|---|---|
| Synopsis | Maximum number of MAC entries in the FDB from this vxlan instance |
| Context | **configure** service vpls *service-name* vxlan instance *number* fdb maximum-mac-addresses *number* |
| Tree | maximum-mac-addresses |
| Range | 1 to 511999 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **protected-src-mac-violation-action** *keyword*

| | |
|---|---|
| Synopsis | Action for a relearn request for a protected MAC |
| Context | **configure** service vpls *service-name* vxlan instance *number* fdb protected-src-mac-violation-action *keyword* |
| Tree | protected-src-mac-violation-action |
| Options | discard |
| Introduced | 16.0.R1 |
| Platforms | All |

### **igmp-snooping**

| | |
|---|---|
| Synopsis | Enter the **igmp-snooping** context |
| Context | **configure** service vpls *service-name* vxlan instance *number* igmp-snooping |
| Tree | igmp-snooping |
| Introduced | 16.0.R5 |


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| | |
|---|---|
| Platforms | All |

### **mrouter-port** *boolean*

| | |
|---|---|
| Synopsis | Enable VXLAN binds as multicast router ports |
| Context | **configure** service vpls *service-name* vxlan instance *number* igmp-snooping mrouter-port *boolean* |
| Tree | mrouter-port |
| Default | false |
| Introduced | 16.0.R5 |
| Platforms | All |

### **mld-snooping**

| | |
|---|---|
| Synopsis | Enter the **mld-snooping** context |
| Context | **configure** service vpls *service-name* vxlan instance *number* mld-snooping |
| Tree | mld-snooping |
| Introduced | 16.0.R5 |
| Platforms | All |

### **mrouter-port** *boolean*

| | |
|---|---|
| Synopsis | Enable VXLAN binds as multicast router ports |
| Context | **configure** service vpls *service-name* vxlan instance *number* mld-snooping mrouter-port *boolean* |
| Tree | mrouter-port |
| Default | false |
| Introduced | 16.0.R5 |
| Platforms | All |

### **network**

| | |
|---|---|
| Synopsis | Enter the **network** context |
| Context | **configure** service vpls *service-name* vxlan instance *number* network |
| Tree | network |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## ingress

| | |
|---|---|
| Synopsis | Enter the **ingress** context |
| Context | **configure** service vpls *service-name* vxlan instance *number* network ingress |
| Tree | ingress |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## qos

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** service vpls *service-name* vxlan instance *number* network ingress qos |
| Tree | qos |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## network

| | |
|---|---|
| Synopsis | Enter the **network** context |
| Context | **configure** service vpls *service-name* vxlan instance *number* network ingress qos network |
| Tree | network |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## fp-redirect-group

| | |
|---|---|
| Synopsis | Enter the **fp-redirect-group** context |
| Context | **configure** service vpls *service-name* vxlan instance *number* network ingress qos network fp-redirect-group |
| Tree | fp-redirect-group |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |


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### **group-name** *reference*

| | |
|---|---|
| Synopsis | Name of the forwarding plane queue group template |
| Context | **configure** service vpls *service-name* vxlan instance *number* network ingress qos network fp-redirect-group group-name *reference* |
| Tree | group-name |
| Reference | **configure** qos queue-group-templates ingress queue-group *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **instance** *number*

| | |
|---|---|
| Synopsis | Instance of the forwarding-plane ingress Queue Group for this SDP binding |
| Context | **configure** service vpls *service-name* vxlan instance *number* network ingress qos network fp-redirect-group instance *number* |
| Tree | instance |
| Range | 1 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **policy-name** *reference*

| | |
|---|---|
| Synopsis | Ingress network policy name applied to this SDP binding |
| Context | **configure** service vpls *service-name* vxlan instance *number* network ingress qos network policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos network *network-policy-name* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **rx-discard-on-ndf** *keyword*

| | |
|---|---|
| Synopsis | Received multicast traffic type discarded on NDF |
| Context | **configure** service vpls *service-name* vxlan instance *number* rx-discard-on-ndf *keyword* |
| Tree | rx-discard-on-ndf |
| Options | bm, bum, none |


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| | |
|---|---|
| Default | bm |
| Introduced | 16.0.R4 |
| Platforms | All |

### **source-vtep-security** *boolean*

| | |
|---|---|
| Synopsis | Enable/disable source vtep security |
| Context | **configure** service vpls *service-name* vxlan instance *number* source-vtep-security *boolean* |
| Tree | source-vtep-security |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **vni** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | VNI of the VXLAN |
| Context | **configure** service vpls *service-name* vxlan instance *number* vni *number* |
| Tree | vni |
| Range | 1 to 16777215 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **source-vtep** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Vxlan source virtual tunnel endpoint information |
| Context | **configure** service vpls *service-name* vxlan source-vtep *(ipv4-address-no-zone | ipv6-address-no-zone)* |
| Tree | source-vtep |
| Introduced | 16.0.R1 |
| Platforms | All |


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## wlan-gw

| | |
|---|---|
| Synopsis | Enter the **wlan-gw** context |
| Context | **configure** service vpls *service-name* wlan-gw |
| Tree | wlan-gw |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of WLAN-GW |
| Context | **configure** service vpls *service-name* wlan-gw admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## description *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vpls *service-name* wlan-gw description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## wlan-gw-group *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | WLAN-GW endpoint within the VPLS service |
| Context | **configure** service vpls *service-name* wlan-gw wlan-gw-group *reference* |
| Tree | wlan-gw-group |


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| | |
|---|---|
| Description | This command specifies a WLAN-GW group to be used as an endpoint within the VPLS. This feature is used in conjunction with the **configure service vprn subscriber-interface group-interface wlan-gw vlan-range dynamic-service** command for a VPRN service and the **configure service ies subscriber-interface group-interface wlan-gw vlan-range dynamic-service** command for an IES service.<br>See "Dynamic VPLS service" in the *7450 ESS, 7750 SR, and VSR Triple Play Service Delivery Architecture Guide* for more information about the dynamic VPLS service feature. |
| Reference | **configure** isa wlan-gw-group *number* |
| Introduced | 23.3.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **vprn** [service-name] *service-name*

| | |
|---|---|
| Synopsis | Enter the **vprn** list instance |
| Context | **configure** service vprn *service-name* |
| Tree | vprn |
| Description | Commands in this context create or edit a VPRN service instance. |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**service-name**] *service-name*

| | |
|---|---|
| Synopsis | Administrative service name |
| Context | **configure** service vprn *service-name* |
| Tree | vprn |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **aa-interface** [interface-name] *interface-name*

| | |
|---|---|
| Synopsis | Enter the **aa-interface** list instance |
| Context | **configure** service vprn *service-name* aa-interface *interface-name* |
| Tree | aa-interface |
| Introduced | 21.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**interface-name**] *interface-name*

| | |
|---|---|
| Synopsis | Interface name |
| Context | **configure** service vprn *service-name* aa-interface *interface-name* |
| Tree | aa-interface |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the interface |
| Context | **configure** service vprn *service-name* aa-interface *interface-name* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *very-long-description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* aa-interface *interface-name* description *very-long-description* |
| Tree | description |
| String length | 1 to 255 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ip-mtu** *number*

| | |
|---|---|
| Synopsis | IP MTU applied to outgoing packets |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* aa-interface *interface-name* ip-mtu *number* |
| Tree | ip-mtu |
| Description | This command configures the IP maximum transmission unit (MTU) for the associated router IP interface. |
| Range | 512 to 9786 |
| Units | bytes |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## ipv4

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |
| Context | **configure** service vprn *service-name* aa-interface *interface-name* ipv4 |
| Tree | ipv4 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## primary

| | |
|---|---|
| Synopsis | Enable the **primary** context |
| Context | **configure** service vprn *service-name* aa-interface *interface-name* ipv4 primary |
| Tree | primary |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## address *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Primary IPv4 address assigned to the interface |
| Context | **configure** service vprn *service-name* aa-interface *interface-name* ipv4 primary address *ipv4-unicast-address* |
| Tree | address |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **prefix-length** *number*

| | |
|---|---|
| Synopsis | IPv4 address prefix length |
| Context | **configure** service vprn *service-name* aa-interface *interface-name* ipv4 primary prefix-length *number* |
| Tree | prefix-length |
| Range | 0 to 32 |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **sap** [sap-id] *sap*

| | |
|---|---|
| Synopsis | Enter the **sap** list instance |
| Context | **configure** service vprn *service-name* aa-interface *interface-name* sap *sap* |
| Tree | sap |
| Max. instances | 1 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**sap-id**] *sap*

| | |
|---|---|
| Synopsis | SAP ID |
| Context | **configure** service vprn *service-name* aa-interface *interface-name* sap *sap* |
| Tree | sap |
| String length | 1 to 45 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the SAP |
| Context | **configure** service vprn *service-name* aa-interface *interface-name* sap *sap* admin-state *keyword* |


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| | |
|---|---|
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *long-description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* aa-interface *interface-name* sap *sap* description *long-description* |
| Tree | description |
| String length | 1 to 160 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **egress**

| | |
|---|---|
| Synopsis | Enter the **egress** context |
| Context | **configure** service vprn *service-name* aa-interface *interface-name* sap *sap* egress |
| Tree | egress |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **filter**

| | |
|---|---|
| Synopsis | Enter the **filter** context |
| Context | **configure** service vprn *service-name* aa-interface *interface-name* sap *sap* egress filter |
| Tree | filter |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ip** *reference*

| | |
|---|---|
| Synopsis | IPv4 filter policy name |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* aa-interface *interface-name* sap *sap* egress filter ip *reference* |
| Tree | ip |
| Reference | **configure** filter ip-filter *filter-name* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## qos

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** service vprn *service-name* aa-interface *interface-name* sap *sap* egress qos |
| Tree | qos |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## sap-egress

| | |
|---|---|
| Synopsis | Enter the **sap-egress** context |
| Context | **configure** service vprn *service-name* aa-interface *interface-name* sap *sap* egress qos sap-egress |
| Tree | sap-egress |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## policy-name *reference*

| | |
|---|---|
| Synopsis | Policy ID to associate with SAP for mirrored service |
| Context | **configure** service vprn *service-name* aa-interface *interface-name* sap *sap* egress qos sap-egress policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos sap-egress *qos-policy-name* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## virtual-port

| | |
|---|---|
| Synopsis | Enter the **virtual-port** context |
| Context | **configure** service vprn *service-name* aa-interface *interface-name* sap *sap* egress virtual-port |
| Tree | virtual-port |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## vport-name *reference*

| | |
|---|---|
| Synopsis | Virtual port assigned to the SAP |
| Context | **configure** service vprn *service-name* aa-interface *interface-name* sap *sap* egress virtual-port vport-name *reference* |
| Tree | vport-name |
| Reference | **configure** port *port* ethernet access egress virtual-port *named-item* |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## fwd-wholesale

| | |
|---|---|
| Synopsis | Enter the **fwd-wholesale** context |
| Context | **configure** service vprn *service-name* aa-interface *interface-name* sap *sap* fwd-wholesale |
| Tree | fwd-wholesale |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## pppoe-service *reference*

| | |
|---|---|
| Synopsis | PPPoE service name |
| Context | **configure** service vprn *service-name* aa-interface *interface-name* sap *sap* fwd-wholesale pppoe-service *reference* |
| Tree | pppoe-service |
| Reference | **configure** service epipe *service-name* |
| Introduced | 21.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## ingress

| | |
|---|---|
| Synopsis | Enter the **ingress** context |
| Context | **configure** service vprn *service-name* aa-interface *interface-name* sap *sap* ingress |
| Tree | ingress |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## qos

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** service vprn *service-name* aa-interface *interface-name* sap *sap* ingress qos |
| Tree | qos |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## sap-ingress

| | |
|---|---|
| Synopsis | Enter the **sap-ingress** context |
| Context | **configure** service vprn *service-name* aa-interface *interface-name* sap *sap* ingress qos sap-ingress |
| Tree | sap-ingress |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## overrides

| | |
|---|---|
| Synopsis | Enter the **overrides** context |
| Context | **configure** service vprn *service-name* aa-interface *interface-name* sap *sap* ingress qos sap-ingress overrides |
| Tree | overrides |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **policy-name** *reference*

| | |
|---|---|
| Synopsis | Policy ID |
| Context | **configure** service vprn *service-name* aa-interface *interface-name* sap *sap* ingress qos sap-ingress policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos sap-ingress *qos-policy-name* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### lag

| | |
|---|---|
| Synopsis | Enter the **lag** context |
| Context | **configure** service vprn *service-name* aa-interface *interface-name* sap *sap* lag |
| Tree | lag |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### aaa

| | |
|---|---|
| Synopsis | Enter the **aaa** context |
| Context | **configure** service vprn *service-name* aaa |
| Tree | aaa |
| Introduced | 16.0.R4 |
| Platforms | All |

### remote-servers

| | |
|---|---|
| Synopsis | Enter the **remote-servers** context |
| Context | **configure** service vprn *service-name* aaa remote-servers |
| Tree | remote-servers |
| Introduced | 16.0.R4 |
| Platforms | All |


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## radius

| | |
|---|---|
| Synopsis | Enable the **radius** context |
| Context | **configure** service vprn *service-name* aaa remote-servers radius |
| Tree | radius |
| Introduced | 16.0.R4 |
| Platforms | All |

## access-algorithm *keyword*

| | |
|---|---|
| Synopsis | Algorithm used to access the set of RADIUS servers |
| Context | **configure** service vprn *service-name* aaa remote-servers radius access-algorithm *keyword* |
| Tree | access-algorithm |
| Options | direct, round-robin |
| Default | direct |
| Introduced | 16.0.R4 |
| Platforms | All |

## accounting *boolean*

| | |
|---|---|
| Synopsis | Enable RADIUS command accounting |
| Context | **configure** service vprn *service-name* aaa remote-servers radius accounting *boolean* |
| Tree | accounting |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

## accounting-port *number*

| | |
|---|---|
| Synopsis | Port number on RADIUS server for accounting requests |
| Context | **configure** service vprn *service-name* aaa remote-servers radius accounting-port *number* |
| Tree | accounting-port |
| Range | 1 to 65535 |
| Default | 1813 |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the authentication server |
| Context | **configure** service vprn *service-name* aaa remote-servers radius admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R4 |
| Platforms | All |

### **authorization** *boolean*

| | |
|---|---|
| Synopsis | Enable RADIUS authorization |
| Context | **configure** service vprn *service-name* aaa remote-servers radius authorization *boolean* |
| Tree | authorization |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **interactive-authentication** *boolean*

| | |
|---|---|
| Synopsis | Enable RADIUS interactive authentication |
| Context | **configure** service vprn *service-name* aaa remote-servers radius interactive-authentication *boolean* |
| Tree | interactive-authentication |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **port** *number*

| | |
|---|---|
| Synopsis | UDP port number on which to contact RADIUS server |
| Context | **configure** service vprn *service-name* aaa remote-servers radius port *number* |


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| | |
|---|---|
| Tree | port |
| Range | 1 to 65535 |
| Default | 1812 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **server** [index] *number*

| | |
|---|---|
| Synopsis | Enter the **server** list instance |
| Context | **configure** service vprn *service-name* aaa remote-servers radius server *number* |
| Tree | server |
| Max. instances | 5 |
| Introduced | 16.0.R4 |
| Platforms | All |

### [**index**] *number*

| | |
|---|---|
| Synopsis | RADIUS server ID |
| Context | **configure** service vprn *service-name* aaa remote-servers radius server *number* |
| Tree | server |
| Range | 1 to 5 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the RADIUS server |
| Context | **configure** service vprn *service-name* aaa remote-servers radius server *number* address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | address |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **authenticator** *keyword*

| | |
|---|---|
| Synopsis | Authenticator hash algorithm for the RADIUS server |
| Context | **configure** service vprn *service-name* aaa remote-servers radius server *number* authenticator *keyword* |
| Tree | authenticator |
| Description | This command specifies the hash algorithm used to authenticate RADIUS Access-Request, Access-Accept, Access-Reject, Access-Challenge, Accounting-Request, and Accounting-Response packets. |
| Options | md5, sm3 |
| Default | md5 |
| Introduced | 22.10.R1 |
| Platforms | All |

### **secret** *encrypted-leaf*

| | |
|---|---|
| Synopsis | Secret key to access the RADIUS server |
| Context | **configure** service vprn *service-name* aaa remote-servers radius server *number* secret *encrypted-leaf* |
| Tree | secret |
| String length | 1 to 115 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **tls-client-profile** *reference*

| | |
|---|---|
| Synopsis | TLS client profile for the RADIUS server |
| Context | **configure** service vprn *service-name* aaa remote-servers radius server *number* tls-client-profile *reference* |
| Tree | tls-client-profile |
| Description | This command specifies the TLS client profile used to encrypt RADIUS communication. When configured, RADIUS messages are sent using TLS. |
| Reference | **configure** system security tls client-tls-profile *named-item* |
| Introduced | 21.10.R1 |
| Platforms | All |


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### **server-retry** *number*

| | |
|---|---|
| Synopsis | Number of attempts to retry contacting RADIUS server |
| Context | **configure** service vprn *service-name* aaa remote-servers radius server-retry *number* |
| Tree | server-retry |
| Range | 1 to 10 |
| Default | 3 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **server-timeout** *number*

| | |
|---|---|
| Synopsis | Time to wait for a response from the RADIUS server |
| Context | **configure** service vprn *service-name* aaa remote-servers radius server-timeout *number* |
| Tree | server-timeout |
| Range | 1 to 90 |
| Units | seconds |
| Default | 3 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **use-default-template** *boolean*

| | |
|---|---|
| Synopsis | Apply the RADIUS default user template to RADIUS user |
| Context | **configure** service vprn *service-name* aaa remote-servers radius use-default-template *boolean* |
| Tree | use-default-template |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **tacplus**

| | |
|---|---|
| Synopsis | Enable the **tacplus** context |
| Context | **configure** service vprn *service-name* aaa remote-servers tacplus |


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| | |
|---|---|
| Tree | tacplus |
| Introduced | 16.0.R4 |
| Platforms | All |

## accounting

| | |
|---|---|
| Synopsis | Enable the **accounting** context |
| Context | **configure** service vprn *service-name* aaa remote-servers tacplus accounting |
| Tree | accounting |
| Introduced | 16.0.R4 |
| Platforms | All |

## record-type *keyword*

| | |
|---|---|
| Synopsis | Type of accounting record packet sent to TACACS+ server |
| Context | **configure** service vprn *service-name* aaa remote-servers tacplus accounting record-type *keyword* |
| Tree | record-type |
| Options | start-stop, stop-only |
| Default | stop-only |
| Introduced | 16.0.R4 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the TACACS+ protocol |
| Context | **configure** service vprn *service-name* aaa remote-servers tacplus admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R4 |
| Platforms | All |

## authorization

| | |
|---|---|
| Synopsis | Enable the **authorization** context |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* aaa remote-servers tacplus authorization |
| Tree | authorization |
| Introduced | 16.0.R4 |
| Platforms | All |

## request-format

| | |
|---|---|
| Synopsis | Enter the **request-format** context |
| Context | **configure** service vprn *service-name* aaa remote-servers tacplus authorization request-format |
| Tree | request-format |
| Description | Commands in this context configure access operations that are sent to the TACACS+ server during authorization. |
| Introduced | 21.10.R3 |
| Platforms | All |

## access-operation-cmd *keyword*

| | |
|---|---|
| Synopsis | Access operations sent in authorization requests |
| Context | **configure** service vprn *service-name* aaa remote-servers tacplus authorization request-format access-operation-cmd *keyword* |
| Tree | access-operation-cmd |
| Description | This command sends an operation argument in authorization requests.<br>In model-driven interfaces, this command configures the system to send the operation in the cmd argument, and the path in the cmd-args argument, in TACACS+ authorization requests. This command does not apply to authorization requests in classic interfaces. |
| Options | delete |
| Max. instances | 1 |
| Introduced | 21.10.R3 |
| Platforms | All |

## use-priv-lvl *boolean*

| | |
|---|---|
| Synopsis | Allow privilege level mapping |
| Context | **configure** service vprn *service-name* aaa remote-servers tacplus authorization use-priv-lvl *boolean* |


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| | |
|---|---|
| Tree | use-priv-lvl |
| Description | When configured to **true**, this command automatically performs a single authorization request to the TACACS+ server for cmd* (all commands) immediately after login, and then uses the local profile associated (via the **priv-lvl-map**) with the priv-lvl returned by the TACACS+ server for all subsequent authorization (except **enable-admin**). After the initial authorization for cmd*, no further authorization requests are sent to the TACACS+ server (except **enable-admin**).<br>When configured to **false**, each command is sent to the TACACS+ server for authorization (this is true regardless of whether the **tacplus use-default-template** setting is enabled). |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

## **interactive-authentication** *boolean*

| | |
|---|---|
| Synopsis | Allows TACACS+ interactive authentication |
| Context | **configure** service vprn *service-name* aaa remote-servers tacplus interactive-authentication *boolean* |
| Tree | interactive-authentication |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

## **priv-lvl-map**

| | |
|---|---|
| Synopsis | Enter the **priv-lvl-map** context |
| Context | **configure** service vprn *service-name* aaa remote-servers tacplus priv-lvl-map |
| Tree | priv-lvl-map |
| Introduced | 16.0.R4 |
| Platforms | All |

## **priv-lvl** [level] *number*

| | |
|---|---|
| Synopsis | Enter the **priv-lvl** list instance |
| Context | **configure** service vprn *service-name* aaa remote-servers tacplus priv-lvl-map priv-lvl *number* |
| Tree | priv-lvl |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | All |

### [**level**] *number*

| | |
|---|---|
| Synopsis | Privilege level for the mapping |
| Context | **configure** service vprn *service-name* aaa remote-servers tacplus priv-lvl-map priv-lvl *number* |
| Tree | priv-lvl |
| Range | 0 to 15 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **user-profile-name** *reference*

| | |
|---|---|
| Synopsis | User profile for the mapping |
| Context | **configure** service vprn *service-name* aaa remote-servers tacplus priv-lvl-map priv-lvl *number* user-profile-name *reference* |
| Tree | user-profile-name |
| Reference | **configure** system security aaa local-profiles profile *named-item* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **server** [index] *number*

| | |
|---|---|
| Synopsis | Enter the **server** list instance |
| Context | **configure** service vprn *service-name* aaa remote-servers tacplus server *number* |
| Tree | server |
| Max. instances | 5 |
| Introduced | 16.0.R4 |
| Platforms | All |


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### [**index**] *number*

| | |
|---|---|
| Synopsis | TACACS+ server ID |
| Context | **configure** service vprn *service-name* aaa remote-servers tacplus server *number* |
| Tree | server |
| Range | 1 to 5 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the TACACS+ server |
| Context | **configure** service vprn *service-name* aaa remote-servers tacplus server *number* address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | address |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **port** *number*

| | |
|---|---|
| Synopsis | TCP port ID on which to contact TACACS+ server |
| Context | **configure** service vprn *service-name* aaa remote-servers tacplus server *number* port *number* |
| Tree | port |
| Range | 0 \| 1 to 65535 |
| Default | 49 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **secret** *encrypted-leaf*

| | |
|---|---|
| Synopsis | Secret key to access the TACACS+ server |
| Context | **configure** service vprn *service-name* aaa remote-servers tacplus server *number* secret *encrypted-leaf* |


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| | |
|---|---|
| Tree | secret |
| String length | 1 to 199 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **server-timeout** *number*

| | |
|---|---|
| Synopsis | Time to wait for a response from the TACACS+ server |
| Context | **configure** service vprn *service-name* aaa remote-servers tacplus server-timeout *number* |
| Tree | server-timeout |
| Range | 1 to 90 |
| Units | seconds |
| Default | 3 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **service-request**

| | |
|---|---|
| Synopsis | Enter the **service-request** context |
| Context | **configure** service vprn *service-name* aaa remote-servers tacplus service-request |
| Tree | service-request |
| Description | Commands in this context enable Nokia services to be requested from the TACACS+ server. |
| Introduced | 24.10.R1 |
| Platforms | All |

### **nokia-grpc-rpc-authorization** *boolean*

| | |
|---|---|
| Synopsis | Request nokia-user service VSAs |
| Context | **configure** service vprn *service-name* aaa remote-servers tacplus service-request nokia-grpc-rpc-authorization *boolean* |
| Tree | nokia-grpc-rpc-authorization |
| Description | When configured to **true**, the nokia-grpc-rpc-authorization service is requested from the TACACS+ server after successful authentication. |


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| | |
|---|---|
| Default | false |
| Introduced | 24.10.R1 |
| Platforms | All |

### **nokia-netconf-base-op-authorization** *boolean*

| | |
|---|---|
| Synopsis | Request nokia-netconf-base-op-authorization service VSAs |
| Context | **configure** service vprn *service-name* aaa remote-servers tacplus service-request nokia-netconf-base-op-authorization *boolean* |
| Tree | nokia-netconf-base-op-authorization |
| Description | When configured to **true**, the nokia-user service is requested from the TACACS+ server after successful authentication. |
| Default | false |
| Introduced | 24.10.R1 |
| Platforms | All |

### **nokia-user** *boolean*

| | |
|---|---|
| Synopsis | Request nokia-user service VSAs |
| Context | **configure** service vprn *service-name* aaa remote-servers tacplus service-request nokia-user *boolean* |
| Tree | nokia-user |
| Description | When configured to **true**, the nokia-netconf-base-op-authorization service is requested from the TACACS+ server after successful authentication. |
| Default | false |
| Introduced | 24.10.R1 |
| Platforms | All |

### **use-default-template** *boolean*

| | |
|---|---|
| Synopsis | Apply TACACS+ default user-template to TACACS+ user |
| Context | **configure** service vprn *service-name* aaa remote-servers tacplus use-default-template *boolean* |
| Tree | use-default-template |
| Default | true |
| Introduced | 16.0.R4 |


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| | |
|---|---|
| Platforms | All |

### **aarp-interface** [interface-name] *interface-name*

| | |
|---|---|
| Synopsis | Enter the **aarp-interface** list instance |
| Context | **configure** service vprn *service-name* aarp-interface *interface-name* |
| Tree | aarp-interface |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**interface-name**] *interface-name*

| | |
|---|---|
| Synopsis | Interface name |
| Context | **configure** service vprn *service-name* aarp-interface *interface-name* |
| Tree | aarp-interface |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the interface |
| Context | **configure** service vprn *service-name* aarp-interface *interface-name* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *very-long-description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* aarp-interface *interface-name* description *very-long-description* |


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| | |
|---|---|
| Tree | description |
| String length | 1 to 255 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ip-mtu** *number*

| | |
|---|---|
| Synopsis | IP MTU applied to outgoing packets |
| Context | **configure** service vprn *service-name* aarp-interface *interface-name* ip-mtu *number* |
| Tree | ip-mtu |
| Description | This command configures the IP maximum transmission unit (MTU) for the associated router IP interface. |
| Range | 512 to 9786 |
| Units | bytes |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **spoke-sdp** [sdp-bind-id] *sdp-bind-id*

| | |
|---|---|
| Synopsis | Enter the **spoke-sdp** list instance |
| Context | **configure** service vprn *service-name* aarp-interface *interface-name* spoke-sdp *sdp-bind-id* |
| Tree | spoke-sdp |
| Max. instances | 1 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**sdp-bind-id**] *sdp-bind-id*

| | |
|---|---|
| Synopsis | SDP binding ID |
| Context | **configure** service vprn *service-name* aarp-interface *interface-name* spoke-sdp *sdp-bind-id* |
| Tree | spoke-sdp |
| String length | 3 to 16 |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## aarp

| | |
|---|---|
| Synopsis | Enable the **aarp** context |
| Context | **configure** service vprn *service-name* aarp-interface *interface-name* spoke-sdp *sdp-bind-id* aarp |
| Tree | aarp |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **id** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | AARP instance ID |
| Context | **configure** service vprn *service-name* aarp-interface *interface-name* spoke-sdp *sdp-bind-id* aarp id *reference* |
| Tree | id |
| Reference | **configure** application-assurance aarp *number* |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **type** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Role of the spoke SDP referenced by the AARP |
| Context | **configure** service vprn *service-name* aarp-interface *interface-name* spoke-sdp *sdp-bind-id* aarp type *keyword* |
| Tree | type |


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| | |
|---|---|
| Options | subscriber-side-shunt, network-side-shunt |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of this service SDP binding |
| Context | **configure** service vprn *service-name* aarp-interface *interface-name* spoke-sdp *sdp-bind-id* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* aarp-interface *interface-name* spoke-sdp *sdp-bind-id* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **egress**

| | |
|---|---|
| Synopsis | Enter the **egress** context |
| Context | **configure** service vprn *service-name* aarp-interface *interface-name* spoke-sdp *sdp-bind-id* egress |
| Tree | egress |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## filter

| | |
|---|---|
| Synopsis | Enter the **filter** context |
| Context | **configure** service vprn *service-name* aarp-interface *interface-name* spoke-sdp *sdp-bind-id* egress filter |
| Tree | filter |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## ip *reference*

| | |
|---|---|
| Synopsis | IP filter identifier |
| Context | **configure** service vprn *service-name* aarp-interface *interface-name* spoke-sdp *sdp-bind-id* egress filter ip *reference* |
| Tree | ip |
| Reference | **configure** filter ip-filter *filter-name* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## vc-label *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Static MPLS VC label to send packets to far-end device |
| Context | **configure** service vprn *service-name* aarp-interface *interface-name* spoke-sdp *sdp-bind-id* egress vc-label *number* |
| Tree | vc-label |
| Range | 16 to 1048575 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## ingress

| | |
|---|---|
| Synopsis | Enter the **ingress** context |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* aarp-interface *interface-name* spoke-sdp *sdp-bind-id* ingress |
| Tree | ingress |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## filter

| | |
|---|---|
| Synopsis | Enter the **filter** context |
| Context | **configure** service vprn *service-name* aarp-interface *interface-name* spoke-sdp *sdp-bind-id* ingress filter |
| Tree | filter |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## ip *reference*

| | |
|---|---|
| Synopsis | IP filter ID |
| Context | **configure** service vprn *service-name* aarp-interface *interface-name* spoke-sdp *sdp-bind-id* ingress filter ip *reference* |
| Tree | ip |
| Reference | **configure** filter ip-filter *filter-name* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## vc-label *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | VC ingress value that indicates a specific connection |
| Context | **configure** service vprn *service-name* aarp-interface *interface-name* spoke-sdp *sdp-bind-id* ingress vc-label *number* |
| Tree | vc-label |
| Range | 1 to 1048575 |
| Introduced | 21.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the service |
| Context | **configure** service vprn *service-name* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **aggregates**

| | |
|---|---|
| Synopsis | Enter the **aggregates** context |
| Context | **configure** service vprn *service-name* aggregates |
| Tree | aggregates |
| Introduced | 16.0.R1 |
| Platforms | All |

### **aggregate** [ip-prefix] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Enter the **aggregate** list instance |
| Context | **configure** service vprn *service-name* aggregates aggregate *(ipv4-prefix \| ipv6-prefix)* |
| Tree | aggregate |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ip-prefix**] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Destination IP address prefix of the aggregate route |
| Context | **configure** service vprn *service-name* aggregates aggregate *(ipv4-prefix \| ipv6-prefix)* |
| Tree | aggregate |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## aggregator

| | |
|---|---|
| Synopsis | Enter the **aggregator** context |
| Context | **configure** service vprn *service-name* aggregates aggregate *(ipv4-prefix \| ipv6-prefix)* aggregator |
| Tree | aggregator |
| Introduced | 16.0.R1 |
| Platforms | All |

## address *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Aggregator IP address |
| Context | **configure** service vprn *service-name* aggregates aggregate *(ipv4-prefix \| ipv6-prefix)* aggregator address *ipv4-unicast-address* |
| Tree | address |
| Introduced | 16.0.R1 |
| Platforms | All |

## as-number *number*

| | |
|---|---|
| Synopsis | Aggregator AS number |
| Context | **configure** service vprn *service-name* aggregates aggregate *(ipv4-prefix \| ipv6-prefix)* aggregator as-number *number* |
| Tree | as-number |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

## as-set *boolean*

| | |
|---|---|
| Synopsis | Use AS_SET path segment type for the aggregate route |
| Context | **configure** service vprn *service-name* aggregates aggregate *(ipv4-prefix \| ipv6-prefix)* as-set *boolean* |
| Tree | as-set |


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| | |
|---|---|
| Description | When configured to **true**, the AS_PATH attribute of the aggregate contains an AS_SET containing all AS numbers from the contributing routes. This can increase the amount of churn due to best-path changes.<br>When configured to **false**, the AS_PATH attribute contains no AS_SET and will be originated by the ESR. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## blackhole

| | |
|---|---|
| Synopsis | Enable the **blackhole** context |
| Context | **configure** service vprn *service-name* aggregates aggregate *(ipv4-prefix \| ipv6-prefix)* blackhole |
| Tree | blackhole |
| Notes | The following elements are part of a choice: **blackhole** or **indirect**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## generate-icmp *boolean*

| | |
|---|---|
| Synopsis | Send ICMP unreachable messages for aggregate routes |
| Context | **configure** service vprn *service-name* aggregates aggregate *(ipv4-prefix \| ipv6-prefix)* blackhole generate-icmp *boolean* |
| Tree | generate-icmp |
| Description | When configured to **true**, ICMP unreachable messages are sent when packets match an aggregate route in the FIB with a black-hole next-hop.<br>When configured to **false**, ICMP unreachable messages are not generated. |
| Default | false |
| Introduced | 16.0.R2 |
| Platforms | All |

## community *community*

| | |
|---|---|
| Synopsis | Community name that is added to the aggregate route |
| Context | **configure** service vprn *service-name* aggregates aggregate *(ipv4-prefix \| ipv6-prefix)* community *community* |


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| | |
|---|---|
| Tree | community |
| Description | This command associates a BGP community with the aggregate route. The community name can be matched in route policies and is automatically added to BGP routes exported from the aggregate route. |
| String length | 1 to 72 |
| Max. instances | 12 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* aggregates aggregate *(ipv4-prefix \| ipv6-prefix)* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **discard-component-communities** *boolean*

| | |
|---|---|
| Synopsis | Advertise aggregate with aggregate route community set |
| Context | **configure** service vprn *service-name* aggregates aggregate *(ipv4-prefix \| ipv6-prefix)* discard-component-communities *boolean* |
| Tree | discard-component-communities |
| Default | false |
| Introduced | 19.7.R1 |
| Platforms | All |

### **indirect** *(ipv4-address-no-zone | ipv6-address-no-zone)*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.


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| | |
|---|---|
| Synopsis | Address of the indirect next hop |
| Context | **configure** service vprn *service-name* aggregates aggregate *(ipv4-prefix \| ipv6-prefix)* indirect *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | indirect |
| Description | This command programs aggregate routes into the forwarding table with an indirect next hop. If a packet matches the aggregate route but not a contributing route, it is forwarded toward the indirect next hop rather than being discarded. |
| Notes | The following elements are part of a choice: **blackhole** or **indirect**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **local-preference** *number*

| | |
|---|---|
| Synopsis | Local preference used when aggregate route is exported |
| Context | **configure** service vprn *service-name* aggregates aggregate *(ipv4-prefix \| ipv6-prefix)* local-preference *number* |
| Tree | local-preference |
| Description | This command configures the local preference value to use when the aggregate route is exported rather than using any of the local preference values assigned for any of the contributing routes. |
| Range | 0 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **policy** *reference*

| | |
|---|---|
| Synopsis | Policy name for the aggregated route |
| Context | **configure** service vprn *service-name* aggregates aggregate *(ipv4-prefix \| ipv6-prefix)* policy *reference* |
| Tree | policy |
| Description | This command associates an aggregate route with a policy reference. The aggregated route is activated only when there is at least one eligible active route in the sub-trees below it that is accepted by the policy evaluation. There is no evaluation into any sub-tree that starts with another active aggregate route. Eligible routes exclude host routes and LDP shortcut routes.<br><br>If an aggregate route has no policy, or the reference is to an empty policy, this configuration is treated as equivalent to a policy with one rule that accepts all routes. |
| Reference | **configure** policy-options policy-statement *named-item-64* |


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| | |
|---|---|
| Introduced | 20.10.R1 |
| Platforms | All |

### **summary-only** *boolean*

| | |
|---|---|
| Synopsis | Advertise the aggregate route only |
| Context | **configure** service vprn *service-name* aggregates aggregate *(ipv4-prefix \| ipv6-prefix)* summary-only *boolean* |
| Tree | summary-only |
| Description | When configured to **true**, the router suppresses the advertisement of more specific component routes for the aggregate.<br>When configured to **false**, the router advertises both the aggregate route and its contributing routes. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **tunnel-group** *number*

| | |
|---|---|
| Synopsis | Tunnel group from which to associate the MC IPSec state |
| Context | **configure** service vprn *service-name* aggregates aggregate *(ipv4-prefix \| ipv6-prefix)* tunnel-group *number* |
| Tree | tunnel-group |
| Description | This command adds the MC-IPsec state of the specific tunnel-group to the aggregate route. |
| Range | 1 to 64 |
| Introduced | 20.7.R1 |
| Platforms | All |

### **allow-export-bgp-vpn** *boolean*

| | |
|---|---|
| Synopsis | Include BGP-VPN routes for export |
| Context | **configure** service vprn *service-name* allow-export-bgp-vpn *boolean* |
| Tree | allow-export-bgp-vpn |
| Default | false |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **autonomous-system** *number*

| | |
|---|---|
| Synopsis | AS number advertised to peers for this router |
| Context | **configure** service vprn *service-name* autonomous-system *number* |
| Tree | autonomous-system |
| Description | This command configures the autonomous system (AS) number for the router. This value must be set before BGP can be activated.<br>If the AS number is changed on a router with an active BGP instance, the new AS number is not used until the BGP instance is restarted. |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bgp**

| | |
|---|---|
| Synopsis | Enable the **bgp** context |
| Context | **configure** service vprn *service-name* bgp |
| Tree | bgp |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the BGP instance |
| Context | **configure** service vprn *service-name* bgp admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **advertise-inactive** *boolean*

| | |
|---|---|
| Synopsis | Advertise inactive BGP routes to peers |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* bgp advertise-inactive *boolean* |
| Tree | advertise-inactive |
| Description | When configured to **true**, this command allows any inactive BGP route to be advertised, even though it is not the used route.<br>When configured to **false**, the advertisement of inactive BGP routes to other BGP peers is disabled. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## advertise-ipv6-next-hops

| | |
|---|---|
| Synopsis | Enter the **advertise-ipv6-next-hops** context |
| Context | **configure** service vprn *service-name* bgp advertise-ipv6-next-hops |
| Tree | advertise-ipv6-next-hops |
| Introduced | 19.5.R1 |
| Platforms | All |

## ipv4 *boolean*

| | |
|---|---|
| Synopsis | Enable IPv4 routes to be advertised |
| Context | **configure** service vprn *service-name* bgp advertise-ipv6-next-hops ipv4 *boolean* |
| Tree | ipv4 |
| Default | false |
| Introduced | 19.5.R1 |
| Platforms | All |

## aggregator-id-zero *boolean*

| | |
|---|---|
| Synopsis | Set router ID in the BGP AGGREGATOR attribute to 0 |
| Context | **configure** service vprn *service-name* bgp aggregator-id-zero *boolean* |
| Tree | aggregator-id-zero |
| Description | When configured to **true**, the router ID in the BGP AGGREGATOR path attribute is set to 0 when BGP aggregates routes. This prevents different routers within an AS from creating aggregate routes for the same prefix with different path attributes. |


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When configured to **false**, the AS number and router ID are added to the AGGREGATOR path attribute.

| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **asn-4-byte** *boolean*

| | |
|---|---|
| Synopsis | Advertise support for 4-byte ASNs |
| Context | **configure** service vprn *service-name* bgp asn-4-byte *boolean* |
| Tree | asn-4-byte |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **attribute-set**

| | |
|---|---|
| Synopsis | Enter the **attribute-set** context |
| Context | **configure** service vprn *service-name* bgp attribute-set |
| Tree | attribute-set |
| Description | Commands in this context configure the handling of attribute set (ATTR_SET) attributes in BGP routes received from PE-CE peers of the VPRN.<br>ATTR_SET is an optional transitive BGP path attribute standardized by RFC 6368 that is added to BGP L3 VPN routes to provide logical separation between the BGP domain of a customer and the BGP domain of a service provider. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **remove** *boolean*

| | |
|---|---|
| Synopsis | Remove ATTR_SET in received BGP routes from PE-CE peers |
| Context | **configure** service vprn *service-name* bgp attribute-set remove *boolean* |
| Tree | remove |
| Description | When configured to **true**, BGP ignores and silently discards ATTR_SETs in BGP routes received from PE-CE peers of the VPRN. The discarded ATTR_SETs do not affect BGP best path selection in the VPRN, and they do not appear in the VPN-IP routes that result from the VRF export of the BGP routes. Nokia recommends configuring this command to **true** in most deployments. |


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When configured to **false**, BGP ignores ATTR_SETs in BGP routes received from PE-CE peers of the VPRN, but does not discard them. This allows the ATTR_SETs to propagate between CE devices connected to the VPRN and to other PE devices when the BGP routes are exported as VPN-IP routes.

**Note:** If the configuration of this command is changed, ROUTE_REFRESH messages are sent to all PE-CE peers of the VPRN.

| | |
|---|---|
| Default | false |
| Introduced | 23.10.R1 |
| Platforms | All |

## **authentication-key** *encrypted-leaf*

| | |
|---|---|
| Synopsis | BGP authentication key for all peers |
| Context | **configure** service vprn *service-name* bgp authentication-key *encrypted-leaf* |
| Tree | authentication-key |
| Description | This command configures the authentication key used to protect all sessions. The stored format of the authentication key is based on the **configure system security hash-control management-interface md-cli hash-algorithm** setting. |
| String length | 1 to 370 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **authentication-keychain** *reference*

| | |
|---|---|
| Synopsis | TCP authentication keychain for the session |
| Context | **configure** service vprn *service-name* bgp authentication-keychain *reference* |
| Tree | authentication-keychain |
| Description | This command associates the keychain to be used to authenticate the BGP session. The keychain allows the rollover of authentication keys during the lifetime of a session. |
| Reference | **configure** system security keychains keychain *named-item* |
| Introduced | 16.0.R3 |
| Platforms | All |

## **backup-path**

| | |
|---|---|
| Synopsis | Enter the **backup-path** context |
| Context | **configure** service vprn *service-name* bgp backup-path |


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| | |
|---|---|
| Tree | backup-path |
| Description | Commands in this context enable the use of a backup path for specified BGP-learned prefixes belonging to the base router. Multiple paths must be received for a prefix in order to take advantage of this feature. When a prefix has a backup path and its primary paths fail, the affected traffic is rapidly diverted to the backup path without waiting for control plane re-convergence to occur. When many prefixes share the same primary paths and in some cases, the same backup path, the time to divert failover traffic to the backup path is independent of the number of prefixes.<br>By default, IPv4 and IPv6 prefixes do not have a backup path installed in the IOM. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv4** *boolean*

| | |
|---|---|
| Synopsis | Enable support for unlabeled unicast IPv4 routes |
| Context | **configure** service vprn *service-name* bgp backup-path ipv4 *boolean* |
| Tree | ipv4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv6** *boolean*

| | |
|---|---|
| Synopsis | Enable support for unlabeled unicast IPv6 routes |
| Context | **configure** service vprn *service-name* bgp backup-path ipv6 *boolean* |
| Tree | ipv6 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **label-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Enable support for labeled-unicast IPv4 routes |
| Context | **configure** service vprn *service-name* bgp backup-path label-ipv4 *boolean* |
| Tree | label-ipv4 |
| Default | false |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **label-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Enable support for labeled unicast IPv6 routes |
| Context | **configure** service vprn *service-name* bgp backup-path label-ipv6 *boolean* |
| Tree | label-ipv6 |
| Default | false |
| Introduced | 22.2.R1 |
| Platforms | All |

### **best-path-selection**

| | |
|---|---|
| Synopsis | Enter the **best-path-selection** context |
| Context | **configure** service vprn *service-name* bgp best-path-selection |
| Tree | best-path-selection |
| Introduced | 16.0.R1 |
| Platforms | All |

### **always-compare-med**

| | |
|---|---|
| Synopsis | Enter the **always-compare-med** context |
| Context | **configure** service vprn *service-name* bgp best-path-selection always-compare-med |
| Tree | always-compare-med |
| Description | Commands in this context determine how the BGP decision process is affected by the MED path attribute. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **med-value** *keyword*

| | |
|---|---|
| Synopsis | Action for a missing MED attribute |
| Context | **configure** service vprn *service-name* bgp best-path-selection always-compare-med med-value *keyword* |
| Tree | med-value |
| Options | off, missing-med-zero, missing-med-infinity, on |


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| | |
|---|---|
| Default | off |
| Introduced | 16.0.R1 |
| Platforms | All |

### **strict-as** *boolean*

| | |
|---|---|
| Synopsis | Compare MED only for routes from same neighbor AS |
| Context | **configure** service vprn *service-name* bgp best-path-selection always-compare-med strict-as *boolean* |
| Tree | strict-as |
| Description | When configured to **true**, the route selection process can compare the MED path attribute between routes only if they come from the same neighbor AS.<br>When configured to **false**, the route selection process can compare the MED path attribute between routes even if they come from different neighbor ASs. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **as-path-ignore**

| | |
|---|---|
| Synopsis | Enter the **as-path-ignore** context |
| Context | **configure** service vprn *service-name* bgp best-path-selection as-path-ignore |
| Tree | as-path-ignore |
| Description | Commands in this context determine whether the AS path length is considered in the selection process for routes of the specified address families. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv4** *boolean*

| | |
|---|---|
| Synopsis | Ignore AS path length for unlabeled unicast IPv4 routes |
| Context | **configure** service vprn *service-name* bgp best-path-selection as-path-ignore ipv4 *boolean* |
| Tree | ipv4 |
| Default | false |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **ipv6** *boolean*

| | |
|---|---|
| Synopsis | Ignore AS path length for unlabeled unicast IPv6 routes |
| Context | **configure** service vprn *service-name* bgp best-path-selection as-path-ignore ipv6 *boolean* |
| Tree | ipv6 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **label-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Ignore AS path length for labeled-unicast IPv4 routes |
| Context | **configure** service vprn *service-name* bgp best-path-selection as-path-ignore label-ipv4 *boolean* |
| Tree | label-ipv4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **label-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Ignore AS path length for labeled unicast IPv6 routes |
| Context | **configure** service vprn *service-name* bgp best-path-selection as-path-ignore label-ipv6 *boolean* |
| Tree | label-ipv6 |
| Default | false |
| Introduced | 22.2.R1 |
| Platforms | All |

### **compare-origin-validation-state** *boolean*

| | |
|---|---|
| Synopsis | Allow comparison of origin validation states |
| Context | **configure** service vprn *service-name* bgp best-path-selection compare-origin-validation-state *boolean* |


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| | |
|---|---|
| Tree | compare-origin-validation-state |
| Description | When configured to **true**, the RPKI origin validation state is compared between BGP routes, where a Valid state is preferred over a Not-Found state, and a Not-Found state is preferred over an Invalid state.<br>When configured to **false**, the RPKI origin validate state comparison is not performed as part of the BGP route selection process. |
| Default | false |
| Introduced | 19.7.R1 |
| Platforms | All |

## **d-path-length-ignore** *boolean*

| | |
|---|---|
| Synopsis | Enable D-PATH length ignore |
| Context | **configure** service vprn *service-name* bgp best-path-selection d-path-length-ignore *boolean* |
| Tree | d-path-length-ignore |
| Description | When configured to **true**, this command, enables the router to ignore the D-PATH domain segment length during best-path selection.<br>At the base router level (or VPRN BGP level for PE-CE routers), this command allows BGP to ignore the D-PATH domain segment length for best-path selection purposes. BGP ignores the D-PATH length when comparing two VPN routes or two IFL routes within the same RD. However, these VPN/IFL routes are processed in the main-BGP instance.<br>At the VPRN router level, this command allows the VPRN RTM to ignore the D-PATH domain segment length for best-path selection purposes (for routes in VPRN). The user can control whether the RTM considers the D-PATH length when comparing two VPN routes with different RDs.<br>Best-path selection for EVPN-IFF routes against other owners (for example, EVPN-IFL or IPVPN) still relies on RTM preference. When EVPN-IFF RTM preference matches the RTM preference of another BGP owner, the existing RTM selection applies and D-PATH is not considered, irrespective of the **d-path-length-ignore** configuration.<br>When configured to **false**, this command disables the ability to ignore the D-PATH domain segment length. |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | All |

## **deterministic-med** *boolean*

| | |
|---|---|
| Synopsis | Group paths based on AS before MED attribute comparison |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* bgp best-path-selection deterministic-med *boolean* |
| Tree | deterministic-med |
| Description | When configured to **true**, BGP groups paths from the same AS that are equal up to the MED attribute comparison and then compares the best path from each group to select the overall best path. This process ensures that the best-path selection process is deterministic in all cases.<br>When configured to **false**, paths are not grouped and the overall best-path selection can depend on the order of route arrival. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## ebgp-ibgp-equal

| | |
|---|---|
| Synopsis | Enter the **ebgp-ibgp-equal** context |
| Context | **configure** service vprn *service-name* bgp best-path-selection ebgp-ibgp-equal |
| Tree | ebgp-ibgp-equal |
| Description | Commands in this context allow BGP to ignore the difference between EBGP and IBGP routes in selecting the best path and eligible multipaths (if multipath and ECMP are enabled) for the specified address families. The result is a form of EIBGP load-balancing in a multipath scenario. This behavior can be applied selectively to certain address families.<br>By default, the BGP decision process prefers an EBGP learned route over an IBGP learned route. |
| Introduced | 16.0.R1 |
| Platforms | All |

## ipv4 *boolean*

| | |
|---|---|
| Synopsis | Consider EBGP and IBGP IPv4 routes equal |
| Context | **configure** service vprn *service-name* bgp best-path-selection ebgp-ibgp-equal ipv4 *boolean* |
| Tree | ipv4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **ipv6** *boolean*

| | |
|---|---|
| Synopsis | Consider EBGP and IBGP IPv6 routes equal |
| Context | **configure** service vprn *service-name* bgp best-path-selection ebgp-ibgp-equal ipv6 *boolean* |
| Tree | ipv6 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **label-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Consider EBGP and IBGP label-IPv4 routes equal |
| Context | **configure** service vprn *service-name* bgp best-path-selection ebgp-ibgp-equal label-ipv4 *boolean* |
| Tree | label-ipv4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **label-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Consider EBGP and IBGP label-IPv6 routes equal |
| Context | **configure** service vprn *service-name* bgp best-path-selection ebgp-ibgp-equal label-ipv6 *boolean* |
| Tree | label-ipv6 |
| Default | false |
| Introduced | 22.2.R1 |
| Platforms | All |

### **ignore-nh-metric** *boolean*

| | |
|---|---|
| Synopsis | Ignore next-hop distance in best path selection |
| Context | **configure** service vprn *service-name* bgp best-path-selection ignore-nh-metric *boolean* |
| Tree | ignore-nh-metric |


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| | |
|---|---|
| Description | When configured to **true**, BGP ignores the resolved distance to the BGP next hop in its route selection process.<br>When configured to **false**, BGP factors the distance to the next hop into its decision process when it compares two BGP routes with the same NLRI learned from base router BGP peers (in the **router** context) or IP prefix learned from VPRN BGP peers (in the **vprn** context). |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## ignore-router-id

| | |
|---|---|
| Synopsis | Enable the **ignore-router-id** context |
| Context | **configure** service vprn *service-name* bgp best-path-selection ignore-router-id |
| Tree | ignore-router-id |
| Description | Commands in this context determine whether the BGP selection process ignores the BGP identifier (router ID) comparison of two EBGP paths from different EBGP peers when determining the best path for the specified address families.<br>By default, BGP selects the path with the lower router ID when it compares two paths from EBGP peers. |
| Introduced | 16.0.R1 |
| Platforms | All |

## origin-invalid-unusable *boolean*

| | |
|---|---|
| Synopsis | Ignore routes with invalid origin validation state |
| Context | **configure** service vprn *service-name* bgp best-path-selection origin-invalid-unusable *boolean* |
| Tree | origin-invalid-unusable |
| Description | When configured to **true**, routes that have an RPKI origin validation state of Invalid are considered unusable by the best-path selection algorithm. These routes cannot be used for forwarding and cannot be advertised to BGP peers.<br>When configured to **false**, routes with an RPKI origin validation state of Invalid are compared to other usable routes for the same prefix, according to the BGP decision process. |
| Default | false |
| Introduced | 19.7.R1 |
| Platforms | All |


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## **bfd-liveness** *boolean*

| | |
|---|---|
| Synopsis | Enable BFD |
| Context | **configure** service vprn *service-name* bgp bfd-liveness *boolean* |
| Tree | bfd-liveness |
| Description | When configured to **true**, BFD is enabled on all BGP sessions, subject to the association of those BGP sessions with IP interfaces that have BFD configurations.<br>When configured to **false**, BFD is not enabled globally for all BGP sessions. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **bfd-strict-mode**

| | |
|---|---|
| Synopsis | Enter the **bfd-strict-mode** context |
| Context | **configure** service vprn *service-name* bgp bfd-strict-mode |
| Tree | bfd-strict-mode |
| Introduced | 23.7.R1 |
| Platforms | All |

## **advertise**

| | |
|---|---|
| Synopsis | Enable the **advertise** context |
| Context | **configure** service vprn *service-name* bgp bfd-strict-mode advertise |
| Tree | advertise |
| Description | Commands in this context configure BGP to advertise the Strict-BFD capability to peers that are within scope of this command and meet the following requirements:<br>• The inherited or configured value for the **bfd-liveness** command that applies to the peer is **true**.<br>• The interface associated with the peer has a valid BFD configuration.<br>When the preceding conditions are satisfied and two peers attempting to form a session both advertise the Strict-BFD capability, the BGP finite state machine in each router transitions the session state to established after the BFD session with the peer enters the up state.<br>When unconfigured, BGP does not advertise the Strict-BFD capability to peers. |
| Introduced | 23.7.R1 |
| Platforms | All |


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### **holdtime** *number*

| | |
|---|---|
| Synopsis | Maximum time BGP waits for the BFD session to come up |
| Context | **configure** service vprn *service-name* bgp bfd-strict-mode advertise holdtime *number* |
| Tree | holdtime |
| Description | This command configures the maximum time BGP waits for the BFD session to come up, provided that the Strict-BFD procedures apply to a session, and the negotiated BGP hold time is zero (no keepalives). If the negotiated BGP hold time is greater than zero, the advertised hold time is not considered. |
| Range | 1 to 65535 |
| Units | seconds |
| Default | 30 |
| Introduced | 23.7.R1 |
| Platforms | All |

### **next-hop-reachability** *boolean*

| | |
|---|---|
| Synopsis | Consider next hop unreachable if BFD session is down |
| Context | **configure** service vprn *service-name* bgp bfd-strict-mode next-hop-reachability *boolean* |
| Tree | next-hop-reachability |
| Description | When configured to **true**, the router considers next-hop self routes belonging to specific address families received from a peer within scope of this command as having an unresolved next hop, provided that the following requirements are met:<br>• The BFD session to the peer is in a down state.<br>• There is a valid interface BFD configuration that applies to the peer.<br>• There is a valid BFD liveness configuration that applies to the peer.<br>The unresolved state is maintained until the BFD session state changes to up or administratively down, even if there is a resolving route or tunnel that matches the BGP next-hop address.<br>Routes received from one peer with a BGP next-hop address equal to the address of another peer are not affected by the BFD session to the other peer.<br>The behavior of the router when this command is **true** does not depend on whether Strict-BFD is used, as both features are independent.<br>Configuring this command to **true** only affects routes belonging to the following address families:<br>• IPv4<br>• IPv6<br>• IPv4 VPN |


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- IPv6 VPN
- labeled unicast IPv4
- labeled unicast IPv6
- EVPN
- IPv4 multicast
- IPv6 multicast
- IPv4 VPN multicast
- IPv6 VPN multicast

When configured to **false**, the router does not consider next-hop self routes belonging to the preceding address families as having an unresolved next hop if the BFD session goes down.

| | |
|---|---|
| Default | false |
| Introduced | 23.7.R1 |
| Platforms | All |

## **client-reflect** *boolean*

| | |
|---|---|
| Synopsis | Allow client reflection of routes by route reflector |
| Context | **configure** service vprn *service-name* bgp client-reflect *boolean* |
| Tree | client-reflect |
| Description | When configured to **true**, routes received from neighbors considered to be RR clients are reflected to other peers as expected.<br>When configured to **false**, routes received from neighbors considered to be RR clients are not reflected to other clients. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

## **cluster**

| | |
|---|---|
| Synopsis | Enter the **cluster** context |
| Context | **configure** service vprn *service-name* bgp cluster |
| Tree | cluster |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **cluster-id** *ipv4-address*

| | |
|---|---|
| Synopsis | Route reflector cluster ID |
| Context | **configure** service vprn *service-name* bgp cluster cluster-id *ipv4-address* |
| Tree | cluster-id |
| Description | The command specifies the cluster ID to associate with the routing instance, effectively making all IBGP peers of the routing instance RR clients. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **connect-retry** *number*

| | |
|---|---|
| Synopsis | BGP connect retry timer value |
| Context | **configure** service vprn *service-name* bgp connect-retry *number* |
| Tree | connect-retry |
| Description | This command configures the BGP connect retry timer. When the timer expires, BGP tries to reconnect to the configured peer. |
| Range | 1 to 65535 |
| Default | 120 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **convergence**

| | |
|---|---|
| Synopsis | Enter the **convergence** context |
| Context | **configure** service vprn *service-name* bgp convergence |
| Tree | convergence |
| Introduced | 19.7.R1 |
| Platforms | All |

### **family** [family-type] *keyword*

| | |
|---|---|
| Synopsis | Enter the **family** list instance |
| Context | **configure** service vprn *service-name* bgp convergence family *keyword* |
| Tree | family |


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| | |
|---|---|
| Introduced | 19.7.R1 |
| Platforms | All |

### [**family-type**] *keyword*

| | |
|---|---|
| Synopsis | Address family for which convergence selection applies |
| Context | **configure** service vprn *service-name* bgp convergence family *keyword* |
| Tree | family |
| Options | ipv4, ipv6 |
| Notes | This element is part of a list key. |
| Introduced | 19.7.R1 |
| Platforms | All |

### **max-wait-to-advertise** *number*

| | |
|---|---|
| Synopsis | Maximum wait time before advertising routes |
| Context | **configure** service vprn *service-name* bgp convergence family *keyword* max-wait-to-advertise *number* |
| Tree | max-wait-to-advertise |
| Range | 0 to 3600 |
| Default | 0 |
| Introduced | 19.7.R1 |
| Platforms | All |

### **min-wait-to-advertise** *number*

| | |
|---|---|
| Synopsis | Minimum wait time before advertising routes |
| Context | **configure** service vprn *service-name* bgp convergence min-wait-to-advertise *number* |
| Tree | min-wait-to-advertise |
| Range | 0 to 3600 |
| Default | 0 |
| Introduced | 19.7.R1 |
| Platforms | All |


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## damp-peer-oscillations

| | |
|---|---|
| Synopsis | Enable the **damp-peer-oscillations** context |
| Context | **configure** service vprn *service-name* bgp damp-peer-oscillations |
| Tree | damp-peer-oscillations |
| Description | Commands in this context support the DampPeerOscillations FSM behavior described in section 8.1 of RFC 4271, *A Border Gateway Protocol 4 (BGP-4)*.<br>When unconfigured, the router does not perform peer oscillation damping and immediately transitions out of the idle state after every reset. |
| Introduced | 16.0.R1 |
| Platforms | All |

## error-interval *number*

| | |
|---|---|
| Synopsis | Time after a reset that the session must be error-free |
| Context | **configure** service vprn *service-name* bgp damp-peer-oscillations error-interval *number* |
| Tree | error-interval |
| Description | This command sets the interval of time after a reset, during which the session must be error-free in order to reset the penalty counter and return the idle hold time to the initial wait time. |
| Range | 0 to 2048 |
| Default | 30 |
| Introduced | 16.0.R1 |
| Platforms | All |

## idle-hold-time

| | |
|---|---|
| Synopsis | Enter the **idle-hold-time** context |
| Context | **configure** service vprn *service-name* bgp damp-peer-oscillations idle-hold-time |
| Tree | idle-hold-time |
| Description | Commands in this context configure how long a BGP peer session remains in the idle state after some type of error causes the session to reset.<br>In the idle state, BGP does not initiate or respond to attempts to establish a new session. Repeated errors that occur in a short time period after each session reset cause longer and longer hold times in the idle state. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **initial-wait** *number*

| | |
|---|---|
| Synopsis | Time session remains in idle state after stabilization |
| Context | **configure** service vprn *service-name* bgp damp-peer-oscillations idle-hold-time initial-wait *number* |
| Tree | initial-wait |
| Range | 0 to 2048 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **max-wait** *number*

| | |
|---|---|
| Synopsis | Maximum session idle time after repeated instability |
| Context | **configure** service vprn *service-name* bgp damp-peer-oscillations idle-hold-time max-wait *number* |
| Tree | max-wait |
| Range | 1 to 2048 |
| Default | 60 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **second-wait** *number*

| | |
|---|---|
| Synopsis | Time that doubles after each session failure |
| Context | **configure** service vprn *service-name* bgp damp-peer-oscillations idle-hold-time second-wait *number* |
| Tree | second-wait |
| Description | This command defines the hold time that doubles after each repeated session failure that occurs in a short span of time. |
| Range | 1 to 2048 |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **damping** *boolean*

| | |
|---|---|
| Synopsis | Use BGP route damping to reduce route flap |
| Context | **configure** service vprn *service-name* bgp damping *boolean* |
| Tree | damping |
| Description | When configured to **true**, this command enables route damping to reduce the number of update messages sent between BGP peers and reduce the load on peers without affecting the route convergence time for stable routes.<br>Route damping is controlled by profiles set in route policies. If no profile is specified in the route policy, the default damping profile is used with the following parameters:<br>• Half-life: 15 minutes<br>• Max-suppress: 60 minutes<br>• Suppress-threshold: 3000<br>• Reuse-threshold: 750<br>When configured to **false**, BGP route damping for learned routes is disabled. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **default-label-preference**

| | |
|---|---|
| Synopsis | Enter the **default-label-preference** context |
| Context | **configure** service vprn *service-name* bgp default-label-preference |
| Tree | default-label-preference |
| Introduced | 19.5.R1 |
| Platforms | All |

### **ebgp** *number*

| | |
|---|---|
| Synopsis | Default preference for EBGP |
| Context | **configure** service vprn *service-name* bgp default-label-preference ebgp *number* |
| Tree | ebgp |
| Range | 0 to 255 |
| Default | 0 |
| Introduced | 19.5.R1 |
| Platforms | All |


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### **ibgp** *number*

| | |
|---|---|
| Synopsis | Default preference for IBGP |
| Context | **configure** service vprn *service-name* bgp default-label-preference ibgp *number* |
| Tree | ibgp |
| Range | 0 to 255 |
| Default | 0 |
| Introduced | 19.5.R1 |
| Platforms | All |

### **default-preference**

| | |
|---|---|
| Synopsis | Enter the **default-preference** context |
| Context | **configure** service vprn *service-name* bgp default-preference |
| Tree | default-preference |
| Introduced | 19.5.R1 |
| Platforms | All |

### **ebgp** *number*

| | |
|---|---|
| Synopsis | Default preference for EBGP |
| Context | **configure** service vprn *service-name* bgp default-preference ebgp *number* |
| Tree | ebgp |
| Range | 0 to 255 |
| Default | 0 |
| Introduced | 19.5.R1 |
| Platforms | All |

### **ibgp** *number*

| | |
|---|---|
| Synopsis | Default preference for IBGP |
| Context | **configure** service vprn *service-name* bgp default-preference ibgp *number* |
| Tree | ibgp |
| Range | 0 to 255 |
| Default | 0 |


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| | |
|---|---|
| Introduced | 19.5.R1 |
| Platforms | All |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* bgp description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **domain-id** *domain-id*

| | |
|---|---|
| Synopsis | Domain ID of received BGP route before readvertisement |
| Context | **configure** service vprn *service-name* bgp domain-id *domain-id* |
| Tree | domain-id |
| Description | This command specifies the domain ID. The domain ID identifies the network from which the BGP route was received before the RTM advertises it to a different neighbor. The domain ID is part of a domain, represented as domain-id:isf_safi_type in the D-PATH attribute, as described in *draft-ietf-bess-evpn-ipvpn-interworking*. Gateway routers modify the D-PATH attribute. A gateway is a PE where a VPRN is instantiated. The VPRN in this case advertises or receives routes from multiple BGP owners (for example, EVPN-IFL and BGP-IPVPN) or multiple instances of the same owner (for example, VPRN with two BGP-IPVPN instances).<br><br>Gateways use the D-PATH attribute to detect loops (for received routes where the D-PATH contains a local domain ID) and to make BGP best-path selection decisions based on the D-PATH length (shorter D-PATH is preferred).<br><br>In the following example, suppose a gateway receives prefix P in an EVPN-IFL instance with the following D-PATH from neighbor N:<br><br>Seg Len=1 / 65000:1:128<br><br>If the router imports the route in VPRN-1, BGP-EVPN SRv6 instance with domain 65000:2, it readvertises it to its BGP-IPVPN MPLS instance as follows:<br><br>Seg Len=2 / 65000:2:70 / 65000:1:128<br><br>That is, the gateway prepends the local domain ID and family to the D-PATH before readvertising the route into a different instance. |
| Introduced | 21.10.R1 |
| Platforms | All |


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### **dynamic-neighbor-limit** *number*

| | |
|---|---|
| Synopsis | Max dynamic BGP sessions to accept from remote peers |
| Context | **configure** service vprn *service-name* bgp dynamic-neighbor-limit *number* |
| Tree | dynamic-neighbor-limit |
| Description | This command configures the maximum number of dynamic BGP sessions to accept from remote peers associated with the entire BGP instance. If accepting a new dynamic session causes the instance limit to be exceeded, the new session attempt is rejected and a Notification message is sent back to the remote peer. |
| Range | 1 to 8192 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ebgp-default-reject-policy**

| | |
|---|---|
| Synopsis | Enter the **ebgp-default-reject-policy** context |
| Context | **configure** service vprn *service-name* bgp ebgp-default-reject-policy |
| Tree | ebgp-default-reject-policy |
| Introduced | 19.5.R1 |
| Platforms | All |

### **export** *boolean*

| | |
|---|---|
| Synopsis | Enable default reject export policy for external peers |
| Context | **configure** service vprn *service-name* bgp ebgp-default-reject-policy export *boolean* |
| Tree | export |
| Default | true |
| Introduced | 19.5.R1 |
| Platforms | All |

### **import** *boolean*

| | |
|---|---|
| Synopsis | Enable default reject import policy for external peers |
| Context | **configure** service vprn *service-name* bgp ebgp-default-reject-policy import *boolean* |
| Tree | import |
| Default | true |


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| | |
|---|---|
| Introduced | 19.5.R1 |
| Platforms | All |

## **eibgp-loadbalance** *boolean*

| | |
|---|---|
| Synopsis | Use ECMP over BGP VPN and BGP routes |
| Context | **configure** service vprn *service-name* bgp eibgp-loadbalance *boolean* |
| Tree | eibgp-loadbalance |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **enforce-first-as** *boolean*

| | |
|---|---|
| Synopsis | Enforce the configured peer AS value in received routes |
| Context | **configure** service vprn *service-name* bgp enforce-first-as *boolean* |
| Tree | enforce-first-as |
| Description | When configured to **true** for an EBGP session, all routes received from an EBGP peer are checked to ensure that the most recent ASN in the AS_PATH attribute of each route matches the configured AS of the session. If there is not a match, the session is reset (if the **update-fault-tolerance** command in the **error-handling** context is set to **false**) or the session is left up but the route is treated as withdrawn (if **update-fault-tolerance** is set to **true**).<br>This command does not flap an established session because it applies only to routes received after the command is issued.<br>When configured to **false**, received routes are not checked for compliance with the rule. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **error-handling**

| | |
|---|---|
| Synopsis | Enter the **error-handling** context |
| Context | **configure** service vprn *service-name* bgp error-handling |
| Tree | error-handling |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **legacy-mode** *boolean*

| | |
|---|---|
| Synopsis | Enable legacy-mode of BGP error handling |
| Context | **configure** service vprn *service-name* bgp error-handling legacy-mode *boolean* |
| Tree | legacy-mode |
| Description | When configured to **true**, the BGP instance handles the BGP update error messages based on the configured **update-fault-tolerance** commands. If these commands are not explicitly configured, BGP error handling follows the legacy procedures described in RFC 4271, which can result in disruptive session resets.<br>When configured to **false**, the BGP instance ignores the configured **update-fault-tolerance** commands and applies the new error handling procedures described in RFC 7606 on all sessions. |
| Default | false |
| Introduced | 24.3.R1 |
| Platforms | All |

### **update-fault-tolerance** *boolean*

| | |
|---|---|
| Synopsis | Tolerate non-critical errors in UPDATE messages |
| Context | **configure** service vprn *service-name* bgp error-handling update-fault-tolerance *boolean* |
| Tree | update-fault-tolerance |
| Description | When configured to **true**, non-critical errors are handled with treat-as-withdraw, attribute-discard, and other non-disruptive approaches that do not cause a session reset. Critical errors still trigger a session reset.<br>When configured to **false**, most errors trigger a session reset. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **export**

| | |
|---|---|
| Synopsis | Enable the **export** context |
| Context | **configure** service vprn *service-name* bgp export |
| Tree | export |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **policy** *(policy-expr-string | string)*

| | |
|---|---|
| Synopsis | Export policy name |
| Context | **configure** service vprn *service-name* bgp export policy *(policy-expr-string \| string)* |
| Tree | policy |
| String length | 1 to 255 |
| Max. instances | 15 |
| Min. instances | 1 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **extended-nh-encoding**

| | |
|---|---|
| Synopsis | Enter the **extended-nh-encoding** context |
| Context | **configure** service vprn *service-name* bgp extended-nh-encoding |
| Tree | extended-nh-encoding |
| Introduced | 19.5.R1 |
| Platforms | All |

### **ipv4** *boolean*

| | |
|---|---|
| Synopsis | Enable IPv4 family type |
| Context | **configure** service vprn *service-name* bgp extended-nh-encoding ipv4 *boolean* |
| Tree | ipv4 |
| Default | false |
| Introduced | 19.5.R1 |
| Platforms | All |

### **family**

| | |
|---|---|
| Synopsis | Enter the **family** context |
| Context | **configure** service vprn *service-name* bgp family |
| Tree | family |


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| | |
|---|---|
| Description | Commands in this context specify the BGP address families supported by the base router BGP sessions. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **flow-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Advertise support for the FlowSpec-IPv4 address family |
| Context | **configure** service vprn *service-name* bgp family flow-ipv4 *boolean* |
| Tree | flow-ipv4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **flow-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Advertise support for the FlowSpec-IPv6 address family |
| Context | **configure** service vprn *service-name* bgp family flow-ipv6 *boolean* |
| Tree | flow-ipv6 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv4** *boolean*

| | |
|---|---|
| Synopsis | Advertise MP-BGP support for the IPv4 address family |
| Context | **configure** service vprn *service-name* bgp family ipv4 *boolean* |
| Tree | ipv4 |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv6** *boolean*

| | |
|---|---|
| Synopsis | Advertise MP-BGP support for the IPv6 address family |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* bgp family ipv6 *boolean* |
| Tree | ipv6 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **label-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Advertise support for the label-IPv4 address family |
| Context | **configure** service vprn *service-name* bgp family label-ipv4 *boolean* |
| Tree | label-ipv4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mcast-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Advertise support for the MCAST-IPv4 address family |
| Context | **configure** service vprn *service-name* bgp family mcast-ipv4 *boolean* |
| Tree | mcast-ipv4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mcast-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Advertise support for the MCAST-IPv6 address family |
| Context | **configure** service vprn *service-name* bgp family mcast-ipv6 *boolean* |
| Tree | mcast-ipv6 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **fast-external-failover** *boolean*

| | |
|---|---|
| Synopsis | Drop external BGP session immediately when link fails |
| Context | **configure** service vprn *service-name* bgp fast-external-failover *boolean* |
| Tree | fast-external-failover |
| Description | When configured to **true**, the router drops an external BGP session to a single-hop neighbor immediately when the local interface goes down.<br>When configured to **false**, the BGP session remains up until the hold time expires. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **flowspec**

| | |
|---|---|
| Synopsis | Enter the **flowspec** context |
| Context | **configure** service vprn *service-name* bgp flowspec |
| Tree | flowspec |
| Description | Commands in this context configure BGP FlowSpec validations. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **validate-dest-prefix** *boolean*

| | |
|---|---|
| Synopsis | Validate destination prefix in FlowSpec-IPv4/IPv6 route |
| Context | **configure** service vprn *service-name* bgp flowspec validate-dest-prefix *boolean* |
| Tree | validate-dest-prefix |
| Description | When configured to **true**, the router validates received IPv4 and IPv6 FlowSpec routes that contain a destination-prefix subcomponent.<br>A FlowSpec route with a destination-prefix subcomponent is considered invalid if the following are true:<br>• the route was originated outside the local AS of the receiving BGP router<br>• the neighbor AS of the FlowSpec route does not match the neighbor AS of the best match BGP (unicast) route for the destination prefix or the neighbor AS of any longer match BGP (unicast) route for the destination prefix<br>An invalid route is retained in the BGP RIB but it is not used for filtering traffic and is not propagated to other BGP routers.<br>When configured to **false**, destination-prefix validation is disabled. |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **validate-redirect-ip** *boolean*

| | |
|---|---|
| Synopsis | Validate the redirect-to-IPv4 action in FlowSpec route |
| Context | **configure** service vprn *service-name* bgp flowspec validate-redirect-ip *boolean* |
| Tree | validate-redirect-ip |
| Description | When configured to **true**, the router validates the redirect-to-IPv4 action attached to FlowSpec-IPv4 routes that are received by the BGP instance.<br>A FlowSpec-IPv4 route is considered invalid and is not installed as a filter rule if it is determined to have originated from a different AS than the IP route that resolves the redirection IPv4 address. The originating AS of a FlowSpec route is identified based on its AS path.<br>When configured to **false**, the router does not perform the validation check on Flow Spec-IPv4 routes. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **graceful-restart**

| | |
|---|---|
| Synopsis | Enable the **graceful-restart** context |
| Context | **configure** service vprn *service-name* bgp graceful-restart |
| Tree | graceful-restart |
| Introduced | 16.0.R1 |
| Platforms | All |

### **gr-notification** *boolean*

| | |
|---|---|
| Synopsis | Perform Graceful Restart procedures |
| Context | **configure** service vprn *service-name* bgp graceful-restart gr-notification *boolean* |
| Tree | gr-notification |
| Description | When configured to **true**, the Graceful Restart capability sent by the router indicates support for NOTIFICATION messages. If the peer also supports this capability, the session is restarted gracefully (while preserving forwarding) if either peer sends a NOTIFICATION message due to some type of event or error. |


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When configured to **false**, NOTIFICATION messages are not supported.

| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## long-lived

| | |
|---|---|
| Synopsis | Enable the **long-lived** context |
| Context | **configure** service vprn *service-name* bgp graceful-restart long-lived |
| Tree | long-lived |
| Introduced | 16.0.R1 |
| Platforms | All |

## advertise-stale-to-all-neighbors *boolean*

| | |
|---|---|
| Synopsis | Advertise stale routes to all BGP peers |
| Context | **configure** service vprn *service-name* bgp graceful-restart long-lived advertise-stale-to-all-neighbors *boolean* |
| Tree | advertise-stale-to-all-neighbors |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## advertised-stale-time *number*

| | |
|---|---|
| Synopsis | LLGR stale routes time |
| Context | **configure** service vprn *service-name* bgp graceful-restart long-lived advertised-stale-time *number* |
| Tree | advertised-stale-time |
| Range | 0 to 16777215 |
| Default | 86400 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **family** [family-type] *keyword*

| | |
|---|---|
| Synopsis | Enter the **family** list instance |
| Context | **configure** service vprn *service-name* bgp graceful-restart long-lived family *keyword* |
| Tree | family |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**family-type**] *keyword*

| | |
|---|---|
| Synopsis | Address family type for LLGR |
| Context | **configure** service vprn *service-name* bgp graceful-restart long-lived family *keyword* |
| Tree | family |
| Options | ipv4, ipv6, flow-ipv4, flow-ipv6, label-ipv4 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **advertised-stale-time** *number*

| | |
|---|---|
| Synopsis | LLGR stale routes time for family override |
| Context | **configure** service vprn *service-name* bgp graceful-restart long-lived family *keyword* advertised-stale-time *number* |
| Tree | advertised-stale-time |
| Range | 0 to 16777215 |
| Default | 86400 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **helper-override-stale-time** *number*

| | |
|---|---|
| Synopsis | Locally-configured stale routes override time |
| Context | **configure** service vprn *service-name* bgp graceful-restart long-lived family *keyword* helper-override-stale-time *number* |
| Tree | helper-override-stale-time |
| Range | 0 to 16777215 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## **forwarding-bits-set** *keyword*

| | |
|---|---|
| Synopsis | BGP LLGR forwarding-bit behavior for address family |
| Context | **configure** service vprn *service-name* bgp graceful-restart long-lived forwarding-bits-set *keyword* |
| Tree | forwarding-bits-set |
| Description | This command determines the setting of the F bit in the GR and LLGR capabilities advertised by the router. When the F bit is set for an address family, it indicates that the advertising router is able to preserve forwarding state for the routes of that address family across the last restart. When the session is re-established after a restart and the F bit is not set, all stale routes from the peer are immediately removed for the corresponding address family.<br>This command allows the F bit to be set for all address families or only for non-forwarding address families (L2-VPN, route target, flow-IPv4, and flow-IPv6). |
| Options | none, all, non-fwd |
| Default | none |
| Introduced | 16.0.R1 |
| Platforms | All |

## **helper-override-restart-time** *number*

| | |
|---|---|
| Synopsis | Locally-configured override for restart time |
| Context | **configure** service vprn *service-name* bgp graceful-restart long-lived helper-override-restart-time *number* |
| Tree | helper-override-restart-time |
| Description | This command overrides the restart time advertised by a peer (in its GR capability) with a locally-configured value. This override applies only to AFI/SAFI that were included in the GR capability of the peer. The restart-time is always zero for AFI/SAFI not included in the GR capability. This command is useful if the local router wants to force the LLGR phase to begin after a set time for all protected AFI/SAFI. |
| Range | 0 to 4095 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **helper-override-stale-time** *number*

| | |
|---|---|
| Synopsis | Locally-configured stale routes override time |
| Context | **configure** service vprn *service-name* bgp graceful-restart long-lived helper-override-stale-time *number* |
| Tree | helper-override-stale-time |
| Description | This command configures a locally-imposed LLGR stale time that overrides the long-lived stale routes time that is advertised by the router in its LLGR capability.<br>This command applies to all AFI/SAFI in the advertised LLGR capability except for any AFI/SAFI with a family-specific override. |
| Range | 0 to 16777215 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **without-no-export** *boolean*

| | |
|---|---|
| Synopsis | Advertise LLGR stale routes to non-LLGR peers |
| Context | **configure** service vprn *service-name* bgp graceful-restart long-lived without-no-export *boolean* |
| Tree | without-no-export |
| Description | When configured to **true**, LLGR stale routes can be advertised to any peer (EBGP or IBGP) that did not signal the LLGR capability. For IBGP and confederation-EBGP peers that did not advertise the LLGR capability, the local preference attribute in the advertised stale routes is automatically set to 0.<br>When configured to **false**, LLGR stale routes are not advertised to any EBGP peer that did not signal the LLGR capability. For IBGP and confederation-EBGP peers that did not advertise the LLGR capability, the local preference attribute in the advertised stale routes is automatically set to 0 and a NO_EXPORT standard community is automatically added to the routes. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **restart-time** *number*

| | |
|---|---|
| Synopsis | Restart time advertised by GR capability |
| Context | **configure** service vprn *service-name* bgp graceful-restart restart-time *number* |
| Tree | restart-time |


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| | |
|---|---|
| Range | 0 to 4095 |
| Default | 120 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **stale-routes-time** *number*

| | |
|---|---|
| Synopsis | Maximum time to maintain routes after graceful restart |
| Context | **configure** service vprn *service-name* bgp graceful-restart stale-routes-time *number* |
| Tree | stale-routes-time |
| Range | 1 to 3600 |
| Default | 360 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **group** [group-name] *named-item-64*

| | |
|---|---|
| Synopsis | Enter the **group** list instance |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* |
| Tree | group |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**group-name**] *named-item-64*

| | |
|---|---|
| Synopsis | BGP peer group name |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* |
| Tree | group |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the BGP group |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **advertise-inactive** *boolean*

| | |
|---|---|
| Synopsis | Advertise an inactive BGP route to peers |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* advertise-inactive *boolean* |
| Tree | advertise-inactive |
| Description | When configured to **true**, this command allows an inactive BGP route to be advertised, even though it is not the most preferred route. The effect of the command on advertised unlabeled, labeled, and multicast IPv4 and IPv6 routes depends on several factors.<br>• If the active route for the IP prefix is a BGP route, that route is advertised.<br>• If the active route is a non-BGP route and there are valid inactive BGP routes to the same destination, the best valid inactive route is advertised unless the active non-BGP route is matched and accepted by an export policy applied to the session.<br>• If the active route is a non-BGP route and there are no valid BGP routes to the same destination, no route is advertised unless the active non-BGP route is matched and accepted by an export policy applied to the session.<br>When unconfigured, the command inherits the value of the global-level setting (**true** or **false**). The command cannot be explicitly configured to **false**.<br>When this command inherits a value of **false**, the advertisement of inactive BGP routes to other BGP peers is disabled. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **advertise-ipv6-next-hops**

| | |
|---|---|
| Synopsis | Enable the **advertise-ipv6-next-hops** context |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* advertise-ipv6-next-hops |


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| | |
|---|---|
| Tree | advertise-ipv6-next-hops |
| Introduced | 19.5.R1 |
| Platforms | All |

### **ipv4** *boolean*

| | |
|---|---|
| Synopsis | Enable IPv4 routes to be advertised |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* advertise-ipv6-next-hops ipv4 *boolean* |
| Tree | ipv4 |
| Default | false |
| Introduced | 19.5.R1 |
| Platforms | All |

### **aggregator-id-zero** *boolean*

| | |
|---|---|
| Synopsis | Set router ID in the BGP AGGREGATOR attribute to zero |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* aggregator-id-zero *boolean* |
| Tree | aggregator-id-zero |
| Introduced | 16.0.R1 |
| Platforms | All |

### **as-override** *boolean*

| | |
|---|---|
| Synopsis | Replace the peer's ASN with the local ASN in AS Path |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* as-override *boolean* |
| Tree | as-override |
| Description | When configured to **true**, the advertising router's local AS replaces all occurrences of the peer AS in the AS_PATH attribute.<br>This command should be used with caution, as it breaks BGP's loop detection mechanism.<br>When configured to **false**, no AS override is performed. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **asn-4-byte** *boolean*

| | |
|---|---|
| Synopsis | Advertise the use of 4-byte ASNs |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* asn-4-byte *boolean* |
| Tree | asn-4-byte |
| Description | When this command inherits a value of **true**, the use of 4-byte ASNs is supported.<br>When unconfigured, the command inherits the value of the global-level setting (**true** or **false**). The command cannot be explicitly configured to **true**.<br>When configured to **false**, this command disables the use of 4-byte ASNs. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **authentication-key** *encrypted-leaf*

| | |
|---|---|
| Synopsis | BGP authentication key for peers in the group |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* authentication-key *encrypted-leaf* |
| Tree | authentication-key |
| Description | This command configures the authentication key that must be configured on both peers. The stored format of the authentication key is based on the **configure system security hash-control management-interface md-cli hash-algorithm** setting**.** |
| String length | 1 to 370 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **authentication-keychain** *reference*

| | |
|---|---|
| Synopsis | TCP authentication keychain for the session |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* authentication-keychain *reference* |
| Tree | authentication-keychain |
| Description | This command associates the keychain to be used to authenticate the BGP session. The keychain allows the rollover of authentication keys during the lifetime of a session. |
| Reference | **configure** system security keychains keychain *named-item* |
| Introduced | 16.0.R3 |
| Platforms | All |


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## **bfd-liveness** *boolean*

| | |
|---|---|
| Synopsis | Enable BFD |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* bfd-liveness *boolean* |
| Tree | bfd-liveness |
| Description | When configured to **true**, BFD is enabled on a given protocol interface where the state of the protocol interface is tied to the state of the BFD session between the local node and the remote node.<br>When unconfigured, the command inherits the value of the global-level setting (**true** or **false**). The command cannot be explicitly configured to **false**.<br>When this command inherits a value of **false**, BFD is removed from the associated protocol adjacency. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **bfd-strict-mode**

| | |
|---|---|
| Synopsis | Enter the **bfd-strict-mode** context |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* bfd-strict-mode |
| Tree | bfd-strict-mode |
| Introduced | 23.7.R1 |
| Platforms | All |

## **advertise**

| | |
|---|---|
| Synopsis | Enable the **advertise** context |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* bfd-strict-mode advertise |
| Tree | advertise |
| Description | Commands in this context configure BGP to advertise the Strict-BFD capability to peers that are within scope of this command and meet the following requirements:<br>• The inherited or configured value for the **bfd-liveness** command that applies to the peer is **true**.<br>• The interface associated with the peer has a valid BFD configuration.<br>When the preceding conditions are satisfied and two peers attempting to form a session both advertise the Strict-BFD capability, the BGP finite state machine in each router transitions the session state to established after the BFD session with the peer enters the up state. |


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When unconfigured, BGP does not advertise the Strict-BFD capability to peers.

Introduced 23.7.R1

Platforms All

## **holdtime** *number*

Synopsis Maximum time BGP waits for the BFD session to come up

Context **configure** service vprn *service-name* bgp group *named-item-64* bfd-strict-mode advertise holdtime *number*

Tree holdtime

Description This command configures the maximum time BGP waits for the BFD session to come up, provided that the Strict-BFD procedures apply to a session, and the negotiated BGP hold time is zero (no keepalives). If the negotiated BGP hold time is greater than zero, the advertised hold time is not considered.

Range 1 to 65535

Units seconds

Default 30

Introduced 23.7.R1

Platforms All

## **next-hop-reachability** *boolean*

Synopsis Consider next hop unreachable if BFD session is down

Context **configure** service vprn *service-name* bgp group *named-item-64* bfd-strict-mode next-hop-reachability *boolean*

Tree next-hop-reachability

Description When configured to **true**, the router considers next-hop self routes belonging to specific address families received from a peer within scope of this command as having an unresolved next hop, provided that the following requirements are met:

- The BFD session to the peer is in a down state.
- There is a valid interface BFD configuration that applies to the peer.
- There is a valid BFD liveness configuration that applies to the peer.

The unresolved state is maintained until the BFD session state changes to up or administratively down, even if there is a resolving route or tunnel that matches the BGP next-hop address.

Routes received from one peer with a BGP next-hop address equal to the address of another peer are not affected by the BFD session to the other peer.

The behavior of the router when this command is **true** does not depend on whether Strict-BFD is used, as both features are independent.


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Configuring this command to **true** only affects routes belonging to the following address families:

- IPv4
- IPv6
- IPv4 VPN
- IPv6 VPN
- labeled unicast IPv4
- labeled unicast IPv6
- EVPN
- IPv4 multicast
- IPv6 multicast
- IPv4 VPN multicast
- IPv6 VPN multicast

When configured to **false**, the router does not consider next-hop self routes belonging to the preceding address families as having an unresolved next hop if the BFD session goes down.

Introduced 23.7.R1

Platforms All

## **capability-negotiation** *boolean*

Synopsis Enable capability negotiation

Context **configure** service vprn *service-name* bgp group *named-item-64* capability-negotiation *boolean*

Tree capability-negotiation

Description When configured to **true**, this command enables the exchange of capabilities.

When configured to **false** and the peering is flapped, new capabilities are not negotiated and strictly IPv4 exchanges are supported with the peer.

Default true

Introduced 16.0.R1

Platforms All

## **client-reflect** *boolean*

Synopsis Allow cluster RR to advertise routes to its clients

Context **configure** service vprn *service-name* bgp group *named-item-64* client-reflect *boolean*

Tree client-reflect


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| | |
|---|---|
| Description | When unconfigured, this command inherits the value of the global-level setting (**true** or **false**). The command cannot be explicitly configured to **true**.<br>When the command inherits a value of **true**, client reflection of routes is enabled.<br>When configured to **false**, this command disables client reflection of routes. |
| Introduced | 16.0.R1 |
| Platforms | All |

## cluster

| | |
|---|---|
| Synopsis | Enter the **cluster** context |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* cluster |
| Tree | cluster |
| Introduced | 16.0.R1 |
| Platforms | All |

## cluster-id *ipv4-address*

| | |
|---|---|
| Synopsis | Route reflector cluster ID |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* cluster cluster-id *ipv4-address* |
| Tree | cluster-id |
| Introduced | 16.0.R1 |
| Platforms | All |

## connect-retry *number*

| | |
|---|---|
| Synopsis | BGP connect retry timer value |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* connect-retry *number* |
| Tree | connect-retry |
| Range | 1 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

## damp-peer-oscillations

| | |
|---|---|
| Synopsis | Enable the **damp-peer-oscillations** context |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* bgp group *named-item-64* damp-peer-oscillations |
| Tree | damp-peer-oscillations |
| Description | Commands in this context specify how long a BGP peer session remains in the idle state after an error causes the session to reset. In the idle state, BGP does not initiate or respond to attempts to establish a new session. Repeated errors that occur a short time after each session reset cause longer and longer hold times in the idle state.<br>When unconfigured, command settings are inherited from the global-level configuration. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **error-interval** *number*

| | |
|---|---|
| Synopsis | Time after a reset that the session must be error-free |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* damp-peer-oscillations error-interval *number* |
| Tree | error-interval |
| Description | This command sets the interval of time after a reset, during which the session must be error-free in order to reset the penalty counter and return the idle hold time to the initial wait time. |
| Range | 0 to 2048 |
| Default | 30 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **idle-hold-time**

| | |
|---|---|
| Synopsis | Enter the **idle-hold-time** context |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* damp-peer-oscillations idle-hold-time |
| Tree | idle-hold-time |
| Introduced | 16.0.R1 |
| Platforms | All |

## **initial-wait** *number*

| | |
|---|---|
| Synopsis | Time session remains in idle state after stabilization |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* bgp group *named-item-64* damp-peer-oscillations idle-hold-time initial-wait *number* |
| Tree | initial-wait |
| Range | 0 to 2048 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **max-wait** *number*

| | |
|---|---|
| Synopsis | Maximum session idle time after repeated instability |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* damp-peer-oscillations idle-hold-time max-wait *number* |
| Tree | max-wait |
| Range | 1 to 2048 |
| Default | 60 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **second-wait** *number*

| | |
|---|---|
| Synopsis | Time that doubles after each repeated session failure |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* damp-peer-oscillations idle-hold-time second-wait *number* |
| Tree | second-wait |
| Description | This command defines the hold time that doubles after each repeated session failure that occurs in a short span of time. |
| Range | 1 to 2048 |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **damping** *boolean*

| | |
|---|---|
| Synopsis | Use BGP route damping to reduce route flap |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* damping *boolean* |


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| | |
|---|---|
| Tree | damping |
| Introduced | 16.0.R1 |
| Platforms | All |

## default-label-preference

| | |
|---|---|
| Synopsis | Enter the **default-label-preference** context |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* default-label-preference |
| Tree | default-label-preference |
| Introduced | 19.5.R1 |
| Platforms | All |

## ebgp *number*

| | |
|---|---|
| Synopsis | Default preference for EBGP |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* default-label-preference ebgp *number* |
| Tree | ebgp |
| Range | 0 to 255 |
| Introduced | 19.5.R1 |
| Platforms | All |

## ibgp *number*

| | |
|---|---|
| Synopsis | Default preference for IBGP |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* default-label-preference ibgp *number* |
| Tree | ibgp |
| Range | 0 to 255 |
| Introduced | 19.5.R1 |
| Platforms | All |

## default-preference

| | |
|---|---|
| Synopsis | Enter the **default-preference** context |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* default-preference |


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| | |
|---|---|
| Tree | default-preference |
| Introduced | 19.5.R1 |
| Platforms | All |

### **ebgp** *number*

| | |
|---|---|
| Synopsis | Default preference for EBGP |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* default-preference ebgp *number* |
| Tree | ebgp |
| Range | 0 to 255 |
| Introduced | 19.5.R1 |
| Platforms | All |

### **ibgp** *number*

| | |
|---|---|
| Synopsis | Default preference for IBGP |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* default-preference ibgp *number* |
| Tree | ibgp |
| Range | 0 to 255 |
| Introduced | 19.5.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **dynamic-neighbor**

| | |
|---|---|
| Synopsis | Enter the **dynamic-neighbor** context |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* bgp group *named-item-64* dynamic-neighbor |
| Tree | dynamic-neighbor |
| Description | Commands in this context configure dynamic BGP sessions for a peer group. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **interface** [interface-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **interface** list instance |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* dynamic-neighbor interface *reference* |
| Tree | interface |
| Description | Commands in this context configure an unnumbered VPRN access IP interface for dynamic neighbors.<br>If this interface connects to a network with other BGP routers, sessions with the other routers can be set up automatically without explicitly configuring them as BGP neighbors. The interface must be IPv6 enabled, but because the interface is considered unnumbered, it does not require an IPv4 address or a global-unicast IPv6 address. The sessions are set up using IPv6 link-local addresses.<br>The BGP unnumbered feature supports all address families that allow IPv6 link-local BGP next-hop addresses. This includes IPv4 with the use of RFC 8950 extensions.<br>When an interface is added to the list of dynamic-neighbor interfaces, an outgoing connection attempt is initiated toward any directly connected router on the interface that announces itself using an ICMPv6 router advertisement message. The session attempt is unsuccessful if the peer type is not EBGP, the reported AS number of the peer does not match one of the allowed values, or the maximum session limit of the interface would be exceeded. |
| Introduced | 22.10.R1 |
| Platforms | All |

## [**interface-name**] *reference*

| | |
|---|---|
| Synopsis | Name of the dynamic neighbor interface |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* dynamic-neighbor interface *reference* |
| Tree | interface |
| Reference | **configure** service vprn *service-name* interface *interface-name* |
| Notes | This element is part of a list key. |
| Introduced | 22.10.R1 |


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| | |
|---|---|
| Platforms | All |

## **allowed-peer-as** *string*

| | |
|---|---|
| Synopsis | Allowed peer AS value or range of acceptable values |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* dynamic-neighbor interface *reference* allowed-peer-as *string* |
| Tree | allowed-peer-as |
| Description | This command specifies a singular allowed peer AS value or a range of acceptable values in the format *n1*..*n*2.<br>All values greater than or equal to *n1* and less than or equal to *n2*are acceptable. For example, if the acceptable peer AS numbers are 65001 to 65005 (range) and 62100 (singular value), configure this command to use a value of [65001..65005 62100]. |
| Max. instances | 32 |
| Notes | This element is ordered by the user. |
| Introduced | 22.10.R1 |
| Platforms | All |

## **max-sessions** *number*

| | |
|---|---|
| Synopsis | Maximum number of dynamic sessions allowed |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* dynamic-neighbor interface *reference* max-sessions *number* |
| Tree | max-sessions |
| Description | This command specifies the maximum number of dynamic sessions that are allowed to be set up on the interface as a result of accepting sessions from link-local addresses or initiating sessions by receiving IPv6 router advertisements. |
| Range | 1 to 255 |
| Default | 1 |
| Introduced | 22.10.R1 |
| Platforms | All |

## **match**

| | |
|---|---|
| Synopsis | Enter the **match** context |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* dynamic-neighbor match |


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| | |
|---|---|
| Tree | match |
| Introduced | 19.5.R1 |
| Platforms | All |

### **prefix** [ip-prefix] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Enter the **prefix** list instance |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* dynamic-neighbor match prefix *(ipv4-prefix | ipv6-prefix)* |
| Tree | prefix |
| Introduced | 19.5.R1 |
| Platforms | All |

### [**ip-prefix**] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Dynamic peer prefix for the group |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* dynamic-neighbor match prefix *(ipv4-prefix | ipv6-prefix)* |
| Tree | prefix |
| Notes | This element is part of a list key. |
| Introduced | 19.5.R1 |
| Platforms | All |

### **allowed-peer-as** *string*

| | |
|---|---|
| Synopsis | Allowed peer AS value or range of acceptable values |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* dynamic-neighbor match prefix *(ipv4-prefix | ipv6-prefix)* allowed-peer-as *string* |
| Tree | allowed-peer-as |
| Description | This command specifies a singular allowed peer AS value or a range of acceptable values in the format *n1*..*n*2.<br>All values greater than or equal to *n1* and less than or equal to *n2*are acceptable. For example, if the acceptable peer AS numbers are 65001 to 65005 (range) and 62100 (singular value), configure this command to use a value of [65001..65005 62100]. |
| Max. instances | 32 |
| Notes | This element is ordered by the user. |


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| | |
|---|---|
| Introduced | 19.5.R1 |
| Platforms | All |

## **dynamic-neighbor-limit** *number*

| | |
|---|---|
| Synopsis | Maximum dynamic BGP sessions to accept from remote peer |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* dynamic-neighbor-limit *number* |
| Tree | dynamic-neighbor-limit |
| Description | This command configures the maximum number of dynamic BGP sessions that are accepted from remote peers associated with a specific peer group. If accepting a new dynamic session causes the group limit to be exceeded, the new session attempt is rejected and a Notification message is sent back to the remote peer.<br>When unconfigured, the setting is inherited from the BGP global-level configuration. |
| Range | 1 to 8192 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **ebgp-default-reject-policy**

| | |
|---|---|
| Synopsis | Enable the **ebgp-default-reject-policy** context |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* ebgp-default-reject-policy |
| Tree | ebgp-default-reject-policy |
| Introduced | 19.5.R1 |
| Platforms | All |

## **export** *boolean*

| | |
|---|---|
| Synopsis | Enable default reject export policy for external peers |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* ebgp-default-reject-policy export *boolean* |
| Tree | export |
| Default | true |
| Introduced | 19.5.R1 |
| Platforms | All |


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### **import** *boolean*

| | |
|---|---|
| Synopsis | Enable default reject import policy for external peers |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* ebgp-default-reject-policy import *boolean* |
| Tree | import |
| Default | true |
| Introduced | 19.5.R1 |
| Platforms | All |

### **enforce-first-as** *boolean*

| | |
|---|---|
| Synopsis | Enforce the configured peer AS value in received routes |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* enforce-first-as *boolean* |
| Tree | enforce-first-as |
| Introduced | 16.0.R1 |
| Platforms | All |

### **error-handling**

| | |
|---|---|
| Synopsis | Enter the **error-handling** context |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* error-handling |
| Tree | error-handling |
| Introduced | 16.0.R1 |
| Platforms | All |

### **update-fault-tolerance** *boolean*

| | |
|---|---|
| Synopsis | Tolerate non-critical errors in UPDATE messages |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* error-handling update-fault-tolerance *boolean* |
| Tree | update-fault-tolerance |
| Description | When configured to **true**, non-critical errors are handled with treat-as-withdraw, attribute-discard, and other non-disruptive approaches that do not cause a session reset. Critical errors still trigger a session reset.<br><br>When unconfigured, the command inherits the value of the global-level setting (**true** or **false**). The command cannot be explicitly configured to **false**. |


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When this command inherits a value of **false**, all errors trigger a session reset.

Introduced 16.0.R1

Platforms All

## evpn-link-bandwidth

Synopsis Enter the **evpn-link-bandwidth** context

Context **configure** service vprn *service-name* bgp group *named-item-64* evpn-link-bandwidth

Tree evpn-link-bandwidth

Introduced 22.7.R1

Platforms All

## add-to-received-bgp *number*

Synopsis Weight added to received PE-CE BGP routes

Context **configure** service vprn *service-name* bgp group *named-item-64* evpn-link-bandwidth add-to-received-bgp *number*

Tree add-to-received-bgp

Description This command configures the weight value added to all BGP PE-CE routes for the purpose of weighted ECMP if EVPN-IFL and BGP PE-CE routes are combined into the same ECMP set.

For the load-balancing betweeen EVPN-IFL and BGP PE-CE routes the **configure service vprn bgp eibgp-loadbalance** command must already be configured in the system.

Range 1 to 128

Introduced 22.7.R1

Platforms All

## export

Synopsis Enable the **export** context

Context **configure** service vprn *service-name* bgp group *named-item-64* export

Tree export

Introduced 16.0.R1

Platforms All


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### **policy** *(policy-expr-string | string)*

| | |
|---|---|
| Synopsis | Export policy name |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* export policy *(policy-expr-string \| string)* |
| Tree | policy |
| String length | 1 to 255 |
| Max. instances | 15 |
| Min. instances | 1 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **extended-nh-encoding**

| | |
|---|---|
| Synopsis | Enable the **extended-nh-encoding** context |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* extended-nh-encoding |
| Tree | extended-nh-encoding |
| Introduced | 19.5.R1 |
| Platforms | All |

### **ipv4** *boolean*

| | |
|---|---|
| Synopsis | Enable IPv4 family type |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* extended-nh-encoding ipv4 *boolean* |
| Tree | ipv4 |
| Default | false |
| Introduced | 19.5.R1 |
| Platforms | All |

### **family**

| | |
|---|---|
| Synopsis | Enable the **family** context |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* bgp group *named-item-64* family |
| Tree | family |
| Introduced | 16.0.R1 |
| Platforms | All |

### **flow-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Advertise support for the FlowSpec-IPv4 address family |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* family flow-ipv4 *boolean* |
| Tree | flow-ipv4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **flow-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Advertise support for the FlowSpec-IPv6 address family |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* family flow-ipv6 *boolean* |
| Tree | flow-ipv6 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv4** *boolean*

| | |
|---|---|
| Synopsis | Add support for the IPv4 address family |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* family ipv4 *boolean* |
| Tree | ipv4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **ipv6** *boolean*

| | |
|---|---|
| Synopsis | Advertise MP-BGP support for the IPv6 address family |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* family ipv6 *boolean* |
| Tree | ipv6 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **label-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Advertise support for the label-IPv4 address family |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* family label-ipv4 *boolean* |
| Tree | label-ipv4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mcast-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Advertise support for the MCAST-IPv4 address family |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* family mcast-ipv4 *boolean* |
| Tree | mcast-ipv4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mcast-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Advertise support for the MCAST-IPv6 address family |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* family mcast-ipv6 *boolean* |
| Tree | mcast-ipv6 |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## **fast-external-failover** *boolean*

| | |
|---|---|
| Synopsis | Drop external BGP session immediately when link fails |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* fast-external-failover *boolean* |
| Tree | fast-external-failover |
| Description | When this command inherits a value of **true**, the router drops an external BGP session on a single-hop route immediately when the local interface goes down.<br>When unconfigured, the command inherits the value of the global-level setting (**true** or **false**). The command cannot be explicitly configured to **true**.<br>When configured to **false**, the BGP session remains up until the hold time expires. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **graceful-restart**

| | |
|---|---|
| Synopsis | Enable the **graceful-restart** context |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* graceful-restart |
| Tree | graceful-restart |
| Introduced | 16.0.R1 |
| Platforms | All |

## **gr-notification** *boolean*

| | |
|---|---|
| Synopsis | Perform graceful restart procedures after NOTIFICATION |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* graceful-restart gr-notification *boolean* |
| Tree | gr-notification |
| Description | When configured to **true**, the Graceful Restart capability sent by the router indicates support for NOTIFICATION messages. If the peer also supports this capability, the session is restarted gracefully (while preserving forwarding) if either peer sends a NOTIFICATION message due to some type of event or error.<br>When configured to **false**, NOTIFICATION messages are not supported. |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## long-lived

| | |
|---|---|
| Synopsis | Enable the **long-lived** context |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* graceful-restart long-lived |
| Tree | long-lived |
| Introduced | 16.0.R1 |
| Platforms | All |

## advertise-stale-to-all-neighbors *boolean*

| | |
|---|---|
| Synopsis | Advertise stale routes to all BGP peers |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* graceful-restart long-lived advertise-stale-to-all-neighbors *boolean* |
| Tree | advertise-stale-to-all-neighbors |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## advertised-stale-time *number*

| | |
|---|---|
| Synopsis | Advertised long-lived stale time for LLGR routes |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* graceful-restart long-lived advertised-stale-time *number* |
| Tree | advertised-stale-time |
| Range | 0 to 16777215 |
| Default | 86400 |
| Introduced | 16.0.R1 |
| Platforms | All |

## family [family-type] *keyword*

| | |
|---|---|
| Synopsis | Enter the **family** list instance |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* bgp group *named-item-64* graceful-restart long-lived family *keyword* |
| Tree | family |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**family-type**] *keyword*

| | |
|---|---|
| Synopsis | Address family type for LLGR |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* graceful-restart long-lived family *keyword* |
| Tree | family |
| Options | ipv4, ipv6, flow-ipv4, flow-ipv6, label-ipv4 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **advertised-stale-time** *number*

| | |
|---|---|
| Synopsis | LLGR stale routes time for family override |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* graceful-restart long-lived family *keyword* advertised-stale-time *number* |
| Tree | advertised-stale-time |
| Description | This command configures the long-lived stale routes time that is advertised by the router in its LLGR capability.<br>This command applies to all AFI/SAFI in the advertised LLGR capability with a family-specific override. |
| Range | 0 to 16777215 |
| Default | 86400 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **helper-override-stale-time** *number*

| | |
|---|---|
| Synopsis | Locally-configured stale routes override time |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* graceful-restart long-lived family *keyword* helper-override-stale-time *number* |


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| | |
|---|---|
| Tree | helper-override-stale-time |
| Description | This command configures a locally-imposed LLGR stale time that overrides the long-lived stale routes time that is advertised by the router in its LLGR capability. This is a family-specific override value. |
| Range | 0 to 16777216 |
| Default | 16777216 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **forwarding-bits-set** *keyword*

| | |
|---|---|
| Synopsis | BGP LLGR forwarding-bit behavior for address family |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* graceful-restart long-lived forwarding-bits-set *keyword* |
| Tree | forwarding-bits-set |
| Description | This command determines the setting of the F bit in the GR and LLGR capabilities advertised by the router. When the F bit is set for an address family, it indicates that the advertising router is able to preserve forwarding state for the routes of that address family across the last restart. When the session is re-established after a restart and the F bit is not set, all stale routes from the peer are immediately removed for the corresponding address family.<br>This command allows the F bit to be set for all address families or only for non-forwarding address families (L2-VPN, route target, flow-IPv4, and flow-IPv6). |
| Options | none, all, non-fwd |
| Default | none |
| Introduced | 16.0.R1 |
| Platforms | All |

## **helper-override-restart-time** *number*

| | |
|---|---|
| Synopsis | Locally-configured override for restart time |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* graceful-restart long-lived helper-override-restart-time *number* |
| Tree | helper-override-restart-time |
| Description | This command overrides the restart time advertised by a peer (in its GR capability) with a locally-configured value. This override applies only to AFI/SAFI that were included in the GR capability of the peer. The restart-time is always zero for AFI/SAFI not included in the GR capability. This command is useful if the local router wants to force the LLGR phase to begin after a set time for all protected AFI/SAFI. |


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| | |
|---|---|
| Range | 0 to 4095 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **helper-override-stale-time** *number*

| | |
|---|---|
| Synopsis | Locally-configured stale routes override time |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* graceful-restart long-lived helper-override-stale-time *number* |
| Tree | helper-override-stale-time |
| Description | This command configures a locally-imposed LLGR stale time that overrides the long-lived stale routes time that is advertised by the router in its LLGR capability.<br>This command applies to all AFI/SAFI in the advertised LLGR capability except for any AFI/SAFI with a family-specific override. |
| Range | 0 to 16777215 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **without-no-export** *boolean*

| | |
|---|---|
| Synopsis | Advertise LLGR stale routes to non-LLGR peers |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* graceful-restart long-lived without-no-export *boolean* |
| Tree | without-no-export |
| Description | When configured to **true**, LLGR stale routes can be advertised to any peer (EBGP or IBGP) that did not signal the LLGR capability. For IBGP and confederation-EBGP peers that did not advertise the LLGR capability, the local preference attribute in the advertised stale routes is automatically set to 0.<br>When configured to **false**, LLGR stale routes are not advertised to any EBGP peer that did not signal the LLGR capability. For IBGP and confederation-EBGP peers that did not advertise the LLGR capability, the local preference attribute in the advertised stale routes is automatically set to 0 and a NO_EXPORT standard community is automatically added to the routes. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **restart-time** *number*

| | |
|---|---|
| Synopsis | Restart time advertised by GR capability |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* graceful-restart restart-time *number* |
| Tree | restart-time |
| Range | 0 to 4095 |
| Default | 300 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **stale-routes-time** *number*

| | |
|---|---|
| Synopsis | Maximum time to maintain routes after graceful restart |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* graceful-restart stale-routes-time *number* |
| Tree | stale-routes-time |
| Range | 1 to 3600 |
| Default | 360 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hold-time**

| | |
|---|---|
| Synopsis | Enter the **hold-time** context |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* hold-time |
| Tree | hold-time |
| Introduced | 16.0.R1 |
| Platforms | All |

### **minimum-hold-time** *number*

| | |
|---|---|
| Synopsis | Minimum hold time between successive messages |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* hold-time minimum-hold-time *number* |
| Tree | minimum-hold-time |


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| | |
|---|---|
| Description | This command specifies the minimum hold time that is accepted for the session. If a peer proposes a hold time lower than this value, the session attempt is rejected.<br>When unconfigured, the command value is inherited from the BGP global-level setting. |
| Range | 0 \| 3 to 65536 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **seconds** *number*

| | |
|---|---|
| Synopsis | Maximum time BGP waits between successive messages |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* hold-time seconds *number* |
| Tree | seconds |
| Description | This command configures the maximum time BGP waits between successive messages (either keepalive or update) from its peer before closing the connection.<br>Although the implementation allows setting the keepalive timer at the BGP group level times separately, the configured keepalive timer is overridden by this value under the following circumstances.<br>• If the specified hold time is less than the configured keepalive time, the operational keepalive time is set to a third of the hold-time; the configured keepalive time is not changed.<br>• If the hold time is set to zero, the operational value of the keepalive time is set to zero; the configured keepalive time is not changed. The connection with the peer is up permanently and no keepalive packets are sent to the peer.<br>When unconfigured, the command setting is inherited from the BGP global-level configuration. |
| Range | 0 \| 3 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **import**

| | |
|---|---|
| Synopsis | Enable the **import** context |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* import |
| Tree | import |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **policy** *(policy-expr-string | string)*

| | |
|---|---|
| Synopsis | Route policy name |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* import policy *(policy-expr-string \| string)* |
| Tree | policy |
| String length | 1 to 255 |
| Max. instances | 15 |
| Min. instances | 1 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **initial-send-delay-zero** *boolean*

| | |
|---|---|
| Synopsis | Send BGP updates as soon as the session comes up |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* initial-send-delay-zero *boolean* |
| Tree | initial-send-delay-zero |
| Description | When configured to **true**, BGP updates are sent as soon as the session comes up.<br>When unconfigured, the command inherits the value of the global-level setting (**true** or **false**). The command cannot be explicitly configured to **false**.<br>When this command inherits a value of **false**, BGP waits to send UPDATE messages for the minimum route advertisement time after a session is established. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **keepalive** *number*

| | |
|---|---|
| Synopsis | Time after which the BGP KEEPALIVE message is sent |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* keepalive *number* |
| Tree | keepalive |
| Description | This command configures the BGP keepalive timer value. A keepalive message is sent every time this timer expires. |


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This value is generally one-third of the hold time interval configured in the **hold-time seconds** context. Although the implementation allows this keepalive value and the hold time interval to be independently set, under the following circumstances, the configured keepalive value is overridden by the hold time interval value:

- If the specified keepalive value is greater than the configured hold time, the specified keepalive value is ignored and the timer value is set to one third of the current hold time value.
- If the specified hold time interval is less than the configured keepalive value, the keepalive value is reset to one third of the specified hold time interval.
- If the hold time interval is set to zero, the configured keepalive value is ignored. This means that the connection with the peer is up permanently and no keepalive packets are sent to the peer.

When unconfigured, the command inherits the BGP global-level setting.

| | |
|---|---|
| Range | 0 to 21845 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **label-preference** *number*

| | |
|---|---|
| Synopsis | Route preference for routes from labeled-unicast peers |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* label-preference *number* |
| Tree | label-preference |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **link-bandwidth**

| | |
|---|---|
| Synopsis | Enter the **link-bandwidth** context |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* link-bandwidth |
| Tree | link-bandwidth |
| Description | Commands in this context specify the handling of the Link Bandwidth Extended Community attached to specific BGP routes.<br>When all used multipaths of an IP prefix correspond to BGP routes with a Link Bandwidth EC, the datapath is programmed to use weighted ECMP across the BGP next hops in proportion to the bandwidth values. |
| Introduced | 16.0.R3 |
| Platforms | All |


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## accept-from-ebgp

| | |
|---|---|
| Synopsis | Enter the **accept-from-ebgp** context |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* link-bandwidth accept-from-ebgp |
| Tree | accept-from-ebgp |
| Introduced | 16.0.R4 |
| Platforms | All |

## ipv4 *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in IPv4 routes |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* link-bandwidth accept-from-ebgp ipv4 *boolean* |
| Tree | ipv4 |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

## ipv6 *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in IPv6 routes |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* link-bandwidth accept-from-ebgp ipv6 *boolean* |
| Tree | ipv6 |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

## label-ipv4 *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in label-IPv4 routes |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* link-bandwidth accept-from-ebgp label-ipv4 *boolean* |
| Tree | label-ipv4 |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | All |

## add-to-received-ebgp

| | |
|---|---|
| Synopsis | Enter the **add-to-received-ebgp** context |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* link-bandwidth add-to-received-ebgp |
| Tree | add-to-received-ebgp |
| Introduced | 16.0.R3 |
| Platforms | All |

## ipv4 *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in IPv4 routes |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* link-bandwidth add-to-received-ebgp ipv4 *boolean* |
| Tree | ipv4 |
| Default | false |
| Introduced | 16.0.R3 |
| Platforms | All |

## ipv6 *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in IPv6 routes |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* link-bandwidth add-to-received-ebgp ipv6 *boolean* |
| Tree | ipv6 |
| Default | false |
| Introduced | 16.0.R3 |
| Platforms | All |

## label-ipv4 *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in label-IPv4 routes |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* link-bandwidth add-to-received-ebgp label-ipv4 *boolean* |


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| | |
|---|---|
| Tree | label-ipv4 |
| Default | false |
| Introduced | 16.0.R3 |
| Platforms | All |

## aggregate-used-paths

| | |
|---|---|
| Synopsis | Enter the **aggregate-used-paths** context |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* link-bandwidth aggregate-used-paths |
| Tree | aggregate-used-paths |
| Introduced | 16.0.R4 |
| Platforms | All |

## ipv4 *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in IPv4 routes |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* link-bandwidth aggregate-used-paths ipv4 *boolean* |
| Tree | ipv4 |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

## ipv6 *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in IPv6 routes |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* link-bandwidth aggregate-used-paths ipv6 *boolean* |
| Tree | ipv6 |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **label-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in label-IPv4 routes |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* link-bandwidth aggregate-used-paths label-ipv4 *boolean* |
| Tree | label-ipv4 |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **send-to-ebgp**

| | |
|---|---|
| Synopsis | Enter the **send-to-ebgp** context |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* link-bandwidth send-to-ebgp |
| Tree | send-to-ebgp |
| Introduced | 16.0.R4 |
| Platforms | All |

### **ipv4** *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in IPv4 routes |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* link-bandwidth send-to-ebgp ipv4 *boolean* |
| Tree | ipv4 |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **ipv6** *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in IPv6 routes |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* link-bandwidth send-to-ebgp ipv6 *boolean* |
| Tree | ipv6 |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | All |

### **label-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in label-IPv4 routes |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* link-bandwidth send-to-ebgp label-ipv4 *boolean* |
| Tree | label-ipv4 |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **local-address** *(ipv4-address-no-zone | ipv6-address-no-zone | interface-name)*

| | |
|---|---|
| Synopsis | Local IP address used when communicating with BGP peers |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* local-address *(ipv4-address-no-zone | ipv6-address-no-zone | interface-name)* |
| Tree | local-address |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **local-as**

| | |
|---|---|
| Synopsis | Enter the **local-as** context |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* local-as |
| Tree | local-as |
| Introduced | 16.0.R1 |
| Platforms | All |

### **as-number** *number*

| | |
|---|---|
| Synopsis | Local (or virtual) BGP AS number |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* local-as as-number *number* |


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| | |
|---|---|
| Tree | as-number |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **prepend-global-as** *boolean*

| | |
|---|---|
| Synopsis | Prepend global ASN when advertising routes to BGP peer |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* local-as prepend-global-as *boolean* |
| Tree | prepend-global-as |
| Description | When configured to **true**, the global ASN is added to the AS_PATH attribute in outbound routes sent to the peer.<br>When configured to **false**, the global ASN is not included in the AS_PATH attribute. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **private** *boolean*

| | |
|---|---|
| Synopsis | Hide the local ASN in sent paths learned from peering |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* local-as private *boolean* |
| Tree | private |
| Description | When configured to **true**, the local AS number is only advertised to peers that use the local ASN for establishing BGP peering sessions.<br>When configured to **false**, the local ASN is advertised to all peers, including those that can use the global ASN for establishing BGP peering sessions. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **local-preference** *number*

| | |
|---|---|
| Synopsis | Default local preference if not in incoming routes |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* local-preference *number* |


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| | |
|---|---|
| Tree | local-preference |
| Range | 0 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **loop-detect** *keyword*

| | |
|---|---|
| Synopsis | Strategy for loop detection in the AS path |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* loop-detect *keyword* |
| Tree | loop-detect |
| Options | drop-peer, ignore-loop, off, discard-route |
| Introduced | 16.0.R1 |
| Platforms | All |

### **loop-detect-threshold** *number*

| | |
|---|---|
| Synopsis | Threshold for the global ASN in a received AS path |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* loop-detect-threshold *number* |
| Tree | loop-detect-threshold |
| Range | 0 to 15 |
| Introduced | 16.0.R6 |
| Platforms | All |

### **med-out** *(number | keyword)*

| | |
|---|---|
| Synopsis | Default MED attribute value to advertise to peers |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* med-out *(number | keyword)* |
| Tree | med-out |
| Max. range | 0 to 4294967295 |
| Options | igp-cost |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **min-route-advertisement** *number*

| | |
|---|---|
| Synopsis | Minimum time before a prefix can be advertised to peer |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* min-route-advertisement *number* |
| Tree | min-route-advertisement |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **monitor**

| | |
|---|---|
| Synopsis | Enable the **monitor** context |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* monitor |
| Tree | monitor |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of BMP monitoring |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* monitor admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **all-stations** *boolean*

| | |
|---|---|
| Synopsis | Send BMP messages to all configured stations |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* monitor all-stations *boolean* |
| Tree | all-stations |


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| | |
|---|---|
| Description | When configured to **true**, this command specifies that BMP messages are to be sent to all configured BMP monitoring stations.<br>When configured to **false**, the command is not used to indicate the stations which can receive BMP messages. The **station** command (at the same context level) identifies the BMP stations for which BMP messages are to be sent. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## route-monitoring

| | |
|---|---|
| Synopsis | Enter the **route-monitoring** context |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* monitor route-monitoring |
| Tree | route-monitoring |
| Introduced | 16.0.R1 |
| Platforms | All |

## post-policy *boolean*

| | |
|---|---|
| Synopsis | Allow post-policy route-monitoring messages to be sent |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* monitor route-monitoring post-policy *boolean* |
| Tree | post-policy |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## pre-policy *boolean*

| | |
|---|---|
| Synopsis | Allow pre-policy route-monitoring messages to be sent |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* monitor route-monitoring pre-policy *boolean* |
| Tree | pre-policy |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **station** [station-name] *reference*

| | |
|---|---|
| Synopsis | Add a list entry for **station** |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* monitor station *reference* |
| Tree | station |
| Max. instances | 8 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**station-name**] *reference*

| | |
|---|---|
| Synopsis | BMP monitoring station |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* monitor station *reference* |
| Tree | station |
| Reference | **configure** bmp station *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **multihop** *number*

| | |
|---|---|
| Synopsis | TTL in IP packet headers for EBGP peers multi-hops away |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* multihop *number* |
| Tree | multihop |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **multipath-eligible** *boolean*

| | |
|---|---|
| Synopsis | Allow routes from group peers in multipath eligibility |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* multipath-eligible *boolean* |


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| | |
|---|---|
| Tree | multipath-eligible |
| Default | false |
| Introduced | 19.5.R1 |
| Platforms | All |

## **next-hop-self** *boolean*

| | |
|---|---|
| Synopsis | Advertise routes with local address as next-hop address |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* next-hop-self *boolean* |
| Tree | next-hop-self |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **origin-validation**

| | |
|---|---|
| Synopsis | Enter the **origin-validation** context |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* origin-validation |
| Tree | origin-validation |
| Description | Commands in this context configure the marking of every inbound IPv4, IPv6, and labeled IPv4 route from the BGP peer with one of the following origin validation states:<br>•<br>Valid (0)<br>•<br>Not-Found (1)<br>•<br>Invalid (2)<br>The configurations apply to all types of VPRN BGP peers, but generally should be applied only to EBGP peers and groups that contain only EBGP peers. |
| Introduced | 19.7.R1 |
| Platforms | All |

## **ipv4** *boolean*

| | |
|---|---|
| Synopsis | Enable support for unlabeled unicast IPv4 routes |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* bgp group *named-item-64* origin-validation ipv4 *boolean* |
| Tree | ipv4 |
| Default | false |
| Introduced | 19.7.R1 |
| Platforms | All |

### **ipv6** *boolean*

| | |
|---|---|
| Synopsis | Enable support for unlabeled unicast IPv6 routes |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* origin-validation ipv6 *boolean* |
| Tree | ipv6 |
| Default | false |
| Introduced | 19.7.R1 |
| Platforms | All |

### **label-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Enable support for labeled-unicast IPv4 routes |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* origin-validation label-ipv4 *boolean* |
| Tree | label-ipv4 |
| Default | false |
| Introduced | 19.7.R1 |
| Platforms | All |

### **passive** *boolean*

| | |
|---|---|
| Synopsis | Enable passive mode for BGP communication |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* passive *boolean* |
| Tree | passive |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **path-mtu-discovery** *boolean*

| | |
|---|---|
| Synopsis | Enable Path MTU Discovery |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* path-mtu-discovery *boolean* |
| Tree | path-mtu-discovery |
| Description | When configured to **true**, Path MTU Discovery (PMTUD) is enabled for the associated TCP connections.<br><br>When set to **true**, PMTUD is activated toward an IPv4 BGP neighbor and the Don't Fragment (DF) bit is set in the IP header of all IPv4 packets sent to the peer. If any device along the path toward the peer cannot forward the packet because the IP MTU of the interface is smaller than the IP packet size, this device drops the packet and sends an ICMP or ICMPv6 error message encoding the interface MTU. When the router receives the ICMP or ICMPv6 message, it lowers the TCP maximum segment size limit from the previous value so that the IP MTU constraint can be accommodated.<br><br>When configured to **false** and there is no TCP MSS configuration that can be associated with a BGP neighbor (in either the BGP configuration or the first hop IP interface configuration), the router advertises a value of only 1024 bytes as the TCP MSS option value, limiting received TCP segments to that size. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **peer-as** *number*

| | |
|---|---|
| Synopsis | Peer AS number |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* peer-as *number* |
| Tree | peer-as |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **peer-ip-tracking** *boolean*

| | |
|---|---|
| Synopsis | Enable BGP peer tracking |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* peer-ip-tracking *boolean* |
| Tree | peer-ip-tracking |
| Description | When configured to **true**, this command enables BGP peer tracking. |


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Peer tracking should be used with caution. Peer tracking can tear a session down even if the loss of connectivity turns out to be short-lived (for example, while the IGP protocol is re-converging). Next-hop tracking, which is always enabled, handles temporary connectivity issues more effectively.

When unconfigured, the command inherits the value of the global-level setting (**true** or **false**). The command cannot be explicitly configured to **false**.

When this command inherits a value of **false**, peer tracking is disabled.

| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **preference** *number*

| | |
|---|---|
| Synopsis | Route preference for routes learned from all peers |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* preference *number* |
| Tree | preference |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **prefix-limit** [family] *keyword*

| | |
|---|---|
| Synopsis | Enter the **prefix-limit** list instance |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* prefix-limit *keyword* |
| Tree | prefix-limit |
| Description | Commands in this context limit the number of BGP routes per address family received from a BGP peer and define the actions when crossing the configured maximum. |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**family**] *keyword*

| | |
|---|---|
| Synopsis | Address family to which the limit applies |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* prefix-limit *keyword* |
| Tree | prefix-limit |
| Options | ipv4, ipv6, mcast-ipv4, flow-ipv4, flow-ipv6, mcast-ipv6, label-ipv4 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |


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Platforms All

## **hold-excess** *number*

Synopsis Percentage of maximum routes to install in route table

Context **configure** service vprn *service-name* bgp group *named-item-64* prefix-limit *keyword* hold-excess *number*

Tree hold-excess

Description This command specifies the percentage of maximum routes that are allowed to be installed in the route table for the configured address family. If a peer within scope of the configuration exceeds the limit, the overflow routes are held in the BGP RIB as inactive routes and are ineligible for forwarding and advertisement to other peers. If the **post-import** command is configured to **true**, only routes not rejected by import policies count toward the limit.

A BGP route in an overflow state is reconsidered for activation and reinstallation when an UPDATE message is received for the route.

This command is mutually exclusive with the **idle-timeou**t and **log-only** commands.

Range 1 to 100

Introduced 23.7.R1

Platforms All

## **idle-timeout** *number*

Synopsis Time BGP peering remains idle before reconnecting

Context **configure** service vprn *service-name* bgp group *named-item-64* prefix-limit *keyword* idle-timeout *number*

Tree idle-timeout

Description This command configures the time in minutes before a BGP peer is automatically re-established after reaching the prefix limit.

When unconfigured, the BGP peer stays down until the operator performs a reset. This command and **log-only** cannot be configured simultaneously.

Range 1 to 1024

Introduced 16.0.R1

Platforms All

## **log-only** *boolean*

Synopsis Send warning message at threshold instead of take-down


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| | |
|---|---|
| Context | **configure** service vprn *service-name* bgp group *named-item-64* prefix-limit *keyword* log-only *boolean* |
| Tree | log-only |
| Description | When configured to **true**, the router disables the BGP session from being taken down upon reaching the prefix limit. Instead, only a warning message is sent when the limit is reached. A warning message is also sent when the configured threshold percentage of the limit is reached.<br>This command and **idle-timeout** cannot be configured simultaneously.<br>When configured to **false**, the router generates a log event and takes the BGP session down upon reaching the prefix limit. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **maximum** *number*

| | |
|---|---|
| Synopsis | Maximum number of routes to be learned from a peer |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* prefix-limit *keyword* maximum *number* |
| Tree | maximum |
| Description | This command configures the maximum number of BGP routes of the specified address family that can be received from a peer before administrative action is taken.<br>When **log-only** is unconfigured, the BGP session is taken down whenever the limit of any family is exceeded even if the limits of the other family has not been exceeded. |
| Range | 1 to 4294967295 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R2 |
| Platforms | All |

## **post-import** *boolean*

| | |
|---|---|
| Synopsis | Apply limit only to routes accepted by import policies |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* prefix-limit *keyword* post-import *boolean* |
| Tree | post-import |
| Description | When configured to **true**, the system limits the number of routes that are accepted by import policies. Routes rejected by import policies are not counted against the configured limit. |


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When configured to **false**, the system limits the number of routes to all routes received from the peer.

| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **threshold** *number*

| | |
|---|---|
| Synopsis | Percentage threshold that triggers a warning message |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* prefix-limit *keyword* threshold *number* |
| Tree | threshold |
| Range | 1 to 100 |
| Default | 90 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **remove-private**

| | |
|---|---|
| Synopsis | Enable the **remove-private** context |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* remove-private |
| Tree | remove-private |
| Introduced | 16.0.R1 |
| Platforms | All |

### **limited** *boolean*

| | |
|---|---|
| Synopsis | Remove private ASNs up to first public ASN encountered |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* remove-private limited *boolean* |
| Tree | limited |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **replace** *boolean*

| | |
|---|---|
| Synopsis | Replace private ASN with global ASN before advertising |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* remove-private replace *boolean* |
| Tree | replace |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **skip-peer-as** *boolean*

| | |
|---|---|
| Synopsis | Keep private ASN if it is the same as the BGP peer ASN |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* remove-private skip-peer-as *boolean* |
| Tree | skip-peer-as |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **send-communities**

| | |
|---|---|
| Synopsis | Enter the **send-communities** context |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* send-communities |
| Tree | send-communities |
| Introduced | 16.0.R1 |
| Platforms | All |

### **extended** *boolean*

| | |
|---|---|
| Synopsis | Advertise the Extended Communities attribute to peers |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* send-communities extended *boolean* |
| Tree | extended |
| Description | When unconfigured, this command inherits the value of the global-level setting (**true** or **false**). The command cannot be explicitly configured to **true**. |


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When this command inherits a value of **true**, BGP extended communities are sent to peers in the Extended Communities attribute.

When configured to **false**, all extended communities are removed from all routes advertised to BGP peers.

Introduced 16.0.R1

Platforms All

### **large** *boolean*

Synopsis Advertise the Large Communities attribute to peers

Context **configure** service vprn *service-name* bgp group *named-item-64* send-communities large *boolean*

Tree large

Description When unconfigured, this command inherits the value of the global-level setting (**true** or **false**). The command cannot be explicitly configured to **true**.

When this command inherits a value of **true**, BGP large communities are sent to peers in the Large Communities attribute.

When configured to **false**, all large communities are removed from all routes advertised to BGP peers.

Introduced 16.0.R1

Platforms All

### **standard** *boolean*

Synopsis Advertise the Communities attribute to peers

Context **configure** service vprn *service-name* bgp group *named-item-64* send-communities standard *boolean*

Tree standard

Description When unconfigured, this command inherits the value of the global-level setting (**true** or **false**). The command cannot be explicitly configured to **true**.

When this command inherits a value of **true**, BGP standard communities are sent to peers in the Communities attribute.

When configured to **false**, all standard communities are removed from all routes advertised to BGP peers.

Introduced 16.0.R1

Platforms All


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## send-default

| | |
|---|---|
| Synopsis | Enable the **send-default** context |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* send-default |
| Tree | send-default |
| Introduced | 19.7.R1 |
| Platforms | All |

## export-policy *reference*

| | |
|---|---|
| Synopsis | Export policy name |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* send-default export-policy *reference* |
| Tree | export-policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Introduced | 19.7.R1 |
| Platforms | All |

## ipv4 *boolean*

| | |
|---|---|
| Synopsis | Generate and advertise an IPv4 default route (0/0) |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* send-default ipv4 *boolean* |
| Tree | ipv4 |
| Default | false |
| Introduced | 19.7.R1 |
| Platforms | All |

## ipv6 *boolean*

| | |
|---|---|
| Synopsis | Generate and advertise an IPv6 default route (::/0) |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* send-default ipv6 *boolean* |
| Tree | ipv6 |
| Default | false |
| Introduced | 19.7.R1 |


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Platforms All

## **split-horizon** *boolean*

Synopsis Prevent routes being reflected back to best-route peer

Context **configure** service vprn *service-name* bgp group *named-item-64* split-horizon *boolean*

Tree split-horizon

Description When configured to **true**, this command enables the use of split-horizon.

This command prevents routes from being reflected back to a peer that sends the best route. It applies to routes of all address families and to any type of sending peer; confed-EBGP, EBGP and IBGP.

Enabling the split-horizon functionality may have a detrimental impact on peer and route scaling and should only be used when absolutely necessary.

When unconfigured, the command inherits the value of the global-level setting (**true** or **false**). The command cannot be explicitly configured to **false**.

When this command inherits a value of **false**, the use of split-horizon is disabled.

Introduced 16.0.R1

Platforms All

## **static-group** *boolean*

Synopsis Use group for static peers

Context **configure** service vprn *service-name* bgp group *named-item-64* static-group *boolean*

Tree static-group

Default true

Introduced 16.0.R1

Platforms All

## **tcp-mss** *(number | keyword)*

Synopsis TCP maximum segment size override

Context **configure** service vprn *service-name* bgp group *named-item-64* tcp-mss *(number | keyword)*

Tree tcp-mss

Description This command configures an override for the TCP maximum segment size to use with a specific peer or set of peers (depending on the scope of the command).

The configured value controls two properties of the TCP connection as follows:


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TCP MSS option - The router advertises the TCP MSS option value in the TCP SYN packet it sends as part of the 3-way handshake. The advertised value may be lower than the configured value, depending on the IP MTU of the first hop IP interface. The peers must abide by this value when sending TCP segments to the local router.

TCP maximum segment size - The actual transmitted size may be lower than the configured value, depending on the TCP MSS option value signaled by the peers, the effect of path MTU discovery, or other factors.

| | |
|---|---|
| Range | 384 to 9746 |
| Options | ip-stack |
| Introduced | 21.2.R1 |
| Platforms | All |

## **third-party-nexthop** *boolean*

| | |
|---|---|
| Synopsis | Apply third-party next-hop processing to EBGP peers |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* third-party-nexthop *boolean* |
| Tree | third-party-nexthop |
| Description | When configured to **true**, this command enables the router to send third-party next hop to EBGP peers in the same subnet as the source peer. The address family of the transport must match the address family of the route.<br><br>When an IPv4 or IPv6 route is received from one EBGP peer and advertised to another EBGP peer in the same IP subnet, the BGP next hop is left unchanged.<br><br>When unconfigured, the command inherits the value of the global-level setting (**true** or **false**). The command cannot be explicitly configured to **false**.<br><br>When this command inherits a value of **false**, third-party next-hop processing is disabled and the next hop carries the IP address of the interface used to establish the TCP connection to the peer. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **ttl-security** *number*

| | |
|---|---|
| Synopsis | Minimum TTL value for an incoming BGP packet |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* ttl-security *number* |
| Tree | ttl-security |
| Description | This command configures the minimum TTL value that BGP accepst from an incoming packet. A packet with a TTL value less than the minimum configured TTL value is discarded. |


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| | |
|---|---|
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **type** *keyword*

| | |
|---|---|
| Synopsis | BGP peer type |
| Context | **configure** service vprn *service-name* bgp group *named-item-64* type *keyword* |
| Tree | type |
| Options | no-type, internal, external |
| Default | no-type |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hold-time**

| | |
|---|---|
| Synopsis | Enter the **hold-time** context |
| Context | **configure** service vprn *service-name* bgp hold-time |
| Tree | hold-time |
| Introduced | 16.0.R1 |
| Platforms | All |

### **minimum-hold-time** *number*

| | |
|---|---|
| Synopsis | Minimum hold time between successive messages |
| Context | **configure** service vprn *service-name* bgp hold-time minimum-hold-time *number* |
| Tree | minimum-hold-time |
| Description | This command specifies the minimum hold time that is accepted for the session. If a peer proposes a hold time lower than this value, the session attempt is rejected. |
| Range | 0 \| 3 to 65535 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **seconds** *number*

| | |
|---|---|
| Synopsis | Maximum time BGP waits between successive messages |
| Context | **configure** service vprn *service-name* bgp hold-time seconds *number* |
| Tree | seconds |
| Description | This command configures the maximum time BGP waits between successive messages (either keepalive or update) from its peer before closing the connection.<br>Although the implementation allows setting the keepalive timer at the BGP global level times separately, the configured keepalive timer is overridden by this value under the following circumstances.<br>• If the specified hold time is less than the configured keepalive time, the operational keepalive time is set to a third of the hold-time; the configured keepalive time is not changed.<br>• If the hold time is set to zero, the operational value of the keepalive time is set to zero; the configured keepalive time is not changed. The connection with the peer is up permanently and no keepalive packets are sent to the peer. |
| Range | 0 \| 3 to 65535 |
| Default | 90 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ibgp-multipath** *boolean*

| | |
|---|---|
| Synopsis | Enable IBGP multipath load balancing |
| Context | **configure** service vprn *service-name* bgp ibgp-multipath *boolean* |
| Tree | ibgp-multipath |
| Description | When configured to **true**, this command enables IBGP multipath load balancing when adding BGP routes to the route table if the route resolving the BGP next hop offers multiple next hops.<br>When configured to **false**, this command disables IBGP multipath load balancing. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **import**

| | |
|---|---|
| Synopsis | Enable the **import** context |
| Context | **configure** service vprn *service-name* bgp import |


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| | |
|---|---|
| Tree | import |
| Introduced | 16.0.R1 |
| Platforms | All |

### **policy** *(policy-expr-string | string)*

| | |
|---|---|
| Synopsis | Import policy name |
| Context | **configure** service vprn *service-name* bgp import policy *(policy-expr-string \| string)* |
| Tree | policy |
| String length | 1 to 255 |
| Max. instances | 15 |
| Min. instances | 1 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **initial-send-delay-zero** *boolean*

| | |
|---|---|
| Synopsis | Send BGP updates as soon as session comes up |
| Context | **configure** service vprn *service-name* bgp initial-send-delay-zero *boolean* |
| Tree | initial-send-delay-zero |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **keepalive** *number*

| | |
|---|---|
| Synopsis | Time after which the BGP KEEPALIVE message is sent |
| Context | **configure** service vprn *service-name* bgp keepalive *number* |
| Tree | keepalive |
| Range | 0 to 21845 |
| Default | 30 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **label-preference** *number*

| | |
|---|---|
| Synopsis | Route preference for routes from labeled-unicast peers |
| Context | **configure** service vprn *service-name* bgp label-preference *number* |
| Tree | label-preference |
| Range | 1 to 255 |
| Default | 170 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **local-as**

| | |
|---|---|
| Synopsis | Enter the **local-as** context |
| Context | **configure** service vprn *service-name* bgp local-as |
| Tree | local-as |
| Introduced | 16.0.R1 |
| Platforms | All |

### **as-number** *number*

| | |
|---|---|
| Synopsis | Local (or virtual) BGP AS number |
| Context | **configure** service vprn *service-name* bgp local-as as-number *number* |
| Tree | as-number |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **prepend-global-as** *boolean*

| | |
|---|---|
| Synopsis | Prepend global AS when advertising routes to BGP peer |
| Context | **configure** service vprn *service-name* bgp local-as prepend-global-as *boolean* |
| Tree | prepend-global-as |
| Description | When configured to **true**, the global ASN is added to the AS_PATH attribute in outbound routes sent to the peer. |


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When configured to **false**, the global ASN is hidden in paths announced to the EBGP peer.

| | |
|---|---|
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **private** *boolean*

| | |
|---|---|
| Synopsis | Hide the local ASN in sent paths learned from peering |
| Context | **configure** service vprn *service-name* bgp local-as private *boolean* |
| Tree | private |
| Description | When configured to **true**, the local ASN is hidden in paths learned from the peering.<br>When configured to **false**, the local ASN is advertised to all peers, including those that can use the global ASN for establishing BGP peering sessions. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **local-preference** *number*

| | |
|---|---|
| Synopsis | Default local preference if not in incoming routes |
| Context | **configure** service vprn *service-name* bgp local-preference *number* |
| Tree | local-preference |
| Max. range | 0 to 4294967295 |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **loop-detect** *keyword*

| | |
|---|---|
| Synopsis | Strategy for loop detection in the AS path |
| Context | **configure** service vprn *service-name* bgp loop-detect *keyword* |
| Tree | loop-detect |
| Options | drop-peer, ignore-loop, off, discard-route |
| Default | ignore-loop |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **loop-detect-threshold** *number*

| | |
|---|---|
| Synopsis | Threshold for the global ASN in a received AS path |
| Context | **configure** service vprn *service-name* bgp loop-detect-threshold *number* |
| Tree | loop-detect-threshold |
| Range | 0 to 15 |
| Default | 0 |
| Introduced | 16.0.R6 |
| Platforms | All |

### **med-out** *(number | keyword)*

| | |
|---|---|
| Synopsis | Default MED attribute value to advertise to peers |
| Context | **configure** service vprn *service-name* bgp med-out *(number | keyword)* |
| Tree | med-out |
| Max. range | 0 to 4294967295 |
| Options | igp-cost |
| Introduced | 16.0.R1 |
| Platforms | All |

### **min-route-advertisement** *number*

| | |
|---|---|
| Synopsis | Minimum time before a prefix can be advertised to peer |
| Context | **configure** service vprn *service-name* bgp min-route-advertisement *number* |
| Tree | min-route-advertisement |
| Range | 1 to 255 |
| Default | 30 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **monitor**

| | |
|---|---|
| Synopsis | Enable the **monitor** context |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* bgp monitor |
| Tree | monitor |
| Introduced | 16.0.R1 |
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of BMP monitoring |
| Context | **configure** service vprn *service-name* bgp monitor admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

## **all-stations** *boolean*

| | |
|---|---|
| Synopsis | Send BMP messages to all configured stations |
| Context | **configure** service vprn *service-name* bgp monitor all-stations *boolean* |
| Tree | all-stations |
| Description | When configured to **true**, this command specifies that BMP messages are to be sent to all configured BMP monitoring stations.<br>When configured to **false**, the command is not used to indicate the stations which can receive BMP messages. The **station** command (at the same context level) identifies the BMP stations for which BMP messages are to be sent. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **route-monitoring**

| | |
|---|---|
| Synopsis | Enter the **route-monitoring** context |
| Context | **configure** service vprn *service-name* bgp monitor route-monitoring |
| Tree | route-monitoring |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **post-policy** *boolean*

| | |
|---|---|
| Synopsis | Allow post-policy route-monitoring messages to be sent |
| Context | **configure** service vprn *service-name* bgp monitor route-monitoring post-policy *boolean* |
| Tree | post-policy |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **pre-policy** *boolean*

| | |
|---|---|
| Synopsis | Allow pre-policy route-monitoring messages to be sent |
| Context | **configure** service vprn *service-name* bgp monitor route-monitoring pre-policy *boolean* |
| Tree | pre-policy |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **station** [station-name] *reference*

| | |
|---|---|
| Synopsis | Add a list entry for **station** |
| Context | **configure** service vprn *service-name* bgp monitor station *reference* |
| Tree | station |
| Max. instances | 8 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**station-name**] *reference*

| | |
|---|---|
| Synopsis | BMP monitoring station |
| Context | **configure** service vprn *service-name* bgp monitor station *reference* |
| Tree | station |
| Reference | **configure** bmp station *named-item* |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **multihop** *number*

| | |
|---|---|
| Synopsis | TTL in IP packet headers for EBGP peers multi-hops away |
| Context | **configure** service vprn *service-name* bgp multihop *number* |
| Tree | multihop |
| Description | This command configures the Time to Live (TTL) value entered in the IP header of packets sent to an EBGP peer multiple hops away. This command applies only to EBGP. |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **multipath**

| | |
|---|---|
| Synopsis | Enter the **multipath** context |
| Context | **configure** service vprn *service-name* bgp multipath |
| Tree | multipath |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ebgp** *number*

| | |
|---|---|
| Synopsis | Maximum multipaths per prefix for EBGP learned routes |
| Context | **configure** service vprn *service-name* bgp multipath ebgp *number* |
| Tree | ebgp |
| Range | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **family** [family-type] *keyword*

| | |
|---|---|
| Synopsis | Enter the **family** list instance |
| Context | **configure** service vprn *service-name* bgp multipath family *keyword* |


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| | |
|---|---|
| Tree | family |
| Description | Commands in this context set ECMP multipath parameters that apply only to the specified label unicast address family.<br>When multipath is enabled, traffic to the destination is load-shared across a set of paths (BGP routes) that the BGP decision process considers equal to the best path. The distribution of traffic over the multiple paths may or may not be equal. The distribution is based on weights derived from the Link Bandwidth Extended Community.<br>For more information about the criteria a non-best route must meet to qualify as a multipath, see “BGP route installation in the route table” in the *7450 ESS 7750 SR 7950 XRS VSR Unicast Routing Protocols User Guide*. |
| Introduced | 19.5.R1 |
| Platforms | All |

### [**family-type**] *keyword*

| | |
|---|---|
| Synopsis | Address family type for the multipath selection |
| Context | **configure** service vprn *service-name* bgp multipath family *keyword* |
| Tree | family |
| Options | ipv4, ipv6, label-ipv4, label-ipv6 |
| Notes | This element is part of a list key. |
| Introduced | 19.5.R1 |
| Platforms | All |

### **ebgp** *number*

| | |
|---|---|
| Synopsis | Maximum multipaths when best path is EBGP learned route |
| Context | **configure** service vprn *service-name* bgp multipath family *keyword* ebgp *number* |
| Tree | ebgp |
| Description | This command configures the maximum number of multipaths per prefix or NLRI when the best path is an EBGP learned route. The limit configured using this command overrides the limit configured in the **max-paths** command. If the best path is an EBGP learned route, and this command is set to 1, multipaths are disabled. |
| Range | 1 to 64 |
| Introduced | 19.5.R1 |
| Platforms | All |


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### **ibgp** *number*

| | |
|---|---|
| Synopsis | Maximum multipaths when best path is IBGP learned route |
| Context | **configure** service vprn *service-name* bgp multipath family *keyword* ibgp *number* |
| Tree | ibgp |
| Description | This command configures the maximum number of multipaths per prefix or NLRI when the best path is an IBGP learned route. The limit configured using this command overrides the limit configured in the **max-paths** command. If the best path is an IBGP learned route and this command is set to 1, multipaths are disabled. |
| Range | 1 to 64 |
| Introduced | 19.5.R1 |
| Platforms | All |

### **max-paths** *number*

| | |
|---|---|
| Synopsis | Maximum number of multipaths per prefix or NLRI |
| Context | **configure** service vprn *service-name* bgp multipath family *keyword* max-paths *number* |
| Tree | max-paths |
| Description | This command configures the maximum number of multipaths per prefix or NLRI for the IP family option specified using the **family** command.<br>Consider the following when configuring this command:<br>• If the best path is an EBGP-learned route and the **ebgp** command is configured, the limit configured in the **ebgp** command overrides the limit configured in this command.<br>• If the best path is an IBGP-learned route and the **ibgp** command is configured, the limit configured in the **ibgp** command overrides the limit configured in this command.<br>• If the best path is an EBGP-learned route and the **ebgp** command is not configured, and this command is configured to 1, multipaths are disabled.<br>• If the best path is an IBGP-learned route and the **ibgp** command is not configured, and this command is configured to 1, multipaths are disabled. |
| Range | 1 to 64 |
| Introduced | 19.5.R1 |
| Platforms | All |

### **restrict** *keyword*

| | |
|---|---|
| Synopsis | AS path restriction for the non-best path |
| Context | **configure** service vprn *service-name* bgp multipath family *keyword* restrict *keyword* |


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| | |
|---|---|
| Tree | restrict |
| Options | same-as-path-length, same-neighbor-as, exact-as-path |
| Default | same-as-path-length |
| Introduced | 19.5.R1 |
| Platforms | All |

### **unequal-cost** *boolean*

| | |
|---|---|
| Synopsis | Ignore differences in the next-hop cost for multipath |
| Context | **configure** service vprn *service-name* bgp multipath family *keyword* unequal-cost *boolean* |
| Tree | unequal-cost |
| Description | When configured to **true**, BGP ignores differences in the next-hop cost when determining eligible multipaths. |
| Default | false |
| Introduced | 19.5.R1 |
| Platforms | All |

### **ibgp** *number*

| | |
|---|---|
| Synopsis | Maximum multipaths per prefix for IBGP learned routes |
| Context | **configure** service vprn *service-name* bgp multipath ibgp *number* |
| Tree | ibgp |
| Range | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **max-paths** *number*

| | |
|---|---|
| Synopsis | Maximum multipaths per prefix |
| Context | **configure** service vprn *service-name* bgp multipath max-paths *number* |
| Tree | max-paths |
| Range | 1 to 64 |
| Default | 1 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **restrict** *keyword*

| | |
|---|---|
| Synopsis | AS path restriction for the non-best path |
| Context | **configure** service vprn *service-name* bgp multipath restrict *keyword* |
| Tree | restrict |
| Options | same-as-path-length, same-neighbor-as, exact-as-path |
| Default | same-as-path-length |
| Introduced | 16.0.R1 |
| Platforms | All |

### **unequal-cost** *boolean*

| | |
|---|---|
| Synopsis | Ignore differences in the next-hop cost for multipath |
| Context | **configure** service vprn *service-name* bgp multipath unequal-cost *boolean* |
| Tree | unequal-cost |
| Default | false |
| Introduced | 19.5.R1 |
| Platforms | All |

### **neighbor** [ip-address] *(ipv4-address-with-zone | ipv6-address-with-zone)*

| | |
|---|---|
| Synopsis | Enter the **neighbor** list instance |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone | ipv6-address-with-zone)* |
| Tree | neighbor |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ip-address**] *(ipv4-address-with-zone | ipv6-address-with-zone)*

| | |
|---|---|
| Synopsis | IP address of the BGP peer router |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone | ipv6-address-with-zone)* |
| Tree | neighbor |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the BGP neighbor |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

## **advertise-inactive** *boolean*

| | |
|---|---|
| Synopsis | Advertise an inactive BGP route to peers |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* advertise-inactive *boolean* |
| Tree | advertise-inactive |
| Description | When configured to **true**, this command allows an inactive BGP route to be advertised, even though it is not the most preferred route. The effect of the command on advertised unlabeled, labeled, and multicast IPv4 and IPv6 routes depends on several factors.<br>• If the active route for the IP prefix is a BGP route, that route is advertised.<br>• If the active route is a non-BGP route and there are valid inactive BGP routes to the same destination, the best valid inactive route is advertised unless the active non-BGP route is matched and accepted by an export policy applied to the session.<br>• If the active route is a non-BGP route and there are no valid BGP routes to the same destination, no route is advertised unless the active non-BGP route is matched and accepted by an export policy applied to the session.<br>When unconfigured, the command inherits the value of the global-level setting (**true** or **false**). The command cannot be explicitly configured to **false**.<br>When this command inherits a value of **false**, the advertisement of inactive BGP routes to other BGP peers is disabled. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### advertise-ipv6-next-hops

| | |
|---|---|
| Synopsis | Enable the **advertise-ipv6-next-hops** context |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* advertise-ipv6-next-hops |
| Tree | advertise-ipv6-next-hops |
| Introduced | 19.5.R1 |
| Platforms | All |

### ipv4 *boolean*

| | |
|---|---|
| Synopsis | Enable IPv4 routes to be advertised |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* advertise-ipv6-next-hops ipv4 *boolean* |
| Tree | ipv4 |
| Default | false |
| Introduced | 19.5.R1 |
| Platforms | All |

### aggregator-id-zero *boolean*

| | |
|---|---|
| Synopsis | Set router ID in the BGP AGGREGATOR attribute to zero |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* aggregator-id-zero *boolean* |
| Tree | aggregator-id-zero |
| Introduced | 16.0.R1 |
| Platforms | All |

### as-override *boolean*

| | |
|---|---|
| Synopsis | Replace the peer ASN with the local ASN in AS Path |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* as-override *boolean* |
| Tree | as-override |
| Description | When configured to **true**, the advertising router's local AS replaces all occurrences of the peer AS in the AS_PATH attribute. |


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This command should be used with caution, as it breaks BGP's loop detection mechanism.

When unconfigured, the command inherits the value of the group-level setting (**true** or **false**). This command cannot be explicitly configured to **false**.

When the command inherits a value of **false**, no AS override is performed.

Introduced 16.0.R1

Platforms All

## **asn-4-byte** *boolean*

Synopsis Advertise the use of 4-byte ASNs

Context **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone | ipv6-address-with-zone)* asn-4-byte *boolean*

Tree asn-4-byte

Introduced 16.0.R1

Platforms All

## **authentication-key** *encrypted-leaf*

Synopsis BGP authentication key

Context **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone | ipv6-address-with-zone)* authentication-key *encrypted-leaf*

Tree authentication-key

String length 1 to 370

Introduced 16.0.R1

Platforms All

## **authentication-keychain** *reference*

Synopsis TCP authentication keychain for the session

Context **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone | ipv6-address-with-zone)* authentication-keychain *reference*

Tree authentication-keychain

Description This command associates the keychain to be used to authenticate the BGP session. The keychain allows the rollover of authentication keys during the lifetime of a session.

Reference **configure** system security keychains keychain *named-item*

Introduced 16.0.R3


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Platforms All

## **bfd-liveness** *boolean*

Synopsis Enable BFD

Context **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone | ipv6-address-with-zone)* bfd-liveness *boolean*

Tree bfd-liveness

Description When configured to **true**, BFD is enabled on a given protocol interface where the state of the protocol interface is tied to the state of the BFD session between the local node and the remote node.

When unconfigured, the command inherits the value of the group-level setting (**true** or **false**). The command cannot be explicitly configured to **false**.

When this command inherits a value of **false**, BFD is removed from the associated protocol adjacency.

Introduced 16.0.R1

Platforms All

## **bfd-strict-mode**

Synopsis Enter the **bfd-strict-mode** context

Context **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone | ipv6-address-with-zone)* bfd-strict-mode

Tree bfd-strict-mode

Introduced 23.7.R1

Platforms All

## **advertise**

Synopsis Enable the **advertise** context

Context **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone | ipv6-address-with-zone)* bfd-strict-mode advertise

Tree advertise

Description Commands in this context configure BGP to advertise the Strict-BFD capability to peers that are within scope of this command and meet the following requirements:

- The inherited or configured value for the **bfd-liveness** command that applies to the peer is **true**.
- The interface associated with the peer has a valid BFD configuration.


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When the preceding conditions are satisfied and two peers attempting to form a session both advertise the Strict-BFD capability, the BGP finite state machine in each router transitions the session state to established after the BFD session with the peer enters the up state.

When unconfigured, BGP does not advertise the Strict-BFD capability to peers.

Introduced 23.7.R1

Platforms All

## **holdtime** *number*

Synopsis Maximum time BGP waits for the BFD session to come up

Context **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone | ipv6-address-with-zone)* bfd-strict-mode advertise holdtime *number*

Tree holdtime

Description This command configures the maximum time BGP waits for the BFD session to come up, provided that the Strict-BFD procedures apply to a session, and the negotiated BGP hold time is zero (no keepalives). If the negotiated BGP hold time is greater than zero, the advertised hold time is not considered.

Range 1 to 65535

Units seconds

Default 30

Introduced 23.7.R1

Platforms All

## **next-hop-reachability** *boolean*

Synopsis Consider next hop unreachable if BFD session is down

Context **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone | ipv6-address-with-zone)* bfd-strict-mode next-hop-reachability *boolean*

Tree next-hop-reachability

Description When configured to **true**, the router considers next-hop self routes belonging to specific address families received from a peer within scope of this command as having an unresolved next hop, provided that the following requirements are met:

- The BFD session to the peer is in a down state.
- There is a valid interface BFD configuration that applies to the peer.
- There is a valid BFD liveness configuration that applies to the peer.

The unresolved state is maintained until the BFD session state changes to up or administratively down, even if there is a resolving route or tunnel that matches the BGP next-hop address.


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Routes received from one peer with a BGP next-hop address equal to the address of another peer are not affected by the BFD session to the other peer.The behavior of the router when this command is **true** does not depend on whether Strict-BFD is used, as both features are independent.

Configuring this command to **true** only affects routes belonging to the following address families:

- IPv4
- IPv6
- IPv4 VPN
- IPv6 VPN
- labeled unicast IPv4
- labeled unicast IPv6
- EVPN
- IPv4 multicast
- IPv6 multicast
- IPv4 VPN multicast
- IPv6 VPN multicast

When configured to **false**, the router does not consider next-hop self routes belonging to the preceding address families as having an unresolved next hop if the BFD session goes down.

Introduced 23.7.R1

Platforms All

## **capability-negotiation** *boolean*

Synopsis Enable capability negotiation

Context **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone | ipv6-address-with-zone)* capability-negotiation *boolean*

Tree capability-negotiation

Introduced 16.0.R1

Platforms All

## **client-reflect** *boolean*

Synopsis Allow cluster RR to advertise routes to its clients

Context **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone | ipv6-address-with-zone)* client-reflect *boolean*

Tree client-reflect


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## cluster

| | |
|---|---|
| Synopsis | Enter the **cluster** context |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* cluster |
| Tree | cluster |
| Introduced | 16.0.R1 |
| Platforms | All |

## cluster-id *ipv4-address*

| | |
|---|---|
| Synopsis | Route reflector cluster ID |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* cluster cluster-id *ipv4-address* |
| Tree | cluster-id |
| Introduced | 16.0.R1 |
| Platforms | All |

## connect-retry *number*

| | |
|---|---|
| Synopsis | BGP connect retry timer value |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* connect-retry *number* |
| Tree | connect-retry |
| Range | 1 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

## damp-peer-oscillations

| | |
|---|---|
| Synopsis | Enable the **damp-peer-oscillations** context |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* damp-peer-oscillations |
| Tree | damp-peer-oscillations |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## **error-interval** *number*

| | |
|---|---|
| Synopsis | Time after a reset that the session must be error-free |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* damp-peer-oscillations error-interval *number* |
| Tree | error-interval |
| Description | This command sets the interval of time after a reset, during which the session must be error-free in order to reset the penalty counter and return the idle hold time to the initial wait time. |
| Range | 0 to 2048 |
| Default | 30 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **idle-hold-time**

| | |
|---|---|
| Synopsis | Enter the **idle-hold-time** context |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* damp-peer-oscillations idle-hold-time |
| Tree | idle-hold-time |
| Introduced | 16.0.R1 |
| Platforms | All |

## **initial-wait** *number*

| | |
|---|---|
| Synopsis | Time session remains in idle state after stabilization |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* damp-peer-oscillations idle-hold-time initial-wait *number* |
| Tree | initial-wait |
| Range | 0 to 2048 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **max-wait** *number*

| | |
|---|---|
| Synopsis | Maximum session idle time after repeated instability |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* damp-peer-oscillations idle-hold-time max-wait *number* |
| Tree | max-wait |
| Range | 1 to 2048 |
| Default | 60 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **second-wait** *number*

| | |
|---|---|
| Synopsis | Time that doubles after each repeated session failure |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* damp-peer-oscillations idle-hold-time second-wait *number* |
| Tree | second-wait |
| Description | This command defines the hold time that doubles after each repeated session failure that occurs in a short span of time. |
| Range | 1 to 2048 |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **damping** *boolean*

| | |
|---|---|
| Synopsis | Use BGP route damping to reduce route flap |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* damping *boolean* |
| Tree | damping |
| Introduced | 16.0.R1 |
| Platforms | All |

### **default-label-preference**

| | |
|---|---|
| Synopsis | Enter the **default-label-preference** context |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* default-label-preference |
| Tree | default-label-preference |
| Introduced | 19.5.R1 |
| Platforms | All |

## **ebgp** *number*

| | |
|---|---|
| Synopsis | Default preference for EBGP |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* default-label-preference ebgp *number* |
| Tree | ebgp |
| Range | 0 to 255 |
| Introduced | 19.5.R1 |
| Platforms | All |

## **ibgp** *number*

| | |
|---|---|
| Synopsis | Default preference for IBGP |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* default-label-preference ibgp *number* |
| Tree | ibgp |
| Range | 0 to 255 |
| Introduced | 19.5.R1 |
| Platforms | All |

## **default-preference**

| | |
|---|---|
| Synopsis | Enter the **default-preference** context |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* default-preference |
| Tree | default-preference |
| Introduced | 19.5.R1 |
| Platforms | All |


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### **ebgp** *number*

| | |
|---|---|
| Synopsis | Default preference for EBGP |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone* \| *ipv6-address-with-zone)* default-preference ebgp *number* |
| Tree | ebgp |
| Range | 0 to 255 |
| Introduced | 19.5.R1 |
| Platforms | All |

### **ibgp** *number*

| | |
|---|---|
| Synopsis | Default preference for IBGP |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone* \| *ipv6-address-with-zone)* default-preference ibgp *number* |
| Tree | ibgp |
| Range | 0 to 255 |
| Introduced | 19.5.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone* \| *ipv6-address-with-zone)* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ebgp-default-reject-policy**

| | |
|---|---|
| Synopsis | Enable the **ebgp-default-reject-policy** context |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone* \| *ipv6-address-with-zone)* ebgp-default-reject-policy |
| Tree | ebgp-default-reject-policy |


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| | |
|---|---|
| Introduced | 19.5.R1 |
| Platforms | All |

### **export** *boolean*

| | |
|---|---|
| Synopsis | Enable default reject export policy for external peers |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* ebgp-default-reject-policy export *boolean* |
| Tree | export |
| Default | true |
| Introduced | 19.5.R1 |
| Platforms | All |

### **import** *boolean*

| | |
|---|---|
| Synopsis | Enable default reject import policy for external peers |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* ebgp-default-reject-policy import *boolean* |
| Tree | import |
| Default | true |
| Introduced | 19.5.R1 |
| Platforms | All |

### **enforce-first-as** *boolean*

| | |
|---|---|
| Synopsis | Enforce the configured peer AS value in received routes |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* enforce-first-as *boolean* |
| Tree | enforce-first-as |
| Description | When configured to **true** for an EBGP session, all routes received from an EBGP peer are checked to ensure that the most recent ASN in the AS_PATH attribute of each route matches the configured AS of the session. If there is not a match, the session is reset (if the **update-fault-tolerance** command in the **error-handling** context is set to **false**) or the session is left up but the route is treated as withdrawn (if **update-fault-tolerance** is set to **true**).<br><br>This command does not flap an established session because it applies only to routes received after the command is issued.<br><br>When unconfigured, the command inherits the value of the group-level setting (**true** or **false**). The command cannot be explicitly configured to **false**. |


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When this command inherits a value of **false**, received routes are not checked for compliance with the rule.

Introduced 16.0.R1

Platforms All

## error-handling

Synopsis Enter the **error-handling** context

Context **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone | ipv6-address-with-zone)* error-handling

Tree error-handling

Introduced 16.0.R1

Platforms All

## update-fault-tolerance *boolean*

Synopsis Tolerate non-critical errors in UPDATE messages

Context **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone | ipv6-address-with-zone)* error-handling update-fault-tolerance *boolean*

Tree update-fault-tolerance

Description When configured to **true**, non-critical errors are handled with treat-as-withdraw, attribute-discard, and other non-disruptive approaches that do not cause a session reset. Critical errors still trigger a session reset.

When unconfigured, the command inherits the value of the group-level setting (**true** or **false**). The command cannot be explicitly configured to **false**.

When this command inherits a value of **false**, all errors trigger a session reset.

Introduced 16.0.R1

Platforms All

## evpn-link-bandwidth

Synopsis Enter the **evpn-link-bandwidth** context

Context **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone | ipv6-address-with-zone)* evpn-link-bandwidth

Tree evpn-link-bandwidth

Introduced 22.7.R1

Platforms All


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### **add-to-received-bgp** *number*

| | |
|---|---|
| Synopsis | Weight added to received PE-CE BGP routes |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone* \| *ipv6-address-with-zone)* evpn-link-bandwidth add-to-received-bgp *number* |
| Tree | add-to-received-bgp |
| Description | This command configures the weight value added to all BGP PE-CE routes for the purpose of weighted ECMP if EVPN-IFL and BGP PE-CE routes are combined into the same ECMP set.<br>For the load-balancing betweeen EVPN-IFL and BGP PE-CE routes the **configure service vprn bgp eibgp-loadbalance** command must already be configured in the system. |
| Range | 1 to 128 |
| Introduced | 22.7.R1 |
| Platforms | All |

### **export**

| | |
|---|---|
| Synopsis | Enable the **export** context |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone* \| *ipv6-address-with-zone)* export |
| Tree | export |
| Introduced | 16.0.R1 |
| Platforms | All |

### **policy** *(policy-expr-string* \| *string)*

| | |
|---|---|
| Synopsis | Export policy name |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone* \| *ipv6-address-with-zone)* export policy *(policy-expr-string* \| *string)* |
| Tree | policy |
| String length | 1 to 255 |
| Max. instances | 15 |
| Min. instances | 1 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## extended-nh-encoding

| | |
|---|---|
| Synopsis | Enable the **extended-nh-encoding** context |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* extended-nh-encoding |
| Tree | extended-nh-encoding |
| Introduced | 19.5.R1 |
| Platforms | All |

## ipv4 *boolean*

| | |
|---|---|
| Synopsis | Enable IPv4 family type |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* extended-nh-encoding ipv4 *boolean* |
| Tree | ipv4 |
| Default | false |
| Introduced | 19.5.R1 |
| Platforms | All |

## family

| | |
|---|---|
| Synopsis | Enable the **family** context |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* family |
| Tree | family |
| Introduced | 16.0.R1 |
| Platforms | All |

## flow-ipv4 *boolean*

| | |
|---|---|
| Synopsis | Advertise support for the FlowSpec-IPv4 address family |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* family flow-ipv4 *boolean* |
| Tree | flow-ipv4 |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **flow-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Advertise support for the FlowSpec-IPv6 address family |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* family flow-ipv6 *boolean* |
| Tree | flow-ipv6 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv4** *boolean*

| | |
|---|---|
| Synopsis | Add support for the IPv4 address family |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* family ipv4 *boolean* |
| Tree | ipv4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv6** *boolean*

| | |
|---|---|
| Synopsis | Advertise MP-BGP support for the IPv6 address family |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* family ipv6 *boolean* |
| Tree | ipv6 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **label-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Advertise support for the label-IPv4 address family |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* family label-ipv4 *boolean* |
| Tree | label-ipv4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mcast-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Advertise support for the MCAST-IPv4 address family |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* family mcast-ipv4 *boolean* |
| Tree | mcast-ipv4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mcast-ipv6** *boolean*

| | |
|---|---|
| Synopsis | Advertise support for the MCAST-IPv6 address family |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* family mcast-ipv6 *boolean* |
| Tree | mcast-ipv6 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **fast-external-failover** *boolean*

| | |
|---|---|
| Synopsis | Drop external BGP session immediately when link fails |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* fast-external-failover *boolean* |
| Tree | fast-external-failover |
| Description | When this command inherits a value of **true**, the router drops an external BGP session on a single-hop route immediately when the local interface goes down.<br>When unconfigured, the command inherits the value of the group-level setting (**true** or **false**). The command cannot be explicitly configured to **true**. |


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When configured to **false**, the BGP session remains up until the hold time expires.

Introduced 16.0.R1

Platforms All

## graceful-restart

Synopsis Enable the **graceful-restart** context

Context **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone | ipv6-address-with-zone)* graceful-restart

Tree graceful-restart

Introduced 16.0.R1

Platforms All

## gr-notification *boolean*

Synopsis Perform graceful restart procedures after NOTIFICATION

Context **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone | ipv6-address-with-zone)* graceful-restart gr-notification *boolean*

Tree gr-notification

Description When configured to **true**, the Graceful Restart capability sent by the router indicates support for NOTIFICATION messages. If the peer also supports this capability, the session is restarted gracefully (while preserving forwarding) if either peer sends a NOTIFICATION message due to some type of event or error.

When configured to **false**, NOTIFICATION messages are not supported.

Default false

Introduced 16.0.R1

Platforms All

## long-lived

Synopsis Enable the **long-lived** context

Context **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone | ipv6-address-with-zone)* graceful-restart long-lived

Tree long-lived

Introduced 16.0.R1

Platforms All


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### **advertise-stale-to-all-neighbors** *boolean*

| | |
|---|---|
| Synopsis | Advertise stale routes to all BGP peers |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* graceful-restart long-lived advertise-stale-to-all-neighbors *boolean* |
| Tree | advertise-stale-to-all-neighbors |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **advertised-stale-time** *number*

| | |
|---|---|
| Synopsis | Advertised long-lived stale time for LLGR routes |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* graceful-restart long-lived advertised-stale-time *number* |
| Tree | advertised-stale-time |
| Range | 0 to 16777215 |
| Default | 86400 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **family** [family-type] *keyword*

| | |
|---|---|
| Synopsis | Enter the **family** list instance |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* graceful-restart long-lived family *keyword* |
| Tree | family |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**family-type**] *keyword*

| | |
|---|---|
| Synopsis | Address family type for LLGR |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* graceful-restart long-lived family *keyword* |
| Tree | family |


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| | |
|---|---|
| Options | ipv4, ipv6, flow-ipv4, flow-ipv6, label-ipv4 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **advertised-stale-time** *number*

| | |
|---|---|
| Synopsis | LLGR stale routes time for family override |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* graceful-restart long-lived family *keyword* advertised-stale-time *number* |
| Tree | advertised-stale-time |
| Description | This command configures the long-lived stale routes time that is advertised by the router in its LLGR capability.<br>This command applies to all AFI/SAFI in the advertised LLGR capability with a family-specific override. |
| Range | 0 to 16777215 |
| Default | 86400 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **helper-override-stale-time** *number*

| | |
|---|---|
| Synopsis | Locally-configured stale routes override time |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* graceful-restart long-lived family *keyword* helper-override-stale-time *number* |
| Tree | helper-override-stale-time |
| Description | This command configures a locally-imposed LLGR stale time that overrides the long-lived stale routes time that is advertised by the router in its LLGR capability. This is a family-specific override value. |
| Range | 0 to 16777216 |
| Default | 16777216 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **forwarding-bits-set** *keyword*

| | |
|---|---|
| Synopsis | BGP LLGR forwarding-bit behavior for address family |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* graceful-restart long-lived forwarding-bits-set *keyword* |
| Tree | forwarding-bits-set |
| Description | This command determines the setting of the F bit in the GR and LLGR capabilities advertised by the router. When the F bit is set for an address family, it indicates that the advertising router is able to preserve forwarding state for the routes of that address family across the last restart. When the session is re-established after a restart and the F bit is not set, all stale routes from the peer are immediately removed for the corresponding address family.<br><br>This command allows the F bit to be set for all address families or only for non-forwarding address families (L2-VPN, route target, flow-IPv4, and flow-IPv6). |
| Options | none, all, non-fwd |
| Default | none |
| Introduced | 16.0.R1 |
| Platforms | All |

### **helper-override-restart-time** *number*

| | |
|---|---|
| Synopsis | Locally-configured override for restart time |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* graceful-restart long-lived helper-override-restart-time *number* |
| Tree | helper-override-restart-time |
| Description | This command overrides the restart time advertised by a peer (in its GR capability) with a locally-configured value. This override applies only to AFI/SAFI that were included in the GR capability of the peer. The restart-time is always zero for AFI/SAFI not included in the GR capability. This command is useful if the local router wants to force the LLGR phase to begin after a set time for all protected AFI/SAFI. |
| Range | 0 to 4095 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **helper-override-stale-time** *number*

| | |
|---|---|
| Synopsis | Locally-configured stale routes override time |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* graceful-restart long-lived helper-override-stale-time *number* |


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| | |
|---|---|
| Tree | helper-override-stale-time |
| Description | This command configures a locally-imposed LLGR stale time that overrides the long-lived stale routes time that is advertised by the router in its LLGR capability.<br>This command applies to all AFI/SAFI in the advertised LLGR capability except for any AFI/SAFI with a family-specific override. |
| Range | 0 to 16777215 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **without-no-export** *boolean*

| | |
|---|---|
| Synopsis | Advertise LLGR stale routes to non-LLGR peers |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* graceful-restart long-lived without-no-export *boolean* |
| Tree | without-no-export |
| Description | When configured to **true**, LLGR stale routes can be advertised to any peer (EBGP or IBGP) that did not signal the LLGR capability. For IBGP and confederation-EBGP peers that did not advertise the LLGR capability, the local preference attribute in the advertised stale routes is automatically set to 0.<br>When configured to **false**, LLGR stale routes are not advertised to any EBGP peer that did not signal the LLGR capability. For IBGP and confederation-EBGP peers that did not advertise the LLGR capability, the local preference attribute in the advertised stale routes is automatically set to 0 and a NO_EXPORT standard community is automatically added to the routes. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **restart-time** *number*

| | |
|---|---|
| Synopsis | Restart time advertised by GR capability |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* graceful-restart restart-time *number* |
| Tree | restart-time |
| Range | 0 to 4095 |
| Default | 300 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **stale-routes-time** *number*

| | |
|---|---|
| Synopsis | Maximum time to maintain routes after graceful restart |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone* \| *ipv6-address-with-zone)* graceful-restart stale-routes-time *number* |
| Tree | stale-routes-time |
| Range | 1 to 3600 |
| Default | 360 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **group** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Neighbor to group |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone* \| *ipv6-address-with-zone)* group *reference* |
| Tree | group |
| Reference | **configure** service vprn *service-name* bgp group *named-item-64* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hold-time**

| | |
|---|---|
| Synopsis | Enter the **hold-time** context |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone* \| *ipv6-address-with-zone)* hold-time |
| Tree | hold-time |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **minimum-hold-time** *number*

| | |
|---|---|
| Synopsis | Minimum time BGP waits between successive messages |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* hold-time minimum-hold-time *number* |
| Tree | minimum-hold-time |
| Range | 0 \| 3 to 65536 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **seconds** *number*

| | |
|---|---|
| Synopsis | Maximum hold time between successive messages |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* hold-time seconds *number* |
| Tree | seconds |
| Description | The BGP hold time specifies the maximum time BGP waits between successive messages (either keepalive or update) from its peer, before closing the connection.<br>Even though the implementation allows setting the keepalive timer at the BGP neighbor level times separately, the configured keepalive timer is overridden by this value under the following circumstances:<br>• If the specified hold time is less than the configured keepalive time, then the operational keepalive time is set to a third of the hold-time; the configured keepalive time is not changed.<br>• If the hold time is set to zero, the operational value of the keepalive time is set to zero; the configured keepalive time is not changed. This means that the connection with the peer is up permanently and no keepalive packets are sent to the peer.<br>When unconfigured, the command setting is inherited from the BGP group-level configuration. |
| Range | 0 \| 3 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **import**

| | |
|---|---|
| Synopsis | Enable the **import** context |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* import |
| Tree | import |
| Introduced | 16.0.R1 |
| Platforms | All |

## **policy** *(policy-expr-string | string)*

| | |
|---|---|
| Synopsis | Route policy name |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* import policy *(policy-expr-string \| string)* |
| Tree | policy |
| String length | 1 to 255 |
| Max. instances | 15 |
| Min. instances | 1 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **initial-send-delay-zero** *boolean*

| | |
|---|---|
| Synopsis | Send BGP updates as soon as the session comes up |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* initial-send-delay-zero *boolean* |
| Tree | initial-send-delay-zero |
| Description | When configured to **true**, BGP updates are sent as soon as the session comes up.<br>When unconfigured, the command inherits the value of the group-level setting (**true** or **false**). The command cannot be explicitly configured to **false**.<br>When this command inherits a value of **false**, BGP waits to send UPDATE messages for the minimum route advertisement time after a session is established. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **keepalive** *number*

| | |
|---|---|
| Synopsis | Time after which the BGP KEEPALIVE message is sent |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone* \| *ipv6-address-with-zone)* keepalive *number* |
| Tree | keepalive |
| Range | 0 to 21845 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **label-preference** *number*

| | |
|---|---|
| Synopsis | Route preference for routes from labeled-unicast peers |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone* \| *ipv6-address-with-zone)* label-preference *number* |
| Tree | label-preference |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **link-bandwidth**

| | |
|---|---|
| Synopsis | Enter the **link-bandwidth** context |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone* \| *ipv6-address-with-zone)* link-bandwidth |
| Tree | link-bandwidth |
| Introduced | 16.0.R3 |
| Platforms | All |

### **accept-from-ebgp**

| | |
|---|---|
| Synopsis | Enable the **accept-from-ebgp** context |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone* \| *ipv6-address-with-zone)* link-bandwidth accept-from-ebgp |
| Tree | accept-from-ebgp |
| Introduced | 16.0.R4 |


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| | |
|---|---|
| Platforms | All |

### **ipv4** *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in IPv4 routes |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone* \| *ipv6-address-with-zone)* link-bandwidth accept-from-ebgp ipv4 *boolean* |
| Tree | ipv4 |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **ipv6** *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in IPv6 routes |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone* \| *ipv6-address-with-zone)* link-bandwidth accept-from-ebgp ipv6 *boolean* |
| Tree | ipv6 |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **label-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in label-IPv4 routes |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone* \| *ipv6-address-with-zone)* link-bandwidth accept-from-ebgp label-ipv4 *boolean* |
| Tree | label-ipv4 |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **add-to-received-ebgp**

| | |
|---|---|
| Synopsis | Enable the **add-to-received-ebgp** context |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone* \| *ipv6-address-with-zone)* link-bandwidth add-to-received-ebgp |


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| | |
|---|---|
| Tree | add-to-received-ebgp |
| Introduced | 16.0.R3 |
| Platforms | All |

### **ipv4** *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in IPv4 routes |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* link-bandwidth add-to-received-ebgp ipv4 *boolean* |
| Tree | ipv4 |
| Default | false |
| Introduced | 16.0.R3 |
| Platforms | All |

### **ipv6** *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in IPv6 routes |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* link-bandwidth add-to-received-ebgp ipv6 *boolean* |
| Tree | ipv6 |
| Default | false |
| Introduced | 16.0.R3 |
| Platforms | All |

### **label-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in label-IPv4 routes |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* link-bandwidth add-to-received-ebgp label-ipv4 *boolean* |
| Tree | label-ipv4 |
| Default | false |
| Introduced | 16.0.R3 |
| Platforms | All |


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## aggregate-used-paths

| | |
|---|---|
| Synopsis | Enable the **aggregate-used-paths** context |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* link-bandwidth aggregate-used-paths |
| Tree | aggregate-used-paths |
| Introduced | 16.0.R4 |
| Platforms | All |

## ipv4 *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in IPv4 routes |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* link-bandwidth aggregate-used-paths ipv4 *boolean* |
| Tree | ipv4 |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

## ipv6 *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in IPv6 routes |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* link-bandwidth aggregate-used-paths ipv6 *boolean* |
| Tree | ipv6 |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

## label-ipv4 *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in label-IPv4 routes |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* link-bandwidth aggregate-used-paths label-ipv4 *boolean* |
| Tree | label-ipv4 |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | All |

## send-to-ebgp

| | |
|---|---|
| Synopsis | Enable the **send-to-ebgp** context |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone* \| *ipv6-address-with-zone)* link-bandwidth send-to-ebgp |
| Tree | send-to-ebgp |
| Introduced | 16.0.R4 |
| Platforms | All |

## ipv4 *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in IPv4 routes |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone* \| *ipv6-address-with-zone)* link-bandwidth send-to-ebgp ipv4 *boolean* |
| Tree | ipv4 |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

## ipv6 *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in IPv6 routes |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone* \| *ipv6-address-with-zone)* link-bandwidth send-to-ebgp ipv6 *boolean* |
| Tree | ipv6 |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

## label-ipv4 *boolean*

| | |
|---|---|
| Synopsis | Support Link Bandwidth EC in label-IPv4 routes |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone* \| *ipv6-address-with-zone)* link-bandwidth send-to-ebgp label-ipv4 *boolean* |


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| | |
|---|---|
| Tree | label-ipv4 |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **local-address** *(ipv4-address-no-zone | ipv6-address-no-zone | interface-name)*

| | |
|---|---|
| Synopsis | Local IP address used when communicating with BGP peers |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone | ipv6-address-with-zone)* local-address *(ipv4-address-no-zone | ipv6-address-no-zone | interface-name)* |
| Tree | local-address |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **local-as**

| | |
|---|---|
| Synopsis | Enter the **local-as** context |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone | ipv6-address-with-zone)* local-as |
| Tree | local-as |
| Introduced | 16.0.R1 |
| Platforms | All |

### **as-number** *number*

| | |
|---|---|
| Synopsis | Local (or virtual) BGP AS number |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone | ipv6-address-with-zone)* local-as as-number *number* |
| Tree | as-number |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **prepend-global-as** *boolean*

| | |
|---|---|
| Synopsis | Prepend global ASN when advertising routes to BGP peer |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* local-as prepend-global-as *boolean* |
| Tree | prepend-global-as |
| Description | When configured to **true**, the global ASN is added to the AS_PATH attribute in outbound routes sent to the peer.<br>When configured to **false**, the global ASN is not included in the AS_PATH attribute. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **private** *boolean*

| | |
|---|---|
| Synopsis | Hide the local ASN in sent paths learned from peering |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* local-as private *boolean* |
| Tree | private |
| Description | When configured to **true**, the local AS number is only advertised to peers that use the local ASN for establishing BGP peering sessions.<br>When configured to **false**, the local ASN is advertised to all peers, including those that can use the global ASN for establishing BGP peering sessions. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **local-preference** *number*

| | |
|---|---|
| Synopsis | Default local preference if not in incoming routes |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* local-preference *number* |
| Tree | local-preference |
| Range | 0 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **loop-detect** *keyword*

| | |
|---|---|
| Synopsis | Strategy for loop detection in the AS path |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* loop-detect *keyword* |
| Tree | loop-detect |
| Options | drop-peer, ignore-loop, off, discard-route |
| Introduced | 16.0.R1 |
| Platforms | All |

### **loop-detect-threshold** *number*

| | |
|---|---|
| Synopsis | Threshold for the global ASN in a received AS path |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* loop-detect-threshold *number* |
| Tree | loop-detect-threshold |
| Range | 0 to 15 |
| Introduced | 16.0.R6 |
| Platforms | All |

### **med-out** *(number | keyword)*

| | |
|---|---|
| Synopsis | Default MED attribute value to advertise to peers |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* med-out *(number \| keyword)* |
| Tree | med-out |
| Max. range | 0 to 4294967295 |
| Options | igp-cost |
| Introduced | 16.0.R1 |
| Platforms | All |

### **min-route-advertisement** *number*

| | |
|---|---|
| Synopsis | Minimum interval between successive prefix updates |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* min-route-advertisement *number* |


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| | |
|---|---|
| Tree | min-route-advertisement |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

## monitor

| | |
|---|---|
| Synopsis | Enable the **monitor** context |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* monitor |
| Tree | monitor |
| Introduced | 16.0.R1 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of BMP monitoring |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* monitor admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

## all-stations *boolean*

| | |
|---|---|
| Synopsis | Send BMP messages to all configured stations |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* monitor all-stations *boolean* |
| Tree | all-stations |
| Description | When configured to **true**, this command specifies that BMP messages are to be sent to all configured BMP monitoring stations.<br><br>When configured to **false**, the command is not used to indicate the stations which can receive BMP messages. The **station** command (at the same context level) identifies the BMP stations for which BMP messages are to be sent. |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## route-monitoring

| | |
|---|---|
| Synopsis | Enter the **route-monitoring** context |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone* \| *ipv6-address-with-zone)* monitor route-monitoring |
| Tree | route-monitoring |
| Introduced | 16.0.R1 |
| Platforms | All |

## post-policy *boolean*

| | |
|---|---|
| Synopsis | Allow post-policy route-monitoring messages to be sent |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone* \| *ipv6-address-with-zone)* monitor route-monitoring post-policy *boolean* |
| Tree | post-policy |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## pre-policy *boolean*

| | |
|---|---|
| Synopsis | Allow pre-policy route-monitoring messages to be sent |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone* \| *ipv6-address-with-zone)* monitor route-monitoring pre-policy *boolean* |
| Tree | pre-policy |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## station [station-name] *reference*

| | |
|---|---|
| Synopsis | Add a list entry for **station** |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone* \| *ipv6-address-with-zone)* monitor station *reference* |


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| | |
|---|---|
| Tree | station |
| Max. instances | 8 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**station-name**] *reference*

| | |
|---|---|
| Synopsis | BMP monitoring station |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* monitor station *reference* |
| Tree | station |
| Reference | **configure** bmp station *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **multihop** *number*

| | |
|---|---|
| Synopsis | TTL in IP packet headers for EBGP peers multi-hops away |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* multihop *number* |
| Tree | multihop |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **multipath-eligible** *boolean*

| | |
|---|---|
| Synopsis | Allow routes from this peer in multipath eligibility |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* multipath-eligible *boolean* |
| Tree | multipath-eligible |
| Introduced | 19.5.R1 |
| Platforms | All |


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## **next-hop-self** *boolean*

Synopsis Advertise routes with local address as next-hop address

Context **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone | ipv6-address-with-zone)* next-hop-self *boolean*

Tree next-hop-self

Description When configured to **true**, this command configures BGP to advertise routes to members of a group using a local address of the BGP instance as the BGP next-hop address.

Note that this command is set without exception, regardless of the route source (EBGP or IBGP) or its family. When used with VPN-IPv4 and VPN-IPv6 routes, the **configure router bgp rr-vpn-forwarding** command should also be configured.

When unconfigured, the command inherits the value of the group-level setting (**true** or **false**). The command cannot be explicitly configured to **false**.

When this command inherits a value of **false**, protocol standard behavior is applied to determine whether to set **next-hop-self** in advertised routes.

Introduced 16.0.R1

Platforms All

## **origin-validation**

Synopsis Enable the **origin-validation** context

Context **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone | ipv6-address-with-zone)* origin-validation

Tree origin-validation

Description Commands in this context configure the marking of every inbound IPv4, IPv6, and labeled IPv4 route from the BGP peer with one of the following origin validation states:

- Valid (0)
- Not-Found (1)
- Invalid (2)

The configurations apply to all types of VPRN BGP peers, but generally should be applied only to EBGP peers and groups that contain only EBGP peers.

Introduced 19.7.R1

Platforms All


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### **ipv4** *boolean*

| | |
|---|---|
| Synopsis | Enable support for unlabeled unicast IPv4 routes |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone* \| *ipv6-address-with-zone)* origin-validation ipv4 *boolean* |
| Tree | ipv4 |
| Default | false |
| Introduced | 19.7.R1 |
| Platforms | All |

### **ipv6** *boolean*

| | |
|---|---|
| Synopsis | Enable support for unlabeled unicast IPv6 routes |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone* \| *ipv6-address-with-zone)* origin-validation ipv6 *boolean* |
| Tree | ipv6 |
| Default | false |
| Introduced | 19.7.R1 |
| Platforms | All |

### **label-ipv4** *boolean*

| | |
|---|---|
| Synopsis | Enable support for labeled-unicast IPv4 routes |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone* \| *ipv6-address-with-zone)* origin-validation label-ipv4 *boolean* |
| Tree | label-ipv4 |
| Default | false |
| Introduced | 19.7.R1 |
| Platforms | All |

### **passive** *boolean*

| | |
|---|---|
| Synopsis | Use passive mode for BGP communication |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone* \| *ipv6-address-with-zone)* passive *boolean* |
| Tree | passive |


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Introduced 16.0.R1

Platforms All

## **path-mtu-discovery** *boolean*

Synopsis Enable path MTU discovery

Context **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone | ipv6-address-with-zone)* path-mtu-discovery *boolean*

Tree path-mtu-discovery

Description When configured to **true**, Path MTU Discovery (PMTUD) is enabled for the associated TCP connections.

When set to **true**, PMTUD is activated toward an IPv4 BGP neighbor and the Don't Fragment (DF) bit is set in the IP header of all IPv4 packets sent to the peer. If any device along the path toward the peer cannot forward the packet because the IP MTU of the interface is smaller than the IP packet size, this device drops the packet and sends an ICMP or ICMPv6 error message encoding the interface MTU. When the router receives the ICMP or ICMPv6 message, it lowers the TCP maximum segment size limit from the previous value so that the IP MTU constraint can be accommodated.

When PMTUD is configured to **false** and there is no TCP MSS configuration that can be associated with a BGP neighbor (in either the BGP configuration or the first hop IP interface configuration), the router advertises a value of only 1024 bytes as the TCP MSS option value, limiting received TCP segments to that size.

Introduced 16.0.R1

Platforms All

## **peer-as** *number*

Synopsis Peer AS number

Context **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone | ipv6-address-with-zone)* peer-as *number*

Tree peer-as

Description This command configures the autonomous system number for the peer. The peer AS number must be configured for each configured peer.

For EBGP peers, the peer AS number configured must be different from the autonomous system number configured for this router under the global level since the peer will be in a different autonomous system than this router.

For IBGP peers, the peer AS number must be the same as the autonomous system number of this router configured under the global level.

Range 1 to 4294967295

Introduced 16.0.R1


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Platforms All

## **peer-creation-type** *keyword*

Synopsis Peer creation type

Context **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone | ipv6-address-with-zone)* peer-creation-type *keyword*

Tree peer-creation-type

Options static, dynamic, dynamic-if-remote, dynamic-if-local

Default static

Introduced 16.0.R1

Platforms All

## **peer-ip-tracking** *boolean*

Synopsis Enable BGP peer tracking

Context **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone | ipv6-address-with-zone)* peer-ip-tracking *boolean*

Tree peer-ip-tracking

Description When configured to **true**, this command enables BGP peer tracking.

Peer tracking should be used with caution. Peer tracking can tear a session down even if the loss of connectivity turns out to be short-lived (for example, while the IGP protocol is re-converging). Next-hop tracking, which is always enabled, handles temporary connectivity issues more effectively.

When unconfigured, the command inherits the value of the group-level setting (**true** or **false**). The command cannot be explicitly configured to **false**.

When this command inherits a value of **false**, peer tracking is disabled.

Introduced 16.0.R1

Platforms All

## **preference** *number*

Synopsis Route preference for routes learned from all peers

Context **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone | ipv6-address-with-zone)* preference *number*

Tree preference

Description This command configures the route preference for routes learned from the configured peers.


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The lower the preference value, the higher the chance of the route being the active route. The router assigns BGP routes the highest default preference as compared to routes that are direct, static or learned via MPLS or OSPF.

When unconfigured, the command setting is inherited from the group-level configuration.

| | |
|---|---|
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **prefix-limit** [family] *keyword*

| | |
|---|---|
| Synopsis | Enter the **prefix-limit** list instance |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone* \| *ipv6-address-with-zone)* prefix-limit *keyword* |
| Tree | prefix-limit |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**family**] *keyword*

| | |
|---|---|
| Synopsis | Address family to which the limit applies |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone* \| *ipv6-address-with-zone)* prefix-limit *keyword* |
| Tree | prefix-limit |
| Options | ipv4, ipv6, mcast-ipv4, flow-ipv4, flow-ipv6, mcast-ipv6, label-ipv4 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **hold-excess** *number*

| | |
|---|---|
| Synopsis | Percentage of maximum routes to install in route table |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone* \| *ipv6-address-with-zone)* prefix-limit *keyword* hold-excess *number* |
| Tree | hold-excess |
| Description | This command specifies the percentage of maximum routes that are allowed to be installed in the route table for the configured address family. If a peer within scope of the configuration exceeds the limit, the overflow routes are held in the BGP RIB as inactive routes and are ineligible for forwarding and advertisement to other peers. If the **post-** |


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**import** command is configured to **true**, only routes not rejected by import policies count toward the limit.

A BGP route in an overflow state is reconsidered for activation and reinstallation when an UPDATE message is received for the route.

This command is mutually exclusive with the **idle-timeout** and **log-only** commands.

| | |
|---|---|
| Range | 1 to 100 |
| Introduced | 23.7.R1 |
| Platforms | All |

## **idle-timeout** *number*

| | |
|---|---|
| Synopsis | Time which BGP peering remains idle before reconnecting |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* prefix-limit *keyword* idle-timeout *number* |
| Tree | idle-timeout |
| Description | This command defines the idle time after an administrative take-down before BGP re-establishes a session and reconnects to a peer.<br>When unconfigured, the command inherits the value from the group-level configuration. |
| Range | 1 to 1024 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **log-only** *boolean*

| | |
|---|---|
| Synopsis | Send warning message at threshold instead of take-down |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* prefix-limit *keyword* log-only *boolean* |
| Tree | log-only |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **maximum** *number*

| | |
|---|---|
| Synopsis | Maximum number of routes to be learned from a peer |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* prefix-limit *keyword* maximum *number* |


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| | |
|---|---|
| Tree | maximum |
| Description | This command configures the maximum number of BGP routes than can be received from a peer before administrative action is taken. |
| Range | 1 to 4294967295 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R2 |
| Platforms | All |

## **post-import** *boolean*

| | |
|---|---|
| Synopsis | Apply limit only to routes accepted by import policies |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone* \| *ipv6-address-with-zone)* prefix-limit *keyword* post-import *boolean* |
| Tree | post-import |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **threshold** *number*

| | |
|---|---|
| Synopsis | Percentage threshold that triggers a warning message |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone* \| *ipv6-address-with-zone)* prefix-limit *keyword* threshold *number* |
| Tree | threshold |
| Range | 1 to 100 |
| Default | 90 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **remove-private**

| | |
|---|---|
| Synopsis | Enable the **remove-private** context |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone* \| *ipv6-address-with-zone)* remove-private |
| Tree | remove-private |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **limited** *boolean*

| | |
|---|---|
| Synopsis | Remove private ASNs up to first public ASN encountered |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* remove-private limited *boolean* |
| Tree | limited |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **replace** *boolean*

| | |
|---|---|
| Synopsis | Replace private ASN with global ASN before advertising |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* remove-private replace *boolean* |
| Tree | replace |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **skip-peer-as** *boolean*

| | |
|---|---|
| Synopsis | Keep private ASN if it is the same as the BGP peer ASN |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* remove-private skip-peer-as *boolean* |
| Tree | skip-peer-as |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **send-communities**

| | |
|---|---|
| Synopsis | Enter the **send-communities** context |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* send-communities |


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| | |
|---|---|
| Tree | send-communities |
| Introduced | 16.0.R1 |
| Platforms | All |

### **extended** *boolean*

| | |
|---|---|
| Synopsis | Advertise the Extended Communities attribute to peers |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* send-communities extended *boolean* |
| Tree | extended |
| Description | When unconfigured, this command inherits the value of the group-level setting (**true** or **false**). The command cannot be explicitly configured to **true**.<br>When this command inherits a value of **true**, BGP extended communities are sent to peers in the Extended Communities attribute.<br>When configured to **false**, all extended communities are removed from all routes advertised to BGP peers. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **large** *boolean*

| | |
|---|---|
| Synopsis | Advertise the Large Communities attribute to peers |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* send-communities large *boolean* |
| Tree | large |
| Description | When unconfigured, this command inherits the value of the group-level setting (**true** or **false**). The command cannot be explicitly configured to **true**.<br>When this command inherits a value of **true**, BGP large communities are sent to peers in the Large Communities attribute.<br>When configured to **false**, all large communities are removed from all routes advertised to BGP peers. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **standard** *boolean*

| | |
|---|---|
| Synopsis | Advertise the Communities attribute to peers |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* send-communities standard *boolean* |
| Tree | standard |
| Description | When unconfigured, this command inherits the value of the group-level setting (**true** or **false**). The command cannot be explicitly configured to **true**.<br>When this command inherits a value of **true**, BGP standard communities are sent to peers in the Communities attribute.<br>When configured to **false**, all standard communities are removed from all routes advertised to BGP peers. |
| Introduced | 16.0.R1 |
| Platforms | All |

## send-default

| | |
|---|---|
| Synopsis | Enable the **send-default** context |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* send-default |
| Tree | send-default |
| Introduced | 19.7.R1 |
| Platforms | All |

## export-policy *reference*

| | |
|---|---|
| Synopsis | Export policy name |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* send-default export-policy *reference* |
| Tree | export-policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Introduced | 19.7.R1 |
| Platforms | All |

## ipv4 *boolean*

| | |
|---|---|
| Synopsis | Enable IPv4 family type |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* send-default ipv4 *boolean* |
| Tree | ipv4 |


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| | |
|---|---|
| Default | false |
| Introduced | 19.7.R1 |
| Platforms | All |

### **ipv6** *boolean*

| | |
|---|---|
| Synopsis | Enable IPv6 family type |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* send-default ipv6 *boolean* |
| Tree | ipv6 |
| Default | false |
| Introduced | 19.7.R1 |
| Platforms | All |

### **split-horizon** *boolean*

| | |
|---|---|
| Synopsis | Prevent routes being reflected back to best-route peer |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* split-horizon *boolean* |
| Tree | split-horizon |
| Description | When configured to **true**, this command enables the use of split-horizon.<br>This command prevents routes from being reflected back to a peer that sends the best route. It applies to routes of all address families and to any type of sending peer; confed-EBGP, EBGP and IBGP.<br>Enabling the split-horizon functionality may have a detrimental impact on peer and route scaling and should only be used when absolutely necessary.<br>When unconfigured, the command inherits the value of the group-level setting (**true** or **false**). The command cannot be explicitly configured to **false**.<br>When this command inherits a value of **false**, the use of split-horizon is disabled. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **tcp-mss** *(number | keyword)*

| | |
|---|---|
| Synopsis | TCP maximum segment size override |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* tcp-mss *(number \| keyword)* |


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| | |
|---|---|
| Tree | tcp-mss |
| Description | This command configures an override for the TCP maximum segment size to use with a specific peer or set of peers (depending on the scope of the command).<br>The configured value controls two properties of the TCP connection as follows:<br>TCP MSS option - The router advertises the TCP MSS option value in the TCP SYN packet it sends as part of the 3-way handshake. The advertised value may be lower than the configured value, depending on the IP MTU of the first hop IP interface. The peers must abide by this value when sending TCP segments to the local router.<br>TCP maximum segment size - The actual transmitted size may be lower than the configured value, depending on the TCP MSS option value signaled by the peers, the effect of path MTU discovery, or other factors. |
| Range | 384 to 9746 |
| Options | ip-stack |
| Introduced | 21.2.R1 |
| Platforms | All |

### **third-party-nexthop** *boolean*

| | |
|---|---|
| Synopsis | Apply third-party next-hop processing to EBGP peers |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* third-party-nexthop *boolean* |
| Tree | third-party-nexthop |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ttl-security** *number*

| | |
|---|---|
| Synopsis | Minimum TTL value for an incoming BGP packet |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* ttl-security *number* |
| Tree | ttl-security |
| Description | This command configures the minimum TTL value that BGP will accept from an incoming packet. A packet with a TTL value less than the minimum configured TTL value is discarded.<br>When unconfigured, the command inherits the value of the group-level setting. |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **type** *keyword*

| | |
|---|---|
| Synopsis | BGP peer type |
| Context | **configure** service vprn *service-name* bgp neighbor *(ipv4-address-with-zone \| ipv6-address-with-zone)* type *keyword* |
| Tree | type |
| Options | no-type, internal, external |
| Introduced | 16.0.R1 |
| Platforms | All |

### **next-hop-resolution**

| | |
|---|---|
| Synopsis | Enter the **next-hop-resolution** context |
| Context | **configure** service vprn *service-name* bgp next-hop-resolution |
| Tree | next-hop-resolution |
| Introduced | 16.0.R1 |
| Platforms | All |

### **policy** *reference*

| | |
|---|---|
| Synopsis | Policy that filters routes for BGP next-hop resolution |
| Context | **configure** service vprn *service-name* bgp next-hop-resolution policy *reference* |
| Tree | policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **use-bgp-routes** *boolean*

| | |
|---|---|
| Synopsis | Use BGP routes to resolve BGP next hops |
| Context | **configure** service vprn *service-name* bgp next-hop-resolution use-bgp-routes *boolean* |
| Tree | use-bgp-routes |
| Description | When configured to **true**, BGP routes resolve BGP next hops. When this command is enabled, any unlabeled IPv4 or IPv6 BGP route received from a VPRN BGP peer becomes resolvable by up to four other BGP routes in order to resolve the route to a VPRN IP interface. A VPRN BGP route is not resolvable by another VPRN BGP route or by a BGP-VPN route. |


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This command also allows unlabeled IPv4 or IPv6 BGP routes leaked from the GRT with unresolved next hops (in the GRT) to be resolvable by BGP-VPN routes (of the VPRN).

When configured to **false**, BGP next hops are not resolved.

| | |
|---|---|
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

## use-leaked-routes

| | |
|---|---|
| Synopsis | Enter the **use-leaked-routes** context |
| Context | **configure** service vprn *service-name* bgp next-hop-resolution use-leaked-routes |
| Tree | use-leaked-routes |
| Introduced | 23.7.R1 |
| Platforms | All |

## static *boolean*

| | |
|---|---|
| Synopsis | Use leaked static routes to resolve BGP next hop |
| Context | **configure** service vprn *service-name* bgp next-hop-resolution use-leaked-routes static *boolean* |
| Tree | static |
| Description | When configured to **true**, the router allows any non-leaked unlabeled unicast IPv4 or IPv6 route in the BGP RIB to be resolved by a leaked static route with direct next hops. A BGP route resolved this way cannot resolve other routes (including BGP routes) and cannot be redistributed into non-BGP protocols, such as IGP.<br><br>When configured to **false**, the router prevents the use of leaked static routes to resolve BGP routes. |
| Default | false |
| Introduced | 23.7.R1 |
| Platforms | All |

## path-mtu-discovery *boolean*

| | |
|---|---|
| Synopsis | Enable Path MTU Discovery |
| Context | **configure** service vprn *service-name* bgp path-mtu-discovery *boolean* |
| Tree | path-mtu-discovery |


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| | |
|---|---|
| Description | When configured to **true**, Path MTU Discovery (PMTUD) is activated toward an IPv4 BGP neighbor. The Don't Fragment (DF) bit is set in the IP header of all IPv4 packets sent to the peer. If any device along the path toward the peer cannot forward the packet because the IP MTU of the interface is smaller than the IP packet size, the device drops the packet and sends an ICMP or ICMPv6 error message encoding the interface MTU. When the router receives the ICMP or ICMPv6 message, it lowers the TCP maximum segment size limit from the previous value to accomodate the IP MTU constraint.<br><br>When configured to **false**, PMTUD is disabled and there is no TCP MSS configuration to associate with a BGP neighbor (in either the BGP configuration or the first-hop IP interface configuration). The router advertises a TCP MSS option of only 1024 bytes, limiting the received TCP segments to that size. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **peer-ip-tracking** *boolean*

| | |
|---|---|
| Synopsis | Enable BGP peer tracking |
| Context | **configure** service vprn *service-name* bgp peer-ip-tracking *boolean* |
| Tree | peer-ip-tracking |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **peer-tracking-policy** *reference*

| | |
|---|---|
| Synopsis | Policy for BGP peer tracking on router instance |
| Context | **configure** service vprn *service-name* bgp peer-tracking-policy *reference* |
| Tree | peer-tracking-policy |
| Description | This command specifies the name of a policy statement to use with the BGP peer-tracking function on BGP sessions where peer tracking is enabled.<br><br>When unconfigured, the default peer-tracking policy allows any type of route to match the neighbor IP address except aggregate routes and LDP shortcut routes.<br><br>Peer tracking should be used with caution. The peer-tracking policy should only permit one of direct-interface or direct routes to be advertised to a BGP peer. Advertising both routes causes the best route to oscillate. |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **preference** *number*

| | |
|---|---|
| Synopsis | Route preference for routes learned from all peers |
| Context | **configure** service vprn *service-name* bgp preference *number* |
| Tree | preference |
| Description | This command configures the route preference for routes learned from the configured peers.<br>The lower the preference value, the higher the chance of the route being the active route. The router assigns BGP routes the highest default preference as compared to routes that are direct, static or learned via MPLS or OSPF. |
| Range | 1 to 255 |
| Default | 170 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **rapid-withdrawal** *boolean*

| | |
|---|---|
| Synopsis | Send BGP withdrawal UPDATE messages immediately |
| Context | **configure** service vprn *service-name* bgp rapid-withdrawal *boolean* |
| Tree | rapid-withdrawal |
| Description | When configured to **true**, UPDATE messages containing withdrawn NLRI are sent immediately to a peer without waiting for the MRAI timer to expire. UPDATE messages containing reachable NLRI continue to wait for the MRAI timer to expire, or for a rapid update trigger.<br>When configured to **false**, withdrawal processing continues with the normal behavior. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **remove-private**

| | |
|---|---|
| Synopsis | Enable the **remove-private** context |
| Context | **configure** service vprn *service-name* bgp remove-private |
| Tree | remove-private |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **limited** *boolean*

| | |
|---|---|
| Synopsis | Remove private ASNs up to first public ASN encountered |
| Context | **configure** service vprn *service-name* bgp remove-private limited *boolean* |
| Tree | limited |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **replace** *boolean*

| | |
|---|---|
| Synopsis | Replace private ASN with global ASN before advertising |
| Context | **configure** service vprn *service-name* bgp remove-private replace *boolean* |
| Tree | replace |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **skip-peer-as** *boolean*

| | |
|---|---|
| Synopsis | Keep private ASN if AS-PATH contains eBGP peer's ASN |
| Context | **configure** service vprn *service-name* bgp remove-private skip-peer-as *boolean* |
| Tree | skip-peer-as |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rib-management**

| | |
|---|---|
| Synopsis | Enter the **rib-management** context |
| Context | **configure** service vprn *service-name* bgp rib-management |
| Tree | rib-management |
| Introduced | 16.0.R1 |
| Platforms | All |


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## ipv4

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |
| Context | **configure** service vprn *service-name* bgp rib-management ipv4 |
| Tree | ipv4 |
| Introduced | 16.0.R1 |
| Platforms | All |

## leak-import

| | |
|---|---|
| Synopsis | Enter the **leak-import** context |
| Context | **configure** service vprn *service-name* bgp rib-management ipv4 leak-import |
| Tree | leak-import |
| Introduced | 16.0.R1 |
| Platforms | All |

## policy *(policy-expr-string | string)*

| | |
|---|---|
| Synopsis | Leak import policy name |
| Context | **configure** service vprn *service-name* bgp rib-management ipv4 leak-import policy *(policy-expr-string \| string)* |
| Tree | policy |
| Description | This command specifies one or more leak import policies.<br>Policy names are limited to 64 characters except for the first policy. Only one object can be a policy logical expression consisting of policy names (enclosed in square brackets) and logical operators (AND, OR, NOT). |
| String length | 1 to 255 |
| Max. instances | 15 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

## route-table-import

| | |
|---|---|
| Synopsis | Enter the **route-table-import** context |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* bgp rib-management ipv4 route-table-import |
| Tree | route-table-import |
| Introduced | 16.0.R1 |
| Platforms | All |

## **policy-name** *reference*

| | |
|---|---|
| Synopsis | Name of policy that controls route importation into RIB |
| Context | **configure** service vprn *service-name* bgp rib-management ipv4 route-table-import policy-name *reference* |
| Tree | policy-name |
| Description | This command specifies the name of a policy that controls the importation of active routes from the IP route table into one of the BGP RIBs.<br>When this command is configured, routes dropped or rejected by the policy are not installed in the associated RIB. Rejected routes cannot be advertised to BGP peers associated with the RIB, but they can still be used to resolve BGP next hops of routes in that RIB. If the active route for a prefix is rejected by the policy, the best BGP route for that prefix in the BGP RIB can be advertised to peers as though it is used.<br>Aggregate routes are always imported into each RIB, independent of the specified policy.<br>Route modifications specified in the actions of the policy are ignored and have no effect on the imported routes.<br>When unconfigured, or if the command refers to an empty policy, all non-BGP routes from the IP route table are imported into the applicable RIB. |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **ipv6**

| | |
|---|---|
| Synopsis | Enter the **ipv6** context |
| Context | **configure** service vprn *service-name* bgp rib-management ipv6 |
| Tree | ipv6 |
| Introduced | 16.0.R1 |
| Platforms | All |


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## leak-import

| | |
|---|---|
| Synopsis | Enter the **leak-import** context |
| Context | **configure** service vprn *service-name* bgp rib-management ipv6 leak-import |
| Tree | leak-import |
| Introduced | 16.0.R1 |
| Platforms | All |

## policy *(policy-expr-string | string)*

| | |
|---|---|
| Synopsis | Leak import policy name |
| Context | **configure** service vprn *service-name* bgp rib-management ipv6 leak-import policy *(policy-expr-string \| string)* |
| Tree | policy |
| Description | This command specifies one or more leak import policies.<br>Policy names are limited to 64 characters except for the first policy. Only one object can be a policy logical expression consisting of policy names (enclosed in square brackets) and logical operators (AND, OR, NOT). |
| String length | 1 to 255 |
| Max. instances | 15 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

## route-table-import

| | |
|---|---|
| Synopsis | Enter the **route-table-import** context |
| Context | **configure** service vprn *service-name* bgp rib-management ipv6 route-table-import |
| Tree | route-table-import |
| Introduced | 16.0.R1 |
| Platforms | All |

## policy-name *reference*

| | |
|---|---|
| Synopsis | Name of policy that controls route importation into RIB |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* bgp rib-management ipv6 route-table-import policy-name *reference* |
| Tree | policy-name |
| Description | This command specifies the name of a policy that controls the importation of active routes from the IP route table into one of the BGP RIBs.<br>When this command is configured, routes dropped or rejected by the policy are not installed in the associated RIB. Rejected routes cannot be advertised to BGP peers associated with the RIB, but they can still be used to resolve BGP next hops of routes in that RIB. If the active route for a prefix is rejected by the policy, the best BGP route for that prefix in the BGP RIB can be advertised to peers as though it is used.<br>Aggregate routes are always imported into each RIB, independent of the specified policy.<br>Route modifications specified in the actions of the policy are ignored and have no effect on the imported routes.<br>When unconfigured, or if the command refers to an empty policy, all non-BGP routes from the IP route table are imported into the applicable RIB. |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Introduced | 16.0.R1 |
| Platforms | All |

## label-ipv4

| | |
|---|---|
| Synopsis | Enter the **label-ipv4** context |
| Context | **configure** service vprn *service-name* bgp rib-management label-ipv4 |
| Tree | label-ipv4 |
| Introduced | 16.0.R1 |
| Platforms | All |

## leak-import

| | |
|---|---|
| Synopsis | Enter the **leak-import** context |
| Context | **configure** service vprn *service-name* bgp rib-management label-ipv4 leak-import |
| Tree | leak-import |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **policy** *(policy-expr-string | string)*

| | |
|---|---|
| Synopsis | Leak import policy name |
| Context | **configure** service vprn *service-name* bgp rib-management label-ipv4 leak-import policy *(policy-expr-string \| string)* |
| Tree | policy |
| Description | This command specifies one or more leak import policies.<br>Policy names are limited to 64 characters except for the first policy. Only one object can be a policy logical expression consisting of policy names (enclosed in square brackets) and logical operators (AND, OR, NOT). |
| String length | 1 to 255 |
| Max. instances | 15 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **route-table-import**

| | |
|---|---|
| Synopsis | Enter the **route-table-import** context |
| Context | **configure** service vprn *service-name* bgp rib-management label-ipv4 route-table-import |
| Tree | route-table-import |
| Introduced | 16.0.R1 |
| Platforms | All |

## **policy-name** *reference*

| | |
|---|---|
| Synopsis | Name of policy that controls route importation into RIB |
| Context | **configure** service vprn *service-name* bgp rib-management label-ipv4 route-table-import policy-name *reference* |
| Tree | policy-name |
| Description | This command specifies the name of a policy that controls the importation of active routes from the IP route table into one of the BGP RIBs.<br>When this command is configured, routes dropped or rejected by the policy are not installed in the associated RIB. Rejected routes cannot be advertised to BGP peers associated with the RIB, but they can still be used to resolve BGP next hops of routes in that RIB. If the active route for a prefix is rejected by the policy, the best BGP route for that prefix in the BGP RIB can be advertised to peers as though it is used. |


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Aggregate routes are always imported into each RIB, independent of the specified policy.

Route modifications specified in the actions of the policy are ignored and have no effect on the imported routes.

When unconfigured, or if the command refers to an empty policy, all non-BGP routes from the IP route table are imported into the applicable RIB.

| | |
|---|---|
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Introduced | 16.0.R1 |
| Platforms | All |

## label-ipv6

| | |
|---|---|
| Synopsis | Enter the **label-ipv6** context |
| Context | **configure** service vprn *service-name* bgp rib-management label-ipv6 |
| Tree | label-ipv6 |
| Introduced | 22.2.R1 |
| Platforms | All |

## leak-import

| | |
|---|---|
| Synopsis | Enter the **leak-import** context |
| Context | **configure** service vprn *service-name* bgp rib-management label-ipv6 leak-import |
| Tree | leak-import |
| Introduced | 22.2.R1 |
| Platforms | All |

## policy *(policy-expr-string | string)*

| | |
|---|---|
| Synopsis | Leak import policy name |
| Context | **configure** service vprn *service-name* bgp rib-management label-ipv6 leak-import policy *(policy-expr-string \| string)* |
| Tree | policy |
| Description | This command specifies one or more leak import policies.<br>Policy names are limited to 64 characters except for the first policy. Only one object can be a policy logical expression consisting of policy names (enclosed in square brackets) and logical operators (AND, OR, NOT). |
| String length | 1 to 255 |


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| | |
|---|---|
| Max. instances | 15 |
| Notes | This element is ordered by the user. |
| Introduced | 22.2.R1 |
| Platforms | All |

## **router-id** *ipv4-address*

| | |
|---|---|
| Synopsis | Router ID for the BGP instance in the AS |
| Context | **configure** service vprn *service-name* bgp router-id *ipv4-address* |
| Tree | router-id |
| Description | This command specifies the router ID to be used with the BGP instance.<br>Changing the BGP router ID on an active BGP instance causes the BGP instance to restart with the new router ID.<br>When an SR OS is configured with an IPv6-only BOF and no IPv4 system interface address, explicitly-defined IPv4 router IDs are required for BGP as there is no mechanism to derive the router ID from an IPv6 system interface address. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **send-communities**

| | |
|---|---|
| Synopsis | Enter the **send-communities** context |
| Context | **configure** service vprn *service-name* bgp send-communities |
| Tree | send-communities |
| Introduced | 16.0.R1 |
| Platforms | All |

## **extended** *boolean*

| | |
|---|---|
| Synopsis | Advertise the Extended Communities attribute to peers |
| Context | **configure** service vprn *service-name* bgp send-communities extended *boolean* |
| Tree | extended |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **large** *boolean*

| | |
|---|---|
| Synopsis | Advertise the Large Communities attribute to peers |
| Context | **configure** service vprn *service-name* bgp send-communities large *boolean* |
| Tree | large |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **standard** *boolean*

| | |
|---|---|
| Synopsis | Advertise the Communities attribute to peers |
| Context | **configure** service vprn *service-name* bgp send-communities standard *boolean* |
| Tree | standard |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **send-default**

| | |
|---|---|
| Synopsis | Enter the **send-default** context |
| Context | **configure** service vprn *service-name* bgp send-default |
| Tree | send-default |
| Introduced | 19.7.R1 |
| Platforms | All |

### **export-policy** *reference*

| | |
|---|---|
| Synopsis | Export policy name |
| Context | **configure** service vprn *service-name* bgp send-default export-policy *reference* |
| Tree | export-policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Introduced | 19.7.R1 |
| Platforms | All |


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### **ipv4** *boolean*

| | |
|---|---|
| Synopsis | Enable IPv4 family type |
| Context | **configure** service vprn *service-name* bgp send-default ipv4 *boolean* |
| Tree | ipv4 |
| Default | false |
| Introduced | 19.7.R1 |
| Platforms | All |

### **ipv6** *boolean*

| | |
|---|---|
| Synopsis | Enable IPv6 family type |
| Context | **configure** service vprn *service-name* bgp send-default ipv6 *boolean* |
| Tree | ipv6 |
| Default | false |
| Introduced | 19.7.R1 |
| Platforms | All |

### **split-horizon** *boolean*

| | |
|---|---|
| Synopsis | Prevent routes being reflected back to best-route peer |
| Context | **configure** service vprn *service-name* bgp split-horizon *boolean* |
| Tree | split-horizon |
| Description | When configured to **true**, this command enables the use of split-horizon.<br>This command prevents routes from being reflected back to a peer that sends the best route. It applies to routes of all address families and to any type of sending peer; confed-EBGP, EBGP and IBGP.<br>Enabling the split-horizon functionality may have a detrimental impact on peer and route scaling and should only be used when absolutely necessary.<br>When configured to **false**, the use of split-horizon is disabled. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **tcp-mss** *number*

| | |
|---|---|
| Synopsis | TCP maximum segment size override |
| Context | **configure** service vprn *service-name* bgp tcp-mss *number* |
| Tree | tcp-mss |
| Description | This command configures an override for the TCP maximum segment size to use with a specific peer or set of peers (depending on the scope of the command).<br>The configured value controls two properties of the TCP connection as follows:<br>TCP MSS option - The router advertises the TCP MSS option value in the TCP SYN packet it sends as part of the 3-way handshake. The advertised value may be lower than the configured value, depending on the IP MTU of the first hop IP interface. The peers must abide by this value when sending TCP segments to the local router.<br>TCP maximum segment size - The actual transmitted size may be lower than the configured value, depending on the TCP MSS option value signaled by the peers, the effect of path MTU discovery, or other factors. |
| Range | 384 to 9746 |
| Introduced | 21.2.R1 |
| Platforms | All |

### **third-party-nexthop** *boolean*

| | |
|---|---|
| Synopsis | Apply third-party next-hop processing to EBGP peers |
| Context | **configure** service vprn *service-name* bgp third-party-nexthop *boolean* |
| Tree | third-party-nexthop |
| Description | When configured to **true**, this command enables the router to send third-party next hop to EBGP peers in the same subnet as the source peer. The address family of the transport must match the address family of the route.<br>When an IPv4 or IPv6 route is received from one EBGP peer and advertised to another EBGP peer in the same IP subnet, the BGP next hop is left unchanged.<br>When configured to **false**, third-party next-hop processing is disabled and the next hop carries the IP address of the interface used to establish the TCP connection to the peer. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bgp-evpn**

| | |
|---|---|
| Synopsis | Enter the **bgp-evpn** context |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* bgp-evpn |
| Tree | bgp-evpn |
| Introduced | 20.10.R1 |
| Platforms | All |

### **mpls** [bgp-instance] *number*

| | |
|---|---|
| Synopsis | Enter the **mpls** list instance |
| Context | **configure** service vprn *service-name* bgp-evpn mpls *number* |
| Tree | mpls |
| Introduced | 20.10.R1 |
| Platforms | All |

### [**bgp-instance**] *number*

| | |
|---|---|
| Synopsis | BGP instance ID |
| Context | **configure** service vprn *service-name* bgp-evpn mpls *number* |
| Tree | mpls |
| Range | 1 |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of BGP-EVPN MPLS |
| Context | **configure** service vprn *service-name* bgp-evpn mpls *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 20.10.R1 |
| Platforms | All |


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## auto-bind-tunnel

| | |
|---|---|
| Synopsis | Enter the **auto-bind-tunnel** context |
| Context | **configure** service vprn *service-name* bgp-evpn mpls *number* auto-bind-tunnel |
| Tree | auto-bind-tunnel |
| Description | Commands in this context configure the automatic binding options of a BGP-EVPN service using tunnels to MP-BGP peers. |
| Introduced | 20.10.R1 |
| Platforms | All |

## allow-flex-algo-fallback *boolean*

| | |
|---|---|
| Synopsis | Enable flexible algorithm fallback |
| Context | **configure** service vprn *service-name* bgp-evpn mpls *number* auto-bind-tunnel allow-flex-algo-fallback *boolean* |
| Tree | allow-flex-algo-fallback |
| Description | When configured to **true**, a BGP router with a Flex-Algorithm action configured (via the **configure policy-options policy-statement entry action flex-algo** command) can resolve to a tunnel with algorithm 0 if no target Flex-Algorithm tunnel is available**.**<br>When configured to **false**, the BGP router can resolve only to the intended Flex-Algorithm tunnel, which may cause traffic loss if no corresponding Flex-Algorithm tunnel is available. |
| Default | false |
| Introduced | 20.10.R3 |
| Platforms | All |

## ecmp *number*

| | |
|---|---|
| Synopsis | Maximum ECMP routes allowed |
| Context | **configure** service vprn *service-name* bgp-evpn mpls *number* auto-bind-tunnel ecmp *number* |
| Tree | ecmp |
| Description | This command configures the maximum number of tunnels that can be used as ECMP next hops for the VPRN. This value overrides the ECMP value configured at the **configure service vprn** context level. |
| Range | 1 to 32 |
| Default | 1 |


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| | |
|---|---|
| Introduced | 20.10.R1 |
| Platforms | All |

## **enforce-strict-tunnel-tagging** *boolean*

| | |
|---|---|
| Synopsis | Allow enforcement of strict tunnel tagging |
| Context | **configure** service vprn *service-name* bgp-evpn mpls *number* auto-bind-tunnel enforce-strict-tunnel-tagging *boolean* |
| Tree | enforce-strict-tunnel-tagging |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | All |

## **enforce-untagged-route** *keyword*

| | |
|---|---|
| Synopsis | Untagged route type enforcement |
| Context | **configure** service vprn *service-name* bgp-evpn mpls *number* auto-bind-tunnel enforce-untagged-route *keyword* |
| Tree | enforce-untagged-route |
| Description | This command configures the enforcement of BGP routes with no administrative tag policy applied by modifying the next-hop resolution behavior for autobind services.<br>If the **untagged-tunnel** option is configured, untagged routes only bind to LSPs with no administrative tag configured. If both tagged and untagged tunnels to the next hop exist, the system only considers the untagged tunnels. If no untagged tunnels to the next hop exist, the resolution of untagged routes fails.<br>The **untagged-tunnel** option can be used in combination with the **enforce-strict-tunnel-tagging** command configured to **true**, in which case tagged routes resolve to tagged LSPs, and untagged routes only resolve to untagged LSPs.<br>When unconfigured, untagged routes can bind to tagged or untagged LSPs. |
| Options | none – Untagged routes can bind to tagged or untagged LSPs<br>untagged-tunnel – Untagged routes only bind to LSPs without an admin tag |
| Default | none |
| Introduced | 24.10.R1 |
| Platforms | All |

## **resolution** *keyword*

| | |
|---|---|
| Synopsis | Resolution method for tunnel selection |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* bgp-evpn mpls *number* auto-bind-tunnel resolution *keyword* |
| Tree | resolution |
| Options | none, filter, any |
| Default | none |
| Introduced | 20.10.R1 |
| Platforms | All |

## resolution-filter

| | |
|---|---|
| Synopsis | Enter the **resolution-filter** context |
| Context | **configure** service vprn *service-name* bgp-evpn mpls *number* auto-bind-tunnel resolution-filter |
| Tree | resolution-filter |
| Description | Commands in this context configure the subset of tunnel types that can be used in the resolution of BGP-EVPN routes within the automatic binding of the BGP-EVPN MPLS service to tunnels to MP-BGP peers. |
| Introduced | 20.10.R1 |
| Platforms | All |

## bgp *boolean*

| | |
|---|---|
| Synopsis | Use BGP tunneling for next-hop resolution |
| Context | **configure** service vprn *service-name* bgp-evpn mpls *number* auto-bind-tunnel resolution-filter bgp *boolean* |
| Tree | bgp |
| Description | When configured to **true**, BGP searches the BGP LSP for the address of the BGP next hop.<br>When configured to **false**, BGP tunneling is not used and inter-area or inter-as prefixes are not resolved. |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | All |

## ldp *boolean*

| | |
|---|---|
| Synopsis | Use LDP tunneling for next-hop resolution |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* bgp-evpn mpls *number* auto-bind-tunnel resolution-filter ldp *boolean* |
| Tree | ldp |
| Description | When configured to **true**, BGP searches for an LDP LSP with a FEC prefix corresponding to the address of the BGP next hop.<br>When configured to **false**, LDP tunneling is not used for next-hop resolution. |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | All |

## **mpls-fwd-policy** *boolean*

| | |
|---|---|
| Synopsis | Use MPLS forwarding policy for next-hop resolution |
| Context | **configure** service vprn *service-name* bgp-evpn mpls *number* auto-bind-tunnel resolution-filter mpls-fwd-policy *boolean* |
| Tree | mpls-fwd-policy |
| Description | When configured to **true**, BGP uses the MPLS forwarding policy to determine the address of the BGP next hop.<br>When configured to **false**, the MPLS forwarding policy is not used for next-hop resolution. |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | All |

## **rib-api** *boolean*

| | |
|---|---|
| Synopsis | Use RIB API gRPC service for next-hop resolution |
| Context | **configure** service vprn *service-name* bgp-evpn mpls *number* auto-bind-tunnel resolution-filter rib-api *boolean* |
| Tree | rib-api |
| Description | When configured to **true**, BGP uses tunnels programmed using the RIB API gRPC service to resolve the next hops of routes imported into the EVPN service.<br>When configured to **false**, the RIB API service tunnels are not used for next-hop resolution. |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | All |


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### **rsvp** *boolean*

| | |
|---|---|
| Synopsis | Use RSVP tunneling for next-hop resolution |
| Context | **configure** service vprn *service-name* bgp-evpn mpls *number* auto-bind-tunnel resolution-filter rsvp *boolean* |
| Tree | rsvp |
| Description | When configured to **true**, BGP searches the best metric RSVP LSP to determine the address of the BGP next hop. This address can correspond to the system interface or to another loopback interface used by the BGP instance on the remote node. The LSP metric is provided by MPLS in the tunnel table. In the case of multiple RSVP LSPs with the same lowest metric, BGP selects the LSP with the lowest tunnel ID.<br>When configured to **false**, the RSVP LSP is not used for next-hop resolution. |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | All |

### **sr-isis** *boolean*

| | |
|---|---|
| Synopsis | Use IS-IS SR tunneling for next-hop resolution |
| Context | **configure** service vprn *service-name* bgp-evpn mpls *number* auto-bind-tunnel resolution-filter sr-isis *boolean* |
| Tree | sr-isis |
| Description | When configured to **true**, BGP uses an IS-IS tunnel type to determine the address of the BGP next hop.<br>The SR tunnel to the BGP next hop is selected in the TTM from the lowest-numbered IS-IS instance.<br>When configured to **false**, IS-IS tunneling is not used for next-hop resolution. |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | All |

### **sr-ospf** *boolean*

| | |
|---|---|
| Synopsis | Use OSPF SR tunneling for next-hop resolution |
| Context | **configure** service vprn *service-name* bgp-evpn mpls *number* auto-bind-tunnel resolution-filter sr-ospf *boolean* |
| Tree | sr-ospf |


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| | |
|---|---|
| Description | When configured to **true**, BGP uses an OSPF tunnel type to determine the address of the BGP next hop.<br>The SR tunnel to the BGP next hop is selected in the TTM from the lowest-numbered OPSF instance.<br>When configured to **false**, OSPF tunneling is not used for next-hop resolution. |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | All |

### **sr-ospf3** *boolean*

| | |
|---|---|
| Synopsis | Use OSPFv3 SR tunneling for next-hop resolution |
| Context | **configure** service vprn *service-name* bgp-evpn mpls *number* auto-bind-tunnel resolution-filter sr-ospf3 *boolean* |
| Tree | sr-ospf3 |
| Description | When configured to **true**, BGP uses an OSPF3 tunnel type to determine the address of the BGP next hop.<br>The SR tunnel to the BGP next hop is selected in the TTM from the lowest-numbered OPSF3 instance.<br>When configured to **false**, OSPF3 tunneling is not used for next-hop resolution. |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | All |

### **sr-policy** *boolean*

| | |
|---|---|
| Synopsis | Use SR policies for next-hop resolution |
| Context | **configure** service vprn *service-name* bgp-evpn mpls *number* auto-bind-tunnel resolution-filter sr-policy *boolean* |
| Tree | sr-policy |
| Description | When configured to **true**, this command instructs BGP to use an SR policy to determine the address of the BGP next hop. The SR policy search criteria includes a non-null endpoint and color value that matches the BGP next hop and color extended community value, respectively, of the EVPN route.<br>When configured to **false**, SR policies are not used for next-hop resolution. |
| Default | false |
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| | |
|---|---|
| Platforms | All |

### **sr-te** *boolean*

| | |
|---|---|
| Synopsis | Use SR-TE tunneling for next-hop resolution |
| Context | **configure** service vprn *service-name* bgp-evpn mpls *number* auto-bind-tunnel resolution-filter sr-te *boolean* |
| Tree | sr-te |
| Description | When configured to **true**, BGP uses an SR-TE tunnel type to determine the address of the BGP next hop.<br>The SR tunnel to the BGP next hop is selected in the TTM from the lowest-numbered tunnel ID.<br>When configured to **false**, SR-TE tunneling is not used for next-hop resolution. |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | All |

### **udp** *boolean*

| | |
|---|---|
| Synopsis | Use MPLS over UDP tunneling for next-hop resolution |
| Context | **configure** service vprn *service-name* bgp-evpn mpls *number* auto-bind-tunnel resolution-filter udp *boolean* |
| Tree | udp |
| Description | When configured to **true**, BGP uses an MPLS over UDP tunnel type to determine the address of the BGP next hop.<br>When configured to **false**, MPLS over UDP tunneling is not used for next-hop resolution. |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | All |

### **default-route-tag** *one-byte-value*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Default route tag |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* bgp-evpn mpls *number* default-route-tag *one-byte-value* |
| Tree | default-route-tag |
| Description | This command configures a route tag that is used when sending a route to the BGP application (for the corresponding service and BGP instance). If the corresponding BGP instance is enabled, the command cannot be changed.<br>When used for BGP EVPN contexts, only one route tag can be passed to BGP for matching on export policies. In case of a conflict with other route tags pushed by EVPN, the default route tag has the least priority. |
| Introduced | 20.10.R1 |
| Platforms | All |

## **domain-id** *domain-id*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Domain ID of received BGP route before readvertisement |
| Context | **configure** service vprn *service-name* bgp-evpn mpls *number* domain-id *domain-id* |
| Tree | domain-id |
| Description | This command specifies the D-PATH domain ID. The domain ID identifies the network from which the BGP route was received before the RTM advertises it to a different neighbor. The domain ID is part of a domain, represented as domain-id:isf_safi_type in the D-PATH attribute, as described in *draft-ietf-bess-evpn-ipvpn-interworking*. Gateway routers modify the D-PATH attribute. A gateway is a PE where a VPRN is instantiated. The VPRN in this case advertises or receives routes from multiple BGP owners (for example, EVPN-IFL and BGP-IPVPN) or multiple instances of the same owner (for example, VPRN with two BGP-IPVPN instances).<br>Gateways use the D-PATH attribute to detect loops (for received routes where the D-PATH contains a local domain ID) and to make BGP best-path selection decisions based on the D-PATH length (shorter D-PATH is preferred).<br>In the following example, suppose a gateway receives prefix P in an EVPN-IFL instance with the following D-PATH from neighbor N:<br>Seg Len=1 / 65000:1:128<br>If the router imports the route in VPRN-1, BGP-EVPN SRv6 instance with domain 65000:2, it readvertises it to its BGP-IPVPN MPLS instance as follows:<br>Seg Len=2 / 65000:2:70 / 65000:1:128<br>That is, the gateway prepends the local domain ID and family to the D-PATH before readvertising the route into a different instance. |
| Introduced | 21.10.R1 |


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| | |
|---|---|
| Platforms | All |

## **dynamic-egress-label-limit** *boolean*

| | |
|---|---|
| Synopsis | Enables dynamic egress label limit |
| Context | **configure** service vprn *service-name* bgp-evpn mpls *number* dynamic-egress-label-limit *boolean* |
| Tree | dynamic-egress-label-limit |
| Description | When configured to **true**, this command relaxes the egress MPLS label limit check when resolving BGP next hops in the tunnel table.<br>For VPRN services, the OAM label is never computed and, therefore, one more egress label is allowed.<br>For EVPN (Epipe and VPLS) services, the system only computes the control word and ESI label if they are used. For the control word, the system reduces the egress label limit by one label if the control word is configured in the service. When configured, the ESI label is not counted for Epipes or VPLS services without an ES.<br>When configured to **false** this command, for EVPN, Epipe, and VPLS services, always accounts for the ESI label and control word. |
| Default | false |
| Introduced | 22.2.R1 |
| Platforms | All |

## **evi** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | EVPN instance ID |
| Context | **configure** service vprn *service-name* bgp-evpn mpls *number* evi *number* |
| Tree | evi |
| Description | This command configures the EVI that identifies the BGP EVPN instance in a VPRN (for the EVPN-IFL model) that is associated with the Layer 3 Ethernet segment. This configuration is required on the PEs attached to the Ethernet segment and on the remote PEs that need to create ES destinations to the MH Layer 3 Ethernet segment. |
| Range | 1 to 16777215 |
| Introduced | 22.10.R1 |
| Platforms | All |


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## evpn-link-bandwidth

| | |
|---|---|
| Synopsis | Enter the **evpn-link-bandwidth** context |
| Context | **configure** service vprn *service-name* bgp-evpn mpls *number* evpn-link-bandwidth |
| Tree | evpn-link-bandwidth |
| Introduced | 22.7.R1 |
| Platforms | All |

## advertise

| | |
|---|---|
| Synopsis | Enable the **advertise** context |
| Context | **configure** service vprn *service-name* bgp-evpn mpls *number* evpn-link-bandwidth advertise |
| Tree | advertise |
| Introduced | 22.7.R1 |
| Platforms | All |

## max-dynamic-weight *number*

| | |
|---|---|
| Synopsis | Maximum dynamic weight of the route |
| Context | **configure** service vprn *service-name* bgp-evpn mpls *number* evpn-link-bandwidth advertise max-dynamic-weight *number* |
| Tree | max-dynamic-weight |
| Description | This command configures the maximum weight advertised in the EVPN link bandwidth extended community for the advertised EVPN IP-Prefix routes for the service. If weight dynamic is configured, the actual advertised weight is the minimum of the number of BGP PE-CE paths for the prefix and the configured maximum weight. |
| Range | 1 to 128 |
| Default | 128 |
| Introduced | 22.7.R1 |
| Platforms | All |

## weight *(number | keyword)*

| | |
|---|---|
| Synopsis | Weight of the route |
| Context | **configure** service vprn *service-name* bgp-evpn mpls *number* evpn-link-bandwidth advertise weight *(number | keyword)* |


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| | |
|---|---|
| Tree | weight |
| Description | This command configures the weight advertised in the EVPN link bandwidth extended community for the advertised EVPN IP-Prefix routes for the service.<br>If set to **dynamic**, the weight is dynamically set based on the number of BGP PE-CE paths for the IP-Prefix that is advertised in an EVPN IP-Prefix route. |
| Range | 1 to 128 |
| Options | dynamic |
| Default | dynamic |
| Introduced | 22.7.R1 |
| Platforms | All |

## **weighted-ecmp** *boolean*

| | |
|---|---|
| Synopsis | Enable weighted ECMP |
| Context | **configure** service vprn *service-name* bgp-evpn mpls *number* evpn-link-bandwidth weighted-ecmp *boolean* |
| Tree | weighted-ecmp |
| Description | When configured to **true**, the router supports the processing of the EVPN link bandwidth extended community when installing an ECMP set for an EVPN IP-Prefix route in the VPRN route table.<br>Flows to an IP Prefix received with a weight and a zero ESI value are sprayed according to the weight. If the EVPN IP-Prefix route received with the weight has a non-zero ESI, the weight is divided into the number of PEs attached to the Ethernet Segment (and rounded up if the result is not an integer).<br>The command also enables the weighted ECMP functionality for BGP CEs that are configured with an **evpn-link-bandwidth add-to-received-bgp** weight.<br>When configured to **false**, the router disables the processing of the EVPN link bandwidth extended community. |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | All |

## **route-distinguisher** *(string | keyword)*

| | |
|---|---|
| Synopsis | Route distinguisher |
| Context | **configure** service vprn *service-name* bgp-evpn mpls *number* route-distinguisher *(string \| keyword)* |
| Tree | route-distinguisher |


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| | |
|---|---|
| Description | This command specifies a unique route distinguisher (RD) to be associated with each routing instance to identify which VPN the route belongs to. |
| Options | auto-rd |
| Introduced | 20.10.R1 |
| Platforms | All |

## send-tunnel-encap

| | |
|---|---|
| Synopsis | Enter the **send-tunnel-encap** context |
| Context | **configure** service vprn *service-name* bgp-evpn mpls *number* send-tunnel-encap |
| Tree | send-tunnel-encap |
| Introduced | 20.10.R1 |
| Platforms | All |

## mpls *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable MPLS encapsulation |
| Context | **configure** service vprn *service-name* bgp-evpn mpls *number* send-tunnel-encap mpls *boolean* |
| Tree | mpls |
| Default | true |
| Introduced | 20.10.R1 |
| Platforms | All |

## mpls-over-udp *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable MPLS over UDP encapsulation |
| Context | **configure** service vprn *service-name* bgp-evpn mpls *number* send-tunnel-encap mpls-over-udp *boolean* |
| Tree | mpls-over-udp |


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| | |
|---|---|
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | All |

## vrf-export

| | |
|---|---|
| Synopsis | Enable the **vrf-export** context |
| Context | **configure** service vprn *service-name* bgp-evpn mpls *number* vrf-export |
| Tree | vrf-export |
| Description | Commands in this context specify route policies that control how routes are exported from the local VRF to other VRFs on the same or remote PE routers (via MP-BGP).<br>Aggregate routes are not advertised via MP-BGP protocols to other MP-BGP peers.<br>Route policies are configured in the **configure policy-options** context. |
| Introduced | 20.10.R1 |
| Platforms | All |

## policy *(policy-expr-string | string)*

| | |
|---|---|
| Synopsis | Policy name |
| Context | **configure** service vprn *service-name* bgp-evpn mpls *number* vrf-export policy *(policy-expr-string \| string)* |
| Tree | policy |
| Description | This command configures VRF route policies that control routes between local VRFs and other VRFs on the same or remote PE routers (using MP-BGP).<br>Each referenced object is either a policy logical expression or the name of a single policy.<br>Only one referenced object can be a policy logical expression consisting of policy names (enclosed in square brackets) and logical operators (AND, OR, NOT). The objects are evaluated in the specified order to determine whether to accept or reject the route.<br>Only the first policy can have the maximum length and the rest can be up to 64 characters.<br>Aggregate routes are not advertised using MP-BGP protocols to the other MP-BGP peers. |
| String length | 1 to 255 |
| Max. instances | 15 |
| Min. instances | 1 |


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| | |
|---|---|
| Notes | This element is ordered by the user. |
| Introduced | 20.10.R1 |
| Platforms | All |

## vrf-import

| | |
|---|---|
| Synopsis | Enable the **vrf-import** context |
| Context | **configure** service vprn *service-name* bgp-evpn mpls *number* vrf-import |
| Tree | vrf-import |
| Description | Commands in this context specify route policies that control how VPN-IP and EVPN-IFL routes that are exported by other VRFs on the same or remote PEs, are imported into the local VRF.<br>Route policies are configured in the **configure policy-options** context.<br>Unless the preference value is changed by the policy, the preference value for BGP-VPN and EVPN-IFL routes specified in this context is set to 170 when imported from remote PE routers, or the value is retained from the protocol preference value of the exported route when imported from other VRFs on the same router. |
| Introduced | 20.10.R1 |
| Platforms | All |

## policy *(policy-expr-string | string)*

| | |
|---|---|
| Synopsis | Policy name |
| Context | **configure** service vprn *service-name* bgp-evpn mpls *number* vrf-import policy *(policy-expr-string \| string)* |
| Tree | policy |
| Description | This command configures VRF route policies that control routes between local VRFs and other VRFs on the same or remote PE routers (using MP-BGP).<br>Each referenced object is either a policy logical expression or the name of a single policy.<br>Only one referenced object can be a policy logical expression consisting of policy names (enclosed in square brackets) and logical operators (AND, OR, NOT). The objects are evaluated in the specified order to determine whether to accept or reject the route.<br>Only the first policy can have the maximum length and the rest can be up to 64 characters.<br>Aggregate routes are not advertised using MP-BGP protocols to the other MP-BGP peers. |
| String length | 1 to 255 |


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| | |
|---|---|
| Max. instances | 15 |
| Min. instances | 1 |
| Notes | This element is ordered by the user. |
| Introduced | 20.10.R1 |
| Platforms | All |

## vrf-target

| | |
|---|---|
| Synopsis | Enter the **vrf-target** context |
| Context | **configure** service vprn *service-name* bgp-evpn mpls *number* vrf-target |
| Tree | vrf-target |
| Description | Commands in this context configure the route target that is added to advertised routes or compared against received routes from other VRFs on the same or remote PE routers (via MP-BGP).<br>BGP-VPN and EVPN-IFL routes imported using a VRF target configuration use the BGP preference value of 170 when imported from remote PE routers, or retain the protocol preference value of the exported route when imported from other VRFs in the same router.<br>Configured VRF import or export policies override the VRF target policy. |
| Introduced | 20.10.R1 |
| Platforms | All |

## community *route-target*

| | |
|---|---|
| Synopsis | Extended BGP community |
| Context | **configure** service vprn *service-name* bgp-evpn mpls *number* vrf-target community *route-target* |
| Tree | community |
| Description | This command configures an extended BGP community in the form type:x:y. Type can only be target and x and y are 16-bit integers. |
| String length | 10 to 28 |
| Notes | The following elements are part of a choice: **community** or (**export-community** and **import-community**). |
| Introduced | 20.10.R1 |
| Platforms | All |


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### **export-community** *route-target*

| | |
|---|---|
| Synopsis | Communities sent to remote PE neighbors |
| Context | **configure** service vprn *service-name* bgp-evpn mpls *number* vrf-target export-community *route-target* |
| Tree | export-community |
| String length | 10 to 28 |
| Notes | The following elements are part of a choice: **community** or (**export-community** and **import-community**). |
| Introduced | 20.10.R1 |
| Platforms | All |

### **import-community** *route-target*

| | |
|---|---|
| Synopsis | Communities accepted from remote PE neighbors |
| Context | **configure** service vprn *service-name* bgp-evpn mpls *number* vrf-target import-community *route-target* |
| Tree | import-community |
| String length | 10 to 28 |
| Notes | The following elements are part of a choice: **community** or (**export-community** and **import-community**). |
| Introduced | 20.10.R1 |
| Platforms | All |

### **segment-routing-v6** [bgp-instance] *number*

| | |
|---|---|
| Synopsis | Enter the **segment-routing-v6** list instance |
| Context | **configure** service vprn *service-name* bgp-evpn segment-routing-v6 *number* |
| Tree | segment-routing-v6 |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### [**bgp-instance**] *number*

| | |
|---|---|
| Synopsis | BGP instance |
| Context | **configure** service vprn *service-name* bgp-evpn segment-routing-v6 *number* |


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| | |
|---|---|
| Tree | segment-routing-v6 |
| Range | 1 to 2 |
| Notes | This element is part of a list key. |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of segment routing over IPv6 |
| Context | **configure** service vprn *service-name* bgp-evpn segment-routing-v6 *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **default-route-tag** *one-byte-value*

| | |
|---|---|
| Synopsis | Default route tag |
| Context | **configure** service vprn *service-name* bgp-evpn segment-routing-v6 *number* default-route-tag *one-byte-value* |
| Tree | default-route-tag |
| Description | This command configures a route tag that is used when sending a route to the BGP application (for the corresponding service and BGP instance). If the corresponding BGP instance is enabled, the command cannot be changed.<br><br>When used for BGP EVPN contexts, only one route tag can be passed to BGP for matching on export policies. In case of a conflict with other route tags pushed by EVPN, the default route tag has the least priority. |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **domain-id** *domain-id*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.


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| | |
|---|---|
| Synopsis | Domain ID of received BGP route before readvertisement |
| Context | **configure** service vprn *service-name* bgp-evpn segment-routing-v6 *number* domain-id *domain-id* |
| Tree | domain-id |
| Description | This command specifies the D-PATH domain ID. The domain ID identifies the network from which the BGP route was received before the RTM advertises it to a different neighbor. The domain ID is part of a domain, represented as domain-id:isf_safi_type in the D-PATH attribute, as described in *draft-ietf-bess-evpn-ipvpn-interworking*. Gateway routers modify the D-PATH attribute. A gateway is a PE where a VPRN is instantiated. The VPRN in this case advertises or receives routes from multiple BGP owners (for example, EVPN-IFL and BGP-IPVPN) or multiple instances of the same owner (for example, VPRN with two BGP-IPVPN instances).<br><br>Gateways use the D-PATH attribute to detect loops (for received routes where the D-PATH contains a local domain ID) and to make BGP best-path selection decisions based on the D-PATH length (shorter D-PATH is preferred).<br><br>In the following example, suppose a gateway receives prefix P in an EVPN-IFL instance with the following D-PATH from neighbor N:<br><br>Seg Len=1 / 65000:1:128<br><br>If the router imports the route in VPRN-1, BGP-EVPN SRv6 instance with domain 65000:2, it readvertises it to its BGP-IPVPN MPLS instance as follows:<br><br>Seg Len=2 / 65000:2:70 / 65000:1:128<br><br>That is, the gateway prepends the local domain ID and family to the D-PATH before readvertising the route into a different instance. |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **evi** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | EVPN instance ID |
| Context | **configure** service vprn *service-name* bgp-evpn segment-routing-v6 *number* evi *number* |
| Tree | evi |
| Description | This command configures the EVI that identifies the BGP EVPN instance in a VPRN (for the EVPN-IFL model) or an R-VPLS (for the EVPN-IFF model) that is associated with the Layer 3 Ethernet segment. This configuration is required on the PEs attached to the Ethernet segment and on the remote PEs that need to create ES destinations to the MH Layer 3 Ethernet segment. |
| Range | 1 to 16777215 |


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| | |
|---|---|
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## evpn-link-bandwidth

| | |
|---|---|
| Synopsis | Enter the **evpn-link-bandwidth** context |
| Context | **configure** service vprn *service-name* bgp-evpn segment-routing-v6 *number* evpn-link-bandwidth |
| Tree | evpn-link-bandwidth |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## advertise

| | |
|---|---|
| Synopsis | Enable the **advertise** context |
| Context | **configure** service vprn *service-name* bgp-evpn segment-routing-v6 *number* evpn-link-bandwidth advertise |
| Tree | advertise |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## max-dynamic-weight *number*

| | |
|---|---|
| Synopsis | Maximum dynamic weight of the route |
| Context | **configure** service vprn *service-name* bgp-evpn segment-routing-v6 *number* evpn-link-bandwidth advertise max-dynamic-weight *number* |
| Tree | max-dynamic-weight |
| Description | This command configures the maximum weight advertised in the EVPN link bandwidth extended community for the advertised EVPN IP-Prefix routes for the service. The actual advertised weight is the minimum of the number of BGP PE-CE paths for the prefix and the configured maximum weight. |
| Range | 1 to 128 |
| Default | 128 |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |


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### **weight** *(number | keyword)*

| | |
|---|---|
| Synopsis | Weight of the route |
| Context | **configure** service vprn *service-name* bgp-evpn segment-routing-v6 *number* evpn-link-bandwidth advertise weight *(number \| keyword)* |
| Tree | weight |
| Description | This command configures the weight advertised in the EVPN link bandwidth extended community for the advertised EVPN IP-Prefix routes for the service.<br>When the **dynamic** command option is configured, the weight is dynamically set based on the number of BGP PE-CE paths for the IP-Prefix that is advertised in an EVPN IP-Prefix route. |
| Range | 1 to 128 |
| Options | dynamic |
| Default | dynamic |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **weighted-ecmp** *boolean*

| | |
|---|---|
| Synopsis | Enable weighted ECMP |
| Context | **configure** service vprn *service-name* bgp-evpn segment-routing-v6 *number* evpn-link-bandwidth weighted-ecmp *boolean* |
| Tree | weighted-ecmp |
| Description | When configured to **true**, the router supports the processing of the EVPN link bandwidth extended community when installing an ECMP set for an EVPN IP-Prefix route in the VPRN route table.<br>Flows to an IP Prefix received with a weight and a zero ESI value are sprayed according to the weight. If the EVPN IP-Prefix route received with the weight has a non-zero ESI, the weight is divided into the number of PEs attached to the Ethernet Segment (and rounded up if the result is not an integer).<br>The command also enables the weighted ECMP functionality for BGP CEs that are configured with an **evpn-link-bandwidth add-to-received-bgp** weight.<br>When configured to **false**, the router disables the processing of the EVPN link bandwidth extended community. |
| Default | false |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |


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### **resolution** *keyword*

| | |
|---|---|
| Synopsis | Resolution options for routes |
| Context | **configure** service vprn *service-name* bgp-evpn segment-routing-v6 *number* resolution *keyword* |
| Tree | resolution |
| Options | route-table, tunnel-table, fallback-tunnel-to-route-table |
| Default | route-table |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **route-distinguisher** *(string | keyword)*

| | |
|---|---|
| Synopsis | Route distinguisher |
| Context | **configure** service vprn *service-name* bgp-evpn segment-routing-v6 *number* route-distinguisher *(string \| keyword)* |
| Tree | route-distinguisher |
| Description | This command specifies a unique route distinguisher (RD) to be associated with each routing instance to identify the VPN to which the route belongs.<br>Alternatively, the system can automatically generate an RD based on the BGP automatic RD range configured at the **configure service system** level. |
| Options | auto-rd |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **source-address** *ipv6-unicast-address*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Source IPv6 address |
| Context | **configure** service vprn *service-name* bgp-evpn segment-routing-v6 *number* source-address *ipv6-unicast-address* |
| Tree | source-address |
| Description | When configured, this command specifies the source IPv6 address used in the SA field of the outer IPv6 header of the SRv6 encapsulated packet. |


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When not configured, the source IPv6 address is inherited from the configuration of the global default address in the **router "base" segment-routing segment-routing-v6 source-address** context.

A source IPv6 address must be configured in this context or in the base router context.

The system does not check if the address entered is a valid local address.

| | |
|---|---|
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## srv6

| | |
|---|---|
| Synopsis | Enter the **srv6** context |
| Context | **configure** service vprn *service-name* bgp-evpn segment-routing-v6 *number* srv6 |
| Tree | srv6 |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## default-locator *string*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Default route locator |
| Context | **configure** service vprn *service-name* bgp-evpn segment-routing-v6 *number* srv6 default-locator *string* |
| Tree | default-locator |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## instance *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Segment Routing IPv6 instance |
| Context | **configure** service vprn *service-name* bgp-evpn segment-routing-v6 *number* srv6 instance *reference* |


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| | |
|---|---|
| Tree | instance |
| Reference | **configure** service vprn *service-name* segment-routing-v6 *number* |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## vrf-export

| | |
|---|---|
| Synopsis | Enable the **vrf-export** context |
| Context | **configure** service vprn *service-name* bgp-evpn segment-routing-v6 *number* vrf-export |
| Tree | vrf-export |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## policy *(policy-expr-string | string)*

| | |
|---|---|
| Synopsis | Policy name |
| Context | **configure** service vprn *service-name* bgp-evpn segment-routing-v6 *number* vrf-export policy *(policy-expr-string \| string)* |
| Tree | policy |
| Description | This command configures VRF route policies that control routes between local VRFs and other VRFs on the same or remote PE routers (using MP-BGP).<br>Each referenced object is either a policy logical expression or the name of a single policy.<br>Only one referenced object can be a policy logical expression consisting of policy names (enclosed in square brackets) and logical operators (AND, OR, NOT). The objects are evaluated in the specified order to determine whether to accept or reject the route.<br>Only the first policy can have the maximum length and the rest can be up to 64 characters.<br>Aggregate routes are not advertised using MP-BGP protocols to the other MP-BGP peers. |
| String length | 1 to 255 |
| Max. instances | 15 |
| Min. instances | 1 |
| Notes | This element is ordered by the user. |
| Introduced | 22.5.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## vrf-import

| | |
|---|---|
| Synopsis | Enable the **vrf-import** context |
| Context | **configure** service vprn *service-name* bgp-evpn segment-routing-v6 *number* vrf-import |
| Tree | vrf-import |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## policy *(policy-expr-string | string)*

| | |
|---|---|
| Synopsis | Policy name |
| Context | **configure** service vprn *service-name* bgp-evpn segment-routing-v6 *number* vrf-import policy *(policy-expr-string \| string)* |
| Tree | policy |
| Description | This command configures VRF route policies that control routes between local VRFs and other VRFs on the same or remote PE routers (using MP-BGP).<br>Each referenced object is either a policy logical expression or the name of a single policy.<br>Only one referenced object can be a policy logical expression consisting of policy names (enclosed in square brackets) and logical operators (AND, OR, NOT). The objects are evaluated in the specified order to determine whether to accept or reject the route.<br>Only the first policy can have the maximum length and the rest can be up to 64 characters.<br>Aggregate routes are not advertised using MP-BGP protocols to the other MP-BGP peers. |
| String length | 1 to 255 |
| Max. instances | 15 |
| Min. instances | 1 |
| Notes | This element is ordered by the user. |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |


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## vrf-target

| | |
|---|---|
| Synopsis | Enter the **vrf-target** context |
| Context | **configure** service vprn *service-name* bgp-evpn segment-routing-v6 *number* vrf-target |
| Tree | vrf-target |
| Description | Commands in this context configure the route target that is added to advertised routes or compared against received routes from other VRFs on the same or remote PE routers (via MP-BGP).<br>BGP-VPN and EVPN-IFL routes imported using a VRF target configuration use the BGP preference value of 170 when imported from remote PE routers, or retain the protocol preference value of the exported route when imported from other VRFs in the same router.<br>Configured VRF import or export policies override the VRF target policy. |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## community *route-target*

| | |
|---|---|
| Synopsis | Extended BGP community |
| Context | **configure** service vprn *service-name* bgp-evpn segment-routing-v6 *number* vrf-target community *route-target* |
| Tree | community |
| Description | This command configures an extended BGP community in the form type:x:y. Type can only be target and x and y are 16-bit integers. |
| String length | 10 to 28 |
| Notes | The following elements are part of a choice: **community** or (**export-community** and **import-community**). |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## export-community *route-target*

| | |
|---|---|
| Synopsis | Communities sent to remote PE neighbors |
| Context | **configure** service vprn *service-name* bgp-evpn segment-routing-v6 *number* vrf-target export-community *route-target* |
| Tree | export-community |
| String length | 10 to 28 |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **community** or (**export-community** and **import-community**). |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **import-community** *route-target*

| | |
|---|---|
| Synopsis | Communities accepted from remote PE neighbors |
| Context | **configure** service vprn *service-name* bgp-evpn segment-routing-v6 *number* vrf-target import-community *route-target* |
| Tree | import-community |
| String length | 10 to 28 |
| Notes | The following elements are part of a choice: **community** or (**export-community** and **import-community**). |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **vxlan** [bgp-instance] *number*

| | |
|---|---|
| Synopsis | Enter the **vxlan** list instance |
| Context | **configure** service vprn *service-name* bgp-evpn vxlan *number* |
| Tree | vxlan |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### [**bgp-instance**] *number*

| | |
|---|---|
| Synopsis | BGP instance |
| Context | **configure** service vprn *service-name* bgp-evpn vxlan *number* |
| Tree | vxlan |
| Range | 1 |
| Notes | This element is part of a list key. |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the BGP EVPN VXLAN |
| Context | **configure** service vprn *service-name* bgp-evpn vxlan *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### **default-route-tag** *one-byte-value*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Default route tag |
| Context | **configure** service vprn *service-name* bgp-evpn vxlan *number* default-route-tag *one-byte-value* |
| Tree | default-route-tag |
| Description | This command configures a route tag that is used when sending a route to the BGP application (for the corresponding service and BGP instance). If the corresponding BGP instance is enabled, the command cannot be changed.<br>When used for BGP EVPN contexts, only one route tag can be passed to BGP for matching on export policies. In case of a conflict with other route tags pushed by EVPN, the default route tag has the least priority. |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### **domain-id** *domain-id*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Domain ID of received BGP route before readvertisement |
| Context | **configure** service vprn *service-name* bgp-evpn vxlan *number* domain-id *domain-id* |
| Tree | domain-id |


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Description This command specifies the D-PATH domain ID. The domain ID identifies the network from which the BGP route was received before the RTM advertises it to a different neighbor. The domain ID is part of a domain, represented as domain-id:isf_safi_type in the D-PATH attribute, as described in *draft-ietf-bess-evpn-ipvpn-interworking*. Gateway routers modify the D-PATH attribute. A gateway is a PE where a VPRN is instantiated. The VPRN in this case advertises or receives routes from multiple BGP owners (for example, EVPN-IFL and BGP-IPVPN) or multiple instances of the same owner (for example, VPRN with two BGP-IPVPN instances).

Gateways use the D-PATH attribute to detect loops (for received routes where the D-PATH contains a local domain ID) and to make BGP best-path selection decisions based on the D-PATH length (shorter D-PATH is preferred).

In the following example, suppose a gateway receives prefix P in an EVPN-IFL instance with the following D-PATH from neighbor N:

Seg Len=1 / 65000:1:128

If the router imports the route in VPRN-1, BGP-EVPN SRv6 instance with domain 65000:2, it readvertises it to its BGP-IPVPN MPLS instance as follows:

Seg Len=2 / 65000:2:70 / 65000:1:128

That is, the gateway prepends the local domain ID and family to the D-PATH before readvertising the route into a different instance.

Introduced 24.10.R1

Platforms 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s

## **evi** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

Synopsis EVPN instance ID

Context **configure** service vprn *service-name* bgp-evpn vxlan *number* evi *number*

Tree evi

Description This command configures the EVI that identifies the BGP EVPN instance in a VPRN (for the EVPN-IFL model) or an R-VPLS (for the EVPN-IFF model) that is associated with the Layer 3 Ethernet segment. This configuration is required on the PEs attached to the Ethernet segment and on the remote PEs that need to create ES destinations to the MH Layer 3 Ethernet segment.

Range 1 to 16777215

Introduced 24.10.R1

Platforms 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s


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## evpn-link-bandwidth

| | |
|---|---|
| Synopsis | Enter the **evpn-link-bandwidth** context |
| Context | **configure** service vprn *service-name* bgp-evpn vxlan *number* evpn-link-bandwidth |
| Tree | evpn-link-bandwidth |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

## advertise

| | |
|---|---|
| Synopsis | Enable the **advertise** context |
| Context | **configure** service vprn *service-name* bgp-evpn vxlan *number* evpn-link-bandwidth advertise |
| Tree | advertise |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

## max-dynamic-weight *number*

| | |
|---|---|
| Synopsis | Maximum dynamic weight of the route |
| Context | **configure** service vprn *service-name* bgp-evpn vxlan *number* evpn-link-bandwidth advertise max-dynamic-weight *number* |
| Tree | max-dynamic-weight |
| Description | This command configures the maximum weight advertised in the EVPN link bandwidth extended community for the advertised EVPN IP-Prefix routes for the service. The actual advertised weight is the minimum of the number of BGP PE-CE paths for the prefix and the configured maximum weight. |
| Range | 1 to 128 |
| Default | 128 |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

## weight *(number | keyword)*

| | |
|---|---|
| Synopsis | Weight of the route |
| Context | **configure** service vprn *service-name* bgp-evpn vxlan *number* evpn-link-bandwidth advertise weight *(number | keyword)* |


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| | |
|---|---|
| Tree | weight |
| Description | This command configures the weight advertised in the EVPN link bandwidth extended community for the advertised EVPN IP-Prefix routes for the service.<br>When the **dynamic** command option is configured, the weight is dynamically set based on the number of BGP PE-CE paths for the IP-Prefix that is advertised in an EVPN IP-Prefix route. |
| Range | 1 to 128 |
| Options | dynamic |
| Default | dynamic |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

## **weighted-ecmp** *boolean*

| | |
|---|---|
| Synopsis | Enable weighted ECMP |
| Context | **configure** service vprn *service-name* bgp-evpn vxlan *number* evpn-link-bandwidth weighted-ecmp *boolean* |
| Tree | weighted-ecmp |
| Description | When configured to **true**, the router supports the processing of the EVPN link bandwidth extended community when installing an ECMP set for an EVPN IP-Prefix route in the VPRN route table.<br>Flows to an IP Prefix received with a weight and a zero ESI value are sprayed according to the weight. If the EVPN IP-Prefix route received with the weight has a non-zero ESI, the weight is divided into the number of PEs attached to the Ethernet Segment (and rounded up if the result is not an integer).<br>The command also enables the weighted ECMP functionality for BGP CEs that are configured with an **evpn-link-bandwidth add-to-received-bgp** weight.<br>When configured to **false**, the router disables the processing of the EVPN link bandwidth extended community. |
| Default | false |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

## **route-distinguisher** *(string | keyword)*

| | |
|---|---|
| Synopsis | Route distinguisher |
| Context | **configure** service vprn *service-name* bgp-evpn vxlan *number* route-distinguisher *(string \| keyword)* |
| Tree | route-distinguisher |


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| | |
|---|---|
| Description | This command specifies a unique route distinguisher (RD) to be associated with each routing instance to identify the VPN to which the route belongs.<br>Alternatively, the system can automatically generate an RD based on the BGP automatic RD range configured at the **configure service system** level. |
| Options | auto-rd |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

## vrf-export

| | |
|---|---|
| Synopsis | Enable the **vrf-export** context |
| Context | **configure** service vprn *service-name* bgp-evpn vxlan *number* vrf-export |
| Tree | vrf-export |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

## policy *(policy-expr-string | string)*

| | |
|---|---|
| Synopsis | Policy name |
| Context | **configure** service vprn *service-name* bgp-evpn vxlan *number* vrf-export policy *(policy-expr-string \| string)* |
| Tree | policy |
| Description | This command configures VRF route policies that control routes between local VRFs and other VRFs on the same or remote PE routers (using MP-BGP).<br>Each referenced object is either a policy logical expression or the name of a single policy.<br>Only one referenced object can be a policy logical expression consisting of policy names (enclosed in square brackets) and logical operators (AND, OR, NOT). The objects are evaluated in the specified order to determine whether to accept or reject the route.<br>Only the first policy can have the maximum length and the rest can be up to 64 characters.<br>Aggregate routes are not advertised using MP-BGP protocols to the other MP-BGP peers. |
| String length | 1 to 255 |
| Max. instances | 15 |
| Min. instances | 1 |


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| | |
|---|---|
| Notes | This element is ordered by the user. |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

## vrf-import

| | |
|---|---|
| Synopsis | Enable the **vrf-import** context |
| Context | **configure** service vprn *service-name* bgp-evpn vxlan *number* vrf-import |
| Tree | vrf-import |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

## policy *(policy-expr-string | string)*

| | |
|---|---|
| Synopsis | Policy name |
| Context | **configure** service vprn *service-name* bgp-evpn vxlan *number* vrf-import policy *(policy-expr-string \| string)* |
| Tree | policy |
| Description | This command configures VRF route policies that control routes between local VRFs and other VRFs on the same or remote PE routers (using MP-BGP).<br>Each referenced object is either a policy logical expression or the name of a single policy.<br>Only one referenced object can be a policy logical expression consisting of policy names (enclosed in square brackets) and logical operators (AND, OR, NOT). The objects are evaluated in the specified order to determine whether to accept or reject the route.<br>Only the first policy can have the maximum length and the rest can be up to 64 characters.<br>Aggregate routes are not advertised using MP-BGP protocols to the other MP-BGP peers. |
| String length | 1 to 255 |
| Max. instances | 15 |
| Min. instances | 1 |
| Notes | This element is ordered by the user. |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |


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## vrf-target

| | |
|---|---|
| Synopsis | Enter the **vrf-target** context |
| Context | **configure** service vprn *service-name* bgp-evpn vxlan *number* vrf-target |
| Tree | vrf-target |
| Description | Commands in this context configure the route target that is added to advertised routes or compared against received routes from other VRFs on the same or remote PE routers (via MP-BGP).<br>BGP-VPN and EVPN-IFL routes imported using a VRF target configuration use the BGP preference value of 170 when imported from remote PE routers, or retain the protocol preference value of the exported route when imported from other VRFs in the same router.<br>Configured VRF import or export policies override the VRF target policy. |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

## community *route-target*

| | |
|---|---|
| Synopsis | Extended BGP community |
| Context | **configure** service vprn *service-name* bgp-evpn vxlan *number* vrf-target community *route-target* |
| Tree | community |
| Description | This command configures an extended BGP community in the form type:x:y. Type can only be target and x and y are 16-bit integers. |
| String length | 10 to 28 |
| Notes | The following elements are part of a choice: **community** or (**export-community** and **import-community**). |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

## export-community *route-target*

| | |
|---|---|
| Synopsis | Communities sent to remote PE neighbors |
| Context | **configure** service vprn *service-name* bgp-evpn vxlan *number* vrf-target export-community *route-target* |
| Tree | export-community |
| String length | 10 to 28 |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **community** or (**export-community** and **import-community**). |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

## **import-community** *route-target*

| | |
|---|---|
| Synopsis | Communities accepted from remote PE neighbors |
| Context | **configure** service vprn *service-name* bgp-evpn vxlan *number* vrf-target import-community *route-target* |
| Tree | import-community |
| String length | 10 to 28 |
| Notes | The following elements are part of a choice: **community** or (**export-community** and **import-community**). |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

## **vxlan-instance** *reference*

| | |
|---|---|
| Synopsis | VXLAN source instance |
| Context | **configure** service vprn *service-name* bgp-evpn vxlan *number* vxlan-instance *reference* |
| Tree | vxlan-instance |
| Description | This command associates the BGP-EVPN instance with the VXLAN instance configured in the VPRN service, which contains the ingress VNI for advertisement in the EVPN routes for the service. |
| Reference | **configure** service vprn *service-name* vxlan instance *number* |
| Notes | This element is mandatory. |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

## **bgp-ipvpn**

| | |
|---|---|
| Synopsis | Enter the **bgp-ipvpn** context |
| Context | **configure** service vprn *service-name* bgp-ipvpn |
| Tree | bgp-ipvpn |
| Introduced | 21.2.R1 |


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Platforms All

## attribute-set

Synopsis Enter the **attribute-set** context

Context **configure** service vprn *service-name* bgp-ipvpn attribute-set

Tree attribute-set

Description Commands in this context configure the handling of attribute set (ATTR_SET) attributes attached to VPN-IP routes imported into or exported from the VPRN.

ATTR_SET is an optional transitive BGP path attribute standardized by RFC 6368 that is added to BGP L3 VPN routes to provide logical separation between the BGP domain of a customer and the BGP domain of a service provider.

Introduced 23.10.R1

Platforms All

## export *boolean*

Synopsis Add ATTR_SET path attribute to exported VPN-IP routes

Context **configure** service vprn *service-name* bgp-ipvpn attribute-set export *boolean*

Tree export

Description When configured to **true**, the router adds an ATTR_SET path attribute to all VPN-IP routes that come from the VRF export of BGP routes advertised by PE-CE peers of the VPRN. This attribute contains an exact copy of all BGP path attributes (post-import policy) of the PE-CE BGP route, excluding the NEXT_HOP, MP_REACH, and MP_UNREACH attributes, as well as the AS4_PATH or AS4_AGGREGATOR attributes. The origin AS in the ATTR_SET encodes the ASN (or confederation ID, if configured) of the exporting VPRN service. Neither the VRF export policy nor a regular BGP export policy is allowed to modify the contents of the ATTR_SET.

When configured to **false**, the router does not add an ATTR_SET path attribute to VPN-IP routes exported by the VPRN. Nokia recommends configuring this command to **false**, unless there is a requirement for the VPRN to deliver an independent domain L3 VPN service.

Default false

Introduced 23.10.R1

Platforms All

## import *keyword*

Synopsis Reception behavior of ATTR_SET


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Context **configure** service vprn *service-name* bgp-ipvpn attribute-set import *keyword*

Tree import

Description This command configures the reception behavior for ATTR_SETs in received VPN-IP routes.

- **accept** — BGP accepts and processes ATTR_SETs in received unicast VPN-IP routes (MPLS or SRv6) when they are imported into the VPRN. The path attributes contained inside the ATTR_SET are used for best path selection within the VPRN, instead of the outer path attributes attached to the imported VPN-IP route. The path attributes inside the ATTR_SET determine the path attributes of BGP routes advertised to PE-CE peers of the VPRN. However, the ATTR_SET is removed at the time of advertisement. VPRN BGP routes with attributes derived from **accept** processing can only be advertised to EBGP peers and IBGP route reflector client peers. VPRN BGP routes cannot be advertised to BGP confederation peers. If the origin AS in the ATTR_SET attribute does not match the configured ASN, VPRN BGP routes with attributes derived from **accept** processing are advertised to IBGP peers that are not covered by a cluster configuration.
- **drop** — BGP ignores and silently discards ATTR_SETs in received VPN-IP routes when they are imported into the VPRN. The path attributes contained inside the ATTR_SET are not used for best path selection within the VPRN. If a VPRN is not involved in an independent domain L3 VPN service, Nokia recommends configuring this command to use the **drop** option.
- **ignore** — BGP ignores ATTR_SETs in received VPN-IP routes when they are imported into the VPRN. The path attributes contained inside the ATTR_SET are not used for best path selection within the VPRN. With the **ignore** option, the ATTR_SET attribute is transmitted unchanged to the CE. Nokia recommends not to configure this command to use the **ignore** option in most deployments.

Options ignore, accept, drop

Default ignore

Introduced 23.10.R1

Platforms All

## mpls

Synopsis Enter the **mpls** context

Context **configure** service vprn *service-name* bgp-ipvpn mpls

Tree mpls

Introduced 21.2.R1

Platforms All


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of BGP-IPVPN MPLS |
| Context | **configure** service vprn *service-name* bgp-ipvpn mpls admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.2.R1 |
| Platforms | All |

### **auto-bind-tunnel**

| | |
|---|---|
| Synopsis | Enter the **auto-bind-tunnel** context |
| Context | **configure** service vprn *service-name* bgp-ipvpn mpls auto-bind-tunnel |
| Tree | auto-bind-tunnel |
| Description | Commands in this context configure the automatic-binding options of a BGP-IPVPN service using tunnels to MP-BGP peers. |
| Introduced | 21.2.R1 |
| Platforms | All |

### **allow-flex-algo-fallback** *boolean*

| | |
|---|---|
| Synopsis | Enable flexible algorithm fallback |
| Context | **configure** service vprn *service-name* bgp-ipvpn mpls auto-bind-tunnel allow-flex-algo-fallback *boolean* |
| Tree | allow-flex-algo-fallback |
| Description | When configured to **true**, a BGP router with a Flex-Algorithm action configured (via the **configure policy-options policy-statement entry action flex-algo** command) can resolve to a tunnel with algorithm 0 if no target Flex-Algorithm tunnel is available**.**<br>When configured to **false**, the BGP router can resolve only to the intended Flex-Algorithm tunnel, which may cause traffic loss if no corresponding Flex-Algorithm tunnel is available. |
| Default | false |
| Introduced | 21.2.R1 |
| Platforms | All |


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### **ecmp** *number*

| | |
|---|---|
| Synopsis | Maximum ECMP routes allowed |
| Context | **configure** service vprn *service-name* bgp-ipvpn mpls auto-bind-tunnel ecmp *number* |
| Tree | ecmp |
| Description | This command configures the maximum number of tunnels that can be used as ECMP next hops for the VPRN. This value overrides the ECMP value configured at the **configure service vprn** context level. |
| Range | 1 to 32 |
| Default | 1 |
| Introduced | 21.2.R1 |
| Platforms | All |

### **enforce-strict-tunnel-tagging** *boolean*

| | |
|---|---|
| Synopsis | Allow enforcement of strict tunnel tagging |
| Context | **configure** service vprn *service-name* bgp-ipvpn mpls auto-bind-tunnel enforce-strict-tunnel-tagging *boolean* |
| Tree | enforce-strict-tunnel-tagging |
| Description | When configured to **true**, the system must only consider LSPs marked with an administrative tag for next-hop resolution.<br>When configured to **false**, tagged RSVP and SR-TE LSPs are considered first. The system then uses untagged LSPs of other types. |
| Default | false |
| Introduced | 21.2.R1 |
| Platforms | All |

### **enforce-untagged-route** *keyword*

| | |
|---|---|
| Synopsis | Untagged route type enforcement |
| Context | **configure** service vprn *service-name* bgp-ipvpn mpls auto-bind-tunnel enforce-untagged-route *keyword* |
| Tree | enforce-untagged-route |
| Description | This command configures the enforcement of BGP routes with no administrative tag policy applied by modifying the next-hop resolution behavior for autobind services.<br>If the **untagged-tunnel** option is configured, untagged routes only bind to LSPs with no administrative tag configured. If both tagged and untagged tunnels to the next hop exist, |


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the system only considers the untagged tunnels. If no untagged tunnels to the next hop exist, the resolution of untagged routes fails.

The **untagged-tunnel** option can be used in combination with the **enforce-strict-tunnel-tagging** command configured to **true**, in which case tagged routes resolve to tagged LSPs, and untagged routes only resolve to untagged LSPs.

When unconfigured, untagged routes can bind to tagged or untagged LSPs.

| | |
|---|---|
| Options | none – Untagged routes can bind to tagged or untagged LSPs<br>untagged-tunnel – Untagged routes only bind to LSPs without an admin tag |
| Default | none |
| Introduced | 24.10.R1 |
| Platforms | All |

## **resolution** *keyword*

| | |
|---|---|
| Synopsis | Resolution method for tunnel selection |
| Context | **configure** service vprn *service-name* bgp-ipvpn mpls auto-bind-tunnel resolution *keyword* |
| Tree | resolution |
| Options | none, filter, any |
| Default | none |
| Introduced | 21.2.R1 |
| Platforms | All |

## **resolution-filter**

| | |
|---|---|
| Synopsis | Enter the **resolution-filter** context |
| Context | **configure** service vprn *service-name* bgp-ipvpn mpls auto-bind-tunnel resolution-filter |
| Tree | resolution-filter |
| Description | Commands in this context configure the subset of tunnel types that can be used in the resolution of BGP-IPVPN routes within the automatic binding of the BGP-IPVPN MPLS service to tunnels to MP-BGP peers. |
| Introduced | 21.2.R1 |
| Platforms | All |

## **bgp** *boolean*

| | |
|---|---|
| Synopsis | Use BGP tunneling for next-hop resolution |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* bgp-ipvpn mpls auto-bind-tunnel resolution-filter bgp *boolean* |
| Tree | bgp |
| Description | When configured to **true**, BGP searches the BGP LSP for the address of the BGP next hop.<br>When configured to **false**, BGP tunneling is not used and inter-area or inter-as prefixes are not resolved. |
| Default | true |
| Introduced | 21.2.R1 |
| Platforms | All |

## **gre** *boolean*

| | |
|---|---|
| Synopsis | Use GRE tunneling for next-hop resolution |
| Context | **configure** service vprn *service-name* bgp-ipvpn mpls auto-bind-tunnel resolution-filter gre *boolean* |
| Tree | gre |
| Description | When configured to **true**, this command enables setting the tunnel type for the auto bind tunnel. |
| Default | false |
| Introduced | 21.2.R1 |
| Platforms | All |

## **ldp** *boolean*

| | |
|---|---|
| Synopsis | Use LDP tunneling for next-hop resolution |
| Context | **configure** service vprn *service-name* bgp-ipvpn mpls auto-bind-tunnel resolution-filter ldp *boolean* |
| Tree | ldp |
| Description | When configured to **true**, BGP searches for an LDP LSP with a FEC prefix corresponding to the address of the BGP next hop.<br>When configured to **false**, LDP tunneling is not used for next-hop resolution. |
| Default | false |
| Introduced | 21.2.R1 |
| Platforms | All |


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### **mpls-fwd-policy** *boolean*

| | |
|---|---|
| Synopsis | Use MPLS forwarding policy for next-hop resolution |
| Context | **configure** service vprn *service-name* bgp-ipvpn mpls auto-bind-tunnel resolution-filter mpls-fwd-policy *boolean* |
| Tree | mpls-fwd-policy |
| Description | When configured to **true**, BGP uses the MPLS forwarding policy to determine the address of the BGP next hop.<br>When configured to **false**, the MPLS forwarding policy is not used for next-hop resolution. |
| Default | false |
| Introduced | 21.2.R1 |
| Platforms | All |

### **rib-api** *boolean*

| | |
|---|---|
| Synopsis | Use RIB API gRPC service for next-hop resolution |
| Context | **configure** service vprn *service-name* bgp-ipvpn mpls auto-bind-tunnel resolution-filter rib-api *boolean* |
| Tree | rib-api |
| Description | When configured to **true**, BGP uses tunnels programmed using the RIB API gRPC service to resolve the next hops of routes imported into the EVPN service.<br>When configured to **false**, the RIB API service tunnels are not used for next-hop resolution. |
| Default | false |
| Introduced | 21.2.R1 |
| Platforms | All |

### **rsvp** *boolean*

| | |
|---|---|
| Synopsis | Use RSVP tunneling for next-hop resolution |
| Context | **configure** service vprn *service-name* bgp-ipvpn mpls auto-bind-tunnel resolution-filter rsvp *boolean* |
| Tree | rsvp |
| Description | When configured to **true**, BGP searches the best metric RSVP LSP to determine the address of the BGP next hop. This address can correspond to the system interface or to another loopback interface used by the BGP instance on the remote node. The LSP |


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metric is provided by MPLS in the tunnel table. In the case of multiple RSVP LSPs with the same lowest metric, BGP selects the LSP with the lowest tunnel ID.

When configured to **false**, the RSVP LSP is not used for next-hop resolution.

| | |
|---|---|
| Default | false |
| Introduced | 21.2.R1 |
| Platforms | All |

### **sr-isis** *boolean*

| | |
|---|---|
| Synopsis | Use IS-IS SR tunneling for next-hop resolution |
| Context | **configure** service vprn *service-name* bgp-ipvpn mpls auto-bind-tunnel resolution-filter sr-isis *boolean* |
| Tree | sr-isis |
| Description | When configured to **true**, BGP uses an IS-IS tunnel type to determine the address of the BGP next hop.<br>The SR tunnel to the BGP next hop is selected in the TTM from the lowest-numbered IS-IS instance.<br>When configured to **false**, IS-IS tunneling is not used for next-hop resolution. |
| Default | false |
| Introduced | 21.2.R1 |
| Platforms | All |

### **sr-ospf** *boolean*

| | |
|---|---|
| Synopsis | Use OSPF SR tunneling for next-hop resolution |
| Context | **configure** service vprn *service-name* bgp-ipvpn mpls auto-bind-tunnel resolution-filter sr-ospf *boolean* |
| Tree | sr-ospf |
| Description | When configured to **true**, BGP uses an OSPF tunnel type to determine the address of the BGP next hop.<br>The SR tunnel to the BGP next hop is selected in the TTM from the lowest-numbered OSPF instance.<br>When configured to **false**, OSPF tunneling is not used for next-hop resolution. |
| Default | false |
| Introduced | 21.2.R1 |
| Platforms | All |


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### **sr-ospf3** *boolean*

| | |
|---|---|
| Synopsis | Use OSPFv3 SR tunneling for next-hop resolution |
| Context | **configure** service vprn *service-name* bgp-ipvpn mpls auto-bind-tunnel resolution-filter sr-ospf3 *boolean* |
| Tree | sr-ospf3 |
| Description | When configured to **true**, BGP uses an OSPFv3 tunnel type to determine the address of the BGP next hop.<br>The SR tunnel to the BGP next hop is selected in the TTM from the lowest-numbered OSPFv3 instance.<br>When configured to **false**, OSPFv3 tunneling is not used for next-hop resolution. |
| Default | false |
| Introduced | 21.2.R1 |
| Platforms | All |

### **sr-policy** *boolean*

| | |
|---|---|
| Synopsis | Use SR policies for next-hop resolution |
| Context | **configure** service vprn *service-name* bgp-ipvpn mpls auto-bind-tunnel resolution-filter sr-policy *boolean* |
| Tree | sr-policy |
| Description | When configured to **true**, SR policies are used to determine the address of the BGP next hop.<br>The SR policy search criteria includes a non-null endpoint and color value that matches the BGP next hop and color extended community value, respectively, of the EVPN route.<br>When configured to **false**, SR policies are not used for next-hop resolution. |
| Default | false |
| Introduced | 21.2.R1 |
| Platforms | All |

### **sr-te** *boolean*

| | |
|---|---|
| Synopsis | Use SR-TE tunneling for next-hop resolution |
| Context | **configure** service vprn *service-name* bgp-ipvpn mpls auto-bind-tunnel resolution-filter sr-te *boolean* |
| Tree | sr-te |
| Description | When configured to **true**, BGP uses an SR-TE tunnel type to determine the address of the BGP next hop. |


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The SR tunnel to the BGP next hop is selected in the TTM from the lowest-numbered tunnel ID.

When configured to **false**, SR-TE tunneling is not used for next-hop resolution.

| | |
|---|---|
| Default | false |
| Introduced | 21.2.R1 |
| Platforms | All |

## **udp** *boolean*

| | |
|---|---|
| Synopsis | Use MPLS over UDP tunneling for next-hop resolution |
| Context | **configure** service vprn *service-name* bgp-ipvpn mpls auto-bind-tunnel resolution-filter udp *boolean* |
| Tree | udp |
| Description | When configured to **true**, BGP uses an MPLS over UDP tunnel type to determine the address of the BGP next hop.<br>When configured to **false**, MPLS over UDP tunneling is not used for next-hop resolution. |
| Default | false |
| Introduced | 21.2.R1 |
| Platforms | All |

## **static-blackhole-first** *boolean*

| | |
|---|---|
| Synopsis | Check for static blackhole route to resolve next hop |
| Context | **configure** service vprn *service-name* bgp-ipvpn mpls auto-bind-tunnel static-blackhole-first *boolean* |
| Tree | static-blackhole-first |
| Description | When configured to **true**, the router uses a modified next-hop resolution sequence for each imported VPN-IP route. The router first checks for a static route in the Base routing table that matches the BGP next-hop address. If at least one such static route exists, and the route that is the longest match of the BGP next-hop address is a blackhole static route, the router resolves the VPN-IP route and programs it into the VPRN IP FIB table with a next-hop action that discards all matching packets. If there is no matching static route, or the longest matching static route is not a blackhole, the router resolves the VPN-IP route in the Base routing table as normal, that is, according to the configured VPRN auto-bind filter options.<br>When configured to **false**, the router resolves the VPN-IP route in the Base routing table according to the configured VPRN auto-bind filter options. |
| Default | false |
| Introduced | 24.10.R1 |


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Platforms All

## **weighted-ecmp** *boolean*

Synopsis Allow weighted load-balancing

Context **configure** service vprn *service-name* bgp-ipvpn mpls auto-bind-tunnel weighted-ecmp *boolean*

Tree weighted-ecmp

Description When configured to **true**, this command enables weighted ECMP for packets using tunnels that a VPRN automatically binds to. Packets are sprayed across LSPs in the ECMP according to the outcome of the hash algorithm and the configured load balancing weight of each LSP.

When configured to **false**, this command disables weighted ECMP for next-hop tunnel selection.

Default false

Introduced 21.2.R1

Platforms All

## **domain-id** *domain-id*

Synopsis Domain ID of received BGP route before readvertisement

Context **configure** service vprn *service-name* bgp-ipvpn mpls domain-id *domain-id*

Tree domain-id

Description This command specifies the D-PATH domain ID. The domain ID identifies the network from which the BGP route was received before the RTM advertises it to a different neighbor. The domain ID is part of a domain, represented as domain-id:isf_safi_type in the D-PATH attribute, as described in *draft-ietf-bess-evpn-ipvpn-interworking*. Gateway routers modify the D-PATH attribute. A gateway is a PE where a VPRN is instantiated. The VPRN in this case advertises or receives routes from multiple BGP owners (for example, EVPN-IFL and BGP-IPVPN) or multiple instances of the same owner (for example, VPRN with two BGP-IPVPN instances).

Gateways use the D-PATH attribute to detect loops (for received routes where the D-PATH contains a local domain ID) and to make BGP best-path selection decisions based on the D-PATH length (shorter D-PATH is preferred).

In the following example, suppose a gateway receives prefix P in an EVPN-IFL instance with the following D-PATH from neighbor N:

Seg Len=1 / 65000:1:128

If the router imports the route in VPRN-1, BGP-EVPN SRv6 instance with domain 65000:2, it readvertises it to its BGP-IPVPN MPLS instance as follows:

Seg Len=2 / 65000:2:70 / 65000:1:128


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That is, the gateway prepends the local domain ID and family to the D-PATH before readvertising the route into a different instance.

Introduced 21.10.R1

Platforms All

## **dynamic-egress-label-limit** *boolean*

Synopsis Enables dynamic egress label limit

Context **configure** service vprn *service-name* bgp-ipvpn mpls dynamic-egress-label-limit *boolean*

Tree dynamic-egress-label-limit

Description When configured to **true**, this command relaxes the egress MPLS label limit check when resolving BGP next hops in the tunnel table.

For VPRN services, the OAM label is never computed and, therefore, one more egress label is allowed.

For EVPN (Epipe and VPLS) services, the system only computes the control word and ESI label if they are used. For the control word, the system reduces the egress label limit by one label if the control word is configured in the service. When configured, the ESI label is not counted for Epipes or VPLS services without an ES.

When configured to **false** this command, for EVPN, Epipe, and VPLS services, always accounts for the ESI label and control word.

Default false

Introduced 22.2.R1

Platforms All

## **route-distinguisher** *(string | keyword)*

Synopsis Route distinguisher

Context **configure** service vprn *service-name* bgp-ipvpn mpls route-distinguisher *(string | keyword)*

Tree route-distinguisher

Description This command specifies a unique route distinguisher (RD) to be associated with each routing instance to identify which VPN the route belongs to.

Options auto-rd

Introduced 21.2.R1

Platforms All


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## vrf-export

| | |
|---|---|
| Synopsis | Enable the **vrf-export** context |
| Context | **configure** service vprn *service-name* bgp-ipvpn mpls vrf-export |
| Tree | vrf-export |
| Description | Commands in this context specify route policies that control how routes are exported from the local VRF to other VRFs on the same or remote PE routers (via MP-BGP).<br>Aggregate routes are not advertised via MP-BGP protocols to other MP-BGP peers.<br>Route policies are configured in the **configure policy-options** context. |
| Introduced | 21.2.R1 |
| Platforms | All |

## policy *(policy-expr-string | string)*

| | |
|---|---|
| Synopsis | Policy name |
| Context | **configure** service vprn *service-name* bgp-ipvpn mpls vrf-export policy *(policy-expr-string \| string)* |
| Tree | policy |
| Description | This command configures VRF route policies that control routes between local VRFs and other VRFs on the same or remote PE routers (using MP-BGP).<br>Each referenced object is either a policy logical expression or the name of a single policy.<br>Only one referenced object can be a policy logical expression consisting of policy names (enclosed in square brackets) and logical operators (AND, OR, NOT). The objects are evaluated in the specified order to determine whether to accept or reject the route.<br>Only the first policy can have the maximum length and the rest can be up to 64 characters.<br>Aggregate routes are not advertised using MP-BGP protocols to the other MP-BGP peers. |
| String length | 1 to 255 |
| Max. instances | 15 |
| Min. instances | 1 |
| Notes | This element is ordered by the user. |
| Introduced | 21.2.R1 |
| Platforms | All |


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## vrf-import

| | |
|---|---|
| Synopsis | Enable the **vrf-import** context |
| Context | **configure** service vprn *service-name* bgp-ipvpn mpls vrf-import |
| Tree | vrf-import |
| Description | Commands in this context specify route policies that control how VPN-IP and EVPN-IFL routes that are exported by other VRFs on the same or remote PEs, are imported into the local VRF.<br>Route policies are configured in the **configure policy-options** context.<br>Unless the preference value is changed by the policy, the preference value for BGP-VPN and EVPN-IFL routes specified in this context is set to 170 when imported from remote PE routers, or the value is retained from the protocol preference value of the exported route when imported from other VRFs on the same router. |
| Introduced | 21.2.R1 |
| Platforms | All |

## policy *(policy-expr-string | string)*

| | |
|---|---|
| Synopsis | Policy name |
| Context | **configure** service vprn *service-name* bgp-ipvpn mpls vrf-import policy *(policy-expr-string \| string)* |
| Tree | policy |
| Description | This command configures VRF route policies that control routes between local VRFs and other VRFs on the same or remote PE routers (using MP-BGP).<br>Each referenced object is either a policy logical expression or the name of a single policy.<br>Only one referenced object can be a policy logical expression consisting of policy names (enclosed in square brackets) and logical operators (AND, OR, NOT). The objects are evaluated in the specified order to determine whether to accept or reject the route.<br>Only the first policy can have the maximum length and the rest can be up to 64 characters.<br>Aggregate routes are not advertised using MP-BGP protocols to the other MP-BGP peers. |
| String length | 1 to 255 |
| Max. instances | 15 |
| Min. instances | 1 |
| Notes | This element is ordered by the user. |


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| | |
|---|---|
| Introduced | 21.2.R1 |
| Platforms | All |

## vrf-target

| | |
|---|---|
| Synopsis | Enter the **vrf-target** context |
| Context | **configure** service vprn *service-name* bgp-ipvpn mpls vrf-target |
| Tree | vrf-target |
| Description | Commands in this context configure the route target that is added to advertised routes or compared against received routes from other VRFs on the same or remote PE routers (via MP-BGP).<br>BGP-VPN and EVPN-IFL routes imported using a VRF target configuration use the BGP preference value of 170 when imported from remote PE routers, or retain the protocol preference value of the exported route when imported from other VRFs in the same router.<br>Configured VRF import or export policies override the VRF target policy. |
| Introduced | 21.2.R1 |
| Platforms | All |

## community *route-target*

| | |
|---|---|
| Synopsis | Extended BGP community |
| Context | **configure** service vprn *service-name* bgp-ipvpn mpls vrf-target community *route-target* |
| Tree | community |
| Description | This command configures an extended BGP community in the form type:x:y. Type can only be target and x and y are 16-bit integers. |
| String length | 10 to 28 |
| Notes | The following elements are part of a choice: **community** or (**export-community** and **import-community**). |
| Introduced | 21.2.R1 |
| Platforms | All |

## export-community *route-target*

| | |
|---|---|
| Synopsis | Communities sent to remote PE neighbors |
| Context | **configure** service vprn *service-name* bgp-ipvpn mpls vrf-target export-community *route-target* |


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| | |
|---|---|
| Tree | export-community |
| String length | 10 to 28 |
| Notes | The following elements are part of a choice: **community** or (**export-community** and **import-community**). |
| Introduced | 21.2.R1 |
| Platforms | All |

### **import-community** *route-target*

| | |
|---|---|
| Synopsis | Communities accepted from remote PE neighbors |
| Context | **configure** service vprn *service-name* bgp-ipvpn mpls vrf-target import-community *route-target* |
| Tree | import-community |
| String length | 10 to 28 |
| Notes | The following elements are part of a choice: **community** or (**export-community** and **import-community**). |
| Introduced | 21.2.R1 |
| Platforms | All |

### **segment-routing-v6** [bgp-instance] *number*

| | |
|---|---|
| Synopsis | Enter the **segment-routing-v6** list instance |
| Context | **configure** service vprn *service-name* bgp-ipvpn segment-routing-v6 *number* |
| Tree | segment-routing-v6 |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### [**bgp-instance**] *number*

| | |
|---|---|
| Synopsis | BGP instance |
| Context | **configure** service vprn *service-name* bgp-ipvpn segment-routing-v6 *number* |
| Tree | segment-routing-v6 |
| Range | 1 to 2 |
| Notes | This element is part of a list key. |
| Introduced | 21.5.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of segment routing over IPv6 |
| Context | **configure** service vprn *service-name* bgp-ipvpn segment-routing-v6 *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **default-route-tag** *one-byte-value*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Default route tag |
| Context | **configure** service vprn *service-name* bgp-ipvpn segment-routing-v6 *number* default-route-tag *one-byte-value* |
| Tree | default-route-tag |
| Description | This command configures a route tag that is used when sending a route to the BGP application (for the corresponding service and BGP instance). If the corresponding BGP instance is enabled, the command cannot be changed.<br><br>When used for BGP EVPN contexts, only one route tag can be passed to BGP for matching on export policies. In case of a conflict with other route tags pushed by EVPN, the default route tag has the least priority. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **domain-id** *domain-id*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Domain ID of received BGP route before readvertisement |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* bgp-ipvpn segment-routing-v6 *number* domain-id *domain-id* |
| Tree | domain-id |
| Description | This command specifies the D-PATH domain ID. The domain ID identifies the network from which the BGP route was received before the RTM advertises it to a different neighbor. The domain ID is part of a domain, represented as domain-id:isf_safi_type in the D-PATH attribute, as described in *draft-ietf-bess-evpn-ipvpn-interworking*. Gateway routers modify the D-PATH attribute. A gateway is a PE where a VPRN is instantiated. The VPRN in this case advertises or receives routes from multiple BGP owners (for example, EVPN-IFL and BGP-IPVPN) or multiple instances of the same owner (for example, VPRN with two BGP-IPVPN instances).<br><br>Gateways use the D-PATH attribute to detect loops (for received routes where the D-PATH contains a local domain ID) and to make BGP best-path selection decisions based on the D-PATH length (shorter D-PATH is preferred).<br><br>In the following example, suppose a gateway receives prefix P in an EVPN-IFL instance with the following D-PATH from neighbor N:<br><br>Seg Len=1 / 65000:1:128<br><br>If the router imports the route in VPRN-1, BGP-EVPN SRv6 instance with domain 65000:2, it readvertises it to its BGP-IPVPN MPLS instance as follows:<br><br>Seg Len=2 / 65000:2:70 / 65000:1:128<br><br>That is, the gateway prepends the local domain ID and family to the D-PATH before readvertising the route into a different instance. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **resolution** *keyword*

| | |
|---|---|
| Synopsis | Resolution options for routes |
| Context | **configure** service vprn *service-name* bgp-ipvpn segment-routing-v6 *number* resolution *keyword* |
| Tree | resolution |
| Options | route-table, tunnel-table, fallback-tunnel-to-route-table |
| Default | route-table |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **route-distinguisher** *(string | keyword)*

| | |
|---|---|
| Synopsis | Route distinguisher |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* bgp-ipvpn segment-routing-v6 *number* route-distinguisher *(string \| keyword)* |
| Tree | route-distinguisher |
| Description | This command specifies a unique route distinguisher (RD) to be associated with each routing instance to identify the VPN to which the route belongs.<br>Alternatively, the system can automatically generate an RD based on the BGP automatic RD range configured at the **configure service system** level. |
| Options | auto-rd |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **source-address** *ipv6-unicast-address*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Source IPv6 address |
| Context | **configure** service vprn *service-name* bgp-ipvpn segment-routing-v6 *number* source-address *ipv6-unicast-address* |
| Tree | source-address |
| Description | When configured, this command specifies the source IPv6 address used in the SA field of the outer IPv6 header of the SRv6 encapsulated packet.<br>When not configured, the source IPv6 address is inherited from the configuration of the global default address in the **router "base" segment-routing segment-routing-v6 source-address** context.<br>A source IPv6 address must be configured in this context or in the base router context.<br>The system does not check if the address entered is a valid local address. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## srv6

| | |
|---|---|
| Synopsis | Enter the **srv6** context |
| Context | **configure** service vprn *service-name* bgp-ipvpn segment-routing-v6 *number* srv6 |
| Tree | srv6 |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |


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## **default-locator** *string*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Default route locator |
| Context | **configure** service vprn *service-name* bgp-ipvpn segment-routing-v6 *number* srv6 default-locator *string* |
| Tree | default-locator |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **instance** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Segment Routing IPv6 instance |
| Context | **configure** service vprn *service-name* bgp-ipvpn segment-routing-v6 *number* srv6 instance *reference* |
| Tree | instance |
| Reference | **configure** service vprn *service-name* segment-routing-v6 *number* |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **upa-trigger**

| | |
|---|---|
| Synopsis | Enter the **upa-trigger** context |
| Context | **configure** service vprn *service-name* bgp-ipvpn segment-routing-v6 *number* upa-trigger |
| Tree | upa-trigger |
| Description | Commands in this context configure the UPA trigger handling for the next hop. |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |


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### **next-hop** *keyword*

| | |
|---|---|
| Synopsis | Action taken when an UPA is received for a next hop |
| Context | **configure** service vprn *service-name* bgp-ipvpn segment-routing-v6 *number* upa-trigger next-hop *keyword* |
| Tree | next-hop |
| Description | This command specifies the action the router takes when checking the Network Layer Reachability Information (NLRI) next hop in the routing table for a matching UPA entry using the longest prefix match (LPM). |
| Options | frr – Enable BGP FRR when UPA is received |
| Introduced | 24.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **vrf-export**

| | |
|---|---|
| Synopsis | Enable the **vrf-export** context |
| Context | **configure** service vprn *service-name* bgp-ipvpn segment-routing-v6 *number* vrf-export |
| Tree | vrf-export |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **policy** *(policy-expr-string | string)*

| | |
|---|---|
| Synopsis | Policy name |
| Context | **configure** service vprn *service-name* bgp-ipvpn segment-routing-v6 *number* vrf-export policy *(policy-expr-string | string)* |
| Tree | policy |
| Description | This command configures VRF route policies that control routes between local VRFs and other VRFs on the same or remote PE routers (using MP-BGP).<br>Each referenced object is either a policy logical expression or the name of a single policy.<br>Only one referenced object can be a policy logical expression consisting of policy names (enclosed in square brackets) and logical operators (AND, OR, NOT). The objects are evaluated in the specified order to determine whether to accept or reject the route.<br>Only the first policy can have the maximum length and the rest can be up to 64 characters.<br>Aggregate routes are not advertised using MP-BGP protocols to the other MP-BGP peers. |


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| | |
|---|---|
| String length | 1 to 255 |
| Max. instances | 15 |
| Min. instances | 1 |
| Notes | This element is ordered by the user. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## vrf-import

| | |
|---|---|
| Synopsis | Enable the **vrf-import** context |
| Context | **configure** service vprn *service-name* bgp-ipvpn segment-routing-v6 *number* vrf-import |
| Tree | vrf-import |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## policy *(policy-expr-string | string)*

| | |
|---|---|
| Synopsis | Policy name |
| Context | **configure** service vprn *service-name* bgp-ipvpn segment-routing-v6 *number* vrf-import policy *(policy-expr-string \| string)* |
| Tree | policy |
| Description | This command configures VRF route policies that control routes between local VRFs and other VRFs on the same or remote PE routers (using MP-BGP).<br>Each referenced object is either a policy logical expression or the name of a single policy.<br>Only one referenced object can be a policy logical expression consisting of policy names (enclosed in square brackets) and logical operators (AND, OR, NOT). The objects are evaluated in the specified order to determine whether to accept or reject the route.<br>Only the first policy can have the maximum length and the rest can be up to 64 characters.<br>Aggregate routes are not advertised using MP-BGP protocols to the other MP-BGP peers. |
| String length | 1 to 255 |
| Max. instances | 15 |


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| | |
|---|---|
| Min. instances | 1 |
| Notes | This element is ordered by the user. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## vrf-target

| | |
|---|---|
| Synopsis | Enter the **vrf-target** context |
| Context | **configure** service vprn *service-name* bgp-ipvpn segment-routing-v6 *number* vrf-target |
| Tree | vrf-target |
| Description | Commands in this context configure the route target that is added to advertised routes or compared against received routes from other VRFs on the same or remote PE routers (via MP-BGP).<br>BGP-VPN and EVPN-IFL routes imported using a VRF target configuration use the BGP preference value of 170 when imported from remote PE routers, or retain the protocol preference value of the exported route when imported from other VRFs in the same router.<br>Configured VRF import or export policies override the VRF target policy. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## community *route-target*

| | |
|---|---|
| Synopsis | Extended BGP community |
| Context | **configure** service vprn *service-name* bgp-ipvpn segment-routing-v6 *number* vrf-target community *route-target* |
| Tree | community |
| Description | This command configures an extended BGP community in the form type:x:y. Type can only be target and x and y are 16-bit integers. |
| String length | 10 to 28 |
| Notes | The following elements are part of a choice: **community** or (**export-community** and **import-community**). |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |


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### **export-community** *route-target*

| | |
|---|---|
| Synopsis | Communities sent to remote PE neighbors |
| Context | **configure** service vprn *service-name* bgp-ipvpn segment-routing-v6 *number* vrf-target export-community *route-target* |
| Tree | export-community |
| String length | 10 to 28 |
| Notes | The following elements are part of a choice: **community** or (**export-community** and **import-community**). |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **import-community** *route-target*

| | |
|---|---|
| Synopsis | Communities accepted from remote PE neighbors |
| Context | **configure** service vprn *service-name* bgp-ipvpn segment-routing-v6 *number* vrf-target import-community *route-target* |
| Tree | import-community |
| String length | 10 to 28 |
| Notes | The following elements are part of a choice: **community** or (**export-community** and **import-community**). |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **bgp-shared-queue**

| | |
|---|---|
| Synopsis | Enable the **bgp-shared-queue** context |
| Context | **configure** service vprn *service-name* bgp-shared-queue |
| Tree | bgp-shared-queue |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cir** *(number | keyword)*

| | |
|---|---|
| Synopsis | Committed information rate for shared queue |
| Context | **configure** service vprn *service-name* bgp-shared-queue cir *(number | keyword)* |


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| | |
|---|---|
| Tree | cir |
| Range | 0 to 100000000 |
| Units | kilobps |
| Options | max |
| Default | 4000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | Peak information rate for shared queue |
| Context | **configure** service vprn *service-name* bgp-shared-queue pir *(number | keyword)* |
| Tree | pir |
| Range | 1 to 100000000 |
| Units | kilobps |
| Options | max |
| Default | 4000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bgp-vpn-backup**

| | |
|---|---|
| Synopsis | Enter the **bgp-vpn-backup** context |
| Context | **configure** service vprn *service-name* bgp-vpn-backup |
| Tree | bgp-vpn-backup |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv4** *boolean*

| | |
|---|---|
| Synopsis | Allow BGP-VPN to be used as backup for IPv4 prefixes |
| Context | **configure** service vprn *service-name* bgp-vpn-backup ipv4 *boolean* |
| Tree | ipv4 |
| Default | false |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **ipv6** *boolean*

| | |
|---|---|
| Synopsis | Allow BGP-VPN to be used as backup for IPv6 prefixes |
| Context | **configure** service vprn *service-name* bgp-vpn-backup ipv6 *boolean* |
| Tree | ipv6 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **carrier-carrier-vpn** *boolean*

| | |
|---|---|
| Synopsis | Allow VPRN service to support a Carrier Supporting Carrier model |
| Context | **configure** service vprn *service-name* carrier-carrier-vpn *boolean* |
| Tree | carrier-carrier-vpn |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **class-forwarding** *boolean*

| | |
|---|---|
| Synopsis | Allow packet forwarding based on forwarding class |
| Context | **configure** service vprn *service-name* class-forwarding *boolean* |
| Tree | class-forwarding |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **confederation**

| | |
|---|---|
| Synopsis | Enter the **confederation** context |
| Context | **configure** service vprn *service-name* confederation |
| Tree | confederation |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **confed-as-num** *number*

| | |
|---|---|
| Synopsis | Confederation number within an autonomous system |
| Context | **configure** service vprn *service-name* confederation confed-as-num *number* |
| Tree | confed-as-num |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **members** [as-number] *number*

| | |
|---|---|
| Synopsis | Add a list entry for **members** |
| Context | **configure** service vprn *service-name* confederation members *number* |
| Tree | members |
| Max. instances | 256 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**as-number**] *number*

| | |
|---|---|
| Synopsis | Confederation AS number |
| Context | **configure** service vprn *service-name* confederation members *number* |
| Tree | members |
| Range | 1 to 4294967295 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **customer** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Service customer ID |
| Context | **configure** service vprn *service-name* customer *reference* |
| Tree | customer |
| Reference | **configure** service customer *customer-name* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **d-path-length-ignore** *boolean*

| | |
|---|---|
| Synopsis | Enable D-PATH length ignore |
| Context | **configure** service vprn *service-name* d-path-length-ignore *boolean* |
| Tree | d-path-length-ignore |
| Description | When configured to **true**, the VPRN RTM ignores the D-PATH domain segment length for best path selection purposes (for routes in the VPRN). This allows the user to control whether the RTM considers the D-PATH length when comparing two VPN routes with different RDs.<br>When configured to **false**, the router does not ignore the D-PATH domain segment length. |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | All |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |


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## dhcp-server

| | |
|---|---|
| Synopsis | Enter the **dhcp-server** context |
| Context | **configure** service vprn *service-name* dhcp-server |
| Tree | dhcp-server |
| Introduced | 16.0.R1 |
| Platforms | All |

## dhcpv4 [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **dhcpv4** list instance |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* |
| Tree | dhcpv4 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## [**name**] *named-item*

| | |
|---|---|
| Synopsis | DHCP server name |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* |
| Tree | dhcpv4 |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the DHCP server |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **failover**

| | |
|---|---|
| Synopsis | Enter the **failover** context |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* failover |
| Tree | failover |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the failover mechanism |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* failover admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ignore-mclt-on-takeover** *boolean*

| | |
|---|---|
| Synopsis | Ignore maximum client lead during takeover from partner |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* failover ignore-mclt-on-takeover *boolean* |


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| | |
|---|---|
| Tree | ignore-mclt-on-takeover |
| Description | When configured to **true**, the remote IP address range can be taken over immediately when the intercommunication link enters the PARTNER-DOWN state, without having to wait for the MCLT to expire.<br>When configured to **false**, the DHCP lease time for new clients is restricted to the MCLT during a failure. For existing clients, the lease time is gradually reduced over time to the MCLT by consecutive DHCP renewals. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **maximum-client-lead-time** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum time that DHCP server can extend client's lease |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* failover maximum-client-lead-time *number* |
| Tree | maximum-client-lead-time |
| Description | This command configures the maximum client lead time (MCLT), which is the maximum time that a DHCP server can extend the client's lease time beyond the lease time currently known by the DHCP partner node. In dual-homed environments, the initial lease time for all DHCP clients is restricted to the MCLT by default. Consecutive DHCP renewals can extend the lease time beyond the MCLT. |
| Range | 600 to 86399 |
| Units | seconds |
| Default | 600 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **partner-down-delay** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Delay to prevent lease duplication during link failure |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* failover partner-down-delay *number* |
| Tree | partner-down-delay |
| Description | This command configures the interval before a failed intercommunication link transitions from the COMM-INT state to the PARTNER-DOWN state. This delay prevents IP lease duplication during link failure by not allowing new IP addresses to be assigned from the remote IP address range. This timer is intended to provide the operator with enough time to remedy the failed situation and avoid duplication of IP addresses and prefixes during the failure. |
| Range | 0 to 86399 |
| Units | seconds |
| Default | 86399 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **peer** [address] *reference*

| | |
|---|---|
| Synopsis | Enter the **peer** list instance |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* failover peer *reference* |
| Tree | peer |
| Max. instances | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## [**address**] *reference*

| | |
|---|---|
| Synopsis | IP address of the failover peer |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* failover peer *reference* |
| Tree | peer |
| Reference | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **sync-tag** *named-item*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Tag that identifies synchronizing server or pool pairs |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* failover peer *reference* sync-tag *named-item* |
| Tree | sync-tag |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **startup-wait-time** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Time between initialization and assuming active role |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* failover startup-wait-time *number* |
| Tree | startup-wait-time |
| Description | This command configures a delay that avoids transient issues during the initialization process. During startup wait time, each failover peer waits after the initialization process before assuming the active role for the prefix designated as local or remote. |
| Range | 60 to 3600 |
| Units | seconds |
| Default | 120 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **force-renews** *boolean*

| | |
|---|---|
| Synopsis | Send FORCERENEW messages to force renewals of leases |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* force-renews *boolean* |
| Tree | force-renews |
| Description | When configured to **true**, FORCERENEW messages are enabled for DHCP. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## lease-hold

| | |
|---|---|
| Synopsis | Enter the **lease-hold** context |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* lease-hold |
| Tree | lease-hold |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## additional-scenarios

| | |
|---|---|
| Synopsis | Enter the **additional-scenarios** context |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* lease-hold additional-scenarios |
| Tree | additional-scenarios |
| Description | Commands in this context configure additional types of leases or triggers that cause the system to hold up leases. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## internal-lease-ipsec *boolean*

| | |
|---|---|
| Synopsis | Apply the lease hold timer to local IPsec clients |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* lease-hold additional-scenarios internal-lease-ipsec *boolean* |
| Tree | internal-lease-ipsec |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **solicited-release** *boolean*

| | |
|---|---|
| Synopsis | Apply lease hold timer for solicited releases |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* lease-hold additional-scenarios solicited-release *boolean* |
| Tree | solicited-release |
| Description | This command enables the server to hold up a lease even for a solicited release, for example, when the server receives a normal DHCP release message. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **time** *number*

| | |
|---|---|
| Synopsis | Lease hold time |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* lease-hold time *number* |
| Tree | time |
| Range | 1 to 631152000 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **pool** [pool-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **pool** list instance |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* pool *named-item* |
| Tree | pool |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**pool-name**] *named-item*

| | |
|---|---|
| Synopsis | DHCP server pool name |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* pool *named-item* |
| Tree | pool |


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| | |
|---|---|
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* pool *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **failover**

| | |
|---|---|
| Synopsis | Enter the **failover** context |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* pool *named-item* failover |
| Tree | failover |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the failover mechanism |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* pool *named-item* failover admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **ignore-mclt-on-takeover** *boolean*

| | |
|---|---|
| Synopsis | Ignore maximum client lead during takeover from partner |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* pool *named-item* failover ignore-mclt-on-takeover *boolean* |
| Tree | ignore-mclt-on-takeover |
| Description | When configured to **true**, the remote IP address range can be taken over immediately when the intercommunication link enters the PARTNER-DOWN state, without having to wait for the MCLT to expire.<br>When configured to **false**, the DHCP lease time for new clients is restricted to the MCLT during a failure. For existing clients, the lease time is gradually reduced over time to the MCLT by consecutive DHCP renewals. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **maximum-client-lead-time** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum time that DHCP server can extend client's lease |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* pool *named-item* failover maximum-client-lead-time *number* |
| Tree | maximum-client-lead-time |
| Description | This command configures the maximum client lead time (MCLT), which is the maximum time that a DHCP server can extend the client's lease time beyond the lease time currently known by the DHCP partner node. In dual-homed environments, the initial lease time for all DHCP clients is restricted to the MCLT by default. Consecutive DHCP renewals can extend the lease time beyond the MCLT. |
| Range | 600 to 86399 |
| Units | seconds |
| Default | 600 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## **partner-down-delay** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Delay to prevent lease duplication during link failure |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* pool *named-item* failover partner-down-delay *number* |
| Tree | partner-down-delay |
| Description | This command configures the interval before a failed intercommunication link transitions from the COMM-INT state to the PARTNER-DOWN state. This delay prevents IP lease duplication during link failure by not allowing new IP addresses to be assigned from the remote IP address range. This timer is intended to provide the operator with enough time to remedy the failed situation and avoid duplication of IP addresses and prefixes during the failure. |
| Range | 0 to 86399 |
| Units | seconds |
| Default | 86399 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **peer** [address] *reference*

| | |
|---|---|
| Synopsis | Enter the **peer** list instance |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* pool *named-item* failover peer *reference* |
| Tree | peer |
| Max. instances | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## [**address**] *reference*

| | |
|---|---|
| Synopsis | IP address of the failover peer |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* pool *named-item* failover peer *reference* |


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| | |
|---|---|
| Tree | peer |
| Reference | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **sync-tag** *named-item*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Tag that identifies synchronizing server or pool pairs |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* pool *named-item* failover peer *reference* sync-tag *named-item* |
| Tree | sync-tag |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **startup-wait-time** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Time between initialization and assuming active role |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* pool *named-item* failover startup-wait-time *number* |
| Tree | startup-wait-time |
| Description | This command configures a delay that avoids transient issues during the initialization process. During startup wait time, each failover peer waits after the initialization process before assuming the active role for the prefix designated as local or remote. |
| Range | 60 to 3600 |
| Units | seconds |
| Default | 120 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **max-lease-time** *number*

| | |
|---|---|
| Synopsis | Maximum lease time |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* pool *named-item* max-lease-time *number* |
| Tree | max-lease-time |
| Range | 10 to 315446399 |
| Units | seconds |
| Default | 864000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **min-lease-time** *number*

| | |
|---|---|
| Synopsis | Minimum lease time |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* pool *named-item* min-lease-time *number* |
| Tree | min-lease-time |
| Range | 10 to 315446399 |
| Units | seconds |
| Default | 600 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **minimum-free**

| | |
|---|---|
| Synopsis | Enter the **minimum-free** context |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* pool *named-item* minimum-free |
| Tree | minimum-free |
| Description | Commands in this context specify the minimum number of free addresses in this pool. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **absolute** *number*

| | |
|---|---|
| Synopsis | Minimum number of free addresses in this pool or subnet |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* pool *named-item* minimum-free absolute *number* |
| Tree | absolute |
| Range | 0 to 255 |
| Default | 1 |
| Notes | The following elements are part of a choice: **absolute** or **percent**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **event-when-depleted** *boolean*

| | |
|---|---|
| Synopsis | Generate notification when addresses are depleted |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* pool *named-item* minimum-free event-when-depleted *boolean* |
| Tree | event-when-depleted |
| Description | When configured to **true**, a system-generated event is generated when all available addresses in the pool or subnet of a local DHCP server are depleted.<br>When configured to **false**, no action is taken when all available addresses in the pool or subnet of a local DHCP server are depleted. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **percent** *number*

| | |
|---|---|
| Synopsis | Minimum free addresses as a percentage |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* pool *named-item* minimum-free percent *number* |
| Tree | percent |
| Range | 0 to 100 |
| Default | 1 |
| Notes | The following elements are part of a choice: **absolute** or **percent**. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **nak-non-matching-subnet** *boolean*

| | |
|---|---|
| Synopsis | Send NAK if no match for request address pool range |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* pool *named-item* nak-non-matching-subnet *boolean* |
| Tree | nak-non-matching-subnet |
| Description | When configured to **true**, a NAK response when the local DHCPv4 server receives a DHCP request with option 50 (the client is trying to request a previously allocated message). If the address-allocation algorithm uses a pool that does not contain the requested address, the system returns the DHCP NAK.<br>When configured to **false** or unconfigured, the system drops the DHCP packet. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **offer-time** *number*

| | |
|---|---|
| Synopsis | Time interval during which a DHCP offer remains valid |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* pool *named-item* offer-time *number* |
| Tree | offer-time |
| Range | 10 to 600 |
| Units | seconds |
| Default | 60 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **options**

| | |
|---|---|
| Synopsis | Enter the **options** context |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* pool *named-item* options |
| Tree | options |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **option** [number] *(number | keyword)*

| | |
|---|---|
| Synopsis | Enter the **option** list instance |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* pool *named-item* options option *(number | keyword)* |
| Tree | option |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**number**] *(number | keyword)*

| | |
|---|---|
| Synopsis | DHCP option to send identification strings to client |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* pool *named-item* options option *(number | keyword)* |
| Tree | option |
| Range | 1 to 254 |
| Options | subnet-mask, default-router, dns-server, domain-name, netbios-name-server, netbios-node-type, lease-time, lease-renew-time, lease-rebind-time |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ascii-string** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | DHCP option specified as an ASCII string |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* pool *named-item* options option *(number | keyword)* ascii-string *string-not-all-spaces* |
| Tree | ascii-string |
| String length | 1 to 127 |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **duration**, **empty**, **hex-string**, **ipv4-address**, or **netbios-node-type**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **duration** *number*

| | |
|---|---|
| Synopsis | DHCP option as time duration |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* pool *named-item* options option *(number \| keyword)* duration *number* |
| Tree | duration |
| Range | 10 to 315446399 |
| Units | seconds |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **duration**, **empty**, **hex-string**, **ipv4-address**, or **netbios-node-type**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **empty**

| | |
|---|---|
| Synopsis | Remove DHCP option from the configuration |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* pool *named-item* options option *(number \| keyword)* empty |
| Tree | empty |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **duration**, **empty**, **hex-string**, **ipv4-address**, or **netbios-node-type**. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **hex-string** *hex-string*

| | |
|---|---|
| Synopsis | DHCP option specified as hexadecimal string |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* pool *named-item* options option *(number \| keyword)* hex-string *hex-string* |
| Tree | hex-string |
| String length | 1 to 256 |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **duration**, **empty**, **hex-string**, **ipv4-address**, or **netbios-node-type**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **ipv4-address** *ipv4-address*

| | |
|---|---|
| Synopsis | DHCP option as a list of IPv4 addresses |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* pool *named-item* options option *(number \| keyword)* ipv4-address *ipv4-address* |
| Tree | ipv4-address |
| Max. instances | 4 |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **duration**, **empty**, **hex-string**, **ipv4-address**, or **netbios-node-type**.<br>This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **netbios-node-type** *keyword*

| | |
|---|---|
| Synopsis | DHCP option as NetBIOS node type |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* pool *named-item* options option *(number \| keyword)* netbios-node-type *keyword* |
| Tree | netbios-node-type |
| Options | b-node, p-node, m-node, h-node |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **duration**, **empty**, **hex-string**, **ipv4-address**, or **netbios-node-type**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **subnet** [ipv4-prefix] *ipv4-unicast-prefix*

| | |
|---|---|
| Synopsis | Enter the **subnet** list instance |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* pool *named-item* subnet *ipv4-unicast-prefix* |
| Tree | subnet |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### [**ipv4-prefix**] *ipv4-unicast-prefix*

| | |
|---|---|
| Synopsis | IPv4 prefix for the subnet |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* pool *named-item* subnet *ipv4-unicast-prefix* |
| Tree | subnet |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **address-range** [start] *ipv4-unicast-address* end *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Enter the **address-range** list instance |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* pool *named-item* subnet *ipv4-unicast-prefix* address-range *ipv4-unicast-address* end *ipv4-unicast-address* |
| Tree | address-range |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**start**] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Lower bound of the IP address range |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* pool *named-item* subnet *ipv4-unicast-prefix* address-range *ipv4-unicast-address* end *ipv4-unicast-address* |
| Tree | address-range |
| Description | This command specifies the start of a range of IP addresses that are excluded from the pool of IP addresses in this subnet. |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **end** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Upper bound of the IP address range |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* pool *named-item* subnet *ipv4-unicast-prefix* address-range *ipv4-unicast-address* end *ipv4-unicast-address* |


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| | |
|---|---|
| Tree | address-range |
| Description | This command specifies the end of a range of IP addresses that are excluded from the pool of IP addresses in this subnet. |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **failover-control-type** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Failover control type for this range |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* pool *named-item* subnet *ipv4-unicast-prefix* address-range *ipv4-unicast-address* end *ipv4-unicast-address* failover-control-type *keyword* |
| Tree | failover-control-type |
| Options | local, remote, access-driven |
| Default | local |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **drain** *boolean*

| | |
|---|---|
| Synopsis | Prevent new lease assignment from this subnet |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* pool *named-item* subnet *ipv4-unicast-prefix* drain *boolean* |
| Tree | drain |
| Description | When configured to **true**, new leases cannot be assigned and existing leases are kept up until they are released.<br>When configured to **false**, the subnet is active and new leases can be assigned. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **exclude-addresses** [start] *ipv4-unicast-address* end *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Add a list entry for **exclude-addresses** |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* pool *named-item* subnet *ipv4-unicast-prefix* exclude-addresses *ipv4-unicast-address* end *ipv4-unicast-address* |
| Tree | exclude-addresses |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**start**] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Lower bound of the IP address range |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* pool *named-item* subnet *ipv4-unicast-prefix* exclude-addresses *ipv4-unicast-address* end *ipv4-unicast-address* |
| Tree | exclude-addresses |
| Description | This command specifies the start of a range of IP addresses that are excluded from the pool of IP addresses in this subnet. |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **end** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Upper bound of the IP address range |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* pool *named-item* subnet *ipv4-unicast-prefix* exclude-addresses *ipv4-unicast-address* end *ipv4-unicast-address* |
| Tree | exclude-addresses |
| Description | This command specifies the end of a range of IP addresses that are excluded from the pool of IP addresses in this subnet. |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **maximum-declined** *number*

| | |
|---|---|
| Synopsis | Maximum number of declined addresses allowed |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* pool *named-item* subnet *ipv4-unicast-prefix* maximum-declined *number* |
| Tree | maximum-declined |
| Max. range | 0 to 4294967295 |
| Default | 64 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **minimum-free**

| | |
|---|---|
| Synopsis | Enter the **minimum-free** context |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* pool *named-item* subnet *ipv4-unicast-prefix* minimum-free |
| Tree | minimum-free |
| Description | Commands in this context specify the minimum number of free addresses in this pool. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **absolute** *number*

| | |
|---|---|
| Synopsis | Minimum number of free addresses in this pool or subnet |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* pool *named-item* subnet *ipv4-unicast-prefix* minimum-free absolute *number* |
| Tree | absolute |
| Range | 0 to 255 |
| Default | 1 |
| Notes | The following elements are part of a choice: **absolute** or **percent**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **event-when-depleted** *boolean*

| | |
|---|---|
| Synopsis | Generate notification when addresses are depleted |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* pool *named-item* subnet *ipv4-unicast-prefix* minimum-free event-when-depleted *boolean* |
| Tree | event-when-depleted |
| Description | When configured to **true**, a system-generated event is generated when all available addresses in the pool or subnet of a local DHCP server are depleted.<br>When configured to **false**, no action is taken when all available addresses in the pool or subnet of a local DHCP server are depleted. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **percent** *number*

| | |
|---|---|
| Synopsis | Minimum free addresses as a percentage |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* pool *named-item* subnet *ipv4-unicast-prefix* minimum-free percent *number* |
| Tree | percent |
| Range | 0 to 100 |
| Default | 1 |
| Notes | The following elements are part of a choice: **absolute** or **percent**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **options**

| | |
|---|---|
| Synopsis | Enter the **options** context |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* pool *named-item* subnet *ipv4-unicast-prefix* options |
| Tree | options |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **option** [number] *(number | keyword)*

| | |
|---|---|
| Synopsis | Enter the **option** list instance |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* pool *named-item* subnet *ipv4-unicast-prefix* options option *(number | keyword)* |


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| | |
|---|---|
| Tree | option |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**number**] *(number | keyword)*

| | |
|---|---|
| Synopsis | DHCP option to send identification strings to client |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* pool *named-item* subnet *ipv4-unicast-prefix* options option *(number | keyword)* |
| Tree | option |
| Range | 1 to 254 |
| Options | subnet-mask, default-router, dns-server, domain-name, netbios-name-server, netbios-node-type, lease-time, lease-renew-time, lease-rebind-time |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ascii-string** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | DHCP option specified as an ASCII string |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* pool *named-item* subnet *ipv4-unicast-prefix* options option *(number | keyword)* ascii-string *string-not-all-spaces* |
| Tree | ascii-string |
| String length | 1 to 127 |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **duration**, **empty**, **hex-string**, **ipv4-address**, or **netbios-node-type**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **duration** *number*

| | |
|---|---|
| Synopsis | DHCP option as time duration |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* pool *named-item* subnet *ipv4-unicast-prefix* options option *(number | keyword)* duration *number* |
| Tree | duration |
| Range | 10 to 315446399 |


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| | |
|---|---|
| Units | seconds |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **duration**, **empty**, **hex-string**, **ipv4-address**, or **netbios-node-type**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## empty

| | |
|---|---|
| Synopsis | Empty DHCP option |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* pool *named-item* subnet *ipv4-unicast-prefix* options option *(number \| keyword)* empty |
| Tree | empty |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **duration**, **empty**, **hex-string**, **ipv4-address**, or **netbios-node-type**. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## hex-string *hex-string*

| | |
|---|---|
| Synopsis | DHCP option specified as hexadecimal string |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* pool *named-item* subnet *ipv4-unicast-prefix* options option *(number \| keyword)* hex-string *hex-string* |
| Tree | hex-string |
| String length | 1 to 256 |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **duration**, **empty**, **hex-string**, **ipv4-address**, or **netbios-node-type**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ipv4-address *ipv4-address*

| | |
|---|---|
| Synopsis | DHCP option as a list of IPv4 addresses |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* pool *named-item* subnet *ipv4-unicast-prefix* options option *(number \| keyword)* ipv4-address *ipv4-address* |
| Tree | ipv4-address |
| Max. instances | 4 |


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| | |
|---|---|
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **duration**, **empty**, **hex-string**, **ipv4-address**, or **netbios-node-type**.<br>This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **netbios-node-type** *keyword*

| | |
|---|---|
| Synopsis | DHCP option as NetBIOS node type |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* pool *named-item* subnet *ipv4-unicast-prefix* options option *(number \| keyword)* netbios-node-type *keyword* |
| Tree | netbios-node-type |
| Options | b-node, p-node, m-node, h-node |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **duration**, **empty**, **hex-string**, **ipv4-address**, or **netbios-node-type**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **pool-selection**

| | |
|---|---|
| Synopsis | Enter the **pool-selection** context |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* pool-selection |
| Tree | pool-selection |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **use-gi-address**

| | |
|---|---|
| Synopsis | Enable the **use-gi-address** context |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* pool-selection use-gi-address |
| Tree | use-gi-address |
| Description | Commands in this context configure gateway interface (GI) address matching. When configured, the pool can be used for address matching even if a subnet is not found. If the local user database name is not used, addresses are provided only by GI. If a user must be blocked from getting an address, the server maps to a local user database and configures the user with no address. |


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A pool can include multiple subnets. Since the GI is shared by multiple subnets in a subscriber interface, the pool can provide IP addresses from any of the subnets included when the GI is matched to one of its subnets. This allows a pool to be created that represents a sub-net.

Introduced 16.0.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR

### **scope** *keyword*

Synopsis GI address-matching scope

Context **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* pool-selection use-gi-address scope *keyword*

Tree scope

Options subnet, pool

Default subnet

Introduced 16.0.R4

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR

### **use-pool-from-client**

Synopsis Enable the **use-pool-from-client** context

Context **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* pool-selection use-pool-from-client

Tree use-pool-from-client

Introduced 16.0.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR

### **delimiter** *string-not-all-spaces*

Synopsis Delimiter to combine primary and secondary pool names

Context **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* pool-selection use-pool-from-client delimiter *string-not-all-spaces*

Tree delimiter

Description This command configures a single ASCII character that separates the pool names in DHCP vendor-specific option 82, which identifies the address pool to be used for this client.

String length 1

Introduced 16.0.R1


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **user-db** *reference*

| | |
|---|---|
| Synopsis | Local user database for authentication |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* user-db *reference* |
| Tree | user-db |
| Reference | **configure** subscriber-mgmt local-user-db *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **user-identification** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | User identification method for the DHCP server |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* user-identification *keyword* |
| Tree | user-identification |
| Options | mac-circuit-id, client-id, mac, circuit-id, remote-id |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **dhcpv6** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **dhcpv6** list instance |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* |
| Tree | dhcpv6 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | DHCP server name |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* |
| Tree | dhcpv6 |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the DHCP server |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **auto-provisioned** *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Auto-provision the pools of this server |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* auto-provisioned *boolean* |
| Tree | auto-provisioned |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **defaults**

| | |
|---|---|
| Synopsis | Enter the **defaults** context |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* defaults |


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| | |
|---|---|
| Tree | defaults |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### options

| | |
|---|---|
| Synopsis | Enter the **options** context |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* defaults options |
| Tree | options |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **option** [number] *(number | keyword)*

| | |
|---|---|
| Synopsis | Enter the **option** list instance |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* defaults options option *(number | keyword)* |
| Tree | option |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**number**] *(number | keyword)*

| | |
|---|---|
| Synopsis | DHCP option to send as identification string |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* defaults options option *(number | keyword)* |
| Tree | option |
| Range | 1 to 65535 |
| Options | dns-server, domain-name |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ascii-string** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | DHCP option specified as an ASCII string |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* defaults options option *(number \| keyword)* ascii-string *string-not-all-spaces* |
| Tree | ascii-string |
| String length | 1 to 127 |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **domain-string**, **duration**, **empty**, **hex-string**, or **ipv6-address**. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **domain-string** *string*

| | |
|---|---|
| Synopsis | DHCP option specified as a domain name |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* defaults options option *(number \| keyword)* domain-string *string* |
| Tree | domain-string |
| String length | 1 to 127 |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **domain-string**, **duration**, **empty**, **hex-string**, or **ipv6-address**. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **duration** *number*

| | |
|---|---|
| Synopsis | DHCP option specified as time |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* defaults options option *(number \| keyword)* duration *number* |
| Tree | duration |
| Range | 10 to 315446399 |
| Units | seconds |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **domain-string**, **duration**, **empty**, **hex-string**, or **ipv6-address**. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **empty**

| | |
|---|---|
| Synopsis | Empty DHCP option |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* defaults options option *(number \| keyword)* empty |
| Tree | empty |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **domain-string**, **duration**, **empty**, **hex-string**, or **ipv6-address**. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **hex-string** *hex-string*

| | |
|---|---|
| Synopsis | DHCP option specified as hexadecimal string |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* defaults options option *(number \| keyword)* hex-string *hex-string* |
| Tree | hex-string |
| String length | 1 to 256 |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **domain-string**, **duration**, **empty**, **hex-string**, or **ipv6-address**. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ipv6-address** *ipv6-address*

| | |
|---|---|
| Synopsis | DHCP option specified as a list of IPv6 addresses |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* defaults options option *(number \| keyword)* ipv6-address *ipv6-address* |
| Tree | ipv6-address |
| Max. instances | 4 |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **domain-string**, **duration**, **empty**, **hex-string**, or **ipv6-address**.<br>This element is ordered by the user. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **preferred-lifetime** *number*

| | |
|---|---|
| Synopsis | Time this lease remains preferred |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* defaults preferred-lifetime *number* |
| Tree | preferred-lifetime |
| Description | This command configures the preferred lifetime of the IPv6 lease address or prefix. When the preferred lifetime expires, any derived addresses are deprecated. The preferred lifetime must be less than or equal to the valid lifetime.<br><br>Each address or prefix assigned to the client has associated preferred and valid lifetimes specified by the address assignment authority (such as the DHCP server, RADIUS, or ESM). To request an extension of the lifetimes assigned to an address, the client sends a renew message to the addressing authority. The authority sends a reply message to the client with the new lifetimes, allowing the client to continue to use the address/prefix without interruption. The lifetimes are transmitted from the addressing authority to the client in the identity association (IA) option at the top level of the message (not the address or prefix level). |
| Range | 300 to 315446399 |
| Units | seconds |
| Default | 3600 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **rebind-time** *number*

| | |
|---|---|
| Synopsis | Rebind time for the lease |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* defaults rebind-time *number* |
| Tree | rebind-time |
| Description | This command configures the rebind time, known as T2, at which the client contacts the addressing authority to extend the lifetimes of its leases.<br><br>The IP addressing authority (such as the DHCP server, RADIUS, or ESM) controls the time for extending lifetimes on assigned addresses/prefixes through the T1 and T2 parameters assigned to an identity association (IA). At renew time, T1, the client initiates a renew or reply message exchange to extend the lifetimes of any addresses in the IA. The client includes an IA option with all addresses or prefixes currently assigned to the IA in its renew message.<br><br>Recommended values for T1 and T2 are 0.5 and 0.8 times the shortest preferred lifetime of the addresses or prefixes in the IA that the addressing authority is willing to extend, respectively. The configured rebind timer value should always be less than or equal to the rebind timer. The T1 and T2 values are carried in the IPV6 address option in the IA. |
| Range | 0 to 1209600 |
| Units | seconds |


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| | |
|---|---|
| Default | 2880 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **renew-time** *number*

| | |
|---|---|
| Synopsis | Renew time for the lease |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* defaults renew-time *number* |
| Tree | renew-time |
| Description | This command configures the renew time, known as T1, at which the client makes a transition to the lease-renewal state.<br><br>The IP addressing authority (such as the DHCP server, RADIUS, or ESM) controls the time for extending lifetimes on assigned addresses/prefixes through the T1 and T2 parameters assigned to an identity association (IA). At renew time, T1, the client initiates a renew/reply message exchange to extend the lifetimes of any addresses in the IA. The client includes an IA option with all addresses/prefixes currently assigned to the IA in its renew message.<br><br>Recommended values for T1 and T2 are 0.5 and 0.8 times the shortest preferred lifetime of the addresses or prefixes in the IA that the addressing authority is willing to extend, respectively. The configured renew timer value should always be shorter than or equal to the rebind timer. The T1 and T2 values are carried in the IPV6 address option in the IA. |
| Range | 0 to 604800 |
| Units | seconds |
| Default | 1800 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **valid-lifetime** *number*

| | |
|---|---|
| Synopsis | Time for the lease to remain valid |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* defaults valid-lifetime *number* |
| Tree | valid-lifetime |
| Description | This command configures a valid lifetime for a DHCPv6 lease address or prefix. The valid lifetime is the length of time an address and prefix remains in the valid state. The valid lifetime must be greater than or equal to the preferred lifetime. When the valid lifetime expires, the address and prefix becomes invalid and must not be used in communications. RFC 2461 recommends a default value of 30 days. |


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Each address and prefix assigned to the client has associated preferred and valid lifetimes specified by the address assignment authority (such as the DHCP server, RADIUS, or ESM). To request an extension of the lifetimes assigned to an address, the client sends a renew message to the addressing authority. The authority sends a reply message to the client with the new lifetimes, allowing the client to continue to use the address and prefix without interruption. The lifetimes are transmitted from the addressing authority to the client in the identity association (IA) option at the top level of the message (not the address or prefix level).

| | |
|---|---|
| Range | 300 to 315446399 |
| Units | seconds |
| Default | 86400 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **failover**

| | |
|---|---|
| Synopsis | Enter the **failover** context |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* failover |
| Tree | failover |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the failover mechanism |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* failover admin-state *keyword* |
| Tree | admin-state |


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| | |
|---|---|
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **ignore-mclt-on-takeover** *boolean*

| | |
|---|---|
| Synopsis | Ignore maximum client lead during takeover from partner |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* failover ignore-mclt-on-takeover *boolean* |
| Tree | ignore-mclt-on-takeover |
| Description | When configured to **true**, the remote IP address range can be taken over immediately when the intercommunication link enters the PARTNER-DOWN state, without having to wait for the MCLT to expire.<br>When configured to **false**, the DHCP lease time for new clients is restricted to the MCLT during a failure. For existing clients, the lease time is gradually reduced over time to the MCLT by consecutive DHCP renewals. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **maximum-client-lead-time** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum time that DHCP server can extend client's lease |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* failover maximum-client-lead-time *number* |
| Tree | maximum-client-lead-time |
| Description | This command configures the maximum client lead time (MCLT), which is the maximum time that a DHCP server can extend the client's lease time beyond the lease time currently known by the DHCP partner node. In dual-homed environments, the initial lease time for all DHCP clients is restricted to the MCLT by default. Consecutive DHCP renewals can extend the lease time beyond the MCLT. |
| Range | 600 to 86399 |
| Units | seconds |
| Default | 600 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **partner-down-delay** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Delay to prevent lease duplication during link failure |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* failover partner-down-delay *number* |
| Tree | partner-down-delay |
| Description | This command configures the interval before a failed intercommunication link transitions from the COMM-INT state to the PARTNER-DOWN state. This delay prevents IP lease duplication during link failure by not allowing new IP addresses to be assigned from the remote IP address range. This timer is intended to provide the operator with enough time to remedy the failed situation and avoid duplication of IP addresses and prefixes during the failure. |
| Range | 0 to 86399 |
| Units | seconds |
| Default | 86399 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **peer** [address] *reference*

| | |
|---|---|
| Synopsis | Enter the **peer** list instance |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* failover peer *reference* |
| Tree | peer |
| Max. instances | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### [**address**] *reference*

| | |
|---|---|
| Synopsis | IP address of the failover peer |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* failover peer *reference* |
| Tree | peer |
| Reference | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sync-tag** *named-item*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Tag that identifies synchronizing server or pool pairs |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* failover peer *reference* sync-tag *named-item* |
| Tree | sync-tag |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **startup-wait-time** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Time between initialization and assuming active role |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* failover startup-wait-time *number* |
| Tree | startup-wait-time |


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| | |
|---|---|
| Description | This command configures a delay that avoids transient issues during the initialization process. During startup wait time, each failover peer waits after the initialization process before assuming the active role for the prefix designated as local or remote. |
| Range | 60 to 3600 |
| Units | seconds |
| Default | 120 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **ignore-rapid-commit** *boolean*

| | |
|---|---|
| Synopsis | Ignore Rapid Commit option |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* ignore-rapid-commit *boolean* |
| Tree | ignore-rapid-commit |
| Description | When configured to **true**, the server ignores the Rapid Commit option sent by the client and uses the regular message exchange. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **interface-id-mapping** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Map hosts within interface-to-prefix combinations |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* interface-id-mapping *boolean* |
| Tree | interface-id-mapping |
| Description | When configured to **true**, this command specifies an interface-mapping method that uses a combination of unique /64 prefixes and interface IDs. A /64 prefix is allocated to each interface ID, and all clients with the same interface ID are assigned an address from the prefix. This method is used for bridging clients in the same local loop and SAP, so that sharing the prefix allows communication to stay local. For SLAAC-based assignment, downstream neighbor discovery is automatically enabled to resolve the assigned address. |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## lease-hold

| | |
|---|---|
| Synopsis | Enter the **lease-hold** context |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* lease-hold |
| Tree | lease-hold |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## additional-scenarios

| | |
|---|---|
| Synopsis | Enter the **additional-scenarios** context |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* lease-hold additional-scenarios |
| Tree | additional-scenarios |
| Description | Commands in this context configure additional types of leases or triggers that cause the system to hold up leases. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## internal-lease-ipsec *boolean*

| | |
|---|---|
| Synopsis | Apply the lease hold timer to local IPsec clients |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* lease-hold additional-scenarios internal-lease-ipsec *boolean* |
| Tree | internal-lease-ipsec |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## solicited-release *boolean*

| | |
|---|---|
| Synopsis | Apply lease hold timer for solicited releases |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* lease-hold additional-scenarios solicited-release *boolean* |
| Tree | solicited-release |
| Description | This command enables the server to hold up a lease even for a solicited release, for example, when the server receives a normal DHCP release message. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **time** *number*

| | |
|---|---|
| Synopsis | Lease hold time |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* lease-hold time *number* |
| Tree | time |
| Range | 1 to 631152000 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **lease-query** *boolean*

| | |
|---|---|
| Synopsis | Handle and reply to lease query messages |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* lease-query *boolean* |
| Tree | lease-query |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **pool** [pool-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **pool** list instance |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* pool *named-item* |
| Tree | pool |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**pool-name**] *named-item*

| | |
|---|---|
| Synopsis | DHCP server pool name |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* pool *named-item* |
| Tree | pool |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **delegated-prefix**

| | |
|---|---|
| Synopsis | Enter the **delegated-prefix** context |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* pool *named-item* delegated-prefix |
| Tree | delegated-prefix |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **length** *number*

| | |
|---|---|
| Synopsis | Prefix length for pool if unspecified by client |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* pool *named-item* delegated-prefix length *number* |
| Tree | length |
| Range | 48 to 127 |
| Default | 64 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **maximum** *number*

| | |
|---|---|
| Synopsis | Maximum delegated prefix length for this pool |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* pool *named-item* delegated-prefix maximum *number* |
| Tree | maximum |
| Range | 48 to 127 |
| Default | 64 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **minimum** *number*

| | |
|---|---|
| Synopsis | Minimum delegated prefix length for this pool |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* pool *named-item* delegated-prefix minimum *number* |
| Tree | minimum |
| Range | 48 to 127 |
| Default | 48 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* pool *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **exclude-prefix** [ipv6-prefix] *ipv6-prefix*

| | |
|---|---|
| Synopsis | Add a list entry for **exclude-prefix** |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* pool *named-item* exclude-prefix *ipv6-prefix* |
| Tree | exclude-prefix |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**ipv6-prefix**] *ipv6-prefix*

| | |
|---|---|
| Synopsis | IPv6 prefix to be excluded from available pool prefixes |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* pool *named-item* exclude-prefix *ipv6-prefix* |
| Tree | exclude-prefix |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **failover**

| | |
|---|---|
| Synopsis | Enter the **failover** context |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* pool *named-item* failover |
| Tree | failover |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the failover mechanism |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* pool *named-item* failover admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ignore-mclt-on-takeover** *boolean*

| | |
|---|---|
| Synopsis | Ignore maximum client lead during takeover from partner |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* pool *named-item* failover ignore-mclt-on-takeover *boolean* |
| Tree | ignore-mclt-on-takeover |
| Description | When configured to **true**, the remote IP address range can be taken over immediately when the intercommunication link enters the PARTNER-DOWN state, without having to wait for the MCLT to expire.<br>When configured to **false**, the DHCP lease time for new clients is restricted to the MCLT during a failure. For existing clients, the lease time is gradually reduced over time to the MCLT by consecutive DHCP renewals. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **maximum-client-lead-time** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum time that DHCP server can extend client's lease |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* pool *named-item* failover maximum-client-lead-time *number* |
| Tree | maximum-client-lead-time |
| Description | This command configures the maximum client lead time (MCLT), which is the maximum time that a DHCP server can extend the client's lease time beyond the lease time currently known by the DHCP partner node. In dual-homed environments, the initial lease time for all DHCP clients is restricted to the MCLT by default. Consecutive DHCP renewals can extend the lease time beyond the MCLT. |
| Range | 600 to 86399 |
| Units | seconds |
| Default | 600 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **partner-down-delay** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.


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| | |
|---|---|
| Synopsis | Delay to prevent lease duplication during link failure |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* pool *named-item* failover partner-down-delay *number* |
| Tree | partner-down-delay |
| Description | This command configures the interval before a failed intercommunication link transitions from the COMM-INT state to the PARTNER-DOWN state. This delay prevents IP lease duplication during link failure by not allowing new IP addresses to be assigned from the remote IP address range. This timer is intended to provide the operator with enough time to remedy the failed situation and avoid duplication of IP addresses and prefixes during the failure. |
| Range | 0 to 86399 |
| Units | seconds |
| Default | 86399 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **peer** [address] *reference*

| | |
|---|---|
| Synopsis | Enter the **peer** list instance |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* pool *named-item* failover peer *reference* |
| Tree | peer |
| Max. instances | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## [**address**] *reference*

| | |
|---|---|
| Synopsis | IP address of the failover peer |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* pool *named-item* failover peer *reference* |
| Tree | peer |
| Reference | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## **sync-tag** *named-item*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Tag that identifies synchronizing server or pool pairs |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* pool *named-item* failover peer *reference* sync-tag *named-item* |
| Tree | sync-tag |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **startup-wait-time** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Time between initialization and assuming active role |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* pool *named-item* failover startup-wait-time *number* |
| Tree | startup-wait-time |
| Description | This command configures a delay that avoids transient issues during the initialization process. During startup wait time, each failover peer waits after the initialization process before assuming the active role for the prefix designated as local or remote. |
| Range | 60 to 3600 |
| Units | seconds |
| Default | 120 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## options

| | |
|---|---|
| Synopsis | Enter the **options** context |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* pool *named-item* options |
| Tree | options |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **option** [number] *(number | keyword)*

| | |
|---|---|
| Synopsis | Enter the **option** list instance |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* pool *named-item* options option *(number | keyword)* |
| Tree | option |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**number**] *(number | keyword)*

| | |
|---|---|
| Synopsis | DHCP option to send as identification string |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* pool *named-item* options option *(number | keyword)* |
| Tree | option |
| Range | 1 to 65535 |
| Options | dns-server, domain-name |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ascii-string** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | DHCP option specified as an ASCII string |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* pool *named-item* options option *(number | keyword)* ascii-string *string-not-all-spaces* |
| Tree | ascii-string |
| String length | 1 to 127 |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **domain-string**, **duration**, **empty**, **hex-string**, or **ipv6-address**. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **domain-string** *string*

| | |
|---|---|
| Synopsis | DHCP option specified as a domain name |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* pool *named-item* options option *(number \| keyword)* domain-string *string* |
| Tree | domain-string |
| String length | 1 to 127 |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **domain-string**, **duration**, **empty**, **hex-string**, or **ipv6-address**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **duration** *number*

| | |
|---|---|
| Synopsis | DHCP option specified as time |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* pool *named-item* options option *(number \| keyword)* duration *number* |
| Tree | duration |
| Range | 10 to 315446399 |
| Units | seconds |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **domain-string**, **duration**, **empty**, **hex-string**, or **ipv6-address**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **empty**

| | |
|---|---|
| Synopsis | Empty DHCP option |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* pool *named-item* options option *(number \| keyword)* empty |
| Tree | empty |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **domain-string**, **duration**, **empty**, **hex-string**, or **ipv6-address**. |
| Introduced | 16.0.R4 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **hex-string** *hex-string*

| | |
|---|---|
| Synopsis | DHCP option specified as hexadecimal string |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* pool *named-item* options option *(number \| keyword)* hex-string *hex-string* |
| Tree | hex-string |
| String length | 1 to 256 |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **domain-string**, **duration**, **empty**, **hex-string**, or **ipv6-address**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ipv6-address** *ipv6-address*

| | |
|---|---|
| Synopsis | DHCP option specified as a list of IPv6 addresses |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* pool *named-item* options option *(number \| keyword)* ipv6-address *ipv6-address* |
| Tree | ipv6-address |
| Max. instances | 4 |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **domain-string**, **duration**, **empty**, **hex-string**, or **ipv6-address**.<br>This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **prefix** [ipv6-prefix] *ipv6-prefix*

| | |
|---|---|
| Synopsis | Enter the **prefix** list instance |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* pool *named-item* prefix *ipv6-prefix* |
| Tree | prefix |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### [**ipv6-prefix**] *ipv6-prefix*

| | |
|---|---|
| Synopsis | IPv6 prefix to be excluded from available pool prefixes |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* pool *named-item* prefix *ipv6-prefix* |
| Tree | prefix |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **drain** *boolean*

| | |
|---|---|
| Synopsis | No new leases can be assigned |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* pool *named-item* prefix *ipv6-prefix* drain *boolean* |
| Tree | drain |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **failover-control-type** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Failover control type for this range |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* pool *named-item* prefix *ipv6-prefix* failover-control-type *keyword* |
| Tree | failover-control-type |
| Options | local, remote, access-driven |
| Default | local |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### options

| | |
|---|---|
| Synopsis | Enter the **options** context |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* pool *named-item* prefix *ipv6-prefix* options |
| Tree | options |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### option [number] *(number | keyword)*

| | |
|---|---|
| Synopsis | Enter the **option** list instance |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* pool *named-item* prefix *ipv6-prefix* options option *(number | keyword)* |
| Tree | option |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**number**] *(number | keyword)*

| | |
|---|---|
| Synopsis | DHCP option to send as identification string |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* pool *named-item* prefix *ipv6-prefix* options option *(number | keyword)* |
| Tree | option |
| Range | 1 to 65535 |
| Options | dns-server, domain-name |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ascii-string** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | DHCP option specified as an ASCII string |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* pool *named-item* prefix *ipv6-prefix* options option *(number | keyword)* ascii-string *string-not-all-spaces* |
| Tree | ascii-string |


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| | |
|---|---|
| String length | 1 to 127 |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **domain-string**, **duration**, **empty**, **hex-string**, or **ipv6-address**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **domain-string** *string*

| | |
|---|---|
| Synopsis | DHCP option specified as a domain name |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* pool *named-item* prefix *ipv6-prefix* options option *(number \| keyword)* domain-string *string* |
| Tree | domain-string |
| String length | 1 to 127 |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **domain-string**, **duration**, **empty**, **hex-string**, or **ipv6-address**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **duration** *number*

| | |
|---|---|
| Synopsis | DHCP option specified as time |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* pool *named-item* prefix *ipv6-prefix* options option *(number \| keyword)* duration *number* |
| Tree | duration |
| Range | 10 to 315446399 |
| Units | seconds |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **domain-string**, **duration**, **empty**, **hex-string**, or **ipv6-address**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **empty**

| | |
|---|---|
| Synopsis | Empty DHCP option |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* pool *named-item* prefix *ipv6-prefix* options option *(number \| keyword)* empty |
| Tree | empty |


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| | |
|---|---|
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **domain-string**, **duration**, **empty**, **hex-string**, or **ipv6-address**. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **hex-string** *hex-string*

| | |
|---|---|
| Synopsis | DHCP option specified as hexadecimal string |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* pool *named-item* prefix *ipv6-prefix* options option *(number \| keyword)* hex-string *hex-string* |
| Tree | hex-string |
| String length | 1 to 256 |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **domain-string**, **duration**, **empty**, **hex-string**, or **ipv6-address**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ipv6-address** *ipv6-address*

| | |
|---|---|
| Synopsis | DHCP option specified as a list of IPv6 addresses |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* pool *named-item* prefix *ipv6-prefix* options option *(number \| keyword)* ipv6-address *ipv6-address* |
| Tree | ipv6-address |
| Max. instances | 4 |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **domain-string**, **duration**, **empty**, **hex-string**, or **ipv6-address**.<br>This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **preferred-lifetime** *number*

| | |
|---|---|
| Synopsis | Time this lease remains preferred |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* pool *named-item* prefix *ipv6-prefix* preferred-lifetime *number* |
| Tree | preferred-lifetime |


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| | |
|---|---|
| Description | This command configures the preferred lifetime of the IPv6 lease address or prefix. When the preferred lifetime expires, any derived addresses are deprecated. The preferred lifetime must be less than or equal to the valid lifetime.<br><br>Each address or prefix assigned to the client has associated preferred and valid lifetimes specified by the address assignment authority (such as the DHCP server, RADIUS, or ESM). To request an extension of the lifetimes assigned to an address, the client sends a renew message to the addressing authority. The authority sends a reply message to the client with the new lifetimes, allowing the client to continue to use the address/prefix without interruption. The lifetimes are transmitted from the addressing authority to the client in the identity association (IA) option at the top level of the message (not the address or prefix level). |
| Range | 300 to 315446399 |
| Units | seconds |
| Default | 3600 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **prefix-length-threshold** [prefix-length] *number*

| | |
|---|---|
| Synopsis | Enter the **prefix-length-threshold** list instance |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* pool *named-item* prefix *ipv6-prefix* prefix-length-threshold *number* |
| Tree | prefix-length-threshold |
| Max. instances | 8 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## [**prefix-length**] *number*

| | |
|---|---|
| Synopsis | Delegated prefix length for pool thresholds |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* pool *named-item* prefix *ipv6-prefix* prefix-length-threshold *number* |
| Tree | prefix-length-threshold |
| Range | 1 to 128 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **absolute** *number*

| | |
|---|---|
| Synopsis | Minimum number of free prefixes for this prefix length |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* pool *named-item* prefix *ipv6-prefix* prefix-length-threshold *number* absolute *number* |
| Tree | absolute |
| Range | 1 to 4294967295 |
| Notes | The following elements are part of a choice: **absolute** or **percent**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **event-when-depleted** *boolean*

| | |
|---|---|
| Synopsis | Generate a notification when this pool is depleted |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* pool *named-item* prefix *ipv6-prefix* prefix-length-threshold *number* event-when-depleted *boolean* |
| Tree | event-when-depleted |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **percent** *number*

| | |
|---|---|
| Synopsis | Minimum percentage of free prefixes for prefix length |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* pool *named-item* prefix *ipv6-prefix* prefix-length-threshold *number* percent *number* |
| Tree | percent |
| Range | 1 to 100 |
| Notes | The following elements are part of a choice: **absolute** or **percent**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **prefix-type**

| | |
|---|---|
| Synopsis | Enter the **prefix-type** context |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* pool *named-item* prefix *ipv6-prefix* prefix-type |
| Tree | prefix-type |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **pd** *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Allocate IA-PD prefixes from this prefix pool |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* pool *named-item* prefix *ipv6-prefix* prefix-type pd *boolean* |
| Tree | pd |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **wan-host** *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Allocate IA-NA or SLAAC prefixes from this prefix pool |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* pool *named-item* prefix *ipv6-prefix* prefix-type wan-host *boolean* |
| Tree | wan-host |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **rebind-time** *number*

| | |
|---|---|
| Synopsis | Rebind time for the lease |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* pool *named-item* prefix *ipv6-prefix* rebind-time *number* |
| Tree | rebind-time |
| Description | This command configures the rebind time, known as T2, at which the client contacts the addressing authority to extend the lifetimes of its leases.<br><br>The IP addressing authority (such as the DHCP server, RADIUS, or ESM) controls the time for extending lifetimes on assigned addresses/prefixes through the T1 and T2 parameters assigned to an identity association (IA). At renew time, T1, the client initiates a renew or reply message exchange to extend the lifetimes of any addresses in the IA. The client includes an IA option with all addresses or prefixes currently assigned to the IA in its renew message.<br><br>Recommended values for T1 and T2 are 0.5 and 0.8 times the shortest preferred lifetime of the addresses or prefixes in the IA that the addressing authority is willing to extend, respectively. The configured rebind timer value should always be less than or equal to the rebind timer. The T1 and T2 values are carried in the IPV6 address option in the IA. |
| Range | 0 to 1209600 |
| Units | seconds |
| Default | 2880 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **renew-time** *number*

| | |
|---|---|
| Synopsis | Renew time for the lease |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* pool *named-item* prefix *ipv6-prefix* renew-time *number* |
| Tree | renew-time |
| Description | This command configures the renew time, known as T1, at which the client makes a transition to the lease-renewal state.<br><br>The IP addressing authority (such as the DHCP server, RADIUS, or ESM) controls the time for extending lifetimes on assigned addresses/prefixes through the T1 and T2 parameters assigned to an identity association (IA). At renew time, T1, the client initiates a renew/reply message exchange to extend the lifetimes of any addresses in the IA. The client includes an IA option with all addresses/prefixes currently assigned to the IA in its renew message.<br><br>Recommended values for T1 and T2 are 0.5 and 0.8 times the shortest preferred lifetime of the addresses or prefixes in the IA that the addressing authority is willing to extend, respectively. The configured renew timer value should always be shorter than or equal to the rebind timer. The T1 and T2 values are carried in the IPV6 address option in the IA. |
| Range | 0 to 604800 |


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| | |
|---|---|
| Units | seconds |
| Default | 1800 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **valid-lifetime** *number*

| | |
|---|---|
| Synopsis | Time for the lease to remain valid |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* pool *named-item* prefix *ipv6-prefix* valid-lifetime *number* |
| Tree | valid-lifetime |
| Description | This command configures a valid lifetime for a DHCPv6 lease address or prefix. The valid lifetime is the length of time an address and prefix remains in the valid state. The valid lifetime must be greater than or equal to the preferred lifetime. When the valid lifetime expires, the address and prefix becomes invalid and must not be used in communications. RFC 2461 recommends a default value of 30 days.<br><br>Each address and prefix assigned to the client has associated preferred and valid lifetimes specified by the address assignment authority (such as the DHCP server, RADIUS, or ESM). To request an extension of the lifetimes assigned to an address, the client sends a renew message to the addressing authority. The authority sends a reply message to the client with the new lifetimes, allowing the client to continue to use the address and prefix without interruption. The lifetimes are transmitted from the addressing authority to the client in the identity association (IA) option at the top level of the message (not the address or prefix level). |
| Range | 300 to 315446399 |
| Units | seconds |
| Default | 86400 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **prefix-length-threshold** [prefix-length] *number*

| | |
|---|---|
| Synopsis | Enter the **prefix-length-threshold** list instance |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* pool *named-item* prefix-length-threshold *number* |
| Tree | prefix-length-threshold |
| Max. instances | 8 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**prefix-length**] *number*

| | |
|---|---|
| Synopsis | Delegated prefix length for pool thresholds |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* pool *named-item* prefix-length-threshold *number* |
| Tree | prefix-length-threshold |
| Range | 1 to 128 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **event-when-depleted** *boolean*

| | |
|---|---|
| Synopsis | Generate a notification when this pool is depleted |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* pool *named-item* prefix-length-threshold *number* event-when-depleted *boolean* |
| Tree | event-when-depleted |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **minimum-free-percent** *number*

| | |
|---|---|
| Synopsis | Percentage of free prefixes for this prefix length |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* pool *named-item* prefix-length-threshold *number* minimum-free-percent *number* |
| Tree | minimum-free-percent |
| Range | 0 to 100 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## pool-selection

| | |
|---|---|
| Synopsis | Enter the **pool-selection** context |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* pool-selection |
| Tree | pool-selection |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## use-link-address

| | |
|---|---|
| Synopsis | Enable the **use-link-address** context |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* pool-selection use-link-address |
| Tree | use-link-address |
| Description | This command configures the local pool selection for DHCPv6 address or prefix assignment to use the link address. When configured, the selected pool contains a prefix covering the link address. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## scope *keyword*

| | |
|---|---|
| Synopsis | Scope of the IP address selection |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* pool-selection use-link-address scope *keyword* |
| Tree | scope |
| Options | subnet, pool |
| Default | subnet |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## use-pool-from-client

| | |
|---|---|
| Synopsis | Enable the **use-pool-from-client** context |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* pool-selection use-pool-from-client |
| Tree | use-pool-from-client |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **delimiter** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | Delimiter to combine primary and secondary pool names |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* pool-selection use-pool-from-client delimiter *string-not-all-spaces* |
| Tree | delimiter |
| Description | This command configures a single ASCII character that separates the pool names in DHCP vendor-specific option 82, which identifies the address pool to be used for this client. |
| String length | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **server-id**

| | |
|---|---|
| Synopsis | Enter the **server-id** context |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* server-id |
| Tree | server-id |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **duid-enterprise**

| | |
|---|---|
| Synopsis | Enter the **duid-enterprise** context |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* server-id duid-enterprise |
| Tree | duid-enterprise |
| Notes | The following elements are part of a choice: **duid-enterprise** or **duid-link-local**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **ascii-string** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | DUID enterprise server ID specified as an ASCII string |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* server-id duid-enterprise ascii-string *string-not-all-spaces* |
| Tree | ascii-string |
| String length | 1 to 58 |
| Notes | The following elements are part of a choice: **ascii-string** or **hex-string**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **hex-string** *hex-string*

| | |
|---|---|
| Synopsis | DUID enterprise server ID specified as a hex string |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* server-id duid-enterprise hex-string *hex-string* |
| Tree | hex-string |
| String length | 1 to 118 |
| Notes | The following elements are part of a choice: **ascii-string** or **hex-string**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **duid-link-local**

| | |
|---|---|
| Synopsis | Derive DUID server ID from a system link-layer address |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* server-id duid-link-local |
| Tree | duid-link-local |
| Notes | The following elements are part of a choice: **duid-enterprise** or **duid-link-local**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **user-db** *reference*

| | |
|---|---|
| Synopsis | Local user database to lookup DHCP lease data |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* user-db *reference* |
| Tree | user-db |
| Reference | **configure** subscriber-mgmt local-user-db *named-item* |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **user-identification** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | User identification method for the DHCP server |
| Context | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* user-identification *keyword* |
| Tree | user-identification |
| Options | duid, interface-id, interface-id-link-local |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **dns**

| | |
|---|---|
| Synopsis | Enable the **dns** context |
| Context | **configure** service vprn *service-name* dns |
| Tree | dns |
| Introduced | 16.0.R1 |
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of DNS |
| Context | **configure** service vprn *service-name* dns admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **default-domain** *fully-qualified-domain-name*

| | |
|---|---|
| Synopsis | Domain name added in DNS retries |
| Context | **configure** service vprn *service-name* dns default-domain *fully-qualified-domain-name* |
| Tree | default-domain |
| Description | This command configures the DNS domain name to be added in DNS retries when a DNS query is not replied or an empty DNS reply is received.<br>The name can contain only alphabetical characters (A-Z), numeric characters (0-9), the minus sign (-), and the period (.). |
| String length | 1 to 255 |
| Introduced | 20.2.R1 |
| Platforms | All |

### **ipv4-source-address** *(keyword | ipv4-unicast-address)*

| | |
|---|---|
| Synopsis | Source address to contact an IPv4 DNS server |
| Context | **configure** service vprn *service-name* dns ipv4-source-address *(keyword | ipv4-unicast-address)* |
| Tree | ipv4-source-address |
| Options | use-interface-ip |
| Default | use-interface-ip |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv6-source-address** *(keyword | ipv6-unicast-address)*

| | |
|---|---|
| Synopsis | Source address to contact an IPv6 DNS server |
| Context | **configure** service vprn *service-name* dns ipv6-source-address *(keyword | ipv6-unicast-address)* |
| Tree | ipv6-source-address |
| Options | use-interface-ip |
| Default | use-interface-ip |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **server** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | DNS server used for DNS name resolution |
| Context | **configure** service vprn *service-name* dns server *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | server |
| Max. instances | 3 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ecmp** *number*

| | |
|---|---|
| Synopsis | Maximum equal-cost routes for routing table instance |
| Context | **configure** service vprn *service-name* ecmp *number* |
| Tree | ecmp |
| Description | This command configures ECMP and defines the number of routes for path sharing.<br>ECMP can be used only for routes learned with the same preference and the same protocol.<br>If available ECMP routes at the best preference exceed the maximum ECMP routes allowed, the system selects the route using the following criteria:<br>**1.** The system selects the lowest next hop router ID.<br>**2.** If the next hop goes to the same neighbor, the system selects the next hop with the lowest interface index. |
| Range | 1 to 64 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ecmp-unequal-cost** *boolean*

| | |
|---|---|
| Synopsis | Enable ECMP unequal cost capability |
| Context | **configure** service vprn *service-name* ecmp-unequal-cost *boolean* |
| Tree | ecmp-unequal-cost |


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| | |
|---|---|
| Default | false |
| Introduced | 19.7.R1 |
| Platforms | All |

## **entropy-label** *boolean*

| | |
|---|---|
| Synopsis | Use entropy label |
| Context | **configure** service vprn *service-name* entropy-label *boolean* |
| Tree | entropy-label |
| Description | When configured to **true**, this command enables the use of entropy labels.<br>The entropy label and indicator (EL/ELI) are inserted on relevant packets. Applicable packets are those for which at least one LSP in the stack at the far end has advertised the entropy-label capability. These LSPs are in LDP or RSVP tunnels used by an IGP or BGP shortcut. If the tunnel is of type RSVP, the entropy-label capability must also be enabled under the **configure router mpls** or **configure router mpls lsp** context.<br>This command also results in other traffic that is forwarded over an LDP or RSVP LSP for which this router is the LER, and for which there is no explicit service endpoint on this router, to have the EL/ELI enabled, subject to the LSP far-end advertising entropy-label-capability. An example of such traffic includes packets arriving on a stitched LDP LSP forwarded over an RSVP LSP.<br>The entropy label and the hash label features are mutually exclusive. The entropy label cannot be configured on a spoke SDP or service where the hash label feature has already been configured.<br>When configured to **false**, the use of entropy labels is disabled. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **eth-cfm**

| | |
|---|---|
| Synopsis | Enter the **eth-cfm** context |
| Context | **configure** service vprn *service-name* eth-cfm |
| Tree | eth-cfm |
| Introduced | 19.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **export-inactive-bgp** *boolean*

| | |
|---|---|
| Synopsis | Export preferred BGP route even if inactive |
| Context | **configure** service vprn *service-name* export-inactive-bgp *boolean* |
| Tree | export-inactive-bgp |
| Description | When configured to **true**, the preferred BGP route learned by a VPRN is exported as the VPN-IP route even if it is inactive in the route table because a preferred BGP VPRN route from another PE is present. This overrides the default state in which the VPRN cannot export an inactive BGP route. For the BGP route to be exported, the VRF export policy must accept it. This command applies to both MPLS VPN and SRv6 VPN routes. In SRv6 VPN routes the advertised instruction is an End.DT, while in MPLS VPN routes the advertised label is a per-next-hop label.This “best-external” type of route advertisement is useful in active/standby multi-homing scenarios because it ensures that all PEs know about the backup path provided by the standby PE.<br><br>When configured to **false**, the preferred BGP route is not exported if it is inactive. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **export-inactive-bgp-enhanced** *boolean*

| | |
|---|---|
| Synopsis | Export best BGP route when better non-BGP route present |
| Context | **configure** service vprn *service-name* export-inactive-bgp-enhanced *boolean* |
| Tree | export-inactive-bgp-enhanced |
| Description | When configured to **true**, the router allows a BGP route that is inactive (because a better non-BGP route for the same prefix is present) to be exportable as a VPN-IP route.<br><br>A BGP route learned from a VPRN BGP peer is exportable as a VPN-IP route, only if it is the best route for the prefix and is installed in the route table of the VPRN. If the **export-inactive-bgp** command is **true** in the VPRN configuration, this rule is relaxed, and the best inactive VPRN BGP route is exportable as a VPN-IP route, provided that the active installed route for the prefix is an imported VPN-IP route.<br><br>The rule described in the preceding paragraph can be relaxed even further by configuring this command to **true**. When this command is **true**, the best inactive VPRN BGP route (best amongst all routes received from all CEs) is exportable as a VPN-IP route, regardless of the route type of the active installed route.<br><br>The configuration of this command overrides the **export-inactive-bgp** command. If this command is **true**, the **export-inactive-bgp** command does not need to be **true**.<br><br>When configured to **false**, the router disables allowing an inactive BGP route in the presence of a better non-BGP route to be exportable as a VPN-IP route. |
| Default | false |


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| | |
|---|---|
| Introduced | 23.7.R1 |
| Platforms | All |

### **fib-priority** *keyword*

| | |
|---|---|
| Synopsis | FIB priority for VPRN BGP routes |
| Context | **configure** service vprn *service-name* fib-priority *keyword* |
| Tree | fib-priority |
| Options | standard, high |
| Default | standard |
| Introduced | 16.0.R1 |
| Platforms | All |

### **firewall**

| | |
|---|---|
| Synopsis | Enter the **firewall** context |
| Context | **configure** service vprn *service-name* firewall |
| Tree | firewall |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **domain** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **domain** list instance |
| Context | **configure** service vprn *service-name* firewall domain *named-item* |
| Tree | domain |
| Max. instances | 1024 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | Firewall domain name |
| Context | **configure** service vprn *service-name* firewall domain *named-item* |
| Tree | domain |


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| | |
|---|---|
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the firewall domain |
| Context | **configure** service vprn *service-name* firewall domain *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **dhcpv6-server**

| | |
|---|---|
| Synopsis | Enter the **dhcpv6-server** context |
| Context | **configure** service vprn *service-name* firewall domain *named-item* dhcpv6-server |
| Tree | dhcpv6-server |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **name** *named-item*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | DHCPv6 server name |
| Context | **configure** service vprn *service-name* firewall domain *named-item* dhcpv6-server name *named-item* |
| Tree | name |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **router-instance** *string*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Router name |
| Context | **configure** service vprn *service-name* firewall domain *named-item* dhcpv6-server router-instance *string* |
| Tree | router-instance |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **nat-group** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | NAT group for this domain |
| Context | **configure** service vprn *service-name* firewall domain *named-item* nat-group *reference* |
| Tree | nat-group |
| Reference | **configure** isa nat-group *number* |
| Notes | The following elements are part of a mandatory choice: **nat-group** or **wlan-gw-group**. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **prefix** [ip-prefix] *ipv6-unicast-prefix*

| | |
|---|---|
| Synopsis | Enter the **prefix** list instance |
| Context | **configure** service vprn *service-name* firewall domain *named-item* prefix *ipv6-unicast-prefix* |
| Tree | prefix |
| Max. instances | 4096 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### [**ip-prefix**] *ipv6-unicast-prefix*

| | |
|---|---|
| Synopsis | IP prefix and prefix length for the domain firewall |
| Context | **configure** service vprn *service-name* firewall domain *named-item* prefix *ipv6-unicast-prefix* |
| Tree | prefix |
| Description | This command configures a prefix for which firewall functionality applies within the domain. Prefixes cannot be shared or duplicated across multiple domains in the same routing context. A domain can contain multiple prefixes. |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* firewall domain *named-item* prefix *ipv6-unicast-prefix* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **wlan-gw-group** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | WLAN GW group used for NAT |
| Context | **configure** service vprn *service-name* firewall domain *named-item* wlan-gw-group *reference* |
| Tree | wlan-gw-group |
| Reference | **configure** isa wlan-gw-group *number* |
| Notes | The following elements are part of a mandatory choice: **nat-group** or **wlan-gw-group**. |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## flowspec

| | |
|---|---|
| Synopsis | Enter the **flowspec** context |
| Context | **configure** service vprn *service-name* flowspec |
| Tree | flowspec |
| Introduced | 16.0.R1 |
| Platforms | All |

## filter-cam-type *keyword*

| | |
|---|---|
| Synopsis | Filter policy type for FlowSpec embedding |
| Context | **configure** service vprn *service-name* flowspec filter-cam-type *keyword* |
| Tree | filter-cam-type |
| Description | This command specifies the filter type that is required to embed FlowSpec entries. The filter type defines the match criteria that are available in the filter policy. |
| Options | normal, packet-length |
| Default | normal |
| Introduced | 20.7.R1 |
| Platforms | All |

## ip-filter-max-size *number*

| | |
|---|---|
| Synopsis | Maximum number of FlowSpec rule entries in IPv4 filter |
| Context | **configure** service vprn *service-name* flowspec ip-filter-max-size *number* |
| Tree | ip-filter-max-size |
| Description | This command configures the maximum number of IPv4 FlowSpec routes, or rules, that can be entered in the autocreated embedded filter, fSpec-X. FlowSpec filter entries embedded in a filter policy in this routing instance use filter entries from the range between the embedding offset and (offset + **ip-filter-max-size** - 1).<br><br>The maximum size can be configured to a higher or lower value at any time. If the current number of FlowSpec rules is greater than the new configured limit, the extra rules are removed immediately but retained in the BGP RIB. If the limit is increased, new rules are embedded only as they are received in new BGP updates.<br><br>The sum of this command and the highest offset in any IP filter that embeds FlowSpec rules from this routing instance (excluding filters that embed at offset 262143) must not exceed 262143. |
| Range | 0 to 262143 |
| Default | 512 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## **ipv6-filter-max-size** *number*

| | |
|---|---|
| Synopsis | Maximum number of flowspec rule entries in IPv6 filter |
| Context | **configure** service vprn *service-name* flowspec ipv6-filter-max-size *number* |
| Tree | ipv6-filter-max-size |
| Description | This command configures the maximum number of IPv6 FlowSpec routes, or rules, that can be embedded into an ingress IPv6 filter policy for a specified routing instance. Flow Spec filter entries embedded in a filter policy in this routing instance use filter entries from the range between the embedding offset and (offset + **ipv6-filter-max-size** - 1).<br>The maximum size can be configured to a higher or lower value at any time. If the current number of FlowSpec rules is greater than the new configured limit, the extra rules are removed immediately but retained in the BGP RIB. If the limit is increased, new rules are embedded only as they are received in new BGP updates.<br>The sum of this command and the highest offset in any IP filter that embeds FlowSpec rules from this routing instance (excluding filters that embed at offset 262143) must not exceed 262143. |
| Range | 0 to 262143 |
| Default | 512 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **grt-leaking**

| | |
|---|---|
| Synopsis | Enter the **grt-leaking** context |
| Context | **configure** service vprn *service-name* grt-leaking |
| Tree | grt-leaking |
| Introduced | 16.0.R1 |
| Platforms | All |

## **allow-local-management** *boolean*

| | |
|---|---|
| Synopsis | Enable management traffic |
| Context | **configure** service vprn *service-name* grt-leaking allow-local-management *boolean* |
| Tree | allow-local-management |


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| | |
|---|---|
| Description | When configured to **true**, this command enables the support of specific management protocols over VPRN interfaces that terminate on Base routing context IPv4 and IPv6 interface addresses, including Base loopback and system addresses.<br>This command does not control the support for management protocols terminating on VPRN interfaces directly. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## export-grt

| | |
|---|---|
| Synopsis | Enter the **export-grt** context |
| Context | **configure** service vprn *service-name* grt-leaking export-grt |
| Tree | export-grt |
| Introduced | 16.0.R1 |
| Platforms | All |

## policy-name *(policy-expr-string | string)*

| | |
|---|---|
| Synopsis | Route policy name or policy logical expression |
| Context | **configure** service vprn *service-name* grt-leaking export-grt policy-name *(policy-expr-string \| string)* |
| Tree | policy-name |
| String length | 1 to 255 |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

## export-limit *number*

| | |
|---|---|
| Synopsis | Maximum number of routes exported from VRF to GRT |
| Context | **configure** service vprn *service-name* grt-leaking export-limit *number* |
| Tree | export-limit |
| Range | 0 to 1000 |


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| | |
|---|---|
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **export-v6-limit** *number*

| | |
|---|---|
| Synopsis | Maximum number of IPv6 routes exported from VPRN to GRT |
| Context | **configure** service vprn *service-name* grt-leaking export-v6-limit *number* |
| Tree | export-v6-limit |
| Range | 0 to 1000 |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **grt-lookup** *boolean*

| | |
|---|---|
| Synopsis | Enable global route table lookup |
| Context | **configure** service vprn *service-name* grt-leaking grt-lookup *boolean* |
| Tree | grt-lookup |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **import-grt**

| | |
|---|---|
| Synopsis | Enter the **import-grt** context |
| Context | **configure** service vprn *service-name* grt-leaking import-grt |
| Tree | import-grt |
| Introduced | 16.0.R4 |
| Platforms | All |

### **policy-name** *(policy-expr-string | string)*

| | |
|---|---|
| Synopsis | Route policy name or policy logical expression |
| Context | **configure** service vprn *service-name* grt-leaking import-grt policy-name *(policy-expr-string \| string)* |


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| | |
|---|---|
| Tree | policy-name |
| String length | 1 to 255 |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R4 |
| Platforms | All |

## gsmp

| | |
|---|---|
| Synopsis | Enter the **gsmp** context |
| Context | **configure** service vprn *service-name* gsmp |
| Tree | gsmp |
| Introduced | 16.0.R1 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of GSMP |
| Context | **configure** service vprn *service-name* gsmp admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

## group [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **group** list instance |
| Context | **configure** service vprn *service-name* gsmp group *named-item* |
| Tree | group |
| Max. instances | 1024 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**name**] *named-item*

| | |
|---|---|
| Synopsis | GSMP group name |
| Context | **configure** service vprn *service-name* gsmp group *named-item* |
| Tree | group |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the GSMP group |
| Context | **configure** service vprn *service-name* gsmp group *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ancp**

| | |
|---|---|
| Synopsis | Enter the **ancp** context |
| Context | **configure** service vprn *service-name* gsmp group *named-item* ancp |
| Tree | ancp |
| Introduced | 16.0.R1 |
| Platforms | All |

### **dynamic-topology-discovery** *boolean*

| | |
|---|---|
| Synopsis | Enable the ANCP dynamic topology discovery capability |
| Context | **configure** service vprn *service-name* gsmp group *named-item* ancp dynamic-topology-discovery *boolean* |
| Tree | dynamic-topology-discovery |
| Default | true |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **oam** *boolean*

| | |
|---|---|
| Synopsis | Enable GSMP ANCP OAM capability at startup of GSMP connection |
| Context | **configure** service vprn *service-name* gsmp group *named-item* ancp oam *boolean* |
| Tree | oam |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* gsmp group *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hold-multiplier** *number*

| | |
|---|---|
| Synopsis | Hold-multiplier for the GSMP connections in this group |
| Context | **configure** service vprn *service-name* gsmp group *named-item* hold-multiplier *number* |
| Tree | hold-multiplier |
| Range | 1 to 100 |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **idle-filter** *boolean*

| | |
|---|---|
| Synopsis | Filter ANCP messages from IDLE DSL lines |
| Context | **configure** service vprn *service-name* gsmp group *named-item* idle-filter *boolean* |


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| | |
|---|---|
| Tree | idle-filter |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **keepalive** *number*

| | |
|---|---|
| Synopsis | Keepalive value for the GSMP connections in this group |
| Context | **configure** service vprn *service-name* gsmp group *named-item* keepalive *number* |
| Tree | keepalive |
| Range | 1 to 25 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **neighbor** [remote-address] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Enter the **neighbor** list instance |
| Context | **configure** service vprn *service-name* gsmp group *named-item* neighbor *ipv4-unicast-address* |
| Tree | neighbor |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**remote-address**] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | GSMP neighbor remote IP address |
| Context | **configure** service vprn *service-name* gsmp group *named-item* neighbor *ipv4-unicast-address* |
| Tree | neighbor |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the GSMP neighbor |
| Context | **configure** service vprn *service-name* gsmp group *named-item* neighbor *ipv4-unicast-address* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* gsmp group *named-item* neighbor *ipv4-unicast-address* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **local-address** *ipv4-unicast-address*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Restrict connections to this local address only within the service running ANCP |
| Context | **configure** service vprn *service-name* gsmp group *named-item* neighbor *ipv4-unicast-address* local-address *ipv4-unicast-address* |
| Tree | local-address |
| Introduced | 16.0.R1 |
| Platforms | All |


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## priority-marking

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **priority-marking** context |
| Context | **configure** service vprn *service-name* gsmp group *named-item* neighbor *ipv4-unicast-address* priority-marking |
| Tree | priority-marking |
| Introduced | 16.0.R1 |
| Platforms | All |

## dscp *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | DSCP that is used while remarking the in profile packets |
| Context | **configure** service vprn *service-name* gsmp group *named-item* neighbor *ipv4-unicast-address* priority-marking dscp *keyword* |
| Tree | dscp |
| Options | be, cp1, cp2, cp3, cp4, cp5, cp6, cp7, cs1, cp9, af11, cp11, af12, cp13, af13, cp15, cs2, cp17, af21, cp19, af22, cp21, af23, cp23, cs3, cp25, af31, cp27, af32, cp29, af33, cp31, cs4, cp33, af41, cp35, af42, cp37, af43, cp39, cs5, cp41, cp42, cp43, cp44, cp45, ef, cp47, nc1, cp49, cp50, cp51, cp52, cp53, cp54, cp55, nc2, cp57, cp58, cp59, cp60, cp61, cp62, cp63 |
| Notes | The following elements are part of a choice: **dscp** or **prec**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## prec *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Precedence priority marking |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* gsmp group *named-item* neighbor *ipv4-unicast-address* priority-marking prec *number* |
| Tree | prec |
| Range | 0 to 7 |
| Notes | The following elements are part of a choice: **dscp** or **prec**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **persistency** *boolean*

| | |
|---|---|
| Synopsis | Store DSL line information when the GSMP connection terminates |
| Context | **configure** service vprn *service-name* gsmp group *named-item* persistency *boolean* |
| Tree | persistency |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## gtp

| | |
|---|---|
| Synopsis | Enter the **gtp** context |
| Context | **configure** service vprn *service-name* gtp |
| Tree | gtp |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## s11

| | |
|---|---|
| Synopsis | Enter the **s11** context |
| Context | **configure** service vprn *service-name* gtp s11 |
| Tree | s11 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **interface** [interface-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **interface** list instance |
| Context | **configure** service vprn *service-name* gtp s11 interface *reference* |
| Tree | interface |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**interface-name**] *reference*

| | |
|---|---|
| Synopsis | Interface name |
| Context | **configure** service vprn *service-name* gtp s11 interface *reference* |
| Tree | interface |
| Reference | **configure** service vprn *service-name* interface *interface-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **apn-policy** *reference*

| | |
|---|---|
| Synopsis | Access Point Name (APN) policy for the S11 interface |
| Context | **configure** service vprn *service-name* gtp s11 interface *reference* apn-policy *reference* |
| Tree | apn-policy |
| Reference | **configure** subscriber-mgmt gtp apn-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **peer-profile-map**

| | |
|---|---|
| Synopsis | Enter the **peer-profile-map** context |
| Context | **configure** service vprn *service-name* gtp s11 peer-profile-map |
| Tree | peer-profile-map |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **prefix** [peer-prefix] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Enter the **prefix** list instance |
| Context | **configure** service vprn *service-name* gtp s11 peer-profile-map prefix *(ipv4-prefix* \| *ipv6-prefix)* |
| Tree | prefix |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**peer-prefix**] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | IP prefix and prefix length of the subnet |
| Context | **configure** service vprn *service-name* gtp s11 peer-profile-map prefix *(ipv4-prefix* \| *ipv6-prefix)* |
| Tree | prefix |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **peer-profile** *reference*

| | |
|---|---|
| Synopsis | Peer profile used for peers in this prefix |
| Context | **configure** service vprn *service-name* gtp s11 peer-profile-map prefix *(ipv4-prefix* \| *ipv6-prefix)* peer-profile *reference* |
| Tree | peer-profile |
| Reference | **configure** subscriber-mgmt gtp peer-profile *named-item* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **upf-data-endpoint**

| | |
|---|---|
| Synopsis | Enable the **upf-data-endpoint** context |
| Context | **configure** service vprn *service-name* gtp upf-data-endpoint |
| Tree | upf-data-endpoint |


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| | |
|---|---|
| Description | Commands in this context configure a GTP-U service endpoint used by BNG CUPS FWA sessions. |
| Introduced | 21.2.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **fpe** *reference*

| | |
|---|---|
| Synopsis | FPE used to encapsulate and decapsulate GTP-U traffic |
| Context | **configure** service vprn *service-name* gtp upf-data-endpoint fpe *reference* |
| Tree | fpe |
| Reference | **configure** fwd-path-ext fpe *number* |
| Notes | This element is mandatory. |
| Introduced | 21.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **interface** *reference*

| | |
|---|---|
| Synopsis | Interface on which the GTP-U packets terminate |
| Context | **configure** service vprn *service-name* gtp upf-data-endpoint interface *reference* |
| Tree | interface |
| Reference | **configure** service vprn *service-name* interface *interface-name* |
| Notes | This element is mandatory. |
| Introduced | 21.2.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **secondary-interface** *reference*

| | |
|---|---|
| Synopsis | Secondary interface on which GTP traffic terminates |
| Context | **configure** service vprn *service-name* gtp upf-data-endpoint secondary-interface *reference* |
| Tree | secondary-interface |
| Description | This command configures a secondary interface to terminate GTP-U traffic. To instruct the UPF to use this interface for the data endpoint, configure the MAG-c CPF with the special S1-u or N3 network-realm setting "*service-name*#%secondary".<br>See the *MAG-c Control Plane Function Guide* for more information about configuring the MAG-c CPF. |


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| | |
|---|---|
| Reference | **configure** service vprn *service-name* interface *interface-name* |
| Introduced | 24.7.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## uplink

| | |
|---|---|
| Synopsis | Enable the **uplink** context |
| Context | **configure** service vprn *service-name* gtp uplink |
| Tree | uplink |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## apn *string*

| | |
|---|---|
| Synopsis | Network Identifier part of APN |
| Context | **configure** service vprn *service-name* gtp uplink apn *string* |
| Tree | apn |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## pdn-type *keyword*

| | |
|---|---|
| Synopsis | Default 3GPP PDN in GTP |
| Context | **configure** service vprn *service-name* gtp uplink pdn-type *keyword* |
| Tree | pdn-type |
| Options | ipv4, ipv6, ipv4v6 |
| Default | ipv4 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## peer-profile-map

| | |
|---|---|
| Synopsis | Enter the **peer-profile-map** context |
| Context | **configure** service vprn *service-name* gtp uplink peer-profile-map |


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| | |
|---|---|
| Tree | peer-profile-map |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **prefix** [peer-prefix] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Enter the **prefix** list instance |
| Context | **configure** service vprn *service-name* gtp uplink peer-profile-map prefix *(ipv4-prefix \| ipv6-prefix)* |
| Tree | prefix |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**peer-prefix**] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | IP prefix and prefix length of the subnet |
| Context | **configure** service vprn *service-name* gtp uplink peer-profile-map prefix *(ipv4-prefix \| ipv6-prefix)* |
| Tree | prefix |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **peer-profile** *reference*

| | |
|---|---|
| Synopsis | Peer profile name |
| Context | **configure** service vprn *service-name* gtp uplink peer-profile-map prefix *(ipv4-prefix \| ipv6-prefix)* peer-profile *reference* |
| Tree | peer-profile |
| Reference | **configure** subscriber-mgmt gtp peer-profile *named-item* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **hash-label** *boolean*

| | |
|---|---|
| Synopsis | Include hash label |
| Context | **configure** service vprn *service-name* hash-label *boolean* |
| Tree | hash-label |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **igmp**

| | |
|---|---|
| Synopsis | Enable the **igmp** context |
| Context | **configure** service vprn *service-name* igmp |
| Tree | igmp |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of IGMP |
| Context | **configure** service vprn *service-name* igmp admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **forwarding-group-interface** forwarding-service *service-name* group-interface-name *reference*

| | |
|---|---|
| Synopsis | Enter the **forwarding-group-interface** list instance |
| Context | **configure** service vprn *service-name* igmp forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* |
| Tree | forwarding-group-interface |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **forwarding-service** *service-name*

| | |
|---|---|
| Synopsis | Forwarding service for a subscriber interface in a retailer context |
| Context | **configure** service vprn *service-name* igmp forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* |
| Tree | forwarding-group-interface |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **group-interface-name** *reference*

| | |
|---|---|
| Synopsis | Group interface name |
| Context | **configure** service vprn *service-name* igmp forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* |
| Tree | forwarding-group-interface |
| Reference | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of IGMP |
| Context | **configure** service vprn *service-name* igmp forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## **import-policy** *reference*

| | |
|---|---|
| Synopsis | Import policy that filters IGMP packets |
| Context | **configure** service vprn *service-name* igmp forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* import-policy *reference* |
| Tree | import-policy |
| Description | This command configures the IGMP import policy, or filter, for an interface subscriber or a group interface. An IGMP filter is also known as a black or white list, and it is defined as a router policy option.<br><br>When redirection is applied, only the import policy from the subscriber is in effect. The import policy under the group interface is applicable only for IGMP states received directly on the SAP (AN in IGMP proxy mode). |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **maximum-number-group-sources** *number*

| | |
|---|---|
| Synopsis | Maximum number of group sources for this interface |
| Context | **configure** service vprn *service-name* igmp forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* maximum-number-group-sources *number* |
| Tree | maximum-number-group-sources |
| Description | This command configures the maximum number of group sources for which IGMP or MLD can have local receiver information based on received IGMP or MLD reports on this interface. When this configuration is changed dynamically to a lower value than the currently accepted number of group sources, the group sources that are already accepted are not deleted. Only new group sources are not allowed. |
| Range | 1 to 32000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **maximum-number-groups** *number*

| | |
|---|---|
| Synopsis | Maximum number of groups for this interface |
| Context | **configure** service vprn *service-name* igmp forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* maximum-number-groups *number* |
| Tree | maximum-number-groups |


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| | |
|---|---|
| Range | 1 to 16000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **maximum-number-sources** *number*

| | |
|---|---|
| Synopsis | Maximum number of sources that are allowed per group |
| Context | **configure** service vprn *service-name* igmp forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* maximum-number-sources *number* |
| Tree | maximum-number-sources |
| Range | 1 to 1000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **mcac**

| | |
|---|---|
| Synopsis | Enter the **mcac** context |
| Context | **configure** service vprn *service-name* igmp forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* mcac |
| Tree | mcac |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **bandwidth**

| | |
|---|---|
| Synopsis | Enter the **bandwidth** context |
| Context | **configure** service vprn *service-name* igmp forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* mcac bandwidth |
| Tree | bandwidth |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **mandatory** *(number | keyword)*

| | |
|---|---|
| Synopsis | Pre-reserved bandwidth for all mandatory channels |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* igmp forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* mcac bandwidth mandatory *(number \| keyword)* |
| Tree | mandatory |
| Range | 0 to 2147483647 |
| Options | unlimited |
| Default | unlimited |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **total** *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum allowed bandwidth |
| Context | **configure** service vprn *service-name* igmp forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* mcac bandwidth total *(number \| keyword)* |
| Tree | total |
| Range | 0 to 2147483647 |
| Options | unlimited |
| Default | unlimited |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **interface-policy** *reference*

| | |
|---|---|
| Synopsis | Name of multicast CAC interface policy |
| Context | **configure** service vprn *service-name* igmp forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* mcac interface-policy *reference* |
| Tree | interface-policy |
| Reference | **configure** mcac interface-policy *string* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **policy** *reference*

| | |
|---|---|
| Synopsis | Multicast CAC policy name |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* igmp forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* mcac policy *reference* |
| Tree | policy |
| Description | This command configures the name of the global channel bandwidth definition policy that is used for (H)MCAC and HQoS adjustment.<br>Within the scope of HQoS adjustment, the channel definition policy under the group interface is used if redirection is unconfigured. In this case, the HQoS adjustment can be applied to IPoE subscribers in per-SAP replication mode.<br>If redirection is configured, the channel bandwidth definition policy applied under the Layer 3 redirected interface is in effect.<br>Hierarchical MCAC (HMCAC) is supported on two levels simultaneously:<br>• subscriber level and redirected interface when redirection is configured<br>• subscriber level and group-interface level when redirection is unconfigured<br>In HMCAC, the subscriber is checked against its bandwidth limits first, then against the bandwidth limits of the redirected or group interface. If redirection is configured but the policy is referenced only under the group interface, no admission control is executed (HMCAC or MCAC). |
| Reference | **configure** mcac policy *string* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **query-interval** *number*

| | |
|---|---|
| Synopsis | Time between two consecutive host-query messages |
| Context | **configure** service vprn *service-name* igmp forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* query-interval *number* |
| Tree | query-interval |
| Range | 2 to 1024 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **query-last-member-interval** *number*

| | |
|---|---|
| Synopsis | Time between group-specific query messages |
| Context | **configure** service vprn *service-name* igmp forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* query-last-member-interval *number* |
| Tree | query-last-member-interval |


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| | |
|---|---|
| Range | 1 to 1023 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **query-response-interval** *number*

| | |
|---|---|
| Synopsis | Time to wait for a response to the host-query messages |
| Context | **configure** service vprn *service-name* igmp forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* query-response-interval *number* |
| Tree | query-response-interval |
| Range | 1 to 1023 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **query-source-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Source address for IGMP queries |
| Context | **configure** service vprn *service-name* igmp forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* query-source-address *ipv4-unicast-address* |
| Tree | query-source-address |
| Description | This command configures the query source IP address for the group interface. This IP address overrides the source IP address configured at the router level. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **router-alert-check** *boolean*

| | |
|---|---|
| Synopsis | Enable router alert checking for IGMP or MLD messages |
| Context | **configure** service vprn *service-name* igmp forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* router-alert-check *boolean* |
| Tree | router-alert-check |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **sub-hosts-only** *boolean*

| | |
|---|---|
| Synopsis | Allow IGMP traffic from known hosts only |
| Context | **configure** service vprn *service-name* igmp forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* sub-hosts-only *boolean* |
| Tree | sub-hosts-only |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **subnet-check** *boolean*

| | |
|---|---|
| Synopsis | Allow subnet checking |
| Context | **configure** service vprn *service-name* igmp forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* subnet-check *boolean* |
| Tree | subnet-check |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **version** *keyword*

| | |
|---|---|
| Synopsis | IGMP protocol version |
| Context | **configure** service vprn *service-name* igmp forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* version *keyword* |
| Tree | version |
| Options | 1, 2, 3 |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **group-if-query-source-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Default query-source address for all group interfaces |
| Context | **configure** service vprn *service-name* igmp group-if-query-source-address *ipv4-unicast-address* |


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| | |
|---|---|
| Tree | group-if-query-source-address |
| Introduced | 16.0.R1 |
| Platforms | All |

### **group-interface** [group-interface-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **group-interface** list instance |
| Context | **configure** service vprn *service-name* igmp group-interface *reference* |
| Tree | group-interface |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**group-interface-name**] *reference*

| | |
|---|---|
| Synopsis | Group interface name |
| Context | **configure** service vprn *service-name* igmp group-interface *reference* |
| Tree | group-interface |
| Reference | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of IGMP |
| Context | **configure** service vprn *service-name* igmp group-interface *reference* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## **import-policy** *reference*

| | |
|---|---|
| Synopsis | Import policy that filters IGMP packets |
| Context | **configure** service vprn *service-name* igmp group-interface *reference* import-policy *reference* |
| Tree | import-policy |
| Description | This command configures the IGMP import policy, or filter, for an interface subscriber or a group interface. An IGMP filter is also known as a black or white list, and it is defined as a router policy option.<br>When redirection is applied, only the import policy from the subscriber is in effect. The import policy under the group interface is applicable only for IGMP states received directly on the SAP (AN in IGMP proxy mode). |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **maximum-number-group-sources** *number*

| | |
|---|---|
| Synopsis | Maximum number of group sources for this interface |
| Context | **configure** service vprn *service-name* igmp group-interface *reference* maximum-number-group-sources *number* |
| Tree | maximum-number-group-sources |
| Description | This command configures the maximum number of group sources for which IGMP or MLD can have local receiver information based on received IGMP or MLD reports on this interface. When this configuration is changed dynamically to a lower value than the currently accepted number of group sources, the group sources that are already accepted are not deleted. Only new group sources are not allowed. |
| Range | 1 to 32000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **maximum-number-groups** *number*

| | |
|---|---|
| Synopsis | Maximum number of groups for this interface |
| Context | **configure** service vprn *service-name* igmp group-interface *reference* maximum-number-groups *number* |
| Tree | maximum-number-groups |
| Range | 1 to 16000 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **maximum-number-sources** *number*

| | |
|---|---|
| Synopsis | Maximum number of sources that are allowed per group |
| Context | **configure** service vprn *service-name* igmp group-interface *reference* maximum-number-sources *number* |
| Tree | maximum-number-sources |
| Range | 1 to 1000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **mcac**

| | |
|---|---|
| Synopsis | Enter the **mcac** context |
| Context | **configure** service vprn *service-name* igmp group-interface *reference* mcac |
| Tree | mcac |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **bandwidth**

| | |
|---|---|
| Synopsis | Enter the **bandwidth** context |
| Context | **configure** service vprn *service-name* igmp group-interface *reference* mcac bandwidth |
| Tree | bandwidth |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **mandatory** *(number | keyword)*

| | |
|---|---|
| Synopsis | Pre-reserved bandwidth for all mandatory channels |
| Context | **configure** service vprn *service-name* igmp group-interface *reference* mcac bandwidth mandatory *(number | keyword)* |
| Tree | mandatory |
| Range | 0 to 2147483647 |


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| | |
|---|---|
| Options | unlimited |
| Default | unlimited |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **total** *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum allowed bandwidth |
| Context | **configure** service vprn *service-name* igmp group-interface *reference* mcac bandwidth total *(number | keyword)* |
| Tree | total |
| Range | 0 to 2147483647 |
| Options | unlimited |
| Default | unlimited |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **interface-policy** *reference*

| | |
|---|---|
| Synopsis | Name of multicast CAC interface policy |
| Context | **configure** service vprn *service-name* igmp group-interface *reference* mcac interface-policy *reference* |
| Tree | interface-policy |
| Reference | **configure** mcac interface-policy *string* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **policy** *reference*

| | |
|---|---|
| Synopsis | Multicast CAC policy name |
| Context | **configure** service vprn *service-name* igmp group-interface *reference* mcac policy *reference* |
| Tree | policy |
| Description | This command configures the name of the global channel bandwidth definition policy that is used for (H)MCAC and HQoS adjustment. |


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Within the scope of HQoS adjustment, the channel definition policy under the group interface is used if redirection is unconfigured. In this case, the HQoS adjustment can be applied to IPoE subscribers in per-SAP replication mode.

If redirection is configured, the channel bandwidth definition policy applied under the Layer 3 redirected interface is in effect.

Hierarchical MCAC (HMCAC) is supported on two levels simultaneously:

- subscriber level and redirected interface when redirection is configured
- subscriber level and group-interface level when redirection is unconfigured

In HMCAC, the subscriber is checked against its bandwidth limits first, then against the bandwidth limits of the redirected or group interface. If redirection is configured but the policy is referenced only under the group interface, no admission control is executed (HMCAC or MCAC).

| | |
|---|---|
| Reference | **configure** mcac policy *string* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **query-interval** *number*

| | |
|---|---|
| Synopsis | Time between two consecutive host-query messages |
| Context | **configure** service vprn *service-name* igmp group-interface *reference* query-interval *number* |
| Tree | query-interval |
| Range | 2 to 1024 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **query-last-member-interval** *number*

| | |
|---|---|
| Synopsis | Time between group-specific query messages |
| Context | **configure** service vprn *service-name* igmp group-interface *reference* query-last-member-interval *number* |
| Tree | query-last-member-interval |
| Range | 1 to 1023 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **query-response-interval** *number*

| | |
|---|---|
| Synopsis | Time to wait for a response to the host-query messages |
| Context | **configure** service vprn *service-name* igmp group-interface *reference* query-response-interval *number* |
| Tree | query-response-interval |
| Range | 1 to 1023 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **query-source-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Source address for IGMP queries |
| Context | **configure** service vprn *service-name* igmp group-interface *reference* query-source-address *ipv4-unicast-address* |
| Tree | query-source-address |
| Description | This command configures the query source IP address for the group interface. This IP address overrides the source IP address configured at the router level. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **router-alert-check** *boolean*

| | |
|---|---|
| Synopsis | Enable router alert checking for IGMP or MLD messages |
| Context | **configure** service vprn *service-name* igmp group-interface *reference* router-alert-check *boolean* |
| Tree | router-alert-check |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sub-hosts-only** *boolean*

| | |
|---|---|
| Synopsis | Allow IGMP traffic from known hosts only |
| Context | **configure** service vprn *service-name* igmp group-interface *reference* sub-hosts-only *boolean* |
| Tree | sub-hosts-only |


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| | |
|---|---|
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **subnet-check** *boolean*

| | |
|---|---|
| Synopsis | Allow subnet checking |
| Context | **configure** service vprn *service-name* igmp group-interface *reference* subnet-check *boolean* |
| Tree | subnet-check |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **version** *keyword*

| | |
|---|---|
| Synopsis | IGMP protocol version |
| Context | **configure** service vprn *service-name* igmp group-interface *reference* version *keyword* |
| Tree | version |
| Options | 1, 2, 3 |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **interface** [ip-interface-name] *interface-name*

| | |
|---|---|
| Synopsis | Enter the **interface** list instance |
| Context | **configure** service vprn *service-name* igmp interface *interface-name* |
| Tree | interface |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ip-interface-name**] *interface-name*

| | |
|---|---|
| Synopsis | IP interface name |
| Context | **configure** service vprn *service-name* igmp interface *interface-name* |


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| | |
|---|---|
| Tree | interface |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R2 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of IGMP |
| Context | **configure** service vprn *service-name* igmp interface *interface-name* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **import-policy** *reference*

| | |
|---|---|
| Synopsis | Import policy that filters IGMP packets |
| Context | **configure** service vprn *service-name* igmp interface *interface-name* import-policy *reference* |
| Tree | import-policy |
| Description | This command configures the IGMP import policy, or filter, for an interface subscriber or a group interface. An IGMP filter is also known as a black or white list, and it is defined as a router policy option.<br>When redirection is applied, only the import policy from the subscriber is in effect. The import policy under the group interface is applicable only for IGMP states received directly on the SAP (AN in IGMP proxy mode). |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **maximum-number-group-sources** *number*

| | |
|---|---|
| Synopsis | Maximum number of group sources for this interface |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* igmp interface *interface-name* maximum-number-group-sources *number* |
| Tree | maximum-number-group-sources |
| Description | This command configures the maximum number of group sources for which IGMP or MLD can have local receiver information based on received IGMP or MLD reports on this interface. When this configuration is changed dynamically to a lower value than the currently accepted number of group sources, the group sources that are already accepted are not deleted. Only new group sources are not allowed. |
| Range | 1 to 32000 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **maximum-number-groups** *number*

| | |
|---|---|
| Synopsis | Maximum number of groups for this interface |
| Context | **configure** service vprn *service-name* igmp interface *interface-name* maximum-number-groups *number* |
| Tree | maximum-number-groups |
| Range | 1 to 16000 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **maximum-number-sources** *number*

| | |
|---|---|
| Synopsis | Maximum number of sources that are allowed per group |
| Context | **configure** service vprn *service-name* igmp interface *interface-name* maximum-number-sources *number* |
| Tree | maximum-number-sources |
| Range | 1 to 1000 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **mcac**

| | |
|---|---|
| Synopsis | Enter the **mcac** context |
| Context | **configure** service vprn *service-name* igmp interface *interface-name* mcac |
| Tree | mcac |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## bandwidth

| | |
|---|---|
| Synopsis | Enter the **bandwidth** context |
| Context | **configure** service vprn *service-name* igmp interface *interface-name* mcac bandwidth |
| Tree | bandwidth |
| Introduced | 16.0.R1 |
| Platforms | All |

## mandatory *(number | keyword)*

| | |
|---|---|
| Synopsis | Pre-reserved bandwidth for all mandatory channels |
| Context | **configure** service vprn *service-name* igmp interface *interface-name* mcac bandwidth mandatory *(number \| keyword)* |
| Tree | mandatory |
| Range | 0 to 2147483647 |
| Options | unlimited |
| Default | unlimited |
| Introduced | 16.0.R1 |
| Platforms | All |

## total *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum allowed bandwidth |
| Context | **configure** service vprn *service-name* igmp interface *interface-name* mcac bandwidth total *(number \| keyword)* |
| Tree | total |
| Range | 0 to 2147483647 |
| Options | unlimited |
| Default | unlimited |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **interface-policy** *reference*

| | |
|---|---|
| Synopsis | Name of multicast CAC interface policy |
| Context | **configure** service vprn *service-name* igmp interface *interface-name* mcac interface-policy *reference* |
| Tree | interface-policy |
| Reference | **configure** mcac interface-policy *string* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mc-constraints**

| | |
|---|---|
| Synopsis | Enter the **mc-constraints** context |
| Context | **configure** service vprn *service-name* igmp interface *interface-name* mcac mc-constraints |
| Tree | mc-constraints |
| Introduced | 16.0.R1 |
| Platforms | All |

### **level** [level-id] *number*

| | |
|---|---|
| Synopsis | Enter the **level** list instance |
| Context | **configure** service vprn *service-name* igmp interface *interface-name* mcac mc-constraints level *number* |
| Tree | level |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**level-id**] *number*

| | |
|---|---|
| Synopsis | Bandwidth level ID for an MCAC constraint |
| Context | **configure** service vprn *service-name* igmp interface *interface-name* mcac mc-constraints level *number* |
| Tree | level |
| Range | 1 to 8 |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **bandwidth** *number*

| | |
|---|---|
| Synopsis | Bandwidth available for this level |
| Context | **configure** service vprn *service-name* igmp interface *interface-name* mcac mc-constraints level *number* bandwidth *number* |
| Tree | bandwidth |
| Range | 0 to 2147483647 |
| Units | kilobps |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **number-down** [number-lag-port-down] *number*

| | |
|---|---|
| Synopsis | Enter the **number-down** list instance |
| Context | **configure** service vprn *service-name* igmp interface *interface-name* mcac mc-constraints number-down *number* |
| Tree | number-down |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**number-lag-port-down**] *number*

| | |
|---|---|
| Synopsis | Number of ports that are down in this LAG link |
| Context | **configure** service vprn *service-name* igmp interface *interface-name* mcac mc-constraints number-down *number* |
| Tree | number-down |
| Range | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **level** *number*

| | |
|---|---|
| Synopsis | Level ID to associate with number of down LAG ports |
| Context | **configure** service vprn *service-name* igmp interface *interface-name* mcac mc-constraints number-down *number* level *number* |
| Tree | level |
| Description | This command specifies the bandwidth for a given level. Level 1 has the highest priority and level 8 has the lowest priority. |
| Range | 1 to 8 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **use-lag-port-weight** *boolean*

| | |
|---|---|
| Synopsis | Use LAG port weight in calculating MCAC constraints |
| Context | **configure** service vprn *service-name* igmp interface *interface-name* mcac mc-constraints use-lag-port-weight *boolean* |
| Tree | use-lag-port-weight |
| Description | When configured to **true**, port weight is used when determining available bandwidth per level when LAG ports go down or come up. This command is required for proper operation on mixed port-speed LAGs and can also be used for unmixed port-speed LAGs. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **policy** *reference*

| | |
|---|---|
| Synopsis | Multicast CAC policy name |
| Context | **configure** service vprn *service-name* igmp interface *interface-name* mcac policy *reference* |
| Tree | policy |
| Description | This command configures the name of the global channel bandwidth definition policy that is used for (H)MCAC and HQoS adjustment.<br>Within the scope of HQoS adjustment, the channel definition policy under the group interface is used if redirection is unconfigured. In this case, the HQoS adjustment can be applied to IPoE subscribers in per-SAP replication mode. |


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If redirection is configured, the channel bandwidth definition policy applied under the Layer 3 redirected interface is in effect.

Hierarchical MCAC (HMCAC) is supported on two levels simultaneously:

- subscriber level and redirected interface when redirection is configured
- subscriber level and group-interface level when redirection is unconfigured

In HMCAC, the subscriber is checked against its bandwidth limits first, then against the bandwidth limits of the redirected or group interface. If redirection is configured but the policy is referenced only under the group interface, no admission control is executed (HMCAC or MCAC).

| | |
|---|---|
| Reference | **configure** mcac policy *string* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **query-interval** *number*

| | |
|---|---|
| Synopsis | Time between two consecutive host-query messages |
| Context | **configure** service vprn *service-name* igmp interface *interface-name* query-interval *number* |
| Tree | query-interval |
| Range | 2 to 1024 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **query-last-member-interval** *number*

| | |
|---|---|
| Synopsis | Time between group-specific query messages |
| Context | **configure** service vprn *service-name* igmp interface *interface-name* query-last-member-interval *number* |
| Tree | query-last-member-interval |
| Range | 1 to 1023 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **query-response-interval** *number*

| | |
|---|---|
| Synopsis | Time to wait for a response to the host-query messages |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* igmp interface *interface-name* query-response-interval *number* |
| Tree | query-response-interval |
| Range | 1 to 1023 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **redundant-mcast** *boolean*

| | |
|---|---|
| Synopsis | Use interface as a redundant-pair member for multicast |
| Context | **configure** service vprn *service-name* igmp interface *interface-name* redundant-mcast *boolean* |
| Tree | redundant-mcast |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **router-alert-check** *boolean*

| | |
|---|---|
| Synopsis | Enable router alert checking for IGMP or MLD messages |
| Context | **configure** service vprn *service-name* igmp interface *interface-name* router-alert-check *boolean* |
| Tree | router-alert-check |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ssm-translate**

| | |
|---|---|
| Synopsis | Enter the **ssm-translate** context |
| Context | **configure** service vprn *service-name* igmp interface *interface-name* ssm-translate |
| Tree | ssm-translate |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **group-range** start *ipv4-multicast-address* end *ipv4-multicast-address*

| | |
|---|---|
| Synopsis | Enter the **group-range** list instance |
| Context | **configure** service vprn *service-name* igmp interface *interface-name* ssm-translate group-range start *ipv4-multicast-address* end *ipv4-multicast-address* |
| Tree | group-range |
| Introduced | 16.0.R1 |
| Platforms | All |

### **start** *ipv4-multicast-address*

| | |
|---|---|
| Synopsis | Lower bound of the IP address group range |
| Context | **configure** service vprn *service-name* igmp interface *interface-name* ssm-translate group-range start *ipv4-multicast-address* end *ipv4-multicast-address* |
| Tree | group-range |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **end** *ipv4-multicast-address*

| | |
|---|---|
| Synopsis | Upper bound of the IP address group range |
| Context | **configure** service vprn *service-name* igmp interface *interface-name* ssm-translate group-range start *ipv4-multicast-address* end *ipv4-multicast-address* |
| Tree | group-range |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **source** [source-address] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Add a list entry for **source** |
| Context | **configure** service vprn *service-name* igmp interface *interface-name* ssm-translate group-range start *ipv4-multicast-address* end *ipv4-multicast-address* source *ipv4-unicast-address* |
| Tree | source |


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| | |
|---|---|
| Min. instances | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**source-address**] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Source IP address of multicast channel sending data |
| Context | **configure** service vprn *service-name* igmp interface *interface-name* ssm-translate group-range start *ipv4-multicast-address* end *ipv4-multicast-address* source *ipv4-unicast-address* |
| Tree | source |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R2 |
| Platforms | All |

### **static**

| | |
|---|---|
| Synopsis | Enter the **static** context |
| Context | **configure** service vprn *service-name* igmp interface *interface-name* static |
| Tree | static |
| Introduced | 16.0.R1 |
| Platforms | All |

### **group** [group-address] *ipv4-multicast-address*

| | |
|---|---|
| Synopsis | Enter the **group** list instance |
| Context | **configure** service vprn *service-name* igmp interface *interface-name* static group *ipv4-multicast-address* |
| Tree | group |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**group-address**] *ipv4-multicast-address*

| | |
|---|---|
| Synopsis | Group address of static IGMP multicast channel |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* igmp interface *interface-name* static group *ipv4-multicast-address* |
| Tree | group |
| Description | This command configures an address that receives data on an interface. The IP address must be unique for each static group. |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **source** [source-address] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Add a list entry for **source** |
| Context | **configure** service vprn *service-name* igmp interface *interface-name* static group *ipv4-multicast-address* source *ipv4-unicast-address* |
| Tree | source |
| Notes | The following elements are part of a mandatory choice: **source** or **starg**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**source-address**] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Source IP address of multicast channel sending data |
| Context | **configure** service vprn *service-name* igmp interface *interface-name* static group *ipv4-multicast-address* source *ipv4-unicast-address* |
| Tree | source |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R2 |
| Platforms | All |

### **starg**

| | |
|---|---|
| Synopsis | any source address (*,G) |
| Context | **configure** service vprn *service-name* igmp interface *interface-name* static group *ipv4-multicast-address* starg |
| Tree | starg |
| Notes | The following elements are part of a mandatory choice: **source** or **starg**. |


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| | |
|---|---|
| Introduced | 16.0.R2 |
| Platforms | All |

### **group-range** start *ipv4-multicast-address* end *ipv4-multicast-address* step *ipv4-address*

| | |
|---|---|
| Synopsis | Enter the **group-range** list instance |
| Context | **configure** service vprn *service-name* igmp interface *interface-name* static group-range start *ipv4-multicast-address* end *ipv4-multicast-address* step *ipv4-address* |
| Tree | group-range |
| Introduced | 16.0.R1 |
| Platforms | All |

### **start** *ipv4-multicast-address*

| | |
|---|---|
| Synopsis | IP address for the start of the static group range |
| Context | **configure** service vprn *service-name* igmp interface *interface-name* static group-range start *ipv4-multicast-address* end *ipv4-multicast-address* step *ipv4-address* |
| Tree | group-range |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **end** *ipv4-multicast-address*

| | |
|---|---|
| Synopsis | IP address for the end of the static group range |
| Context | **configure** service vprn *service-name* igmp interface *interface-name* static group-range start *ipv4-multicast-address* end *ipv4-multicast-address* step *ipv4-address* |
| Tree | group-range |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **step** *ipv4-address*

| | |
|---|---|
| Synopsis | Step interval in the group-range address |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* igmp interface *interface-name* static group-range start *ipv4-multicast-address* end *ipv4-multicast-address* step *ipv4-address* |
| Tree | group-range |
| MD-CLI default | 0.0.0.1 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **source** [source-address] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Add a list entry for **source** |
| Context | **configure** service vprn *service-name* igmp interface *interface-name* static group-range start *ipv4-multicast-address* end *ipv4-multicast-address* step *ipv4-address* source *ipv4-unicast-address* |
| Tree | source |
| Notes | The following elements are part of a mandatory choice: **source** or **starg**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**source-address**] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Source IP address of multicast channel sending data |
| Context | **configure** service vprn *service-name* igmp interface *interface-name* static group-range start *ipv4-multicast-address* end *ipv4-multicast-address* step *ipv4-address* source *ipv4-unicast-address* |
| Tree | source |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R2 |
| Platforms | All |

### **starg**

| | |
|---|---|
| Synopsis | any source address (*,G) |
| Context | **configure** service vprn *service-name* igmp interface *interface-name* static group-range start *ipv4-multicast-address* end *ipv4-multicast-address* step *ipv4-address* starg |
| Tree | starg |


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| | |
|---|---|
| Notes | The following elements are part of a mandatory choice: **source** or **starg**. |
| Introduced | 16.0.R2 |
| Platforms | All |

### **subnet-check** *boolean*

| | |
|---|---|
| Synopsis | Allow subnet checking |
| Context | **configure** service vprn *service-name* igmp interface *interface-name* subnet-check *boolean* |
| Tree | subnet-check |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **version** *keyword*

| | |
|---|---|
| Synopsis | IGMP protocol version |
| Context | **configure** service vprn *service-name* igmp interface *interface-name* version *keyword* |
| Tree | version |
| Options | 1, 2, 3 |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **query-interval** *number*

| | |
|---|---|
| Synopsis | Time between two consecutive host-query messages |
| Context | **configure** service vprn *service-name* igmp query-interval *number* |
| Tree | query-interval |
| Description | This command configures the timing of the host-query messages that solicit group membership information. The messages are sent to the all-systems multicast group address, 224.0.0.1. |
| Range | 2 to 1024 |
| Units | seconds |
| Default | 125 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **query-last-member-interval** *number*

| | |
|---|---|
| Synopsis | Time between group-specific query messages |
| Context | **configure** service vprn *service-name* igmp query-last-member-interval *number* |
| Tree | query-last-member-interval |
| Description | This command configures the timing of the query-message interval, defining the interval for leave-group messages among others. The lower the interval that is configured, the faster the detection of the loss of the last member of a group. |
| Range | 1 to 1023 |
| Units | seconds |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **query-response-interval** *number*

| | |
|---|---|
| Synopsis | Time to wait for a response to the host-query messages |
| Context | **configure** service vprn *service-name* igmp query-response-interval *number* |
| Tree | query-response-interval |
| Range | 1 to 1023 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **robust-count** *number*

| | |
|---|---|
| Synopsis | Number of retries after expected message loss |
| Context | **configure** service vprn *service-name* igmp robust-count *number* |
| Tree | robust-count |
| Description | This command configures the level of expected packet loss on a subnet. If a subnet anticipates losses, this value can be increased. |
| Range | 2 to 10 |
| Default | 2 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### ssm-translate

| | |
|---|---|
| Synopsis | Enter the **ssm-translate** context |
| Context | **configure** service vprn *service-name* igmp ssm-translate |
| Tree | ssm-translate |
| Introduced | 16.0.R1 |
| Platforms | All |

### group-range start *ipv4-multicast-address* end *ipv4-multicast-address*

| | |
|---|---|
| Synopsis | Enter the **group-range** list instance |
| Context | **configure** service vprn *service-name* igmp ssm-translate group-range start *ipv4-multicast-address* end *ipv4-multicast-address* |
| Tree | group-range |
| Introduced | 16.0.R1 |
| Platforms | All |

### start *ipv4-multicast-address*

| | |
|---|---|
| Synopsis | Lower bound of the IP address group range |
| Context | **configure** service vprn *service-name* igmp ssm-translate group-range start *ipv4-multicast-address* end *ipv4-multicast-address* |
| Tree | group-range |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### end *ipv4-multicast-address*

| | |
|---|---|
| Synopsis | Upper bound of the IP address group range |
| Context | **configure** service vprn *service-name* igmp ssm-translate group-range start *ipv4-multicast-address* end *ipv4-multicast-address* |
| Tree | group-range |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **source** [source-address] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Add a list entry for **source** |
| Context | **configure** service vprn *service-name* igmp ssm-translate group-range start *ipv4-multicast-address* end *ipv4-multicast-address* source *ipv4-unicast-address* |
| Tree | source |
| Min. instances | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**source-address**] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Source IP address of multicast channel sending data |
| Context | **configure** service vprn *service-name* igmp ssm-translate group-range start *ipv4-multicast-address* end *ipv4-multicast-address* source *ipv4-unicast-address* |
| Tree | source |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R2 |
| Platforms | All |

### **igmp-host-tracking**

| | |
|---|---|
| Synopsis | Enter the **igmp-host-tracking** context |
| Context | **configure** service vprn *service-name* igmp-host-tracking |
| Tree | igmp-host-tracking |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of IGMP host tracking |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* igmp-host-tracking admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **expiry-time** *number*

| | |
|---|---|
| Synopsis | Time that the system continues to track inactive hosts |
| Context | **configure** service vprn *service-name* igmp-host-tracking expiry-time *number* |
| Tree | expiry-time |
| Range | 1 to 65535 |
| Units | seconds |
| Default | 260 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ignore-nh-metric** *boolean*

| | |
|---|---|
| Synopsis | Ignore next hop metric |
| Context | **configure** service vprn *service-name* ignore-nh-metric *boolean* |
| Tree | ignore-nh-metric |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **interface** [interface-name] *interface-name*

| | |
|---|---|
| Synopsis | Enter the **interface** list instance |
| Context | **configure** service vprn *service-name* interface *interface-name* |
| Tree | interface |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**interface-name**] *interface-name*

| | |
|---|---|
| Synopsis | Interface name |
| Context | **configure** service vprn *service-name* interface *interface-name* |
| Tree | interface |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the interface |
| Context | **configure** service vprn *service-name* interface *interface-name* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cflowd-parameters**

| | |
|---|---|
| Synopsis | Enter the **cflowd-parameters** context |
| Context | **configure** service vprn *service-name* interface *interface-name* cflowd-parameters |
| Tree | cflowd-parameters |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sampling** [sampling-type] *keyword*

| | |
|---|---|
| Synopsis | Enter the **sampling** list instance |
| Context | **configure** service vprn *service-name* interface *interface-name* cflowd-parameters sampling *keyword* |
| Tree | sampling |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### [**sampling-type**] *keyword*

| | |
|---|---|
| Synopsis | Traffic sampling type |
| Context | **configure** service vprn *service-name* interface *interface-name* cflowd-parameters sampling *keyword* |
| Tree | sampling |
| Description | This command configures the type of traffic to be sampled on the associated IP interface. |
| Options | unicast, multicast, both |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **direction** *keyword*

| | |
|---|---|
| Synopsis | Direction of traffic for cflowd sampling |
| Context | **configure** service vprn *service-name* interface *interface-name* cflowd-parameters sampling *keyword* direction *keyword* |
| Tree | direction |
| Description | This command configures the direction in which sampling occurs on the associated IP interfaces. |
| Options | ingress-only, egress-only, both |
| Default | ingress-only |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sample-profile** *(keyword | number)*

| | |
|---|---|
| Synopsis | Sample profile ID |
| Context | **configure** service vprn *service-name* interface *interface-name* cflowd-parameters sampling *keyword* sample-profile *(keyword | number)* |
| Tree | sample-profile |
| Description | This command defines the sampling rate profile associated with this interface. |
| Max. range | 0 to 4294967295 |


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| | |
|---|---|
| Options | 1 |
| Introduced | 19.5.R1 |
| Platforms | All |

### **type** *keyword*

| | |
|---|---|
| Synopsis | Type of cflowd analysis |
| Context | **configure** service vprn *service-name* interface *interface-name* cflowd-parameters sampling *keyword* type *keyword* |
| Tree | type |
| Description | This command configures the cflowd sampling type on the associated IP interface. |
| Options | acl, interface |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cpu-protection** *reference*

| | |
|---|---|
| Synopsis | CPU protection policy |
| Context | **configure** service vprn *service-name* interface *interface-name* cpu-protection *reference* |
| Tree | cpu-protection |
| Reference | **configure** system security cpu-protection policy *number* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

### **description** *very-long-description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* interface *interface-name* description *very-long-description* |
| Tree | description |
| String length | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **dynamic-tunnel-redundant-nexthop** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Redundant next-hop address for the dynamic IPsec tunnel |
| Context | **configure** service vprn *service-name* interface *interface-name* dynamic-tunnel-redundant-nexthop *ipv4-unicast-address* |
| Tree | dynamic-tunnel-redundant-nexthop |
| Description | This command specifies the redundant next-hop address on a public or private IPsec interface (with public or private tunnel SAP) for a dynamic IPsec tunnel. The next-hop address is used by a standby node to shunt traffic to a master if it receives the address.<br>The next-hop address is resolved in the routing table of a corresponding service. |
| Notes | The following elements are part of a choice: **multi-chassis-shunting-profile** or (**dynamic-tunnel-redundant-nexthop** and **static-tunnel-redundant-nexthop**). |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **external-reference**

| | |
|---|---|
| Synopsis | Enter the **external-reference** context |
| Context | **configure** service vprn *service-name* interface *interface-name* external-reference |
| Tree | external-reference |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **openconfig**

| | |
|---|---|
| Synopsis | Enter the **openconfig** context |
| Context | **configure** service vprn *service-name* interface *interface-name* external-reference openconfig |
| Tree | openconfig |
| Description | Commands in this context configure the OpenConfig reference key used to map a Nokia vendor-specific configuration and the OpenConfig state. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **subinterface** *number*

| | |
|---|---|
| Synopsis | Reference to the subinterface |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* interface *interface-name* external-reference openconfig subinterface *number* |
| Tree | subinterface |
| Description | This command configures the subinterface used to map a Nokia vendor-specific configuration and the OpenConfig state.<br>This command configures the ability to query the OpenConfig state through NETCONF, gRPC, and the MD-CLI from any configuration mode, without having to add any Open Config model configuration. As part of the configuration, a user must also add a port to the Layer 3 interface. |
| Range | 0 to 4294967295 |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## hold-time

| | |
|---|---|
| Synopsis | Enter the **hold-time** context |
| Context | **configure** service vprn *service-name* interface *interface-name* hold-time |
| Tree | hold-time |
| Introduced | 16.0.R1 |
| Platforms | All |

## ipv4

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |
| Context | **configure** service vprn *service-name* interface *interface-name* hold-time ipv4 |
| Tree | ipv4 |
| Introduced | 16.0.R1 |
| Platforms | All |

## down

| | |
|---|---|
| Synopsis | Enter the **down** context |
| Context | **configure** service vprn *service-name* interface *interface-name* hold-time ipv4 down |
| Tree | down |
| Description | Commands in this context configure the down hold timer, which specifies the delay before activating the associated interface. The delay is invoked whenever the system |


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attempts to bring the associated IP interface up, unless an operator configures the **init-only** command.

Introduced 16.0.R1

Platforms All

### **init-only** *boolean*

Synopsis Apply delay only at interface configuration or reboot

Context **configure** service vprn *service-name* interface *interface-name* hold-time ipv4 down init-only *boolean*

Tree init-only

Description This command applies a delay only when the IP interface is first configured or after a system reboot.

Default false

Introduced 16.0.R1

Platforms All

### **seconds** *number*

Synopsis Down hold time for the IP interface

Context **configure** service vprn *service-name* interface *interface-name* hold-time ipv4 down seconds *number*

Tree seconds

Range 1 to 1200

Units seconds

Introduced 16.0.R1

Platforms All

### **up**

Synopsis Enter the **up** context

Context **configure** service vprn *service-name* interface *interface-name* hold-time ipv4 up

Tree up

Description Commands in this context configure the up hold timer, which specifies the delay before deactivation of the associated interface. The delay is invoked whenever the system attempts to bring the associated IP interface down.

Introduced 16.0.R1


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| | |
|---|---|
| Platforms | All |

### **seconds** *number*

| | |
|---|---|
| Synopsis | Up hold time for the IP interface |
| Context | **configure** service vprn *service-name* interface *interface-name* hold-time ipv4 up seconds *number* |
| Tree | seconds |
| Range | 1 to 1200 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv6**

| | |
|---|---|
| Synopsis | Enter the **ipv6** context |
| Context | **configure** service vprn *service-name* interface *interface-name* hold-time ipv6 |
| Tree | ipv6 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **down**

| | |
|---|---|
| Synopsis | Enter the **down** context |
| Context | **configure** service vprn *service-name* interface *interface-name* hold-time ipv6 down |
| Tree | down |
| Description | Commands in this context configure the down hold timer, which specifies the delay before activation of the associated interface. The delay is invoked whenever the system attempts to bring the associated IP interface up, unless an operator configures the **init-only** command. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **init-only** *boolean*

| | |
|---|---|
| Synopsis | Apply delay only at interface configuration or reboot |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* interface *interface-name* hold-time ipv6 down init-only *boolean* |
| Tree | init-only |
| Description | When configured to **true**, the system applies a delay only when the IP interface is first configured or after a system reboot. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **seconds** *number*

| | |
|---|---|
| Synopsis | Down hold time for the IP interface |
| Context | **configure** service vprn *service-name* interface *interface-name* hold-time ipv6 down seconds *number* |
| Tree | seconds |
| Range | 1 to 1200 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **up**

| | |
|---|---|
| Synopsis | Enter the **up** context |
| Context | **configure** service vprn *service-name* interface *interface-name* hold-time ipv6 up |
| Tree | up |
| Description | Commands in this context configure the up hold timer, which specifies the delay before deactivation of the associated interface. The delay is invoked whenever the system attempts to bring the associated IP interface down. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **seconds** *number*

| | |
|---|---|
| Synopsis | Up hold time for the IP interface |
| Context | **configure** service vprn *service-name* interface *interface-name* hold-time ipv6 up seconds *number* |
| Tree | seconds |


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| | |
|---|---|
| Range | 1 to 1200 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

## if-attribute

| | |
|---|---|
| Synopsis | Enter the **if-attribute** context |
| Context | **configure** service vprn *service-name* interface *interface-name* if-attribute |
| Tree | if-attribute |
| Introduced | 16.0.R1 |
| Platforms | All |

## admin-group *reference*

| | |
|---|---|
| Synopsis | Administrative group name for the interface |
| Context | **configure** service vprn *service-name* interface *interface-name* if-attribute admin-group *reference* |
| Tree | admin-group |
| Description | This command specifies the administrative group membership to an interface.<br>The configured administrative group membership is applied in all levels or areas the interface is participating in. The same interface cannot have different memberships in different levels or areas. |
| Reference | **configure** routing-options if-attribute admin-group *named-item* |
| Max. instances | 32 |
| Introduced | 16.0.R1 |
| Platforms | All |

## srlg-group [name] *reference*

| | |
|---|---|
| Synopsis | Add a list entry for **srlg-group** |
| Context | **configure** service vprn *service-name* interface *interface-name* if-attribute srlg-group *reference* |
| Tree | srlg-group |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### [**name**] *reference*

| | |
|---|---|
| Synopsis | SRLG name |
| Context | **configure** service vprn *service-name* interface *interface-name* if-attribute srlg-group *reference* |
| Tree | srlg-group |
| Reference | **configure** routing-options if-attribute srlg-group *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### ingress

| | |
|---|---|
| Synopsis | Enter the **ingress** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ingress |
| Tree | ingress |
| Introduced | 19.7.R1 |
| Platforms | All |

### destination-class-lookup *boolean*

| | |
|---|---|
| Synopsis | Enable BGP destination class lookup |
| Context | **configure** service vprn *service-name* interface *interface-name* ingress destination-class-lookup *boolean* |
| Tree | destination-class-lookup |
| Description | When configured to **true**, the router performs a destination class lookup. This command is supported on FP3-based cards and later and is used in combination with the **destination-class** match criterion for an IP filter policy to filter egress traffic based on BGP destination classes.<br><br>When configured to **false**, destination class lookup is not enabled. |
| Default | false |
| Introduced | 20.7.R1 |
| Platforms | All |


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### **policy-accounting** *reference*

| | |
|---|---|
| Synopsis | Ingress policy accounting template name |
| Context | **configure** service vprn *service-name* interface *interface-name* ingress policy-accounting *reference* |
| Tree | policy-accounting |
| Reference | **configure** routing-options policy-accounting policy-acct-template *named-item* |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### **ingress-stats** *boolean*

| | |
|---|---|
| Synopsis | Collect ingress statistics |
| Context | **configure** service vprn *service-name* interface *interface-name* ingress-stats *boolean* |
| Tree | ingress-stats |
| Description | When configured to **true**, ingress interface IP statistics are collected for the associated interface. This command is only applicable to IP statistics, and not to uRPF statistics.<br>The following statistics are collected:<br>• IPv4 offered packets<br>• IPv4 offered octets<br>• IPv6 offered packets<br>• IPv6 offered octets<br>**Note:** Octet statistics for IPv4 and IPv6 at IP interfaces include the Layer 2 frame overhead.<br>When configured to **false** ingress interface IP statistics are not collected for the associated interface. The "in-packets" statistics field in the **statistics** command output is always 0. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ip-mtu** *number*

| | |
|---|---|
| Synopsis | IP MTU applied to outgoing packets |
| Context | **configure** service vprn *service-name* interface *interface-name* ip-mtu *number* |
| Tree | ip-mtu |


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| | |
|---|---|
| Description | This command configures the IP maximum transmission unit (MTU) for the associated router IP interface. |
| Range | 512 to 9786 |
| Units | bytes |
| Introduced | 16.0.R1 |
| Platforms | All |

## **ip-tunnel-interface** *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable IP tunnel interface |
| Context | **configure** service vprn *service-name* interface *interface-name* ip-tunnel-interface *boolean* |
| Tree | ip-tunnel-interface |
| Description | When configured to **true**, the system enables a GRE virtual IP interface. |
| Default | false |
| Introduced | 24.10.R1 |
| Platforms | All |

## **ipsec**

| | |
|---|---|
| Synopsis | Enable the **ipsec** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec |
| Tree | ipsec |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of IPsec secured interface |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |


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| | |
|---|---|
| Default | disable |
| Introduced | 22.7.R1 |
| Platforms | VSR |

### **ip-exception** *reference*

| | |
|---|---|
| Synopsis | IP exception filter |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ip-exception *reference* |
| Tree | ip-exception |
| Description | This command configures the IP exception filter for the secured interface. All ingress traffic matching the specified filter bypasses IPsec processing. |
| Reference | **configure** filter ip-exception *filter-name* |
| Introduced | 22.7.R1 |
| Platforms | VSR |

### **ipsec-tunnel** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **ipsec-tunnel** list instance |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* |
| Tree | ipsec-tunnel |
| Description | Commands in this context configure IPsec tunnels used to secure traffic forwarded over the interface. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | IPsec tunnel name |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* |
| Tree | ipsec-tunnel |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 22.7.R1 |


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| | |
|---|---|
| Platforms | VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the IPsec tunnel |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **bfd**

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **bfd** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* bfd |
| Tree | bfd |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **bfd-designate** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Designate IPsec tunnel to carry BFD traffic |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* bfd bfd-designate *boolean* |
| Tree | bfd-designate |
| Default | false |
| Introduced | 22.7.R1 |


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| | |
|---|---|
| Platforms | VSR |

## bfd-liveness

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable the **bfd-liveness** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* bfd bfd-liveness |
| Tree | bfd-liveness |
| Description | Commands in this context configure a BFD session to provide a heart-beat mechanism for a specified IPsec tunnel. There can be only one BFD session assigned to any given IPsec tunnel, but there can be multiple IPsec tunnels using the same BFD session.<br>BFD controls the state of the association tunnel. If the BFD session goes down, the system brings down the associated non-designated IPsec tunnel. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## dest-ip *ipv4-unicast-address*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Destination address used for the BFD session |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* bfd bfd-liveness dest-ip *ipv4-unicast-address* |
| Tree | dest-ip |
| Notes | This element is mandatory. |
| Introduced | 22.7.R1 |
| Platforms | VSR |


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### **interface** *interface-name*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Name of the interface used by the BFD session |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* bfd bfd-liveness interface *interface-name* |
| Tree | interface |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

### **service-name** *service-name*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Administrative service name |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* bfd bfd-liveness service-name *service-name* |
| Tree | service-name |
| Description | This command configures the name of the service where BFD traffic is forwarded to. |
| String length | 1 to 64 |
| Notes | This element is mandatory. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

### **clear-df-bit** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Reset the DF bit to 0 in all payload IP packets |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* clear-df-bit *boolean* |
| Tree | clear-df-bit |
| Description | When configured to **true**, the DF bit is set to 0 in all payload IP packets associated with the IPsec tunnel, before any potential fragmentation occurs. |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **copy-traffic-class-upon-decapsulation** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable traffic class copy upon decapsulation |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* copy-traffic-class-upon-decapsulation *boolean* |
| Tree | copy-traffic-class-upon-decapsulation |
| Description | When configured to **true**, the system copies the traffic class from the outer tunnel IP packet header to the payload IP packet header in the decapsulating direction (public to private). |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 22.7.R1 |
| Platforms | VSR |


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## encapsulated-ip-mtu *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum size of the encapsulated tunnel packet |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* encapsulated-ip-mtu *number* |
| Tree | encapsulated-ip-mtu |
| Description | This command specifies the maximum size of the encapsulated tunnel packet to the IPsec tunnel, the IP tunnel, or the dynamic tunnels terminated on the IPsec Gateway. If the encapsulated IPv4 or IPv6 tunnel packet exceeds this value, the system fragments the packet. |
| Range | 512 to 9000 |
| Units | bytes |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## icmp-generation

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **icmp-generation** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* icmp-generation |
| Tree | icmp-generation |
| Description | Commands in this context configure settings for ICMPv4 message generation. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## frag-required

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.


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| | |
|---|---|
| Synopsis | Enter the **frag-required** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* icmp-generation frag-required |
| Tree | frag-required |
| Description | Commands in this context configure the attributes for sending generated ICMP Destination Unreachable "fragmentation needed and DF set" messages (type 3, code 4) back to the source, if the received size of the IPv4 packet on the private side exceeds the private MTU size. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **admin-state** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Administrative state of sending ICMP messages |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* icmp-generation frag-required admin-state *keyword* |
| Tree | admin-state |
| Description | This command configures the administrative state of sending ICMP Destination Unreachable "fragmentation needed, DF set" messages (type 3, code 4) messages to the source if the received size of the IPv4 packet on the private side exceeds the private MTU size. |
| Options | enable, disable |
| Default | enable |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **interval** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Interval for sending ICMP messages |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* icmp-generation frag-required interval *number* |


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| | |
|---|---|
| Tree | interval |
| Description | This command configures the interval for sending ICMP Destination Unreachable "fragmentation needed, DF set" messages (type 3, code 4). |
| Range | 1 to 60 |
| Units | seconds |
| Default | 10 |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **message-count** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum number of ICMP messages that can be sent |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* icmp-generation frag-required message-count *number* |
| Tree | message-count |
| Description | This command configures the maximum number of ICMP Destination Unreachable "fragmentation needed, DF set" messages (type 3, code 4) that can be sent during the configured interval. |
| Range | 10 to 1000 |
| Default | 100 |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## icmp6-generation

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **icmp6-generation** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* icmp6-generation |
| Tree | icmp6-generation |
| Description | Commands in this context configure settings for ICMPv6 message generation. |


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| | |
|---|---|
| Introduced | 22.7.R1 |
| Platforms | VSR |

## packet-too-big

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **packet-too-big** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* icmp6-generation packet-too-big |
| Tree | packet-too-big |
| Description | Commands in this context configure the parameters to send ICMPv6 PTB (Packet Too Big) messages on the private side.<br>The system sends PTB messages if a received IPv6 packet on the private side is greater than 1280 bytes and it exceeds the private MTU of the tunnel.<br>The private MTU for the tunnel is configured via the **configure router interface ipsec ipsec-tunnel ip-mtu** command for the interface. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## admin-state *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Administrative state of Packet Too Big message sends |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* icmp6-generation packet-too-big admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 22.7.R1 |
| Platforms | VSR |


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## **interval** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Interval for sending Packet Too Big messages |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* icmp6-generation packet-too-big interval *number* |
| Tree | interval |
| Range | 1 to 60 |
| Units | seconds |
| Default | 10 |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **message-count** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum number of ICMPv6 PTB messages that can be sent |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* icmp6-generation packet-too-big message-count *number* |
| Tree | message-count |
| Description | This command configures the maximum number of PTB messages that can be sent during the configured interval. |
| Range | 10 to 1000 |
| Default | 100 |
| Introduced | 22.7.R1 |
| Platforms | VSR |


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## ip-mtu *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Private MTU of the IPsec tunnel |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* ip-mtu *number* |
| Tree | ip-mtu |
| Description | This command specifies the private MTU of the IPsec tunnel. The private MTU is used to determine the need for fragmentation before encapsulation of the payload packet. |
| Range | 512 to 9000 |
| Units | bytes |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## key-exchange

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **key-exchange** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange |
| Tree | key-exchange |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## dynamic

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable the **dynamic** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange dynamic |


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| | |
|---|---|
| Tree | dynamic |
| Notes | The following elements are part of a choice: **dynamic** or **manual**. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **auto-establish** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Attempt to establish a phase 1 exchange automatically |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange dynamic auto-establish *boolean* |
| Tree | auto-establish |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **cert**

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **cert** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange dynamic cert |
| Tree | cert |
| Description | Commands in this context configure the attributes of the dynamic keying certificate. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **cert-profile** *reference*

| | |
|---|---|
| Synopsis | Certificate profile name |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange dynamic cert cert-profile *reference* |
| Tree | cert-profile |
| Reference | **configure** ipsec cert-profile *named-item* |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## status-verify

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **status-verify** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange dynamic cert status-verify |
| Tree | status-verify |
| Description | Commands in this context configure attributes of Certificate Status Verification (CSV). |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## default-result *keyword*

| | |
|---|---|
| Synopsis | Default result for Certificate Status Verification |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange dynamic cert status-verify default-result *keyword* |
| Tree | default-result |
| Description | This command specifies the default certificate revocation status result to use when all configured CSV methods fail to return a result. |
| Options | revoked, good |
| Default | revoked |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## primary *keyword*

| | |
|---|---|
| Synopsis | Primary method of CSV to verify the revocation status |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange dynamic cert status-verify primary *keyword* |
| Tree | primary |
| Description | This command configures the primary method of Certificate Status Verification (CSV) that is used to verify the revocation status of the certificate of the peer. |
| Options | crl, ocsp |
| Default | crl |
| Introduced | 22.7.R1 |
| Platforms | VSR |

### **secondary** *keyword*

| | |
|---|---|
| Synopsis | Secondary method used to verify certificate revocation |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange dynamic cert status-verify secondary *keyword* |
| Tree | secondary |
| Description | This command specifies the secondary method of Certificate Status Verification (CSV) that is used to verify the revocation status of the peer certificate. |
| Options | none, crl, ocsp |
| Default | none |
| Introduced | 22.7.R1 |
| Platforms | VSR |

### **trust-anchor-profile** *reference*

| | |
|---|---|
| Synopsis | Trust anchor profile name |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange dynamic cert trust-anchor-profile *reference* |
| Tree | trust-anchor-profile |
| Reference | **configure** ipsec trust-anchor-profile *named-item* |
| Introduced | 22.7.R1 |
| Platforms | VSR |


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## id

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **id** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange dynamic id |
| Tree | id |
| Description | Commands in this context specify the local ID used for IDi or IDr for IKEv2 negotiation.<br>The default behavior depends on the local authentication method as follows:<br>• Psk: local tunnel IP address<br>• Cert-auth: subject of the local certificate |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **fqdn** *fully-qualified-domain-name*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | FQDN used as the local ID IKE type |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange dynamic id fqdn *fully-qualified-domain-name* |
| Tree | fqdn |
| String length | 1 to 255 |
| Notes | The following elements are part of a choice: **fqdn**, **ipv4**, or **ipv6**. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **ipv4** *ipv4-unicast-address*

**WARNING:**
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| | |
|---|---|
| Synopsis | IPv4 as the local ID type |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange dynamic id ipv4 *ipv4-unicast-address* |
| Tree | ipv4 |
| Notes | The following elements are part of a choice: **fqdn**, **ipv4**, or **ipv6**. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **ipv6** *(ipv4-address-no-zone | ipv6-address-no-zone)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IPv6 used as the local IKE ID type |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange dynamic id ipv6 *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | ipv6 |
| Notes | The following elements are part of a choice: **fqdn**, **ipv4**, or **ipv6**. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **ike-policy** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IKE policy ID |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange dynamic ike-policy *reference* |
| Tree | ike-policy |
| Description | This command specifies the ID of the IKE policy used for IKE negotiation.<br>The **ipsec-transport-mode-profile** configuration only supports IKEv2. |
| Reference | **configure** ipsec ike-policy *number* |
| Introduced | 22.7.R1 |


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| | |
|---|---|
| Platforms | VSR |

## **ipsec-transform** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IPsec transform IDs used by the dynamic key |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange dynamic ipsec-transform *reference* |
| Tree | ipsec-transform |
| Description | This command specifies IPsec transform IDs used for CHILD_SA negotiation. |
| Reference | **configure** ipsec ipsec-transform *number* |
| Max. instances | 4 |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **ppk**

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **ppk** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange dynamic ppk |
| Tree | ppk |
| Description | Commands in this context configure the PPKs to use for dynamic keying of the IPsec tunnel. |
| Introduced | 24.10.R1 |
| Platforms | VSR |


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## **id** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | PPK ID |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange dynamic ppk id *reference* |
| Tree | id |
| Reference | **configure** ipsec ppk-list *named-item* ppk *named-item-64* |
| Introduced | 24.10.R1 |
| Platforms | VSR |

## **list** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | PPK list instance name |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange dynamic ppk list *reference* |
| Tree | list |
| Reference | **configure** ipsec ppk-list *named-item* |
| Introduced | 24.10.R1 |
| Platforms | VSR |

## **pre-shared-key** *encrypted-leaf*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Pre-shared key for authentication |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange dynamic pre-shared-key *encrypted-leaf* |
| Tree | pre-shared-key |


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| | |
|---|---|
| String length | 1 to 115 |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## manual

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable the **manual** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange manual |
| Tree | manual |
| Description | Commands in this context configure settings for manually configured security associations for the IPsec tunnel. |
| Notes | The following elements are part of a choice: **dynamic** or **manual**. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **keys** [security-association] *number* direction *keyword*

| | |
|---|---|
| Synopsis | Enter the **keys** list instance |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange manual keys *number* direction *keyword* |
| Tree | keys |
| Description | Commands in this context configure the security association list for the tunnel. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## [**security-association**] *number*

| | |
|---|---|
| Synopsis | SA entry ID |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange manual keys *number* direction *keyword* |
| Tree | keys |
| Range | 1 to 16 |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **direction** *keyword*

| | |
|---|---|
| Synopsis | Direction of the IPsec tunnel |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange manual keys *number* direction *keyword* |
| Tree | keys |
| Options | inbound, outbound |
| Notes | This element is part of a list key. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **authentication-key** *hex-string*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Key used for the authentication algorithm |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange manual keys *number* direction *keyword* authentication-key *hex-string* |
| Tree | authentication-key |
| String length | 1 to 130 |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **encryption-key** *hex-string*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Key used for the encryption algorithm |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange manual keys *number* direction *keyword* encryption-key *hex-string* |
| Tree | encryption-key |
| String length | 1 to 66 |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **ipsec-transform** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Transform entry used by manual SAs |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange manual keys *number* direction *keyword* ipsec-transform *reference* |
| Tree | ipsec-transform |
| Reference | **configure** ipsec ipsec-transform *number* |
| Notes | This element is mandatory. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **spi** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | SPI of inbound and outbound packets |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* key-exchange manual keys *number* direction *keyword* spi *number* |
| Tree | spi |
| Description | This command specifies the Security Parameter Index (SPI) used to look up the instruction to verify and decrypt the incoming IPsec packets when the direction is inbound. When the direction is outbound, the SPI is used in the encoding of the outgoing packets. |


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| | |
|---|---|
| | The remote node can use the SPI to look up the instruction to verify and decrypt the packet. |
| Range | 256 to 16383 |
| Notes | This element is mandatory. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **local-gateway-address-override** *(ipv4-address-no-zone | ipv6-address-no-zone)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Local IPsec tunnel endpoint address |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* local-gateway-address-override *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | local-gateway-address-override |
| Description | This command configures the local IPsec tunnel endpoint address. This overrides the default endpoint address, which is the interface address. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **max-history-key-records**

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **max-history-key-records** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* max-history-key-records |
| Tree | max-history-key-records |
| Description | Commands in this context configure the settings for recording historical IPsec keys. |
| Introduced | 22.7.R1 |
| Platforms | VSR |


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### **esp** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum number of recent records |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* max-history-key-records esp *number* |
| Tree | esp |
| Range | 1 to 48 |
| Introduced | 22.7.R1 |
| Platforms | VSR |

### **ike** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum number of historical IKE key records |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* max-history-key-records ike *number* |
| Tree | ike |
| Range | 1 to 3 |
| Introduced | 22.7.R1 |
| Platforms | VSR |

### **pmtu-discovery-aging** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Aging out time of the learned path MTU |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* pmtu-discovery-aging *number* |
| Tree | pmtu-discovery-aging |


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| | |
|---|---|
| Description | This command configures the temporary public and private MTU expiration time. The temporary MTU is used for MTU propagation. |
| Range | 900 to 3600 |
| Units | seconds |
| Default | 900 |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **private-sap** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Private SAP ID |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* private-sap *number* |
| Tree | private-sap |
| Range | 0 to 4094 |
| Notes | This element is mandatory. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **private-service** *service-name*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Private service name |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* private-service *service-name* |
| Tree | private-service |
| Description | This command configures the private service name.<br>If unconfigured, the private service is the service where the secured interface resides. |
| String length | 1 to 64 |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **private-tcp-mss-adjust** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | TCP maximum segment size (MSS) adjustment |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* private-tcp-mss-adjust *number* |
| Tree | private-tcp-mss-adjust |
| Description | This command specifies the TCP MSS to adjust for the tunnel on the private side.<br>When configured, the system may use the value to update the MSS option in the received TCP SYN packet on the private side. |
| Range | 512 to 9000 |
| Units | bytes |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **propagate-pmtu-v4** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable propagation of the path MTU to IPv4 hosts |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* propagate-pmtu-v4 *boolean* |
| Tree | propagate-pmtu-v4 |


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| | |
|---|---|
| Description | When configured to **true**, the system propagates the path MTU learned from the public side to the private side (IPv4 hosts). |
| Default | true |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **propagate-pmtu-v6** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable propagation of the path MTU to IPv6 hosts |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* propagate-pmtu-v6 *boolean* |
| Tree | propagate-pmtu-v6 |
| Description | When configured to **true**, the system propagates the path MTU learned from the public side to the private side (IPv6 hosts). |
| Default | true |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **public-tcp-mss-adjust** *(number | keyword)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | TCP maximum segment size (MSS) on the public network |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* public-tcp-mss-adjust *(number \| keyword)* |
| Tree | public-tcp-mss-adjust |
| Description | This command configures the MSS for the TCP traffic in an IPsec tunnel that is sent from the public network to the private network. The system may use this value to adjust or insert the MSS option in the TCP SYN packet. |
| Range | 512 to 9000 |
| Units | bytes |
| Options | auto |


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| | |
|---|---|
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **remote-gateway-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Remote IPsec tunnel endpoint address |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* remote-gateway-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | remote-gateway-address |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **replay-window** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Anti-replay window size |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* replay-window *number* |
| Tree | replay-window |
| Description | This command specifies the size of an IPsec anti-replay window. If unconfigured, IPsec anti-replay is disabled. |
| Range | 32 \| 64 \| 128 \| 256 \| 512 |
| Units | packets |
| Introduced | 22.7.R1 |
| Platforms | VSR |


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## security-policy

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **security-policy** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* security-policy |
| Tree | security-policy |
| Description | Commands in this context specify a security policy used by the tunnel. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## id *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Security policy ID for use by the tunnel |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* security-policy id *number* |
| Tree | id |
| Max. range | 0 to 4294967295 |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## strict-match *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable strict match of the security policy entry |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipsec-tunnel *named-item* security-policy strict-match *boolean* |
| Tree | strict-match |


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| | |
|---|---|
| Description | When configured to **true**, this command enables strict match of the security policy entry.<br>When a CREATE_CHILD exchange request is received for a static IPsec tunnel, and this request is not a rekey request, ISA matches the received TSi and TSr with the configured security policy. This can be a match only when a received TS (in TSi or TSr) address range matches exactly with the subnet in a security policy entry.<br>If there is no match, the setup fails, and TS_UNACCEPTABLE is sent.<br>If there is a match, but there is an existing CHILD_SA for the matched security policy, the setup fails, and NO_PROPOSAL_CHOSEN is sent.<br>If there is a match, and there is not a CHILD_SA for the matched entry, the subnet is sent in the matched security policy entry as TSi and TSr, and the CHILD_SA is created. |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **ipv6-exception** *reference*

| | |
|---|---|
| Synopsis | IPv6 filter exception used to bypass encryption |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec ipv6-exception *reference* |
| Tree | ipv6-exception |
| Description | This command specifies the IPv6 filter exception for an IPsec-secured IPv6 interface. When an IPv6 filter exception is added, clear text packets that match the exception criteria in the IPv6 filter exception can ingress the interface, even when IPsec is enabled on the interface. |
| Reference | **configure** filter ipv6-exception *filter-name* |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **public-sap** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Public SAP ID |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec public-sap *number* |
| Tree | public-sap |
| Range | 0 to 4094 |


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| | |
|---|---|
| Notes | This element is mandatory. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## **tunnel-group** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Tunnel group ID |
| Context | **configure** service vprn *service-name* interface *interface-name* ipsec tunnel-group *reference* |
| Tree | tunnel-group |
| Reference | **configure** isa tunnel-group *number* |
| Notes | This element is mandatory. |
| Introduced | 22.7.R1 |
| Platforms | VSR |

## ipv4

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 |
| Tree | ipv4 |
| Introduced | 16.0.R1 |
| Platforms | All |

## addresses

| | |
|---|---|
| Synopsis | Enter the **addresses** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 addresses |
| Tree | addresses |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **address** [ipv4-address] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Enter the **address** list instance |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 addresses address *ipv4-unicast-address* |
| Tree | address |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ipv4-address**] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IPv4 address for the interface |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 addresses address *ipv4-unicast-address* |
| Tree | address |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **prefix-length** *number*

| | |
|---|---|
| Synopsis | IPv4 address prefix length |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 addresses address *ipv4-unicast-address* prefix-length *number* |
| Tree | prefix-length |
| Range | 0 to 32 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **allow-directed-broadcasts** *boolean*

| | |
|---|---|
| Synopsis | Forward directed broadcasts |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 allow-directed-broadcasts *boolean* |
| Tree | allow-directed-broadcasts |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## bfd

| | |
|---|---|
| Synopsis | Enter the **bfd** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 bfd |
| Tree | bfd |
| Introduced | 16.0.R1 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of BFD sessions |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 bfd admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

## echo-receive *number*

| | |
|---|---|
| Synopsis | Minimum echo interval over this interface |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 bfd echo-receive *number* |
| Tree | echo-receive |
| Range | 100 to 100000 |
| Units | milliseconds |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **multiplier** *number*

| | |
|---|---|
| Synopsis | Number of consecutive BFD messages missed from the peer |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 bfd multiplier *number* |
| Tree | multiplier |
| Description | This command configures the number of missed messages before the BFD session state is changed to down and the upper-level protocol is notified of the fault. A multiplier of less than 3 should not be used in production environments. |
| Range | 1 to 20 |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **receive** *number*

| | |
|---|---|
| Synopsis | BFD receive interval over this interface |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 bfd receive *number* |
| Tree | receive |
| Description | This command specifies the receive interval for the BFD session.<br>On the 7750 SR, this command can only be configured to a value less than 100 when the **type** command is configured to **cpm-np**. |
| Range | 10 to 100000 |
| Units | milliseconds |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **transmit-interval** *number*

| | |
|---|---|
| Synopsis | BFD transmit interval over this interface |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 bfd transmit-interval *number* |
| Tree | transmit-interval |
| Description | This command configures the transmit intervals. |


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On the 7750 SR, this command can only be configured to a value less than 100 when the **type** command is configured to **cpm-np**.

| | |
|---|---|
| Range | 10 to 100000 |
| Units | milliseconds |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **type** *keyword*

| | |
|---|---|
| Synopsis | Local termination point for the BFD session |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 bfd type *keyword* |
| Tree | type |
| Description | This command sets the local termination point for the BFD session to allow for fast timers down to 10 ms granularity.<br>The options to specify where the BFD session runs are:<br>• **auto** (default) – the system chooses and uses the line card CPU only for single-hop BFD sessions with timer intervals equal to or greater than 100ms. All others are placed on the **cpm-np**.<br>• **cpm-np** – BFD session runs on the FP complex associated with the CPM. This is either the FP on the CPM or the one elected on smaller systems.<br>• **fp** – BFD session runs on the line card CPU. This option can only be used for single-hop BFD sessions with timers equal to or greater than 100ms. |
| Options | cpm-np, auto, fp |
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **dhcp**

| | |
|---|---|
| Synopsis | Enter the **dhcp** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 dhcp |
| Tree | dhcp |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of DHCP |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 dhcp admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 dhcp description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **gi-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | GI address for the DHCP relay |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 dhcp gi-address *ipv4-unicast-address* |
| Tree | gi-address |
| Description | This command configures the GI address to distinguish between the different subscriber interfaces (and potentially group interfaces) defined when the router functions as a DHCP relay.<br>By default, the GI address used in the relayed DHCP packet is the primary IP address of a normal IES interface. Specifying the GI address allows the user to choose a secondary address. For group interfaces, a GI address must be specified under the group interface DHCP context or subscriber interface DHCP context for DHCP to function. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### lease-populate

| | |
|---|---|
| Synopsis | Enter the **lease-populate** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 dhcp lease-populate |
| Tree | lease-populate |
| Introduced | 16.0.R1 |
| Platforms | All |

### max-leases *number*

| | |
|---|---|
| Synopsis | Maximum number of DHCPv4 leases allowed |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 dhcp lease-populate max-leases *number* |
| Tree | max-leases |
| Range | 0 to 511999 |
| Introduced | 16.0.R1 |
| Platforms | All |

### option-82

| | |
|---|---|
| Synopsis | Enter the **option-82** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 dhcp option-82 |
| Tree | option-82 |
| Description | Commands in this context configure the processing required when the router receives a DHCP request that already has an Option 82 field in the packet. |
| Introduced | 16.0.R1 |
| Platforms | All |

### action *keyword*

| | |
|---|---|
| Synopsis | Action to take with received DHCP Option 82 |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 dhcp option-82 action *keyword* |
| Tree | action |
| Options | replace, drop, keep |
| Default | keep |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## circuit-id

| | |
|---|---|
| Synopsis | Enter the **circuit-id** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 dhcp option-82 circuit-id |
| Tree | circuit-id |
| Introduced | 16.0.R1 |
| Platforms | All |

## ascii-tuple

| | |
|---|---|
| Synopsis | Use the ASCII-encoded tuple for the circuit ID |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 dhcp option-82 circuit-id ascii-tuple |
| Tree | ascii-tuple |
| Notes | The following elements are part of a choice: **ascii-tuple**, **ifindex**, **none**, **sap-id**, or **vlan-ascii-tuple**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## ifindex

| | |
|---|---|
| Synopsis | Use the interface index for the circuit ID |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 dhcp option-82 circuit-id ifindex |
| Tree | ifindex |
| Notes | The following elements are part of a choice: **ascii-tuple**, **ifindex**, **none**, **sap-id**, or **vlan-ascii-tuple**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## none

| | |
|---|---|
| Synopsis | Do not include the circuit ID |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 dhcp option-82 circuit-id none |
| Tree | none |
| Notes | The following elements are part of a choice: **ascii-tuple**, **ifindex**, **none**, **sap-id**, or **vlan-ascii-tuple**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## sap-id

| | |
|---|---|
| Synopsis | Use the SAP ID |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 dhcp option-82 circuit-id sap-id |
| Tree | sap-id |
| Notes | The following elements are part of a choice: **ascii-tuple**, **ifindex**, **none**, **sap-id**, or **vlan-ascii-tuple**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## vlan-ascii-tuple

| | |
|---|---|
| Synopsis | Include the VLAN ID and dot1p bits in the ASCII tuple |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 dhcp option-82 circuit-id vlan-ascii-tuple |
| Tree | vlan-ascii-tuple |
| Description | When configured, the router includes the VLAN ID and dot1p bits with the ASCII-tuple information. This only occurs on dot1q and QinQ-encapsulated ports. When the Option 82 bits are stripped, dot1p bits are copied to the Ethernet header of the outgoing packet.<br>When unconfigured, the router leaves the circuit ID sub-option of the DHCP packet empty. |
| Notes | The following elements are part of a choice: **ascii-tuple**, **ifindex**, **none**, **sap-id**, or **vlan-ascii-tuple**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## remote-id

| | |
|---|---|
| Synopsis | Enter the **remote-id** context |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 dhcp option-82 remote-id |
| Tree | remote-id |
| Description | Commands in this context configure the remote IP sub-option of the DHCP packet with the identity of the remote host end (typically the DHCP client). |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ascii-string** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | User-defined ASCII string for the remote ID |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 dhcp option-82 remote-id ascii-string *string-not-all-spaces* |
| Tree | ascii-string |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **ascii-string**, **mac**, or **none**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mac**

| | |
|---|---|
| Synopsis | Use the MAC address for the remote ID |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 dhcp option-82 remote-id mac |
| Tree | mac |
| Notes | The following elements are part of a choice: **ascii-string**, **mac**, or **none**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **none**

| | |
|---|---|
| Synopsis | Do not include the remote ID |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 dhcp option-82 remote-id none |
| Tree | none |
| Notes | The following elements are part of a choice: **ascii-string**, **mac**, or **none**. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## vendor-specific-option

| | |
|---|---|
| Synopsis | Enter the **vendor-specific-option** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 dhcp option-82 vendor-specific-option |
| Tree | vendor-specific-option |
| Description | Commands in this context configure the Nokia Vendor-Specific Option (VSO) of the DHCP packet. |
| Introduced | 16.0.R1 |
| Platforms | All |

## client-mac-address *boolean*

| | |
|---|---|
| Synopsis | Send the MAC address in the VSO |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 dhcp option-82 vendor-specific-option client-mac-address *boolean* |
| Tree | client-mac-address |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## pool-name *boolean*

| | |
|---|---|
| Synopsis | Send the pool name in the VSO |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 dhcp option-82 vendor-specific-option pool-name *boolean* |
| Tree | pool-name |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **sap-id** *boolean*

| | |
|---|---|
| Synopsis | Send SAP ID in the sub-option of the DHCP relay packet |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 dhcp option-82 vendor-specific-option sap-id *boolean* |
| Tree | sap-id |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **service-id** *boolean*

| | |
|---|---|
| Synopsis | Send the service ID in the Vendor Specific Option |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 dhcp option-82 vendor-specific-option service-id *boolean* |
| Tree | service-id |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **string** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | User-defined ASCII string for the VSO |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 dhcp option-82 vendor-specific-option string *string-not-all-spaces* |
| Tree | string |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **system-id** *boolean*

| | |
|---|---|
| Synopsis | Send the system ID in the VSO |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 dhcp option-82 vendor-specific-option system-id *boolean* |
| Tree | system-id |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## proxy-server

| | |
|---|---|
| Synopsis | Enter the **proxy-server** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 dhcp proxy-server |
| Tree | proxy-server |
| Introduced | 16.0.R1 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the DHCP proxy server |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 dhcp proxy-server admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

## emulated-server *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IP address used as the DHCP server address for the SAP |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 dhcp proxy-server emulated-server *ipv4-unicast-address* |
| Tree | emulated-server |
| Description | This command configures the IP address which will be used as the DHCP server address in the context of the SAP. Typically, the configured address should be in the context of the subnet represented by the service. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### lease-time

| | |
|---|---|
| Synopsis | Enter the **lease-time** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 dhcp proxy-server lease-time |
| Tree | lease-time |
| Introduced | 16.0.R1 |
| Platforms | All |

### radius-override *boolean*

| | |
|---|---|
| Synopsis | Use lease time information provided by RADIUS server |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 dhcp proxy-server lease-time radius-override *boolean* |
| Tree | radius-override |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### value *number*

| | |
|---|---|
| Synopsis | DHCP lease time |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 dhcp proxy-server lease-time value *number* |
| Tree | value |
| Range | 300 to 315446399 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### python-policy *reference*

| | |
|---|---|
| Synopsis | Python policy |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 dhcp python-policy *reference* |
| Tree | python-policy |


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| | |
|---|---|
| Reference | **configure** python python-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **relay-plain-bootp** *boolean*

| | |
|---|---|
| Synopsis | Enable relaying of plain BOOTP packets |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 dhcp relay-plain-bootp *boolean* |
| Tree | relay-plain-bootp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **relay-proxy**

| | |
|---|---|
| Synopsis | Enable the **relay-proxy** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 dhcp relay-proxy |
| Tree | relay-proxy |
| Introduced | 16.0.R1 |
| Platforms | All |

### **release-update-src-ip** *boolean*

| | |
|---|---|
| Synopsis | Update the source IP address of a DHCP RELEASE message |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 dhcp relay-proxy release-update-src-ip *boolean* |
| Tree | release-update-src-ip |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **siaddr-override** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | DHCP server IP address for address hiding function |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 dhcp relay-proxy siaddr-override *ipv4-unicast-address* |
| Tree | siaddr-override |
| Introduced | 16.0.R1 |
| Platforms | All |

## **release-include-gi-address** *boolean*

| | |
|---|---|
| Synopsis | Include gateway IP address in DHCP Release messages |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 dhcp release-include-gi-address *boolean* |
| Tree | release-include-gi-address |
| Default | false |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **server** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IP addresses for DHCP server requests |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 dhcp server *ipv4-unicast-address* |
| Tree | server |
| Description | This command configures a list of servers that this interface forwards requests to.<br>The operator can enter the list of servers as either IP addresses or fully qualified domain names. The operator must specify at least one server specified for DHCP relay to work. If there are multiple servers, the system forwards the request to all the servers in the list. |
| Max. instances | 8 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **src-ip-addr** *keyword*

| | |
|---|---|
| Synopsis | Type of source address to use for DHCP relay |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 dhcp src-ip-addr *keyword* |


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| | |
|---|---|
| Tree | src-ip-addr |
| Options | auto, gi-address |
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | All |

### **trusted** *boolean*

| | |
|---|---|
| Synopsis | Relay untrusted packets |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 dhcp trusted *boolean* |
| Tree | trusted |
| Description | When configured to **true**, the router enables the trusted mode on the interface. When enabled, the relay agent changes the existing GI address (of the request) to the ingress interface, and forwards the request.<br>A DHCP request that contains a GI address of 0.0.0.0 and an Option 82 field in the packet is discarded unless it arrives on a trusted circuit.<br>This behavior only applies if the Relay Agent Information Option action is to keep the existing information. When the Option 82 field is replaced by the relay agent, the original Option 82 information is lost, and there is no reason to enable the trusted option. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **use-arp** *boolean*

| | |
|---|---|
| Synopsis | Use ARP to determine the destination hardware address |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 dhcp use-arp *boolean* |
| Tree | use-arp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **icmp**

| | |
|---|---|
| Synopsis | Enter the **icmp** context |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 icmp |
| Tree | icmp |
| Introduced | 16.0.R1 |
| Platforms | All |

## **mask-reply** *boolean*

| | |
|---|---|
| Synopsis | Allow responses to ICMP mask requests on the interface |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 icmp mask-reply *boolean* |
| Tree | mask-reply |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

## **param-problem**

| | |
|---|---|
| Synopsis | Enter the **param-problem** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 icmp param-problem |
| Tree | param-problem |
| Description | Commands in this context specify the settings for ICMP Parameter Problem messages generated by the interface. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of sent Parameter Problem messages |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 icmp param-problem admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **number** *number*

| | |
|---|---|
| Synopsis | Maximum number of Parameter Problem messages to send |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 icmp param-problem number *number* |
| Tree | number |
| Range | 10 to 1000 |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **seconds** *number*

| | |
|---|---|
| Synopsis | Time used to limit number of Parameter Problem messages |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 icmp param-problem seconds *number* |
| Tree | seconds |
| Range | 1 to 60 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **redirects**

| | |
|---|---|
| Synopsis | Enter the **redirects** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 icmp redirects |
| Tree | redirects |
| Description | Commands in this context configure the settings for ICMP redirect messages generated by the interface.<br>The system sends ICMP redirect messages to alert the sending node that a more optimal route is available on another router on the same subnetwork. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of sending ICMP redirect messages |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 icmp redirects admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **number** *number*

| | |
|---|---|
| Synopsis | Maximum number of ICMP redirect messages to send |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 icmp redirects number *number* |
| Tree | number |
| Range | 10 to 1000 |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **seconds** *number*

| | |
|---|---|
| Synopsis | Time used to limit the number of ICMP redirect messages |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 icmp redirects seconds *number* |
| Tree | seconds |
| Range | 1 to 60 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |


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## ttl-expired

| | |
|---|---|
| Synopsis | Enter the **ttl-expired** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 icmp ttl-expired |
| Tree | ttl-expired |
| Description | Commands in this context configure the settings for ICMP TTL expired messages generated by the interface. |
| Introduced | 16.0.R1 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of sending TTL expired messages |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 icmp ttl-expired admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

## number *number*

| | |
|---|---|
| Synopsis | Maximum number of TTL expired messages to send |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 icmp ttl-expired number *number* |
| Tree | number |
| Range | 10 to 2000 |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

## seconds *number*

| | |
|---|---|
| Synopsis | Time used to limit the number of TTL expired messages |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 icmp ttl-expired seconds *number* |
| Tree | seconds |
| Range | 1 to 60 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

## unreachables

| | |
|---|---|
| Synopsis | Enter the **unreachables** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 icmp unreachables |
| Tree | unreachables |
| Description | Commands in this context specify the settings for ICMP host and network destination unreachable messages generated by the interface. |
| Introduced | 16.0.R1 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of sending unreachable messages |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 icmp unreachables admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

## number *number*

| | |
|---|---|
| Synopsis | Maximum number of unreachable messages to send |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 icmp unreachables number *number* |
| Tree | number |


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| | |
|---|---|
| Range | 10 to 2000 |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **seconds** *number*

| | |
|---|---|
| Synopsis | Time to limit the number of ICMP unreachable messages |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 icmp unreachables seconds *number* |
| Tree | seconds |
| Range | 1 to 60 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ip-helper-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Gateway address |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 ip-helper-address *ipv4-unicast-address* |
| Tree | ip-helper-address |
| Introduced | 16.0.R1 |
| Platforms | All |

### **local-dhcp-server** *reference*

| | |
|---|---|
| Synopsis | DHCP server for the interface |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 local-dhcp-server *reference* |
| Tree | local-dhcp-server |
| Reference | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## neighbor-discovery

| | |
|---|---|
| Synopsis | Enter the **neighbor-discovery** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 neighbor-discovery |
| Tree | neighbor-discovery |
| Introduced | 16.0.R1 |
| Platforms | All |

## host-route

| | |
|---|---|
| Synopsis | Enter the **host-route** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 neighbor-discovery host-route |
| Tree | host-route |
| Introduced | 19.10.R1 |
| Platforms | All |

## **populate** [route-type] *keyword*

| | |
|---|---|
| Synopsis | Enter the **populate** list instance |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 neighbor-discovery host-route populate *keyword* |
| Tree | populate |
| Introduced | 19.10.R1 |
| Platforms | All |

## [**route-type**] *keyword*

| | |
|---|---|
| Synopsis | Type of ARP or ND entries that generate host routes |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 neighbor-discovery host-route populate *keyword* |
| Tree | populate |
| Options | static, dynamic, evpn |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | All |


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### **route-tag** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Tag value used with the host route from an ARP/ND entry |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 neighbor-discovery host-route populate *keyword* route-tag *number* |
| Tree | route-tag |
| Description | This command specifies the route tag that is added in the route table for ARP or ND host routes. This tag can be matched on BGP VRF export and BGP peer export policies. |
| Range | 1 to 255 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **learn-unsolicited** *boolean*

| | |
|---|---|
| Synopsis | Learn new entries from any received NA message |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 neighbor-discovery learn-unsolicited *boolean* |
| Tree | learn-unsolicited |
| Description | When configured to **true**, the router can learn neighbor entries from received unsolicited Neighbor Advertisement (NA) messages, with or without the solicited (S) flag set. The command can be enabled for global addresses, link-local addresses, or for both.<br>When configured to **false**, the router follows standard behavior for learning neighbor entries.<br>• If an unsolicited NA (regardless of the S flag) is received from a neighbor that is not yet in the Neighbor Discovery (ND) cache, the NA is ignored.<br>• If an NS, RS, RA, or Redirect message with a Link Layer Address (MAC) is received from a neighbor that is not yet in the ND cache, a new neighbor entry is created in the cache to store the received Link Layer MAC. The neighbor is put in the STALE state. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### limit

| | |
|---|---|
| Synopsis | Enter the **limit** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 neighbor-discovery limit |
| Tree | limit |
| Introduced | 16.0.R1 |
| Platforms | All |

### log-only *boolean*

| | |
|---|---|
| Synopsis | Generate log entries only if limit is reached |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 neighbor-discovery limit log-only *boolean* |
| Tree | log-only |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### max-entries *number*

| | |
|---|---|
| Synopsis | Maximum number of entries learned on an IP interface |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 neighbor-discovery limit max-entries *number* |
| Tree | max-entries |
| Range | 0 to 524288 |
| Introduced | 16.0.R1 |
| Platforms | All |

### threshold *number*

| | |
|---|---|
| Synopsis | Threshold value that triggers a warning message |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 neighbor-discovery limit threshold *number* |
| Tree | threshold |
| Range | 1 to 100 |


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| | |
|---|---|
| Units | percent |
| Default | 90 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **local-proxy-arp** *boolean*

| | |
|---|---|
| Synopsis | Enable local proxy ARP on interface |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 neighbor-discovery local-proxy-arp *boolean* |
| Tree | local-proxy-arp |
| Description | When configured to **true**, the router enables local proxy ARP on the interface.<br>When configured to **false**, the router does not respond to ARP requests for addresses on the same subnet. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **populate** *boolean*

| | |
|---|---|
| Synopsis | Allow static and dynamic hosts to be populated in system ARP cache |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 neighbor-discovery populate *boolean* |
| Tree | populate |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **proactive-refresh** *boolean*

| | |
|---|---|
| Synopsis | Send a single refresh message before entry timeout |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 neighbor-discovery proactive-refresh *boolean* |
| Tree | proactive-refresh |
| Description | When configured to **true**, the router always sends a refresh message 30 seconds before the timeout of the entry (a single refresh message with no retries).<br>When configured to **false**, the router marks an entry as stale 30 seconds before age-out, and the router only sends an ARP request to refresh the entry if the IOM receives traffic |


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that uses it. Then, the IOM asks the ARP application to send a refresh message. With ARP proactive refresh enabled, the ARP module sends a refresh message regardless of the IOM receiving traffic.

| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **proxy-arp-policy** *reference*

| | |
|---|---|
| Synopsis | Proxy ARP policy name |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 neighbor-discovery proxy-arp-policy *reference* |
| Tree | proxy-arp-policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **remote-proxy-arp** *boolean*

| | |
|---|---|
| Synopsis | Enable remote proxy ARP on the interface |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 neighbor-discovery remote-proxy-arp *boolean* |
| Tree | remote-proxy-arp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **retry-timer** *number*

| | |
|---|---|
| Synopsis | ARP retry interval |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 neighbor-discovery retry-timer *number* |
| Tree | retry-timer |
| Range | 1 to 300 |


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| | |
|---|---|
| Units | deciseconds |
| Default | 50 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **static-neighbor** [ipv4-address] *ipv4-address*

| | |
|---|---|
| Synopsis | Enter the **static-neighbor** list instance |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 neighbor-discovery static-neighbor *ipv4-address* |
| Tree | static-neighbor |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ipv4-address**] *ipv4-address*

| | |
|---|---|
| Synopsis | IPv4 address that corresponds to the physical address |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 neighbor-discovery static-neighbor *ipv4-address* |
| Tree | static-neighbor |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mac-address** *mac-address*

| | |
|---|---|
| Synopsis | MAC address for the static neighbor |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 neighbor-discovery static-neighbor *ipv4-address* mac-address *mac-address* |
| Tree | mac-address |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |


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## static-neighbor-unnumbered

| | |
|---|---|
| Synopsis | Enable the **static-neighbor-unnumbered** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 neighbor-discovery static-neighbor-unnumbered |
| Tree | static-neighbor-unnumbered |
| Introduced | 16.0.R1 |
| Platforms | All |

## mac-address *mac-address*

| | |
|---|---|
| Synopsis | MAC address for the static neighbor |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 neighbor-discovery static-neighbor-unnumbered mac-address *mac-address* |
| Tree | mac-address |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## timeout *number*

| | |
|---|---|
| Synopsis | Timeout for an ARP entry learned on the interface |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 neighbor-discovery timeout *number* |
| Tree | timeout |
| Description | This command configures the minimum time an ARP entry learned on the IP interface is stored in the ARP table. ARP entries are automatically refreshed when an ARP request or gratuitous ARP is seen by an IP host. Otherwise, the ARP entry is aged from the ARP table. |
| Range | 0 to 65535 |
| Units | seconds |
| Default | 14400 |
| Introduced | 16.0.R1 |
| Platforms | All |


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## primary

| | |
|---|---|
| Synopsis | Enable the **primary** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 primary |
| Tree | primary |
| Introduced | 16.0.R1 |
| Platforms | All |

## address *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Primary IPv4 address assigned to the interface |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 primary address *ipv4-unicast-address* |
| Tree | address |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## broadcast *keyword*

| | |
|---|---|
| Synopsis | Broadcast address format |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 primary broadcast *keyword* |
| Tree | broadcast |
| Options | all-ones, host-ones |
| Default | host-ones |
| Introduced | 16.0.R1 |
| Platforms | All |

## prefix-length *number*

| | |
|---|---|
| Synopsis | IPv4 address prefix length |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 primary prefix-length *number* |
| Tree | prefix-length |
| Range | 0 to 32 |


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| | |
|---|---|
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **track-srrp** *number*

| | |
|---|---|
| Synopsis | SRRP instance whose state is tracked on the IP address |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 primary track-srrp *number* |
| Tree | track-srrp |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **qos-route-lookup** *keyword*

| | |
|---|---|
| Synopsis | IP address for QoS route lookup for ingress IP packets |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 qos-route-lookup *keyword* |
| Tree | qos-route-lookup |
| Description | This command specifies the IP address type used for QPPB enabled per-packet QoS handling (in terms of FC and priority). When using QPPB, routes are associated with a QoS treatment (FC and optionally priority) through either explicit configuration or the route policy. If an IPv4 or IPv6 packet arrives on an interface where the configuration of this command applies to the packet, the QoS treatment of the packet is based on the route that matched the destination IP address or the route that matched the source IP address.<br><br>See "Enabling QPPB on an IP interface" in the *7450 ESS, 7750 SR, 7950 XRS, and VSR Router Configuration Guide* for more information about QPPB. |
| Options | destination, source, source-and-dest |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **secondary** [address] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Enter the **secondary** list instance |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 secondary *ipv4-unicast-address* |


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| | |
|---|---|
| Tree | secondary |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**address**] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Secondary IPv4 address assigned to the interface |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 secondary *ipv4-unicast-address* |
| Tree | secondary |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **broadcast** *keyword*

| | |
|---|---|
| Synopsis | Broadcast address format |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 secondary *ipv4-unicast-address* broadcast *keyword* |
| Tree | broadcast |
| Options | all-ones, host-ones |
| Default | host-ones |
| Introduced | 16.0.R1 |
| Platforms | All |

### **igp-inhibit** *boolean*

| | |
|---|---|
| Synopsis | Disable the running IGP from recognizing secondary IP |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 secondary *ipv4-unicast-address* igp-inhibit *boolean* |
| Tree | igp-inhibit |
| Description | When configured to **true**, the running IGP does not recognize the secondary IP address as a local interface. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **prefix-length** *number*

| | |
|---|---|
| Synopsis | IPv4 address prefix length |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 secondary *ipv4-unicast-address* prefix-length *number* |
| Tree | prefix-length |
| Range | 0 to 32 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **track-srrp** *number*

| | |
|---|---|
| Synopsis | SRRP instance whose state is tracked on the IP address |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 secondary *ipv4-unicast-address* track-srrp *number* |
| Tree | track-srrp |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **tcp-mss** *number*

| | |
|---|---|
| Synopsis | TCP maximum segment size for the interface |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 tcp-mss *number* |
| Tree | tcp-mss |
| Range | 384 to 9746 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **unnumbered**

| | |
|---|---|
| Synopsis | Enter the **unnumbered** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 unnumbered |
| Tree | unnumbered |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **ip-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IP address for the interface |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 unnumbered ip-address *ipv4-unicast-address* |
| Tree | ip-address |
| Notes | The following elements are part of a choice: **ip-address** or **ip-int-name**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ip-int-name** *interface-name*

| | |
|---|---|
| Synopsis | IP interface name |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 unnumbered ip-int-name *interface-name* |
| Tree | ip-int-name |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **ip-address** or **ip-int-name**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **urpf-check**

| | |
|---|---|
| Synopsis | Enable the **urpf-check** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 urpf-check |
| Tree | urpf-check |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ignore-default** *boolean*

| | |
|---|---|
| Synopsis | Ignore default route when performing a uRPF check |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 urpf-check ignore-default *boolean* |


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| | |
|---|---|
| Tree | ignore-default |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mode** *keyword*

| | |
|---|---|
| Synopsis | Unicast RPF check mode |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 urpf-check mode *keyword* |
| Tree | mode |
| Options | strict, loose, strict-no-ecmp |
| Default | strict |
| Introduced | 16.0.R1 |
| Platforms | All |

### **vrrp** [virtual-router-id] *number*

| | |
|---|---|
| Synopsis | Enter the **vrrp** list instance |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 vrrp *number* |
| Tree | vrrp |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**virtual-router-id**] *number*

| | |
|---|---|
| Synopsis | Virtual Router Identifier (VRID) for the IP interface |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 vrrp *number* |
| Tree | vrrp |
| Range | 1 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of VRRP |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 vrrp *number* admin-state *keyword* |
| Tree | admin-state |
| Description | The command determines the administrative state of non-owner virtual router instances.<br><br>Non-owner virtual router instances can be administratively disabled. This allows the termination of VRRP participation in the virtual router and stops all routing and other access capabilities with regards to the virtual router IP addresses. Disabling the virtual router instance provides a mechanism to maintain the virtual routers without causing false backup or master state changes.<br><br>When **disabled**, no VRRP advertisement messages are generated and all received VRRP advertisement messages are silently discarded with no processing.<br><br>Whenever the administrative or operational state of a virtual router instance transitions, a log message is generated.<br><br>An owner virtual router context does not use this command. To administratively disable an owner virtual router instance, use the **admin-state** command within the parent IP interface node which administratively disables the IP interface. |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

## **authentication-key** *encrypted-leaf*

| | |
|---|---|
| Synopsis | Password for simple text authentication |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 vrrp *number* authentication-key *encrypted-leaf* |
| Tree | authentication-key |
| Description | This command optionally assigns a simple text password authentication key to generate master VRRP advertisement messages and validate received VRRP advertisement messages.<br><br>If this command is re-executed with a different password key defined, the new key immediately replaces the old key. This command may be executed at any time. |
| String length | 1 to 38 |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **backup** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Virtual router IP addresses for the interface |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 vrrp *number* backup *ipv4-unicast-address* |
| Tree | backup |
| Description | This command associates virtual router IP addresses with those of the parental IP interface.<br><br>This command has two different functions based on whether it is being executed on an owner or non-owner virtual router instance.<br><br>Non-owner virtual router instances create a routable IP interface address that is operationally dependent on the virtual router instance mode (master or backup). This command, when executed on an owner virtual router instance, does not create a routable IP interface address; it simply defines the existing IP addresses of the parental IP interface that are advertised by the virtual router instance.<br><br>For owner virtual router instances, this command defines the IP addresses that are advertised within VRRP advertisement messages. This communicates the IP addresses that the master is advertising to backup virtual routers receiving the messages. The specified *unicast-ipv4-address* must be equal to one of the existing IP addresses in the parental IP interface (primary or secondary) or this command fails.<br><br>See "Owner and non-owner VRRP" in the *7450 ESS, 7750 SR, 7950 XRS, and VSR Router Configuration Guide* for more information about owner and non-owner virtual router instances. |
| Max. instances | 16 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **bfd-liveness**

| | |
|---|---|
| Synopsis | Enable the **bfd-liveness** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 vrrp *number* bfd-liveness |
| Tree | bfd-liveness |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **dest-ip** *ipv4-address*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Destination IP address to use for BFD session |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 vrrp *number* bfd-liveness dest-ip *ipv4-address* |
| Tree | dest-ip |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **interface-name** *interface-name*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Name of the interface running BFD |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 vrrp *number* bfd-liveness interface-name *interface-name* |
| Tree | interface-name |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **service-name** *service-name*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Administrative service name |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 vrrp *number* bfd-liveness service-name *service-name* |


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| | |
|---|---|
| Tree | service-name |
| String length | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **init-delay** *number*

| | |
|---|---|
| Synopsis | VRRP initialization delay timer |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 vrrp *number* init-delay *number* |
| Tree | init-delay |
| Range | 1 to 65535 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mac** *mac-unicast-address*

| | |
|---|---|
| Synopsis | Virtual MAC address to use in ARP responses |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 vrrp *number* mac *mac-unicast-address* |
| Tree | mac |
| Description | This command sets an explicit MAC address for the virtual router instance that overrides the VRRP default derived from the VRID.<br><br>Changing the default MAC address is useful when an existing HSRP or other non-VRRP default MAC is in use by the IP hosts that use the virtual router IP address. Many hosts do not monitor unessential ARPs and continue to use the cached non-VRRP MAC address after the virtual router becomes master of the host's gateway address.<br><br>Additionally, this command sets the MAC address used in ARP responses when the virtual router instance is master. Routing of IP packets with *unicast-mac-address* as the destination MAC is also enabled. The MAC must be the same for all virtual routers participating as a virtual router or indeterminate connectivity by the attached IP hosts results. All VRRP advertisement messages are transmitted with *unicast-mac-address* as the source MAC.<br><br>An operator can execute this command at any time and it takes effect immediately. When the virtual router MAC on a master virtual router instance changes, a gratuitous ARP is immediately sent with a VRRP advertisement message. If the virtual router instance is disabled or operating as a backup, the gratuitous ARP and VRRP advertisement messages are not sent. |
| Introduced | 16.0.R1 |


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Platforms All

## **master-int-inherit** *boolean*

Synopsis Allow master instance to dictate the master down timer

Context **configure** service vprn *service-name* interface *interface-name* ipv4 vrrp *number* master-int-inherit *boolean*

Tree master-int-inherit

Description When configured to **true**, the virtual router instance inherits the advertisement interval timer of the master VRRP router, which backup routers use to calculate the master down timer.

When configured to **false**, the locally configured message interval must match the master's VRRP advertisement message advertisement interval field value or the message is discarded.

Introduced 16.0.R1

Platforms All

## **message-interval** *number*

Synopsis Interval for sending VRRP advertisement messages

Context **configure** service vprn *service-name* interface *interface-name* ipv4 vrrp *number* message-interval *number*

Tree message-interval

Description This command configures the administrative advertisement message timer used by the master virtual router instance to send VRRP advertisement messages. The backup master down timer is derived from the value configured using this command.

The usage of this command varies for non-owner virtual router instances, depending on the state of the virtual router (master or backup) and the state of the **master-int-inherit** command:

- When a non-owner is operating as master for the virtual router, the system uses the configured value of this command as the operational advertisement timer, similar to an owner virtual router instance. The **master-int-inherit** command has no effect when operating as master.
- When a non-owner is in the backup state with **master-int-inherit** disabled, the system uses the configured value of this command to match the incoming advertisement interval field of the VRRP advertisement message. If the locally configured message interval does not match the advertisement interval field, the system discards the VRRP advertisement.
- When a non-owner is in the backup state with **master-int-inherit** enabled, the configured value of this command is ignored. The master down timer is


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indirectly derived from the advertisement interval field value of the incoming VRRP advertisement message.

| | |
|---|---|
| Range | 1 to 2559 |
| Units | deciseconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **monitor-oper-group** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | VRRP instance to follow a specified operational group |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 vrrp *number* monitor-oper-group *reference* |
| Tree | monitor-oper-group |
| Description | This command configures VRRP to associate with an operational group. When associated, VRRP notifies the operational group of its state changes so that other protocols can monitor it to provide a redundancy mechanism. When VRRP is the master router, the operational group is up and the operational group is down for all other VRRP states. |
| Reference | **configure** service oper-group *named-item* |
| Introduced | 22.2.R1 |
| Platforms | All |

## **ntp-reply** *boolean*

| | |
|---|---|
| Synopsis | Allow processing of NTP requests |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 vrrp *number* ntp-reply *boolean* |
| Tree | ntp-reply |
| Description | When configured to **true**, the router redirects NTP requests to the VRRP virtual IP address. This behavior only applies to the router acting as the master VRRP router.<br>When configured to **false**, the router does not process NTP requests. |
| Default | false |
| Introduced | 20.2.R1 |


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| | |
|---|---|
| Platforms | All |

## **oper-group** *reference*

| | |
|---|---|
| Synopsis | Operational group name associated with the VRRP |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 vrrp *number* oper-group *reference* |
| Tree | oper-group |
| Description | This command configures an operational group to associate with the VRRP. When associated, VRRP notifies the operational group of its state changes so that other protocols can monitor it to provide a redundancy mechanism. When VRRP is the master router (MR), the operational group is up. The operational group is down for all other VRRP states. |
| Reference | **configure** service oper-group *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **owner** *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Designate the virtual router instance as owner |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 vrrp *number* owner *boolean* |
| Tree | owner |
| Description | When configured to **true**, the router designates this virtual router instance as the owner of the virtual router IP addresses. Therefore, this virtual router becomes responsible for forwarding packets sent to the virtual router IP addresses. The owner also assumes the role of master virtual router.<br>When configured to **false**, this virtual router instance is designated as a non-owner. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **passive** *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Suppress the processing of VRRP advertisement messages |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 vrrp *number* passive *boolean* |
| Tree | passive |
| Description | When configured to **true**, the router identifies this virtual router instance as passive; and therefore the owner of the virtual router IP addresses. A passive virtual router instance does not transmit or receive VRRP advertisement messages and is always in either the master state (if the interface is operationally up) or the init state (if the interface is operationally down).<br>When configured to **false**, this virtual router instance is not identified as passive, meaning that it transmits and receives VRRP advertisement messages. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **ping-reply** *boolean*

| | |
|---|---|
| Synopsis | Allow non-owner master to reply to ICMP echo requests |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 vrrp *number* ping-reply *boolean* |
| Tree | ping-reply |
| Description | When configured to **true**, the router allows the non-owner master to reply to ICMP echo requests directed at the IP addresses of the virtual router instance. Any routed interface can receive the ping request. Ping must not have been disabled at the management security level (either on the parental IP interface or on the Ping source host address).<br>When configured to **false**, ICMP echo requests sent to non-owner master virtual IP addresses are silently discarded.<br>Non-owner backup virtual routers never respond to ICMP echo requests, regardless of the configuration of this command. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **policy** *reference*

| | |
|---|---|
| Synopsis | VRRP priority control policy |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 vrrp *number* policy *reference* |
| Tree | policy |
| Description | This command configures a VRRP priority control policy to associate with the virtual router instance.<br>VRRP priority control policies can override or adjust the base priority value of the virtual router instance, depending on events or conditions within the chassis.<br>An operator can associate a policy with more than one virtual router instance. The priority events within the policy either override or diminish the base priority set with the **priority** command. As priority events clear in the policy, the in-use priority can eventually be restored to the base priority value.<br>For non-owner virtual router instances, if this command is not executed, the base priority is used as the in-use priority. |
| Reference | **configure** vrrp policy *number* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **preempt** *boolean*

| | |
|---|---|
| Synopsis | Allow the VRRP to override an existing non-owner master |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 vrrp *number* preempt *boolean* |
| Tree | preempt |
| Description | When configured to **true**, this virtual router instance overrides any non-owner master with an in-use message priority value less than the in-use priority value of this virtual router.<br>When configured to **false**, this virtual router only becomes master if the master down timer expires before a VRRP advertisement message is received from another virtual router. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

## **priority** *number*

| | |
|---|---|
| Synopsis | Base priority for the VRRP |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 vrrp *number* priority *number* |
| Tree | priority |
| Description | This command configures the base router priority for the virtual router instance, which defines the selection order of the virtual router in the master election process.<br>The in-use priority is derived from the base priority. However, the in-use priority is modified by optional VRRP priority control policies. An operator can use VRRP priority control policies to either override or adjust the base priority value depending on events or conditions within the chassis. |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **ssh-reply** *boolean*

| | |
|---|---|
| Synopsis | Allow the non-owner master to reply to SSH requests |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 vrrp *number* ssh-reply *boolean* |
| Tree | ssh-reply |
| Description | When configured to **true**, the router allows the non-owner master to reply to SSH requests directed at the IP addresses of the virtual router instance. Any routed interface can receive the SSH request. SSH cannot be disabled at the management security level (either on the parental IP interface or on the SSH source host address).<br>When configure to **false**, SSH requests to non-owner master virtual IP addresses are silently discarded. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **standby-forwarding** *boolean*

| | |
|---|---|
| Synopsis | Allow standby router to forward traffic |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 vrrp *number* standby-forwarding *boolean* |
| Tree | standby-forwarding |
| Description | When configured to **true**, the standby router forwards all traffic.<br>When configured to **false**, the standby router cannot forward traffic sent to the MAC address of the virtual router. However, the standby router still forwards traffic sent to its own MAC address. |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **telnet-reply** *boolean*

| | |
|---|---|
| Synopsis | Allow non-owner master to reply to Telnet requests |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 vrrp *number* telnet-reply *boolean* |
| Tree | telnet-reply |
| Description | When configured to **true**, the router allows the non-owner master to reply to Telnet requests directed at the IP addresses of the virtual router instance. Any routed interface can receive Telnet requests. Telnet cannot be disabled at the management security level (either on the parental IP interface or on the Telnet source host address).<br>When configured to **false**, the router silently discards Telnet requests sent to non-owner master virtual IP addresses. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **traceroute-reply** *boolean*

| | |
|---|---|
| Synopsis | Allow non-owner master to reply to traceroute requests |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv4 vrrp *number* traceroute-reply *boolean* |
| Tree | traceroute-reply |
| Description | When configured to **true**, the router allows a non-owner master to reply to traceroute requests directed to the IP addresses of the virtual router instance.<br>When configured to **false**, the router silently discards traceroute requests sent to non-owner master virtual IP addresses.<br>Traceroute must not have been disabled at the management security level (either on the parental IP interface or the source host address). |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### ipv6

| | |
|---|---|
| Synopsis | Enable the **ipv6** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 |
| Tree | ipv6 |
| Introduced | 16.0.R1 |
| Platforms | All |

### address [ipv6-address] *ipv6-address*

| | |
|---|---|
| Synopsis | Enter the **address** list instance |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 address *ipv6-address* |
| Tree | address |
| Introduced | 16.0.R1 |
| Platforms | All |

### [ipv6-address] *ipv6-address*

| | |
|---|---|
| Synopsis | IPv6 address assigned to the interface |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 address *ipv6-address* |
| Tree | address |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### duplicate-address-detection *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable Duplicate Address Detection |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 address *ipv6-address* duplicate-address-detection *boolean* |
| Tree | duplicate-address-detection |


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| | |
|---|---|
| Description | When configured to **true**, the router enables Duplicate Address Detection (DAD).<br>When configured to **false**, the router disables DAD and sets the address to preferred, even if there is a duplicated address. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

## **eui-64** *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Form IPv6 address from prefix and 64-bit interface ID |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 address *ipv6-address* eui-64 *boolean* |
| Tree | eui-64 |
| Description | When configured to **true**, the router forms a complete IPv6 address from the supplied prefix and 64-bit interface identifier. The 64-bit interface identifier is derived from the MAC address on Ethernet interfaces. For interfaces without a MAC address, for example POS interfaces, use the base MAC address of the chassis. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **prefix-length** *number*

| | |
|---|---|
| Synopsis | IPv6 address prefix length |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 address *ipv6-address* prefix-length *number* |
| Tree | prefix-length |
| Range | 4 to 128 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **primary-preference** *number*

| | |
|---|---|
| Synopsis | Index assigned to the IPv6 address of the interface |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 address *ipv6-address* primary-preference *number* |
| Tree | primary-preference |
| Description | This command assigns a primary preference index to an IPv6 address of the interface to enforce the order in which the address is used by control plane protocols and applications that require a fixed address of the interface, such as LDP and Segment Routing. In cases where a fixed address is required when originating packets from the interface, the IPv6 address with the lowest primary preference index is selected. If the selected address is removed, the next IPv6 address with the next lowest primary preference index is selected.<br><br>If this index is not specified for the IPv6 address, the system assigns the next available index value to the address. The address index space is unique across all addresses of a given interface. |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **track-srrp** *number*

| | |
|---|---|
| Synopsis | SRRP ID whose state is tracked on this IP address |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 address *ipv6-address* track-srrp *number* |
| Tree | track-srrp |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bfd**

| | |
|---|---|
| Synopsis | Enter the **bfd** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 bfd |
| Tree | bfd |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of BFD sessions |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 bfd admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **echo-receive** *number*

| | |
|---|---|
| Synopsis | Minimum echo interval over this interface |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 bfd echo-receive *number* |
| Tree | echo-receive |
| Range | 100 to 100000 |
| Units | milliseconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **multiplier** *number*

| | |
|---|---|
| Synopsis | Number of consecutive BFD messages missed from the peer |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 bfd multiplier *number* |
| Tree | multiplier |
| Description | This command configures the number of missed messages before the BFD session state is changed to down and the upper-level protocol is notified of the fault. A multiplier of less than 3 should not be used in production environments. |
| Range | 1 to 20 |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **receive** *number*

| | |
|---|---|
| Synopsis | BFD receive interval over this interface |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 bfd receive *number* |
| Tree | receive |
| Description | This command specifies the receive interval for the BFD session.<br>On the 7750 SR, this command can only be configured to a value less than 100 when the **type** command is configured to **cpm-np**. |
| Range | 10 to 100000 |
| Units | milliseconds |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **transmit-interval** *number*

| | |
|---|---|
| Synopsis | BFD transmit interval over this interface |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 bfd transmit-interval *number* |
| Tree | transmit-interval |
| Description | This command configures the transmit intervals.<br>On the 7750 SR, this command can only be configured to a value less than 100 when the **type** command is configured to **cpm-np**. |
| Range | 10 to 100000 |
| Units | milliseconds |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **type** *keyword*

| | |
|---|---|
| Synopsis | Local termination point for the BFD session |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 bfd type *keyword* |
| Tree | type |
| Description | This command sets the local termination point for the BFD session to allow for fast timers down to 10 ms granularity. |


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The options to specify where the BFD session runs are:

- **auto** (default) – the system chooses and uses the line card CPU only for single-hop BFD sessions with timer intervals equal to or greater than 100ms. All others are placed on the **cpm-np**.
- **cpm-np** – BFD session runs on the FP complex associated with the CPM. This is either the FP on the CPM or the one elected on smaller systems.
- **fp** – BFD session runs on the line card CPU. This option can only be used for single-hop BFD sessions with timers equal to or greater than 100ms.

| | |
|---|---|
| Options | cpm-np, auto, fp |
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## dhcp6

| | |
|---|---|
| Synopsis | Enter the **dhcp6** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 dhcp6 |
| Tree | dhcp6 |
| Introduced | 16.0.R1 |
| Platforms | All |

## relay

| | |
|---|---|
| Synopsis | Enter the **relay** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 dhcp6 relay |
| Tree | relay |
| Introduced | 16.0.R1 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of DHCPv6 Relay |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 dhcp6 relay admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 dhcp6 relay description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lease-populate**

| | |
|---|---|
| Synopsis | Enter the **lease-populate** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 dhcp6 relay lease-populate |
| Tree | lease-populate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **max-nbr-of-leases** *number*

| | |
|---|---|
| Synopsis | Maximum lease state entries allowed for the interface |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 dhcp6 relay lease-populate max-nbr-of-leases *number* |
| Tree | max-nbr-of-leases |
| Range | 0 to 32767 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **route-populate**

| | |
|---|---|
| Synopsis | Enter the **route-populate** context |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 dhcp6 relay lease-populate route-populate |
| Tree | route-populate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **na** *boolean*

| | |
|---|---|
| Synopsis | Create route based on IA_NA prefix option in relay-reply message |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 dhcp6 relay lease-populate route-populate na *boolean* |
| Tree | na |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **pd**

| | |
|---|---|
| Synopsis | Enable the **pd** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 dhcp6 relay lease-populate route-populate pd |
| Tree | pd |
| Introduced | 16.0.R1 |
| Platforms | All |

### **exclude** *boolean*

| | |
|---|---|
| Synopsis | Create back hole route based on prefix exclude option in relay-reply message |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 dhcp6 relay lease-populate route-populate pd exclude *boolean* |
| Tree | exclude |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **ta** *boolean*

| | |
|---|---|
| Synopsis | Create route based on IA_TA prefix option in relay-reply message |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 dhcp6 relay lease-populate route-populate ta *boolean* |
| Tree | ta |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **link-address** *ipv6-address*

| | |
|---|---|
| Synopsis | Link address of the DHCPv6 relay messages |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 dhcp6 relay link-address *ipv6-address* |
| Tree | link-address |
| Introduced | 16.0.R1 |
| Platforms | All |

### **neighbor-resolution** *boolean*

| | |
|---|---|
| Synopsis | Enable neighbor resolution via DHCPv6 relay |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 dhcp6 relay neighbor-resolution *boolean* |
| Tree | neighbor-resolution |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **option**

| | |
|---|---|
| Synopsis | Enter the **option** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 dhcp6 relay option |
| Tree | option |
| Introduced | 16.0.R1 |
| Platforms | All |


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## interface-id

| | |
|---|---|
| Synopsis | Enter the **interface-id** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 dhcp6 relay option interface-id |
| Tree | interface-id |
| Introduced | 16.0.R1 |
| Platforms | All |

## ascii-tuple

| | |
|---|---|
| Synopsis | Use ASCII-encoded concatenated tuple |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 dhcp6 relay option interface-id ascii-tuple |
| Tree | ascii-tuple |
| Notes | The following elements are part of a choice: **ascii-tuple**, **if-index**, **sap-id**, or **string**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## if-index

| | |
|---|---|
| Synopsis | Use interface index in the DHCPv6 relay packet |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 dhcp6 relay option interface-id if-index |
| Tree | if-index |
| Notes | The following elements are part of a choice: **ascii-tuple**, **if-index**, **sap-id**, or **string**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## sap-id

| | |
|---|---|
| Synopsis | Use SAP ID in interface ID option in relay packet |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 dhcp6 relay option interface-id sap-id |
| Tree | sap-id |
| Notes | The following elements are part of a choice: **ascii-tuple**, **if-index**, **sap-id**, or **string**. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **string** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | String for interface ID option in DHCPv6 relay packet |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 dhcp6 relay option interface-id string *string-not-all-spaces* |
| Tree | string |
| String length | 1 to 80 |
| Notes | The following elements are part of a choice: **ascii-tuple**, **if-index**, **sap-id**, or **string**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **remote-id** *boolean*

| | |
|---|---|
| Synopsis | Send remote ID option in the DHCPv6 relay packet |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 dhcp6 relay option remote-id *boolean* |
| Tree | remote-id |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **python-policy** *reference*

| | |
|---|---|
| Synopsis | Python policy name |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 dhcp6 relay python-policy *reference* |
| Tree | python-policy |
| Reference | **configure** python python-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **server** *ipv6-address-with-zone*

| | |
|---|---|
| Synopsis | DHCPv6 server to which the DHCPv6 requests are forwarded |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 dhcp6 relay server *ipv6-address-with-zone* |
| Tree | server |
| Max. instances | 8 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **source-address** *ipv6-unicast-or-linklocal-address*

| | |
|---|---|
| Synopsis | Source IPv6 address of the DHCPv6 relay messages |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 dhcp6 relay source-address *ipv6-unicast-or-linklocal-address* |
| Tree | source-address |
| Introduced | 16.0.R1 |
| Platforms | All |

### **user-db** *reference*

| | |
|---|---|
| Synopsis | Local user database for authentication |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 dhcp6 relay user-db *reference* |
| Tree | user-db |
| Reference | **configure** subscriber-mgmt local-user-db *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **server**

| | |
|---|---|
| Synopsis | Enter the **server** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 dhcp6 server |
| Tree | server |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **max-nbr-of-leases** *number*

| | |
|---|---|
| Synopsis | DHCPv6 leases allowed |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 dhcp6 server max-nbr-of-leases *number* |
| Tree | max-nbr-of-leases |
| Range | 0 to 8000 |
| Default | 8000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **prefix-delegation**

| | |
|---|---|
| Synopsis | Enter the **prefix-delegation** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 dhcp6 server prefix-delegation |
| Tree | prefix-delegation |
| Description | Commands in this context configure the options for delegating a long-lived prefix from a delegating router to a requesting router, where the delegating router does not require knowledge about the link topology in the network to which the prefixes are assigned. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the prefix delegation |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 dhcp6 server prefix-delegation admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **prefix** [ipv6-prefix] *ipv6-prefix*

| | |
|---|---|
| Synopsis | Enter the **prefix** list instance |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 dhcp6 server prefix-delegation prefix *ipv6-prefix* |
| Tree | prefix |
| Description | Commands in this context configure the IPv6 prefix that is delegated by the system. |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ipv6-prefix**] *ipv6-prefix*

| | |
|---|---|
| Synopsis | IPv6 address and prefix |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 dhcp6 server prefix-delegation prefix *ipv6-prefix* |
| Tree | prefix |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **client-id**

| | |
|---|---|
| Synopsis | Enter the **client-id** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 dhcp6 server prefix-delegation prefix *ipv6-prefix* client-id |
| Tree | client-id |
| Introduced | 16.0.R1 |
| Platforms | All |

### **duid** *string*

| | |
|---|---|
| Synopsis | Requesting router ID |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 dhcp6 server prefix-delegation prefix *ipv6-prefix* client-id duid *string* |
| Tree | duid |
| String length | 1 to 130 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **iaid** *number*

| | |
|---|---|
| Synopsis | IAID from the requesting router to match |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 dhcp6 server prefix-delegation prefix *ipv6-prefix* client-id iaid *number* |
| Tree | iaid |
| Description | This command configures the Identity Association ID (IAID) associated with a prefix delegation entry and must match the IAID sent by the requesting router for the prefix delegation to succeed. |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **preferred-lifetime** *(number | keyword)*

| | |
|---|---|
| Synopsis | Preferred lifetime of the prefix |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 dhcp6 server prefix-delegation prefix *ipv6-prefix* preferred-lifetime *(number | keyword)* |
| Tree | preferred-lifetime |
| Description | This command configures the preferred lifetime of the prefix. The value cannot be greater than the valid lifetime value. |
| Range | 1 to 4294967294 |
| Units | seconds |
| Options | infinite |
| Default | 604800 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **valid-lifetime** *(number | keyword)*

| | |
|---|---|
| Synopsis | Valid lifetime of the prefix |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 dhcp6 server prefix-delegation prefix *ipv6-prefix* valid-lifetime *(number | keyword)* |
| Tree | valid-lifetime |


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| | |
|---|---|
| Range | 1 to 4294967294 |
| Units | seconds |
| Options | infinite |
| Default | 2592000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **duplicate-address-detection** *boolean*

| | |
|---|---|
| Synopsis | Enable Duplicate Address Detection per interface |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 duplicate-address-detection *boolean* |
| Tree | duplicate-address-detection |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **forward-ipv4-packets** *boolean*

| | |
|---|---|
| Synopsis | Forward unencapsulated IPv4 packets |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 forward-ipv4-packets *boolean* |
| Tree | forward-ipv4-packets |
| Default | false |
| Introduced | 19.5.R1 |
| Platforms | All |

### **icmp6**

| | |
|---|---|
| Synopsis | Enter the **icmp6** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 icmp6 |
| Tree | icmp6 |
| Introduced | 16.0.R1 |
| Platforms | All |


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## packet-too-big

| | |
|---|---|
| Synopsis | Enter the **packet-too-big** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 icmp6 packet-too-big |
| Tree | packet-too-big |
| Description | Commands in this context configure limiting the number of ICMPv6 Packet Too Big messages. |
| Introduced | 16.0.R1 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of Packet Too Big message sends |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 icmp6 packet-too-big admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

## number *number*

| | |
|---|---|
| Synopsis | Number of Packet Too big Messages issued per time frame |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 icmp6 packet-too-big number *number* |
| Tree | number |
| Range | 10 to 1000 |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

## seconds *number*

| | |
|---|---|
| Synopsis | Time used to limit Packet Too Big messages |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 icmp6 packet-too-big seconds *number* |
| Tree | seconds |
| Range | 1 to 60 |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

## param-problem

| | |
|---|---|
| Synopsis | Enter the **param-problem** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 icmp6 param-problem |
| Tree | param-problem |
| Introduced | 16.0.R1 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of Parameter Problem message sends |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 icmp6 param-problem admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

## number *number*

| | |
|---|---|
| Synopsis | Number used to limit ICMPv6 Parameter Problem messages |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 icmp6 param-problem number *number* |
| Tree | number |
| Range | 10 to 1000 |
| Default | 100 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **seconds** *number*

| | |
|---|---|
| Synopsis | Time used to limit ICMPv6 Parameter Problem messages |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 icmp6 param-problem seconds *number* |
| Tree | seconds |
| Range | 1 to 60 |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **redirects**

| | |
|---|---|
| Synopsis | Enter the **redirects** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 icmp6 redirects |
| Tree | redirects |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of Redirect message sends |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 icmp6 redirects admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **number** *number*

| | |
|---|---|
| Synopsis | Number to limit ICMPv6 Redirect messages per time frame |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 icmp6 redirects number *number* |
| Tree | number |
| Range | 10 to 1000 |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **seconds** *number*

| | |
|---|---|
| Synopsis | Time used to limit ICMPv6 Redirect messages |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 icmp6 redirects seconds *number* |
| Tree | seconds |
| Range | 1 to 60 |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **time-exceeded**

| | |
|---|---|
| Synopsis | Enter the **time-exceeded** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 icmp6 time-exceeded |
| Tree | time-exceeded |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of Time Exceeded message sends |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 icmp6 time-exceeded admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **number** *number*

| | |
|---|---|
| Synopsis | Number to limit Time Exceeded messages per time frame |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 icmp6 time-exceeded number *number* |
| Tree | number |
| Range | 10 to 2000 |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **seconds** *number*

| | |
|---|---|
| Synopsis | Time used to limit ICMPv6 Time Exceeded messages |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 icmp6 time-exceeded seconds *number* |
| Tree | seconds |
| Range | 1 to 60 |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **unreachables**

| | |
|---|---|
| Synopsis | Enter the **unreachables** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 icmp6 unreachables |
| Tree | unreachables |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of Unreachable message sends |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 icmp6 unreachables admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **number** *number*

| | |
|---|---|
| Synopsis | Number to limit Unreachable messages per time frame |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 icmp6 unreachables number *number* |
| Tree | number |
| Range | 10 to 2000 |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **seconds** *number*

| | |
|---|---|
| Synopsis | Time used to limit ICMPv6 Unreachable messages |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 icmp6 unreachables seconds *number* |
| Tree | seconds |
| Range | 1 to 60 |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### link-local-address

| | |
|---|---|
| Synopsis | Enter the **link-local-address** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 link-local-address |
| Tree | link-local-address |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **address** *ipv6-address*

| | |
|---|---|
| Synopsis | IPv6 link-local address |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 link-local-address address *ipv6-address* |
| Tree | address |
| Introduced | 16.0.R1 |
| Platforms | All |

### **duplicate-address-detection** *boolean*

| | |
|---|---|
| Synopsis | Enable Duplicate Address Detection |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 link-local-address duplicate-address-detection *boolean* |
| Tree | duplicate-address-detection |
| Description | When configured to **true**, the router enables Duplicate Address Detection (DAD) on the interface.<br>When configured to **false**, the router disables DAD and sets the address to preferred, even if there is a duplicated address. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **local-dhcp-server** *reference*

| | |
|---|---|
| Synopsis | DHCP server for the interface |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 local-dhcp-server *reference* |
| Tree | local-dhcp-server |
| Description | This command instantiates a local DHCP server. A local DHCP server can serve multiple interfaces but is limited to the routing context in which it was created. |
| Reference | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## neighbor-discovery

| | |
|---|---|
| Synopsis | Enter the **neighbor-discovery** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 neighbor-discovery |
| Tree | neighbor-discovery |
| Introduced | 16.0.R1 |
| Platforms | All |

## host-route

| | |
|---|---|
| Synopsis | Enter the **host-route** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 neighbor-discovery host-route |
| Tree | host-route |
| Introduced | 20.2.R1 |
| Platforms | All |

## **populate** [route-type] *keyword*

| | |
|---|---|
| Synopsis | Enter the **populate** list instance |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 neighbor-discovery host-route populate *keyword* |
| Tree | populate |
| Introduced | 20.2.R1 |
| Platforms | All |

## [**route-type**] *keyword*

| | |
|---|---|
| Synopsis | Type of ARP or ND entries that generate host routes |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 neighbor-discovery host-route populate *keyword* |
| Tree | populate |
| Options | static, dynamic, evpn |
| Notes | This element is part of a list key. |
| Introduced | 20.2.R1 |
| Platforms | All |


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## **route-tag** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Tag value used with the host route from an ARP/ND entry |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 neighbor-discovery host-route populate *keyword* route-tag *number* |
| Tree | route-tag |
| Description | This command specifies the route tag that is added in the route table for ARP or ND host routes. This tag can be matched on BGP VRF export and BGP peer export policies. |
| Range | 1 to 255 |
| Introduced | 20.2.R1 |
| Platforms | All |

## **learn-unsolicited** *keyword*

| | |
|---|---|
| Synopsis | Type of entries learned from unsolicited NA messages |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 neighbor-discovery learn-unsolicited *keyword* |
| Tree | learn-unsolicited |
| Description | This command enables the ability to learn neighbor entries out of received unsolicited Neighbor Advertisement (NA) messages, with or without the solicited flag set.<br>When unconfigured, the router follows standard RFC 4861 behavior for learning of neighbor entries. The neighbor is put in the stale state. This is the standard RFC behavior. |
| Options | global, link-local, both |
| Introduced | 16.0.R1 |
| Platforms | All |

## **limit**

| | |
|---|---|
| Synopsis | Enter the **limit** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 neighbor-discovery limit |
| Tree | limit |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **log-only** *boolean*

| | |
|---|---|
| Synopsis | Generate log entries when limit is reached |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 neighbor-discovery limit log-only *boolean* |
| Tree | log-only |
| Description | When configured to **true**, the router sends the warning message at the specified threshold percentage or upon exceeding the specified limit. Entries that exceed the limit are learned.<br>When configured to **false**, the router does not send the warning message. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **max-entries** *number*

| | |
|---|---|
| Synopsis | Maximum number of entries learned on an IP interface |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 neighbor-discovery limit max-entries *number* |
| Tree | max-entries |
| Description | This command configures the maximum number of entries that can be learned on an IP interface.<br>When unconfigured, no maximum limit is imposed. |
| Range | 0 to 102400 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **threshold** *number*

| | |
|---|---|
| Synopsis | Threshold percentage that triggers a warning message |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 neighbor-discovery limit threshold *number* |
| Tree | threshold |
| Range | 1 to 100 |
| Units | percent |


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| | |
|---|---|
| Default | 90 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **local-proxy-nd** *boolean*

| | |
|---|---|
| Synopsis | Enable local proxy neighbor discovery on the interface |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 neighbor-discovery local-proxy-nd *boolean* |
| Tree | local-proxy-nd |
| Description | When configured to **true**, the router enables local proxy neighbor discovery on the interface and replies to neighbor solicitation requests when both the hosts are on the same subnet. In this case, ICMP redirects are disabled.<br>When configured to **false**, the router disables local proxy neighbor discovery on the interface and does not reply to neighbor solicitation requests if both the hosts are on the same subnet. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **proactive-refresh** *keyword*

| | |
|---|---|
| Synopsis | Proactive refresh of neighbor entries |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 neighbor-discovery proactive-refresh *keyword* |
| Tree | proactive-refresh |
| Description | This command enables a proactive refresh of the neighbor entries. After the stale timer expires, the router sends an NUD message to the host (regardless of the existence of traffic to the IP address on the IOM), so the entry can be refreshed or removed. |
| Options | global, link-local, both |
| Introduced | 16.0.R1 |
| Platforms | All |

### **proxy-nd-policy** *reference*

| | |
|---|---|
| Synopsis | Proxy Neighbor Discovery policy name for the interface |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 neighbor-discovery proxy-nd-policy *reference* |


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| | |
|---|---|
| Tree | proxy-nd-policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **reachable-time** *number*

| | |
|---|---|
| Synopsis | Neighbor reachability detection timer |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 neighbor-discovery reachable-time *number* |
| Tree | reachable-time |
| Range | 30 to 3600 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **secure-nd**

| | |
|---|---|
| Synopsis | Enter the **secure-nd** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 neighbor-discovery secure-nd |
| Tree | secure-nd |
| Introduced | 16.0.R1 |
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of Secure Neighbor Discovery |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 neighbor-discovery secure-nd admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **allow-unsecured-msgs** *boolean*

| | |
|---|---|
| Synopsis | Accept unsecured messages |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 neighbor-discovery secure-nd allow-unsecured-msgs *boolean* |
| Tree | allow-unsecured-msgs |
| Description | When configured to **true**, the router accepts unsecured messages. When Secure Neighbor Discovery (SeND) is enabled, only secure messages are accepted.<br>When configured to **false**, the router disables the acceptance of unsecured messages. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **public-key-min-bits** *number*

| | |
|---|---|
| Synopsis | Minimum acceptable key length for public keys in CGA |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 neighbor-discovery secure-nd public-key-min-bits *number* |
| Tree | public-key-min-bits |
| Range | 512 to 1024 |
| Default | 1024 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **security-parameter** *number*

| | |
|---|---|
| Synopsis | Security parameter used in the generation of a CGA |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 neighbor-discovery secure-nd security-parameter *number* |
| Tree | security-parameter |
| Range | 0 to 1 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **stale-time** *number*

| | |
|---|---|
| Synopsis | Time a Neighbor Discovery cache entry remains stale |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 neighbor-discovery stale-time *number* |
| Tree | stale-time |
| Range | 60 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **static-neighbor** [ipv6-address] *ipv6-address*

| | |
|---|---|
| Synopsis | Enter the **static-neighbor** list instance |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 neighbor-discovery static-neighbor *ipv6-address* |
| Tree | static-neighbor |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ipv6-address**] *ipv6-address*

| | |
|---|---|
| Synopsis | IPv6 address corresponding to the physical address |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 neighbor-discovery static-neighbor *ipv6-address* |
| Tree | static-neighbor |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mac-address** *mac-address*

| | |
|---|---|
| Synopsis | MAC address for the static neighbor |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 neighbor-discovery static-neighbor *ipv6-address* mac-address *mac-address* |
| Tree | mac-address |
| Notes | This element is mandatory. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **qos-route-lookup** *keyword*

| | |
|---|---|
| Synopsis | IP address for QoS route lookup for ingress IP packets |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 qos-route-lookup *keyword* |
| Tree | qos-route-lookup |
| Description | This command specifies the IP address type used for QPPB enabled per-packet QoS handling (in terms of FC and priority). When using QPPB, routes are associated with a QoS treatment (FC and optionally priority) through either explicit configuration or the route policy. If an IPv4 or IPv6 packet arrives on an interface where the configuration of this command applies to the packet, the QoS treatment of the packet is based on the route that matched the destination IP address or the route that matched the source IP address.<br><br>See "Enabling QPPB on an IP interface" in the *7450 ESS, 7750 SR, 7950 XRS, and VSR Router Configuration Guide* for more information about QPPB. |
| Options | destination, source, source-and-dest |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **tcp-mss** *number*

| | |
|---|---|
| Synopsis | TCP maximum segment size for the interface |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 tcp-mss *number* |
| Tree | tcp-mss |
| Range | 1220 to 9726 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **urpf-check**

| | |
|---|---|
| Synopsis | Enable the **urpf-check** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 urpf-check |
| Tree | urpf-check |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **ignore-default** *boolean*

| | |
|---|---|
| Synopsis | Ignore default route when performing a uRPF check |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 urpf-check ignore-default *boolean* |
| Tree | ignore-default |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mode** *keyword*

| | |
|---|---|
| Synopsis | Unicast RPF check mode |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 urpf-check mode *keyword* |
| Tree | mode |
| Options | strict, loose, strict-no-ecmp |
| Default | strict |
| Introduced | 16.0.R1 |
| Platforms | All |

### **vrrp** [virtual-router-id] *number*

| | |
|---|---|
| Synopsis | Enter the **vrrp** list instance |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 vrrp *number* |
| Tree | vrrp |
| Max. instances | 4 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**virtual-router-id**] *number*

| | |
|---|---|
| Synopsis | Virtual Router Identifier (VRID) for the IP interface |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 vrrp *number* |
| Tree | vrrp |
| Range | 1 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of VRRP |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 vrrp *number* admin-state *keyword* |
| Tree | admin-state |
| Description | The command determines the administrative state of non-owner virtual router instances.<br>Non-owner virtual router instances can be administratively disabled. This allows the termination of VRRP participation in the virtual router and stops all routing and other access capabilities with regards to the virtual router IP addresses. Disabling the virtual router instance provides a mechanism to maintain the virtual routers without causing false backup or master state changes.<br>When **disabled**, no VRRP advertisement messages are generated and all received VRRP advertisement messages are silently discarded with no processing.<br>Whenever the administrative or operational state of a virtual router instance transitions, a log message is generated.<br>An owner virtual router context does not use this command. To administratively disable an owner virtual router instance, use the **admin-state** command within the parent IP interface node which administratively disables the IP interface. |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

## **backup** *ipv6-address*

| | |
|---|---|
| Synopsis | Virtual router IP addresses for the interface |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 vrrp *number* backup *ipv6-address* |
| Tree | backup |


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Description This command associates router IPv6 virtual router IP addresses with those of the parental IP interface.

This command has two different functions based on whether it is being executed on an owner or non-owner virtual router instance.

Non-owner virtual router instance create a routable IP interface address that is operationally dependent on the virtual router instance mode (master or backup). This command, when executed on an owner virtual router instance, does not create a routable IP interface address; it simply defines the existing IP addresses of the parental IP interface that are advertised by the virtual router instance.

For owner virtual router instances, this command defines the IP addresses that are advertised within VRRP advertisement messages. This communicates the IP addresses that the master is representing to backup virtual routers receiving the messages. The specified IPv6 address must be equal to one of the existing parental IP addresses in the parental IP interface (primary or secondary) or this command fails.

See "Owner and non-owner VRRP" in the *7450 ESS, 7750 SR, 7950 XRS, and VSR Router Configuration Guide* for more information about owner and non-owner virtual router instances.

Introduced 16.0.R1

Platforms All

## bfd-liveness

Synopsis Enable the **bfd-liveness** context

Context **configure** service vprn *service-name* interface *interface-name* ipv6 vrrp *number* bfd-liveness

Tree bfd-liveness

Introduced 16.0.R1

Platforms All

## dest-ip *(ipv4-address-no-zone | ipv6-address-no-zone)*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

Synopsis Destination address for the BFD session

Context **configure** service vprn *service-name* interface *interface-name* ipv6 vrrp *number* bfd-liveness dest-ip *(ipv4-address-no-zone | ipv6-address-no-zone)*

Tree dest-ip

Notes This element is mandatory.


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## **interface-name** *interface-name*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Name of the interface running BFD |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 vrrp *number* bfd-liveness interface-name *interface-name* |
| Tree | interface-name |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **service-name** *service-name*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Administrative service name |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 vrrp *number* bfd-liveness service-name *service-name* |
| Tree | service-name |
| String length | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **init-delay** *number*

| | |
|---|---|
| Synopsis | VRRP initialization delay timer |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 vrrp *number* init-delay *number* |
| Tree | init-delay |


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| | |
|---|---|
| Range | 1 to 65535 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

## **mac** *mac-unicast-address*

| | |
|---|---|
| Synopsis | Virtual MAC address to use in ARP responses |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 vrrp *number* mac *mac-unicast-address* |
| Tree | mac |
| Description | This command sets an explicit MAC address for the virtual router instance that overrides the VRRP default derived from the VRID.<br><br>Changing the default MAC address is useful when an existing HSRP or other non-VRRP default MAC is in use by the IP hosts that use the virtual router IP address. Many hosts do not monitor unessential ARPs and continue to use the cached non-VRRP MAC address after the virtual router becomes master of the host's gateway address.<br><br>Additionally, this command sets the MAC address used in ARP responses when the virtual router instance is master. Routing of IP packets with *unicast-mac-address* as the destination MAC is also enabled. The MAC must be the same for all virtual routers participating as a virtual router or indeterminate connectivity by the attached IP hosts results. All VRRP advertisement messages are transmitted with *unicast-mac-address* as the source MAC.<br><br>An operator can execute this command at any time and it takes effect immediately. When the virtual router MAC on a master virtual router instance changes, a gratuitous ARP is immediately sent with a VRRP advertisement message. If the virtual router instance is disabled or operating as a backup, the gratuitous ARP and VRRP advertisement messages are not sent. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **master-int-inherit** *boolean*

| | |
|---|---|
| Synopsis | Allow master instance to dictate the master down timer |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 vrrp *number* master-int-inherit *boolean* |
| Tree | master-int-inherit |
| Description | When configured to **true**, the virtual router instance inherits the advertisement interval timer of the master VRRP router, which backup routers use to calculate the master down timer. |


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When configured to **false**, the locally configured message interval must match the master's VRRP advertisement message advertisement interval field value or the message is discarded.

Introduced 16.0.R1

Platforms All

## **message-interval** *number*

Synopsis Interval for sending VRRP advertisement messages

Context **configure** service vprn *service-name* interface *interface-name* ipv6 vrrp *number* message-interval *number*

Tree message-interval

Description This command configures the administrative advertisement message timer used by the master virtual router instance to send VRRP advertisement messages. The backup master down timer is derived from the value configured using this command.

The use of this command varies for non-owner virtual router instances, depending on the state of the virtual router (master or backup) and the state of the **master-int-inherit** command:

- When a non-owner is operating as master for the virtual router, the system uses the configured value of this command as the operational advertisement timer, similar to an owner virtual router instance. The **master-int-inherit** command has no effect when operating as the master.
- When a non-owner is in the backup state with **master-int-inherit** disabled, the system uses the configured value of this command to match the incoming advertisement interval field of the VRRP advertisement message. If the locally configured message interval does not match the advertisement interval field, the system discards the VRRP advertisement.
- When a non-owner is in the backup state with **master-int-inherit** enabled, the configured value of this command is ignored. The master down timer is indirectly derived from the advertisement interval field value of the incoming VRRP advertisement message.

Range 10 to 4095

Units centiseconds

Default 100

Introduced 16.0.R1

Platforms All


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## **monitor-oper-group** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | VRRP instance to follow a specified operational group |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 vrrp *number* monitor-oper-group *reference* |
| Tree | monitor-oper-group |
| Description | This command configures VRRP to associate with an operational group. When associated, VRRP notifies the operational group of its state changes so that other protocols can monitor it to provide a redundancy mechanism. When VRRP is the master router, the operational group is up and the operational group is down for all other VRRP states. |
| Reference | **configure** service oper-group *named-item* |
| Introduced | 22.2.R1 |
| Platforms | All |

## **ntp-reply** *boolean*

| | |
|---|---|
| Synopsis | Allow processing of NTP requests |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 vrrp *number* ntp-reply *boolean* |
| Tree | ntp-reply |
| Description | When configured to **true**, the router redirects NTP requests to the VRRP virtual IP address. This behavior only applies to the router acting as the master VRRP router.<br>When configured to **false**, the router does not process NTP requests. |
| Default | false |
| Introduced | 20.2.R1 |
| Platforms | All |

## **oper-group** *reference*

| | |
|---|---|
| Synopsis | Operational group name associated with the VRRP |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 vrrp *number* oper-group *reference* |
| Tree | oper-group |


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| | |
|---|---|
| Description | This command configures an operational group to associate with the VRRP. When associated, VRRP notifies the operational group of its state changes so that other protocols can monitor it to provide a redundancy mechanism. When VRRP is the master router (MR), the operational group is up. The operational group is down for all other VRRP states. |
| Reference | **configure** service oper-group *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **owner** *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Designate the virtual router instance as owner |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 vrrp *number* owner *boolean* |
| Tree | owner |
| Description | When configured to **true**, the router designates this virtual router instance as the owner of the virtual router IP addresses. Therefore, this virtual router becomes responsible for forwarding packets sent to the virtual router IP addresses. The owner also assumes the role of master virtual router.<br>When configured to **false**, this virtual router instance is designated as a non-owner. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **passive** *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Suppress the processing of VRRP advertisement messages |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 vrrp *number* passive *boolean* |
| Tree | passive |
| Description | When configured to **true**, the router identifies this virtual router instance as passive; and therefore the owner of the virtual router IP addresses. A passive virtual router instance |


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does not transmit or receive VRRP advertisement messages and is always in either the master state (if the interface is operationally up) or the init state (if the interface is operationally down).

When configured to **false**, this virtual router instance is not identified as passive, meaning that it transmits and receives VRRP advertisement messages.

Default false

Introduced 16.0.R1

Platforms All

## **ping-reply** *boolean*

Synopsis Allow non-owner master to reply to ICMP echo requests

Context **configure** service vprn *service-name* interface *interface-name* ipv6 vrrp *number* ping-reply *boolean*

Tree ping-reply

Description When configured to **true**, the router allows the non-owner master to reply to ICMP echo requests directed at the IP addresses of the virtual router instance. Any routed interface can receive the ping request. Ping must not have been disabled at the management security level (either on the parental IP interface or on the Ping source host address).

When configured to **false**, ICMP echo requests sent to non-owner master virtual IP addresses are silently discarded.

Non-owner backup virtual routers never respond to ICMP echo requests, regardless of the configuration of this command.

Default false

Introduced 16.0.R1

Platforms All

## **policy** *reference*

Synopsis VRRP priority control policy

Context **configure** service vprn *service-name* interface *interface-name* ipv6 vrrp *number* policy *reference*

Tree policy

Description This command configures a VRRP priority control policy to associate with the virtual router instance.

VRRP priority control policies can override or adjust the base priority value of the virtual router instance, depending on events or conditions within the chassis.

An operator can associate a policy with more than one virtual router instance. The priority events within the policy either override or diminish the base priority set with


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the **priority** command. As priority events clear in the policy, the in-use priority can eventually be restored to the base priority value.

For non-owner virtual router instances, if this command is not executed, the base priority is used as the in-use priority.

Reference **configure** vrrp policy *number*

Introduced 16.0.R1

Platforms All

## **preempt** *boolean*

Synopsis Allow the VRRP to override an existing non-owner master

Context **configure** service vprn *service-name* interface *interface-name* ipv6 vrrp *number* preempt *boolean*

Tree preempt

Description When configured to **true**, this virtual router instance overrides any non-owner master with an in-use message priority value less than the in-use priority value of this virtual router.

When configured to **false**, this virtual router only becomes master if the master down timer expires before a VRRP advertisement message is received from another virtual router.

Default true

Introduced 16.0.R1

Platforms All

## **priority** *number*

Synopsis Base priority for the VRRP

Context **configure** service vprn *service-name* interface *interface-name* ipv6 vrrp *number* priority *number*

Tree priority

Description This command configures the base router priority for the virtual router instance, which defines the selection order of the virtual router in the master election process.

The in-use priority is derived from the base priority. However, the in-use priority is modified by optional VRRP priority control policies. An operator can use VRRP priority control policies to either override or adjust the base priority value depending on events or conditions within the chassis.

Range 1 to 255

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| | |
|---|---|
| Platforms | All |

### **standby-forwarding** *boolean*

| | |
|---|---|
| Synopsis | Allow standby router to forward traffic |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 vrrp *number* standby-forwarding *boolean* |
| Tree | standby-forwarding |
| Description | When configured to **true**, the standby router forwards all traffic.<br>When configured to **false**, the standby router cannot forward traffic sent to the MAC address of the virtual router. However, the standby router still forwards traffic sent to its own MAC address. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **telnet-reply** *boolean*

| | |
|---|---|
| Synopsis | Allow non-owner master to reply to Telnet requests |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 vrrp *number* telnet-reply *boolean* |
| Tree | telnet-reply |
| Description | When configured to **true**, the router allows the non-owner master to reply to Telnet requests directed at the IP addresses of the virtual router instance. Any routed interface can receive Telnet requests. Telnet cannot be disabled at the management security level (either on the parental IP interface or on the Telnet source host address).<br>When configured to **false**, the router silently discards Telnet requests sent to non-owner master virtual IP addresses. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **traceroute-reply** *boolean*

| | |
|---|---|
| Synopsis | Allow non-owner master to reply to traceroute requests |
| Context | **configure** service vprn *service-name* interface *interface-name* ipv6 vrrp *number* traceroute-reply *boolean* |
| Tree | traceroute-reply |


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| | |
|---|---|
| Description | When configured to **true**, the router allows a non-owner master to reply to traceroute requests directed to the IP addresses of the virtual router instance.<br>When configured to **false**, the router silently discards traceroute requests sent to non-owner master virtual IP addresses.<br>Traceroute must not have been disabled at the management security level (either on the parental IP interface or the source host address). |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## load-balancing

| | |
|---|---|
| Synopsis | Enter the **load-balancing** context |
| Context | **configure** service vprn *service-name* interface *interface-name* load-balancing |
| Tree | load-balancing |
| Introduced | 16.0.R1 |
| Platforms | All |

## flow-label-load-balancing *boolean*

| | |
|---|---|
| Synopsis | Enable flow label load balancing |
| Context | **configure** service vprn *service-name* interface *interface-name* load-balancing flow-label-load-balancing *boolean* |
| Tree | flow-label-load-balancing |
| Description | When configured to **true**, the router enables load balancing in ECMP and LAG based on the output of a hash performed on the triplet (SA, DA, flow label) in the header of an IPv6 packet received on an IES, VPRN, R-VPLS, CSC, or network interface.<br>When configured to **false**, the router disables load balancing in ECMP and LAG. |
| Default | false |
| Introduced | 21.5.R1 |
| Platforms | All |

## ip-load-balancing *keyword*

| | |
|---|---|
| Synopsis | IP load-balancing algorithm |
| Context | **configure** service vprn *service-name* interface *interface-name* load-balancing ip-load-balancing *keyword* |


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| | |
|---|---|
| Tree | ip-load-balancing |
| Description | This command specifies whether to include the source address, destination address, or both in LAG or ECMP hash on IP interfaces. Additionally, when the **l4-load-balancing** command is enabled, this command also includes the source or destination port in the hash inputs. |
| Options | both, destination, source, inner-ip |
| Default | both |
| Introduced | 16.0.R3 |
| Platforms | All |

## **spi-load-balancing** *boolean*

| | |
|---|---|
| Synopsis | Enable SPI use in hashing |
| Context | **configure** service vprn *service-name* interface *interface-name* load-balancing spi-load-balancing *boolean* |
| Tree | spi-load-balancing |
| Description | When configured to **true**, the router uses the Security Parameter Index (SPI) in hashing for ESP and AH encrypted IPv4 and IPv6 traffic. This is a per-interface setting. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **teid-load-balancing** *boolean*

| | |
|---|---|
| Synopsis | Enable use of TEID in hashing |
| Context | **configure** service vprn *service-name* interface *interface-name* load-balancing teid-load-balancing *boolean* |
| Tree | teid-load-balancing |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **loopback** *boolean*

| | |
|---|---|
| Synopsis | Use interface as a loopback interface |
| Context | **configure** service vprn *service-name* interface *interface-name* loopback *boolean* |
| Tree | loopback |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **mac** *mac-unicast-address*

| | |
|---|---|
| Synopsis | MAC address for the interface |
| Context | **configure** service vprn *service-name* interface *interface-name* mac *mac-unicast-address* |
| Tree | mac |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mac-accounting** *boolean*

| | |
|---|---|
| Synopsis | Enable MAC accounting functionality |
| Context | **configure** service vprn *service-name* interface *interface-name* mac-accounting *boolean* |
| Tree | mac-accounting |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **monitor-oper-group** *reference*

| | |
|---|---|
| Synopsis | Operational group to monitor |
| Context | **configure** service vprn *service-name* interface *interface-name* monitor-oper-group *reference* |
| Tree | monitor-oper-group |
| Reference | **configure** service oper-group *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **multi-chassis-shunting-profile** *reference*

| | |
|---|---|
| Synopsis | Multi-chassis shunting profile name |
| Context | **configure** service vprn *service-name* interface *interface-name* multi-chassis-shunting-profile *reference* |


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| | |
|---|---|
| Tree | multi-chassis-shunting-profile |
| Description | This command configures the name of a multi-chassis shunting profile to use on public or private tunnel interfaces. |
| Reference | **configure** service vprn *service-name* ipsec multi-chassis-shunting-profile *named-item* |
| Notes | The following elements are part of a choice: **multi-chassis-shunting-profile** or (**dynamic-tunnel-redundant-nexthop** and **static-tunnel-redundant-nexthop**). |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## ping-template

| | |
|---|---|
| Synopsis | Enable the **ping-template** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ping-template |
| Tree | ping-template |
| Description | Commands in this context map a ping template to the service IP interface. The template is created in the configure test-oam icmp ping-template context. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the ping template |
| Context | **configure** service vprn *service-name* interface *interface-name* ping-template admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## destination-address *ipv4-unicast-address*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Ping template destination address |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* interface *interface-name* ping-template destination-address *ipv4-unicast-address* |
| Tree | destination-address |
| Description | This command configures the address to where the ICMP echo requests are directed to test connectivity. The source of the ICMP echo request is the primary IPv4 address of the interface under which the ping-template is configured. The destination address must be on the same subnet as the source IP address.<br>Unnumbered interfaces and loopback addresses are not supported. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **name** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Ping template name |
| Context | **configure** service vprn *service-name* interface *interface-name* ping-template name *reference* |
| Tree | name |
| Description | This command configures the name of the ping template to be assigned to the IP interface. |
| Reference | **configure** test-oam icmp ping-template *named-item-64* |
| Notes | This element is mandatory. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## ptp-hw-assist

| | |
|---|---|
| Synopsis | Enter the **ptp-hw-assist** context |
| Context | **configure** service vprn *service-name* interface *interface-name* ptp-hw-assist |
| Tree | ptp-hw-assist |
| Description | Commands in this context enable the port-based timestamping assist of PTP packets at the physical interface. This capability is supported on specific hardware. The command may be blocked if not all hardware has the required level of support. |


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Only one interface per physical port can have port-based timestamping assist enabled. This feature cannot be enabled if the physical port supporting the interface is configured as a PTP port.

| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the PTP timestamping assist |
| Context | **configure** service vprn *service-name* interface *interface-name* ptp-hw-assist admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **radius-auth-policy** *reference*

| | |
|---|---|
| Synopsis | Authentication policy |
| Context | **configure** service vprn *service-name* interface *interface-name* radius-auth-policy *reference* |
| Tree | radius-auth-policy |
| Reference | **configure** subscriber-mgmt radius-authentication-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sap** [sap-id] *sap*

| | |
|---|---|
| Synopsis | Enter the **sap** list instance |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* |
| Tree | sap |
| Max. instances | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**sap-id**] *sap*

| | |
|---|---|
| Synopsis | SAP ID |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* |
| Tree | sap |
| String length | 1 to 45 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **aarp**

| | |
|---|---|
| Synopsis | Enable the **aarp** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* aarp |
| Tree | aarp |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **id** *reference*

| | |
|---|---|
| Synopsis | AARP instance ID |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* aarp id *reference* |
| Tree | id |
| Reference | **configure** application-assurance aarp *number* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **type** *keyword*

| | |
|---|---|
| Synopsis | Role referenced by the AARP |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* aarp type *keyword* |
| Tree | type |
| Options | dual-homed, dual-homed-secondary |


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| | |
|---|---|
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **accounting-policy** *reference*

| | |
|---|---|
| Synopsis | Accounting policy |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* accounting-policy *reference* |
| Tree | accounting-policy |
| Reference | **configure** log accounting-policy *number* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the SAP |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

## **anti-spoof** *keyword*

| | |
|---|---|
| Synopsis | Anti-spoof filtering |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* anti-spoof *keyword* |
| Tree | anti-spoof |
| Options | source-ip-addr, source-mac-addr, source-ip-and-mac-addr, next-hop-ip-and-mac-addr |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **app-profile** *reference*

| | |
|---|---|
| Synopsis | Application profile name |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* app-profile *reference* |
| Tree | app-profile |
| Reference | **configure** application-assurance group *number* partition *number* policy app-profile *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **bandwidth** *number*

| | |
|---|---|
| Synopsis | SAP bandwidth |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* bandwidth *number* |
| Tree | bandwidth |
| Range | 1 to 6400000000 |
| Units | kilobps |
| Introduced | 16.0.R1 |
| Platforms | All |

### **calling-station-id** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | Calling station ID |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* calling-station-id *string-not-all-spaces* |
| Tree | calling-station-id |
| String length | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **collect-stats** *boolean*

| | |
|---|---|
| Synopsis | Collect accounting statistics |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* collect-stats *boolean* |


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| | |
|---|---|
| Tree | collect-stats |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## cpu-protection

| | |
|---|---|
| Synopsis | Enter the **cpu-protection** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* cpu-protection |
| Tree | cpu-protection |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

## eth-cfm-monitoring

| | |
|---|---|
| Synopsis | Enable the **eth-cfm-monitoring** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* cpu-protection eth-cfm-monitoring |
| Tree | eth-cfm-monitoring |
| Notes | The following elements are part of a choice: **eth-cfm-monitoring**, **ip-src-monitoring**, or **mac-monitoring**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

## aggregate

| | |
|---|---|
| Synopsis | Apply rate limit to the sum of the per peer packet rates |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* cpu-protection eth-cfm-monitoring aggregate |
| Tree | aggregate |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

## car

| | |
|---|---|
| Synopsis | Ignore Ethernet CFM packets when enforcing overall rate |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* cpu-protection eth-cfm-monitoring car |
| Tree | car |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

## ip-src-monitoring

| | |
|---|---|
| Synopsis | Enable IP source monitoring for CPU protection |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* cpu-protection ip-src-monitoring |
| Tree | ip-src-monitoring |
| Notes | The following elements are part of a choice: **eth-cfm-monitoring**, **ip-src-monitoring**, or **mac-monitoring**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

## mac-monitoring

| | |
|---|---|
| Synopsis | Monitor MAC for CPU protection |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* cpu-protection mac-monitoring |
| Tree | mac-monitoring |
| Notes | The following elements are part of a choice: **eth-cfm-monitoring**, **ip-src-monitoring**, or **mac-monitoring**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

## policy-id *reference*

| | |
|---|---|
| Synopsis | CPM protection policy |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* cpu-protection policy-id *reference* |
| Tree | policy-id |
| Reference | **configure** system security cpu-protection policy *number* |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

## **description** *long-description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* description *long-description* |
| Tree | description |
| String length | 1 to 160 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **dist-cpu-protection** *reference*

| | |
|---|---|
| Synopsis | Distributed CPU protection policy for SAP |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* dist-cpu-protection *reference* |
| Tree | dist-cpu-protection |
| Reference | **configure** system security dist-cpu-protection policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **egress**

| | |
|---|---|
| Synopsis | Enter the **egress** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress |
| Tree | egress |
| Introduced | 16.0.R1 |
| Platforms | All |

## **agg-rate**

| | |
|---|---|
| Synopsis | Enter the **agg-rate** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress agg-rate |
| Tree | agg-rate |
| Notes | The following elements are part of a choice: **agg-rate** or **percent-agg-rate**. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **adaptation-rule** *keyword*

| | |
|---|---|
| Synopsis | Adaptation rule to compute the operational PIR value when an aggregate shaper is used |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress agg-rate adaptation-rule *keyword* |
| Tree | adaptation-rule |
| Options | max, min, closest |
| Default | closest |
| Introduced | 22.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### **burst-limit** *(number | keyword)*

| | |
|---|---|
| Synopsis | Shaping burst size when an aggregate shaper is used |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress agg-rate burst-limit *(number | keyword)* |
| Tree | burst-limit |
| Range | 1 to 14000000 |
| Units | bytes |
| Options | auto |
| Default | auto |
| Introduced | 22.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### **limit-unused-bandwidth** *boolean*

| | |
|---|---|
| Synopsis | Enable aggregate rate overrun protection |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress agg-rate limit-unused-bandwidth *boolean* |
| Tree | limit-unused-bandwidth |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **queue-frame-based-accounting** *boolean*

| | |
|---|---|
| Synopsis | Enable frame based accounting on policers and queues |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress agg-rate queue-frame-based-accounting *boolean* |
| Tree | queue-frame-based-accounting |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rate** *number*

| | |
|---|---|
| Synopsis | Enforced aggregate rate for all queues |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress agg-rate rate *number* |
| Tree | rate |
| Range | 1 to 6400000000 |
| Units | kilobps |
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter**

| | |
|---|---|
| Synopsis | Enter the **filter** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress filter |
| Tree | filter |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ip** *reference*

| | |
|---|---|
| Synopsis | IPv4 filter policy name |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress filter ip *reference* |
| Tree | ip |
| Reference | **configure** filter ip-filter *filter-name* |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv6** *reference*

| | |
|---|---|
| Synopsis | IPv6 filter policy name |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress filter ipv6 *reference* |
| Tree | ipv6 |
| Reference | **configure** filter ipv6-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **qos**

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos |
| Tree | qos |
| Introduced | 16.0.R1 |
| Platforms | All |

### **latency-budget** *number*

| | |
|---|---|
| Synopsis | SAP egress latency budget |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos latency-budget *number* |
| Tree | latency-budget |
| Range | 1 to 1000000 |
| Units | microseconds |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **policer-control-policy**

| | |
|---|---|
| Synopsis | Enter the **policer-control-policy** context |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos policer-control-policy |
| Tree | policer-control-policy |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## overrides

| | |
|---|---|
| Synopsis | Enable the **overrides** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos policer-control-policy overrides |
| Tree | overrides |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## root

| | |
|---|---|
| Synopsis | Enter the **root** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos policer-control-policy overrides root |
| Tree | root |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## max-rate *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum frame-based bandwidth limit |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos policer-control-policy overrides root max-rate *(number | keyword)* |
| Tree | max-rate |
| Range | 1 to 6400000000 |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |


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## priority-mbs-thresholds

| | |
|---|---|
| Synopsis | Enter the **priority-mbs-thresholds** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos policer-control-policy overrides root priority-mbs-thresholds |
| Tree | priority-mbs-thresholds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## min-thresh-separation *(number | keyword)*

| | |
|---|---|
| Synopsis | Minimum amount of separation buffer space |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos policer-control-policy overrides root priority-mbs-thresholds min-thresh-separation *(number \| keyword)* |
| Tree | min-thresh-separation |
| Range | 0 to 16777216 |
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## **priority** [priority-level] *number*

| | |
|---|---|
| Synopsis | Enter the **priority** list instance |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos policer-control-policy overrides root priority-mbs-thresholds priority *number* |
| Tree | priority |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## [**priority-level**] *number*

| | |
|---|---|
| Synopsis | Priority level |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos policer-control-policy overrides root priority-mbs-thresholds priority *number* |
| Tree | priority |


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| | |
|---|---|
| Range | 1 to 8 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **mbs-contribution** *(number | keyword)*

| | |
|---|---|
| Synopsis | Minimum amount of cumulative buffer space allowed |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos policer-control-policy overrides root priority-mbs-thresholds priority *number* mbs-contribution *(number \| keyword)* |
| Tree | mbs-contribution |
| Range | 0 to 16777216 |
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **policy-name** *reference*

| | |
|---|---|
| Synopsis | Policer control policy name |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos policer-control-policy policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos policer-control-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **qinq-mark-top-only** *boolean*

| | |
|---|---|
| Synopsis | Mark top Q-tags |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos qinq-mark-top-only *boolean* |
| Tree | qinq-mark-top-only |
| Default | false |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## sap-egress

| | |
|---|---|
| Synopsis | Enter the **sap-egress** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos sap-egress |
| Tree | sap-egress |
| Introduced | 16.0.R1 |
| Platforms | All |

## overrides

| | |
|---|---|
| Synopsis | Enter the **overrides** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides |
| Tree | overrides |
| Introduced | 16.0.R1 |
| Platforms | All |

## hs-secondary-shaper *named-item*

| | |
|---|---|
| Synopsis | HS Secondary Shaper |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides hs-secondary-shaper *named-item* |
| Tree | hs-secondary-shaper |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

## hs-wrr-group [group-id] *reference*

| | |
|---|---|
| Synopsis | Enter the **hs-wrr-group** list instance |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides hs-wrr-group *reference* |
| Tree | hs-wrr-group |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7750 SR-7/12/12e |

### [**group-id**] *reference*

| | |
|---|---|
| Synopsis | HS WRR group identifier |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides hs-wrr-group *reference* |
| Tree | hs-wrr-group |
| Reference | **configure** qos sap-egress *qos-policy-name* hs-wrr-group *number* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **hs-class-weight** *number*

| | |
|---|---|
| Synopsis | Class weight override of the WRR group |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides hs-wrr-group *reference* hs-class-weight *number* |
| Tree | hs-class-weight |
| Range | 1 \| 2 \| 4 \| 8 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **percent-rate** *decimal-number*

| | |
|---|---|
| Synopsis | Percent rate override applied to the HS WRR group |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides hs-wrr-group *reference* percent-rate *decimal-number* |
| Tree | percent-rate |
| Range | 0.01 to 100.00 |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |


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### **rate** *(number | keyword)*

| | |
|---|---|
| Synopsis | Scheduling rate override applied to the HS WRR group |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides hs-wrr-group *reference* rate *(number | keyword)* |
| Tree | rate |
| Range | 1 to 2000000000 |
| Units | kilobps |
| Options | max |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **policer** [policer-id] *reference*

| | |
|---|---|
| Synopsis | Enter the **policer** list instance |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides policer *reference* |
| Tree | policer |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### [**policer-id**] *reference*

| | |
|---|---|
| Synopsis | Policer unique ID |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides policer *reference* |
| Tree | policer |
| Reference | **configure** qos sap-egress *qos-policy-name* policer *number* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **cbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | CBS |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides policer *reference* cbs *(number \| keyword)* |
| Tree | cbs |
| Range | 0 to 268435456 |
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **mbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | MBS |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides policer *reference* mbs *(number \| keyword)* |
| Tree | mbs |
| Range | 0 to 268435456 |
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **packet-byte-offset** *number*

| | |
|---|---|
| Synopsis | Packet size modification for policing information |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides policer *reference* packet-byte-offset *number* |
| Tree | packet-byte-offset |
| Range | -64 to 31 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **percent-rate**

| | |
|---|---|
| Synopsis | Enter the **percent-rate** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides policer *reference* percent-rate |


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| | |
|---|---|
| Tree | percent-rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **cir** *decimal-number*

| | |
|---|---|
| Synopsis | CIR percent rate |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides policer *reference* percent-rate cir *decimal-number* |
| Tree | cir |
| Range | 0.00 to 100.00 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **pir** *decimal-number*

| | |
|---|---|
| Synopsis | PIR percent rate |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides policer *reference* percent-rate pir *decimal-number* |
| Tree | pir |
| Range | 0.01 to 100.00 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **rate**

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides policer *reference* rate |
| Tree | rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |


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### **cir** *(number | keyword)*

| | |
|---|---|
| Synopsis | CIR rate |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides policer *reference* rate cir *(number \| keyword)* |
| Tree | cir |
| Range | 0 to 6400000000 |
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | PIR rate |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides policer *reference* rate pir *(number \| keyword)* |
| Tree | pir |
| Range | 1 to 6400000000 |
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **stat-mode** *keyword*

| | |
|---|---|
| Synopsis | Mode of statistics collected by the policer |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides policer *reference* stat-mode *keyword* |
| Tree | stat-mode |
| Options | no-stats, minimal, offered-profile-no-cir, offered-total-cir, offered-profile-cir, offered-limited-capped-cir, offered-profile-capped-cir, offered-total-cir-exceed, offered-four-profile-no-cir, offered-total-cir-four-profile |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |


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### **queue** [queue-id] *reference*

| | |
|---|---|
| Synopsis | Enter the **queue** list instance |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides queue *reference* |
| Tree | queue |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**queue-id**] *reference*

| | |
|---|---|
| Synopsis | Policer unique ID |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides queue *reference* |
| Tree | queue |
| Reference | **configure** qos sap-egress *qos-policy-name* queue *number* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **adaptation-rule**

| | |
|---|---|
| Synopsis | Enter the **adaptation-rule** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides queue *reference* adaptation-rule |
| Tree | adaptation-rule |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cir** *keyword*

| | |
|---|---|
| Synopsis | Constraint used when deriving the operational CIR value |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides queue *reference* adaptation-rule cir *keyword* |
| Tree | cir |
| Options | max, min, closest |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **pir** *keyword*

| | |
|---|---|
| Synopsis | Constraint used when deriving the operational PIR value |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides queue *reference* adaptation-rule pir *keyword* |
| Tree | pir |
| Options | max, min, closest |
| Introduced | 16.0.R1 |
| Platforms | All |

### **avg-frame-overhead** *decimal-number*

| | |
|---|---|
| Synopsis | Average packet-to-frame encapsulation overhead |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides queue *reference* avg-frame-overhead *decimal-number* |
| Tree | avg-frame-overhead |
| Description | This command configures overrides for the average frame overhead. The overrides supersede the average frame overhead configuration under the queue.<br>For a full description of this command, see the **configure qos network-queue queue avg-frame-overhead** and **configure qos sap-egress queue avg-frame-overhead** contexts. |
| Range | 0.00 to 100.00 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **burst-limit** *(number | keyword)*

| | |
|---|---|
| Synopsis | Explicit shaping burst size for the queue |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides queue *reference* burst-limit *(number | keyword)* |
| Tree | burst-limit |
| Range | 1 to 14000000 |
| Units | bytes |
| Options | auto |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **cbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | CBS |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides queue *reference* cbs *(number | keyword)* |
| Tree | cbs |
| Range | 0 to 1048576 |
| Units | kilobytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | All |

### **drop-tail**

| | |
|---|---|
| Synopsis | Enter the **drop-tail** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides queue *reference* drop-tail |
| Tree | drop-tail |
| Introduced | 16.0.R1 |
| Platforms | All |

### **low**

| | |
|---|---|
| Synopsis | Enter the **low** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides queue *reference* drop-tail low |
| Tree | low |
| Introduced | 16.0.R1 |
| Platforms | All |

### **percent-reduction-from-mbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | Percentage reduction from the MBS for a queue drop tail |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides queue *reference* drop-tail low percent-reduction-from-mbs *(number \| keyword)* |
| Tree | percent-reduction-from-mbs |
| Range | 0 to 100 |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hs-class-weight** *number*

| | |
|---|---|
| Synopsis | Class weight override for the queue |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides queue *reference* hs-class-weight *number* |
| Tree | hs-class-weight |
| Range | 1 \| 2 \| 4 \| 8 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **hs-wred-queue**

| | |
|---|---|
| Synopsis | Enter the **hs-wred-queue** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides queue *reference* hs-wred-queue |
| Tree | hs-wred-queue |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **policy** *reference*

| | |
|---|---|
| Synopsis | Slope policy applied to the HSQ queue group queue |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides queue *reference* hs-wred-queue policy *reference* |
| Tree | policy |
| Reference | **configure** qos slope-policy *named-item* |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7750 SR-7/12/12e |

### **hs-wrr-weight** *number*

| | |
|---|---|
| Synopsis | WRR weight to parent with the queue into the scheduler |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides queue *reference* hs-wrr-weight *number* |
| Tree | hs-wrr-weight |
| Range | 1 to 127 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **mbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | MBS |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides queue *reference* mbs *(number \| keyword)* |
| Tree | mbs |
| Range | 0 to 1073741824 |
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | All |

### **monitor-queue-depth**

| | |
|---|---|
| Synopsis | Enable the **monitor-queue-depth** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides queue *reference* monitor-queue-depth |
| Tree | monitor-queue-depth |
| Description | Commands in this context configure queue depth monitoring for the specified queue. |
| Introduced | 20.10.R1 |
| Platforms | All |


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### **fast-polling** *boolean*

| | |
|---|---|
| Synopsis | Enable fast polling of the queue depth |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides queue *reference* monitor-queue-depth fast-polling *boolean* |
| Tree | fast-polling |
| Description | When configured to **true**, this command enables fast polling of the queue depth. Faster polling allows a more accurate view of the actual depth. |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | All |

### **violation-threshold** *decimal-number*

| | |
|---|---|
| Synopsis | Threshold for queue depth before violation is raised |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides queue *reference* monitor-queue-depth violation-threshold *decimal-number* |
| Tree | violation-threshold |
| Description | This command specifies the threshold for the queue MBS. When the queue depth exceeds the threshold value, a violation is registered. |
| Range | 0.01 to 99.99 |
| Introduced | 20.10.R1 |
| Platforms | All |

### **parent**

| | |
|---|---|
| Synopsis | Enter the **parent** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides queue *reference* parent |
| Tree | parent |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cir-weight** *number*

| | |
|---|---|
| Synopsis | CIR parameter that overrides parent for queue group |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides queue *reference* parent cir-weight *number* |
| Tree | cir-weight |
| Range | 0 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **weight** *number*

| | |
|---|---|
| Synopsis | PIR parameter that overrides parent for queue group |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides queue *reference* parent weight *number* |
| Tree | weight |
| Range | 0 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **percent-rate**

| | |
|---|---|
| Synopsis | Enter the **percent-rate** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides queue *reference* percent-rate |
| Tree | percent-rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cir** *decimal-number*

| | |
|---|---|
| Synopsis | CIR percent rate |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides queue *reference* percent-rate cir *decimal-number* |
| Tree | cir |
| Range | 0.00 to 100.00 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **pir** *decimal-number*

| | |
|---|---|
| Synopsis | PIR percent rate |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides queue *reference* percent-rate pir *decimal-number* |
| Tree | pir |
| Range | 0.01 to 100.00 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rate**

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides queue *reference* rate |
| Tree | rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cir** *(number | keyword)*

| | |
|---|---|
| Synopsis | CIR rate |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides queue *reference* rate cir *(number | keyword)* |
| Tree | cir |
| Range | 0 to 6400000000 |
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | All |

### **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | PIR rate |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos sap-egress overrides queue *reference* rate pir *(number \| keyword)* |
| Tree | pir |
| Range | 1 to 6400000000 |
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | All |

## **policy-name** *reference*

| | |
|---|---|
| Synopsis | Policy ID to associate with SAP for mirrored service |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos sap-egress policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos sap-egress *qos-policy-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **port-redirect-group**

| | |
|---|---|
| Synopsis | Enter the **port-redirect-group** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos sap-egress port-redirect-group |
| Tree | port-redirect-group |
| Introduced | 16.0.R1 |
| Platforms | All |

## **group-name** *reference*

| | |
|---|---|
| Synopsis | Name of the queue group redirect list policy |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos sap-egress port-redirect-group group-name *reference* |
| Tree | group-name |
| Reference | **configure** qos queue-group-templates egress queue-group *named-item* |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## **instance** *number*

| | |
|---|---|
| Synopsis | Instance of port queue group |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos sap-egress port-redirect-group instance *number* |
| Tree | instance |
| Range | 1 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **scheduler-policy**

| | |
|---|---|
| Synopsis | Enter the **scheduler-policy** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos scheduler-policy |
| Tree | scheduler-policy |
| Introduced | 16.0.R1 |
| Platforms | All |

## **overrides**

| | |
|---|---|
| Synopsis | Enter the **overrides** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos scheduler-policy overrides |
| Tree | overrides |
| Introduced | 16.0.R1 |
| Platforms | All |

## **scheduler** [scheduler-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **scheduler** list instance |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos scheduler-policy overrides scheduler *named-item* |
| Tree | scheduler |
| Introduced | 16.0.R1 |


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Platforms All

## [**scheduler-name**] *named-item*

Synopsis Scheduler name

Context **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos scheduler-policy overrides scheduler *named-item*

Tree scheduler

Description This command specifies the scheduler name which is composed of printable 7-bit ASCII characters. If the string contains special characters (#, $, spaces, and so on), the entire string must be enclosed within double quotes. Each scheduler must have a unique name within the context of the scheduler policy. However, the same name can be reused in multiple scheduler policies. If the scheduler name already exists within the policy tier level, the context changes to that scheduler name for the purpose of editing the scheduler commands.

If the scheduler name exists within the policy on a different tier, an error occurs and the current context does not change. If the scheduler name does not exist in this or another tier within the scheduler policy, it is assumed that an attempt is being made to create a scheduler of that name.

If the provided scheduler name is invalid, a name syntax error occurs, the command does not execute, and the context is not change.

String length 1 to 32

Notes This element is part of a list key.

Introduced 16.0.R1

Platforms All

## parent

Synopsis Enter the **parent** context

Context **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos scheduler-policy overrides scheduler *named-item* parent

Tree parent

Introduced 16.0.R1

Platforms All

## cir-weight *number*

Synopsis Weight used at the within-CIR port priority level


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| | |
|---|---|
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos scheduler-policy overrides scheduler *named-item* parent cir-weight *number* |
| Tree | cir-weight |
| Range | 0 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **weight** *number*

| | |
|---|---|
| Synopsis | Relative weight of the scheduler to feed the queue |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos scheduler-policy overrides scheduler *named-item* parent weight *number* |
| Tree | weight |
| Range | 0 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rate**

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos scheduler-policy overrides scheduler *named-item* rate |
| Tree | rate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cir** *(number | keyword)*

| | |
|---|---|
| Synopsis | CIR at which the queue it to operate |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos scheduler-policy overrides scheduler *named-item* rate cir *(number | keyword)* |
| Tree | cir |
| Range | 0 to 6400000000 |
| Units | kilobps |
| Options | sum, max |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | PIR at which the queue is to operate |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos scheduler-policy overrides scheduler *named-item* rate pir *(number | keyword)* |
| Tree | pir |
| Range | 1 to 6400000000 |
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | All |

### **policy-name** *reference*

| | |
|---|---|
| Synopsis | Scheduler policy name |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress qos scheduler-policy policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos scheduler-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **queue-group-redirect-list** *reference*

| | |
|---|---|
| Synopsis | Assign queue-group redirect list |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress queue-group-redirect-list *reference* |
| Tree | queue-group-redirect-list |
| Reference | **configure** qos queue-group-redirect-list *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |


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## virtual-port

| | |
|---|---|
| Synopsis | Enter the **virtual-port** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress virtual-port |
| Tree | virtual-port |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## vport-name *reference*

| | |
|---|---|
| Synopsis | Virtual port assigned to the SAP |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* egress virtual-port vport-name *reference* |
| Tree | vport-name |
| Reference | **configure** port *port* ethernet access egress virtual-port *named-item* |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## eth-cfm

| | |
|---|---|
| Synopsis | Enter the **eth-cfm** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* eth-cfm |
| Tree | eth-cfm |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## collect-lmm-fc-stats

| | |
|---|---|
| Synopsis | Enter the **collect-lmm-fc-stats** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* eth-cfm collect-lmm-fc-stats |
| Tree | collect-lmm-fc-stats |
| Description | Commands in this context configure per forwarding class (FC) LMM information collection.<br>The commands **fc-in-profile** and **fc** in this context are mutually exclusive. The commands apply to either profile-aware or profile-unaware FCs respectively. |


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This command and the **collect-lmm-stats** command are mutually exclusive when there is entity resource contention.

Introduced 16.0.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS

## **fc** *keyword*

Synopsis Forwarding class name for profile-unaware counter

Context **configure** service vprn *service-name* interface *interface-name* sap *sap* eth-cfm collect-lmm-fc-stats fc *keyword*

Tree fc

Description This command configures individual counters for the specified FCs without regard for profile. The system includes all countable packets that match a configured FC, regardless of profile, in this counter.

An FC specified as part of this command and for this specific context cannot be specified as a profile-aware FC using the **fc-in-profile** command under the **collect-lmm-fc-stats** context.

When this command is reentered, a differential is performed. Omitted FCs stop counting, newly added FCs start counting, and unchanged FCs continue to count.

Options be, l2, af, l1, h2, ef, h1, nc

Max. instances 8

Introduced 16.0.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS

## **fc-in-profile** *keyword*

Synopsis Forwarding class name for profile-aware counter

Context **configure** service vprn *service-name* interface *interface-name* sap *sap* eth-cfm collect-lmm-fc-stats fc-in-profile *keyword*

Tree fc-in-profile

Description This command configures individual counters for the specified FCs with regard to profile. The system includes all countable packets that match a configured FC and that are deemed to be in-profile in this counter.

An FC specified as part of this command and for this specific context cannot be specified as a profile-unaware FC using the **fc** command under the **collect-lmm-fc-stats** context.

When this command is reentered, a differential is performed. Omitted FCs stop counting, newly added FCs start counting, and unchanged FCs continue to count.


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| | |
|---|---|
| Options | be, l2, af, l1, h2, ef, h1, nc |
| Max. instances | 8 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **collect-lmm-stats** *boolean*

| | |
|---|---|
| Synopsis | Collect statistics for loss measurement message tests |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* eth-cfm collect-lmm-stats *boolean* |
| Tree | collect-lmm-stats |
| Description | When configured to **true**, the router instantiates the statistical counter to transmit and receive packets for the LAG facility MEP bindings.<br>The **show eth-cfm collect-lmm-stats** command displays entities that have been enabled to collect transit and receive counters.<br>When configured to **false**, the router does not instantiate the counter and the LMM PDU associated with the MEP does not populate the counters in the packet. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **mep** md-admin-name *reference* ma-admin-name *reference* mep-id *number*

| | |
|---|---|
| Synopsis | Enter the **mep** list instance |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |
| Tree | mep |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **md-admin-name** *reference*

| | |
|---|---|
| Synopsis | Maintenance Domain (MD) name |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |
| Tree | mep |


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| | |
|---|---|
| Reference | **configure** eth-cfm domain *admin-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ma-admin-name** *reference*

| | |
|---|---|
| Synopsis | Maintenance Association (MA) name |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |
| Tree | mep |
| Reference | **configure** eth-cfm domain *admin-name* association *admin-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **mep-id** *number*

| | |
|---|---|
| Synopsis | Maintenance Endpoint (MEP) ID |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |
| Tree | mep |
| Range | 1 to 8191 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the MEP |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **ais** *boolean*

| | |
|---|---|
| Synopsis | Enable the generation and the reception of AIS messages |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ais *boolean* |
| Tree | ais |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **alarm-notification**

| | |
|---|---|
| Synopsis | Enter the **alarm-notification** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* alarm-notification |
| Tree | alarm-notification |
| Description | Commands in this context configure the Fault Notification Generator (FNG) time values to raise an alarm or reset the CCM defect alarm.<br>Use these timers for network management processes. The timers are not tied into delaying the notification to the fault management system on the network element and do not affect fault propagation mechanisms. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **fng-alarm-time** *number*

| | |
|---|---|
| Synopsis | Time that must expire before an FNG alarm is raised |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* alarm-notification fng-alarm-time *number* |
| Tree | fng-alarm-time |
| Range | 250 \| 500 \| 1000 |
| Units | centiseconds |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **fng-reset-time** *number*

| | |
|---|---|
| Synopsis | Time that must expire before an FNG alarm is reset |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* alarm-notification fng-reset-time *number* |
| Tree | fng-reset-time |
| Range | 250 \| 500 \| 1000 |
| Units | centiseconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ccm** *boolean*

| | |
|---|---|
| Synopsis | Generate CCM messages |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ccm *boolean* |
| Tree | ccm |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ccm-ltm-priority** *number*

| | |
|---|---|
| Synopsis | Priority of CCM and LTM messages transmitted by the MEP |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ccm-ltm-priority *number* |
| Tree | ccm-ltm-priority |
| Range | 0 to 7 |
| Default | 7 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **ccm-padding-size** *number*

| | |
|---|---|
| Synopsis | Number of octets of padding to insert in CCM packets |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ccm-padding-size *number* |
| Tree | ccm-padding-size |
| Description | This command sets the byte size of the optional Data TLV to be included in the ETH-CC PDU.<br>This command increases the size of the ETH-CC PDU by the configured value. The base size of the ETH-CC PDU, including the Interface Status TLV and Port Status TLV, is 83 bytes not including the Layer 2 encapsulation. CCM padding is not supported when the CCM interval (configured through **configure eth-cfm domain association ccm-interval)** is less than 1 second. |
| Range | 3 to 1500 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **csf**

| | |
|---|---|
| Synopsis | Enable the **csf** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* csf |
| Tree | csf |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **multiplier** *decimal-number*

| | |
|---|---|
| Synopsis | Multiplication factor used to clear the CSF condition |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* csf multiplier *decimal-number* |
| Tree | multiplier |
| Range | 0.0 \| 2.0 to 30.0 |
| Default | 3.5 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **eth-test**

| | |
|---|---|
| Synopsis | Enable the **eth-test** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test |
| Tree | eth-test |
| Description | Commands in this context configure information used by the Ethernet Test (ETH-TST) packet. The commands must be configured on both the sender and the receiver nodes. The test packets are used with the **oam eth-cfm eth-test** command. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **bit-error-threshold** *number*

| | |
|---|---|
| Synopsis | Lowest priority defect allowed to generate fault alarm |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test bit-error-threshold *number* |
| Tree | bit-error-threshold |
| Range | 0 to 11840 |
| Units | bit errors |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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## test-pattern

| | |
|---|---|
| Synopsis | Enter the **test-pattern** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test test-pattern |
| Tree | test-pattern |
| Description | Commands in this context specify the test pattern for the ETH-TST frames. The pattern does not have to be the same on the sender and the receiver. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## crc-tlv *boolean*

| | |
|---|---|
| Synopsis | Generate a CRC checksum |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test test-pattern crc-tlv *boolean* |
| Tree | crc-tlv |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## pattern *keyword*

| | |
|---|---|
| Synopsis | Test pattern for Ethernet Test frames |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test test-pattern pattern *keyword* |
| Tree | pattern |
| Description | This command specifies the test pattern of the Ethernet Test (ETH-TST) frames. This does not have to be configured the same on the sender and the receiver. |
| Options | all-zeros, all-ones |
| Default | all-zeros |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **fault-propagation** *keyword*

| | |
|---|---|
| Synopsis | Fault propagation for the MEP |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* fault-propagation *keyword* |
| Tree | fault-propagation |
| Options | use-if-status-tlv, suspend-ccm |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **grace**

| | |
|---|---|
| Synopsis | Enter the **grace** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace |
| Tree | grace |
| Description | Commands in this context configure the Nokia ETH-CFM Grace function and the ITU-T Y.1731 Ethernet Expected Default (ETH-ED) function. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **eth-ed**

| | |
|---|---|
| Synopsis | Enter the **eth-ed** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed |
| Tree | eth-ed |
| Description | Commands in this context configure the ITU-T Y.1731 ETH-ED function. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **max-rx-defect-window** *number*

| | |
|---|---|
| Synopsis | Maximum received ETH-ED expected defect window duration |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed max-rx-defect-window *number* |
| Tree | max-rx-defect-window |
| Range | 1 to 86400 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **priority** *number*

| | |
|---|---|
| Synopsis | Transmission priority for ETH-ED PDUs |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed priority *number* |
| Tree | priority |
| Range | 0 to 7 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **rx-eth-ed** *boolean*

| | |
|---|---|
| Synopsis | Receive and process ETH-ED ITU-T Y.1731 PDUs on the MEP |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed rx-eth-ed *boolean* |
| Tree | rx-eth-ed |
| Description | This command enables the reception and processing of the ITU-T Y.1731 ETH-ED PDU on the MEP. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **tx-eth-ed** *boolean*

| | |
|---|---|
| Synopsis | Transmit ETH-ED PDUs from the MEP |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed tx-eth-ed *boolean* |
| Tree | tx-eth-ed |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## eth-vsm-grace

| | |
|---|---|
| Synopsis | Enter the **eth-vsm-grace** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-vsm-grace |
| Tree | eth-vsm-grace |
| Description | Commands in this context configure the Nokia ETH-CFM Grace function. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## rx-eth-vsm-grace *boolean*

| | |
|---|---|
| Synopsis | Receive and process Nokia ETH-CFM Grace PDU on the MEP |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-vsm-grace rx-eth-vsm-grace *boolean* |
| Tree | rx-eth-vsm-grace |
| Description | When configured to **true**, the router enables the Nokia Grace function, which is a vendor-specific PDU that informs MEP peers that the local node may be entering a period of expected defect.<br>When configured to **false**, the router disables the Nokia Grace function. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## tx-eth-vsm-grace *boolean*

| | |
|---|---|
| Synopsis | Transmit ETH-ED PDUs from the MEP |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-vsm-grace tx-eth-vsm-grace *boolean* |
| Tree | tx-eth-vsm-grace |
| Description | When configured to **true**, the router can transmit the Nokia ETH-CFM Grace PDU from the MEP when a system soft reset notification is received for one or more cards.<br>The Nokia Grace function is a vendor-specific PDU that informs MEP peers that the local node may be entering a period of expected defect.<br>The operator must configure the **configure system eth-cfm grace** command to instruct the system that the node is capable of transmitting expected-defect windows to peers. The system can only transmit one form of ETH-CFM grace (Nokia ETH-CFM Grace or ITU-T Y.1731 ETH-ED).<br>When configured to **false**, the router disables the transmission of the Nokia ETH-CFM Grace PDU from the MEP. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **low-priority-defect** *keyword*

| | |
|---|---|
| Synopsis | Lowest priority defect allowed to generate fault alarm |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* low-priority-defect *keyword* |
| Tree | low-priority-defect |
| Options | all-def, mac-rem-err-xcon, rem-err-xcon, err-xcon, xcon, no-xcon |
| Default | mac-rem-err-xcon |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **monitor-oper-group** *reference*

| | |
|---|---|
| Synopsis | Operational group to monitor |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* monitor-oper-group *reference* |
| Tree | monitor-oper-group |
| Description | This command operationally affects the state of the SAP based on the state of the operational group. When the monitoring function detects an operationally down state for the operational group, the SAP is set to operationally down and any CFM defects that |


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were present on the MEP are cleared. The MEP enters a pseudo down state and does not try to transmit CFM packets and it is not expecting to receive CFM packets. When the monitoring function detects an operationally up state for the operational group, the CFM reason code that brought the SAP operationally down is removed. Assuming no other conditions prevent this, the SAP transitions to operationally up and the MEP is initialized.

This command is applicable to MEPs with a direction of down (**configure service sap eth-cfm mep direction down**) and a **configure eth-cfm domain association ccm-interval** of 1 second or higher.

Reference **configure** service oper-group *named-item*

Introduced 24.10.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS

## **one-way-delay-threshold** *number*

Synopsis Threshold time limit for the one-way delay test

Context **configure** service vprn *service-name* interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* one-way-delay-threshold *number*

Tree one-way-delay-threshold

Range 0 to 600

Units seconds

Default 3

Introduced 16.0.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS

## **squelch-ingress-levels** *number*

Synopsis Levels for which ETH-CFM packets are silently discarded

Context **configure** service vprn *service-name* interface *interface-name* sap *sap* eth-cfm squelch-ingress-levels *number*

Tree squelch-ingress-levels

Description This command defines the levels of the ETH-CFM packets that are silently discarded.

At ingress, ETH-CFM packets that meet the following conditions are silently discarded:

- The packet is ingressing into the SAP or SDP binding from the wire that matches the service delineation of the SAP or SDP binding.
- The packet level matches the configured levels.

All ETH-CFM packets ingressing to the SAP or SDP binding that match the configured levels are dropped without regard for other ETH-CFM criteria. No statistical information


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| | |
|---|---|
| | or drop count is available for any ETH-CFM packet that is silently discarded by this option.<br>The list of levels must be a complete contiguous list from 0 up to the highest level that is to be dropped. |
| Range | 0 to 7 |
| Max. instances | 8 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## fwd-wholesale

| | |
|---|---|
| Synopsis | Enter the **fwd-wholesale** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* fwd-wholesale |
| Tree | fwd-wholesale |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## pppoe-service *reference*

| | |
|---|---|
| Synopsis | PPPoE service name |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* fwd-wholesale pppoe-service *reference* |
| Tree | pppoe-service |
| Reference | **configure** service epipe *service-name* |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## host-admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the hosts |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* host-admin-state *keyword* |
| Tree | host-admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **host-lockout-policy** *reference*

| | |
|---|---|
| Synopsis | Host lockout policy |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* host-lockout-policy *reference* |
| Tree | host-lockout-policy |
| Reference | **configure** subscriber-mgmt host-lockout-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **ingress**

| | |
|---|---|
| Synopsis | Enter the **ingress** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress |
| Tree | ingress |
| Introduced | 16.0.R1 |
| Platforms | All |

## **filter**

| | |
|---|---|
| Synopsis | Enter the **filter** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress filter |
| Tree | filter |
| Introduced | 16.0.R1 |
| Platforms | All |

## **ip** *reference*

| | |
|---|---|
| Synopsis | IPv4 filter policy name |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress filter ip *reference* |
| Tree | ip |
| Reference | **configure** filter ip-filter *filter-name* |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **ipv6** *reference*

| | |
|---|---|
| Synopsis | IPv6 filter policy name |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress filter ipv6 *reference* |
| Tree | ipv6 |
| Reference | **configure** filter ipv6-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **qos**

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos |
| Tree | qos |
| Introduced | 16.0.R1 |
| Platforms | All |

### **match-qinq-dot1p** *keyword*

| | |
|---|---|
| Synopsis | Ingress match QinQ Dot1p |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos match-qinq-dot1p *keyword* |
| Tree | match-qinq-dot1p |
| Options | top, bottom |
| Introduced | 16.0.R1 |
| Platforms | All |

### **policer-control-policy**

| | |
|---|---|
| Synopsis | Enter the **policer-control-policy** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos policer-control-policy |
| Tree | policer-control-policy |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## overrides

| | |
|---|---|
| Synopsis | Enable the **overrides** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos policer-control-policy overrides |
| Tree | overrides |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## root

| | |
|---|---|
| Synopsis | Enter the **root** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos policer-control-policy overrides root |
| Tree | root |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## max-rate *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum frame-based bandwidth limit |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos policer-control-policy overrides root max-rate *(number | keyword)* |
| Tree | max-rate |
| Range | 1 to 6400000000 |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

## priority-mbs-thresholds

| | |
|---|---|
| Synopsis | Enter the **priority-mbs-thresholds** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos policer-control-policy overrides root priority-mbs-thresholds |


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| | |
|---|---|
| Tree | priority-mbs-thresholds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **min-thresh-separation** *(number | keyword)*

| | |
|---|---|
| Synopsis | Minimum amount of separation buffer space |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos policer-control-policy overrides root priority-mbs-thresholds min-thresh-separation *(number | keyword)* |
| Tree | min-thresh-separation |
| Range | 0 to 16777216 |
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **priority** [priority-level] *number*

| | |
|---|---|
| Synopsis | Enter the **priority** list instance |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos policer-control-policy overrides root priority-mbs-thresholds priority *number* |
| Tree | priority |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### [**priority-level**] *number*

| | |
|---|---|
| Synopsis | Priority level |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos policer-control-policy overrides root priority-mbs-thresholds priority *number* |
| Tree | priority |
| Range | 1 to 8 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |


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### **mbs-contribution** *(number | keyword)*

| | |
|---|---|
| Synopsis | Minimum amount of cumulative buffer space allowed |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos policer-control-policy overrides root priority-mbs-thresholds priority *number* mbs-contribution *(number \| keyword)* |
| Tree | mbs-contribution |
| Range | 0 to 16777216 |
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **policy-name** *reference*

| | |
|---|---|
| Synopsis | Policer control policy name |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos policer-control-policy policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos policer-control-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **sap-ingress**

| | |
|---|---|
| Synopsis | Enter the **sap-ingress** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress |
| Tree | sap-ingress |
| Introduced | 16.0.R1 |
| Platforms | All |

### **fp-redirect-group**

| | |
|---|---|
| Synopsis | Enter the **fp-redirect-group** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress fp-redirect-group |


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| | |
|---|---|
| Tree | fp-redirect-group |
| Introduced | 16.0.R1 |
| Platforms | All |

## **group-name** *reference*

| | |
|---|---|
| Synopsis | Queue group template name created on forwarding plane |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress fp-redirect-group group-name *reference* |
| Tree | group-name |
| Reference | **configure** qos queue-group-templates ingress queue-group *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **instance** *number*

| | |
|---|---|
| Synopsis | Queue group instance |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress fp-redirect-group instance *number* |
| Tree | instance |
| Range | 1 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **overrides**

| | |
|---|---|
| Synopsis | Enter the **overrides** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides |
| Tree | overrides |
| Introduced | 16.0.R1 |
| Platforms | All |

## **ip-criteria**

| | |
|---|---|
| Synopsis | Enter the **ip-criteria** context |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides ip-criteria |
| Tree | ip-criteria |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **activate-entry-tag** *number*

| | |
|---|---|
| Synopsis | Tag ID activated for IPv4 criteria |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides ip-criteria activate-entry-tag *number* |
| Tree | activate-entry-tag |
| Range | 1 to 255 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ipv6-criteria**

| | |
|---|---|
| Synopsis | Enter the **ipv6-criteria** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides ipv6-criteria |
| Tree | ipv6-criteria |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **activate-entry-tag** *number*

| | |
|---|---|
| Synopsis | Tag ID activated for IPv6 criteria |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides ipv6-criteria activate-entry-tag *number* |
| Tree | activate-entry-tag |
| Range | 1 to 255 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **policer** [policer-id] *reference*

| | |
|---|---|
| Synopsis | Enter the **policer** list instance |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides policer *reference* |
| Tree | policer |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### [**policer-id**] *reference*

| | |
|---|---|
| Synopsis | Policer unique ID |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides policer *reference* |
| Tree | policer |
| Reference | **configure** qos sap-ingress *qos-policy-name* policer *number* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **cbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | CBS |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides policer *reference* cbs *(number | keyword)* |
| Tree | cbs |
| Range | 0 to 268435456 |
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **mbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | MBS |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides policer *reference* mbs *(number \| keyword)* |
| Tree | mbs |
| Range | 0 to 268435456 |
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **packet-byte-offset** *number*

| | |
|---|---|
| Synopsis | Packet size modification for policing information |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides policer *reference* packet-byte-offset *number* |
| Tree | packet-byte-offset |
| Range | -32 to 31 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **percent-rate**

| | |
|---|---|
| Synopsis | Enter the **percent-rate** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides policer *reference* percent-rate |
| Tree | percent-rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **cir** *decimal-number*

| | |
|---|---|
| Synopsis | CIR percent rate |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides policer *reference* percent-rate cir *decimal-number* |
| Tree | cir |
| Range | 0.00 to 100.00 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **pir** *decimal-number*

| | |
|---|---|
| Synopsis | PIR percent rate |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides policer *reference* percent-rate pir *decimal-number* |
| Tree | pir |
| Range | 0.01 to 100.00 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **rate**

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides policer *reference* rate |
| Tree | rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **cir** *(number | keyword)*

| | |
|---|---|
| Synopsis | CIR rate |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides policer *reference* rate cir *(number | keyword)* |
| Tree | cir |
| Range | 0 to 6400000000 |
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |


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### **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | PIR rate |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides policer *reference* rate pir *(number \| keyword)* |
| Tree | pir |
| Range | 1 to 6400000000 |
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **stat-mode** *keyword*

| | |
|---|---|
| Synopsis | Mode of statistics collected by the policer |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides policer *reference* stat-mode *keyword* |
| Tree | stat-mode |
| Options | no-stats, minimal, offered-profile-no-cir, offered-total-cir, offered-priority-no-cir, offered-profile-cir, offered-priority-cir, offered-limited-profile-cir, offered-profile-capped-cir, offered-limited-capped-cir |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **queue** [queue-id] *reference*

| | |
|---|---|
| Synopsis | Enter the **queue** list instance |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides queue *reference* |
| Tree | queue |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**queue-id**] *reference*

| | |
|---|---|
| Synopsis | Policer unique ID |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides queue *reference* |
| Tree | queue |
| Reference | **configure** qos sap-ingress *qos-policy-name* queue *number* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## adaptation-rule

| | |
|---|---|
| Synopsis | Enter the **adaptation-rule** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides queue *reference* adaptation-rule |
| Tree | adaptation-rule |
| Introduced | 16.0.R1 |
| Platforms | All |

## **cir** *keyword*

| | |
|---|---|
| Synopsis | Constraint used when deriving the operational CIR value |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides queue *reference* adaptation-rule cir *keyword* |
| Tree | cir |
| Options | max, min, closest |
| Introduced | 16.0.R1 |
| Platforms | All |

## **pir** *keyword*

| | |
|---|---|
| Synopsis | Constraint used when deriving the operational PIR value |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides queue *reference* adaptation-rule pir *keyword* |
| Tree | pir |
| Options | max, min, closest |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **cbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | CBS |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides queue *reference* cbs *(number \| keyword)* |
| Tree | cbs |
| Range | 0 to 1048576 |
| Units | kilobytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | All |

### **drop-tail**

| | |
|---|---|
| Synopsis | Enter the **drop-tail** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides queue *reference* drop-tail |
| Tree | drop-tail |
| Introduced | 16.0.R1 |
| Platforms | All |

### **low**

| | |
|---|---|
| Synopsis | Enter the **low** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides queue *reference* drop-tail low |
| Tree | low |
| Introduced | 16.0.R1 |
| Platforms | All |

### **percent-reduction-from-mbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | Percentage reduction from the MBS for a queue drop tail |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides queue *reference* drop-tail low percent-reduction-from-mbs *(number \| keyword)* |
| Tree | percent-reduction-from-mbs |


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| | |
|---|---|
| Range | 0 to 100 |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | MBS |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides queue *reference* mbs *(number \| keyword)* |
| Tree | mbs |
| Range | 0 to 1073741824 |
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | All |

### **monitor-queue-depth**

| | |
|---|---|
| Synopsis | Enable the **monitor-queue-depth** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides queue *reference* monitor-queue-depth |
| Tree | monitor-queue-depth |
| Introduced | 21.7.R1 |
| Platforms | All |

### **fast-polling** *boolean*

| | |
|---|---|
| Synopsis | Enable fast polling of the queue depth |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides queue *reference* monitor-queue-depth fast-polling *boolean* |
| Tree | fast-polling |
| Default | false |
| Introduced | 21.7.R1 |
| Platforms | All |


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## parent

| | |
|---|---|
| Synopsis | Enter the **parent** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides queue *reference* parent |
| Tree | parent |
| Introduced | 16.0.R1 |
| Platforms | All |

## cir-weight *number*

| | |
|---|---|
| Synopsis | CIR parameter that overrides parent for queue group |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides queue *reference* parent cir-weight *number* |
| Tree | cir-weight |
| Range | 0 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

## weight *number*

| | |
|---|---|
| Synopsis | PIR parameter that overrides parent for queue group |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides queue *reference* parent weight *number* |
| Tree | weight |
| Range | 0 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

## percent-rate

| | |
|---|---|
| Synopsis | Enter the **percent-rate** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides queue *reference* percent-rate |
| Tree | percent-rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **cir** *decimal-number*

| | |
|---|---|
| Synopsis | CIR percent rate |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides queue *reference* percent-rate cir *decimal-number* |
| Tree | cir |
| Range | 0.00 to 100.00 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **pir** *decimal-number*

| | |
|---|---|
| Synopsis | PIR percent rate |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides queue *reference* percent-rate pir *decimal-number* |
| Tree | pir |
| Range | 0.01 to 100.00 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rate**

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides queue *reference* rate |
| Tree | rate |
| Notes | The following elements are part of a choice: **percent-rate** or **rate**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cir** *(number | keyword)*

| | |
|---|---|
| Synopsis | CIR rate |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides queue *reference* rate cir *(number \| keyword)* |
| Tree | cir |
| Range | 0 to 6400000000 |
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | All |

### **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | PIR rate |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress overrides queue *reference* rate pir *(number \| keyword)* |
| Tree | pir |
| Range | 1 to 6400000000 |
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | All |

### **policy-name** *reference*

| | |
|---|---|
| Synopsis | Policy ID |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos sap-ingress *qos-policy-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **queuing-type** *keyword*

| | |
|---|---|
| Synopsis | Queuing type |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos sap-ingress queuing-type *keyword* |


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| | |
|---|---|
| Tree | queuing-type |
| Options | shared, multipoint-shared |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e, VSR |

## scheduler-policy

| | |
|---|---|
| Synopsis | Enter the **scheduler-policy** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos scheduler-policy |
| Tree | scheduler-policy |
| Introduced | 16.0.R1 |
| Platforms | All |

## overrides

| | |
|---|---|
| Synopsis | Enter the **overrides** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos scheduler-policy overrides |
| Tree | overrides |
| Introduced | 16.0.R1 |
| Platforms | All |

## **scheduler** [scheduler-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **scheduler** list instance |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos scheduler-policy overrides scheduler *named-item* |
| Tree | scheduler |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**scheduler-name**] *named-item*

| | |
|---|---|
| Synopsis | Scheduler name |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos scheduler-policy overrides scheduler *named-item* |


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| | |
|---|---|
| Tree | scheduler |
| Description | This command specifies the scheduler name which is composed of printable 7-bit ASCII characters. If the string contains special characters (#, $, spaces, and so on), the entire string must be enclosed within double quotes. Each scheduler must have a unique name within the context of the scheduler policy. However, the same name can be reused in multiple scheduler policies. If the scheduler name already exists within the policy tier level, the context changes to that scheduler name for the purpose of editing the scheduler commands.<br>If the scheduler name exists within the policy on a different tier, an error occurs and the current context does not change. If the scheduler name does not exist in this or another tier within the scheduler policy, it is assumed that an attempt is being made to create a scheduler of that name.<br>If the provided scheduler name is invalid, a name syntax error occurs, the command does not execute, and the context is not change. |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## parent

| | |
|---|---|
| Synopsis | Enter the **parent** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos scheduler-policy overrides scheduler *named-item* parent |
| Tree | parent |
| Introduced | 16.0.R1 |
| Platforms | All |

## cir-weight *number*

| | |
|---|---|
| Synopsis | Weight used at the within-CIR port priority level |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos scheduler-policy overrides scheduler *named-item* parent cir-weight *number* |
| Tree | cir-weight |
| Range | 0 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **weight** *number*

| | |
|---|---|
| Synopsis | Relative weight of the scheduler to feed the queue |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos scheduler-policy overrides scheduler *named-item* parent weight *number* |
| Tree | weight |
| Range | 0 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rate**

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos scheduler-policy overrides scheduler *named-item* rate |
| Tree | rate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cir** *(number | keyword)*

| | |
|---|---|
| Synopsis | CIR at which the queue it to operate |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos scheduler-policy overrides scheduler *named-item* rate cir *(number | keyword)* |
| Tree | cir |
| Range | 0 to 6400000000 |
| Units | kilobps |
| Options | sum, max |
| Introduced | 16.0.R1 |
| Platforms | All |

### **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | PIR at which the queue is to operate |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos scheduler-policy overrides scheduler *named-item* rate pir *(number | keyword)* |


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| | |
|---|---|
| Tree | pir |
| Range | 1 to 6400000000 |
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | All |

### **policy-name** *reference*

| | |
|---|---|
| Synopsis | Scheduler policy name |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress qos scheduler-policy policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos scheduler-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **queue-group-redirect-list** *reference*

| | |
|---|---|
| Synopsis | Queue group redirect list |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ingress queue-group-redirect-list *reference* |
| Tree | queue-group-redirect-list |
| Reference | **configure** qos queue-group-redirect-list *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ip-tunnel** [tunnel-name] *interface-name*

| | |
|---|---|
| Synopsis | Enter the **ip-tunnel** list instance |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* |
| Tree | ip-tunnel |
| Max. instances | 1 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### [**tunnel-name**] *interface-name*

| | |
|---|---|
| Synopsis | IP tunnel name |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* |
| Tree | ip-tunnel |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the IP tunnel |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **backup-remote-ip-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Backup remote IP address that is applied to this tunnel |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* backup-remote-ip-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | backup-remote-ip-address |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **clear-df-bit** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Clear the Do-not-Fragment bit |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* clear-df-bit *boolean* |
| Tree | clear-df-bit |
| Description | When configured to **true**, the DF bit is cleared (set to 0) in all payload IP packets associated with the GRE or IPsec tunnel, before any potential fragmentation resulting from the ip-mtu command. This requires a modification of the header checksum.<br>When configured to **false**, clearing of the DF bit is disabled. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **delivery-service** *service-name*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Service to originate and terminate GRE packets |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* delivery-service *service-name* |
| Tree | delivery-service |
| Description | This command specifies the service used to originate and terminate the GRE encapsulated packets belonging to the GRE tunnel. The delivery service may be the same service that owns the private tunnel SAP associated with the GRE tunnel.<br>The GRE tunnel does not come up until a valid delivery service is configured. |
| String length | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **description** *description*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **dest-ip** [dest-ip-address] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Add a list entry for **dest-ip** |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* dest-ip *(ipv4-address-no-zone | ipv6-address-no-zone)* |
| Tree | dest-ip |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**dest-ip-address**] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the remote IP tunnel endpoint |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* dest-ip *(ipv4-address-no-zone | ipv6-address-no-zone)* |
| Tree | dest-ip |
| Description | This command configures the IP address of the remote IP tunnel endpoint. If the remote IP address is not within the subnet of the IP interface associated with the tunnel, the tunnel fails to come up. |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **dscp** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Differentiated Services Code Point (DSCP) name |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* dscp *keyword* |
| Tree | dscp |
| Options | be, cp1, cp2, cp3, cp4, cp5, cp6, cp7, cs1, cp9, af11, cp11, af12, cp13, af13, cp15, cs2, cp17, af21, cp19, af22, cp21, af23, cp23, cs3, cp25, af31, cp27, af32, cp29, af33, cp31, cs4, cp33, af41, cp35, af42, cp37, af43, cp39, cs5, cp41, cp42, cp43, cp44, cp45, ef, cp47, nc1, cp49, cp50, cp51, cp52, cp53, cp54, cp55, nc2, cp57, cp58, cp59, cp60, cp61, cp62, cp63 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **encapsulated-ip-mtu** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum size of the encapsulated tunnel packet |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* encapsulated-ip-mtu *number* |
| Tree | encapsulated-ip-mtu |
| Description | This command specifies the maximum size of the encapsulated tunnel packet for the IP tunnel. If the packet exceeds this value, the system fragments the packet. |
| Range | 512 to 9000 |
| Units | bytes |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## gre-header

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **gre-header** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* gre-header |
| Tree | gre-header |
| Introduced | 16.0.R1 |
| Platforms | All |

## admin-state *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Administrative state of the GRE header in the tunnel |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* gre-header admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Introduced | 16.0.R1 |
| Platforms | All |

## key

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **key** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* gre-header key |
| Tree | key |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## **admin-state** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Administrative state of the keys in the GRE header |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* gre-header key admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

## **receive** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Receive key of the GRE header |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* gre-header key receive *number* |
| Tree | receive |
| Max. range | 0 to 4294967295 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **send** *number*

**WARNING:**
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| | |
|---|---|
| Synopsis | Send key of the GRE header |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* gre-header key send *number* |
| Tree | send |
| Max. range | 0 to 4294967295 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

## icmp-generation

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **icmp-generation** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* icmp-generation |
| Tree | icmp-generation |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## frag-required

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **frag-required** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* icmp-generation frag-required |
| Tree | frag-required |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **admin-state** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Administrative state of sending ICMP messages |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* icmp-generation frag-required admin-state *keyword* |
| Tree | admin-state |
| Description | This command configures the administrative state of sending ICMP Destination Unreachable "fragmentation needed, DF set" messages (type 3, code 4) messages to the source if the received size of the IPv4 packet on the private side exceeds the private MTU size. |
| Options | enable, disable |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **interval** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Interval for sending ICMP messages |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* icmp-generation frag-required interval *number* |
| Tree | interval |
| Description | This command configures the interval for sending ICMP Destination Unreachable "fragmentation needed, DF set" messages (type 3, code 4). |
| Range | 1 to 60 |
| Units | seconds |
| Default | 10 |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **message-count** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum number of ICMP messages sent |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* icmp-generation frag-required message-count *number* |
| Tree | message-count |
| Description | This command configures the maximum number of ICMP messages that can be sent during the period specified by the **interval** command. |
| Range | 10 to 1000 |
| Default | 100 |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## icmp6-generation

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **icmp6-generation** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* icmp6-generation |
| Tree | icmp6-generation |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## packet-too-big

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **packet-too-big** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* icmp6-generation packet-too-big |


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| | |
|---|---|
| Tree | packet-too-big |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Administrative state of sending Packet Too Big messages |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* icmp6-generation packet-too-big admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **number** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum number of PTB ICMPv6 messages that can be sent |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* icmp6-generation packet-too-big number *number* |
| Tree | number |
| Description | This command configures the maximum number of ICMPv6 messages that can be sent during the configured interval. |
| Range | 10 to 1000 |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **seconds** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum interval when PTB messages can be sent |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* icmp6-generation packet-too-big seconds *number* |
| Tree | seconds |
| Range | 1 to 60 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ip-mtu** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IP MTU for the interface |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* ip-mtu *number* |
| Tree | ip-mtu |
| Description | This command specifies the IP MTU for the interface. If the DF bit is not set in the packet, IP packet fragmentation is performed, if necessary, based on this configured value.<br>When unconfigured, all IP packets, regardless of the packet size or DF bit setting, are allowed into the tunnel without fragmentation. |
| Range | 512 to 9000 |
| Units | bytes |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **ipsec-transport-mode-profile** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IPsec transport mode profile name |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* ipsec-transport-mode-profile *reference* |
| Tree | ipsec-transport-mode-profile |
| Reference | **configure** ipsec ipsec-transport-mode-profile *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **local-ip-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Local IP address of this tunnel |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* local-ip-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | local-ip-address |
| Description | This command specifies the local IP address to use for the IP tunnel. This configuration applies to the outer IP header of the encapsulated packets. The address must belong to one of the IP subnets associated with the public SAP interface of the tunnel group. The source IP address, the remote IP address, and the backup remote IP address of a tunnel must all belong to the same address family (IPv4 or IPv6).<br>When this command specifies an IPv6 address, it must be a global unicast address. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **pmtu-discovery-aging** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.


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| | |
|---|---|
| Synopsis | Time to age out the learned path MTU |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* pmtu-discovery-aging *number* |
| Tree | pmtu-discovery-aging |
| Description | This command configures the temporary public MTU expiration time. The temporary public MTU is used for MTU propagation. |
| Range | 900 to 3600 |
| Units | seconds |
| Default | 900 |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **private-tcp-mss-adjust** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | TCP Maximum Segment Size (MSS) on the private side |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* private-tcp-mss-adjust *number* |
| Tree | private-tcp-mss-adjust |
| Description | This command specifies the TCP MSS to adjust for tunnels on the private side. The value is used to adjust the TCP MSS option in the TCP SYN packet. |
| Range | 512 to 9000 |
| Units | bytes |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **propagate-pmtu-v4** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable propagation of the path MTU to IPv4 hosts |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* propagate-pmtu-v4 *boolean* |


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| | |
|---|---|
| Tree | propagate-pmtu-v4 |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **propagate-pmtu-v6** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable propagation of path MTU to IPv6 hosts |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* propagate-pmtu-v6 *boolean* |
| Tree | propagate-pmtu-v6 |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **public-tcp-mss-adjust** *(number | keyword)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | TCP Maximum Segment Size (MSS) on the public side |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* public-tcp-mss-adjust *(number \| keyword)* |
| Tree | public-tcp-mss-adjust |
| Description | This command specifies the TCP MSS for TCP traffic sent from the public network to the private network. The value is used to adjust the TCP MSS option in the TCP SYN packet. |
| Range | 512 to 9000 |
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **reassembly** *(number | keyword)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum reassembly wait time |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* reassembly *(number \| keyword)* |
| Tree | reassembly |
| Description | This command configures the maximum time to wait to receive all fragments of a particular IPsec or GRE packet for reassembly. |
| Range | 1 to 5000 |
| Units | milliseconds |
| Options | use-tunnel-group-setting, none |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **remote-ip-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Remote IP address of the tunnel |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ip-tunnel *interface-name* remote-ip-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | remote-ip-address |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipsec-gateway** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **ipsec-gateway** list instance |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* |
| Tree | ipsec-gateway |


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| | |
|---|---|
| Max. instances | 1 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | IPsec gateway name |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* |
| Tree | ipsec-gateway |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the IPsec gateway |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **cert**

| | |
|---|---|
| Synopsis | Enter the **cert** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* cert |
| Tree | cert |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **cert-profile** *reference*

| | |
|---|---|
| Synopsis | Certificate profile name |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* cert cert-profile *reference* |
| Tree | cert-profile |
| Reference | **configure** ipsec cert-profile *named-item* |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **status-verify**

| | |
|---|---|
| Synopsis | Enter the **status-verify** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* cert status-verify |
| Tree | status-verify |
| Description | Commands in this context configure certificate revocation status verification. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **default-result** *keyword*

| | |
|---|---|
| Synopsis | Default result of Certificate Status Verification (CSV) |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* cert status-verify default-result *keyword* |
| Tree | default-result |
| Description | This command specifies the default result when both the primary and secondary methods fail to provide an answer. |
| Options | revoked, good |
| Default | revoked |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **primary** *keyword*

| | |
|---|---|
| Synopsis | Primary method of CSV to verify the revocation status |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* cert status-verify primary *keyword* |
| Tree | primary |
| Options | crl, ocsp |
| Default | crl |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **secondary** *keyword*

| | |
|---|---|
| Synopsis | Secondary method of CSV to verify the revocation status |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* cert status-verify secondary *keyword* |
| Tree | secondary |
| Options | none, crl, ocsp |
| Default | none |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **trust-anchor-profile** *reference*

| | |
|---|---|
| Synopsis | Trust anchor profile name |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* cert trust-anchor-profile *reference* |
| Tree | trust-anchor-profile |
| Reference | **configure** ipsec trust-anchor-profile *named-item* |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **client-db**

| | |
|---|---|
| Synopsis | Enable the **client-db** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* client-db |
| Tree | client-db |


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| | |
|---|---|
| Description | Commands in this context configure the IPsec client database. The client database is used to authenticate the IKEv2 dynamic LAN-to-LAN tunnel. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **fallback** *boolean*

| | |
|---|---|
| Synopsis | Fall back to the default authentication policy |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* client-db fallback *boolean* |
| Tree | fallback |
| Description | When configured to **true**, this command specifies whether the IPsec gateway can fall back to the default authentication policy when the IPsec tunnel authentication request fails to match any clients in the IPsec database.<br>When configured to **false** and the client database lookup fails to return a matched result, the system fails the tunnel setup. |
| Default | true |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **name** *reference*

| | |
|---|---|
| Synopsis | Client database name |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* client-db name *reference* |
| Tree | name |
| Reference | **configure** ipsec client-db *named-item* |
| Notes | This element is mandatory. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **default-secure-service**

| | |
|---|---|
| Synopsis | Enable the **default-secure-service** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* default-secure-service |
| Tree | default-secure-service |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **interface** *interface-name*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Private IPsec tunnel interface name |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* default-secure-service interface *interface-name* |
| Tree | interface |
| String length | 1 to 32 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **service-name** *service-name*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Default security service name |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* default-secure-service service-name *service-name* |
| Tree | service-name |
| String length | 1 to 64 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **default-tunnel-template** *reference*

| | |
|---|---|
| Synopsis | Default tunnel policy template for the gateway |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* default-tunnel-template *reference* |
| Tree | default-tunnel-template |
| Reference | **configure** ipsec tunnel-template *number* |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## dhcp-address-assignment

| | |
|---|---|
| Synopsis | Enter the **dhcp-address-assignment** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* dhcp-address-assignment |
| Tree | dhcp-address-assignment |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## dhcpv4

| | |
|---|---|
| Synopsis | Enable the **dhcpv4** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* dhcp-address-assignment dhcpv4 |
| Tree | dhcpv4 |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the IPsec DHCPv4 server |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* dhcp-address-assignment dhcpv4 admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **gi-address** *ipv4-unicast-address*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Gateway IP address of DHCPv4 packets sent by the system |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* dhcp-address-assignment dhcpv4 gi-address *ipv4-unicast-address* |
| Tree | gi-address |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **send-release** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Send DHCPv4 release message when IPsec tunnel removed |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* dhcp-address-assignment dhcpv4 send-release *boolean* |
| Tree | send-release |
| Default | true |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **server**

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **server** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* dhcp-address-assignment dhcpv4 server |
| Tree | server |
| Introduced | 19.7.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **address** *ipv4-unicast-address*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | DHCPv4 server addresses |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* dhcp-address-assignment dhcpv4 server address *ipv4-unicast-address* |
| Tree | address |
| Description | This command specifies DHCPv4 server addresses for the DHCPv4-based address assignment. If multiple server addresses are specified, the first advertised DHCPv4 address received is chosen. |
| Max. instances | 8 |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **router-instance** *router-instance-base-vprn-loose*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Router instance used to reach the DHCPv4 server |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* dhcp-address-assignment dhcpv4 server router-instance *router-instance-base-vprn-loose* |
| Tree | router-instance |
| String length | 1 to 64 |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **dhcpv6**

| | |
|---|---|
| Synopsis | Enable the **dhcpv6** context |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* dhcp-address-assignment dhcpv6 |
| Tree | dhcpv6 |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the DHCPv6 server |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* dhcp-address-assignment dhcpv6 admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **link-address** *ipv6-unicast-address*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Link address of the relayed DHCPv6 packets |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* dhcp-address-assignment dhcpv6 link-address *ipv6-unicast-address* |
| Tree | link-address |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **send-release** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Send DHCPv6 release message when IPsec tunnel removed |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* dhcp-address-assignment dhcpv6 send-release *boolean* |
| Tree | send-release |
| Default | true |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## server

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **server** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* dhcp-address-assignment dhcpv6 server |
| Tree | server |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## address *ipv6-unicast-address*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | DHCPv6 server addresses |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* dhcp-address-assignment dhcpv6 server address *ipv6-unicast-address* |
| Tree | address |
| Description | This command specifies DHCPv6 server addresses for the DHCPv6-based address assignment. If multiple server addresses are specified, the first advertised DHCPv6 address received is chosen. |
| Max. instances | 8 |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **router-instance** *router-instance-base-vprn-loose*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Router instance to reach the DHCPv6 server |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* dhcp-address-assignment dhcpv6 server router-instance *router-instance-base-vprn-loose* |
| Tree | router-instance |
| String length | 1 to 64 |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **ike-policy** *reference*

| | |
|---|---|
| Synopsis | IKE policy ID |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* ike-policy *reference* |
| Tree | ike-policy |
| Reference | **configure** ipsec ike-policy *number* |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **local**

| | |
|---|---|
| Synopsis | Enter the **local** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* local |
| Tree | local |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **address-assignment**

| | |
|---|---|
| Synopsis | Enable the **address-assignment** context |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* local address-assignment |
| Tree | address-assignment |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of local address assignments |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* local address-assignment admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **ipv4**

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable the **ipv4** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* local address-assignment ipv4 |
| Tree | ipv4 |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **dhcp-server** *named-item*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Local DHCPv4 server name |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* local address-assignment ipv4 dhcp-server *named-item* |
| Tree | dhcp-server |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **pool** *named-item*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Name of the pool defined in the specified DHCPv4 server |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* local address-assignment ipv4 pool *named-item* |
| Tree | pool |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **router-instance** *router-instance-base-vprn-loose*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Router instance ID for the local DHCPv4 server |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* local address-assignment ipv4 router-instance *router-instance-base-vprn-loose* |
| Tree | router-instance |
| String length | 1 to 64 |
| Notes | This element is mandatory. |
| Introduced | 19.7.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **secondary-pool** *named-item*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Name of the secondary pool defined in the DHCPv4 server |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* local address-assignment ipv4 secondary-pool *named-item* |
| Tree | secondary-pool |
| String length | 1 to 32 |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **ipv6**

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable the **ipv6** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* local address-assignment ipv6 |
| Tree | ipv6 |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **dhcp-server** *named-item*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Local DHCPv6 server name |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* local address-assignment ipv6 dhcp-server *named-item* |
| Tree | dhcp-server |


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| | |
|---|---|
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **pool** *named-item*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Secondary pool name defined in the DHCPv6 server |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* local address-assignment ipv6 pool *named-item* |
| Tree | pool |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **router-instance** *router-instance-base-vprn-loose*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Router instance ID hosting the DHCPv6 connection |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* local address-assignment ipv6 router-instance *router-instance-base-vprn-loose* |
| Tree | router-instance |
| String length | 1 to 64 |
| Notes | This element is mandatory. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **gateway-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Local gateway address of the IPsec gateway |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* local gateway-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | gateway-address |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## id

| | |
|---|---|
| Synopsis | Enter the **id** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* local id |
| Tree | id |
| Description | Commands in this context specify the local ID used for the Identification Indicator (IDi) or Identification Responder (IDr) in the IKEv2 tunnel. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## auto

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Select ID based on authentication method in IKE policy |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* local id auto |
| Tree | auto |
| Notes | The following elements are part of a choice: **auto**, **fqdn**, **ipv4**, or **ipv6**. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **fqdn** *fully-qualified-domain-name*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | FQDN as the local ID type |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* local id fqdn *fully-qualified-domain-name* |
| Tree | fqdn |
| String length | 1 to 255 |
| Notes | The following elements are part of a choice: **auto**, **fqdn**, **ipv4**, or **ipv6**. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ipv4** *ipv4-unicast-address*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IPv4 address as the local ID type |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* local id ipv4 *ipv4-unicast-address* |
| Tree | ipv4 |
| Notes | The following elements are part of a choice: **auto**, **fqdn**, **ipv4**, or **ipv6**. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ipv6** *(ipv4-address-no-zone | ipv6-address-no-zone)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IPv6 address as the local ID type |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* local id ipv6 *(ipv4-address-no-zone \| ipv6-address-no-zone)* |


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| | |
|---|---|
| Tree | ipv6 |
| Notes | The following elements are part of a choice: **auto**, **fqdn**, **ipv4**, or **ipv6**. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## max-history-key-records

| | |
|---|---|
| Synopsis | Enter the **max-history-key-records** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* max-history-key-records |
| Tree | max-history-key-records |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## esp *number*

| | |
|---|---|
| Synopsis | Maximum number of recent records |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* max-history-key-records esp *number* |
| Tree | esp |
| Range | 1 to 48 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## ike *number*

| | |
|---|---|
| Synopsis | Maximum number of historical IKE keys recorded |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* max-history-key-records ike *number* |
| Tree | ike |
| Range | 1 to 3 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **pre-shared-key** *encrypted-leaf*

| | |
|---|---|
| Synopsis | Pre-shared key for the IPsec gateway |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* pre-shared-key *encrypted-leaf* |
| Tree | pre-shared-key |
| String length | 1 to 115 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **radius**

| | |
|---|---|
| Synopsis | Enter the **radius** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* radius |
| Tree | radius |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **accounting-policy** *reference*

| | |
|---|---|
| Synopsis | RADIUS accounting policy |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* radius accounting-policy *reference* |
| Tree | accounting-policy |
| Reference | **configure** ipsec radius accounting-policy *named-item* |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **authentication-policy** *reference*

| | |
|---|---|
| Synopsis | RADIUS authentication policy |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* radius authentication-policy *reference* |
| Tree | authentication-policy |
| Reference | **configure** ipsec radius authentication-policy *named-item* |


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| | |
|---|---|
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ts-list** *reference*

| | |
|---|---|
| Synopsis | TS list used for IKEv2 TS negotiation |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-gateway *named-item* ts-list *reference* |
| Tree | ts-list |
| Reference | **configure** ipsec ts-list *named-item* |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ipsec-tunnel** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **ipsec-tunnel** list instance |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* |
| Tree | ipsec-tunnel |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | IPsec tunnel name |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* |
| Tree | ipsec-tunnel |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the IPsec tunnel |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## bfd

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **bfd** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* bfd |
| Tree | bfd |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## bfd-designate *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Designate IPsec tunnel to carry BFD traffic |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* bfd bfd-designate *boolean* |
| Tree | bfd-designate |
| Default | false |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## bfd-liveness

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable the **bfd-liveness** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* bfd bfd-liveness |
| Tree | bfd-liveness |
| Description | Commands in this context configure a BFD session to provide a heart-beat mechanism for a specified IPsec tunnel. There can be only one BFD session assigned to any given IPsec tunnel, but there can be multiple IPsec tunnels using the same BFD session.<br>BFD controls the state of the association tunnel. If the BFD session goes down, the system brings down the associated non-designated IPsec tunnel. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## dest-ip *ipv4-unicast-address*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Destination address used for the BFD session |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* bfd bfd-liveness dest-ip *ipv4-unicast-address* |
| Tree | dest-ip |
| Notes | This element is mandatory. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## interface *interface-name*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Name of the interface used by the BFD session |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* bfd bfd-liveness interface *interface-name* |
| Tree | interface |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **service-name** *service-name*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Administrative service name |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* bfd bfd-liveness service-name *service-name* |
| Tree | service-name |
| Description | This command configures the name of the service where BFD traffic is forwarded to. |
| String length | 1 to 64 |
| Notes | This element is mandatory. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **clear-df-bit** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Reset the DF bit to 0 in all payload IP packets |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* clear-df-bit *boolean* |
| Tree | clear-df-bit |
| Description | When configured to **true**, the DF bit is set to 0 in all payload IP packets associated with the IPsec tunnel, before any potential fragmentation occurs. |
| Default | false |


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| | |
|---|---|
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **copy-traffic-class-upon-decapsulation** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable traffic class copy upon decapsulation |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* copy-traffic-class-upon-decapsulation *boolean* |
| Tree | copy-traffic-class-upon-decapsulation |
| Description | When configured to **true**, the system copies the traffic class from the outer tunnel IP packet header to the payload IP packet header in the decapsulating direction (public to private). |
| Default | false |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **dest-ip** [address] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Add a list entry for **dest-ip** |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* dest-ip *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | dest-ip |
| Max. instances | 16 |


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| | |
|---|---|
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**address**] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Private IP address of the remote IP tunnel endpoint |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* dest-ip *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | dest-ip |
| Notes | This element is part of a list key. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **encapsulated-ip-mtu** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum size of the encapsulated tunnel packet |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* encapsulated-ip-mtu *number* |
| Tree | encapsulated-ip-mtu |
| Description | This command specifies the maximum size of the encapsulated tunnel packet to the IPsec tunnel, the IP tunnel, or the dynamic tunnels terminated on the IPsec Gateway. If the encapsulated IPv4 or IPv6 tunnel packet exceeds this value, the system fragments the packet. |
| Range | 512 to 9000 |
| Units | bytes |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **icmp-generation**

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.


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| | |
|---|---|
| Synopsis | Enter the **icmp-generation** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* icmp-generation |
| Tree | icmp-generation |
| Description | Commands in this context configure settings for ICMPv4 message generation. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## frag-required

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **frag-required** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* icmp-generation frag-required |
| Tree | frag-required |
| Description | Commands in this context configure the attributes for sending generated ICMP Destination Unreachable "fragmentation needed and DF set" messages (type 3, code 4) back to the source, if the received size of the IPv4 packet on the private side exceeds the private MTU size. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Administrative state of sending ICMP messages |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* icmp-generation frag-required admin-state *keyword* |
| Tree | admin-state |
| Description | This command configures the administrative state of sending ICMP Destination Unreachable "fragmentation needed, DF set" messages (type 3, code 4) messages to the source if the received size of the IPv4 packet on the private side exceeds the private MTU size. |


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| | |
|---|---|
| Options | enable, disable |
| Default | enable |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **interval** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Interval for sending ICMP messages |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* icmp-generation frag-required interval *number* |
| Tree | interval |
| Description | This command configures the interval for sending ICMP Destination Unreachable "fragmentation needed, DF set" messages (type 3, code 4). |
| Range | 1 to 60 |
| Units | seconds |
| Default | 10 |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **message-count** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum number of ICMP messages that can be sent |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* icmp-generation frag-required message-count *number* |
| Tree | message-count |
| Description | This command configures the maximum number of ICMP Destination Unreachable "fragmentation needed, DF set" messages (type 3, code 4) that can be sent during the configured interval. |
| Range | 10 to 1000 |
| Default | 100 |


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| | |
|---|---|
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## icmp6-generation

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **icmp6-generation** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* icmp6-generation |
| Tree | icmp6-generation |
| Description | Commands in this context configure settings for ICMPv6 message generation. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## packet-too-big

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **packet-too-big** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* icmp6-generation packet-too-big |
| Tree | packet-too-big |
| Description | Commands in this context configure the parameters to send ICMPv6 PTB (Packet Too Big) messages on the private side.<br>The system sends PTB messages if a received IPv6 packet on the private side is greater than 1280 bytes and it exceeds the private MTU of the tunnel.<br>The private MTU for the tunnel is configured via the **configure router interface ipsec ipsec-tunnel ip-mtu** command for the interface. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **admin-state** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Administrative state of Packet Too Big message sends |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* icmp6-generation packet-too-big admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **interval** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Interval for sending Packet Too Big messages |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* icmp6-generation packet-too-big interval *number* |
| Tree | interval |
| Range | 1 to 60 |
| Units | seconds |
| Default | 10 |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **message-count** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum number of ICMPv6 PTB messages that can be sent |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* icmp6-generation packet-too-big message-count *number* |
| Tree | message-count |
| Description | This command configures the maximum number of PTB messages that can be sent during the configured interval. |
| Range | 10 to 1000 |
| Default | 100 |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **ip-mtu** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Private MTU of the IPsec tunnel |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* ip-mtu *number* |
| Tree | ip-mtu |
| Description | This command specifies the private MTU of the IPsec tunnel. The private MTU is used to determine the need for fragmentation before encapsulation of the payload packet. |
| Range | 512 to 9000 |
| Units | bytes |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **key-exchange**

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **key-exchange** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* key-exchange |
| Tree | key-exchange |
| Introduced | 19.7.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## dynamic

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable the **dynamic** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* key-exchange dynamic |
| Tree | dynamic |
| Notes | The following elements are part of a choice: **dynamic** or **manual**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## auto-establish *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Attempt to establish a phase 1 exchange automatically |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* key-exchange dynamic auto-establish *boolean* |
| Tree | auto-establish |
| Default | false |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## cert

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **cert** context |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* key-exchange dynamic cert |
| Tree | cert |
| Description | Commands in this context configure the attributes of the dynamic keying certificate. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **cert-profile** *reference*

| | |
|---|---|
| Synopsis | Certificate profile name |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* key-exchange dynamic cert cert-profile *reference* |
| Tree | cert-profile |
| Reference | **configure** ipsec cert-profile *named-item* |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **status-verify**

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **status-verify** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* key-exchange dynamic cert status-verify |
| Tree | status-verify |
| Description | Commands in this context configure attributes of Certificate Status Verification (CSV). |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **default-result** *keyword*

| | |
|---|---|
| Synopsis | Default result for Certificate Status Verification |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* key-exchange dynamic cert status-verify default-result *keyword* |
| Tree | default-result |


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| | |
|---|---|
| Description | This command specifies the default certificate revocation status result to use when all configured CSV methods fail to return a result. |
| Options | revoked, good |
| Default | revoked |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **primary** *keyword*

| | |
|---|---|
| Synopsis | Primary method of CSV to verify the revocation status |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* key-exchange dynamic cert status-verify primary *keyword* |
| Tree | primary |
| Description | This command configures the primary method of Certificate Status Verification (CSV) that is used to verify the revocation status of the certificate of the peer. |
| Options | crl, ocsp |
| Default | crl |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **secondary** *keyword*

| | |
|---|---|
| Synopsis | Secondary method used to verify certificate revocation |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* key-exchange dynamic cert status-verify secondary *keyword* |
| Tree | secondary |
| Description | This command specifies the secondary method of Certificate Status Verification (CSV) that is used to verify the revocation status of the peer certificate. |
| Options | none, crl, ocsp |
| Default | none |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **trust-anchor-profile** *reference*

| | |
|---|---|
| Synopsis | Trust anchor profile name |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* key-exchange dynamic cert trust-anchor-profile *reference* |
| Tree | trust-anchor-profile |
| Reference | **configure** ipsec trust-anchor-profile *named-item* |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## id

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **id** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* key-exchange dynamic id |
| Tree | id |
| Description | Commands in this context specify the local ID used for IDi or IDr for IKEv2 negotiation.<br>The default behavior depends on the local authentication method as follows:<br>• Psk: local tunnel IP address<br>• Cert-auth: subject of the local certificate |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## fqdn *fully-qualified-domain-name*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | FQDN used as the local ID IKE type |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* key-exchange dynamic id fqdn *fully-qualified-domain-name* |
| Tree | fqdn |
| String length | 1 to 255 |
| Notes | The following elements are part of a choice: **fqdn**, **ipv4**, or **ipv6**. |
| Introduced | 19.7.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ipv4** *ipv4-unicast-address*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IPv4 as the local ID type |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* key-exchange dynamic id ipv4 *ipv4-unicast-address* |
| Tree | ipv4 |
| Notes | The following elements are part of a choice: **fqdn**, **ipv4**, or **ipv6**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ipv6** *(ipv4-address-no-zone | ipv6-address-no-zone)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IPv6 used as the local IKE ID type |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* key-exchange dynamic id ipv6 *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | ipv6 |
| Notes | The following elements are part of a choice: **fqdn**, **ipv4**, or **ipv6**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ike-policy** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IKE policy ID |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* key-exchange dynamic ike-policy *reference* |
| Tree | ike-policy |
| Description | This command specifies the ID of the IKE policy used for IKE negotiation.<br>The **ipsec-transport-mode-profile** configuration only supports IKEv2. |
| Reference | **configure** ipsec ike-policy *number* |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **ipsec-transform** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IPsec transform IDs used by the dynamic key |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* key-exchange dynamic ipsec-transform *reference* |
| Tree | ipsec-transform |
| Description | This command specifies IPsec transform IDs used for CHILD_SA negotiation. |
| Reference | **configure** ipsec ipsec-transform *number* |
| Max. instances | 4 |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **ppk**

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **ppk** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* key-exchange dynamic ppk |
| Tree | ppk |
| Description | Commands in this context configure the PPKs to use for dynamic keying of the IPsec tunnel. |


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| | |
|---|---|
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **id** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | PPK ID |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* key-exchange dynamic ppk id *reference* |
| Tree | id |
| Reference | **configure** ipsec ppk-list *named-item* ppk *named-item-64* |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **list** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | PPK list instance name |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* key-exchange dynamic ppk list *reference* |
| Tree | list |
| Reference | **configure** ipsec ppk-list *named-item* |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **pre-shared-key** *encrypted-leaf*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Pre-shared key for authentication |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* key-exchange dynamic pre-shared-key *encrypted-leaf* |
| Tree | pre-shared-key |
| String length | 1 to 115 |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## manual

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable the **manual** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* key-exchange manual |
| Tree | manual |
| Notes | The following elements are part of a choice: **dynamic** or **manual**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **keys** [security-association] *number* direction *keyword*

| | |
|---|---|
| Synopsis | Enter the **keys** list instance |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* key-exchange manual keys *number* direction *keyword* |
| Tree | keys |
| Description | Commands in this context configure the security association list for the tunnel. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## [**security-association**] *number*

| | |
|---|---|
| Synopsis | SA entry ID |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* key-exchange manual keys *number* direction *keyword* |
| Tree | keys |


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| | |
|---|---|
| Range | 1 to 16 |
| Notes | This element is part of a list key. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **direction** *keyword*

| | |
|---|---|
| Synopsis | Direction of the IPsec tunnel |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* key-exchange manual keys *number* direction *keyword* |
| Tree | keys |
| Options | inbound, outbound |
| Notes | This element is part of a list key. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **authentication-key** *hex-string*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Key used for the authentication algorithm |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* key-exchange manual keys *number* direction *keyword* authentication-key *hex-string* |
| Tree | authentication-key |
| String length | 1 to 130 |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **encryption-key** *hex-string*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.


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| | |
|---|---|
| Synopsis | Key used for the encryption algorithm |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* key-exchange manual keys *number* direction *keyword* encryption-key *hex-string* |
| Tree | encryption-key |
| String length | 1 to 66 |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **ipsec-transform** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Transform entry used by manual SAs |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* key-exchange manual keys *number* direction *keyword* ipsec-transform *reference* |
| Tree | ipsec-transform |
| Reference | **configure** ipsec ipsec-transform *number* |
| Notes | This element is mandatory. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **spi** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | SPI of inbound and outbound packets |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* key-exchange manual keys *number* direction *keyword* spi *number* |
| Tree | spi |
| Description | This command specifies the Security Parameter Index (SPI) used to look up the instruction to verify and decrypt the incoming IPsec packets when the direction is inbound. When the direction is outbound, the SPI is used in the encoding of the outgoing packets. |


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| | |
|---|---|
| | The remote node can use the SPI to look up the instruction to verify and decrypt the packet. |
| Range | 256 to 16383 |
| Notes | This element is mandatory. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## max-history-key-records

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **max-history-key-records** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* max-history-key-records |
| Tree | max-history-key-records |
| Description | Commands in this context configure the settings for recording historical IPsec keys. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **esp** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum number of recent records |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* max-history-key-records esp *number* |
| Tree | esp |
| Range | 1 to 48 |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **ike** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum number of historical IKE key records |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* max-history-key-records ike *number* |
| Tree | ike |
| Range | 1 to 3 |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **pmtu-discovery-aging** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Aging out time of the learned path MTU |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* pmtu-discovery-aging *number* |
| Tree | pmtu-discovery-aging |
| Description | This command configures the temporary public and private MTU expiration time. The temporary MTU is used for MTU propagation. |
| Range | 900 to 3600 |
| Units | seconds |
| Default | 900 |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **private-tcp-mss-adjust** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.


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| | |
|---|---|
| Synopsis | TCP maximum segment size (MSS) adjustment |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* private-tcp-mss-adjust *number* |
| Tree | private-tcp-mss-adjust |
| Description | This command specifies the TCP MSS to adjust for the tunnel on the private side.<br>When configured, the system may use the value to update the MSS option in the received TCP SYN packet on the private side. |
| Range | 512 to 9000 |
| Units | bytes |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **propagate-pmtu-v4** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable propagation of the path MTU to IPv4 hosts |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* propagate-pmtu-v4 *boolean* |
| Tree | propagate-pmtu-v4 |
| Description | When configured to **true**, the system propagates the path MTU learned from the public side to the private side (IPv4 hosts). |
| Default | true |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **propagate-pmtu-v6** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable propagation of the path MTU to IPv6 hosts |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* propagate-pmtu-v6 *boolean* |
| Tree | propagate-pmtu-v6 |


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| | |
|---|---|
| Description | When configured to **true**, the system propagates the path MTU learned from the public side to the private side (IPv6 hosts). |
| Default | true |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **public-tcp-mss-adjust** *(number | keyword)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | TCP maximum segment size (MSS) on the public network |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* public-tcp-mss-adjust *(number \| keyword)* |
| Tree | public-tcp-mss-adjust |
| Description | This command configures the MSS for the TCP traffic in an IPsec tunnel that is sent from the public network to the private network. The system may use this value to adjust or insert the MSS option in the TCP SYN packet. |
| Range | 512 to 9000 |
| Units | bytes |
| Options | auto |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **replay-window** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Anti-replay window size |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* replay-window *number* |
| Tree | replay-window |
| Description | This command specifies the size of an IPsec anti-replay window. If unconfigured, IPsec anti-replay is disabled. |
| Range | 32 \| 64 \| 128 \| 256 \| 512 |


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| | |
|---|---|
| Units | packets |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## security-policy

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **security-policy** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* security-policy |
| Tree | security-policy |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## id *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IPsec security policy ID |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* security-policy id *reference* |
| Tree | id |
| Reference | **configure** service vprn *service-name* ipsec security-policy *number* |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## strict-match *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable strict match of the security policy entry |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* security-policy strict-match *boolean* |
| Tree | strict-match |
| Description | When configured to **true**, this command enables strict match of the security policy entry.<br>When a CREATE_CHILD exchange request is received for a static IPsec tunnel, and this request is not a rekey request, ISA matches the received TSi and TSr with the configured security policy. This can be a match only when a received TS (in TSi or TSr) address range matches exactly with the subnet in a security policy entry.<br>If there is no match, the setup fails, and TS_UNACCEPTABLE is sent.<br>If there is a match, but there is an existing CHILD_SA for the matched security policy, the setup fails, and NO_PROPOSAL_CHOSEN is sent.<br>If there is a match, and there is not a CHILD_SA for the matched entry, the subnet is sent in the matched security policy entry as TSi and TSr, and the CHILD_SA is created. |
| Default | false |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## tunnel-endpoint

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable the **tunnel-endpoint** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* tunnel-endpoint |
| Tree | tunnel-endpoint |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## delivery-service *service-name*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Delivery service name |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* tunnel-endpoint delivery-service *service-name* |


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| | |
|---|---|
| Tree | delivery-service |
| String length | 1 to 64 |
| Notes | This element is mandatory. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **local-gateway-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Address used for tunnel of the remote security gateway |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* tunnel-endpoint local-gateway-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | local-gateway-address |
| Notes | This element is mandatory. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **remote-ip-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Remote IP address of the tunnel |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* ipsec-tunnel *named-item* tunnel-endpoint remote-ip-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | remote-ip-address |
| Notes | This element is mandatory. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## lag

| | |
|---|---|
| Synopsis | Enter the **lag** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* lag |
| Tree | lag |
| Introduced | 16.0.R1 |
| Platforms | All |

## link-map-profile *number*

| | |
|---|---|
| Synopsis | LAG link map profile for a SAP or network interface |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* lag link-map-profile *number* |
| Tree | link-map-profile |
| Description | This command assigns a preconfigured LAG link map profile to a SAP or network interface configured on a LAG or a PW port that exists on a LAG. After an operator assigns a LAG link map profile, the system rehashes the SAP or network interface egress traffic over the LAG as required by the new configuration.<br>If the LAG link map profile for a SAP or network interface is deleted, the system reverts back to per-flow hashing. |
| Range | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | All |

## per-link-hash

| | |
|---|---|
| Synopsis | Enter the **per-link-hash** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* lag per-link-hash |
| Tree | per-link-hash |
| Introduced | 16.0.R1 |
| Platforms | All |

## class *number*

| | |
|---|---|
| Synopsis | Class used on LAG egress using weighted per-link-hash |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* lag per-link-hash class *number* |


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| | |
|---|---|
| Tree | class |
| Range | 1 to 3 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **weight** *number*

| | |
|---|---|
| Synopsis | Weight used on LAG egress using weighted per-link-hash |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* lag per-link-hash weight *number* |
| Tree | weight |
| Range | 1 to 1024 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **multi-service-site** *reference*

| | |
|---|---|
| Synopsis | Multi service site name |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* multi-service-site *reference* |
| Tree | multi-service-site |
| Reference | **configure** service customer *customer-name* multi-service-site *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **static-host**

| | |
|---|---|
| Synopsis | Enter the **static-host** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* static-host |
| Tree | static-host |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **ipv4** [ip] *ipv4-address* mac *mac-unicast-address*

| | |
|---|---|
| Synopsis | Enter the **ipv4** list instance |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* static-host ipv4 *ipv4-address* mac *mac-unicast-address* |
| Tree | ipv4 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**ip**] *ipv4-address*

| | |
|---|---|
| Synopsis | IP address |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* static-host ipv4 *ipv4-address* mac *mac-unicast-address* |
| Tree | ipv4 |
| MD-CLI default | 0.0.0.0 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **mac** *mac-unicast-address*

| | |
|---|---|
| Synopsis | MAC address |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* static-host ipv4 *ipv4-address* mac *mac-unicast-address* |
| Tree | ipv4 |
| MD-CLI default | 00:00:00:00:00:00 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the static host |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* static-host ipv4 *ipv4-address* mac *mac-unicast-address* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ancp-string** *ancp-string*

| | |
|---|---|
| Synopsis | ANCP string |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* static-host ipv4 *ipv4-address* mac *mac-unicast-address* ancp-string *ancp-string* |
| Tree | ancp-string |
| String length | 1 to 63 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **app-profile**

| | |
|---|---|
| Synopsis | Enter the **app-profile** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* static-host ipv4 *ipv4-address* mac *mac-unicast-address* app-profile |
| Tree | app-profile |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **profile** *reference*

| | |
|---|---|
| Synopsis | Application profile used by the static host |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* static-host ipv4 *ipv4-address* mac *mac-unicast-address* app-profile profile *reference* |
| Tree | profile |
| Reference | **configure** application-assurance group *number* partition *number* policy app-profile *named-item* |
| Introduced | 21.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **int-dest-id** *int-dest-id*

| | |
|---|---|
| Synopsis | Intermediate destination ID |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* static-host ipv4 *ipv4-address* mac *mac-unicast-address* int-dest-id *int-dest-id* |
| Tree | int-dest-id |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sla-profile** *reference*

| | |
|---|---|
| Synopsis | SLA profile name |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* static-host ipv4 *ipv4-address* mac *mac-unicast-address* sla-profile *reference* |
| Tree | sla-profile |
| Reference | **configure** subscriber-mgmt sla-profile *external-named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sub-profile** *reference*

| | |
|---|---|
| Synopsis | Sub-profile name |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* static-host ipv4 *ipv4-address* mac *mac-unicast-address* sub-profile *reference* |
| Tree | sub-profile |
| Reference | **configure** subscriber-mgmt sub-profile *external-named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **subscriber-id**

| | |
|---|---|
| Synopsis | Enter the **subscriber-id** context |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* static-host ipv4 *ipv4-address* mac *mac-unicast-address* subscriber-id |
| Tree | subscriber-id |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **string** *subscriber-id*

| | |
|---|---|
| Synopsis | Subscriber identification |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* static-host ipv4 *ipv4-address* mac *mac-unicast-address* subscriber-id string *subscriber-id* |
| Tree | string |
| String length | 1 to 64 |
| Notes | The following elements are part of a choice: **string** or **use-sap-id**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **use-sap-id**

| | |
|---|---|
| Synopsis | Use the SAP id as subscriber ID |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* static-host ipv4 *ipv4-address* mac *mac-unicast-address* subscriber-id use-sap-id |
| Tree | use-sap-id |
| Notes | The following elements are part of a choice: **string** or **use-sap-id**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **transit-policy**

| | |
|---|---|
| Synopsis | Enable the **transit-policy** context |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* transit-policy |
| Tree | transit-policy |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **ip** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IP transit policy ID |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* transit-policy ip *reference* |
| Tree | ip |
| Reference | **configure** application-assurance group *number* partition *number* transit-ip-policy *number* |
| Notes | The following elements are part of a mandatory choice: **ip** or **prefix**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **prefix** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IP prefix policy ID |
| Context | **configure** service vprn *service-name* interface *interface-name* sap *sap* transit-policy prefix *reference* |
| Tree | prefix |
| Reference | **configure** application-assurance group *number* partition *number* transit-prefix-policy *number* |
| Notes | The following elements are part of a mandatory choice: **ip** or **prefix**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **shcv-policy-ipv4** *reference*

| | |
|---|---|
| Synopsis | Host connectivity IPv4 policy |
| Context | **configure** service vprn *service-name* interface *interface-name* shcv-policy-ipv4 *reference* |
| Tree | shcv-policy-ipv4 |


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| | |
|---|---|
| Reference | **configure** subscriber-mgmt shcv-policy *external-named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **spoke-sdp** [sdp-bind-id] *sdp-bind-id*

| | |
|---|---|
| Synopsis | Enter the **spoke-sdp** list instance |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* |
| Tree | spoke-sdp |
| Max. instances | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**sdp-bind-id**] *sdp-bind-id*

| | |
|---|---|
| Synopsis | SDP binding ID |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* |
| Tree | spoke-sdp |
| String length | 3 to 16 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **aarp**

| | |
|---|---|
| Synopsis | Enable the **aarp** context |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* aarp |
| Tree | aarp |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **id** *reference*

| | |
|---|---|
| Synopsis | AARP instance ID |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* aarp id *reference* |
| Tree | id |
| Reference | **configure** application-assurance aarp *number* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **type** *keyword*

| | |
|---|---|
| Synopsis | Role referenced by the AARP |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* aarp type *keyword* |
| Tree | type |
| Options | dual-homed, dual-homed-secondary |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **accounting-policy** *reference*

| | |
|---|---|
| Synopsis | Policy to collect accounting statistics |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* accounting-policy *reference* |
| Tree | accounting-policy |
| Reference | **configure** log accounting-policy *number* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the SDP binding to the service |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## **app-profile** *reference*

| | |
|---|---|
| Synopsis | Application profile name for this SDP |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* app-profile *reference* |
| Tree | app-profile |
| Reference | **configure** application-assurance group *number* partition *number* policy app-profile *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **bfd**

| | |
|---|---|
| Synopsis | Enter the **bfd** context |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* bfd |
| Tree | bfd |
| Introduced | 21.2.R1 |
| Platforms | All |

## **bfd-liveness**

| | |
|---|---|
| Synopsis | Enable the **bfd-liveness** context |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* bfd bfd-liveness |
| Tree | bfd-liveness |
| Introduced | 21.2.R1 |
| Platforms | All |

## **encap** *keyword*

| | |
|---|---|
| Synopsis | BFD encapsulation used on the SDP binding |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* bfd bfd-liveness encap *keyword* |
| Tree | encap |


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| | |
|---|---|
| Options | ipv4 |
| Default | ipv4 |
| Introduced | 21.2.R1 |
| Platforms | All |

### **bfd-template** *reference*

| | |
|---|---|
| Synopsis | BFD template associated with the SDP binding |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* bfd bfd-template *reference* |
| Tree | bfd-template |
| Description | This command configures a named BFD template to be used by VCCV BFD on PWs belonging to the VLL service. The template specifies parameters, such as the minimum transmit and receive control packet timer intervals, used by the BFD session. Template parameters are configured under the **configure router bfd** context. |
| Reference | **configure** bfd bfd-template *named-item* |
| Introduced | 21.2.R1 |
| Platforms | All |

### **failure-action** *keyword*

| | |
|---|---|
| Synopsis | VCCV BFD action taken on the SDP binding |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* bfd failure-action *keyword* |
| Tree | failure-action |
| Description | This command configures a named BFD template to be used by VCCV BFD on PWs belonging to the VLL service. The template specifies parameters, such as the minimum transmit and receive control packet timer intervals, used by the BFD session. Template parameters are configured under the **configure router bfd** context. |
| Options | none, down |
| Default | none |
| Introduced | 21.2.R1 |
| Platforms | All |

### **wait-for-up-timer** *number*

| | |
|---|---|
| Synopsis | Time waited for BFD up status |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* bfd wait-for-up-timer *number* |
| Tree | wait-for-up-timer |
| Description | This command configures the time interval that is used to wait for a BFD session to come up.<br>This command is triggered when a spoke-SDP is first administratively enabled and a VCCV BFD session transitions from up to down. The command is required to allow time for BFD sessions to come up, and for BFD to settle before selecting the active spoke-SDP for use in a redundant set. In the case where a VCCV BFD session is bouncing, the timer prevents excessive flapping of the operational state of a spoke-SDP. |
| Range | 1 to 60 |
| Units | seconds |
| Introduced | 21.2.R1 |
| Platforms | All |

## **collect-stats** *boolean*

| | |
|---|---|
| Synopsis | Allow agent to collect accounting statistics |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* collect-stats *boolean* |
| Tree | collect-stats |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **control-word** *boolean*

| | |
|---|---|
| Synopsis | Use the control word as preferred |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* control-word *boolean* |
| Tree | control-word |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **cpu-protection**

| | |
|---|---|
| Synopsis | Enter the **cpu-protection** context |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* cpu-protection |
| Tree | cpu-protection |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

## eth-cfm-monitoring

| | |
|---|---|
| Synopsis | Enable the **eth-cfm-monitoring** context |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* cpu-protection eth-cfm-monitoring |
| Tree | eth-cfm-monitoring |
| Notes | The following elements are part of a choice: **eth-cfm-monitoring**, **ip-src-monitoring**, or **mac-monitoring**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

## aggregate

| | |
|---|---|
| Synopsis | Apply rate limit to the sum of the per peer packet rates |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* cpu-protection eth-cfm-monitoring aggregate |
| Tree | aggregate |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

## car

| | |
|---|---|
| Synopsis | Ignore Ethernet CFM packets when enforcing overall rate |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* cpu-protection eth-cfm-monitoring car |
| Tree | car |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |


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## ip-src-monitoring

| | |
|---|---|
| Synopsis | Enable IP source monitoring for CPU protection |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* cpu-protection ip-src-monitoring |
| Tree | ip-src-monitoring |
| Notes | The following elements are part of a choice: **eth-cfm-monitoring**, **ip-src-monitoring**, or **mac-monitoring**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

## mac-monitoring

| | |
|---|---|
| Synopsis | Monitor MAC for CPU protection |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* cpu-protection mac-monitoring |
| Tree | mac-monitoring |
| Notes | The following elements are part of a choice: **eth-cfm-monitoring**, **ip-src-monitoring**, or **mac-monitoring**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

## policy-id *reference*

| | |
|---|---|
| Synopsis | CPM protection policy |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* cpu-protection policy-id *reference* |
| Tree | policy-id |
| Reference | **configure** system security cpu-protection policy *number* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

## description *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* description *description* |


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| | |
|---|---|
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

## egress

| | |
|---|---|
| Synopsis | Enter the **egress** context |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* egress |
| Tree | egress |
| Introduced | 16.0.R1 |
| Platforms | All |

## filter

| | |
|---|---|
| Synopsis | Enter the **filter** context |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* egress filter |
| Tree | filter |
| Introduced | 16.0.R1 |
| Platforms | All |

## ip *reference*

| | |
|---|---|
| Synopsis | IPv4 filter policy name |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* egress filter ip *reference* |
| Tree | ip |
| Reference | **configure** filter ip-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

## ipv6 *reference*

| | |
|---|---|
| Synopsis | IPv6 filter policy name |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* egress filter ipv6 *reference* |
| Tree | ipv6 |
| Reference | **configure** filter ipv6-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

## qos

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* egress qos |
| Tree | qos |
| Introduced | 16.0.R1 |
| Platforms | All |

## network

| | |
|---|---|
| Synopsis | Enter the **network** context |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* egress qos network |
| Tree | network |
| Introduced | 16.0.R1 |
| Platforms | All |

## policy-name *reference*

| | |
|---|---|
| Synopsis | Network policy ID |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* egress qos network policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos network *network-policy-name* |
| Introduced | 16.0.R1 |
| Platforms | All |


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## port-redirect-group

| | |
|---|---|
| Synopsis | Enter the **port-redirect-group** context |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* egress qos network port-redirect-group |
| Tree | port-redirect-group |
| Introduced | 16.0.R1 |
| Platforms | All |

## group-name *reference*

| | |
|---|---|
| Synopsis | Name of the egress port queue group |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* egress qos network port-redirect-group group-name *reference* |
| Tree | group-name |
| Reference | **configure** qos queue-group-templates egress queue-group *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

## instance *number*

| | |
|---|---|
| Synopsis | Queue-group instance ID |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* egress qos network port-redirect-group instance *number* |
| Tree | instance |
| Range | 1 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

## vc-label *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Egress MPLS VC label to send packets to the far end |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* egress vc-label *number* |
| Tree | vc-label |
| Range | 16 to 1048575 |
| Introduced | 16.0.R1 |
| Platforms | All |

## entropy-label

| | |
|---|---|
| Synopsis | Enable the use of entropy labels for spoke SDPs |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* entropy-label |
| Tree | entropy-label |
| Notes | The following elements are part of a choice: **entropy-label** or **hash-label**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## eth-cfm

| | |
|---|---|
| Synopsis | Enter the **eth-cfm** context |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm |
| Tree | eth-cfm |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## collect-lmm-fc-stats

| | |
|---|---|
| Synopsis | Enter the **collect-lmm-fc-stats** context |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm collect-lmm-fc-stats |
| Tree | collect-lmm-fc-stats |
| Description | Commands in this context configure per forwarding class (FC) LMM information collection.<br>The commands **fc-in-profile** and **fc** in this context are mutually exclusive. The commands apply to either profile-aware or profile-unaware FCs respectively. |


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This command and the **collect-lmm-stats** command are mutually exclusive when there is entity resource contention.

Introduced 16.0.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS

## **fc** *keyword*

Synopsis Forwarding class name for profile-unaware counter

Context **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm collect-lmm-fc-stats fc *keyword*

Tree fc

Description This command configures individual counters for the specified FCs without regard for profile. The system includes all countable packets that match a configured FC, regardless of profile, in this counter.

An FC specified as part of this command and for this specific context cannot be specified as a profile-aware FC using the **fc-in-profile** command under the **collect-lmm-fc-stats** context.

When this command is reentered, a differential is performed. Omitted FCs stop counting, newly added FCs start counting, and unchanged FCs continue to count.

Options be, l2, af, l1, h2, ef, h1, nc

Max. instances 8

Introduced 16.0.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS

## **fc-in-profile** *keyword*

Synopsis Forwarding class name for profile-aware counter

Context **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm collect-lmm-fc-stats fc-in-profile *keyword*

Tree fc-in-profile

Description This command configures individual counters for the specified FCs with regard to profile. The system includes all countable packets that match a configured FC and that are deemed to be in-profile in this counter.

An FC specified as part of this command and for this specific context cannot be specified as a profile-unaware FC using the **fc** command under the **collect-lmm-fc-stats** context.

When this command is reentered, a differential is performed. Omitted FCs stop counting, newly added FCs start counting, and unchanged FCs continue to count.


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| | |
|---|---|
| Options | be, l2, af, l1, h2, ef, h1, nc |
| Max. instances | 8 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **collect-lmm-stats** *boolean*

| | |
|---|---|
| Synopsis | Collect statistics for loss measurement message tests |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm collect-lmm-stats *boolean* |
| Tree | collect-lmm-stats |
| Description | When configured to **true**, the router instantiates the statistical counter to transmit and receive packets for the LAG facility MEP bindings.<br>The **show eth-cfm collect-lmm-stats** command displays entities that have been enabled to collect transit and receive counters.<br>When configured to **false**, the router does not instantiate the counter and the LMM PDU associated with the MEP does not populate the counters in the packet. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **mep** md-admin-name *reference* ma-admin-name *reference* mep-id *number*

| | |
|---|---|
| Synopsis | Enter the **mep** list instance |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |
| Tree | mep |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **md-admin-name** *reference*

| | |
|---|---|
| Synopsis | Maintenance Domain (MD) name |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |
| Tree | mep |


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| | |
|---|---|
| Reference | **configure** eth-cfm domain *admin-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ma-admin-name** *reference*

| | |
|---|---|
| Synopsis | Maintenance Association (MA) name |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |
| Tree | mep |
| Reference | **configure** eth-cfm domain *admin-name* association *admin-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **mep-id** *number*

| | |
|---|---|
| Synopsis | Maintenance Endpoint (MEP) ID |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |
| Tree | mep |
| Range | 1 to 8191 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the MEP |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **ais** *boolean*

| | |
|---|---|
| Synopsis | Enable the generation and the reception of AIS messages |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ais *boolean* |
| Tree | ais |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **alarm-notification**

| | |
|---|---|
| Synopsis | Enter the **alarm-notification** context |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* alarm-notification |
| Tree | alarm-notification |
| Description | Commands in this context configure the Fault Notification Generator (FNG) time values to raise an alarm or reset the CCM defect alarm.<br>Use these timers for network management processes. The timers are not tied into delaying the notification to the fault management system on the network element and do not affect fault propagation mechanisms. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **fng-alarm-time** *number*

| | |
|---|---|
| Synopsis | Time that must expire before an FNG alarm is raised |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* alarm-notification fng-alarm-time *number* |
| Tree | fng-alarm-time |
| Range | 250 \| 500 \| 1000 |
| Units | centiseconds |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **fng-reset-time** *number*

| | |
|---|---|
| Synopsis | Time that must expire before an FNG alarm is reset |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* alarm-notification fng-reset-time *number* |
| Tree | fng-reset-time |
| Range | 250 \| 500 \| 1000 |
| Units | centiseconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ccm** *boolean*

| | |
|---|---|
| Synopsis | Generate CCM messages |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ccm *boolean* |
| Tree | ccm |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ccm-ltm-priority** *number*

| | |
|---|---|
| Synopsis | Priority of CCM and LTM messages transmitted by the MEP |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ccm-ltm-priority *number* |
| Tree | ccm-ltm-priority |
| Range | 0 to 7 |
| Default | 7 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **ccm-padding-size** *number*

| | |
|---|---|
| Synopsis | Number of octets of padding to insert in CCM packets |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ccm-padding-size *number* |
| Tree | ccm-padding-size |
| Description | This command sets the byte size of the optional Data TLV to be included in the ETH-CC PDU.<br>This command increases the size of the ETH-CC PDU by the configured value. The base size of the ETH-CC PDU, including the Interface Status TLV and Port Status TLV, is 83 bytes not including the Layer 2 encapsulation. CCM padding is not supported when the CCM interval (configured through **configure eth-cfm domain association ccm-interval)** is less than 1 second. |
| Range | 3 to 1500 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **csf**

| | |
|---|---|
| Synopsis | Enable the **csf** context |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* csf |
| Tree | csf |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **multiplier** *decimal-number*

| | |
|---|---|
| Synopsis | Multiplication factor used to clear the CSF condition |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* csf multiplier *decimal-number* |
| Tree | multiplier |
| Range | 0.0 \| 2.0 to 30.0 |
| Default | 3.5 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **eth-test**

| | |
|---|---|
| Synopsis | Enable the **eth-test** context |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test |
| Tree | eth-test |
| Description | Commands in this context configure information used by the Ethernet Test (ETH-TST) packet. The commands must be configured on both the sender and the receiver nodes. The test packets are used with the **oam eth-cfm eth-test** command. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **bit-error-threshold** *number*

| | |
|---|---|
| Synopsis | Lowest priority defect allowed to generate fault alarm |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test bit-error-threshold *number* |
| Tree | bit-error-threshold |
| Range | 0 to 11840 |
| Units | bit errors |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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## test-pattern

| | |
|---|---|
| Synopsis | Enter the **test-pattern** context |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test test-pattern |
| Tree | test-pattern |
| Description | Commands in this context specify the test pattern for the ETH-TST frames. The pattern does not have to be the same on the sender and the receiver. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## crc-tlv *boolean*

| | |
|---|---|
| Synopsis | Generate a CRC checksum |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test test-pattern crc-tlv *boolean* |
| Tree | crc-tlv |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## pattern *keyword*

| | |
|---|---|
| Synopsis | Test pattern for Ethernet Test frames |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test test-pattern pattern *keyword* |
| Tree | pattern |
| Description | This command specifies the test pattern of the Ethernet Test (ETH-TST) frames. This does not have to be configured the same on the sender and the receiver. |
| Options | all-zeros, all-ones |
| Default | all-zeros |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **fault-propagation** *keyword*

| | |
|---|---|
| Synopsis | Fault propagation for the MEP |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* fault-propagation *keyword* |
| Tree | fault-propagation |
| Options | use-if-status-tlv, suspend-ccm |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **grace**

| | |
|---|---|
| Synopsis | Enter the **grace** context |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace |
| Tree | grace |
| Description | Commands in this context configure the Nokia ETH-CFM Grace function and the ITU-T Y.1731 Ethernet Expected Default (ETH-ED) function. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **eth-ed**

| | |
|---|---|
| Synopsis | Enter the **eth-ed** context |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed |
| Tree | eth-ed |
| Description | Commands in this context configure the ITU-T Y.1731 ETH-ED function. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **max-rx-defect-window** *number*

| | |
|---|---|
| Synopsis | Maximum received ETH-ED expected defect window duration |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed max-rx-defect-window *number* |
| Tree | max-rx-defect-window |
| Range | 1 to 86400 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **priority** *number*

| | |
|---|---|
| Synopsis | Transmission priority for ETH-ED PDUs |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed priority *number* |
| Tree | priority |
| Range | 0 to 7 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **rx-eth-ed** *boolean*

| | |
|---|---|
| Synopsis | Receive and process ETH-ED ITU-T Y.1731 PDUs on the MEP |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed rx-eth-ed *boolean* |
| Tree | rx-eth-ed |
| Description | This command enables the reception and processing of the ITU-T Y.1731 ETH-ED PDU on the MEP. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **tx-eth-ed** *boolean*

| | |
|---|---|
| Synopsis | Transmit ETH-ED PDUs from the MEP |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed tx-eth-ed *boolean* |
| Tree | tx-eth-ed |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## eth-vsm-grace

| | |
|---|---|
| Synopsis | Enter the **eth-vsm-grace** context |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-vsm-grace |
| Tree | eth-vsm-grace |
| Description | Commands in this context configure the Nokia ETH-CFM Grace function. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## rx-eth-vsm-grace *boolean*

| | |
|---|---|
| Synopsis | Receive and process Nokia ETH-CFM Grace PDU on the MEP |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-vsm-grace rx-eth-vsm-grace *boolean* |
| Tree | rx-eth-vsm-grace |
| Description | When configured to **true**, the router enables the Nokia Grace function, which is a vendor-specific PDU that informs MEP peers that the local node may be entering a period of expected defect.<br>When configured to **false**, the router disables the Nokia Grace function. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## tx-eth-vsm-grace *boolean*

| | |
|---|---|
| Synopsis | Transmit ETH-ED PDUs from the MEP |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-vsm-grace tx-eth-vsm-grace *boolean* |
| Tree | tx-eth-vsm-grace |
| Description | When configured to **true**, the router can transmit the Nokia ETH-CFM Grace PDU from the MEP when a system soft reset notification is received for one or more cards.<br>The Nokia Grace function is a vendor-specific PDU that informs MEP peers that the local node may be entering a period of expected defect.<br>The operator must configure the **configure system eth-cfm grace** command to instruct the system that the node is capable of transmitting expected-defect windows to peers. The system can only transmit one form of ETH-CFM grace (Nokia ETH-CFM Grace or ITU-T Y.1731 ETH-ED).<br>When configured to **false**, the router disables the transmission of the Nokia ETH-CFM Grace PDU from the MEP. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **low-priority-defect** *keyword*

| | |
|---|---|
| Synopsis | Lowest priority defect allowed to generate fault alarm |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* low-priority-defect *keyword* |
| Tree | low-priority-defect |
| Options | all-def, mac-rem-err-xcon, rem-err-xcon, err-xcon, xcon, no-xcon |
| Default | mac-rem-err-xcon |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **one-way-delay-threshold** *number*

| | |
|---|---|
| Synopsis | Threshold time limit for the one-way delay test |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* one-way-delay-threshold *number* |
| Tree | one-way-delay-threshold |
| Range | 0 to 600 |
| Units | seconds |


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| | |
|---|---|
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **squelch-ingress-levels** *number*

| | |
|---|---|
| Synopsis | Levels for which ETH-CFM packets are silently discarded |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* eth-cfm squelch-ingress-levels *number* |
| Tree | squelch-ingress-levels |
| Description | This command defines the levels of the ETH-CFM packets that are silently discarded on ingress into the SAP or SDP binding from the wire that matches the service delineation of the SAP or SDP binding. All ETH-CFM packets inbound to the SAP or SDP binding that match the configured levels are dropped without regard for any other ETH-CFM criteria. No statistical information or drop count is available for any ETH-CFM packet that is silently discarded by this option.<br>The list of levels must be a complete contiguous list from 0 up to the highest level that will be dropped. |
| Range | 0 to 7 |
| Max. instances | 8 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **hash-label**

| | |
|---|---|
| Synopsis | Enable the **hash-label** context |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* hash-label |
| Tree | hash-label |
| Description | Commands in this context configure the use of hash labels for egress datapaths.<br>For information about hash-label handling, see the "Hash labels" section of the *7450 ESS, 7750 SR, 7950 XRS, and VSR MPLS Guide*. |
| Notes | The following elements are part of a choice: **entropy-label** or **hash-label**. |
| Introduced | 16.0.R1 |
| Platforms | All |


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## signal-capability

| | |
|---|---|
| Synopsis | Signal hash label capability to the remote PE |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* hash-label signal-capability |
| Tree | signal-capability |
| Description | When configured, this command enables the signaling and negotiating of the hash label between the local and remote PE nodes.<br>The signaling process outcome determines whether the local PE inserts the hash label on the user packets. This outcome can override the local PE configuration. |
| Introduced | 16.0.R1 |
| Platforms | All |

## ingress

| | |
|---|---|
| Synopsis | Enter the **ingress** context |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* ingress |
| Tree | ingress |
| Introduced | 16.0.R1 |
| Platforms | All |

## filter

| | |
|---|---|
| Synopsis | Enter the **filter** context |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* ingress filter |
| Tree | filter |
| Introduced | 16.0.R1 |
| Platforms | All |

## ip *reference*

| | |
|---|---|
| Synopsis | IPv4 filter policy name |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* ingress filter ip *reference* |
| Tree | ip |


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| | |
|---|---|
| Reference | **configure** filter ip-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **ipv6** *reference*

| | |
|---|---|
| Synopsis | IPv6 filter policy name |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* ingress filter ipv6 *reference* |
| Tree | ipv6 |
| Reference | **configure** filter ipv6-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

## qos

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* ingress qos |
| Tree | qos |
| Introduced | 16.0.R1 |
| Platforms | All |

## network

| | |
|---|---|
| Synopsis | Enter the **network** context |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* ingress qos network |
| Tree | network |
| Introduced | 16.0.R1 |
| Platforms | All |

## fp-redirect-group

| | |
|---|---|
| Synopsis | Enter the **fp-redirect-group** context |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* ingress qos network fp-redirect-group |
| Tree | fp-redirect-group |
| Introduced | 16.0.R1 |
| Platforms | All |

## **group-name** *reference*

| | |
|---|---|
| Synopsis | Name of the forwarding plane queue group template |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* ingress qos network fp-redirect-group group-name *reference* |
| Tree | group-name |
| Reference | **configure** qos queue-group-templates ingress queue-group *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **instance** *number*

| | |
|---|---|
| Synopsis | Instance of FP ingress queue group for the SDP binding |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* ingress qos network fp-redirect-group instance *number* |
| Tree | instance |
| Range | 1 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **policy-name** *reference*

| | |
|---|---|
| Synopsis | Network policy ID |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* ingress qos network policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos network *network-policy-name* |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **vc-label** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Ingress MPLS VC label to send packets to the far end |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* ingress vc-label *number* |
| Tree | vc-label |
| Range | 1 to 1048575 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **transit-policy**

| | |
|---|---|
| Synopsis | Enable the **transit-policy** context |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* transit-policy |
| Tree | transit-policy |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **ip** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IP transit policy ID |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* transit-policy ip *reference* |
| Tree | ip |
| Reference | **configure** application-assurance group *number* partition *number* transit-ip-policy *number* |
| Notes | The following elements are part of a mandatory choice: **ip** or **prefix**. |
| Introduced | 21.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **prefix** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IP prefix policy ID |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* transit-policy prefix *reference* |
| Tree | prefix |
| Reference | **configure** application-assurance group *number* partition *number* transit-prefix-policy *number* |
| Notes | The following elements are part of a mandatory choice: **ip** or **prefix**. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **vc-type** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Type of virtual circuit (VC) associated with the SDP binding |
| Context | **configure** service vprn *service-name* interface *interface-name* spoke-sdp *sdp-bind-id* vc-type *keyword* |
| Tree | vc-type |
| Options | ether, ipipe |
| Default | ether |
| Introduced | 16.0.R1 |
| Platforms | All |

## **static-tunnel-redundant-nexthop** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Address for the static ISA tunnel redundant next-hop |
| Context | **configure** service vprn *service-name* interface *interface-name* static-tunnel-redundant-nexthop *ipv4-unicast-address* |


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| | |
|---|---|
| Tree | static-tunnel-redundant-nexthop |
| Description | This command specifies the redundant next-hop address on public or private IPsec interfaces (with a public or private tunnel SAP) for the static IPsec tunnel.<br>The next-hop address is resolved in the routing table of the corresponding service. |
| Notes | The following elements are part of a choice: **multi-chassis-shunting-profile** or (**dynamic-tunnel-redundant-nexthop** and **static-tunnel-redundant-nexthop**). |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **tos-marking-state** *keyword*

| | |
|---|---|
| Synopsis | TOS marking state |
| Context | **configure** service vprn *service-name* interface *interface-name* tos-marking-state *keyword* |
| Tree | tos-marking-state |
| Options | trusted, untrusted |
| Default | trusted |
| Introduced | 16.0.R1 |
| Platforms | All |

## **tunnel** *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable/disable tunnel interface |
| Context | **configure** service vprn *service-name* interface *interface-name* tunnel *boolean* |
| Tree | tunnel |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **vas-if-type** *keyword*

| | |
|---|---|
| Synopsis | VAS interface type |
| Context | **configure** service vprn *service-name* interface *interface-name* vas-if-type *keyword* |


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| | |
|---|---|
| Tree | vas-if-type |
| Options | to-from-access, to-from-network, to-from-both |
| Introduced | 16.0.R1 |
| Platforms | All |

### **vpls** [vpls-name] *named-item-64*

| | |
|---|---|
| Synopsis | Enter the **vpls** list instance |
| Context | **configure** service vprn *service-name* interface *interface-name* vpls *named-item-64* |
| Tree | vpls |
| Max. instances | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**vpls-name**] *named-item-64*

| | |
|---|---|
| Synopsis | VPLS service |
| Context | **configure** service vprn *service-name* interface *interface-name* vpls *named-item-64* |
| Tree | vpls |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **egress**

| | |
|---|---|
| Synopsis | Enter the **egress** context |
| Context | **configure** service vprn *service-name* interface *interface-name* vpls *named-item-64* egress |
| Tree | egress |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **reclassify-using-qos** *reference*

| | |
|---|---|
| Synopsis | Egress QoS policy |
| Context | **configure** service vprn *service-name* interface *interface-name* vpls *named-item-64* egress reclassify-using-qos *reference* |
| Tree | reclassify-using-qos |
| Reference | **configure** qos sap-egress *qos-policy-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **routed-override-filter**

| | |
|---|---|
| Synopsis | Enter the **routed-override-filter** context |
| Context | **configure** service vprn *service-name* interface *interface-name* vpls *named-item-64* egress routed-override-filter |
| Tree | routed-override-filter |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ip** *reference*

| | |
|---|---|
| Synopsis | IPv4 filter policy name |
| Context | **configure** service vprn *service-name* interface *interface-name* vpls *named-item-64* egress routed-override-filter ip *reference* |
| Tree | ip |
| Reference | **configure** filter ip-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv6** *reference*

| | |
|---|---|
| Synopsis | IPv6 filter policy name |
| Context | **configure** service vprn *service-name* interface *interface-name* vpls *named-item-64* egress routed-override-filter ipv6 *reference* |
| Tree | ipv6 |
| Reference | **configure** filter ipv6-filter *filter-name* |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## evpn

| | |
|---|---|
| Synopsis | Enter the **evpn** context |
| Context | **configure** service vprn *service-name* interface *interface-name* vpls *named-item-64* evpn |
| Tree | evpn |
| Introduced | 19.10.R1 |
| Platforms | All |

## arp

| | |
|---|---|
| Synopsis | Enter the **arp** context |
| Context | **configure** service vprn *service-name* interface *interface-name* vpls *named-item-64* evpn arp |
| Tree | arp |
| Introduced | 19.10.R1 |
| Platforms | All |

## **advertise** [route-type] *keyword*

| | |
|---|---|
| Synopsis | Enter the **advertise** list instance |
| Context | **configure** service vprn *service-name* interface *interface-name* vpls *named-item-64* evpn arp advertise *keyword* |
| Tree | advertise |
| Introduced | 19.10.R1 |
| Platforms | All |

## [**route-type**] *keyword*

| | |
|---|---|
| Synopsis | Type of ARP or ND entries that generate host routes |
| Context | **configure** service vprn *service-name* interface *interface-name* vpls *named-item-64* evpn arp advertise *keyword* |
| Tree | advertise |


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| | |
|---|---|
| Description | This command specifies the type of ARP or ND entries that are installed in the ARP or ND cache into EVPN MAC/IP routes. |
| Options | static, dynamic |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | All |

## interface-less-routing

| | |
|---|---|
| Synopsis | Enable the **interface-less-routing** context |
| Context | **configure** service vprn *service-name* interface *interface-name* vpls *named-item-64* evpn arp advertise *keyword* interface-less-routing |
| Tree | interface-less-routing |
| Description | Commands in this context enable the entries for advertisement in EVPN MAC/IP advertisement routes that include:<br>• the label1 and route target of the R-VPLS EVPN service<br>• the label2 value and route target of the EVPN interface-less instance in the linked VPRN |
| Introduced | 24.10.R1 |
| Platforms | All |

## bgp-evpn-instance *number*

| | |
|---|---|
| Synopsis | EVPN interface-less VPRN instance |
| Context | **configure** service vprn *service-name* interface *interface-name* vpls *named-item-64* evpn arp advertise *keyword* interface-less-routing bgp-evpn-instance *number* |
| Tree | bgp-evpn-instance |
| Description | This command configures the EVPN interface-less BGP instance from which the label and route target are taken when advertising the entry in an EVPN MAC/IP advertisement route. |
| Range | 1 |
| Default | 1 |
| Introduced | 24.10.R1 |
| Platforms | All |


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### **route-tag** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Tag value used with the host route from an ARP/ND entry |
| Context | **configure** service vprn *service-name* interface *interface-name* vpls *named-item-64* evpn arp advertise *keyword* route-tag *number* |
| Tree | route-tag |
| Description | This command specifies the route tag that is added separately to dynamic or static ARP or ND entries that are advertised in EVPN MAC/IP routes. This tag can be matched on BGP vsi-export (in the R-VPLS) and BGP peer export policies. |
| Range | 0 to 255 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **flood-garp-and-unknown-req** *boolean*

| | |
|---|---|
| Synopsis | Allow CPM originated ARP frames to flood R-VPLS service |
| Context | **configure** service vprn *service-name* interface *interface-name* vpls *named-item-64* evpn arp flood-garp-and-unknown-req *boolean* |
| Tree | flood-garp-and-unknown-req |
| Description | When configured to **true**, the system allows CPM-originated ARP frames to be flooded in the R-VPLS service. Any frames that are data path flooded such as the ARP messages received on a SAP, are flooded irrespective of this command.<br>When configured to **false**, CPM-originated ARP flooding is suppressed. |
| Default | true |
| Introduced | 19.10.R1 |
| Platforms | All |

### **learn-dynamic** *boolean*

| | |
|---|---|
| Synopsis | Process ARP or ND messages on EVPN tunnels |
| Context | **configure** service vprn *service-name* interface *interface-name* vpls *named-item-64* evpn arp learn-dynamic *boolean* |
| Tree | learn-dynamic |


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| | |
|---|---|
| Description | When configured to **true**, the system processes ARP or ND messages that arrive on EVPN tunnels.<br>When configured to **false**, learning is disabled and table entries are not created for these messages. |
| Default | true |
| Introduced | 19.10.R1 |
| Platforms | All |

## nd

| | |
|---|---|
| Synopsis | Enter the **nd** context |
| Context | **configure** service vprn *service-name* interface *interface-name* vpls *named-item-64* evpn nd |
| Tree | nd |
| Introduced | 20.5.R1 |
| Platforms | All |

## **advertise** [route-type] *keyword*

| | |
|---|---|
| Synopsis | Enter the **advertise** list instance |
| Context | **configure** service vprn *service-name* interface *interface-name* vpls *named-item-64* evpn nd advertise *keyword* |
| Tree | advertise |
| Introduced | 20.5.R1 |
| Platforms | All |

## [**route-type**] *keyword*

| | |
|---|---|
| Synopsis | Type of ARP or ND entries that generate host routes |
| Context | **configure** service vprn *service-name* interface *interface-name* vpls *named-item-64* evpn nd advertise *keyword* |
| Tree | advertise |
| Description | This command specifies the type of ARP or ND entries that are installed in the ARP or ND cache into EVPN MAC/IP routes. |
| Options | static, dynamic |
| Notes | This element is part of a list key. |
| Introduced | 20.5.R1 |


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Platforms All

## interface-less-routing

Synopsis Enable the **interface-less-routing** context

Context **configure** service vprn *service-name* interface *interface-name* vpls *named-item-64* evpn nd advertise *keyword* interface-less-routing

Tree interface-less-routing

Description Commands in this context enable the entries for advertisement in EVPN MAC/IP advertisement routes that include:

- the label1 and route target of the R-VPLS EVPN service
- the label2 value and route target of the EVPN interface-less instance in the linked VPRN

Introduced 24.10.R1

Platforms All

## bgp-evpn-instance *number*

Synopsis EVPN interface-less VPRN instance

Context **configure** service vprn *service-name* interface *interface-name* vpls *named-item-64* evpn nd advertise *keyword* interface-less-routing bgp-evpn-instance *number*

Tree bgp-evpn-instance

Description This command configures the EVPN interface-less BGP instance from which the label and route target are taken when advertising the entry in an EVPN MAC/IP advertisement route.

Range 1

Default 1

Introduced 24.10.R1

Platforms All

## route-tag *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

Synopsis Tag value used with the host route from an ARP/ND entry


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| | |
|---|---|
| Context | **configure** service vprn *service-name* interface *interface-name* vpls *named-item-64* evpn nd advertise *keyword* route-tag *number* |
| Tree | route-tag |
| Description | This command specifies the route tag that is added separately to dynamic or static ARP or ND entries that are advertised in EVPN MAC/IP routes. This tag can be matched on BGP vsi-export (in the R-VPLS) and BGP peer export policies. |
| Range | 0 to 255 |
| Introduced | 20.5.R1 |
| Platforms | All |

## **learn-dynamic** *boolean*

| | |
|---|---|
| Synopsis | Process ARP or ND messages on EVPN tunnels |
| Context | **configure** service vprn *service-name* interface *interface-name* vpls *named-item-64* evpn nd learn-dynamic *boolean* |
| Tree | learn-dynamic |
| Description | When configured to **true**, the system processes ARP or ND messages that arrive on EVPN tunnels.<br>When configured to **false**, learning is disabled and table entries are not created for these messages. |
| Default | true |
| Introduced | 20.5.R1 |
| Platforms | All |

## **evpn-tunnel**

| | |
|---|---|
| Synopsis | Enable the **evpn-tunnel** context |
| Context | **configure** service vprn *service-name* interface *interface-name* vpls *named-item-64* evpn-tunnel |
| Tree | evpn-tunnel |
| Introduced | 16.0.R1 |
| Platforms | All |

## **allow-bfd** *boolean*

| | |
|---|---|
| Synopsis | Allow BFD on the EVPN tunnel |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* interface *interface-name* vpls *named-item-64* evpn-tunnel allow-bfd *boolean* |
| Tree | allow-bfd |
| Default | false |
| Introduced | 22.5.R1 |
| Platforms | All |

## **ipv6-gateway-address** *keyword*

| | |
|---|---|
| Synopsis | Type of IPv6 gateway address |
| Context | **configure** service vprn *service-name* interface *interface-name* vpls *named-item-64* evpn-tunnel ipv6-gateway-address *keyword* |
| Tree | ipv6-gateway-address |
| Options | ip, mac |
| Default | ip |
| Introduced | 16.0.R4 |
| Platforms | All |

## **supplementary-broadcast-domain** *boolean*

| | |
|---|---|
| Synopsis | Use the EVPN tunnel as a Supplementary Broadcast Domain |
| Context | **configure** service vprn *service-name* interface *interface-name* vpls *named-item-64* evpn-tunnel supplementary-broadcast-domain *boolean* |
| Tree | supplementary-broadcast-domain |
| Description | When configured to **true**, this command allows the EVPN tunnel to be used as a Supplementary Broadcast Domain (SBD). The SBD is used in EVPN OISM to advertise the SMET routes and to receive the multicast traffic on egress PEs that are not attached to the source R-VPLS service.<br>When configured to **false**, this command disables EVPN tunnel use as an SBD. |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

## **ingress**

| | |
|---|---|
| Synopsis | Enter the **ingress** context |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* interface *interface-name* vpls *named-item-64* ingress |
| Tree | ingress |
| Introduced | 16.0.R1 |
| Platforms | All |

## routed-override-filter

| | |
|---|---|
| Synopsis | Enter the **routed-override-filter** context |
| Context | **configure** service vprn *service-name* interface *interface-name* vpls *named-item-64* ingress routed-override-filter |
| Tree | routed-override-filter |
| Introduced | 16.0.R1 |
| Platforms | All |

## ip *reference*

| | |
|---|---|
| Synopsis | IPv4 filter policy name |
| Context | **configure** service vprn *service-name* interface *interface-name* vpls *named-item-64* ingress routed-override-filter ip *reference* |
| Tree | ip |
| Description | This command specifies an IP filter that is applied to routed unicast ingress packets entering the VPLS service and destined to the R-VPLS interface MAC address.<br>The filter overrides any existing ingress IP filter applied to SAPs or SDP bindings for packets associated with the routing IP interface. The override filter is optional and when it is not defined or it is removed, the IP routed packets use the existing ingress IP filter configured on the VPLS endpoint. |
| Reference | **configure** filter ip-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

## ipv6 *reference*

| | |
|---|---|
| Synopsis | IPv6 filter policy name |
| Context | **configure** service vprn *service-name* interface *interface-name* vpls *named-item-64* ingress routed-override-filter ipv6 *reference* |
| Tree | ipv6 |


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| | |
|---|---|
| Description | This command specifies an IPv6 filter that is applied to routed unicast ingress packets entering the VPLS service and destined to the R-VPLS interface MAC address.<br>The filter overrides any existing ingress IP filter applied to SAPs or SDP bindings for packets associated with the routing IP interface. The override filter is optional and when it is not defined or it is removed, the IP routed packets use the existing ingress IP filter configured on the VPLS endpoint. |
| Reference | **configure** filter ipv6-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **ip-mirror-interface** [interface-name] *interface-name*

| | |
|---|---|
| Synopsis | Enter the **ip-mirror-interface** list instance |
| Context | **configure** service vprn *service-name* ip-mirror-interface *interface-name* |
| Tree | ip-mirror-interface |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**interface-name**] *interface-name*

| | |
|---|---|
| Synopsis | Interface name |
| Context | **configure** service vprn *service-name* ip-mirror-interface *interface-name* |
| Tree | ip-mirror-interface |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the interface |
| Context | **configure** service vprn *service-name* ip-mirror-interface *interface-name* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *very-long-description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* ip-mirror-interface *interface-name* description *very-long-description* |
| Tree | description |
| String length | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **spoke-sdp** [sdp-bind-id] *sdp-bind-id*

| | |
|---|---|
| Synopsis | Enter the **spoke-sdp** list instance |
| Context | **configure** service vprn *service-name* ip-mirror-interface *interface-name* spoke-sdp *sdp-bind-id* |
| Tree | spoke-sdp |
| Max. instances | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**sdp-bind-id**] *sdp-bind-id*

| | |
|---|---|
| Synopsis | SDP binding ID |
| Context | **configure** service vprn *service-name* ip-mirror-interface *interface-name* spoke-sdp *sdp-bind-id* |
| Tree | spoke-sdp |
| String length | 3 to 16 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the SDP binding to the service |
| Context | **configure** service vprn *service-name* ip-mirror-interface *interface-name* spoke-sdp *sdp-bind-id* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* ip-mirror-interface *interface-name* spoke-sdp *sdp-bind-id* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ingress**

| | |
|---|---|
| Synopsis | Enter the **ingress** context |
| Context | **configure** service vprn *service-name* ip-mirror-interface *interface-name* spoke-sdp *sdp-bind-id* ingress |
| Tree | ingress |
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter**

| | |
|---|---|
| Synopsis | Enter the **filter** context |
| Context | **configure** service vprn *service-name* ip-mirror-interface *interface-name* spoke-sdp *sdp-bind-id* ingress filter |
| Tree | filter |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## **ip** *reference*

| | |
|---|---|
| Synopsis | IPv4 filter policy name |
| Context | **configure** service vprn *service-name* ip-mirror-interface *interface-name* spoke-sdp *sdp-bind-id* ingress filter ip *reference* |
| Tree | ip |
| Reference | **configure** filter ip-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **vc-label** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Spoke SDP ingress VC label |
| Context | **configure** service vprn *service-name* ip-mirror-interface *interface-name* spoke-sdp *sdp-bind-id* ingress vc-label *number* |
| Tree | vc-label |
| Range | 1 to 1048575 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **ipsec**

| | |
|---|---|
| Synopsis | Enter the **ipsec** context |
| Context | **configure** service vprn *service-name* ipsec |
| Tree | ipsec |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **allow-reverse-route-override-type** *keyword*

| | |
|---|---|
| Synopsis | System behavior for new reverse route |
| Context | **configure** service vprn *service-name* ipsec allow-reverse-route-override-type *keyword* |
| Tree | allow-reverse-route-override-type |
| Description | This command specifies the system behavior when a new reverse route overlaps with an existing reverse route.<br>When unconfigured, the system does not allow a new dynamic LAN-to-LAN tunnel that terminates in the private VPRN service to be created with an overlapping reverse route. |
| Options | same-idi, any-idi |
| Introduced | 20.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **multi-chassis-shunt-interface** [name] *reference*

| | |
|---|---|
| Synopsis | Enter the **multi-chassis-shunt-interface** list instance |
| Context | **configure** service vprn *service-name* ipsec multi-chassis-shunt-interface *reference* |
| Tree | multi-chassis-shunt-interface |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *reference*

| | |
|---|---|
| Synopsis | Multi-chassis shunt interface name |
| Context | **configure** service vprn *service-name* ipsec multi-chassis-shunt-interface *reference* |
| Tree | multi-chassis-shunt-interface |
| Reference | **configure** service vprn *service-name* interface *interface-name* |
| Notes | This element is part of a list key. |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **next-hop**

| | |
|---|---|
| Synopsis | Enter the **next-hop** context |
| Context | **configure** service vprn *service-name* ipsec multi-chassis-shunt-interface *reference* next-hop |


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| | |
|---|---|
| Tree | next-hop |
| Description | Commands in this context configure the next hop for shunting over the interface. |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Next hop address for the shunting interface |
| Context | **configure** service vprn *service-name* ipsec multi-chassis-shunt-interface *reference* next-hop address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | address |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **multi-chassis-shunting-profile** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **multi-chassis-shunting-profile** list instance |
| Context | **configure** service vprn *service-name* ipsec multi-chassis-shunting-profile *named-item* |
| Tree | multi-chassis-shunting-profile |
| Max. instances | 64 |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | Multi-chassis shunting profile name |
| Context | **configure** service vprn *service-name* ipsec multi-chassis-shunting-profile *named-item* |
| Tree | multi-chassis-shunting-profile |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **peer** [ip-address] *reference*

| | |
|---|---|
| Synopsis | Enter the **peer** list instance |
| Context | **configure** service vprn *service-name* ipsec multi-chassis-shunting-profile *named-item* peer *reference* |
| Tree | peer |
| Max. instances | 3 |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**ip-address**] *reference*

| | |
|---|---|
| Synopsis | Peer address |
| Context | **configure** service vprn *service-name* ipsec multi-chassis-shunting-profile *named-item* peer *reference* |
| Tree | peer |
| Reference | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* |
| Notes | This element is part of a list key. |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **multi-chassis-shunt-interface** *reference*

| | |
|---|---|
| Synopsis | Multi-chassis shunt interface |
| Context | **configure** service vprn *service-name* ipsec multi-chassis-shunting-profile *named-item* peer *reference* multi-chassis-shunt-interface *reference* |
| Tree | multi-chassis-shunt-interface |
| Reference | **configure** service vprn *service-name* ipsec multi-chassis-shunt-interface *reference* |
| Introduced | 22.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **overlapping-reverse-route** *boolean*

| | |
|---|---|
| Synopsis | Accept overlapping DL2L tunnel reverse routes |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* ipsec overlapping-reverse-route *boolean* |
| Tree | overlapping-reverse-route |
| Description | When configured to **true**, the router accepts overlapping DL2L tunnel reverse routes from different tunnels and installs the routes based on the preference, metric, or ECMP configuration.<br>When configured to **false**, the router does not accept overlapping reverse routes and handles the overlapping route according to the **configure service vprn ipsec allow-reverse-route-override-type** command configuration.<br>This command is mutually exclusive with the **allow-reverse-route-override-type** command.<br>See the *7450 ESS, 7750 SR, and VSR Multiservice ISA and ESA Guide* for more information. |
| Default | false |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **security-policy** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **security-policy** list instance |
| Context | **configure** service vprn *service-name* ipsec security-policy *number* |
| Tree | security-policy |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## [**id**] *number*

| | |
|---|---|
| Synopsis | IPsec security policy ID |
| Context | **configure** service vprn *service-name* ipsec security-policy *number* |
| Tree | security-policy |
| Range | 1 to 32768 |
| Notes | This element is part of a list key. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **entry** [entry-id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* ipsec security-policy *number* entry *number* |
| Tree | entry |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## [**entry-id**] *number*

| | |
|---|---|
| Synopsis | IPsec security policy entry ID |
| Context | **configure** service vprn *service-name* ipsec security-policy *number* entry *number* |
| Tree | entry |
| Range | 1 to 16 |
| Notes | This element is part of a list key. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## local-ip

| | |
|---|---|
| Synopsis | Enter the **local-ip** context |
| Context | **configure** service vprn *service-name* ipsec security-policy *number* entry *number* local-ip |
| Tree | local-ip |
| Description | Commands in this context configure the local (from the VPN) IPv4 prefix/mask for the policy entry.<br>The system evaluates the local IP as the source IP when traffic is examined in the direction of the flows from private to public and as the destination IP when traffic flows from public to private. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## address *ipv4-prefix*

| | |
|---|---|
| Synopsis | Destination IPv4 address of the aggregate route |
| Context | **configure** service vprn *service-name* ipsec security-policy *number* entry *number* local-ip address *ipv4-prefix* |
| Tree | address |
| Notes | The following elements are part of a choice: **address** or **any**. |
| Introduced | 19.7.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **any** *boolean*

| | |
|---|---|
| Synopsis | Use any IP address |
| Context | **configure** service vprn *service-name* ipsec security-policy *number* entry *number* local-ip any *boolean* |
| Tree | any |
| Default | false |
| Notes | The following elements are part of a choice: **address** or **any**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **local-ipv6**

| | |
|---|---|
| Synopsis | Enter the **local-ipv6** context |
| Context | **configure** service vprn *service-name* ipsec security-policy *number* entry *number* local-ipv6 |
| Tree | local-ipv6 |
| Description | Commands in this context configure the local (from the VPN) IPv6 prefix/mask for the policy entry.<br>The system evaluates the local IP as the source IP when traffic is examined in the direction of the flows from private to public and as the destination IP when traffic flows from public to private. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **address** *ipv6-prefix*

| | |
|---|---|
| Synopsis | Destination IPv6 address of the aggregate route |
| Context | **configure** service vprn *service-name* ipsec security-policy *number* entry *number* local-ipv6 address *ipv6-prefix* |
| Tree | address |
| Notes | The following elements are part of a choice: **address** or **any**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **any** *boolean*

| | |
|---|---|
| Synopsis | Use any IP address |
| Context | **configure** service vprn *service-name* ipsec security-policy *number* entry *number* local-ipv6 any *boolean* |
| Tree | any |
| Default | false |
| Notes | The following elements are part of a choice: **address** or **any**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **remote-ip**

| | |
|---|---|
| Synopsis | Enter the **remote-ip** context |
| Context | **configure** service vprn *service-name* ipsec security-policy *number* entry *number* remote-ip |
| Tree | remote-ip |
| Description | Commands in this context configure the remote (from the tunnel) IP prefix/mask for the policy entry.<br>The system evaluates the remote IP as the source IP when traffic flows public to private and as the destination IP when traffic flows from private to public. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **address** *ipv4-prefix*

| | |
|---|---|
| Synopsis | Destination IPv4 address of the aggregate route |
| Context | **configure** service vprn *service-name* ipsec security-policy *number* entry *number* remote-ip address *ipv4-prefix* |
| Tree | address |
| Notes | The following elements are part of a choice: **address** or **any**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **any** *boolean*

| | |
|---|---|
| Synopsis | Use any IP address |
| Context | **configure** service vprn *service-name* ipsec security-policy *number* entry *number* remote-ip any *boolean* |
| Tree | any |
| Default | false |
| Notes | The following elements are part of a choice: **address** or **any**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **remote-ipv6**

| | |
|---|---|
| Synopsis | Enter the **remote-ipv6** context |
| Context | **configure** service vprn *service-name* ipsec security-policy *number* entry *number* remote-ipv6 |
| Tree | remote-ipv6 |
| Description | Commands in this context configure the remote (from the tunnel) IPv6 prefix/mask for the policy entry.<br>The system evaluates the remote IP as the source IP when traffic flows from public to private and as the destination IP when traffic flows from private to public. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **address** *ipv6-prefix*

| | |
|---|---|
| Synopsis | Destination IPv6 address of the aggregate route |
| Context | **configure** service vprn *service-name* ipsec security-policy *number* entry *number* remote-ipv6 address *ipv6-prefix* |
| Tree | address |
| Notes | The following elements are part of a choice: **address** or **any**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **any** *boolean*

| | |
|---|---|
| Synopsis | Use any IP address |
| Context | **configure** service vprn *service-name* ipsec security-policy *number* entry *number* remote-ipv6 any *boolean* |
| Tree | any |
| Default | false |
| Notes | The following elements are part of a choice: **address** or **any**. |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ipv6**

| | |
|---|---|
| Synopsis | Enter the **ipv6** context |
| Context | **configure** service vprn *service-name* ipv6 |
| Tree | ipv6 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **neighbor-discovery**

| | |
|---|---|
| Synopsis | Enter the **neighbor-discovery** context |
| Context | **configure** service vprn *service-name* ipv6 neighbor-discovery |
| Tree | neighbor-discovery |
| Introduced | 16.0.R1 |
| Platforms | All |

### **reachable-time** *number*

| | |
|---|---|
| Synopsis | Neighbor reachability detection timer |
| Context | **configure** service vprn *service-name* ipv6 neighbor-discovery reachable-time *number* |
| Tree | reachable-time |
| Range | 30 to 3600 |
| Default | 30 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **stale-time** *number*

| | |
|---|---|
| Synopsis | Neighbor discovery cache entry stale time |
| Context | **configure** service vprn *service-name* ipv6 neighbor-discovery stale-time *number* |
| Tree | stale-time |
| Range | 60 to 65535 |
| Default | 14400 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **router-advertisement**

| | |
|---|---|
| Synopsis | Enter the **router-advertisement** context |
| Context | **configure** service vprn *service-name* ipv6 router-advertisement |
| Tree | router-advertisement |
| Introduced | 16.0.R1 |
| Platforms | All |

### **dns-options**

| | |
|---|---|
| Synopsis | Enable the **dns-options** context |
| Context | **configure** service vprn *service-name* ipv6 router-advertisement dns-options |
| Tree | dns-options |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rdnss-lifetime** *(keyword | number)*

| | |
|---|---|
| Synopsis | Maximum time over which the RDNSS address is valid |
| Context | **configure** service vprn *service-name* ipv6 router-advertisement dns-options rdnss-lifetime *(keyword | number)* |
| Tree | rdnss-lifetime |
| Description | This command specifies the maximum time that the RDNSS address is used for name resolution by the client. |


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| | |
|---|---|
| Range | 0 \| 4 to 3600 |
| Units | seconds |
| Options | infinite |
| Default | infinite |
| Introduced | 16.0.R1 |
| Platforms | All |

### **server** *ipv6-address*

| | |
|---|---|
| Synopsis | RAs that are forwarded to IPv6 DNS servers |
| Context | **configure** service vprn *service-name* ipv6 router-advertisement dns-options server *ipv6-address* |
| Tree | server |
| Max. instances | 4 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **interface** [ip-int-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **interface** list instance |
| Context | **configure** service vprn *service-name* ipv6 router-advertisement interface *reference* |
| Tree | interface |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ip-int-name**] *reference*

| | |
|---|---|
| Synopsis | VPRN interface name |
| Context | **configure** service vprn *service-name* ipv6 router-advertisement interface *reference* |
| Tree | interface |
| Reference | **configure** service vprn *service-name* interface *interface-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of router advertisement |
| Context | **configure** service vprn *service-name* ipv6 router-advertisement interface *reference* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

## **current-hop-limit** *number*

| | |
|---|---|
| Synopsis | Hop limit advertised in RA messages |
| Context | **configure** service vprn *service-name* ipv6 router-advertisement interface *reference* current-hop-limit *number* |
| Tree | current-hop-limit |
| Range | 0 to 255 |
| Default | 64 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **dns-options**

| | |
|---|---|
| Synopsis | Enable the **dns-options** context |
| Context | **configure** service vprn *service-name* ipv6 router-advertisement interface *reference* dns-options |
| Tree | dns-options |
| Introduced | 16.0.R1 |
| Platforms | All |

## **include-rdnss** *boolean*

| | |
|---|---|
| Synopsis | Include the RDNSS option in the RA |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* ipv6 router-advertisement interface *reference* dns-options include-rdnss *boolean* |
| Tree | include-rdnss |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rdnss-lifetime** *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum time over which the RDNSS address 25 is valid |
| Context | **configure** service vprn *service-name* ipv6 router-advertisement interface *reference* dns-options rdnss-lifetime *(number | keyword)* |
| Tree | rdnss-lifetime |
| Range | 0 \| 4 to 3600 |
| Units | seconds |
| Options | infinite |
| Introduced | 16.0.R1 |
| Platforms | All |

### **server** *ipv6-address*

| | |
|---|---|
| Synopsis | RAs that are forwarded to IPv6 DNS servers |
| Context | **configure** service vprn *service-name* ipv6 router-advertisement interface *reference* dns-options server *ipv6-address* |
| Tree | server |
| Max. instances | 4 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **managed-configuration** *boolean*

| | |
|---|---|
| Synopsis | Set the managed address configuration flag |
| Context | **configure** service vprn *service-name* ipv6 router-advertisement interface *reference* managed-configuration *boolean* |


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| | |
|---|---|
| Tree | managed-configuration |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **max-advertisement-interval** *number*

| | |
|---|---|
| Synopsis | Maximum time between sending advertisement messages |
| Context | **configure** service vprn *service-name* ipv6 router-advertisement interface *reference* max-advertisement-interval *number* |
| Tree | max-advertisement-interval |
| Range | 4 to 1800 |
| Units | seconds |
| Default | 600 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **min-advertisement-interval** *number*

| | |
|---|---|
| Synopsis | Minimum interval between router advertisement messages |
| Context | **configure** service vprn *service-name* ipv6 router-advertisement interface *reference* min-advertisement-interval *number* |
| Tree | min-advertisement-interval |
| Range | 3 to 1350 |
| Units | seconds |
| Default | 200 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mtu** *number*

| | |
|---|---|
| Synopsis | MTU for sending packets to the router |
| Context | **configure** service vprn *service-name* ipv6 router-advertisement interface *reference* mtu *number* |
| Tree | mtu |
| Range | 1280 to 9800 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## **nd-router-preference** *keyword*

| | |
|---|---|
| Synopsis | Default router preference for Router Advertisements |
| Context | **configure** service vprn *service-name* ipv6 router-advertisement interface *reference* nd-router-preference *keyword* |
| Tree | nd-router-preference |
| Description | This command configures the default router preference for Router Advertisements (RAs) and allows IPv6 hosts to discover and select a default gateway address by listening to RAs.<br>This feature provides basic traffic engineering functionality for host devices. When this command is applied, the router advertises the respective router preference to the connected host to assist in its selection of the most appropriate default gateway on a link.<br>This extension is backward compatible, both for routers (setting the router preference bits) and hosts (interpreting the router preference bits). These bits are ignored by hosts that do not implement the RFC 4191 functionality by configuring this command. Similarly, hosts that do not implement the RFC 4191 functionality interpret the values sent by devices that do not implement the RFC 4191 extension as a medium preference. |
| Options | medium, high, low |
| Default | medium |
| Introduced | 23.10.R1 |
| Platforms | All |

## **other-stateful-configuration** *boolean*

| | |
|---|---|
| Synopsis | Set the other configuration flag |
| Context | **configure** service vprn *service-name* ipv6 router-advertisement interface *reference* other-stateful-configuration *boolean* |
| Tree | other-stateful-configuration |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **prefix** [ipv6-prefix] *ipv6-prefix*

| | |
|---|---|
| Synopsis | Enter the **prefix** list instance |
| Context | **configure** service vprn *service-name* ipv6 router-advertisement interface *reference* prefix *ipv6-prefix* |
| Tree | prefix |
| Max. instances | 254 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ipv6-prefix**] *ipv6-prefix*

| | |
|---|---|
| Synopsis | IPv6 address prefix |
| Context | **configure** service vprn *service-name* ipv6 router-advertisement interface *reference* prefix *ipv6-prefix* |
| Tree | prefix |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **autonomous** *boolean*

| | |
|---|---|
| Synopsis | Set the autonomous flag value |
| Context | **configure** service vprn *service-name* ipv6 router-advertisement interface *reference* prefix *ipv6-prefix* autonomous *boolean* |
| Tree | autonomous |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **on-link** *boolean*

| | |
|---|---|
| Synopsis | Use prefix for on-link determination |
| Context | **configure** service vprn *service-name* ipv6 router-advertisement interface *reference* prefix *ipv6-prefix* on-link *boolean* |
| Tree | on-link |


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| | |
|---|---|
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **preferred-lifetime** *(keyword | number)*

| | |
|---|---|
| Synopsis | Remaining time that the prefix remains preferred |
| Context | **configure** service vprn *service-name* ipv6 router-advertisement interface *reference* prefix *ipv6-prefix* preferred-lifetime *(keyword | number)* |
| Tree | preferred-lifetime |
| Range | 0 to 4294967294 |
| Units | seconds |
| Options | infinite |
| Default | 604800 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **valid-lifetime** *(keyword | number)*

| | |
|---|---|
| Synopsis | Remaining time in which the prefix is still valid |
| Context | **configure** service vprn *service-name* ipv6 router-advertisement interface *reference* prefix *ipv6-prefix* valid-lifetime *(keyword | number)* |
| Tree | valid-lifetime |
| Range | 0 to 4294967294 |
| Units | seconds |
| Options | infinite |
| Default | 2592000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **reachable-time** *number*

| | |
|---|---|
| Synopsis | Time the router is reachable by other hosts or nodes |
| Context | **configure** service vprn *service-name* ipv6 router-advertisement interface *reference* reachable-time *number* |
| Tree | reachable-time |


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| | |
|---|---|
| Range | 0 to 3600000 |
| Units | milliseconds |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **retransmit-time** *number*

| | |
|---|---|
| Synopsis | Time to advertise neighbor advertisement messages |
| Context | **configure** service vprn *service-name* ipv6 router-advertisement interface *reference* retransmit-time *number* |
| Tree | retransmit-time |
| Range | 0 to 1800000 |
| Units | milliseconds |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **router-lifetime** *number*

| | |
|---|---|
| Synopsis | Lifetime value in neighbor advertisement messages |
| Context | **configure** service vprn *service-name* ipv6 router-advertisement interface *reference* router-lifetime *number* |
| Tree | router-lifetime |
| Range | 0 \| 4 to 9000 |
| Units | seconds |
| Default | 1800 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **use-virtual-mac** *boolean*

| | |
|---|---|
| Synopsis | Use VRRP virtual MAC address for advertisement message |
| Context | **configure** service vprn *service-name* ipv6 router-advertisement interface *reference* use-virtual-mac *boolean* |
| Tree | use-virtual-mac |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **isis** [isis-instance] *number*

| | |
|---|---|
| Synopsis | Enter the **isis** list instance |
| Context | **configure** service vprn *service-name* isis *number* |
| Tree | isis |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**isis-instance**] *number*

| | |
|---|---|
| Synopsis | Instance ID for the IS-IS instance |
| Context | **configure** service vprn *service-name* isis *number* |
| Tree | isis |
| Range | 0 to 127 |
| MD-CLI default | 0 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the IS-IS instance |
| Context | **configure** service vprn *service-name* isis *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **advertise-passive-only** *boolean*

| | |
|---|---|
| Synopsis | Advertise prefixes that belong to passive interfaces |
| Context | **configure** service vprn *service-name* isis *number* advertise-passive-only *boolean* |
| Tree | advertise-passive-only |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **advertise-router-capability** *keyword*

| | |
|---|---|
| Synopsis | Router capabilities advertisement to neighbors |
| Context | **configure** service vprn *service-name* isis *number* advertise-router-capability *keyword* |
| Tree | advertise-router-capability |
| Options | area, as |
| Introduced | 16.0.R1 |
| Platforms | All |

### **all-l1isis** *mac-address*

| | |
|---|---|
| Synopsis | Destination MAC address for all L1 IS-IS routers |
| Context | **configure** service vprn *service-name* isis *number* all-l1isis *mac-address* |
| Tree | all-l1isis |
| Default | 01:80:C2:00:00:14 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **all-l2isis** *mac-address*

| | |
|---|---|
| Synopsis | Destination MAC address for all L2 IS-IS routers |
| Context | **configure** service vprn *service-name* isis *number* all-l2isis *mac-address* |
| Tree | all-l2isis |
| Default | 01:80:C2:00:00:15 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **area-address** *area-address*

| | |
|---|---|
| Synopsis | Area address portion of the NSAP address |
| Context | **configure** service vprn *service-name* isis *number* area-address *area-address* |
| Tree | area-address |
| String length | 2 to 38 |
| Max. instances | 3 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **authentication-check** *boolean*

| | |
|---|---|
| Synopsis | Perform authentication check to reject mismatch PDUs |
| Context | **configure** service vprn *service-name* isis *number* authentication-check *boolean* |
| Tree | authentication-check |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **authentication-key** *encrypted-leaf*

| | |
|---|---|
| Synopsis | Authentication key to verify PDUs sent from neighbors |
| Context | **configure** service vprn *service-name* isis *number* authentication-key *encrypted-leaf* |
| Tree | authentication-key |
| String length | 1 to 366 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **authentication-keychain** *reference*

| | |
|---|---|
| Synopsis | Keychain used to sign and authenticate |
| Context | **configure** service vprn *service-name* isis *number* authentication-keychain *reference* |
| Tree | authentication-keychain |
| Reference | **configure** system security keychains keychain *named-item* |


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| | |
|---|---|
| Introduced | 16.0.R3 |
| Platforms | All |

### **authentication-type** *keyword*

| | |
|---|---|
| Synopsis | Authentication type |
| Context | **configure** service vprn *service-name* isis *number* authentication-type *keyword* |
| Tree | authentication-type |
| Options | password, message-digest |
| Introduced | 16.0.R1 |
| Platforms | All |

### **csnp-authentication** *boolean*

| | |
|---|---|
| Synopsis | Authenticate individual IS-IS packets of the CSNP type |
| Context | **configure** service vprn *service-name* isis *number* csnp-authentication *boolean* |
| Tree | csnp-authentication |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **csnp-on-p2p** *boolean*

| | |
|---|---|
| Synopsis | Send periodic CSNP PDUs on point-to-point interfaces |
| Context | **configure** service vprn *service-name* isis *number* csnp-on-p2p *boolean* |
| Tree | csnp-on-p2p |
| Default | true |
| Introduced | 24.7.R1 |
| Platforms | All |

### **default-route-tag** *number*

| | |
|---|---|
| Synopsis | Route tag for the default route |
| Context | **configure** service vprn *service-name* isis *number* default-route-tag *number* |
| Tree | default-route-tag |


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| | |
|---|---|
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

### export-limit

| | |
|---|---|
| Synopsis | Enable the **export-limit** context |
| Context | **configure** service vprn *service-name* isis *number* export-limit |
| Tree | export-limit |
| Introduced | 16.0.R1 |
| Platforms | All |

### log-percent *number*

| | |
|---|---|
| Synopsis | Export limit before warning and SNMP notification sent |
| Context | **configure** service vprn *service-name* isis *number* export-limit log-percent *number* |
| Tree | log-percent |
| Range | 1 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### number *number*

| | |
|---|---|
| Synopsis | Maximum routes or prefixes exported from route table |
| Context | **configure** service vprn *service-name* isis *number* export-limit number *number* |
| Tree | number |
| Range | 1 to 4294967295 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### export-policy *reference*

| | |
|---|---|
| Synopsis | Export policies that determine exported routes |
| Context | **configure** service vprn *service-name* isis *number* export-policy *reference* |


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| | |
|---|---|
| Tree | export-policy |
| Description | This command configures export routing policies for the routes exported from the routing table to IS-IS.<br>If the export policy is undefined, the system does not export non IS-IS routes from the routing table manager to IS-IS.<br>If multiple policy names are specified, the policies are evaluated in the order they are specified. The first policy that matches is applied.<br>If the **aggregate** command is also configured in the **configure router** context, the aggregation is applied before the export policy is applied.<br>Routing policies are created in the **configure router policy-options** context. |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

## graceful-restart

| | |
|---|---|
| Synopsis | Enable the **graceful-restart** context |
| Context | **configure** service vprn *service-name* isis *number* graceful-restart |
| Tree | graceful-restart |
| Introduced | 16.0.R1 |
| Platforms | All |

## helper-mode *boolean*

| | |
|---|---|
| Synopsis | Enable the Graceful Restart helper for IS-IS |
| Context | **configure** service vprn *service-name* isis *number* graceful-restart helper-mode *boolean* |
| Tree | helper-mode |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **hello-authentication** *boolean*

| | |
|---|---|
| Synopsis | Authenticate Hello type IS-IS protocol packets |
| Context | **configure** service vprn *service-name* isis *number* hello-authentication *boolean* |
| Tree | hello-authentication |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hello-padding** *keyword*

| | |
|---|---|
| Synopsis | IS-IS Hello message padding |
| Context | **configure** service vprn *service-name* isis *number* hello-padding *keyword* |
| Tree | hello-padding |
| Options | adaptive, loose, strict, none |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ignore-attached-bit** *boolean*

| | |
|---|---|
| Synopsis | Ignore attached bit on received Layer 1 LSPs |
| Context | **configure** service vprn *service-name* isis *number* ignore-attached-bit *boolean* |
| Tree | ignore-attached-bit |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ignore-lsp-errors** *boolean*

| | |
|---|---|
| Synopsis | Ignore LSP packets with errors |
| Context | **configure** service vprn *service-name* isis *number* ignore-lsp-errors *boolean* |
| Tree | ignore-lsp-errors |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **ignore-narrow-metric** *boolean*

| | |
|---|---|
| Synopsis | Ignore links with narrow metrics |
| Context | **configure** service vprn *service-name* isis *number* ignore-narrow-metric *boolean* |
| Tree | ignore-narrow-metric |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **iid-tlv** *boolean*

| | |
|---|---|
| Synopsis | Use IID TLVs with IS-IS multi-instance |
| Context | **configure** service vprn *service-name* isis *number* iid-tlv *boolean* |
| Tree | iid-tlv |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **import-policy** *reference*

| | |
|---|---|
| Synopsis | Import policy names for routes from IGP to route table |
| Context | **configure** service vprn *service-name* isis *number* import-policy *reference* |
| Tree | import-policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **interface** [interface-name] *interface-name*

| | |
|---|---|
| Synopsis | Enter the **interface** list instance |
| Context | **configure** service vprn *service-name* isis *number* interface *interface-name* |
| Tree | interface |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### [**interface-name**] *interface-name*

| | |
|---|---|
| Synopsis | IP interface name |
| Context | **configure** service vprn *service-name* isis *number* interface *interface-name* |
| Tree | interface |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the IS-IS interface |
| Context | **configure** service vprn *service-name* isis *number* interface *interface-name* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bfd-liveness**

| | |
|---|---|
| Synopsis | Enter the **bfd-liveness** context |
| Context | **configure** service vprn *service-name* isis *number* interface *interface-name* bfd-liveness |
| Tree | bfd-liveness |
| Description | Commands in this context enable the use of bidirectional forwarding (BFD) to control IPv4 and IPv6 adjacencies. Enabling BFD on an IPv4 or IPv6 protocol interface ties the protocol interface state to the BFD session state between the local and remote nodes. BFD must be enabled on the applicable IP interface. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### ipv4

| | |
|---|---|
| Synopsis | Enable the **ipv4** context |
| Context | **configure** service vprn *service-name* isis *number* interface *interface-name* bfd-liveness ipv4 |
| Tree | ipv4 |
| Introduced | 16.0.R1 |
| Platforms | All |

### include-bfd-tlv *boolean*

| | |
|---|---|
| Synopsis | Enable IS-IS BFD TLVs on the interface |
| Context | **configure** service vprn *service-name* isis *number* interface *interface-name* bfd-liveness ipv4 include-bfd-tlv *boolean* |
| Tree | include-bfd-tlv |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### ipv6

| | |
|---|---|
| Synopsis | Enable the **ipv6** context |
| Context | **configure** service vprn *service-name* isis *number* interface *interface-name* bfd-liveness ipv6 |
| Tree | ipv6 |
| Introduced | 16.0.R1 |
| Platforms | All |

### include-bfd-tlv *boolean*

| | |
|---|---|
| Synopsis | Enable IS-IS BFD TLVs on the interface |
| Context | **configure** service vprn *service-name* isis *number* interface *interface-name* bfd-liveness ipv6 include-bfd-tlv *boolean* |
| Tree | include-bfd-tlv |
| Default | false |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **csnp-interval** *number*

| | |
|---|---|
| Synopsis | Time interval between successive CSN PDUs sent |
| Context | **configure** service vprn *service-name* isis *number* interface *interface-name* csnp-interval *number* |
| Tree | csnp-interval |
| Range | 1 to 65535 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **default-instance** *boolean*

| | |
|---|---|
| Synopsis | Allow non-MI capable router to establish an adjacency |
| Context | **configure** service vprn *service-name* isis *number* interface *interface-name* default-instance *boolean* |
| Tree | default-instance |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hello-authentication** *boolean*

| | |
|---|---|
| Synopsis | Authenticate Hello type IS-IS protocol packets |
| Context | **configure** service vprn *service-name* isis *number* interface *interface-name* hello-authentication *boolean* |
| Tree | hello-authentication |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **hello-authentication-key** *encrypted-leaf*

| | |
|---|---|
| Synopsis | Authentication key or hash string for Hello PDUs |
| Context | **configure** service vprn *service-name* isis *number* interface *interface-name* hello-authentication-key *encrypted-leaf* |
| Tree | hello-authentication-key |
| String length | 1 to 366 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hello-authentication-keychain** *reference*

| | |
|---|---|
| Synopsis | Authentication keychain to use for the session |
| Context | **configure** service vprn *service-name* isis *number* interface *interface-name* hello-authentication-keychain *reference* |
| Tree | hello-authentication-keychain |
| Reference | **configure** system security keychains keychain *named-item* |
| Introduced | 16.0.R3 |
| Platforms | All |

### **hello-authentication-type** *keyword*

| | |
|---|---|
| Synopsis | Hello authentication type |
| Context | **configure** service vprn *service-name* isis *number* interface *interface-name* hello-authentication-type *keyword* |
| Tree | hello-authentication-type |
| Options | password, message-digest |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hello-padding** *keyword*

| | |
|---|---|
| Synopsis | Padding on IS-IS Hello packets |
| Context | **configure** service vprn *service-name* isis *number* interface *interface-name* hello-padding *keyword* |
| Tree | hello-padding |


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| | |
|---|---|
| Options | adaptive, loose, strict, none |
| Introduced | 16.0.R1 |
| Platforms | All |

### **interface-type** *keyword*

| | |
|---|---|
| Synopsis | Interface type to broadcast, point-to-point, or to be default |
| Context | **configure** service vprn *service-name* isis *number* interface *interface-name* interface-type *keyword* |
| Tree | interface-type |
| Options | point-to-point, broadcast |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv4-multicast** *boolean*

| | |
|---|---|
| Synopsis | Enable IPv4 multicast routing for the interface |
| Context | **configure** service vprn *service-name* isis *number* interface *interface-name* ipv4-multicast *boolean* |
| Tree | ipv4-multicast |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv6-unicast** *boolean*

| | |
|---|---|
| Synopsis | Enable IPv6 unicast routing for the interface |
| Context | **configure** service vprn *service-name* isis *number* interface *interface-name* ipv6-unicast *boolean* |
| Tree | ipv6-unicast |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **level** [level-number] *keyword*

| | |
|---|---|
| Synopsis | Enter the **level** list instance |
| Context | **configure** service vprn *service-name* isis *number* interface *interface-name* level *keyword* |
| Tree | level |
| Max. instances | 2 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**level-number**] *keyword*

| | |
|---|---|
| Synopsis | ISIS protocol level number |
| Context | **configure** service vprn *service-name* isis *number* interface *interface-name* level *keyword* |
| Tree | level |
| Options | 1, 2 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hello-authentication-key** *encrypted-leaf*

| | |
|---|---|
| Synopsis | Authentication key for Hello PDUs |
| Context | **configure** service vprn *service-name* isis *number* interface *interface-name* level *keyword* hello-authentication-key *encrypted-leaf* |
| Tree | hello-authentication-key |
| Description | This command configures the authentication key (password) for Hello PDUs. Both the Hello authentication key and the Hello authentication type on a segment must match.<br>If both IS-IS and Hello authentication are configured, Hello messages are validated using Hello authentication. If only IS-IS authentication is configured, it is used to authenticate all IS-IS (including Hello) protocol PDUs. |
| String length | 1 to 366 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **hello-authentication-keychain** *reference*

| | |
|---|---|
| Synopsis | Authentication keychain to use for the session |
| Context | **configure** service vprn *service-name* isis *number* interface *interface-name* level *keyword* hello-authentication-keychain *reference* |
| Tree | hello-authentication-keychain |
| Reference | **configure** system security keychains keychain *named-item* |
| Introduced | 16.0.R3 |
| Platforms | All |

### **hello-authentication-type** *keyword*

| | |
|---|---|
| Synopsis | Hello authentication enabled on the context |
| Context | **configure** service vprn *service-name* isis *number* interface *interface-name* level *keyword* hello-authentication-type *keyword* |
| Tree | hello-authentication-type |
| Description | This command enables Hello authentication at the level context. Both the Hello authentication key and the Hello authentication type on a segment must match. The Hello **authentication-key** statement must also be included. |
| Options | password, message-digest |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hello-interval** *number*

| | |
|---|---|
| Synopsis | Interval between Hello messages sent on this level |
| Context | **configure** service vprn *service-name* isis *number* interface *interface-name* level *keyword* hello-interval *number* |
| Tree | hello-interval |
| Range | 1 to 20000 |
| Units | seconds |
| Default | 9 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **hello-multiplier** *number*

| | |
|---|---|
| Synopsis | Hello messages missed from neighbor before router declares adjacency down |
| Context | **configure** service vprn *service-name* isis *number* interface *interface-name* level *keyword* hello-multiplier *number* |
| Tree | hello-multiplier |
| Range | 2 to 100 |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hello-padding** *keyword*

| | |
|---|---|
| Synopsis | Padding on IS-IS Hello packets |
| Context | **configure** service vprn *service-name* isis *number* interface *interface-name* level *keyword* hello-padding *keyword* |
| Tree | hello-padding |
| Options | adaptive, loose, strict, none |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv4-multicast-metric** *number*

| | |
|---|---|
| Synopsis | IS-IS interface metric applied for IPv4 multicast |
| Context | **configure** service vprn *service-name* isis *number* interface *interface-name* level *keyword* ipv4-multicast-metric *number* |
| Tree | ipv4-multicast-metric |
| Range | 1 to 16777215 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv6-unicast-metric** *number*

| | |
|---|---|
| Synopsis | IS-IS interface metric applied for IPv6 unicast |
| Context | **configure** service vprn *service-name* isis *number* interface *interface-name* level *keyword* ipv6-unicast-metric *number* |


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| | |
|---|---|
| Tree | ipv6-unicast-metric |
| Range | 1 to 16777215 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **metric** *number*

| | |
|---|---|
| Synopsis | IS-IS interface metric applied for IPv4 unicast |
| Context | **configure** service vprn *service-name* isis *number* interface *interface-name* level *keyword* metric *number* |
| Tree | metric |
| Range | 1 to 16777215 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **passive** *boolean*

| | |
|---|---|
| Synopsis | Passive interface |
| Context | **configure** service vprn *service-name* isis *number* interface *interface-name* level *keyword* passive *boolean* |
| Tree | passive |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **priority** *number*

| | |
|---|---|
| Synopsis | Router to become the designated router on a multi-access network |
| Context | **configure** service vprn *service-name* isis *number* interface *interface-name* level *keyword* priority *number* |
| Tree | priority |
| Range | 0 to 127 |
| Default | 64 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **sd-offset** *number*

| | |
|---|---|
| Synopsis | Value of the signal degrade offset |
| Context | **configure** service vprn *service-name* isis *number* interface *interface-name* level *keyword* sd-offset *number* |
| Tree | sd-offset |
| Range | 1 to 16777215 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sf-offset** *number*

| | |
|---|---|
| Synopsis | Value of the signal fail offset |
| Context | **configure** service vprn *service-name* isis *number* interface *interface-name* level *keyword* sf-offset *number* |
| Tree | sf-offset |
| Range | 1 to 16777215 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **level-capability** *keyword*

| | |
|---|---|
| Synopsis | IS-IS levels for this interface |
| Context | **configure** service vprn *service-name* isis *number* interface *interface-name* level-capability *keyword* |
| Tree | level-capability |
| Options | 1, 2, 1/2 |
| Default | 1/2 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **load-balancing-weight** *number*

| | |
|---|---|
| Synopsis | Load balancing weight |
| Context | **configure** service vprn *service-name* isis *number* interface *interface-name* load-balancing-weight *number* |


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| | |
|---|---|
| Tree | load-balancing-weight |
| Max. range | 0 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

## loopfree-alternate

| | |
|---|---|
| Synopsis | Enter the **loopfree-alternate** context |
| Context | **configure** service vprn *service-name* isis *number* interface *interface-name* loopfree-alternate |
| Tree | loopfree-alternate |
| Introduced | 16.0.R3 |
| Platforms | All |

## exclude *boolean*

| | |
|---|---|
| Synopsis | Exclude Loopfree Alternative at the interface level |
| Context | **configure** service vprn *service-name* isis *number* interface *interface-name* loopfree-alternate exclude *boolean* |
| Tree | exclude |
| Default | false |
| Introduced | 16.0.R3 |
| Platforms | All |

## policy-map

| | |
|---|---|
| Synopsis | Enable the **policy-map** context |
| Context | **configure** service vprn *service-name* isis *number* interface *interface-name* loopfree-alternate policy-map |
| Tree | policy-map |
| Introduced | 16.0.R3 |
| Platforms | All |

## route-nh-template *reference*

| | |
|---|---|
| Synopsis | Route next hop policy template name |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* isis *number* interface *interface-name* loopfree-alternate policy-map route-nh-template *reference* |
| Tree | route-nh-template |
| Reference | **configure** routing-options route-next-hop-policy template *named-item* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R3 |
| Platforms | All |

## lsp-pacing-interval *number*

| | |
|---|---|
| Synopsis | Interval for sending LSPs from interface |
| Context | **configure** service vprn *service-name* isis *number* interface *interface-name* lsp-pacing-interval *number* |
| Tree | lsp-pacing-interval |
| Range | 0 to 65535 |
| Units | milliseconds |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

## mesh-group

| | |
|---|---|
| Synopsis | Enable the **mesh-group** context |
| Context | **configure** service vprn *service-name* isis *number* interface *interface-name* mesh-group |
| Tree | mesh-group |
| Introduced | 16.0.R1 |
| Platforms | All |

## blocked

| | |
|---|---|
| Synopsis | Prevent the interface from flooding LSPs |
| Context | **configure** service vprn *service-name* isis *number* interface *interface-name* mesh-group blocked |
| Tree | blocked |
| Notes | The following elements are part of a choice: **blocked** or **value**. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **value** *number*

| | |
|---|---|
| Synopsis | Mesh group for the interface |
| Context | **configure** service vprn *service-name* isis *number* interface *interface-name* mesh-group value *number* |
| Tree | value |
| Range | 1 to 2000000000 |
| Notes | The following elements are part of a choice: **blocked** or **value**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **passive** *boolean*

| | |
|---|---|
| Synopsis | Passive interface |
| Context | **configure** service vprn *service-name* isis *number* interface *interface-name* passive *boolean* |
| Tree | passive |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **retransmit-interval** *number*

| | |
|---|---|
| Synopsis | Minimum time between LSP PDU retransmissions on point-to-point interface |
| Context | **configure** service vprn *service-name* isis *number* interface *interface-name* retransmit-interval *number* |
| Tree | retransmit-interval |
| Range | 1 to 65535 |
| Units | seconds |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **tag** *number*

| | |
|---|---|
| Synopsis | Route tag for IP address of interface |
| Context | **configure** service vprn *service-name* isis *number* interface *interface-name* tag *number* |
| Tree | tag |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv4-multicast-routing** *keyword*

| | |
|---|---|
| Synopsis | IS-IS topology for IPv4 multicast routing |
| Context | **configure** service vprn *service-name* isis *number* ipv4-multicast-routing *keyword* |
| Tree | ipv4-multicast-routing |
| Options | false, native, mt |
| Default | native |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv4-routing** *boolean*

| | |
|---|---|
| Synopsis | Support IPv4 routing for IS-IS instance |
| Context | **configure** service vprn *service-name* isis *number* ipv4-routing *boolean* |
| Tree | ipv4-routing |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv6-routing** *keyword*

| | |
|---|---|
| Synopsis | Routing topology for IPv6 |
| Context | **configure** service vprn *service-name* isis *number* ipv6-routing *keyword* |
| Tree | ipv6-routing |
| Options | false, native, mt |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **level** [level-number] *keyword*

| | |
|---|---|
| Synopsis | Enter the **level** list instance |
| Context | **configure** service vprn *service-name* isis *number* level *keyword* |
| Tree | level |
| Max. instances | 2 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**level-number**] *keyword*

| | |
|---|---|
| Synopsis | ISIS protocol level number |
| Context | **configure** service vprn *service-name* isis *number* level *keyword* |
| Tree | level |
| Options | 1, 2 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **advertise-router-capability** *boolean*

| | |
|---|---|
| Synopsis | Allow router advertisement capabilities |
| Context | **configure** service vprn *service-name* isis *number* level *keyword* advertise-router-capability *boolean* |
| Tree | advertise-router-capability |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **authentication-key** *encrypted-leaf*

| | |
|---|---|
| Synopsis | Authentication key to verify PDUs sent on the interface |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* isis *number* level *keyword* authentication-key *encrypted-leaf* |
| Tree | authentication-key |
| Description | This command sets the authentication key used to verify PDUs sent by neighboring routers on the interface.<br>Neighboring routers use passwords to authenticate PDUs sent from an interface. For authentication to work, both the authentication key and the authentication type on a segment must match. The **authentication-type** command must also be included. |
| String length | 1 to 366 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **authentication-keychain** *reference*

| | |
|---|---|
| Synopsis | Keychain used to sign and authenticate |
| Context | **configure** service vprn *service-name* isis *number* level *keyword* authentication-keychain *reference* |
| Tree | authentication-keychain |
| Reference | **configure** system security keychains keychain *named-item* |
| Introduced | 16.0.R3 |
| Platforms | All |

## **authentication-type** *keyword*

| | |
|---|---|
| Synopsis | Authentication type to be used |
| Context | **configure** service vprn *service-name* isis *number* level *keyword* authentication-type *keyword* |
| Tree | authentication-type |
| Options | password, message-digest |
| Introduced | 16.0.R1 |
| Platforms | All |

## **csnp-authentication** *boolean*

| | |
|---|---|
| Synopsis | Enable authentication of CSNP IS-IS protocol packets |
| Context | **configure** service vprn *service-name* isis *number* level *keyword* csnp-authentication *boolean* |


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| | |
|---|---|
| Tree | csnp-authentication |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **default-ipv4-multicast-metric** *number*

| | |
|---|---|
| Synopsis | Default metric for IPv4 unicast |
| Context | **configure** service vprn *service-name* isis *number* level *keyword* default-ipv4-multicast-metric *number* |
| Tree | default-ipv4-multicast-metric |
| Range | 1 to 16777215 |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **default-ipv6-unicast-metric** *number*

| | |
|---|---|
| Synopsis | Default metric for IPv6 unicast |
| Context | **configure** service vprn *service-name* isis *number* level *keyword* default-ipv6-unicast-metric *number* |
| Tree | default-ipv6-unicast-metric |
| Range | 1 to 16777215 |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **default-metric** *number*

| | |
|---|---|
| Synopsis | Default metric |
| Context | **configure** service vprn *service-name* isis *number* level *keyword* default-metric *number* |
| Tree | default-metric |
| Range | 1 to 16777215 |
| Default | 10 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **external-preference** *number*

| | |
|---|---|
| Synopsis | External route preference for IS-IS level |
| Context | **configure** service vprn *service-name* isis *number* level *keyword* external-preference *number* |
| Tree | external-preference |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hello-authentication** *boolean*

| | |
|---|---|
| Synopsis | Authenticate Hello type IS-IS protocol packets |
| Context | **configure** service vprn *service-name* isis *number* level *keyword* hello-authentication *boolean* |
| Tree | hello-authentication |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hello-padding** *keyword*

| | |
|---|---|
| Synopsis | Padding on IS-IS Hello packets |
| Context | **configure** service vprn *service-name* isis *number* level *keyword* hello-padding *keyword* |
| Tree | hello-padding |
| Options | adaptive, loose, strict, none |
| Introduced | 16.0.R1 |
| Platforms | All |

### **loopfree-alternate-exclude** *boolean*

| | |
|---|---|
| Synopsis | Exclude interface participating in specific IS-IS level in SPF LFA computation |
| Context | **configure** service vprn *service-name* isis *number* level *keyword* loopfree-alternate-exclude *boolean* |


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| | |
|---|---|
| Tree | loopfree-alternate-exclude |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lsp-mtu-size** *number*

| | |
|---|---|
| Synopsis | LSP MTU size |
| Context | **configure** service vprn *service-name* isis *number* level *keyword* lsp-mtu-size *number* |
| Tree | lsp-mtu-size |
| Range | 490 to 9778 |
| Units | bytes |
| Default | 1492 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **preference** *number*

| | |
|---|---|
| Synopsis | External route preference at level |
| Context | **configure** service vprn *service-name* isis *number* level *keyword* preference *number* |
| Tree | preference |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **psnp-authentication** *boolean*

| | |
|---|---|
| Synopsis | Enable authentication on PSNP IS-IS protocol packets |
| Context | **configure** service vprn *service-name* isis *number* level *keyword* psnp-authentication *boolean* |
| Tree | psnp-authentication |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **wide-metrics-only** *boolean*

| | |
|---|---|
| Synopsis | Use wide metrics advertisements in the LSPs |
| Context | **configure** service vprn *service-name* isis *number* level *keyword* wide-metrics-only *boolean* |
| Tree | wide-metrics-only |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **level-capability** *keyword*

| | |
|---|---|
| Synopsis | Routing level for instance |
| Context | **configure** service vprn *service-name* isis *number* level-capability *keyword* |
| Tree | level-capability |
| Options | 1, 2, 1/2 |
| Default | 1/2 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **link-group** [link-group-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **link-group** list instance |
| Context | **configure** service vprn *service-name* isis *number* link-group *named-item* |
| Tree | link-group |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**link-group-name**] *named-item*

| | |
|---|---|
| Synopsis | Link group name for the IS-IS protocol |
| Context | **configure** service vprn *service-name* isis *number* link-group *named-item* |
| Tree | link-group |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *very-long-description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* isis *number* link-group *named-item* description *very-long-description* |
| Tree | description |
| String length | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **level** [level-number] *keyword*

| | |
|---|---|
| Synopsis | Enter the **level** list instance |
| Context | **configure** service vprn *service-name* isis *number* link-group *named-item* level *keyword* |
| Tree | level |
| Max. instances | 2 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**level-number**] *keyword*

| | |
|---|---|
| Synopsis | ISIS protocol level number |
| Context | **configure** service vprn *service-name* isis *number* link-group *named-item* level *keyword* |
| Tree | level |
| Options | 1, 2 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv4-multicast-metric-offset** *number*

| | |
|---|---|
| Synopsis | Offset value for the IPv4 multicast address family |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* isis *number* link-group *named-item* level *keyword* ipv4-multicast-metric-offset *number* |
| Tree | ipv4-multicast-metric-offset |
| Range | 1 to 16777215 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv4-unicast-metric-offset** *number*

| | |
|---|---|
| Synopsis | Offset value for the IPv4 unicast address family |
| Context | **configure** service vprn *service-name* isis *number* link-group *named-item* level *keyword* ipv4-unicast-metric-offset *number* |
| Tree | ipv4-unicast-metric-offset |
| Range | 1 to 16777215 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv6-unicast-metric-offset** *number*

| | |
|---|---|
| Synopsis | Offset value for the IPv6 unicast address family |
| Context | **configure** service vprn *service-name* isis *number* link-group *named-item* level *keyword* ipv6-unicast-metric-offset *number* |
| Tree | ipv6-unicast-metric-offset |
| Range | 1 to 16777215 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **member** [interface-name] *reference*

| | |
|---|---|
| Synopsis | Add a list entry for **member** |
| Context | **configure** service vprn *service-name* isis *number* link-group *named-item* level *keyword* member *reference* |
| Tree | member |
| Max. instances | 8 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### [**interface-name**] *reference*

| | |
|---|---|
| Synopsis | Interface name for the associated link group |
| Context | **configure** service vprn *service-name* isis *number* link-group *named-item* level *keyword* member *reference* |
| Tree | member |
| Reference | **configure** service vprn *service-name* isis *number* interface *interface-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **oper-members** *number*

| | |
|---|---|
| Synopsis | Minimum number of operational links |
| Context | **configure** service vprn *service-name* isis *number* link-group *named-item* level *keyword* oper-members *number* |
| Tree | oper-members |
| Range | 1 to 8 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **revert-members** *number*

| | |
|---|---|
| Synopsis | Minimum number of operational links to return link group to normal state and remove offsets |
| Context | **configure** service vprn *service-name* isis *number* link-group *named-item* level *keyword* revert-members *number* |
| Tree | revert-members |
| Range | 1 to 8 |
| Introduced | 16.0.R1 |
| Platforms | All |


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## loopfree-alternate

| | |
|---|---|
| Synopsis | Enable the **loopfree-alternate** context |
| Context | **configure** service vprn *service-name* isis *number* loopfree-alternate |
| Tree | loopfree-alternate |
| Introduced | 16.0.R1 |
| Platforms | All |

## exclude

| | |
|---|---|
| Synopsis | Enter the **exclude** context |
| Context | **configure** service vprn *service-name* isis *number* loopfree-alternate exclude |
| Tree | exclude |
| Introduced | 16.0.R3 |
| Platforms | All |

## prefix-policy *reference*

| | |
|---|---|
| Synopsis | Policy to exclude prefixes from LFA SPF calculation |
| Context | **configure** service vprn *service-name* isis *number* loopfree-alternate exclude prefix-policy *reference* |
| Tree | prefix-policy |
| Description | This command specifies the name of the policy for the prefixes to exclude from the LFA SPF calculation.<br>An excluded prefix is not included in LFA calculation regardless of its priority. The prefix tag is, however, used in the main SPF. |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R3 |
| Platforms | All |


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## **lsp-lifetime** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Amount of time during which an LSP is considered valid |
| Context | **configure** service vprn *service-name* isis *number* lsp-lifetime *number* |
| Tree | lsp-lifetime |
| Range | 350 to 65535 |
| Units | seconds |
| Default | 1200 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **lsp-minimum-remaining-lifetime** *number*

| | |
|---|---|
| Synopsis | Minimum value for the Remaining Lifetime of an LSP |
| Context | **configure** service vprn *service-name* isis *number* lsp-minimum-remaining-lifetime *number* |
| Tree | lsp-minimum-remaining-lifetime |
| Range | 350 to 65535 |
| Units | seconds |
| Introduced | 19.7.R1 |
| Platforms | All |

## **lsp-mtu-size** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | LSP MTU size |
| Context | **configure** service vprn *service-name* isis *number* lsp-mtu-size *number* |
| Tree | lsp-mtu-size |
| Range | 490 to 9778 |
| Units | bytes |


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| | |
|---|---|
| Default | 1492 |
| Introduced | 16.0.R1 |
| Platforms | All |

## lsp-refresh

| | |
|---|---|
| Synopsis | Enter the **lsp-refresh** context |
| Context | **configure** service vprn *service-name* isis *number* lsp-refresh |
| Tree | lsp-refresh |
| Introduced | 16.0.R1 |
| Platforms | All |

## half-lifetime *boolean*

| | |
|---|---|
| Synopsis | Set the refresh interval to always be half the LSP lifetime |
| Context | **configure** service vprn *service-name* isis *number* lsp-refresh half-lifetime *boolean* |
| Tree | half-lifetime |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

## interval *number*

| | |
|---|---|
| Synopsis | Refresh timer interval |
| Context | **configure** service vprn *service-name* isis *number* lsp-refresh interval *number* |
| Tree | interval |
| Range | 150 to 65535 |
| Units | seconds |
| Default | 600 |
| Introduced | 16.0.R1 |
| Platforms | All |

## mru-mismatch-detection *boolean*

| | |
|---|---|
| Synopsis | Enable detection of MRU mismatch |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* isis *number* mru-mismatch-detection *boolean* |
| Tree | mru-mismatch-detection |
| Description | When configured to **true**, this command verifies that the received IS-IS Hello (IIH) packet size does not exceed the configured maximum port MTU size. The received IIH packet is dropped when its size exceeds the maximum port MTU size.<br>When configured to **false**, the IS-IS router instance will not drop oversized IIH packets.<br>By default, FP-based hardware can receive oversized packets but it will not originate them. |
| Default | false |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## multi-topology

| | |
|---|---|
| Synopsis | Enable the **multi-topology** context |
| Context | **configure** service vprn *service-name* isis *number* multi-topology |
| Tree | multi-topology |
| Introduced | 16.0.R1 |
| Platforms | All |

## ipv4-multicast *boolean*

| | |
|---|---|
| Synopsis | Support IPv4 topology (MT3) |
| Context | **configure** service vprn *service-name* isis *number* multi-topology ipv4-multicast *boolean* |
| Tree | ipv4-multicast |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## ipv6-unicast *boolean*

| | |
|---|---|
| Synopsis | Support multi-topology TLVs |
| Context | **configure** service vprn *service-name* isis *number* multi-topology ipv6-unicast *boolean* |
| Tree | ipv6-unicast |
| Default | false |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## multicast-import

| | |
|---|---|
| Synopsis | Enter the **multicast-import** context |
| Context | **configure** service vprn *service-name* isis *number* multicast-import |
| Tree | multicast-import |
| Introduced | 16.0.R1 |
| Platforms | All |

## ipv4 *boolean*

| | |
|---|---|
| Synopsis | Submit IPv4 routes into the multicast RPF of the RTM |
| Context | **configure** service vprn *service-name* isis *number* multicast-import ipv4 *boolean* |
| Tree | ipv4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## overload

| | |
|---|---|
| Synopsis | Enable the **overload** context |
| Context | **configure** service vprn *service-name* isis *number* overload |
| Tree | overload |
| Introduced | 16.0.R1 |
| Platforms | All |

## max-metric *boolean*

| | |
|---|---|
| Synopsis | Advertise transit links with maximum metric instead of setting overload bit |
| Context | **configure** service vprn *service-name* isis *number* overload max-metric *boolean* |
| Tree | max-metric |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **overload-export-external** *boolean*

| | |
|---|---|
| Synopsis | Advertise the external routes when router is in overloaded |
| Context | **configure** service vprn *service-name* isis *number* overload-export-external *boolean* |
| Tree | overload-export-external |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **overload-export-interlevel** *boolean*

| | |
|---|---|
| Synopsis | Advertise the inter-level routes when router is overloaded |
| Context | **configure** service vprn *service-name* isis *number* overload-export-interlevel *boolean* |
| Tree | overload-export-interlevel |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **overload-fib-error-notify-only**

| | |
|---|---|
| Synopsis | Enable the **overload-fib-error-notify-only** context |
| Context | **configure** service vprn *service-name* isis *number* overload-fib-error-notify-only |
| Tree | overload-fib-error-notify-only |
| Description | Commands in this context configure the IS-IS router to send a notification when an overload condition occurs while programming the FIB, instead of advertising the overload condition of the router in the IS-IS LSP.<br><br>**Note**: Nokia recommends being careful using this command. When you configure the router not to advertise the IS-IS overload state in the IS-IS LSP, other routers are not instructed to take the overloaded router out of the IS-IS forwarding topology and this will cause suboptimal forwarding and non-deterministic behavior on the overloaded router. To avoid changing the default IS-IS overflow behavior, leave this command disabled.<br><br>When this command is configured, the IS-IS router enters a suboptimal state where it sends only a notification trap; transit traffic can still use the router in this state.<br><br>The IS-IS router tracks the segment routing prefix SIDs where FIB programming failed. With the **retry** command configured, the router retries programming the segment routing prefix SIDs in the FIB using this tracked information. |


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When this command is not configured, during normal operation, the system may force the router to enter an overload state because of a lack of FIB resources. In this state, the router is used to terminate traffic and is not used to transit traffic.

Introduced 23.7.R1

Platforms All

## **retry** *number*

Synopsis Time to retry programming failed entries in the FIB

Context **configure** service vprn *service-name* isis *number* overload-fib-error-notify-only retry *number*

Tree retry

Description This command configures the time the router uses to retry programming the failed entries in the FIB.

The **overload-fib-error-notify-only** command must be configured to use the retry timer. The removal of the **overload-fib-error-notify-only** configuration causes the system to program the failed entries in the FIB by triggering an immediate SPF.

Range 10 to 1800

Units seconds

Default 10

Introduced 23.7.R1

Platforms All

## **overload-on-boot**

Synopsis Enable the **overload-on-boot** context

Context **configure** service vprn *service-name* isis *number* overload-on-boot

Tree overload-on-boot

Introduced 16.0.R1

Platforms All

## **max-metric** *boolean*

Synopsis Advertise transit links with maximum metric instead of setting overload bit

Context **configure** service vprn *service-name* isis *number* overload-on-boot max-metric *boolean*

Tree max-metric

Default false


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **timeout** *number*

| | |
|---|---|
| Synopsis | Time during which the router operates in overload state after reboot |
| Context | **configure** service vprn *service-name* isis *number* overload-on-boot timeout *number* |
| Tree | timeout |
| Range | 60 to 1800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **poi-tlv** *boolean*

| | |
|---|---|
| Synopsis | Purge Originator Identification TLV |
| Context | **configure** service vprn *service-name* isis *number* poi-tlv *boolean* |
| Tree | poi-tlv |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **prefix-attributes-tlv** *boolean*

| | |
|---|---|
| Synopsis | Use IS-IS Prefix Attributes TLV to exchange extended IPv4 and IPv6 reachability information |
| Context | **configure** service vprn *service-name* isis *number* prefix-attributes-tlv *boolean* |
| Tree | prefix-attributes-tlv |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **prefix-limit**

| | |
|---|---|
| Synopsis | Enable the **prefix-limit** context |
| Context | **configure** service vprn *service-name* isis *number* prefix-limit |


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| | |
|---|---|
| Tree | prefix-limit |
| Introduced | 16.0.R1 |
| Platforms | All |

### **limit** *number*

| | |
|---|---|
| Synopsis | Maximum number of prefixes for IS-IS instance |
| Context | **configure** service vprn *service-name* isis *number* prefix-limit limit *number* |
| Tree | limit |
| Range | 1 to 4294967295 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **log-only** *boolean*

| | |
|---|---|
| Synopsis | Send warning message when the prefix limit is reached |
| Context | **configure** service vprn *service-name* isis *number* prefix-limit log-only *boolean* |
| Tree | log-only |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **overload-timeout** *(number | keyword)*

| | |
|---|---|
| Synopsis | Time in overload state when prefix limit is reached |
| Context | **configure** service vprn *service-name* isis *number* prefix-limit overload-timeout *(number | keyword)* |
| Tree | overload-timeout |
| Range | 1 to 1800 |
| Units | seconds |
| Options | forever |
| Default | forever |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **warning-threshold** *number*

| | |
|---|---|
| Synopsis | Threshold value to trigger a warning message to be sent |
| Context | **configure** service vprn *service-name* isis *number* prefix-limit warning-threshold *number* |
| Tree | warning-threshold |
| Range | 0 to 100 |
| Units | percent |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **psnp-authentication** *boolean*

| | |
|---|---|
| Synopsis | Authenticate individual IS-IS protocol packets of partial sequence number PDU (PSNP) type |
| Context | **configure** service vprn *service-name* isis *number* psnp-authentication *boolean* |
| Tree | psnp-authentication |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **reference-bandwidth** *number*

| | |
|---|---|
| Synopsis | Reference bandwidth for bandwidth relative costing |
| Context | **configure** service vprn *service-name* isis *number* reference-bandwidth *number* |
| Tree | reference-bandwidth |
| Range | 1 to 18446744073709551615 |
| Units | kilobps |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rib-priority**

| | |
|---|---|
| Synopsis | Enter the **rib-priority** context |
| Context | **configure** service vprn *service-name* isis *number* rib-priority |


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| | |
|---|---|
| Tree | rib-priority |
| Introduced | 16.0.R1 |
| Platforms | All |

## high

| | |
|---|---|
| Synopsis | Enter the **high** context |
| Context | **configure** service vprn *service-name* isis *number* rib-priority high |
| Tree | high |
| Introduced | 16.0.R1 |
| Platforms | All |

## prefix-list *reference*

| | |
|---|---|
| Synopsis | List used to select routes processed at higher priority through OSPF route calculation process |
| Context | **configure** service vprn *service-name* isis *number* rib-priority high prefix-list *reference* |
| Tree | prefix-list |
| Reference | **configure** policy-options prefix-list *named-item-64* |
| Notes | The following elements are part of a choice: **prefix-list** or **tag**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## tag *number*

| | |
|---|---|
| Synopsis | Tag value that is used to match IS-IS routes |
| Context | **configure** service vprn *service-name* isis *number* rib-priority high tag *number* |
| Tree | tag |
| Range | 1 to 4294967295 |
| Notes | The following elements are part of a choice: **prefix-list** or **tag**. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **router-id** *router-id*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Unique router ID for the ISIS instance |
| Context | **configure** service vprn *service-name* isis *number* router-id *router-id* |
| Tree | router-id |
| Introduced | 16.0.R1 |
| Platforms | All |

### **standard-multi-instance** *boolean*

| | |
|---|---|
| Synopsis | Enable RFC standards compliant multi-instance behavior |
| Context | **configure** service vprn *service-name* isis *number* standard-multi-instance *boolean* |
| Tree | standard-multi-instance |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **strict-adjacency-check** *boolean*

| | |
|---|---|
| Synopsis | Enable strict checking of address families for IS-IS adjacencies |
| Context | **configure** service vprn *service-name* isis *number* strict-adjacency-check *boolean* |
| Tree | strict-adjacency-check |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **summary-address** [ip-prefix] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Enter the **summary-address** list instance |
| Context | **configure** service vprn *service-name* isis *number* summary-address *(ipv4-prefix \| ipv6-prefix)* |
| Tree | summary-address |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ip-prefix**] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | IP prefix for the summary address |
| Context | **configure** service vprn *service-name* isis *number* summary-address *(ipv4-prefix \| ipv6-prefix)* |
| Tree | summary-address |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **level-capability** *keyword*

| | |
|---|---|
| Synopsis | IS-IS level for the summary address |
| Context | **configure** service vprn *service-name* isis *number* summary-address *(ipv4-prefix \| ipv6-prefix)* level-capability *keyword* |
| Tree | level-capability |
| Options | 1, 2, 1/2 |
| Default | 1/2 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **route-tag** *number*

| | |
|---|---|
| Synopsis | Route tag assigned to the summary address |
| Context | **configure** service vprn *service-name* isis *number* summary-address *(ipv4-prefix \| ipv6-prefix)* route-tag *number* |
| Tree | route-tag |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **suppress-attached-bit** *boolean*

| | |
|---|---|
| Synopsis | Allow IS-IS to suppress setting attached bit on LSPs |
| Context | **configure** service vprn *service-name* isis *number* suppress-attached-bit *boolean* |
| Tree | suppress-attached-bit |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **system-id** *system-id*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | System ID |
| Context | **configure** service vprn *service-name* isis *number* system-id *system-id* |
| Tree | system-id |
| String length | 14 |
| Default | 0000.0000.0000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **timers**

| | |
|---|---|
| Synopsis | Enter the **timers** context |
| Context | **configure** service vprn *service-name* isis *number* timers |
| Tree | timers |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lsp-wait**

| | |
|---|---|
| Synopsis | Enter the **lsp-wait** context |
| Context | **configure** service vprn *service-name* isis *number* timers lsp-wait |
| Tree | lsp-wait |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **lsp-initial-wait** *number*

| | |
|---|---|
| Synopsis | Initial LSP generation delay |
| Context | **configure** service vprn *service-name* isis *number* timers lsp-wait lsp-initial-wait *number* |
| Tree | lsp-initial-wait |
| Range | 10 to 100000 |
| Units | milliseconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lsp-max-wait** *number*

| | |
|---|---|
| Synopsis | Maximum time between two consecutive LSP occurrences |
| Context | **configure** service vprn *service-name* isis *number* timers lsp-wait lsp-max-wait *number* |
| Tree | lsp-max-wait |
| Range | 10 to 120000 |
| Units | milliseconds |
| Default | 5000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lsp-second-wait** *number*

| | |
|---|---|
| Synopsis | Delay between first and second LSP generation |
| Context | **configure** service vprn *service-name* isis *number* timers lsp-wait lsp-second-wait *number* |
| Tree | lsp-second-wait |
| Range | 10 to 100000 |
| Units | milliseconds |
| Default | 1000 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## spf-wait

| | |
|---|---|
| Synopsis | Enter the **spf-wait** context |
| Context | **configure** service vprn *service-name* isis *number* timers spf-wait |
| Tree | spf-wait |
| Introduced | 16.0.R1 |
| Platforms | All |

## spf-initial-wait *number*

| | |
|---|---|
| Synopsis | Initial SPF calculation delay after topology change |
| Context | **configure** service vprn *service-name* isis *number* timers spf-wait spf-initial-wait *number* |
| Tree | spf-initial-wait |
| Range | 10 to 100000 |
| Units | milliseconds |
| Default | 1000 |
| Introduced | 16.0.R1 |
| Platforms | All |

## spf-max-wait *number*

| | |
|---|---|
| Synopsis | Maximum interval amid two consecutive SPF calculations |
| Context | **configure** service vprn *service-name* isis *number* timers spf-wait spf-max-wait *number* |
| Tree | spf-max-wait |
| Range | 10 to 120000 |
| Units | milliseconds |
| Default | 10000 |
| Introduced | 16.0.R1 |
| Platforms | All |

## spf-second-wait *number*

| | |
|---|---|
| Synopsis | Hold time between first and second SPF calculations |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* isis *number* timers spf-wait spf-second-wait *number* |
| Tree | spf-second-wait |
| Range | 10 to 100000 |
| Units | milliseconds |
| Default | 1000 |
| Introduced | 16.0.R1 |
| Platforms | All |

## unicast-import

| | |
|---|---|
| Synopsis | Enter the **unicast-import** context |
| Context | **configure** service vprn *service-name* isis *number* unicast-import |
| Tree | unicast-import |
| Introduced | 16.0.R1 |
| Platforms | All |

## ipv4 *boolean*

| | |
|---|---|
| Synopsis | Submit IPv4 routes into unicast RTM |
| Context | **configure** service vprn *service-name* isis *number* unicast-import ipv4 *boolean* |
| Tree | ipv4 |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

## ipv6 *boolean*

| | |
|---|---|
| Synopsis | Submit IPv6 routes into unicast RTM |
| Context | **configure** service vprn *service-name* isis *number* unicast-import ipv6 *boolean* |
| Tree | ipv6 |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |


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## l2tp

| | |
|---|---|
| Synopsis | Enable the **l2tp** context |
| Context | **configure** service vprn *service-name* l2tp |
| Tree | l2tp |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of L2TP |
| Context | **configure** service vprn *service-name* l2tp admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## avp-hiding *keyword*

| | |
|---|---|
| Synopsis | Attribute of the Value Pair (AVP) hiding algorithm |
| Context | **configure** service vprn *service-name* l2tp avp-hiding *keyword* |
| Tree | avp-hiding |
| Options | sensitive, always |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## challenge *boolean*

| | |
|---|---|
| Synopsis | Use challenge-response authentication |
| Context | **configure** service vprn *service-name* l2tp challenge *boolean* |
| Tree | challenge |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **destruct-timeout** *number*

| | |
|---|---|
| Synopsis | Destruction timeout |
| Context | **configure** service vprn *service-name* l2tp destruct-timeout *number* |
| Tree | destruct-timeout |
| Range | 60 to 86400 |
| Units | seconds |
| Default | 60 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ethernet-tunnel**

| | |
|---|---|
| Synopsis | Enter the **ethernet-tunnel** context |
| Context | **configure** service vprn *service-name* l2tp ethernet-tunnel |
| Tree | ethernet-tunnel |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **reconnect-timeout** *(number | keyword)*

| | |
|---|---|
| Synopsis | Timeout for a session setup retry |
| Context | **configure** service vprn *service-name* l2tp ethernet-tunnel reconnect-timeout *(number \| keyword)* |
| Tree | reconnect-timeout |
| Range | 10 to 3600 |
| Units | seconds |
| Options | infinite |
| Default | infinite |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **exclude-avps**

| | |
|---|---|
| Synopsis | Enter the **exclude-avps** context |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* l2tp exclude-avps |
| Tree | exclude-avps |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **calling-number** *boolean*

| | |
|---|---|
| Synopsis | Calling Number AVP to exclude |
| Context | **configure** service vprn *service-name* l2tp exclude-avps calling-number *boolean* |
| Tree | calling-number |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **initial-rx-lcp-conf-req** *boolean*

| | |
|---|---|
| Synopsis | Exclude the Initial Received LCP CONFREQ AVP |
| Context | **configure** service vprn *service-name* l2tp exclude-avps initial-rx-lcp-conf-req *boolean* |
| Tree | initial-rx-lcp-conf-req |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **failover**

| | |
|---|---|
| Synopsis | Enter the **failover** context |
| Context | **configure** service vprn *service-name* l2tp failover |
| Tree | failover |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **recovery-max-session-lifetime** *number*

| | |
|---|---|
| Synopsis | Subset of sessions that this system attempts to synchronize in the Session State Synchronization phase |
| Context | **configure** service vprn *service-name* l2tp failover recovery-max-session-lifetime *number* |


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| | |
|---|---|
| Tree | recovery-max-session-lifetime |
| Range | 2 to 4294967295 |
| Units | centiseconds |
| Default | 2 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **recovery-method** *keyword*

| | |
|---|---|
| Synopsis | Recovery method of the sequence numbers after failover |
| Context | **configure** service vprn *service-name* l2tp failover recovery-method *keyword* |
| Tree | recovery-method |
| Options | mcs, recovery-tunnel |
| Default | mcs |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **recovery-time** *number*

| | |
|---|---|
| Synopsis | Time requested from the L2TP peer before assuming failover as failed |
| Context | **configure** service vprn *service-name* l2tp failover recovery-time *number* |
| Tree | recovery-time |
| Range | 0 to 900 |
| Units | seconds |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **track-srrp** [id] *reference*

| | |
|---|---|
| Synopsis | Enter the **track-srrp** list instance |
| Context | **configure** service vprn *service-name* l2tp failover track-srrp *reference* |
| Tree | track-srrp |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### [**id**] *reference*

| | |
|---|---|
| Synopsis | SRRP instance ID for multi-chassis redundancy failover |
| Context | **configure** service vprn *service-name* l2tp failover track-srrp *reference* |
| Tree | track-srrp |
| Reference | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* sync track-srrp *number* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **peer** *reference*

| | |
|---|---|
| Synopsis | Multi-chassis peer address |
| Context | **configure** service vprn *service-name* l2tp failover track-srrp *reference* peer *reference* |
| Tree | peer |
| Reference | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sync-tag** *named-item*

| | |
|---|---|
| Synopsis | Synchronization tag on the multi-chassis peer |
| Context | **configure** service vprn *service-name* l2tp failover track-srrp *reference* sync-tag *named-item* |
| Tree | sync-tag |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **group** [tunnel-group-name] *named-item-64*

| | |
|---|---|
| Synopsis | Enter the **group** list instance |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* |
| Tree | group |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**tunnel-group-name**] *named-item-64*

| | |
|---|---|
| Synopsis | Tunnel group name |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* |
| Tree | group |
| String length | 1 to 63 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the L2TP tunnel group |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **avp-hiding** *keyword*

| | |
|---|---|
| Synopsis | The AVP hiding algorithm |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* avp-hiding *keyword* |
| Tree | avp-hiding |
| Options | never, sensitive, always |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **challenge** *keyword*

| | |
|---|---|
| Synopsis | Enable use of challenge-response authentication |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* challenge *keyword* |
| Tree | challenge |
| Options | false, true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **destruct-timeout** *number*

| | |
|---|---|
| Synopsis | Destruction timeout |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* destruct-timeout *number* |
| Tree | destruct-timeout |
| Range | 60 to 86400 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ethernet-tunnel**

| | |
|---|---|
| Synopsis | Enter the **ethernet-tunnel** context |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* ethernet-tunnel |
| Tree | ethernet-tunnel |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **reconnect-timeout** *(number | keyword)*

| | |
|---|---|
| Synopsis | Timeout for a session setup retry at group level |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* ethernet-tunnel reconnect-timeout *(number \| keyword)* |
| Tree | reconnect-timeout |
| Range | 10 to 3600 |
| Units | seconds |
| Options | infinite |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **failover**

| | |
|---|---|
| Synopsis | Enter the **failover** context |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* failover |
| Tree | failover |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **recovery-method** *keyword*

| | |
|---|---|
| Synopsis | Recovery method of the sequence numbers after failover |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* failover recovery-method *keyword* |
| Tree | recovery-method |
| Options | mcs, recovery-tunnel |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **recovery-time** *number*

| | |
|---|---|
| Synopsis | Time requested from the L2TP peer before assuming failover as failed |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* failover recovery-time *number* |
| Tree | recovery-time |
| Range | 0 to 900 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **hello-interval** *(number | keyword)*

| | |
|---|---|
| Synopsis | Hello interval |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* hello-interval *(number | keyword)* |
| Tree | hello-interval |
| Range | 10 to 3600 |
| Units | seconds |
| Options | infinite |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **idle-timeout** *(number | keyword)*

| | |
|---|---|
| Synopsis | Idle timeout |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* idle-timeout *(number | keyword)* |
| Tree | idle-timeout |
| Range | 0 to 3600 |
| Units | seconds |
| Options | infinite |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **l2tpv3**

| | |
|---|---|
| Synopsis | Enter the **l2tpv3** context |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* l2tpv3 |


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| | |
|---|---|
| Tree | l2tpv3 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **cookie-length** *(number | keyword)*

| | |
|---|---|
| Synopsis | Cookie field length |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* l2tpv3 cookie-length *(number | keyword)* |
| Tree | cookie-length |
| Range | 4 \| 8 |
| Options | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **digest-type** *keyword*

| | |
|---|---|
| Synopsis | Hashing algorithm that calculates the message digest |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* l2tpv3 digest-type *keyword* |
| Tree | digest-type |
| Options | none, md5, sha1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **nonce-length** *number*

| | |
|---|---|
| Synopsis | Length for the local L2TPv3 nonce (random number) |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* l2tpv3 nonce-length *number* |
| Tree | nonce-length |
| Range | 0 \| 16 to 64 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **password** *encrypted-leaf*

| | |
|---|---|
| Synopsis | L2TPv3 password |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* l2tpv3 password *encrypted-leaf* |
| Tree | password |
| String length | 1 to 115 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **private-tcp-mss-adjust** *(number | keyword)*

| | |
|---|---|
| Synopsis | TCP maximum segment size (MSS) on private network |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* l2tpv3 private-tcp-mss-adjust *(number | keyword)* |
| Tree | private-tcp-mss-adjust |
| Range | 512 to 9000 |
| Units | octets |
| Options | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **public-tcp-mss-adjust** *(number | keyword)*

| | |
|---|---|
| Synopsis | TCP Maximum Segment Size (MSS) on public network |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* l2tpv3 public-tcp-mss-adjust *(number | keyword)* |
| Tree | public-tcp-mss-adjust |
| Range | 512 to 9000 |
| Units | octets |
| Options | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## pw-cap-list

| | |
|---|---|
| Synopsis | Enter the **pw-cap-list** context |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* l2tpv3 pw-cap-list |
| Tree | pw-cap-list |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ethernet *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Advertise Ethernet pseudowire type |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* l2tpv3 pw-cap-list ethernet *boolean* |
| Tree | ethernet |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ethernet-vlan *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Advertise Ethernet VLAN pseudowire type |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* l2tpv3 pw-cap-list ethernet-vlan *boolean* |
| Tree | ethernet-vlan |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **rem-router-id** *ipv4-address*

| | |
|---|---|
| Synopsis | Filter on remote router ID |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* l2tpv3 rem-router-id *ipv4-address* |
| Tree | rem-router-id |
| Default | 0.0.0.0 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **track-password-change** *boolean*

| | |
|---|---|
| Synopsis | Enable tracking of password changes |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* l2tpv3 track-password-change *boolean* |
| Tree | track-password-change |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **lac**

| | |
|---|---|
| Synopsis | Enter the **lac** context |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* lac |
| Tree | lac |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **df-bit** *keyword*

| | |
|---|---|
| Synopsis | DF (do not fragment) bit in data traffic transmitted as LAC |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* lac df-bit *keyword* |
| Tree | df-bit |
| Options | false, true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## lns

| | |
|---|---|
| Synopsis | Enter the **lns** context |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* lns |
| Tree | lns |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## lns-group *reference*

| | |
|---|---|
| Synopsis | ISA LNS group |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* lns lns-group *reference* |
| Tree | lns-group |
| Reference | **configure** isa lns-group *number* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## load-balance-method *keyword*

| | |
|---|---|
| Synopsis | New sessions for L2TP ISA MDA |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* lns load-balance-method *keyword* |
| Tree | load-balance-method |
| Options | per-session, per-tunnel |
| Default | per-session |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## mlppp

| | |
|---|---|
| Synopsis | Enter the **mlppp** context |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* lns mlppp |
| Tree | mlppp |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of MLPPP in the L2TP tunnel group |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* lns mlppp admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

### **endpoint**

| | |
|---|---|
| Synopsis | Enter the **endpoint** context |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* lns mlppp endpoint |
| Tree | endpoint |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

### **ip** *(ipv4-address | keyword)*

| | |
|---|---|
| Synopsis | Endpoint ID as an IP address |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* lns mlppp endpoint ip *(ipv4-address | keyword)* |
| Tree | ip |
| Options | system |
| Notes | The following elements are part of a choice: **ip** or **mac**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

### **mac** *(mac-address | keyword)*

| | |
|---|---|
| Synopsis | Endpoint ID as a MAC address |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* lns mlppp endpoint mac *(mac-address | keyword)* |
| Tree | mac |


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| | |
|---|---|
| Options | system |
| Notes | The following elements are part of a choice: **ip** or **mac**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

### **interleave** *boolean*

| | |
|---|---|
| Synopsis | Enable link fragmentation and interleaving |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* lns mlppp interleave *boolean* |
| Tree | interleave |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

### **max-fragment-delay** *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum fragment delay caused by transmission on a link |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* lns mlppp max-fragment-delay *(number | keyword)* |
| Tree | max-fragment-delay |
| Range | 5 to 1000 |
| Units | milliseconds |
| Options | no-fragmentation |
| Default | no-fragmentation |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

### **max-links** *number*

| | |
|---|---|
| Synopsis | Maximum MLPPP links |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* lns mlppp max-links *number* |
| Tree | max-links |
| Range | 1 to 8 |
| Default | 1 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

### **reassembly-timeout** *number*

| | |
|---|---|
| Synopsis | Reassembly timeout |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* lns mlppp reassembly-timeout *number* |
| Tree | reassembly-timeout |
| Range | 100 \| 1000 |
| Units | milliseconds |
| Default | 1000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

### **short-sequence-numbers** *boolean*

| | |
|---|---|
| Synopsis | Request a peer to send short sequence numbers |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* lns mlppp short-sequence-numbers *boolean* |
| Tree | short-sequence-numbers |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

### **ppp**

| | |
|---|---|
| Synopsis | Enter the **ppp** context |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* lns ppp |
| Tree | ppp |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **authentication** *keyword*

| | |
|---|---|
| Synopsis | PPP authentication protocol to negotiate |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* lns ppp authentication *keyword* |
| Tree | authentication |
| Options | pap, chap, pref-chap, pref-pap |
| Default | pref-chap |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **authentication-policy** *named-item*

| | |
|---|---|
| Synopsis | Authentication policy when a DHCP message is received |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* lns ppp authentication-policy *named-item* |
| Tree | authentication-policy |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **chap-challenge-length**

| | |
|---|---|
| Synopsis | Enter the **chap-challenge-length** context |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* lns ppp chap-challenge-length |
| Tree | chap-challenge-length |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the PPP CHAP challenge length |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* lns ppp chap-challenge-length end *number* |
| Tree | end |
| Range | 8 to 64 |
| Units | octets |
| Default | 64 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of the PPP CHAP challenge length |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* lns ppp chap-challenge-length start *number* |
| Tree | start |
| Range | 8 to 64 |
| Units | octets |
| Default | 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **default-group-interface**

| | |
|---|---|
| Synopsis | Enter the **default-group-interface** context |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* lns ppp default-group-interface |
| Tree | default-group-interface |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **interface** *named-item*

| | |
|---|---|
| Synopsis | Group interface |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* lns ppp default-group-interface interface *named-item* |
| Tree | interface |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **service-name** *service-name*

| | |
|---|---|
| Synopsis | Administrative service name |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* lns ppp default-group-interface service-name *service-name* |
| Tree | service-name |
| String length | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ipcp-subnet-negotiation** *boolean*

| | |
|---|---|
| Synopsis | Allow IPCP subnet negotiation for PPPoE hosts |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* lns ppp ipcp-subnet-negotiation *boolean* |
| Tree | ipcp-subnet-negotiation |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **keepalive**

| | |
|---|---|
| Synopsis | Enter the **keepalive** context |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* lns ppp keepalive |
| Tree | keepalive |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **interval** *number*

| | |
|---|---|
| Synopsis | PPP keepalive interval |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* lns ppp keepalive interval *number* |
| Tree | interval |
| Range | 10 to 300 |
| Units | seconds |


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| | |
|---|---|
| Default | 30 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **multiplier** *number*

| | |
|---|---|
| Synopsis | PPP keepalive multiplier |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* lns ppp keepalive multiplier *number* |
| Tree | multiplier |
| Range | 1 to 5 |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **lcp-force-ack-accm** *boolean*

| | |
|---|---|
| Synopsis | Force acknowledgement of the LCP Asynchronous Control Character Map (ACCM) option |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* lns ppp lcp-force-ack-accm *boolean* |
| Tree | lcp-force-ack-accm |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **lcp-ignore-magic-numbers** *boolean*

| | |
|---|---|
| Synopsis | Check magic number in echo request and reply messages |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* lns ppp lcp-ignore-magic-numbers *boolean* |
| Tree | lcp-ignore-magic-numbers |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **mtu** *number*

| | |
|---|---|
| Synopsis | Maximum PPP MTU size |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* lns ppp mtu *number* |
| Tree | mtu |
| Range | 512 to 9212 |
| Units | octets |
| Default | 1500 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **proxy-authentication** *boolean*

| | |
|---|---|
| Synopsis | Use authentication AVPs that are received from LAC |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* lns ppp proxy-authentication *boolean* |
| Tree | proxy-authentication |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **proxy-lcp** *boolean*

| | |
|---|---|
| Synopsis | Proxy LCP AVPs that are received from LAC |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* lns ppp proxy-lcp *boolean* |
| Tree | proxy-lcp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **reject-disabled-ncp** *boolean*

| | |
|---|---|
| Synopsis | Force LCP Protocol Reject for IPv6CP Configure Request |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* lns ppp reject-disabled-ncp *boolean* |


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| | |
|---|---|
| Tree | reject-disabled-ncp |
| Default | false |
| Introduced | 16.0.R6 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **user-db** *named-item*

| | |
|---|---|
| Synopsis | Local user database for PPP PAP and CHAP authentication |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* lns ppp user-db *named-item* |
| Tree | user-db |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **local-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Local address |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* local-address *ipv4-unicast-address* |
| Tree | local-address |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **local-name** *host-name*

| | |
|---|---|
| Synopsis | Local host name used to distinguish tunnels |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* local-name *host-name* |
| Tree | local-name |
| String length | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **max-retries-estab** *number*

| | |
|---|---|
| Synopsis | Maximum retries for established tunnels |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* max-retries-estab *number* |
| Tree | max-retries-estab |
| Range | 2 to 7 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **max-retries-not-estab** *number*

| | |
|---|---|
| Synopsis | Maximum retries for unestablished tunnels |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* max-retries-not-estab *number* |
| Tree | max-retries-not-estab |
| Range | 2 to 7 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **password** *encrypted-leaf*

| | |
|---|---|
| Synopsis | Password between L2TP LAC and LNS |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* password *encrypted-leaf* |
| Tree | password |
| String length | 1 to 115 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **protocol** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Protocol version |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* protocol *keyword* |
| Tree | protocol |
| Options | v2, v3, v3draft |


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| | |
|---|---|
| Default | v2 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **radius-accounting-policy** *reference*

| | |
|---|---|
| Synopsis | RADIUS accounting policy |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* radius-accounting-policy *reference* |
| Tree | radius-accounting-policy |
| Reference | **configure** aaa radius l2tp-accounting-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **receive-window-size** *number*

| | |
|---|---|
| Synopsis | L2TP receive window size |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* receive-window-size *number* |
| Tree | receive-window-size |
| Range | 4 to 1024 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **session-assign-method** *keyword*

| | |
|---|---|
| Synopsis | Session assignment method |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* session-assign-method *keyword* |
| Tree | session-assign-method |
| Options | existing-first, weighted, weighted-random |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **session-limit** *(number | keyword)*

| | |
|---|---|
| Synopsis | Session limit |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* session-limit *(number \| keyword)* |
| Tree | session-limit |
| Range | 1 to 250000 |
| Options | unlimited |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **tunnel** [tunnel-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **tunnel** list instance |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* tunnel *named-item* |
| Tree | tunnel |
| Max. instances | 31 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**tunnel-name**] *named-item*

| | |
|---|---|
| Synopsis | Tunnel name |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* tunnel *named-item* |
| Tree | tunnel |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the L2TP tunnel |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* tunnel *named-item* admin-state *keyword* |


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| | |
|---|---|
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **auto-establish** *boolean*

| | |
|---|---|
| Synopsis | Allow the tunnel to be automatically set up by the system |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* tunnel *named-item* auto-establish *boolean* |
| Tree | auto-establish |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **avp-hiding** *keyword*

| | |
|---|---|
| Synopsis | The AVP hiding algorithm |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* tunnel *named-item* avp-hiding *keyword* |
| Tree | avp-hiding |
| Options | never, sensitive, always |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **challenge** *keyword*

| | |
|---|---|
| Synopsis | Enable use of challenge-response authentication |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* tunnel *named-item* challenge *keyword* |
| Tree | challenge |
| Options | false, true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* tunnel *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **destruct-timeout** *number*

| | |
|---|---|
| Synopsis | Destruction timeout |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* tunnel *named-item* destruct-timeout *number* |
| Tree | destruct-timeout |
| Range | 60 to 86400 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **failover**

| | |
|---|---|
| Synopsis | Enter the **failover** context |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* tunnel *named-item* failover |
| Tree | failover |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **recovery-method** *keyword*

| | |
|---|---|
| Synopsis | Recovery method of the sequence numbers after failover |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* tunnel *named-item* failover recovery-method *keyword* |
| Tree | recovery-method |


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| | |
|---|---|
| Options | mcs, recovery-tunnel |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **recovery-time** *number*

| | |
|---|---|
| Synopsis | Time requested from the L2TP peer before assuming failover as failed |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* tunnel *named-item* failover recovery-time *number* |
| Tree | recovery-time |
| Range | 0 to 900 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **hello-interval** *(number | keyword)*

| | |
|---|---|
| Synopsis | Hello interval |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* tunnel *named-item* hello-interval *(number | keyword)* |
| Tree | hello-interval |
| Range | 10 to 3600 |
| Units | seconds |
| Options | infinite |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **idle-timeout** *(number | keyword)*

| | |
|---|---|
| Synopsis | Idle timeout |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* tunnel *named-item* idle-timeout *(number | keyword)* |
| Tree | idle-timeout |
| Range | 0 to 3600 |
| Units | seconds |
| Options | infinite |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## l2tpv3

| | |
|---|---|
| Synopsis | Enter the **l2tpv3** context |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* tunnel *named-item* l2tpv3 |
| Tree | l2tpv3 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## private-tcp-mss-adjust *(number | keyword)*

| | |
|---|---|
| Synopsis | TCP maximum segment size (MSS) on private network |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* tunnel *named-item* l2tpv3 private-tcp-mss-adjust *(number \| keyword)* |
| Tree | private-tcp-mss-adjust |
| Range | 512 to 9000 |
| Units | octets |
| Options | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## public-tcp-mss-adjust *(number | keyword)*

| | |
|---|---|
| Synopsis | TCP maximum segment size (MSS) on public network |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* tunnel *named-item* l2tpv3 public-tcp-mss-adjust *(number \| keyword)* |
| Tree | public-tcp-mss-adjust |
| Range | 512 to 9000 |
| Units | octets |
| Options | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## lac

| | |
|---|---|
| Synopsis | Enter the **lac** context |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* tunnel *named-item* lac |
| Tree | lac |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## df-bit *keyword*

| | |
|---|---|
| Synopsis | DF (do not fragment) bit in data traffic transmitted as LAC |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* tunnel *named-item* lac df-bit *keyword* |
| Tree | df-bit |
| Options | false, true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## lns

| | |
|---|---|
| Synopsis | Enter the **lns** context |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* tunnel *named-item* lns |
| Tree | lns |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## lns-group *reference*

| | |
|---|---|
| Synopsis | ISA LNS group |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* tunnel *named-item* lns lns-group *reference* |
| Tree | lns-group |
| Reference | **configure** isa lns-group *number* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **load-balance-method** *keyword*

| | |
|---|---|
| Synopsis | New sessions for L2TP ISA MDA |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* tunnel *named-item* lns load-balance-method *keyword* |
| Tree | load-balance-method |
| Options | per-session, per-tunnel |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **mlppp**

| | |
|---|---|
| Synopsis | Enter the **mlppp** context |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* tunnel *named-item* lns mlppp |
| Tree | mlppp |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of MLPPP in the L2TP tunnel |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* tunnel *named-item* lns mlppp admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

### **endpoint**

| | |
|---|---|
| Synopsis | Enter the **endpoint** context |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* tunnel *named-item* lns mlppp endpoint |
| Tree | endpoint |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

### **ip** *(ipv4-address | keyword)*

| | |
|---|---|
| Synopsis | Endpoint ID as an IP address |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* tunnel *named-item* lns mlppp endpoint ip *(ipv4-address | keyword)* |
| Tree | ip |
| Options | system |
| Notes | The following elements are part of a choice: **ip** or **mac**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

### **mac** *(mac-address | keyword)*

| | |
|---|---|
| Synopsis | Endpoint ID as a MAC address |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* tunnel *named-item* lns mlppp endpoint mac *(mac-address | keyword)* |
| Tree | mac |
| Options | system |
| Notes | The following elements are part of a choice: **ip** or **mac**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

### **interleave** *keyword*

| | |
|---|---|
| Synopsis | Use of Link fragmentation and interleaving |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* tunnel *named-item* lns mlppp interleave *keyword* |
| Tree | interleave |
| Options | false, true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |


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### **max-fragment-delay** *number*

| | |
|---|---|
| Synopsis | Maximum fragment delay caused by transmission on a link |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* tunnel *named-item* lns mlppp max-fragment-delay *number* |
| Tree | max-fragment-delay |
| Range | 5 to 1000 |
| Units | milliseconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

### **max-links** *number*

| | |
|---|---|
| Synopsis | Maximum MLPPP links |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* tunnel *named-item* lns mlppp max-links *number* |
| Tree | max-links |
| Range | 1 to 8 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

### **reassembly-timeout** *number*

| | |
|---|---|
| Synopsis | Reassembly timeout |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* tunnel *named-item* lns mlppp reassembly-timeout *number* |
| Tree | reassembly-timeout |
| Range | 100 \| 1000 |
| Units | milliseconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

### **short-sequence-numbers** *keyword*

| | |
|---|---|
| Synopsis | Request a peer to send short sequence numbers |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* tunnel *named-item* lns mlppp short-sequence-numbers *keyword* |
| Tree | short-sequence-numbers |
| Options | false, true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s |

## ppp

| | |
|---|---|
| Synopsis | Enter the **ppp** context |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* tunnel *named-item* lns ppp |
| Tree | ppp |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## authentication *keyword*

| | |
|---|---|
| Synopsis | PPP authentication protocol to negotiate |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* tunnel *named-item* lns ppp authentication *keyword* |
| Tree | authentication |
| Options | pap, chap, pref-chap, pref-pap |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## authentication-policy *named-item*

| | |
|---|---|
| Synopsis | Authentication policy when a DHCP message is received |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* tunnel *named-item* lns ppp authentication-policy *named-item* |
| Tree | authentication-policy |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## chap-challenge-length

| | |
|---|---|
| Synopsis | Enter the **chap-challenge-length** context |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* tunnel *named-item* lns ppp chap-challenge-length |
| Tree | chap-challenge-length |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the PPP CHAP challenge length |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* tunnel *named-item* lns ppp chap-challenge-length end *number* |
| Tree | end |
| Range | 8 to 64 |
| Units | octets |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of the PPP CHAP challenge length |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* tunnel *named-item* lns ppp chap-challenge-length start *number* |
| Tree | start |
| Range | 8 to 64 |
| Units | octets |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## default-group-interface

| | |
|---|---|
| Synopsis | Enter the **default-group-interface** context |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* tunnel *named-item* lns ppp default-group-interface |


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| | |
|---|---|
| Tree | default-group-interface |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **interface** *named-item*

| | |
|---|---|
| Synopsis | Group interface |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* tunnel *named-item* lns ppp default-group-interface interface *named-item* |
| Tree | interface |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **service-name** *service-name*

| | |
|---|---|
| Synopsis | Administrative service name |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* tunnel *named-item* lns ppp default-group-interface service-name *service-name* |
| Tree | service-name |
| String length | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ipcp-subnet-negotiation** *keyword*

| | |
|---|---|
| Synopsis | Use of IPCP subnet negotiation for PPPoE hosts |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* tunnel *named-item* lns ppp ipcp-subnet-negotiation *keyword* |
| Tree | ipcp-subnet-negotiation |
| Options | false, true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## keepalive

| | |
|---|---|
| Synopsis | Enter the **keepalive** context |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* tunnel *named-item* lns ppp keepalive |
| Tree | keepalive |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## interval *number*

| | |
|---|---|
| Synopsis | PPP keepalive interval |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* tunnel *named-item* lns ppp keepalive interval *number* |
| Tree | interval |
| Range | 10 to 300 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## multiplier *number*

| | |
|---|---|
| Synopsis | PPP keepalive multiplier |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* tunnel *named-item* lns ppp keepalive multiplier *number* |
| Tree | multiplier |
| Range | 1 to 5 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## lcp-force-ack-accm *keyword*

| | |
|---|---|
| Synopsis | Forced acknowledgement of the LCP Asynchronous Control Character Map (ACCM) option |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* tunnel *named-item* lns ppp lcp-force-ack-accm *keyword* |
| Tree | lcp-force-ack-accm |


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| | |
|---|---|
| Options | false, true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **lcp-ignore-magic-numbers** *keyword*

| | |
|---|---|
| Synopsis | Magic-Number field in LCP Echo-Request and LCP Echo-Reply messages that are checked |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* tunnel *named-item* lns ppp lcp-ignore-magic-numbers *keyword* |
| Tree | lcp-ignore-magic-numbers |
| Options | false, true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **mtu** *number*

| | |
|---|---|
| Synopsis | Maximum PPP MTU size |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* tunnel *named-item* lns ppp mtu *number* |
| Tree | mtu |
| Range | 512 to 9212 |
| Units | octets |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **proxy-authentication** *keyword*

| | |
|---|---|
| Synopsis | Authentication AVPs that are received from LAC |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* tunnel *named-item* lns ppp proxy-authentication *keyword* |
| Tree | proxy-authentication |
| Options | false, true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **proxy-lcp** *keyword*

| | |
|---|---|
| Synopsis | Use the Proxy LCP AVPs that are received from the LAC |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* tunnel *named-item* lns ppp proxy-lcp *keyword* |
| Tree | proxy-lcp |
| Options | false, true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **reject-disabled-ncp** *keyword*

| | |
|---|---|
| Synopsis | Force LCP Project Reject for IPv6CP Configure Request |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* tunnel *named-item* lns ppp reject-disabled-ncp *keyword* |
| Tree | reject-disabled-ncp |
| Options | false, true |
| Introduced | 16.0.R6 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **user-db** *named-item*

| | |
|---|---|
| Synopsis | Local user database for PPP PAP and CHAP authentication |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* tunnel *named-item* lns ppp user-db *named-item* |
| Tree | user-db |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **local-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Local address |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* tunnel *named-item* local-address *ipv4-unicast-address* |
| Tree | local-address |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **local-name** *host-name*

| | |
|---|---|
| Synopsis | Local host name used to distinguish tunnels |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* tunnel *named-item* local-name *host-name* |
| Tree | local-name |
| String length | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **max-retries-estab** *number*

| | |
|---|---|
| Synopsis | Maximum retries for established tunnels |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* tunnel *named-item* max-retries-estab *number* |
| Tree | max-retries-estab |
| Range | 2 to 7 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **max-retries-not-estab** *number*

| | |
|---|---|
| Synopsis | Maximum retries for unestablished tunnels |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* tunnel *named-item* max-retries-not-estab *number* |
| Tree | max-retries-not-estab |
| Range | 2 to 7 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **password** *encrypted-leaf*

| | |
|---|---|
| Synopsis | Password between L2TP LAC and LNS |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* tunnel *named-item* password *encrypted-leaf* |
| Tree | password |
| String length | 1 to 115 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **peer** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Peer address |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* tunnel *named-item* peer *ipv4-unicast-address* |
| Tree | peer |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **preference** *number*

| | |
|---|---|
| Synopsis | Tunnel preference number with its group |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* tunnel *named-item* preference *number* |
| Tree | preference |
| Range | 0 to 16777215 |
| Default | 50 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **radius-accounting-policy** *reference*

| | |
|---|---|
| Synopsis | RADIUS accounting policy |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* tunnel *named-item* radius-accounting-policy *reference* |
| Tree | radius-accounting-policy |
| Reference | **configure** aaa radius l2tp-accounting-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **receive-window-size** *number*

| | |
|---|---|
| Synopsis | L2TP receive window size |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* tunnel *named-item* receive-window-size *number* |
| Tree | receive-window-size |
| Range | 4 to 1024 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **remote-name** *host-name*

| | |
|---|---|
| Synopsis | Remote tunnel host name |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* tunnel *named-item* remote-name *host-name* |
| Tree | remote-name |
| String length | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **session-limit** *(number | keyword)*

| | |
|---|---|
| Synopsis | L2TP session limit for each tunnel of this router |
| Context | **configure** service vprn *service-name* l2tp group *named-item-64* tunnel *named-item* session-limit *(number | keyword)* |
| Tree | session-limit |
| Range | 1 to 65534 |
| Options | unlimited |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **group-session-limit** *number*

| | |
|---|---|
| Synopsis | L2TP session limit for each group of this router |
| Context | **configure** service vprn *service-name* l2tp group-session-limit *number* |
| Tree | group-session-limit |


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| | |
|---|---|
| Range | 1 to 250000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **hello-interval** *(number | keyword)*

| | |
|---|---|
| Synopsis | Hello interval |
| Context | **configure** service vprn *service-name* l2tp hello-interval *(number | keyword)* |
| Tree | hello-interval |
| Range | 10 to 3600 |
| Units | seconds |
| Options | infinite |
| Default | 300 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **idle-timeout** *(number | keyword)*

| | |
|---|---|
| Synopsis | Idle timeout |
| Context | **configure** service vprn *service-name* l2tp idle-timeout *(number | keyword)* |
| Tree | idle-timeout |
| Range | 0 to 3600 |
| Units | seconds |
| Options | infinite |
| Default | infinite |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ignore-avps**

| | |
|---|---|
| Synopsis | Enter the **ignore-avps** context |
| Context | **configure** service vprn *service-name* l2tp ignore-avps |
| Tree | ignore-avps |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **sequencing-required** *boolean*

| | |
|---|---|
| Synopsis | Ignore Sequencing Required AVP |
| Context | **configure** service vprn *service-name* l2tp ignore-avps sequencing-required *boolean* |
| Tree | sequencing-required |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **l2tpv3**

| | |
|---|---|
| Synopsis | Enter the **l2tpv3** context |
| Context | **configure** service vprn *service-name* l2tp l2tpv3 |
| Tree | l2tpv3 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **cookie-length** *number*

| | |
|---|---|
| Synopsis | Cookie field length |
| Context | **configure** service vprn *service-name* l2tp l2tpv3 cookie-length *number* |
| Tree | cookie-length |
| Range | 4 \| 8 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **digest-type** *keyword*

| | |
|---|---|
| Synopsis | Hashing algorithm that calculates the message digest |
| Context | **configure** service vprn *service-name* l2tp l2tpv3 digest-type *keyword* |
| Tree | digest-type |
| Options | md5, sha1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **nonce-length** *number*

| | |
|---|---|
| Synopsis | Length of the local L2TPv3 nonce (random number) |
| Context | **configure** service vprn *service-name* l2tp l2tpv3 nonce-length *number* |
| Tree | nonce-length |
| Range | 0 \| 16 to 64 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **password** *encrypted-leaf*

| | |
|---|---|
| Synopsis | L2TPv3 password |
| Context | **configure** service vprn *service-name* l2tp l2tpv3 password *encrypted-leaf* |
| Tree | password |
| String length | 1 to 115 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **private-tcp-mss-adjust** *number*

| | |
|---|---|
| Synopsis | TCP maximum segment size (MSS) on private network |
| Context | **configure** service vprn *service-name* l2tp l2tpv3 private-tcp-mss-adjust *number* |
| Tree | private-tcp-mss-adjust |
| Range | 512 to 9000 |
| Units | octets |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **public-tcp-mss-adjust** *number*

| | |
|---|---|
| Synopsis | TCP maximum segment size (MSS) on public network |
| Context | **configure** service vprn *service-name* l2tp l2tpv3 public-tcp-mss-adjust *number* |
| Tree | public-tcp-mss-adjust |
| Range | 512 to 9000 |


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| | |
|---|---|
| Units | octets |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## transport-type

| | |
|---|---|
| Synopsis | Enter the **transport-type** context |
| Context | **configure** service vprn *service-name* l2tp l2tpv3 transport-type |
| Tree | transport-type |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ip *boolean*

| | |
|---|---|
| Synopsis | Use IP as the transport type for the L2TPv3 tunnel |
| Context | **configure** service vprn *service-name* l2tp l2tpv3 transport-type ip *boolean* |
| Tree | ip |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## lac

| | |
|---|---|
| Synopsis | Enter the **lac** context |
| Context | **configure** service vprn *service-name* l2tp lac |
| Tree | lac |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## calling-number-format *ascii-specification*

| | |
|---|---|
| Synopsis | Calling Number AVP for L2TP control messages |
| Context | **configure** service vprn *service-name* l2tp lac calling-number-format *ascii-specification* |
| Tree | calling-number-format |
| String length | 1 to 255 |


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| | |
|---|---|
| Default | %S %s |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### cisco-nas-port

| | |
|---|---|
| Synopsis | Enter the **cisco-nas-port** context |
| Context | **configure** service vprn *service-name* l2tp lac cisco-nas-port |
| Tree | cisco-nas-port |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ethernet** *binary-specification*

| | |
|---|---|
| Synopsis | L2TP Cisco NAS port AVP with binary patterns for Ethernet |
| Context | **configure** service vprn *service-name* l2tp lac cisco-nas-port ethernet *binary-specification* |
| Tree | ethernet |
| String length | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **df-bit** *boolean*

| | |
|---|---|
| Synopsis | Send all L2TP packets with DF bit set to 1 |
| Context | **configure** service vprn *service-name* l2tp lac df-bit *boolean* |
| Tree | df-bit |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **local-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Local address |
| Context | **configure** service vprn *service-name* l2tp local-address *ipv4-unicast-address* |
| Tree | local-address |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **local-name** *host-name*

| | |
|---|---|
| Synopsis | Local host name |
| Context | **configure** service vprn *service-name* l2tp local-name *host-name* |
| Tree | local-name |
| String length | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **max-retries-estab** *number*

| | |
|---|---|
| Synopsis | Maximum retries for established tunnels |
| Context | **configure** service vprn *service-name* l2tp max-retries-estab *number* |
| Tree | max-retries-estab |
| Range | 2 to 7 |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **max-retries-not-estab** *number*

| | |
|---|---|
| Synopsis | Maximum retries for unestablished tunnels |
| Context | **configure** service vprn *service-name* l2tp max-retries-not-estab *number* |
| Tree | max-retries-not-estab |
| Range | 2 to 7 |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **next-attempt** *keyword*

| | |
|---|---|
| Synopsis | Tunnel that is selected when previous session setup failed |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* l2tp next-attempt *keyword* |
| Tree | next-attempt |
| Options | same-preference-level, next-preference-level |
| Default | next-preference-level |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **password** *encrypted-leaf*

| | |
|---|---|
| Synopsis | L2TP password |
| Context | **configure** service vprn *service-name* l2tp password *encrypted-leaf* |
| Tree | password |
| String length | 1 to 115 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **peer-address-change-policy** *keyword*

| | |
|---|---|
| Synopsis | Reaction for L2TP response from a different address |
| Context | **configure** service vprn *service-name* l2tp peer-address-change-policy *keyword* |
| Tree | peer-address-change-policy |
| Options | accept, ignore, reject |
| Default | reject |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **radius-accounting-policy** *reference*

| | |
|---|---|
| Synopsis | RADIUS accounting policy |
| Context | **configure** service vprn *service-name* l2tp radius-accounting-policy *reference* |
| Tree | radius-accounting-policy |
| Reference | **configure** aaa radius l2tp-accounting-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **receive-window-size** *number*

| | |
|---|---|
| Synopsis | L2TP receive window size |
| Context | **configure** service vprn *service-name* l2tp receive-window-size *number* |
| Tree | receive-window-size |
| Range | 4 to 1024 |
| Default | 64 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **replace-result-code**

| | |
|---|---|
| Synopsis | Enter the **replace-result-code** context |
| Context | **configure** service vprn *service-name* l2tp replace-result-code |
| Tree | replace-result-code |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **cdn-invalid-dst** *boolean*

| | |
|---|---|
| Synopsis | Replace result code with general error code |
| Context | **configure** service vprn *service-name* l2tp replace-result-code cdn-invalid-dst *boolean* |
| Tree | cdn-invalid-dst |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **cdn-permanent-no-facilities** *boolean*

| | |
|---|---|
| Synopsis | Replace result code with general error |
| Context | **configure** service vprn *service-name* l2tp replace-result-code cdn-permanent-no-facilities *boolean* |
| Tree | cdn-permanent-no-facilities |
| Default | false |
| Introduced | 16.0.R4 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **cdn-temporary-no-facilities** *boolean*

| | |
|---|---|
| Synopsis | Replace result code with general error |
| Context | **configure** service vprn *service-name* l2tp replace-result-code cdn-temporary-no-facilities *boolean* |
| Tree | cdn-temporary-no-facilities |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **rtm-debounce-time** *(number | keyword)*

| | |
|---|---|
| Synopsis | Debounce timer that declares L2TP action for route table management events |
| Context | **configure** service vprn *service-name* l2tp rtm-debounce-time *(number | keyword)* |
| Tree | rtm-debounce-time |
| Range | 0 to 5000 |
| Units | milliseconds |
| Options | infinite |
| Default | infinite |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **session-assign-method** *keyword*

| | |
|---|---|
| Synopsis | Session assignment method |
| Context | **configure** service vprn *service-name* l2tp session-assign-method *keyword* |
| Tree | session-assign-method |
| Options | existing-first, weighted, weighted-random |
| Default | existing-first |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **session-limit** *number*

| | |
|---|---|
| Synopsis | L2TP session limit of this router |
| Context | **configure** service vprn *service-name* l2tp session-limit *number* |
| Tree | session-limit |
| Range | 1 to 250000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **tunnel-selection-blacklist**

| | |
|---|---|
| Synopsis | Enter the **tunnel-selection-blacklist** context |
| Context | **configure** service vprn *service-name* l2tp tunnel-selection-blacklist |
| Tree | tunnel-selection-blacklist |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **add-tunnel-on**

| | |
|---|---|
| Synopsis | Enter the **add-tunnel-on** context |
| Context | **configure** service vprn *service-name* l2tp tunnel-selection-blacklist add-tunnel-on |
| Tree | add-tunnel-on |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **address-change-timeout** *boolean*

| | |
|---|---|
| Synopsis | Enable a timed-out tunnel to be forced to the denylist |
| Context | **configure** service vprn *service-name* l2tp tunnel-selection-blacklist add-tunnel-on address-change-timeout *boolean* |
| Tree | address-change-timeout |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **cdn-err-code** *boolean*

| | |
|---|---|
| Synopsis | Add to deny if CDN is received with code: General error |
| Context | **configure** service vprn *service-name* l2tp tunnel-selection-blacklist add-tunnel-on cdn-err-code *boolean* |
| Tree | cdn-err-code |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **cdn-invalid-dst** *boolean*

| | |
|---|---|
| Synopsis | Force tunnel to the denylist in case of Result Codes 6 |
| Context | **configure** service vprn *service-name* l2tp tunnel-selection-blacklist add-tunnel-on cdn-invalid-dst *boolean* |
| Tree | cdn-invalid-dst |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **cdn-permanent-no-facilities** *boolean*

| | |
|---|---|
| Synopsis | Force tunnel to the denylist in case of Result Codes 5 |
| Context | **configure** service vprn *service-name* l2tp tunnel-selection-blacklist add-tunnel-on cdn-permanent-no-facilities *boolean* |
| Tree | cdn-permanent-no-facilities |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **cdn-temporary-no-facilities** *boolean*

| | |
|---|---|
| Synopsis | Force tunnel to the denylist in case of Result Codes 4 |
| Context | **configure** service vprn *service-name* l2tp tunnel-selection-blacklist add-tunnel-on cdn-temporary-no-facilities *boolean* |
| Tree | cdn-temporary-no-facilities |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **stop-ccn-err-code** *boolean*

| | |
|---|---|
| Synopsis | Add to denylist if received with general error code |
| Context | **configure** service vprn *service-name* l2tp tunnel-selection-blacklist add-tunnel-on stop-ccn-err-code *boolean* |
| Tree | stop-ccn-err-code |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **stop-ccn-other** *boolean*

| | |
|---|---|
| Synopsis | Add to denylist if StopCCN received with general error |
| Context | **configure** service vprn *service-name* l2tp tunnel-selection-blacklist add-tunnel-on stop-ccn-other *boolean* |
| Tree | stop-ccn-other |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **tx-cdn-not-established-in-time** *boolean*

| | |
|---|---|
| Synopsis | Add to denylist if CDN transmitted with result code |
| Context | **configure** service vprn *service-name* l2tp tunnel-selection-blacklist add-tunnel-on tx-cdn-not-established-in-time *boolean* |
| Tree | tx-cdn-not-established-in-time |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **max-list-length** *(number | keyword)*

| | |
|---|---|
| Synopsis | Number of tunnels or peers in the denylist |
| Context | **configure** service vprn *service-name* l2tp tunnel-selection-blacklist max-list-length *(number | keyword)* |
| Tree | max-list-length |
| Range | 1 to 65535 |
| Options | infinite |
| Default | infinite |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **max-time** *number*

| | |
|---|---|
| Synopsis | Time that a tunnel or peer can remain in the denylist |
| Context | **configure** service vprn *service-name* l2tp tunnel-selection-blacklist max-time *number* |
| Tree | max-time |
| Range | 1 to 60 |
| Units | minutes |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **timeout-action** *keyword*

| | |
|---|---|
| Synopsis | Action when a tunnel or peer exceeds time in denylist |
| Context | **configure** service vprn *service-name* l2tp tunnel-selection-blacklist timeout-action *keyword* |
| Tree | timeout-action |
| Options | remove-from-blacklist, try-one-session |
| Default | remove-from-blacklist |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **tunnel-session-limit** *number*

| | |
|---|---|
| Synopsis | L2TP session limit for each tunnel of this router |
| Context | **configure** service vprn *service-name* l2tp tunnel-session-limit *number* |
| Tree | tunnel-session-limit |
| Range | 1 to 65534 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **label-mode** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Allocation mode for VPRN service labels |
| Context | **configure** service vprn *service-name* label-mode *keyword* |
| Tree | label-mode |
| Options | vrf, next-hop |
| Default | vrf |
| Introduced | 16.0.R1 |
| Platforms | All |

### **local-routes-domain-id** *domain-id*

| | |
|---|---|
| Synopsis | Local routes domain ID |
| Context | **configure** service vprn *service-name* local-routes-domain-id *domain-id* |
| Tree | local-routes-domain-id |
| Description | This command specifies the domain ID that is used in the D-PATH attribute for local routes before those routes are exported to a BGP neighbor using BGP-IPVPN, EVPN-IFF, EVPN-IFL, or PE-CE BGP. A local route is a non-BGP route installed in the VPRN route table and learned using static route or an IGP.<br><br>The domain IDs are used in the D-PATH attribute, in accordance with draft-ietf-bess-evpn-ipvpn-interworking. Gateway routers modify the D-PATH attribute. A gateway is a PE where a VPRN is instantiated. The VPRN in this case advertises or receives routes from multiple BGP owners (for example, EVPN IFL and BGP IPVPN). |


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| | |
|---|---|
| | Gateways use the D-PATH attribute to detect loops (for received routes where the D-PATH contains a local domain ID) and to make BGP best-path selection decisions based on the D-PATH length (shorter D-PATH is preferred). |
| Introduced | 21.10.R1 |
| Platforms | All |

## log

| | |
|---|---|
| Synopsis | Enter the **log** context |
| Context | **configure** service vprn *service-name* log |
| Tree | log |
| Introduced | 16.0.R1 |
| Platforms | All |

## **filter** [filter-name] *log-filter-name*

| | |
|---|---|
| Synopsis | Enter the **filter** list instance |
| Context | **configure** service vprn *service-name* log filter *log-filter-name* |
| Tree | filter |
| Max. instances | 1500 |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**filter-name**] *log-filter-name*

| | |
|---|---|
| Synopsis | Filter ID |
| Context | **configure** service vprn *service-name* log filter *log-filter-name* |
| Tree | filter |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 21.2.R1 |
| Platforms | All |


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### **default-action** *keyword*

| | |
|---|---|
| Synopsis | Default action for the event filter |
| Context | **configure** service vprn *service-name* log filter *log-filter-name* default-action *keyword* |
| Tree | default-action |
| Options | drop, forward |
| Default | forward |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* log filter *log-filter-name* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **named-entry** [entry-name] *log-filter-entry-name*

| | |
|---|---|
| Synopsis | Enter the **named-entry** list instance |
| Context | **configure** service vprn *service-name* log filter *log-filter-name* named-entry *log-filter-entry-name* |
| Tree | named-entry |
| Description | Commands in this context create or edit an event filter entry. |
| Max. instances | 999 |
| Notes | This element is ordered by the user. |
| Introduced | 21.2.R1 |
| Platforms | All |

### [**entry-name**] *log-filter-entry-name*

| | |
|---|---|
| Synopsis | Entry name |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* log filter *log-filter-name* named-entry *log-filter-entry-name* |
| Tree | named-entry |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 21.2.R1 |
| Platforms | All |

## **action** *keyword*

| | |
|---|---|
| Synopsis | Action for this event filter entry |
| Context | **configure** service vprn *service-name* log filter *log-filter-name* named-entry *log-filter-entry-name* action *keyword* |
| Tree | action |
| Options | drop, forward |
| Introduced | 21.2.R1 |
| Platforms | All |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* log filter *log-filter-name* named-entry *log-filter-entry-name* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 21.2.R1 |
| Platforms | All |

## **match**

| | |
|---|---|
| Synopsis | Enter the **match** context |
| Context | **configure** service vprn *service-name* log filter *log-filter-name* named-entry *log-filter-entry-name* match |
| Tree | match |
| Introduced | 21.2.R1 |
| Platforms | All |


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## application

| | |
|---|---|
| Synopsis | Enter the **application** context |
| Context | **configure** service vprn *service-name* log filter *log-filter-name* named-entry *log-filter-entry-name* match application |
| Tree | application |
| Introduced | 21.2.R1 |
| Platforms | All |

## eq *keyword*

| | |
|---|---|
| Synopsis | Application to match |
| Context | **configure** service vprn *service-name* log filter *log-filter-name* named-entry *log-filter-entry-name* match application eq *keyword* |
| Tree | eq |
| Options | application-assurance, aps, bgp, cflowd, chassis, debug, dhcp, dhcps, diameter, dot1x, efm-oam, elmi, ering, eth-cfm, etun, filter, gsmp, igmp, igmp-snooping, ip, ipsec, isis, l2tp, lag, ldp, li, lldp, logger, mcpath, mc-redundancy, mirror, mld, mld-snooping, mpls, msdp, nat, ntp, oam, ospf, pim, pim-snooping, port, pppoe, ptp, rip, route-policy, rsvp, security, snmp, stp, svcmgr, system, user, video, vrrp, vrtr, radius, wpp, wlan-gw, dynsvc, mpls-tp, bfd, python, ripng, openflow, sflow, rpki, pcep, calltrace, satellite, ldap, pppoe-clnt, tls, adp, mgmt-core, macsec, sr-policy, pcap, auto-prov, bier, pfcp, tree-sid, srv6, sr-mpls, anysec |
| Notes | The following elements are part of a choice: **eq** or **neq**. |
| Introduced | 21.2.R1 |
| Platforms | All |

## neq *keyword*

| | |
|---|---|
| Synopsis | Application to be filtered out |
| Context | **configure** service vprn *service-name* log filter *log-filter-name* named-entry *log-filter-entry-name* match application neq *keyword* |
| Tree | neq |
| Options | application-assurance, aps, bgp, cflowd, chassis, debug, dhcp, dhcps, diameter, dot1x, efm-oam, elmi, ering, eth-cfm, etun, filter, gsmp, igmp, igmp-snooping, ip, ipsec, isis, l2tp, lag, ldp, li, lldp, logger, mcpath, mc-redundancy, mirror, mld, mld-snooping, mpls, msdp, nat, ntp, oam, ospf, pim, pim-snooping, port, pppoe, ptp, rip, route-policy, rsvp, security, snmp, stp, svcmgr, system, user, video, vrrp, vrtr, radius, wpp, wlan-gw, dynsvc, mpls-tp, bfd, python, ripng, openflow, sflow, rpki, pcep, calltrace, satellite, ldap, |


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| | |
|---|---|
| | pppoe-clnt, tls, adp, mgmt-core, macsec, sr-policy, pcap, auto-prov, bier, pfcp, tree-sid, srv6, sr-mpls, anysec |
| Notes | The following elements are part of a choice: **eq** or **neq**. |
| Introduced | 21.2.R1 |
| Platforms | All |

## event

| | |
|---|---|
| Synopsis | Enter the **event** context |
| Context | **configure** service vprn *service-name* log filter *log-filter-name* named-entry *log-filter-entry-name* match event |
| Tree | event |
| Introduced | 21.2.R1 |
| Platforms | All |

## eq *number*

| | |
|---|---|
| Synopsis | Log event message to match |
| Context | **configure** service vprn *service-name* log filter *log-filter-name* named-entry *log-filter-entry-name* match event eq *number* |
| Tree | eq |
| Range | 1 to 4294967295 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **gte**, **lt**, **lte**, or **neq**. |
| Introduced | 21.2.R1 |
| Platforms | All |

## gt *number*

| | |
|---|---|
| Synopsis | Number of the log event to match |
| Context | **configure** service vprn *service-name* log filter *log-filter-name* named-entry *log-filter-entry-name* match event gt *number* |
| Tree | gt |
| Range | 1 to 4294967295 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **gte**, **lt**, **lte**, or **neq**. |
| Introduced | 21.2.R1 |
| Platforms | All |


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### **gte** *number*

| | |
|---|---|
| Synopsis | Number of the log event to match |
| Context | **configure** service vprn *service-name* log filter *log-filter-name* named-entry *log-filter-entry-name* match event gte *number* |
| Tree | gte |
| Range | 1 to 4294967295 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **gte**, **lt**, **lte**, or **neq**. |
| Introduced | 21.2.R1 |
| Platforms | All |

### **lt** *number*

| | |
|---|---|
| Synopsis | Number of the log event to match |
| Context | **configure** service vprn *service-name* log filter *log-filter-name* named-entry *log-filter-entry-name* match event lt *number* |
| Tree | lt |
| Range | 1 to 4294967295 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **gte**, **lt**, **lte**, or **neq**. |
| Introduced | 21.2.R1 |
| Platforms | All |

### **lte** *number*

| | |
|---|---|
| Synopsis | Number of the log event to match |
| Context | **configure** service vprn *service-name* log filter *log-filter-name* named-entry *log-filter-entry-name* match event lte *number* |
| Tree | lte |
| Range | 1 to 4294967295 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **gte**, **lt**, **lte**, or **neq**. |
| Introduced | 21.2.R1 |
| Platforms | All |

### **neq** *number*

| | |
|---|---|
| Synopsis | Log event message to filter out |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* log filter *log-filter-name* named-entry *log-filter-entry-name* match event neq *number* |
| Tree | neq |
| Range | 1 to 4294967295 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **gte**, **lt**, **lte**, or **neq**. |
| Introduced | 21.2.R1 |
| Platforms | All |

## message

| | |
|---|---|
| Synopsis | Enter the **message** context |
| Context | **configure** service vprn *service-name* log filter *log-filter-name* named-entry *log-filter-entry-name* match message |
| Tree | message |
| Introduced | 21.2.R1 |
| Platforms | All |

## **eq** *string*

| | |
|---|---|
| Synopsis | Log event message to match |
| Context | **configure** service vprn *service-name* log filter *log-filter-name* named-entry *log-filter-entry-name* match message eq *string* |
| Tree | eq |
| String length | 1 to 400 |
| Notes | The following elements are part of a choice: **eq** or **neq**. |
| Introduced | 21.2.R1 |
| Platforms | All |

## **neq** *string*

| | |
|---|---|
| Synopsis | Log event message to be filtered out |
| Context | **configure** service vprn *service-name* log filter *log-filter-name* named-entry *log-filter-entry-name* match message neq *string* |
| Tree | neq |
| String length | 1 to 400 |
| Notes | The following elements are part of a choice: **eq** or **neq**. |


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| | |
|---|---|
| Introduced | 21.2.R1 |
| Platforms | All |

### **regexp** *boolean*

| | |
|---|---|
| Synopsis | String comparison to determine if the log event matches the value of pattern |
| Context | **configure** service vprn *service-name* log filter *log-filter-name* named-entry *log-filter-entry-name* match message regexp *boolean* |
| Tree | regexp |
| Default | false |
| Introduced | 21.2.R1 |
| Platforms | All |

### **severity**

| | |
|---|---|
| Synopsis | Enter the **severity** context |
| Context | **configure** service vprn *service-name* log filter *log-filter-name* named-entry *log-filter-entry-name* match severity |
| Tree | severity |
| Introduced | 21.2.R1 |
| Platforms | All |

### **eq** *keyword*

| | |
|---|---|
| Synopsis | Log event severity level to match |
| Context | **configure** service vprn *service-name* log filter *log-filter-name* named-entry *log-filter-entry-name* match severity eq *keyword* |
| Tree | eq |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Notes | The following elements are part of a choice: **eq**, **gt**, **gte**, **lt**, **lte**, or **neq**. |
| Introduced | 21.2.R1 |
| Platforms | All |

### **gt** *keyword*

| | |
|---|---|
| Synopsis | Log event severity level |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* log filter *log-filter-name* named-entry *log-filter-entry-name* match severity gt *keyword* |
| Tree | gt |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Notes | The following elements are part of a choice: **eq**, **gt**, **gte**, **lt**, **lte**, or **neq**. |
| Introduced | 21.2.R1 |
| Platforms | All |

## **gte** *keyword*

| | |
|---|---|
| Synopsis | Log event severity level |
| Context | **configure** service vprn *service-name* log filter *log-filter-name* named-entry *log-filter-entry-name* match severity gte *keyword* |
| Tree | gte |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Notes | The following elements are part of a choice: **eq**, **gt**, **gte**, **lt**, **lte**, or **neq**. |
| Introduced | 21.2.R1 |
| Platforms | All |

## **lt** *keyword*

| | |
|---|---|
| Synopsis | Log event severity level |
| Context | **configure** service vprn *service-name* log filter *log-filter-name* named-entry *log-filter-entry-name* match severity lt *keyword* |
| Tree | lt |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Notes | The following elements are part of a choice: **eq**, **gt**, **gte**, **lt**, **lte**, or **neq**. |
| Introduced | 21.2.R1 |
| Platforms | All |

## **lte** *keyword*

| | |
|---|---|
| Synopsis | Log event severity level |
| Context | **configure** service vprn *service-name* log filter *log-filter-name* named-entry *log-filter-entry-name* match severity lte *keyword* |
| Tree | lte |


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| | |
|---|---|
| Options | cleared, indeterminate, critical, major, minor, warning |
| Notes | The following elements are part of a choice: **eq**, **gt**, **gte**, **lt**, **lte**, or **neq**. |
| Introduced | 21.2.R1 |
| Platforms | All |

### **neq** *keyword*

| | |
|---|---|
| Synopsis | Log event severity level to filter out |
| Context | **configure** service vprn *service-name* log filter *log-filter-name* named-entry *log-filter-entry-name* match severity neq *keyword* |
| Tree | neq |
| Options | cleared, indeterminate, critical, major, minor, warning |
| Notes | The following elements are part of a choice: **eq**, **gt**, **gte**, **lt**, **lte**, or **neq**. |
| Introduced | 21.2.R1 |
| Platforms | All |

### **subject**

| | |
|---|---|
| Synopsis | Enter the **subject** context |
| Context | **configure** service vprn *service-name* log filter *log-filter-name* named-entry *log-filter-entry-name* match subject |
| Tree | subject |
| Introduced | 21.2.R1 |
| Platforms | All |

### **eq** *named-item*

| | |
|---|---|
| Synopsis | Log event subject string to match |
| Context | **configure** service vprn *service-name* log filter *log-filter-name* named-entry *log-filter-entry-name* match subject eq *named-item* |
| Tree | eq |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **eq** or **neq**. |
| Introduced | 21.2.R1 |
| Platforms | All |


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### **neq** *named-item*

| | |
|---|---|
| Synopsis | Log event subject string to filter out |
| Context | **configure** service vprn *service-name* log filter *log-filter-name* named-entry *log-filter-entry-name* match subject neq *named-item* |
| Tree | neq |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **eq** or **neq**. |
| Introduced | 21.2.R1 |
| Platforms | All |

### **regexp** *boolean*

| | |
|---|---|
| Synopsis | String comparison to determine if the log event matches the value of subject |
| Context | **configure** service vprn *service-name* log filter *log-filter-name* named-entry *log-filter-entry-name* match subject regexp *boolean* |
| Tree | regexp |
| Default | false |
| Introduced | 21.2.R1 |
| Platforms | All |

### **log-id** [name] *li-log-name*

| | |
|---|---|
| Synopsis | Enter the **log-id** list instance |
| Context | **configure** service vprn *service-name* log log-id *li-log-name* |
| Tree | log-id |
| Max. instances | 30 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**name**] *li-log-name*

| | |
|---|---|
| Synopsis | Log ID |
| Context | **configure** service vprn *service-name* log log-id *li-log-name* |
| Tree | log-id |


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| | |
|---|---|
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 21.2.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the log |
| Context | **configure** service vprn *service-name* log log-id *li-log-name* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* log log-id *li-log-name* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **destination**

| | |
|---|---|
| Synopsis | Enter the **destination** context |
| Context | **configure** service vprn *service-name* log log-id *li-log-name* destination |
| Tree | destination |
| Introduced | 16.0.R1 |
| Platforms | All |

### **netconf**

| | |
|---|---|
| Synopsis | Enable the **netconf** context |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* log log-id *li-log-name* destination netconf |
| Tree | netconf |
| Notes | The following elements are part of a choice: **netconf**, **snmp**, or **syslog**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **max-entries** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Number of events stored in the NETCONF log |
| Context | **configure** service vprn *service-name* log log-id *li-log-name* destination netconf max-entries *number* |
| Tree | max-entries |
| Range | 50 to 3000 |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **snmp**

| | |
|---|---|
| Synopsis | Enable the **snmp** context |
| Context | **configure** service vprn *service-name* log log-id *li-log-name* destination snmp |
| Tree | snmp |
| Notes | The following elements are part of a choice: **netconf**, **snmp**, or **syslog**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **max-entries** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Number of events stored in the memory log |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* log log-id *li-log-name* destination snmp max-entries *number* |
| Tree | max-entries |
| Range | 50 to 3000 |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **syslog** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Index with the information to format event messages sent to a specific SYSLOG collector |
| Context | **configure** service vprn *service-name* log log-id *li-log-name* destination syslog *reference* |
| Tree | syslog |
| Reference | **configure** service vprn *service-name* log syslog *log-vprn-syslog-name* |
| Notes | The following elements are part of a choice: **netconf**, **snmp**, or **syslog**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **filter** *reference*

| | |
|---|---|
| Synopsis | Event filter policy with the log destination |
| Context | **configure** service vprn *service-name* log log-id *li-log-name* filter *reference* |
| Tree | filter |
| Reference | **configure** service vprn *service-name* log filter *log-filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **netconf-stream** *named-item*

| | |
|---|---|
| Synopsis | Destination NETCONF stream name |
| Context | **configure** service vprn *service-name* log log-id *li-log-name* netconf-stream *named-item* |


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| | |
|---|---|
| Tree | netconf-stream |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **python-policy** *reference*

| | |
|---|---|
| Synopsis | Python policy name |
| Context | **configure** service vprn *service-name* log log-id *li-log-name* python-policy *reference* |
| Tree | python-policy |
| Reference | **configure** python python-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **source**

| | |
|---|---|
| Synopsis | Enter the **source** context |
| Context | **configure** service vprn *service-name* log log-id *li-log-name* source |
| Tree | source |
| Introduced | 16.0.R1 |
| Platforms | All |

### **change** *boolean*

| | |
|---|---|
| Synopsis | Collect log events from the change event stream |
| Context | **configure** service vprn *service-name* log log-id *li-log-name* source change *boolean* |
| Tree | change |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **debug** *boolean*

| | |
|---|---|
| Synopsis | Collect log events from the debug event stream |
| Context | **configure** service vprn *service-name* log log-id *li-log-name* source debug *boolean* |


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| | |
|---|---|
| Tree | debug |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **main** *boolean*

| | |
|---|---|
| Synopsis | Collect log events from the main event stream |
| Context | **configure** service vprn *service-name* log log-id *li-log-name* source main *boolean* |
| Tree | main |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **security** *boolean*

| | |
|---|---|
| Synopsis | Collect log events from the security event stream |
| Context | **configure** service vprn *service-name* log log-id *li-log-name* source security *boolean* |
| Tree | security |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **time-format** *keyword*

| | |
|---|---|
| Synopsis | Time zone output for file log contents and syslog |
| Context | **configure** service vprn *service-name* log log-id *li-log-name* time-format *keyword* |
| Tree | time-format |
| Options | utc, local |
| Default | utc |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **snmp-trap-group** [log-name] *svc-vprn-snmp-trap-group-name*

| | |
|---|---|
| Synopsis | Enter the **snmp-trap-group** list instance |
| Context | **configure** service vprn *service-name* log snmp-trap-group *svc-vprn-snmp-trap-group-name* |
| Tree | snmp-trap-group |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**log-name**] *svc-vprn-snmp-trap-group-name*

| | |
|---|---|
| Synopsis | Log ID |
| Context | **configure** service vprn *service-name* log snmp-trap-group *svc-vprn-snmp-trap-group-name* |
| Tree | snmp-trap-group |
| String length | 1 to 17 |
| Notes | This element is part of a list key. |
| Introduced | 21.2.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* log snmp-trap-group *svc-vprn-snmp-trap-group-name* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **trap-target** [name] *string*

| | |
|---|---|
| Synopsis | Enter the **trap-target** list instance |
| Context | **configure** service vprn *service-name* log snmp-trap-group *svc-vprn-snmp-trap-group-name* trap-target *string* |
| Tree | trap-target |


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| | |
|---|---|
| Max. instances | 25 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**name**] *string*

| | |
|---|---|
| Synopsis | Trap target name |
| Context | **configure** service vprn *service-name* log snmp-trap-group *svc-vprn-snmp-trap-group-name* trap-target *string* |
| Tree | trap-target |
| String length | 1 to 28 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the trap receiver |
| Context | **configure** service vprn *service-name* log snmp-trap-group *svc-vprn-snmp-trap-group-name* trap-target *string* address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | address |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* log snmp-trap-group *svc-vprn-snmp-trap-group-name* trap-target *string* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **notify-community** *string*

| | |
|---|---|
| Synopsis | SNMPv1 or SNMPv2c community name string, or SNMPv3 security name, for sending a notification |
| Context | **configure** service vprn *service-name* log snmp-trap-group *svc-vprn-snmp-trap-group-name* trap-target *string* notify-community *string* |
| Tree | notify-community |
| String length | 1 to 31 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **port** *number*

| | |
|---|---|
| Synopsis | UDP port number to send messages to this remote SNMP notification collector |
| Context | **configure** service vprn *service-name* log snmp-trap-group *svc-vprn-snmp-trap-group-name* trap-target *string* port *number* |
| Tree | port |
| Range | 0 \| 1 to 65535 |
| Default | 162 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **replay** *boolean*

| | |
|---|---|
| Synopsis | Retransmit missed notifications |
| Context | **configure** service vprn *service-name* log snmp-trap-group *svc-vprn-snmp-trap-group-name* trap-target *string* replay *boolean* |
| Tree | replay |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **security-level** *keyword*

| | |
|---|---|
| Synopsis | Security level at which SNMP notification messages are sent to SNMP notification collector |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* log snmp-trap-group *svc-vprn-snmp-trap-group-name* trap-target *string* security-level *keyword* |
| Tree | security-level |
| Options | no-auth-no-privacy, auth-no-privacy, privacy |
| Default | no-auth-no-privacy |
| Introduced | 16.0.R1 |
| Platforms | All |

## **version** *keyword*

| | |
|---|---|
| Synopsis | SNMP version to format notification messages sent to this SNMP notification collector |
| Context | **configure** service vprn *service-name* log snmp-trap-group *svc-vprn-snmp-trap-group-name* trap-target *string* version *keyword* |
| Tree | version |
| Options | snmpv1, snmpv2c, snmpv3 |
| Default | snmpv3 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **syslog** [syslog-name] *log-vprn-syslog-name*

| | |
|---|---|
| Synopsis | Enter the **syslog** list instance |
| Context | **configure** service vprn *service-name* log syslog *log-vprn-syslog-name* |
| Tree | syslog |
| Max. instances | 30 |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**syslog-name**] *log-vprn-syslog-name*

| | |
|---|---|
| Synopsis | Syslog name |
| Context | **configure** service vprn *service-name* log syslog *log-vprn-syslog-name* |
| Tree | syslog |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 21.2.R1 |
| Platforms | All |

### **address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the Syslog target host |
| Context | **configure** service vprn *service-name* log syslog *log-vprn-syslog-name* address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | address |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* log syslog *log-vprn-syslog-name* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **facility** *keyword*

| | |
|---|---|
| Synopsis | Facility code for messages |
| Context | **configure** service vprn *service-name* log syslog *log-vprn-syslog-name* facility *keyword* |
| Tree | facility |
| Options | kernel, user, mail, systemd, auth, syslogd, printer, netnews, uucp, cron, authpriv, ftp, ntp, logaudit, logalert, cron2, local0, local1, local2, local3, local4, local5, local6, local7 |
| Default | local7 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hostname**

| | |
|---|---|
| Synopsis | Enter the **hostname** context |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* log syslog *log-vprn-syslog-name* hostname |
| Tree | hostname |
| Description | Commands in this context control how the HOSTNAME field of syslog messages is populated.<br>If no command option is configured, the HOSTNAME is populated with an IP address. |
| Introduced | 23.7.R1 |
| Platforms | All |

## use-system-name

| | |
|---|---|
| Synopsis | Enable the **use-system-name** context |
| Context | **configure** service vprn *service-name* log syslog *log-vprn-syslog-name* hostname use-system-name |
| Tree | use-system-name |
| Description | Commands in this context configure the system to use the system name configured with the **configure system name** command as the HOSTNAME field of syslog messages.<br>Do not use any spaces in the system name if it is used for the syslog HOSTNAME. |
| Notes | The following elements are part of a choice: **use-system-name**, **use-vprn-name**, or **value**. |
| Introduced | 23.7.R1 |
| Platforms | All |

## use-vprn-name

| | |
|---|---|
| Synopsis | Enable the **use-vprn-name** context |
| Context | **configure** service vprn *service-name* log syslog *log-vprn-syslog-name* hostname use-vprn-name |
| Tree | use-vprn-name |
| Description | Commands in this context configure the system to use the VPRN service name configured with the **configure service vprn service-name** command as the HOSTNAME field of syslog messages sent in this VPRN.<br>Do not use any spaces in the VPRN name if it is used for the syslog HOSTNAME. |
| Notes | The following elements are part of a choice: **use-system-name**, **use-vprn-name**, or **value**. |
| Introduced | 23.7.R1 |
| Platforms | All |


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### **value** *named-item-255*

| | |
|---|---|
| Synopsis | Syslog HOSTNAME field value |
| Context | **configure** service vprn *service-name* log syslog *log-vprn-syslog-name* hostname value *named-item-255* |
| Tree | value |
| Description | This command configures a string as the HOSTNAME field of syslog messages.<br>Do not use any spaces in the string used for the syslog HOSTNAME. |
| String length | 1 to 255 |
| Notes | The following elements are part of a choice: **use-system-name**, **use-vprn-name**, or **value**. |
| Introduced | 23.7.R1 |
| Platforms | All |

### **log-prefix** *(keyword | string)*

| | |
|---|---|
| Synopsis | Prefix string to log message sent to target syslog host |
| Context | **configure** service vprn *service-name* log syslog *log-vprn-syslog-name* log-prefix *(keyword | string)* |
| Tree | log-prefix |
| String length | 1 to 32 |
| Options | no-prefix |
| Default | TMNX |
| Introduced | 16.0.R1 |
| Platforms | All |

### **port** *number*

| | |
|---|---|
| Synopsis | Destination port when sending syslog over UDP |
| Context | **configure** service vprn *service-name* log syslog *log-vprn-syslog-name* port *number* |
| Tree | port |
| Range | 0 \| 1 to 65535 |
| Default | 514 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **severity** *keyword*

| | |
|---|---|
| Synopsis | Severity level threshold for the syslog message |
| Context | **configure** service vprn *service-name* log syslog *log-vprn-syslog-name* severity *keyword* |
| Tree | severity |
| Options | emergency, alert, critical, error, warning, notice, info, debug |
| Default | info |
| Introduced | 16.0.R1 |
| Platforms | All |

### **timestamp-format** *keyword*

| | |
|---|---|
| Synopsis | Syslog timestamp format |
| Context | **configure** service vprn *service-name* log syslog *log-vprn-syslog-name* timestamp-format *keyword* |
| Tree | timestamp-format |
| Options | millisecond – Set timestamp format to milliseconds |
| Introduced | 24.7.R1 |
| Platforms | All |

### **tls-client-profile** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | TLS client profile used to encrypt syslog communication |
| Context | **configure** service vprn *service-name* log syslog *log-vprn-syslog-name* tls-client-profile *reference* |
| Tree | tls-client-profile |
| Description | This command specifies the Transport Layer Security (TLS) client profile used to encrypt syslog communications. When configured, syslog messages are sent using TLS.<br>Any change to this command results in a brief interruption of the event log, which may cause the loss of a few syslog messages.<br>When this command is unconfigured, the syslog messages are sent over UDP. |
| Reference | **configure** system security tls client-tls-profile *named-item* |
| Introduced | 21.10.R1 |


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| | |
|---|---|
| Platforms | All |

## management

| | |
|---|---|
| Synopsis | Enable the **management** context |
| Context | **configure** service vprn *service-name* management |
| Tree | management |
| Description | Commands in this context control which management protocols can be used to access the SR OS router via the VPRN router instance.<br>For SNMP control, see the **configure service vprn snmp access** command. |
| Introduced | 16.0.R4 |
| Platforms | All |

## allow-ftp *boolean*

| | |
|---|---|
| Synopsis | Allow access to the FTP server |
| Context | **configure** service vprn *service-name* management allow-ftp *boolean* |
| Tree | allow-ftp |
| Description | When configured to **true**, this command allows FTP access to the SR OS router via the VPRN router instance.<br>When configured to **false**, this command disallows access to the SR OS FTP server. |
| Default | false |
| Introduced | 16.0.R6 |
| Platforms | All |

## allow-grpc *boolean*

| | |
|---|---|
| Synopsis | Allow access to the gRPC server |
| Context | **configure** service vprn *service-name* management allow-grpc *boolean* |
| Tree | allow-grpc |
| Description | When configured to **true**, this command allows access to the gRPC server via the VPRN router instance.<br>When configured to **false**, this command disallows gRPC server access. |
| Default | false |
| Introduced | 19.5.R1 |
| Platforms | All |


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### **allow-netconf** *boolean*

| | |
|---|---|
| Synopsis | Allow access to the NETCONF server |
| Context | **configure** service vprn *service-name* management allow-netconf *boolean* |
| Tree | allow-netconf |
| Description | When configured to **true**, this command allows NETCONF server access to the SR OS router via the VPRN router instance.<br>When configured to **false**, this command disallows access to the NETCONF server. |
| Default | false |
| Introduced | 19.5.R1 |
| Platforms | All |

### **allow-ssh** *boolean*

| | |
|---|---|
| Synopsis | Allow access to the SSH server |
| Context | **configure** service vprn *service-name* management allow-ssh *boolean* |
| Tree | allow-ssh |
| Description | When configured to **true**, this command allows SSH server access to the SR OS router via the VPRN router instance.<br>When configured to **false**, this command disallows SSH server access. |
| Default | false |
| Introduced | 16.0.R5 |
| Platforms | All |

### **allow-telnet** *boolean*

| | |
|---|---|
| Synopsis | Allow access to the IPv4 Telnet server |
| Context | **configure** service vprn *service-name* management allow-telnet *boolean* |
| Tree | allow-telnet |
| Description | When configured to **true**, this command allows IPv4 Telnet server access to the SR OS router via the VPRN router instance.<br>When configured to **false**, this command disallows access to the IPv4 Telnet server. |
| Default | false |
| Introduced | 16.0.R5 |
| Platforms | All |


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### **allow-telnet6** *boolean*

| | |
|---|---|
| Synopsis | Allow access to the Telnet IPv6 server |
| Context | **configure** service vprn *service-name* management allow-telnet6 *boolean* |
| Tree | allow-telnet6 |
| Description | When configured to **true**, this command allows IPv6 Telnet server access to the SR OS router via the VPRN router instance.<br>When configured to **false**, this command removes access to the IPv6 Telnet server. |
| Default | false |
| Introduced | 16.0.R5 |
| Platforms | All |

### **maximum-ipv4-routes**

| | |
|---|---|
| Synopsis | Enter the **maximum-ipv4-routes** context |
| Context | **configure** service vprn *service-name* maximum-ipv4-routes |
| Tree | maximum-ipv4-routes |
| Introduced | 16.0.R1 |
| Platforms | All |

### **log-only** *boolean*

| | |
|---|---|
| Synopsis | Action when the maximum number of routes, held within a VRF context, is reached |
| Context | **configure** service vprn *service-name* maximum-ipv4-routes log-only *boolean* |
| Tree | log-only |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **threshold** *number*

| | |
|---|---|
| Synopsis | Mid-level water marker for the number of routes which this VRF holds |
| Context | **configure** service vprn *service-name* maximum-ipv4-routes threshold *number* |
| Tree | threshold |
| Range | 1 to 100 |


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| | |
|---|---|
| Units | percent |
| Introduced | 16.0.R1 |
| Platforms | All |

## **value** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum number of routes that are configured on this virtual router |
| Context | **configure** service vprn *service-name* maximum-ipv4-routes value *number* |
| Tree | value |
| Range | 1 to 2147483647 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **maximum-ipv6-routes**

| | |
|---|---|
| Synopsis | Enter the **maximum-ipv6-routes** context |
| Context | **configure** service vprn *service-name* maximum-ipv6-routes |
| Tree | maximum-ipv6-routes |
| Introduced | 16.0.R1 |
| Platforms | All |

## **log-only** *boolean*

| | |
|---|---|
| Synopsis | Action when the maximum number of routes, held within a VRF context, is reached |
| Context | **configure** service vprn *service-name* maximum-ipv6-routes log-only *boolean* |
| Tree | log-only |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **threshold** *number*

| | |
|---|---|
| Synopsis | Mid-level water marker for the number of routes which this VRF holds |
| Context | **configure** service vprn *service-name* maximum-ipv6-routes threshold *number* |
| Tree | threshold |
| Range | 1 to 100 |
| Units | percent |
| Introduced | 16.0.R1 |
| Platforms | All |

### **value** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum number of routes that are configured on this virtual router |
| Context | **configure** service vprn *service-name* maximum-ipv6-routes value *number* |
| Tree | value |
| Range | 1 to 2147483647 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mc-maximum-routes**

| | |
|---|---|
| Synopsis | Enter the **mc-maximum-routes** context |
| Context | **configure** service vprn *service-name* mc-maximum-routes |
| Tree | mc-maximum-routes |
| Introduced | 16.0.R1 |
| Platforms | All |

### **log-only** *boolean*

| | |
|---|---|
| Synopsis | Log and allow learning of new multicast routes |
| Context | **configure** service vprn *service-name* mc-maximum-routes log-only *boolean* |
| Tree | log-only |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **threshold** *number*

| | |
|---|---|
| Synopsis | Maximum multicast routes which the VRF holds |
| Context | **configure** service vprn *service-name* mc-maximum-routes threshold *number* |
| Tree | threshold |
| Range | 1 to 100 |
| Units | percent |
| Introduced | 16.0.R1 |
| Platforms | All |

### **value** *number*

| | |
|---|---|
| Synopsis | Maximum multicast routes configured on virtual router |
| Context | **configure** service vprn *service-name* mc-maximum-routes value *number* |
| Tree | value |
| Range | 1 to 2147483647 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mld**

| | |
|---|---|
| Synopsis | Enable the **mld** context |
| Context | **configure** service vprn *service-name* mld |
| Tree | mld |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of MLD |
| Context | **configure** service vprn *service-name* mld admin-state *keyword* |


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| | |
|---|---|
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **forwarding-group-interface** forwarding-service *service-name* group-interface-name *reference*

| | |
|---|---|
| Synopsis | Enter the **forwarding-group-interface** list instance |
| Context | **configure** service vprn *service-name* mld forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* |
| Tree | forwarding-group-interface |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **forwarding-service** *service-name*

| | |
|---|---|
| Synopsis | Forwarding service for a subscriber interface in a retailer context |
| Context | **configure** service vprn *service-name* mld forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* |
| Tree | forwarding-group-interface |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **group-interface-name** *reference*

| | |
|---|---|
| Synopsis | Group interface name |
| Context | **configure** service vprn *service-name* mld forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* |
| Tree | forwarding-group-interface |
| Reference | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the MLD interface |
| Context | **configure** service vprn *service-name* mld forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **import-policy** *reference*

| | |
|---|---|
| Synopsis | Import policy to filter MLD packets |
| Context | **configure** service vprn *service-name* mld forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* import-policy *reference* |
| Tree | import-policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **maximum-number-group-sources** *number*

| | |
|---|---|
| Synopsis | Maximum number of group sources for this interface |
| Context | **configure** service vprn *service-name* mld forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* maximum-number-group-sources *number* |
| Tree | maximum-number-group-sources |
| Description | This command configures the maximum number of group sources for which IGMP or MLD can have local receiver information based on received IGMP or MLD reports on this interface. When this configuration is changed dynamically to a lower value than the currently accepted number of group sources, the group sources that are already accepted are not deleted. Only new group sources are not allowed. |
| Range | 1 to 32000 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **maximum-number-groups** *number*

| | |
|---|---|
| Synopsis | Maximum number of groups for this interface |
| Context | **configure** service vprn *service-name* mld forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* maximum-number-groups *number* |
| Tree | maximum-number-groups |
| Range | 1 to 16000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **maximum-number-sources** *number*

| | |
|---|---|
| Synopsis | Maximum number of sources that are allowed per group |
| Context | **configure** service vprn *service-name* mld forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* maximum-number-sources *number* |
| Tree | maximum-number-sources |
| Range | 1 to 1000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **mcac**

| | |
|---|---|
| Synopsis | Enter the **mcac** context |
| Context | **configure** service vprn *service-name* mld forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* mcac |
| Tree | mcac |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **bandwidth**

| | |
|---|---|
| Synopsis | Enter the **bandwidth** context |
| Context | **configure** service vprn *service-name* mld forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* mcac bandwidth |
| Tree | bandwidth |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **mandatory** *(number | keyword)*

| | |
|---|---|
| Synopsis | Pre-reserved bandwidth for all mandatory channels |
| Context | **configure** service vprn *service-name* mld forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* mcac bandwidth mandatory *(number | keyword)* |
| Tree | mandatory |
| Range | 0 to 2147483647 |
| Options | unlimited |
| Default | unlimited |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **total** *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum allowed bandwidth |
| Context | **configure** service vprn *service-name* mld forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* mcac bandwidth total *(number | keyword)* |
| Tree | total |
| Range | 0 to 2147483647 |
| Options | unlimited |
| Default | unlimited |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **interface-policy** *reference*

| | |
|---|---|
| Synopsis | Name of multicast CAC interface policy |
| Context | **configure** service vprn *service-name* mld forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* mcac interface-policy *reference* |
| Tree | interface-policy |
| Reference | **configure** mcac interface-policy *string* |
| Introduced | 16.0.R1 |


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Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR

## **policy** *reference*

Synopsis Multicast CAC policy name

Context **configure** service vprn *service-name* mld forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* mcac policy *reference*

Tree policy

Description This command configures the name of the global channel bandwidth definition policy that is used for (H)MCAC and HQoS adjustment.

Within the scope of HQoS adjustment, the channel definition policy under the group interface is used if redirection is unconfigured. In this case, the HQoS adjustment can be applied to IPoE subscribers in per-SAP replication mode.

If redirection is configured, the channel bandwidth definition policy applied under the Layer 3 redirected interface is in effect.

Hierarchical MCAC (HMCAC) is supported on two levels simultaneously:

- subscriber level and redirected interface when redirection is configured
- subscriber level and group-interface level when redirection is unconfigured

In HMCAC, the subscriber is checked against its bandwidth limits first, then against the bandwidth limits of the redirected or group interface. If redirection is configured but the policy is referenced only under the group interface, no admission control is executed (HMCAC or MCAC).

Reference **configure** mcac policy *string*

Introduced 16.0.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR

## **query-interval** *number*

Synopsis Time between two consecutive host-query messages

Context **configure** service vprn *service-name* mld forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* query-interval *number*

Tree query-interval

Range 2 to 1024

Introduced 16.0.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR


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### **query-last-member-interval** *number*

| | |
|---|---|
| Synopsis | Time between group-specific query messages |
| Context | **configure** service vprn *service-name* mld forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* query-last-member-interval *number* |
| Tree | query-last-member-interval |
| Range | 1 to 1023 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **query-response-interval** *number*

| | |
|---|---|
| Synopsis | Time to wait for a response to the host-query messages |
| Context | **configure** service vprn *service-name* mld forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* query-response-interval *number* |
| Tree | query-response-interval |
| Range | 1 to 1023 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **query-source-address** *ipv6-unicast-or-linklocal-address*

| | |
|---|---|
| Synopsis | Source address for MLD queries |
| Context | **configure** service vprn *service-name* mld forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* query-source-address *ipv6-unicast-or-linklocal-address* |
| Tree | query-source-address |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **router-alert-check** *boolean*

| | |
|---|---|
| Synopsis | Enable router alert checking for IGMP or MLD messages |
| Context | **configure** service vprn *service-name* mld forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* router-alert-check *boolean* |
| Tree | router-alert-check |
| Default | true |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sub-hosts-only** *boolean*

| | |
|---|---|
| Synopsis | Allow MLD traffic from known hosts only |
| Context | **configure** service vprn *service-name* mld forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* sub-hosts-only *boolean* |
| Tree | sub-hosts-only |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **subnet-check** *boolean*

| | |
|---|---|
| Synopsis | Enable subnet checking |
| Context | **configure** service vprn *service-name* mld forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* subnet-check *boolean* |
| Tree | subnet-check |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **version** *keyword*

| | |
|---|---|
| Synopsis | MLD protocol version |
| Context | **configure** service vprn *service-name* mld forwarding-group-interface forwarding-service *service-name* group-interface-name *reference* version *keyword* |
| Tree | version |
| Options | 1, 2 |
| Default | 2 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **group-if-query-source-address** *ipv6-unicast-or-linklocal-address*

| | |
|---|---|
| Synopsis | Source address in queries for group interfaces when not configured at group interface level |
| Context | **configure** service vprn *service-name* mld group-if-query-source-address *ipv6-unicast-or-linklocal-address* |
| Tree | group-if-query-source-address |
| Introduced | 16.0.R1 |
| Platforms | All |

### **group-interface** [group-interface-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **group-interface** list instance |
| Context | **configure** service vprn *service-name* mld group-interface *reference* |
| Tree | group-interface |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**group-interface-name**] *reference*

| | |
|---|---|
| Synopsis | Group interface name |
| Context | **configure** service vprn *service-name* mld group-interface *reference* |
| Tree | group-interface |
| Reference | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the MLD interface |
| Context | **configure** service vprn *service-name* mld group-interface *reference* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |


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| | |
|---|---|
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **import-policy** *reference*

| | |
|---|---|
| Synopsis | Import policy to filter MLD packets |
| Context | **configure** service vprn *service-name* mld group-interface *reference* import-policy *reference* |
| Tree | import-policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **maximum-number-group-sources** *number*

| | |
|---|---|
| Synopsis | Maximum number of group sources for this interface |
| Context | **configure** service vprn *service-name* mld group-interface *reference* maximum-number-group-sources *number* |
| Tree | maximum-number-group-sources |
| Description | This command configures the maximum number of group sources for which IGMP or MLD can have local receiver information based on received IGMP or MLD reports on this interface. When this configuration is changed dynamically to a lower value than the currently accepted number of group sources, the group sources that are already accepted are not deleted. Only new group sources are not allowed. |
| Range | 1 to 32000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **maximum-number-groups** *number*

| | |
|---|---|
| Synopsis | Maximum number of groups for this interface |
| Context | **configure** service vprn *service-name* mld group-interface *reference* maximum-number-groups *number* |
| Tree | maximum-number-groups |
| Range | 1 to 16000 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **maximum-number-sources** *number*

| | |
|---|---|
| Synopsis | Maximum number of sources that are allowed per group |
| Context | **configure** service vprn *service-name* mld group-interface *reference* maximum-number-sources *number* |
| Tree | maximum-number-sources |
| Range | 1 to 1000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **mcac**

| | |
|---|---|
| Synopsis | Enter the **mcac** context |
| Context | **configure** service vprn *service-name* mld group-interface *reference* mcac |
| Tree | mcac |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **bandwidth**

| | |
|---|---|
| Synopsis | Enter the **bandwidth** context |
| Context | **configure** service vprn *service-name* mld group-interface *reference* mcac bandwidth |
| Tree | bandwidth |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **mandatory** *(number | keyword)*

| | |
|---|---|
| Synopsis | Pre-reserved bandwidth for all mandatory channels |
| Context | **configure** service vprn *service-name* mld group-interface *reference* mcac bandwidth mandatory *(number \| keyword)* |
| Tree | mandatory |
| Range | 0 to 2147483647 |
| Options | unlimited |


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| | |
|---|---|
| Default | unlimited |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **total** *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum allowed bandwidth |
| Context | **configure** service vprn *service-name* mld group-interface *reference* mcac bandwidth total *(number | keyword)* |
| Tree | total |
| Range | 0 to 2147483647 |
| Options | unlimited |
| Default | unlimited |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **interface-policy** *reference*

| | |
|---|---|
| Synopsis | Name of multicast CAC interface policy |
| Context | **configure** service vprn *service-name* mld group-interface *reference* mcac interface-policy *reference* |
| Tree | interface-policy |
| Reference | **configure** mcac interface-policy *string* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **policy** *reference*

| | |
|---|---|
| Synopsis | Multicast CAC policy name |
| Context | **configure** service vprn *service-name* mld group-interface *reference* mcac policy *reference* |
| Tree | policy |
| Description | This command configures the name of the global channel bandwidth definition policy that is used for (H)MCAC and HQoS adjustment.<br>Within the scope of HQoS adjustment, the channel definition policy under the group interface is used if redirection is unconfigured. In this case, the HQoS adjustment can be applied to IPoE subscribers in per-SAP replication mode. |


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If redirection is configured, the channel bandwidth definition policy applied under the Layer 3 redirected interface is in effect.

Hierarchical MCAC (HMCAC) is supported on two levels simultaneously:

- subscriber level and redirected interface when redirection is configured
- subscriber level and group-interface level when redirection is unconfigured

In HMCAC, the subscriber is checked against its bandwidth limits first, then against the bandwidth limits of the redirected or group interface. If redirection is configured but the policy is referenced only under the group interface, no admission control is executed (HMCAC or MCAC).

| | |
|---|---|
| Reference | **configure** mcac policy *string* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **query-interval** *number*

| | |
|---|---|
| Synopsis | Time between two consecutive host-query messages |
| Context | **configure** service vprn *service-name* mld group-interface *reference* query-interval *number* |
| Tree | query-interval |
| Range | 2 to 1024 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **query-last-member-interval** *number*

| | |
|---|---|
| Synopsis | Time between group-specific query messages |
| Context | **configure** service vprn *service-name* mld group-interface *reference* query-last-member-interval *number* |
| Tree | query-last-member-interval |
| Range | 1 to 1023 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **query-response-interval** *number*

| | |
|---|---|
| Synopsis | Time to wait for a response to the host-query messages |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* mld group-interface *reference* query-response-interval *number* |
| Tree | query-response-interval |
| Range | 1 to 1023 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **query-source-address** *ipv6-unicast-or-linklocal-address*

| | |
|---|---|
| Synopsis | Source address for MLD queries |
| Context | **configure** service vprn *service-name* mld group-interface *reference* query-source-address *ipv6-unicast-or-linklocal-address* |
| Tree | query-source-address |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **router-alert-check** *boolean*

| | |
|---|---|
| Synopsis | Enable router alert checking for IGMP or MLD messages |
| Context | **configure** service vprn *service-name* mld group-interface *reference* router-alert-check *boolean* |
| Tree | router-alert-check |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sub-hosts-only** *boolean*

| | |
|---|---|
| Synopsis | Allow MLD traffic from known hosts only |
| Context | **configure** service vprn *service-name* mld group-interface *reference* sub-hosts-only *boolean* |
| Tree | sub-hosts-only |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **subnet-check** *boolean*

| | |
|---|---|
| Synopsis | Enable subnet checking |
| Context | **configure** service vprn *service-name* mld group-interface *reference* subnet-check *boolean* |
| Tree | subnet-check |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **version** *keyword*

| | |
|---|---|
| Synopsis | MLD protocol version |
| Context | **configure** service vprn *service-name* mld group-interface *reference* version *keyword* |
| Tree | version |
| Options | 1, 2 |
| Default | 2 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **interface** [ip-interface-name] *interface-name*

| | |
|---|---|
| Synopsis | Enter the **interface** list instance |
| Context | **configure** service vprn *service-name* mld interface *interface-name* |
| Tree | interface |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ip-interface-name**] *interface-name*

| | |
|---|---|
| Synopsis | IP interface name |
| Context | **configure** service vprn *service-name* mld interface *interface-name* |
| Tree | interface |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 16.0.R2 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the MLD interface |
| Context | **configure** service vprn *service-name* mld interface *interface-name* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **import-policy** *reference*

| | |
|---|---|
| Synopsis | Import policy to filter MLD packets |
| Context | **configure** service vprn *service-name* mld interface *interface-name* import-policy *reference* |
| Tree | import-policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **maximum-number-group-sources** *number*

| | |
|---|---|
| Synopsis | Maximum number of group sources for this interface |
| Context | **configure** service vprn *service-name* mld interface *interface-name* maximum-number-group-sources *number* |
| Tree | maximum-number-group-sources |
| Description | This command configures the maximum number of group sources for which IGMP or MLD can have local receiver information based on received IGMP or MLD reports on this interface. When this configuration is changed dynamically to a lower value than the currently accepted number of group sources, the group sources that are already accepted are not deleted. Only new group sources are not allowed. |
| Range | 1 to 32000 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **maximum-number-groups** *number*

| | |
|---|---|
| Synopsis | Maximum number of groups for this interface |
| Context | **configure** service vprn *service-name* mld interface *interface-name* maximum-number-groups *number* |
| Tree | maximum-number-groups |
| Range | 1 to 16000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **maximum-number-sources** *number*

| | |
|---|---|
| Synopsis | Maximum number of sources that are allowed per group |
| Context | **configure** service vprn *service-name* mld interface *interface-name* maximum-number-sources *number* |
| Tree | maximum-number-sources |
| Range | 1 to 1000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mcac**

| | |
|---|---|
| Synopsis | Enter the **mcac** context |
| Context | **configure** service vprn *service-name* mld interface *interface-name* mcac |
| Tree | mcac |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bandwidth**

| | |
|---|---|
| Synopsis | Enter the **bandwidth** context |
| Context | **configure** service vprn *service-name* mld interface *interface-name* mcac bandwidth |
| Tree | bandwidth |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **mandatory** *(number | keyword)*

| | |
|---|---|
| Synopsis | Pre-reserved bandwidth for all mandatory channels |
| Context | **configure** service vprn *service-name* mld interface *interface-name* mcac bandwidth mandatory *(number \| keyword)* |
| Tree | mandatory |
| Range | 0 to 2147483647 |
| Options | unlimited |
| Default | unlimited |
| Introduced | 16.0.R1 |
| Platforms | All |

### **total** *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum allowed bandwidth |
| Context | **configure** service vprn *service-name* mld interface *interface-name* mcac bandwidth total *(number \| keyword)* |
| Tree | total |
| Range | 0 to 2147483647 |
| Options | unlimited |
| Default | unlimited |
| Introduced | 16.0.R1 |
| Platforms | All |

### **interface-policy** *reference*

| | |
|---|---|
| Synopsis | Name of multicast CAC interface policy |
| Context | **configure** service vprn *service-name* mld interface *interface-name* mcac interface-policy *reference* |
| Tree | interface-policy |
| Reference | **configure** mcac interface-policy *string* |
| Introduced | 16.0.R1 |
| Platforms | All |


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### mc-constraints

| | |
|---|---|
| Synopsis | Enter the **mc-constraints** context |
| Context | **configure** service vprn *service-name* mld interface *interface-name* mcac mc-constraints |
| Tree | mc-constraints |
| Introduced | 16.0.R1 |
| Platforms | All |

### **level** [level-id] *number*

| | |
|---|---|
| Synopsis | Enter the **level** list instance |
| Context | **configure** service vprn *service-name* mld interface *interface-name* mcac mc-constraints level *number* |
| Tree | level |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**level-id**] *number*

| | |
|---|---|
| Synopsis | Bandwidth level ID for an MCAC constraint |
| Context | **configure** service vprn *service-name* mld interface *interface-name* mcac mc-constraints level *number* |
| Tree | level |
| Range | 1 to 8 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bandwidth** *number*

| | |
|---|---|
| Synopsis | Bandwidth available for this level |
| Context | **configure** service vprn *service-name* mld interface *interface-name* mcac mc-constraints level *number* bandwidth *number* |
| Tree | bandwidth |
| Range | 0 to 2147483647 |
| Units | kilobps |


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| | |
|---|---|
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **number-down** [number-lag-port-down] *number*

| | |
|---|---|
| Synopsis | Enter the **number-down** list instance |
| Context | **configure** service vprn *service-name* mld interface *interface-name* mcac mc-constraints number-down *number* |
| Tree | number-down |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**number-lag-port-down**] *number*

| | |
|---|---|
| Synopsis | Number of ports that are down in this LAG link |
| Context | **configure** service vprn *service-name* mld interface *interface-name* mcac mc-constraints number-down *number* |
| Tree | number-down |
| Range | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **level** *number*

| | |
|---|---|
| Synopsis | Level ID to associate with number of down LAG ports |
| Context | **configure** service vprn *service-name* mld interface *interface-name* mcac mc-constraints number-down *number* level *number* |
| Tree | level |
| Description | This command specifies the bandwidth for a given level. Level 1 has the highest priority and level 8 has the lowest priority. |
| Range | 1 to 8 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **use-lag-port-weight** *boolean*

| | |
|---|---|
| Synopsis | Use LAG port weight in calculating MCAC constraints |
| Context | **configure** service vprn *service-name* mld interface *interface-name* mcac mc-constraints use-lag-port-weight *boolean* |
| Tree | use-lag-port-weight |
| Description | When configured to **true**, port weight is used when determining available bandwidth per level when LAG ports go down or come up. This command is required for proper operation on mixed port-speed LAGs and can also be used for unmixed port-speed LAGs. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **policy** *reference*

| | |
|---|---|
| Synopsis | Multicast CAC policy name |
| Context | **configure** service vprn *service-name* mld interface *interface-name* mcac policy *reference* |
| Tree | policy |
| Description | This command configures the name of the global channel bandwidth definition policy that is used for (H)MCAC and HQoS adjustment.<br>Within the scope of HQoS adjustment, the channel definition policy under the group interface is used if redirection is unconfigured. In this case, the HQoS adjustment can be applied to IPoE subscribers in per-SAP replication mode.<br>If redirection is configured, the channel bandwidth definition policy applied under the Layer 3 redirected interface is in effect.<br>Hierarchical MCAC (HMCAC) is supported on two levels simultaneously:<br>• subscriber level and redirected interface when redirection is configured<br>• subscriber level and group-interface level when redirection is unconfigured<br>In HMCAC, the subscriber is checked against its bandwidth limits first, then against the bandwidth limits of the redirected or group interface. If redirection is configured but the policy is referenced only under the group interface, no admission control is executed (HMCAC or MCAC). |
| Reference | **configure** mcac policy *string* |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **query-interval** *number*

| | |
|---|---|
| Synopsis | Time between two consecutive host-query messages |
| Context | **configure** service vprn *service-name* mld interface *interface-name* query-interval *number* |
| Tree | query-interval |
| Range | 2 to 1024 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **query-last-member-interval** *number*

| | |
|---|---|
| Synopsis | Time between group-specific query messages |
| Context | **configure** service vprn *service-name* mld interface *interface-name* query-last-member-interval *number* |
| Tree | query-last-member-interval |
| Range | 1 to 1023 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **query-response-interval** *number*

| | |
|---|---|
| Synopsis | Time to wait for a response to the host-query messages |
| Context | **configure** service vprn *service-name* mld interface *interface-name* query-response-interval *number* |
| Tree | query-response-interval |
| Range | 1 to 1023 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **router-alert-check** *boolean*

| | |
|---|---|
| Synopsis | Enable router alert checking for IGMP or MLD messages |
| Context | **configure** service vprn *service-name* mld interface *interface-name* router-alert-check *boolean* |
| Tree | router-alert-check |


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| | |
|---|---|
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### ssm-translate

| | |
|---|---|
| Synopsis | Enter the **ssm-translate** context |
| Context | **configure** service vprn *service-name* mld interface *interface-name* ssm-translate |
| Tree | ssm-translate |
| Introduced | 16.0.R1 |
| Platforms | All |

### group-range start *ipv6-multicast-address* end *ipv6-multicast-address*

| | |
|---|---|
| Synopsis | Enter the **group-range** list instance |
| Context | **configure** service vprn *service-name* mld interface *interface-name* ssm-translate group-range start *ipv6-multicast-address* end *ipv6-multicast-address* |
| Tree | group-range |
| Introduced | 16.0.R1 |
| Platforms | All |

### start *ipv6-multicast-address*

| | |
|---|---|
| Synopsis | Lower bound of the group range |
| Context | **configure** service vprn *service-name* mld interface *interface-name* ssm-translate group-range start *ipv6-multicast-address* end *ipv6-multicast-address* |
| Tree | group-range |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### end *ipv6-multicast-address*

| | |
|---|---|
| Synopsis | Upper bound of the group range |
| Context | **configure** service vprn *service-name* mld interface *interface-name* ssm-translate group-range start *ipv6-multicast-address* end *ipv6-multicast-address* |


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| | |
|---|---|
| Tree | group-range |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **source** [source-address] *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Add a list entry for **source** |
| Context | **configure** service vprn *service-name* mld interface *interface-name* ssm-translate group-range start *ipv6-multicast-address* end *ipv6-multicast-address* source *ipv6-unicast-address* |
| Tree | source |
| Min. instances | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**source-address**] *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Source IP address |
| Context | **configure** service vprn *service-name* mld interface *interface-name* ssm-translate group-range start *ipv6-multicast-address* end *ipv6-multicast-address* source *ipv6-unicast-address* |
| Tree | source |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R2 |
| Platforms | All |

### **static**

| | |
|---|---|
| Synopsis | Enter the **static** context |
| Context | **configure** service vprn *service-name* mld interface *interface-name* static |
| Tree | static |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **group** [group-address] *ipv6-multicast-address*

| | |
|---|---|
| Synopsis | Enter the **group** list instance |
| Context | **configure** service vprn *service-name* mld interface *interface-name* static group *ipv6-multicast-address* |
| Tree | group |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**group-address**] *ipv6-multicast-address*

| | |
|---|---|
| Synopsis | Group address of multicast channel |
| Context | **configure** service vprn *service-name* mld interface *interface-name* static group *ipv6-multicast-address* |
| Tree | group |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **source** [source-address] *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Add a list entry for **source** |
| Context | **configure** service vprn *service-name* mld interface *interface-name* static group *ipv6-multicast-address* source *ipv6-unicast-address* |
| Tree | source |
| Notes | The following elements are part of a mandatory choice: **source** or **starg**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**source-address**] *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Source IP address |
| Context | **configure** service vprn *service-name* mld interface *interface-name* static group *ipv6-multicast-address* source *ipv6-unicast-address* |
| Tree | source |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 16.0.R2 |
| Platforms | All |

### starg

| | |
|---|---|
| Synopsis | any source address (*,G) |
| Context | **configure** service vprn *service-name* mld interface *interface-name* static group *ipv6-multicast-address* starg |
| Tree | starg |
| Notes | The following elements are part of a mandatory choice: **source** or **starg**. |
| Introduced | 16.0.R2 |
| Platforms | All |

### group-range start *ipv6-multicast-address* end *ipv6-multicast-address* step *ipv6-address*

| | |
|---|---|
| Synopsis | Enter the **group-range** list instance |
| Context | **configure** service vprn *service-name* mld interface *interface-name* static group-range start *ipv6-multicast-address* end *ipv6-multicast-address* step *ipv6-address* |
| Tree | group-range |
| Introduced | 16.0.R1 |
| Platforms | All |

### start *ipv6-multicast-address*

| | |
|---|---|
| Synopsis | Lower bound of the static multicast group |
| Context | **configure** service vprn *service-name* mld interface *interface-name* static group-range start *ipv6-multicast-address* end *ipv6-multicast-address* step *ipv6-address* |
| Tree | group-range |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### end *ipv6-multicast-address*

| | |
|---|---|
| Synopsis | Upper bound of the static multicast group |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* mld interface *interface-name* static group-range start *ipv6-multicast-address* end *ipv6-multicast-address* step *ipv6-address* |
| Tree | group-range |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **step** *ipv6-address*

| | |
|---|---|
| Synopsis | Step interval for the group-range addresses |
| Context | **configure** service vprn *service-name* mld interface *interface-name* static group-range start *ipv6-multicast-address* end *ipv6-multicast-address* step *ipv6-address* |
| Tree | group-range |
| MD-CLI default | ::1 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **source** [source-address] *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Add a list entry for **source** |
| Context | **configure** service vprn *service-name* mld interface *interface-name* static group-range start *ipv6-multicast-address* end *ipv6-multicast-address* step *ipv6-address* source *ipv6-unicast-address* |
| Tree | source |
| Notes | The following elements are part of a mandatory choice: **source** or **starg**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**source-address**] *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Source IP address |
| Context | **configure** service vprn *service-name* mld interface *interface-name* static group-range start *ipv6-multicast-address* end *ipv6-multicast-address* step *ipv6-address* source *ipv6-unicast-address* |
| Tree | source |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 16.0.R2 |
| Platforms | All |

### starg

| | |
|---|---|
| Synopsis | any source address (*,G) |
| Context | **configure** service vprn *service-name* mld interface *interface-name* static group-range start *ipv6-multicast-address* end *ipv6-multicast-address* step *ipv6-address* starg |
| Tree | starg |
| Notes | The following elements are part of a mandatory choice: **source** or **starg**. |
| Introduced | 16.0.R2 |
| Platforms | All |

### version *keyword*

| | |
|---|---|
| Synopsis | MLD protocol version |
| Context | **configure** service vprn *service-name* mld interface *interface-name* version *keyword* |
| Tree | version |
| Options | 1, 2 |
| Default | 2 |
| Introduced | 16.0.R1 |
| Platforms | All |

### query-interval *number*

| | |
|---|---|
| Synopsis | Time between two consecutive host-query messages |
| Context | **configure** service vprn *service-name* mld query-interval *number* |
| Tree | query-interval |
| Range | 2 to 1024 |
| Units | seconds |
| Default | 125 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **query-last-member-interval** *number*

| | |
|---|---|
| Synopsis | Time between group-specific query messages |
| Context | **configure** service vprn *service-name* mld query-last-member-interval *number* |
| Tree | query-last-member-interval |
| Range | 1 to 1023 |
| Units | seconds |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **query-response-interval** *number*

| | |
|---|---|
| Synopsis | Time to wait for a response to the host-query messages |
| Context | **configure** service vprn *service-name* mld query-response-interval *number* |
| Tree | query-response-interval |
| Range | 1 to 1023 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **robust-count** *number*

| | |
|---|---|
| Synopsis | Number of retries after expected message loss |
| Context | **configure** service vprn *service-name* mld robust-count *number* |
| Tree | robust-count |
| Range | 2 to 10 |
| Default | 2 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ssm-translate**

| | |
|---|---|
| Synopsis | Enter the **ssm-translate** context |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* mld ssm-translate |
| Tree | ssm-translate |
| Introduced | 16.0.R1 |
| Platforms | All |

## **group-range** start *ipv6-multicast-address* end *ipv6-multicast-address*

| | |
|---|---|
| Synopsis | Enter the **group-range** list instance |
| Context | **configure** service vprn *service-name* mld ssm-translate group-range start *ipv6-multicast-address* end *ipv6-multicast-address* |
| Tree | group-range |
| Introduced | 16.0.R1 |
| Platforms | All |

## **start** *ipv6-multicast-address*

| | |
|---|---|
| Synopsis | Lower bound of the group range |
| Context | **configure** service vprn *service-name* mld ssm-translate group-range start *ipv6-multicast-address* end *ipv6-multicast-address* |
| Tree | group-range |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **end** *ipv6-multicast-address*

| | |
|---|---|
| Synopsis | Upper bound of the group range |
| Context | **configure** service vprn *service-name* mld ssm-translate group-range start *ipv6-multicast-address* end *ipv6-multicast-address* |
| Tree | group-range |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **source** [source-address] *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Add a list entry for **source** |
| Context | **configure** service vprn *service-name* mld ssm-translate group-range start *ipv6-multicast-address* end *ipv6-multicast-address* source *ipv6-unicast-address* |
| Tree | source |
| Min. instances | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**source-address**] *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Source IP address |
| Context | **configure** service vprn *service-name* mld ssm-translate group-range start *ipv6-multicast-address* end *ipv6-multicast-address* source *ipv6-unicast-address* |
| Tree | source |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R2 |
| Platforms | All |

### **msdp**

| | |
|---|---|
| Synopsis | Enable the **msdp** context |
| Context | **configure** service vprn *service-name* msdp |
| Tree | msdp |
| Introduced | 19.10.R1 |
| Platforms | All |

### **active-source-limit** *number*

| | |
|---|---|
| Synopsis | Maximum source-active messages accepted by MSDP |
| Context | **configure** service vprn *service-name* msdp active-source-limit *number* |
| Tree | active-source-limit |
| Description | This command configures the maximum number of source-active (SA) messages that are accepted by MSDP, effectively controlling the number of active sources that the system can store. |


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When unconfigured, the system sets no limit on the number of SA messages it can accept.

Range 0 to 1000000

Introduced 19.10.R1

Platforms All

### **admin-state** *keyword*

Synopsis Administrative state of MSDP

Context **configure** service vprn *service-name* msdp admin-state *keyword*

Tree admin-state

Options enable, disable

Default enable

Introduced 19.10.R1

Platforms All

### **data-encapsulation** *boolean*

Synopsis Enable encapsulation of multicast data used by MSDP

Context **configure** service vprn *service-name* msdp data-encapsulation *boolean*

Tree data-encapsulation

Description When configured to **true**, the system (acting as the rendezvous point [RP]) encapsulates multicast data received from MSDP register messages inside forwarded MSDP SA messages.

Default true

Introduced 19.10.R1

Platforms All

### **export-policy** *reference*

Synopsis Policy to export source-active states into MSDP

Context **configure** service vprn *service-name* msdp export-policy *reference*

Tree export-policy

Description This command specifies the policy used to export SA states from the SA list into MSDP.

If multiple policy names are specified, the router evaluates the policies in the order they are specified, and applies the first policy that matches.


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| | |
|---|---|
| | If an export policy is configured at the global level, each individual peer inherits the global policy. If an export policy is configured at the group level, each individual peer in a group inherits the group policy. If an export policy is configured at the peer level, the policy only applies to the peer where it is configured. |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **group** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **group** list instance |
| Context | **configure** service vprn *service-name* msdp group *named-item* |
| Tree | group |
| Introduced | 19.10.R1 |
| Platforms | All |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | MSDP group name |
| Context | **configure** service vprn *service-name* msdp group *named-item* |
| Tree | group |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **active-source-limit** *number*

| | |
|---|---|
| Synopsis | Maximum source-active messages accepted by MSDP |
| Context | **configure** service vprn *service-name* msdp group *named-item* active-source-limit *number* |
| Tree | active-source-limit |


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| | |
|---|---|
| Description | This command configures the maximum number of source-active (SA) messages that are accepted by MSDP, effectively controlling the number of active sources that the system can store.<br>When unconfigured, the system sets no limit on the number of SA messages it can accept. |
| Range | 0 to 1000000 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of MSDP |
| Context | **configure** service vprn *service-name* msdp group *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 19.10.R1 |
| Platforms | All |

### **export-policy** *reference*

| | |
|---|---|
| Synopsis | Policy to export source-active states into MSDP |
| Context | **configure** service vprn *service-name* msdp group *named-item* export-policy *reference* |
| Tree | export-policy |
| Description | This command specifies the policy used to export SA states from the SA list into MSDP.<br>If multiple policy names are specified, the router evaluates the policies in the order they are specified, and applies the first policy that matches.<br>If an export policy is configured at the global level, each individual peer inherits the global policy. If an export policy is configured at the group level, each individual peer in a group inherits the group policy. If an export policy is configured at the peer level, the policy only applies to the peer where it is configured. |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 19.10.R1 |
| Platforms | All |


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## **import-policy** *reference*

| | |
|---|---|
| Synopsis | Policy to import source-active states into MSDP |
| Context | **configure** service vprn *service-name* msdp group *named-item* import-policy *reference* |
| Tree | import-policy |
| Description | This command specifies the policy used to import SA states from the SA list into MSDP.<br>If multiple policy names are specified, the router evaluates the policies in the order they are specified, and applies the first policy that matches.<br>If an import policy is configured at the global level, each individual peer inherits the global policy. If an import policy is configured at the group level, each individual peer in a group inherits the group policy. If an import policy is configured at the peer level, the policy only applies to the peer where it is configured. |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 19.10.R1 |
| Platforms | All |

## **local-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Local end IP address of the MSDP group |
| Context | **configure** service vprn *service-name* msdp group *named-item* local-address *ipv4-unicast-address* |
| Tree | local-address |
| Description | This command configures the local end address of an MSDP session. For MSDP to function, at least one peer with a local address must be configured. This address must be present on the node and is used to validate incoming connections to the peer and to establish connections to the remote peer.<br>The specified IP address is validated and used as the local address for MSDP peers from that point. If a subsequent address is configured, it replaces the existing configuration and terminates any existing sessions<br>When a session is terminated, all information pertaining to and learned from that peer is removed. When a new peering session is created or a peering session is lost, an event message is generated. |
| Introduced | 19.10.R1 |
| Platforms | All |


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### **mode** *keyword*

| | |
|---|---|
| Synopsis | Topology of the group of peers |
| Context | **configure** service vprn *service-name* msdp group *named-item* mode *keyword* |
| Tree | mode |
| Description | This command configures the MSDP group topology. MSDP peers can be grouped in a full-mesh topology to prevent excessive flooding of SA messages to neighboring peers.<br>In a mesh group, SA messages received from a mesh group member are always accepted but are not flooded to other members of the same mesh group. These SA messages are only flooded to non-mesh group peers or members of other mesh groups.<br>**Note:** In a meshed configuration, all members of the group must have a peer connection with every other mesh group member. If this rule is not adhered to, unpredictable results may occur. |
| Options | standard, mesh-group |
| Default | standard |
| Introduced | 19.10.R1 |
| Platforms | All |

### **peer** [ip-address] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Enter the **peer** list instance |
| Context | **configure** service vprn *service-name* msdp group *named-item* peer *ipv4-unicast-address* |
| Tree | peer |
| Introduced | 19.10.R1 |
| Platforms | All |

### [**ip-address**] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IP address of the remote MSDP router for peering |
| Context | **configure** service vprn *service-name* msdp group *named-item* peer *ipv4-unicast-address* |
| Tree | peer |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | All |


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### **active-source-limit** *number*

| | |
|---|---|
| Synopsis | Maximum source-active messages accepted by MSDP |
| Context | **configure** service vprn *service-name* msdp group *named-item* peer *ipv4-unicast-address* active-source-limit *number* |
| Tree | active-source-limit |
| Description | This command configures the maximum number of source-active (SA) messages that are accepted by MSDP, effectively controlling the number of active sources that the system can store.<br>When unconfigured, the system sets no limit on the number of SA messages it can accept. |
| Range | 0 to 1000000 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of MSDP |
| Context | **configure** service vprn *service-name* msdp group *named-item* peer *ipv4-unicast-address* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 19.10.R1 |
| Platforms | All |

### **authentication-key** *encrypted-leaf*

| | |
|---|---|
| Synopsis | MD5 authentication key for the MSDP peering session |
| Context | **configure** service vprn *service-name* msdp group *named-item* peer *ipv4-unicast-address* authentication-key *encrypted-leaf* |
| Tree | authentication-key |
| Description | This command configures a Message Digest 5 (MD5) authentication key to be used with a specific MSDP peering session. The authentication key is not inherited from the global or group level and must be configured per peer. |
| String length | 1 to 370 |
| Introduced | 19.10.R1 |


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| | |
|---|---|
| Platforms | All |

## **default-peer** *boolean*

| | |
|---|---|
| Synopsis | Set the peer as a default MSDP peer |
| Context | **configure** service vprn *service-name* msdp group *named-item* peer *ipv4-unicast-address* default-peer *boolean* |
| Tree | default-peer |
| Description | When configured to **true**, the system sets the peer as a default MSDP peer. All SA messages from a default peer are accepted without the usual peer-reverse-path-forwarding (RPF) check.<br>Unlike the normal multicast RPF checks, the peer-RPF check stops SA messages from looping.<br>When configured to **false**, the system sets the peer as a non-default peer, which forces all SA messages from the peer to be RPF checked.<br>See "Peer-RPF check" in the *7450 ESS, 7750 SR, 7950 XRS, and VSR Multicast Routing Protocols Guide* for information about the peer-RPF check rules. |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

## **export-policy** *reference*

| | |
|---|---|
| Synopsis | Policy to export source-active states into MSDP |
| Context | **configure** service vprn *service-name* msdp group *named-item* peer *ipv4-unicast-address* export-policy *reference* |
| Tree | export-policy |
| Description | This command specifies the policy used to export SA states from the SA list into MSDP.<br>If multiple policy names are specified, the router evaluates the policies in the order they are specified, and applies the first policy that matches.<br>If an export policy is configured at the global level, each individual peer inherits the global policy. If an export policy is configured at the group level, each individual peer in a group inherits the group policy. If an export policy is configured at the peer level, the policy only applies to the peer where it is configured. |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |


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| | |
|---|---|
| Introduced | 19.10.R1 |
| Platforms | All |

## **import-policy** *reference*

| | |
|---|---|
| Synopsis | Policy to import source-active states into MSDP |
| Context | **configure** service vprn *service-name* msdp group *named-item* peer *ipv4-unicast-address* import-policy *reference* |
| Tree | import-policy |
| Description | This command specifies the policy used to import SA states from the SA list into MSDP.<br>If multiple policy names are specified, the router evaluates the policies in the order they are specified, and applies the first policy that matches.<br>If an import policy is configured at the global level, each individual peer inherits the global policy. If an import policy is configured at the group level, each individual peer in a group inherits the group policy. If an import policy is configured at the peer level, the policy only applies to the peer where it is configured. |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 19.10.R1 |
| Platforms | All |

## **local-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Local end IP address of the MSDP group |
| Context | **configure** service vprn *service-name* msdp group *named-item* peer *ipv4-unicast-address* local-address *ipv4-unicast-address* |
| Tree | local-address |
| Description | This command configures the local end address of an MSDP session. For MSDP to function, at least one peer with a local address must be configured. This address must be present on the node and is used to validate incoming connections to the peer and to establish connections to the remote peer.<br>The specified IP address is validated and used as the local address for MSDP peers from that point. If a subsequent address is configured, it replaces the existing configuration and terminates any existing sessions<br>When a session is terminated, all information pertaining to and learned from that peer is removed. When a new peering session is created or a peering session is lost, an event message is generated. |


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| | |
|---|---|
| Introduced | 19.10.R1 |
| Platforms | All |

## receive-message-rate

| | |
|---|---|
| Synopsis | Enter the **receive-message-rate** context |
| Context | **configure** service vprn *service-name* msdp group *named-item* peer *ipv4-unicast-address* receive-message-rate |
| Tree | receive-message-rate |
| Description | Commands in this context configure rate limiting for the number of MSDP messages that the router can read from the TCP session. |
| Introduced | 19.10.R1 |
| Platforms | All |

## rate *number*

| | |
|---|---|
| Synopsis | Maximum number of MSDP messages read from TCP session |
| Context | **configure** service vprn *service-name* msdp group *named-item* peer *ipv4-unicast-address* receive-message-rate rate *number* |
| Tree | rate |
| Description | This command configures the maximum number of MSDP messages that the MSDP or RP router can read from the TCP session when message rate limiting is active. When this limit is reached within the time interval configured using the **configure router msdp group peer receive-message-rate time** command, the router stops accepting messages from the TCP session until the time interval has elapsed. |
| Range | 10 to 10000 |
| Introduced | 19.10.R1 |
| Platforms | All |

## threshold *number*

| | |
|---|---|
| Synopsis | Processed MSDP message limit to activate rate limiting |
| Context | **configure** service vprn *service-name* msdp group *named-item* peer *ipv4-unicast-address* receive-message-rate threshold *number* |
| Tree | threshold |
| Description | This command configures the number of MSDP messages that the router can process before it activates message rate limiting. |
| Range | 1 to 1000000 |


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| | |
|---|---|
| Introduced | 19.10.R1 |
| Platforms | All |

### **time** *number*

| | |
|---|---|
| Synopsis | Time interval to rate limit MSDP messages |
| Context | **configure** service vprn *service-name* msdp group *named-item* peer *ipv4-unicast-address* receive-message-rate time *number* |
| Tree | time |
| Description | This command configures the time interval to rate limit MSDP messages read from the TCP session. When the message limit, configured using the **configure router msdp group peer receive-message-rate rate** command, is reached within this time interval, the router stops accepting messages from the TCP session until the time interval has elapsed. |
| Range | 1 to 600 |
| Units | seconds |
| Introduced | 19.10.R1 |
| Platforms | All |

### **receive-message-rate**

| | |
|---|---|
| Synopsis | Enter the **receive-message-rate** context |
| Context | **configure** service vprn *service-name* msdp group *named-item* receive-message-rate |
| Tree | receive-message-rate |
| Description | Commands in this context configure rate limiting for the number of MSDP messages that the router can read from the TCP session. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **rate** *number*

| | |
|---|---|
| Synopsis | Maximum number of MSDP messages read from TCP session |
| Context | **configure** service vprn *service-name* msdp group *named-item* receive-message-rate rate *number* |
| Tree | rate |
| Description | This command configures the maximum number of MSDP messages that the MSDP or RP router can read from the TCP session when message rate limiting is active. When this limit is reached within the time interval configured using the **configure router** |


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| | |
|---|---|
| | **msdp group peer receive-message-rate time** command, the router stops accepting messages from the TCP session until the time interval has elapsed. |
| Range | 10 to 10000 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **threshold** *number*

| | |
|---|---|
| Synopsis | Processed MSDP message limit to activate rate limiting |
| Context | **configure** service vprn *service-name* msdp group *named-item* receive-message-rate threshold *number* |
| Tree | threshold |
| Description | This command configures the number of MSDP messages that the router can process before it activates message rate limiting. |
| Range | 1 to 1000000 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **time** *number*

| | |
|---|---|
| Synopsis | Time interval to rate limit MSDP messages |
| Context | **configure** service vprn *service-name* msdp group *named-item* receive-message-rate time *number* |
| Tree | time |
| Description | This command configures the time interval to rate limit MSDP messages read from the TCP session. When the message limit, configured using the **configure router msdp group peer receive-message-rate rate** command, is reached within this time interval, the router stops accepting messages from the TCP session until the time interval has elapsed. |
| Range | 1 to 600 |
| Units | seconds |
| Introduced | 19.10.R1 |
| Platforms | All |

### **import-policy** *reference*

| | |
|---|---|
| Synopsis | Policy to import source-active states into MSDP |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* msdp import-policy *reference* |
| Tree | import-policy |
| Description | This command specifies the policy used to import SA states from the SA list into MSDP.<br>If multiple policy names are specified, the router evaluates the policies in the order they are specified, and applies the first policy that matches.<br>If an import policy is configured at the global level, each individual peer inherits the global policy. If an import policy is configured at the group level, each individual peer in a group inherits the group policy. If an import policy is configured at the peer level, the policy only applies to the peer where it is configured. |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 19.10.R1 |
| Platforms | All |

## **local-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Local end IP address of the MSDP group |
| Context | **configure** service vprn *service-name* msdp local-address *ipv4-unicast-address* |
| Tree | local-address |
| Description | This command configures the local end address of an MSDP session. For MSDP to function, at least one peer with a local address must be configured. This address must be present on the node and is used to validate incoming connections to the peer and to establish connections to the remote peer.<br>The specified IP address is validated and used as the local address for MSDP peers from that point. If a subsequent address is configured, it replaces the existing configuration and terminates any existing sessions<br>When a session is terminated, all information pertaining to and learned from that peer is removed. When a new peering session is created or a peering session is lost, an event message is generated. |
| Introduced | 19.10.R1 |
| Platforms | All |

## **peer** [ip-address] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Enter the **peer** list instance |
| Context | **configure** service vprn *service-name* msdp peer *ipv4-unicast-address* |


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| | |
|---|---|
| Tree | peer |
| Introduced | 19.10.R1 |
| Platforms | All |

### [**ip-address**] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IP address of the remote MSDP router for peering |
| Context | **configure** service vprn *service-name* msdp peer *ipv4-unicast-address* |
| Tree | peer |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **active-source-limit** *number*

| | |
|---|---|
| Synopsis | Maximum source-active messages accepted by MSDP |
| Context | **configure** service vprn *service-name* msdp peer *ipv4-unicast-address* active-source-limit *number* |
| Tree | active-source-limit |
| Description | This command configures the maximum number of source-active (SA) messages that are accepted by MSDP, effectively controlling the number of active sources that the system can store.<br>When unconfigured, the system sets no limit on the number of SA messages it can accept. |
| Range | 0 to 1000000 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of MSDP |
| Context | **configure** service vprn *service-name* msdp peer *ipv4-unicast-address* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |


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| | |
|---|---|
| Introduced | 19.10.R1 |
| Platforms | All |

### **authentication-key** *encrypted-leaf*

| | |
|---|---|
| Synopsis | MD5 authentication key for the MSDP peering session |
| Context | **configure** service vprn *service-name* msdp peer *ipv4-unicast-address* authentication-key *encrypted-leaf* |
| Tree | authentication-key |
| Description | This command configures an MD5 authentication key to be used with a specific MSDP peering session. The authentication key is not inherited from the global level and must be configured per peer. |
| String length | 1 to 370 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **default-peer** *boolean*

| | |
|---|---|
| Synopsis | Set the peer as a default MSDP peer |
| Context | **configure** service vprn *service-name* msdp peer *ipv4-unicast-address* default-peer *boolean* |
| Tree | default-peer |
| Description | When configured to **true**, the system sets the peer as a default MSDP peer. All SA messages from a default peer are accepted without the usual peer-reverse-path-forwarding (RPF) check.<br><br>Unlike the normal multicast RPF checks, the peer-RPF check stops SA messages from looping.<br><br>When configured to **false**, the system sets the peer as a non-default peer, which forces all SA messages from the peer to be RPF checked.<br><br>See "Peer-RPF check" in the *7450 ESS, 7750 SR, 7950 XRS, and VSR Multicast Routing Protocols Guide* for information about the peer-RPF check rules. |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **export-policy** *reference*

| | |
|---|---|
| Synopsis | Policy to export source-active states into MSDP |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* msdp peer *ipv4-unicast-address* export-policy *reference* |
| Tree | export-policy |
| Description | This command specifies the policy used to export SA states from the SA list into MSDP.<br>If multiple policy names are specified, the router evaluates the policies in the order they are specified, and applies the first policy that matches.<br>If an export policy is configured at the global level, each individual peer inherits the global policy. If an export policy is configured at the group level, each individual peer in a group inherits the group policy. If an export policy is configured at the peer level, the policy only applies to the peer where it is configured. |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 19.10.R1 |
| Platforms | All |

## **import-policy** *reference*

| | |
|---|---|
| Synopsis | Policy to import source-active states into MSDP |
| Context | **configure** service vprn *service-name* msdp peer *ipv4-unicast-address* import-policy *reference* |
| Tree | import-policy |
| Description | This command specifies the policy used to import SA states from the SA list into MSDP.<br>If multiple policy names are specified, the router evaluates the policies in the order they are specified, and applies the first policy that matches.<br>If an import policy is configured at the global level, each individual peer inherits the global policy. If an import policy is configured at the group level, each individual peer in a group inherits the group policy. If an import policy is configured at the peer level, the policy only applies to the peer where it is configured. |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 19.10.R1 |
| Platforms | All |


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### **local-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Local end IP address of the MSDP group |
| Context | **configure** service vprn *service-name* msdp peer *ipv4-unicast-address* local-address *ipv4-unicast-address* |
| Tree | local-address |
| Description | This command configures the local end address of an MSDP session. For MSDP to function, at least one peer with a local address must be configured. This address must be present on the node and is used to validate incoming connections to the peer and to establish connections to the remote peer.<br><br>The specified IP address is validated and used as the local address for MSDP peers from that point. If a subsequent address is configured, it replaces the existing configuration and terminates any existing sessions<br><br>When a session is terminated, all information pertaining to and learned from that peer is removed. When a new peering session is created or a peering session is lost, an event message is generated. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **receive-message-rate**

| | |
|---|---|
| Synopsis | Enter the **receive-message-rate** context |
| Context | **configure** service vprn *service-name* msdp peer *ipv4-unicast-address* receive-message-rate |
| Tree | receive-message-rate |
| Description | Commands in this context configure rate limiting for the number of MSDP messages that the router can read from the TCP session. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **rate** *number*

| | |
|---|---|
| Synopsis | Maximum number of MSDP messages read from TCP session |
| Context | **configure** service vprn *service-name* msdp peer *ipv4-unicast-address* receive-message-rate rate *number* |
| Tree | rate |
| Description | This command configures the maximum number of MSDP messages that the MSDP or RP router can read from the TCP session when message rate limiting is active. When this limit is reached within the time interval configured using the **configure router** |


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| | |
|---|---|
| | **msdp group peer receive-message-rate time** command, the router stops accepting messages from the TCP session until the time interval has elapsed. |
| Range | 10 to 10000 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **threshold** *number*

| | |
|---|---|
| Synopsis | Processed MSDP message limit to activate rate limiting |
| Context | **configure** service vprn *service-name* msdp peer *ipv4-unicast-address* receive-message-rate threshold *number* |
| Tree | threshold |
| Description | This command configures the number of MSDP messages that the router can process before it activates message rate limiting. |
| Range | 1 to 1000000 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **time** *number*

| | |
|---|---|
| Synopsis | Time interval to rate limit MSDP messages |
| Context | **configure** service vprn *service-name* msdp peer *ipv4-unicast-address* receive-message-rate time *number* |
| Tree | time |
| Description | This command configures the time interval to rate limit MSDP messages read from the TCP session. When the message limit, configured using the **configure router msdp group peer receive-message-rate rate** command, is reached within this time interval, the router stops accepting messages from the TCP session until the time interval has elapsed. |
| Range | 1 to 600 |
| Units | seconds |
| Introduced | 19.10.R1 |
| Platforms | All |

### **receive-message-rate**

| | |
|---|---|
| Synopsis | Enter the **receive-message-rate** context |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* msdp receive-message-rate |
| Tree | receive-message-rate |
| Description | Commands in this context configure rate limiting for the number of MSDP messages that the router can read from the TCP session. |
| Introduced | 19.10.R1 |
| Platforms | All |

## **rate** *number*

| | |
|---|---|
| Synopsis | Maximum number of MSDP messages read from TCP session |
| Context | **configure** service vprn *service-name* msdp receive-message-rate rate *number* |
| Tree | rate |
| Description | This command configures the maximum number of MSDP messages that the MSDP or RP router can read from the TCP session when message rate limiting is active. When this limit is reached within the time interval configured using the **configure router msdp group peer receive-message-rate time** command, the router stops accepting messages from the TCP session until the time interval has elapsed. |
| Range | 10 to 10000 |
| Introduced | 19.10.R1 |
| Platforms | All |

## **threshold** *number*

| | |
|---|---|
| Synopsis | Processed MSDP message limit to activate rate limiting |
| Context | **configure** service vprn *service-name* msdp receive-message-rate threshold *number* |
| Tree | threshold |
| Description | This command configures the number of MSDP messages that the router can process before it activates message rate limiting. |
| Range | 1 to 1000000 |
| Introduced | 19.10.R1 |
| Platforms | All |

## **time** *number*

| | |
|---|---|
| Synopsis | Time interval to rate limit MSDP messages |
| Context | **configure** service vprn *service-name* msdp receive-message-rate time *number* |
| Tree | time |


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| | |
|---|---|
| Description | This command configures the time interval to rate limit MSDP messages read from the TCP session. When the message limit, configured using the **configure router msdp group peer receive-message-rate rate** command, is reached within this time interval, the router stops accepting messages from the TCP session until the time interval has elapsed. |
| Range | 1 to 600 |
| Units | seconds |
| Introduced | 19.10.R1 |
| Platforms | All |

### **rpf-table** *keyword*

| | |
|---|---|
| Synopsis | Route tables for RPF lookup |
| Context | **configure** service vprn *service-name* msdp rpf-table *keyword* |
| Tree | rpf-table |
| Description | This command configures the sequence of route tables used to find an RPF interface for a multicast route.<br>By default, the router only uses the unicast route table to calculate RPF interface towards the source or rendezvous point. The user can specify the following options:<br>• rtable-u - use the unicast route table only<br>• rtable-m - use the multicast route table only<br>• both - use both route tables |
| Options | rtable-m, rtable-u, both |
| Default | rtable-u |
| Introduced | 19.10.R1 |
| Platforms | All |

### **source** [ip-prefix] *ipv4-unicast-prefix*

| | |
|---|---|
| Synopsis | Enter the **source** list instance |
| Context | **configure** service vprn *service-name* msdp source *ipv4-unicast-prefix* |
| Tree | source |
| Introduced | 19.10.R1 |
| Platforms | All |


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### [**ip-prefix**] *ipv4-unicast-prefix*

| | |
|---|---|
| Synopsis | Source IP address for accepted source-active messages |
| Context | **configure** service vprn *service-name* msdp source *ipv4-unicast-prefix* |
| Tree | source |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R1 |
| Platforms | All |

### **active-source-limit** *number*

| | |
|---|---|
| Synopsis | Number of source-active messages accepted by MSDP |
| Context | **configure** service vprn *service-name* msdp source *ipv4-unicast-prefix* active-source-limit *number* |
| Tree | active-source-limit |
| Description | This command configures the maximum number of SA messages that are accepted by the MSDP source, effectively controlling the number of active sources that the system can store.<br>When unconfigured, the system sets no limit on the number of SA messages it can accept. |
| Range | 0 to 1000000 |
| Introduced | 19.10.R1 |
| Platforms | All |

### **source-active-cache-lifetime** *number*

| | |
|---|---|
| Synopsis | Timeout interval for SA entries in the cache |
| Context | **configure** service vprn *service-name* msdp source-active-cache-lifetime *number* |
| Tree | source-active-cache-lifetime |
| Description | This command configures the timeout interval for the SA entries in the cache. If these entries are not refreshed within the timeout interval, they are removed from the cache. Normally, the entries are refreshed at least once per minute, but under high load with many MSDP peers, the refresh cycle could be incomplete. Configuring a higher timeout value is useful to prevent instabilities in the MSDP cache. |
| Range | 90 to 600 |
| Units | seconds |
| Default | 90 |


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| | |
|---|---|
| Introduced | 19.10.R1 |
| Platforms | All |

## mss-adjust

| | |
|---|---|
| Synopsis | Enable the **mss-adjust** context |
| Context | **configure** service vprn *service-name* mss-adjust |
| Tree | mss-adjust |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## nat-group *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | NAT group used for TCP-MSS adjustment |
| Context | **configure** service vprn *service-name* mss-adjust nat-group *number* |
| Tree | nat-group |
| Max. range | 0 to 4294967295 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## segment-size *number*

| | |
|---|---|
| Synopsis | TCP-MSS option value in transmitted TCP SYN requests |
| Context | **configure** service vprn *service-name* mss-adjust segment-size *number* |
| Tree | segment-size |
| Range | 160 to 10240 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## mtrace2

| | |
|---|---|
| Synopsis | Enter the **mtrace2** context |
| Context | **configure** service vprn *service-name* mtrace2 |
| Tree | mtrace2 |
| Introduced | 16.0.R1 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of multicast path tracing |
| Context | **configure** service vprn *service-name* mtrace2 admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

## udp-port *number*

| | |
|---|---|
| Synopsis | Destination and listening port for the mtrace2 command |
| Context | **configure** service vprn *service-name* mtrace2 udp-port *number* |
| Tree | udp-port |
| Range | 1024 to 49151 |
| Default | 5000 |
| Introduced | 16.0.R1 |
| Platforms | All |

## multicast-info-policy *reference*

| | |
|---|---|
| Synopsis | Multicast policy name for virtual router |
| Context | **configure** service vprn *service-name* multicast-info-policy *reference* |
| Tree | multicast-info-policy |
| Reference | **configure** multicast-management multicast-info-policy *named-item* |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## mvpn

| | |
|---|---|
| Synopsis | Enter the **mvpn** context |
| Context | **configure** service vprn *service-name* mvpn |
| Tree | mvpn |
| Introduced | 19.5.R1 |
| Platforms | All |

## auto-discovery

| | |
|---|---|
| Synopsis | Enter the **auto-discovery** context |
| Context | **configure** service vprn *service-name* mvpn auto-discovery |
| Tree | auto-discovery |
| Introduced | 19.5.R1 |
| Platforms | All |

## source-address *ipv4-address*

| | |
|---|---|
| Synopsis | IPv4 source address |
| Context | **configure** service vprn *service-name* mvpn auto-discovery source-address *ipv4-address* |
| Tree | source-address |
| Default | 0.0.0.0 |
| Introduced | 19.5.R1 |
| Platforms | All |

## type *keyword*

| | |
|---|---|
| Synopsis | Status of multicast VPN membership auto-discovery |
| Context | **configure** service vprn *service-name* mvpn auto-discovery type *keyword* |
| Tree | type |
| Options | bgp, mdt-safi |
| Introduced | 19.5.R1 |


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| | |
|---|---|
| Platforms | All |

### **c-mcast-signaling** *keyword*

| | |
|---|---|
| Synopsis | Protocol for PE-to-PE signaling of CE multicast states |
| Context | **configure** service vprn *service-name* mvpn c-mcast-signaling *keyword* |
| Tree | c-mcast-signaling |
| Options | bgp, pim |
| Default | pim |
| Introduced | 19.5.R1 |
| Platforms | All |

### **intersite-shared**

| | |
|---|---|
| Synopsis | Enter the **intersite-shared** context |
| Context | **configure** service vprn *service-name* mvpn intersite-shared |
| Tree | intersite-shared |
| Description | Commands in this context configure whether to use inter-site shared C-trees. Optional parameters allow enabling additional intersite shared functionality. Not specifying an optional parameter when executing the command disables that parameter. |
| Introduced | 19.5.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of inter-site shared C-trees use |
| Context | **configure** service vprn *service-name* mvpn intersite-shared admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 19.5.R1 |
| Platforms | All |

### **kat-type5-advertisement-withdraw** *boolean*

| | |
|---|---|
| Synopsis | Enable KATs on source PEs for ng-MVPN deployments |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* mvpn intersite-shared kat-type5-advertisement-withdraw *boolean* |
| Tree | kat-type5-advertisement-withdraw |
| Description | When configured to **true**, this command specifies that the MVPN Type-5 “Source Active AD routes” are not removed even if all receivers are removed from the tree. |
| Default | false |
| Introduced | 19.5.R1 |
| Platforms | All |

## **persistent-type5-advertisement** *boolean*

| | |
|---|---|
| Synopsis | Ensure Type-5 S-A routes are generated for MCAST source |
| Context | **configure** service vprn *service-name* mvpn intersite-shared persistent-type5-advertisement *boolean* |
| Tree | persistent-type5-advertisement |
| Description | When configured to **true**, this command removes the MVPN Type-5 “Source Active AD routes” even if receivers are present but the keepalive timer (KAT) has timed out because of no traffic. |
| Default | false |
| Introduced | 19.5.R1 |
| Platforms | All |

## **mdt-type** *keyword*

| | |
|---|---|
| Synopsis | MVPN instance type per PE node |
| Context | **configure** service vprn *service-name* mvpn mdt-type *keyword* |
| Tree | mdt-type |
| Options | sender-only, receiver-only, sender-receiver |
| Default | sender-receiver |
| Introduced | 19.5.R1 |
| Platforms | All |

## **provider-tunnel**

| | |
|---|---|
| Synopsis | Enter the **provider-tunnel** context |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel |


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| | |
|---|---|
| Tree | provider-tunnel |
| Introduced | 19.5.R1 |
| Platforms | All |

## inclusive

| | |
|---|---|
| Synopsis | Enter the **inclusive** context |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel inclusive |
| Tree | inclusive |
| Introduced | 19.5.R1 |
| Platforms | All |

## bier

| | |
|---|---|
| Synopsis | Enable the **bier** context |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel inclusive bier |
| Tree | bier |
| Notes | The following elements are part of a choice: **bier**, **mldp**, **p2mp-sr**, **pim**, or **rsvp**. |
| Introduced | 19.5.R1 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of BIER |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel inclusive bier admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 19.5.R1 |
| Platforms | All |

## sub-domain *number*

| | |
|---|---|
| Synopsis | Sub-domain used to attach the BIER provider tunnel |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* mvpn provider-tunnel inclusive bier sub-domain *number* |
| Tree | sub-domain |
| Range | 0 to 255 |
| Introduced | 19.5.R1 |
| Platforms | All |

## **bsr** *keyword*

| | |
|---|---|
| Synopsis | BSR signaling type |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel inclusive bsr *keyword* |
| Tree | bsr |
| Options | unicast, spmsi |
| Introduced | 19.5.R1 |
| Platforms | All |

## **mldp**

| | |
|---|---|
| Synopsis | Enable the **mldp** context |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel inclusive mldp |
| Tree | mldp |
| Notes | The following elements are part of a choice: **bier**, **mldp**, **p2mp-sr**, **pim**, or **rsvp**. |
| Introduced | 19.5.R1 |
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of MLDP LSP use for tunnels |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel inclusive mldp admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 19.5.R1 |
| Platforms | All |


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## p2mp-sr

| | |
|---|---|
| Synopsis | Enable the **p2mp-sr** context |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel inclusive p2mp-sr |
| Tree | p2mp-sr |
| Notes | The following elements are part of a choice: **bier**, **mldp**, **p2mp-sr**, **pim**, or **rsvp**. |
| Introduced | 21.5.R1 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state for P2MP SR |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel inclusive p2mp-sr admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.5.R1 |
| Platforms | All |

## bfd-leaf *boolean*

| | |
|---|---|
| Synopsis | Enable unidirectional multipoint BFD on the leaf PE |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel inclusive p2mp-sr bfd-leaf *boolean* |
| Tree | bfd-leaf |
| Description | When configured to **true**, this command enables unidirectional multipoint BFD sessions on a receiver (leaf) PE node for upstream fast failure detection over P2MP SR tree LSP. |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | All |

## bfd-root

| | |
|---|---|
| Synopsis | Enable the **bfd-root** context |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel inclusive p2mp-sr bfd-root |


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| | |
|---|---|
| Tree | bfd-root |
| Introduced | 21.10.R1 |
| Platforms | All |

### **multiplier** *number*

| | |
|---|---|
| Synopsis | Multiplier for the transmit interval of the BFD session |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel inclusive p2mp-sr bfd-root multiplier *number* |
| Tree | multiplier |
| Description | This command configures the multiplier for the transmit interval. The interval and the multiplier are used to calculate the detection time, which is the period of time without receiving BFD packets after which the session failure is determined. |
| Range | 1 to 20 |
| Default | 3 |
| Introduced | 21.10.R1 |
| Platforms | All |

### **transmit-interval** *number*

| | |
|---|---|
| Synopsis | Transmit interval of the BFD session |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel inclusive p2mp-sr bfd-root transmit-interval *number* |
| Tree | transmit-interval |
| Description | This command configures the transmit interval. The interval and the multiplier are used to calculate the detection time, which is the period of time without receiving BFD packets after which the session failure is determined. |
| Range | 10 to 100000 |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | All |

### **p2mp-policy-mpls** *boolean*

| | |
|---|---|
| Synopsis | Use P2MP policy for MVPN provider tunnel |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel inclusive p2mp-sr p2mp-policy-mpls *boolean* |


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| | |
|---|---|
| Tree | p2mp-policy-mpls |
| Default | false |
| Introduced | 24.3.R1 |
| Platforms | All |

## **static-policy-mpls** *reference*

| | |
|---|---|
| Synopsis | Static P2MP policy for inclusive MVPN provider tunnel |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel inclusive p2mp-sr static-policy-mpls *reference* |
| Tree | static-policy-mpls |
| Reference | **configure** router *named-item-64* p2mp-sr-tree p2mp-policy *named-item* |
| Introduced | 24.3.R1 |
| Platforms | All |

## **static-policy-srv6** *reference*

| | |
|---|---|
| Synopsis | Static policy for inclusive SRV6 MVPN provider tunnel |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel inclusive p2mp-sr static-policy-srv6 *reference* |
| Tree | static-policy-srv6 |
| Reference | **configure** router *named-item-64* p2mp-sr-tree p2mp-policy *named-item* |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **pim**

| | |
|---|---|
| Synopsis | Enable the **pim** context |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel inclusive pim |
| Tree | pim |
| Notes | The following elements are part of a choice: **bier**, **mldp**, **p2mp-sr**, **pim**, or **rsvp**. |
| Introduced | 19.5.R1 |
| Platforms | All |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of PIM use for provider tunnels |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel inclusive pim admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 19.5.R1 |
| Platforms | All |

### **group-address** *ipv4-multicast-address*

| | |
|---|---|
| Synopsis | Multicast group address |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel inclusive pim group-address *ipv4-multicast-address* |
| Tree | group-address |
| Notes | This element is mandatory. |
| Introduced | 19.5.R1 |
| Platforms | All |

### **hello-interval** *number*

| | |
|---|---|
| Synopsis | Frequency at which PIM Hello messages are transmitted |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel inclusive pim hello-interval *number* |
| Tree | hello-interval |
| Range | 0 to 255 |
| Default | 30 |
| Introduced | 19.5.R1 |
| Platforms | All |

### **hello-multiplier** *number*

| | |
|---|---|
| Synopsis | Multiplier to determine the holdtime for a PIM neighbor |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* mvpn provider-tunnel inclusive pim hello-multiplier *number* |
| Tree | hello-multiplier |
| Range | 20 to 100 |
| Default | 35 |
| Introduced | 19.5.R1 |
| Platforms | All |

### **improved-assert** *boolean*

| | |
|---|---|
| Synopsis | Enable the improved assert procedure |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel inclusive pim improved-assert *boolean* |
| Tree | improved-assert |
| Default | true |
| Introduced | 19.5.R1 |
| Platforms | All |

### **mode** *keyword*

| | |
|---|---|
| Synopsis | PIM mode for the inclusive provider tunnel |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel inclusive pim mode *keyword* |
| Tree | mode |
| Options | asm, ssm |
| Notes | This element is mandatory. |
| Introduced | 19.5.R1 |
| Platforms | All |

### **three-way-hello** *boolean*

| | |
|---|---|
| Synopsis | Enable PIM three-way hello |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel inclusive pim three-way-hello *boolean* |
| Tree | three-way-hello |
| Default | false |
| Introduced | 19.5.R1 |


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| | |
|---|---|
| Platforms | All |

### **tracking-support** *boolean*

| | |
|---|---|
| Synopsis | Enable the T bit in the LAN Prune Delay option |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel inclusive pim tracking-support *boolean* |
| Tree | tracking-support |
| Default | false |
| Introduced | 19.5.R1 |
| Platforms | All |

### **rsvp**

| | |
|---|---|
| Synopsis | Enable the **rsvp** context |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel inclusive rsvp |
| Tree | rsvp |
| Notes | The following elements are part of a choice: **bier**, **mldp**, **p2mp-sr**, **pim**, or **rsvp**. |
| Introduced | 19.5.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of RSVP use for provider tunnels |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel inclusive rsvp admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 19.5.R1 |
| Platforms | All |

### **bfd-leaf** *boolean*

| | |
|---|---|
| Synopsis | Enable unidirectional multi-point BFD on a receiver |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* mvpn provider-tunnel inclusive rsvp bfd-leaf *boolean* |
| Tree | bfd-leaf |
| Default | false |
| Introduced | 19.5.R1 |
| Platforms | All |

## bfd-root

| | |
|---|---|
| Synopsis | Enable the **bfd-root** context |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel inclusive rsvp bfd-root |
| Tree | bfd-root |
| Introduced | 19.5.R1 |
| Platforms | All |

## multiplier *number*

| | |
|---|---|
| Synopsis | Enable unidirectional multi-point BFD on a sender |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel inclusive rsvp bfd-root multiplier *number* |
| Tree | multiplier |
| Range | 1 to 20 |
| Default | 3 |
| Introduced | 19.5.R1 |
| Platforms | All |

## transmit-interval *number*

| | |
|---|---|
| Synopsis | Transmit interval for the BFD session |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel inclusive rsvp bfd-root transmit-interval *number* |
| Tree | transmit-interval |
| Range | 10 to 100000 |
| Notes | This element is mandatory. |
| Introduced | 19.5.R1 |
| Platforms | All |


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### **lsp-template** *reference*

| | |
|---|---|
| Synopsis | P2MP LSP created as the provider tunnel |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel inclusive rsvp lsp-template *reference* |
| Tree | lsp-template |
| Reference | **configure** router *named-item-64* mpls lsp-template *named-item* |
| Introduced | 19.5.R1 |
| Platforms | All |

### **suppress-ipmsi** *boolean*

| | |
|---|---|
| Synopsis | Suppress advertisement of I-PMSI |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel inclusive suppress-ipmsi *boolean* |
| Tree | suppress-ipmsi |
| Default | false |
| Introduced | 24.7.R1 |
| Platforms | All |

### **umh-rate-monitoring**

| | |
|---|---|
| Synopsis | Enter the **umh-rate-monitoring** context |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel inclusive umh-rate-monitoring |
| Tree | umh-rate-monitoring |
| Introduced | 21.5.R1 |
| Platforms | All |

### **fpe** *reference*

| | |
|---|---|
| Synopsis | FPE ID for LAG interface of redundant monitoring IOMs |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel inclusive umh-rate-monitoring fpe *reference* |
| Tree | fpe |
| Description | This command configures a Forwarding Path Extension (FPE) for the LAG interface when using two monitoring IOMs for redundancy. A PXC port can be created on each |


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IOM and added as a member to a per-link hashing LAG bundle. The FPE is used to create the interface on the LAG bundle with its own Martian IP address. On ingress to the Upstream Multicast Hop (UMH) IOMs, the P-Multicast Service Interfaces (PMSIs) traffic is forwarded to the active LAG IOM and, if there is a failure on the active LAG IOM, the PMSIs traffic is forwarded to the standby IOM.

| | |
|---|---|
| Reference | **configure** fwd-path-ext fpe *number* |
| Introduced | 24.7.R1 |
| Platforms | All |

### **revertive-timer** *number*

| | |
|---|---|
| Synopsis | Time until switch to primary PMSI after recovering rate |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel inclusive umh-rate-monitoring revertive-timer *number* |
| Tree | revertive-timer |
| Range | 0 to 3600 |
| Introduced | 21.5.R1 |
| Platforms | All |

### **traffic-rate-delta** *number*

| | |
|---|---|
| Synopsis | Rate delta between PMSIs under which traffic switches |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel inclusive umh-rate-monitoring traffic-rate-delta *number* |
| Tree | traffic-rate-delta |
| Range | 0 to 4294967294 |
| Introduced | 21.5.R1 |
| Platforms | All |

### **wildcard-spmsi** *boolean*

| | |
|---|---|
| Synopsis | Enable RFC 6625 S-PMSI functionality for NG-MVPN |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel inclusive wildcard-spmsi *boolean* |
| Tree | wildcard-spmsi |
| Default | false |
| Introduced | 19.5.R1 |


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| | |
|---|---|
| Platforms | All |

## selective

| | |
|---|---|
| Synopsis | Enter the **selective** context |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel selective |
| Tree | selective |
| Introduced | 19.5.R1 |
| Platforms | All |

## asm-mdt *boolean*

| | |
|---|---|
| Synopsis | Enable Data MDT with PIM-ASM mode on receiver PE node |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel selective asm-mdt *boolean* |
| Tree | asm-mdt |
| Default | false |
| Introduced | 19.5.R1 |
| Platforms | All |

## auto-discovery *boolean*

| | |
|---|---|
| Synopsis | Enable C-trees to P-tunnel binding auto-discovery |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel selective auto-discovery *boolean* |
| Tree | auto-discovery |
| Default | false |
| Introduced | 19.5.R1 |
| Platforms | All |

## bier

| | |
|---|---|
| Synopsis | Enable the **bier** context |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel selective bier |
| Tree | bier |
| Notes | The following elements are part of a choice: **bier**, **mldp**, **p2mp-sr**, **pim**, or **rsvp**. |


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| | |
|---|---|
| Introduced | 19.5.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of BIER |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel selective bier admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 19.5.R1 |
| Platforms | All |

### **sub-domain** *number*

| | |
|---|---|
| Synopsis | Sub-domain used to attach the BIER provider tunnel |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel selective bier sub-domain *number* |
| Tree | sub-domain |
| Range | 0 to 255 |
| Introduced | 19.5.R1 |
| Platforms | All |

### **data-delay-interval** *number*

| | |
|---|---|
| Synopsis | Interval a PE switches from inclusive to selective |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel selective data-delay-interval *number* |
| Tree | data-delay-interval |
| Range | 3 to 180 |
| Default | 3 |
| Introduced | 19.5.R1 |
| Platforms | All |


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### data-threshold

| | |
|---|---|
| Synopsis | Enter the **data-threshold** context |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel selective data-threshold |
| Tree | data-threshold |
| Introduced | 19.5.R1 |
| Platforms | All |

### group-prefix [ip-group-prefix] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Enter the **group-prefix** list instance |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel selective data-threshold group-prefix *(ipv4-prefix \| ipv6-prefix)* |
| Tree | group-prefix |
| Introduced | 19.5.R1 |
| Platforms | All |

### [ip-group-prefix] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | IPv4 or IPv6 multicast group address and prefix |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel selective data-threshold group-prefix *(ipv4-prefix \| ipv6-prefix)* |
| Tree | group-prefix |
| Notes | This element is part of a list key. |
| Introduced | 19.5.R1 |
| Platforms | All |

### pe-threshold-add *number*

| | |
|---|---|
| Synopsis | PE add threshold |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel selective data-threshold group-prefix *(ipv4-prefix \| ipv6-prefix)* pe-threshold-add *number* |
| Tree | pe-threshold-add |
| Range | 1 to 65535 |
| Default | 65535 |
| Introduced | 19.5.R1 |


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| | |
|---|---|
| Platforms | All |

## **pe-threshold-delete** *number*

| | |
|---|---|
| Synopsis | PE delete threshold |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel selective data-threshold group-prefix *(ipv4-prefix \| ipv6-prefix)* pe-threshold-delete *number* |
| Tree | pe-threshold-delete |
| Range | 2 to 65535 |
| Default | 65535 |
| Introduced | 19.5.R1 |
| Platforms | All |

## **threshold** *number*

| | |
|---|---|
| Synopsis | S-PMSI threshold |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel selective data-threshold group-prefix *(ipv4-prefix \| ipv6-prefix)* threshold *number* |
| Tree | threshold |
| Range | 0 to 4294967294 |
| Units | kilobps |
| Notes | This element is mandatory. |
| Introduced | 19.5.R1 |
| Platforms | All |

## **join-tlv-packing** *boolean*

| | |
|---|---|
| Synopsis | Enable packing of MDT join TLVs into a single PDU |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel selective join-tlv-packing *boolean* |
| Tree | join-tlv-packing |
| Default | true |
| Introduced | 19.5.R1 |
| Platforms | All |


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## mldp

| | |
|---|---|
| Synopsis | Enable the **mldp** context |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel selective mldp |
| Tree | mldp |
| Notes | The following elements are part of a choice: **bier**, **mldp**, **p2mp-sr**, **pim**, or **rsvp**. |
| Introduced | 19.5.R1 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of MLDP LSP use for tunnels |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel selective mldp admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 19.5.R1 |
| Platforms | All |

## maximum-p2mp-spmsi *number*

| | |
|---|---|
| Synopsis | Maximum number of RSVP P2MP or LDP P2MP S-PMSI tunnels |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel selective mldp maximum-p2mp-spmsi *number* |
| Tree | maximum-p2mp-spmsi |
| Range | 1 to 4000 |
| Default | 10 |
| Introduced | 19.5.R1 |
| Platforms | All |

## multistream-spmsi [multistream-id] *number*

| | |
|---|---|
| Synopsis | Enter the **multistream-spmsi** list instance |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel selective multistream-spmsi *number* |


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| | |
|---|---|
| Tree | multistream-spmsi |
| Introduced | 19.5.R1 |
| Platforms | All |

### [**multistream-id**] *number*

| | |
|---|---|
| Synopsis | Multistream spmsi id |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel selective multistream-spmsi *number* |
| Tree | multistream-spmsi |
| Range | 1 to 1024 |
| Notes | This element is part of a list key. |
| Introduced | 19.5.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of multi-stream S-PMSI |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel selective multistream-spmsi *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 19.5.R1 |
| Platforms | All |

### **group-prefix** [ip-group-prefix] *(ipv4-prefix | ipv6-prefix)* source-prefix *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Add a list entry for **group-prefix** |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel selective multistream-spmsi *number* group-prefix *(ipv4-prefix \| ipv6-prefix)* source-prefix *(ipv4-prefix \| ipv6-prefix)* |
| Tree | group-prefix |
| Introduced | 19.5.R1 |
| Platforms | All |


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### [**ip-group-prefix**] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | IPv4 or IPv6 multicast group address and prefix |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel selective multistream-spmsi *number* group-prefix *(ipv4-prefix \| ipv6-prefix)* source-prefix *(ipv4-prefix \| ipv6-prefix)* |
| Tree | group-prefix |
| Notes | This element is part of a list key. |
| Introduced | 19.5.R1 |
| Platforms | All |

### **source-prefix** *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | IPv4 or IPv6 unicast source address and prefix |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel selective multistream-spmsi *number* group-prefix *(ipv4-prefix \| ipv6-prefix)* source-prefix *(ipv4-prefix \| ipv6-prefix)* |
| Tree | group-prefix |
| Notes | This element is part of a list key. |
| Introduced | 19.5.R1 |
| Platforms | All |

### **lsp-template** *reference*

| | |
|---|---|
| Synopsis | RSVP-TE LSP template for S-PMSI |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel selective multistream-spmsi *number* lsp-template *reference* |
| Tree | lsp-template |
| Reference | **configure** router *named-item-64* mpls lsp-template *named-item* |
| Notes | The following elements are part of a choice: **lsp-template**, **p2mp-sr**, or **pim**. |
| Introduced | 19.5.R1 |
| Platforms | All |

### **p2mp-sr**

| | |
|---|---|
| Synopsis | Enter the **p2mp-sr** context |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel selective multistream-spmsi *number* p2mp-sr |


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| | |
|---|---|
| Tree | p2mp-sr |
| Notes | The following elements are part of a choice: **lsp-template**, **p2mp-sr**, or **pim**. |
| Introduced | 21.5.R1 |
| Platforms | All |

### **p2mp-policy-mpls** *boolean*

| | |
|---|---|
| Synopsis | Use P2MP policy for multistream MVPN provider tunnel |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel selective multistream-spmsi *number* p2mp-sr p2mp-policy-mpls *boolean* |
| Tree | p2mp-policy-mpls |
| Default | false |
| Introduced | 24.3.R1 |
| Platforms | All |

### **static-policy-mpls** *reference*

| | |
|---|---|
| Synopsis | Static P2MP policy for multistream MVPN provider tunnel |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel selective multistream-spmsi *number* p2mp-sr static-policy-mpls *reference* |
| Tree | static-policy-mpls |
| Reference | **configure** router *named-item-64* p2mp-sr-tree p2mp-policy *named-item* |
| Introduced | 24.3.R1 |
| Platforms | All |

### **static-policy-srv6** *reference*

| | |
|---|---|
| Synopsis | Static policy for multistream MVPN provider tunnel |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel selective multistream-spmsi *number* p2mp-sr static-policy-srv6 *reference* |
| Tree | static-policy-srv6 |
| Reference | **configure** router *named-item-64* p2mp-sr-tree p2mp-policy *named-item* |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |


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## pim

| | |
|---|---|
| Synopsis | Enable the **pim** context |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel selective multistream-spmsi *number* pim |
| Tree | pim |
| Notes | The following elements are part of a choice: **lsp-template**, **p2mp-sr**, or **pim**. |
| Introduced | 19.5.R1 |
| Platforms | All |

## group-address *ipv4-multicast-address*

| | |
|---|---|
| Synopsis | Group address of the data MDT |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel selective multistream-spmsi *number* pim group-address *ipv4-multicast-address* |
| Tree | group-address |
| Introduced | 19.5.R1 |
| Platforms | All |

## mode *keyword*

| | |
|---|---|
| Synopsis | PIM mode for the selective provider tunnel |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel selective multistream-spmsi *number* pim mode *keyword* |
| Tree | mode |
| Options | asm, ssm |
| Introduced | 19.5.R1 |
| Platforms | All |

## p2mp-sr

| | |
|---|---|
| Synopsis | Enable the **p2mp-sr** context |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel selective p2mp-sr |
| Tree | p2mp-sr |
| Notes | The following elements are part of a choice: **bier**, **mldp**, **p2mp-sr**, **pim**, or **rsvp**. |
| Introduced | 21.5.R1 |


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| | |
|---|---|
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of P2MP SR |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel selective p2mp-sr admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.5.R1 |
| Platforms | All |

### **p2mp-policy-mpls** *boolean*

| | |
|---|---|
| Synopsis | Use P2MP policy for MVPN provider tunnel |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel selective p2mp-sr p2mp-policy-mpls *boolean* |
| Tree | p2mp-policy-mpls |
| Default | false |
| Introduced | 24.3.R1 |
| Platforms | All |

### **static-policy-mpls** *reference*

| | |
|---|---|
| Synopsis | Static P2MP policy for selective MVPN provider tunnel |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel selective p2mp-sr static-policy-mpls *reference* |
| Tree | static-policy-mpls |
| Reference | **configure** router *named-item-64* p2mp-sr-tree p2mp-policy *named-item* |
| Introduced | 24.3.R1 |
| Platforms | All |

### **static-policy-srv6** *reference*

| | |
|---|---|
| Synopsis | Static policy for inclusive SRv6 MVPN provider tunnel |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* mvpn provider-tunnel selective p2mp-sr static-policy-srv6 *reference* |
| Tree | static-policy-srv6 |
| Reference | **configure** router *named-item-64* p2mp-sr-tree p2mp-policy *named-item* |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## pim

| | |
|---|---|
| Synopsis | Enable the **pim** context |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel selective pim |
| Tree | pim |
| Notes | The following elements are part of a choice: **bier**, **mldp**, **p2mp-sr**, **pim**, or **rsvp**. |
| Introduced | 19.5.R1 |
| Platforms | All |

## group-prefix *ipv4-multicast-prefix*

| | |
|---|---|
| Synopsis | Multicast group address and netmask length |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel selective pim group-prefix *ipv4-multicast-prefix* |
| Tree | group-prefix |
| Notes | This element is mandatory. |
| Introduced | 19.5.R1 |
| Platforms | All |

## mode *keyword*

| | |
|---|---|
| Synopsis | PIM mode |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel selective pim mode *keyword* |
| Tree | mode |
| Options | asm, ssm |
| Notes | This element is mandatory. |
| Introduced | 19.5.R1 |
| Platforms | All |


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### rsvp

| | |
|---|---|
| Synopsis | Enable the **rsvp** context |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel selective rsvp |
| Tree | rsvp |
| Notes | The following elements are part of a choice: **bier**, **mldp**, **p2mp-sr**, **pim**, or **rsvp**. |
| Introduced | 19.5.R1 |
| Platforms | All |

### admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of RSVP use for provider tunnels |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel selective rsvp admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 19.5.R1 |
| Platforms | All |

### lsp-template *reference*

| | |
|---|---|
| Synopsis | P2MP LSP created as the selective provider tunnel |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel selective rsvp lsp-template *reference* |
| Tree | lsp-template |
| Reference | **configure** router *named-item-64* mpls lsp-template *named-item* |
| Introduced | 19.5.R1 |
| Platforms | All |

### maximum-p2mp-spmsi *number*

| | |
|---|---|
| Synopsis | Maximum number of RSVP P2MP or LDP P2MP S-PMSI tunnels |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel selective rsvp maximum-p2mp-spmsi *number* |
| Tree | maximum-p2mp-spmsi |


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| | |
|---|---|
| Range | 1 to 4000 |
| Default | 10 |
| Introduced | 19.5.R1 |
| Platforms | All |

### umh-rate-monitoring

| | |
|---|---|
| Synopsis | Enter the **umh-rate-monitoring** context |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel selective umh-rate-monitoring |
| Tree | umh-rate-monitoring |
| Introduced | 21.5.R1 |
| Platforms | All |

### **group** [group-ip-address] *(ipv4-prefix | ipv6-prefix)* source *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Enter the **group** list instance |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel selective umh-rate-monitoring group *(ipv4-prefix | ipv6-prefix)* source *(ipv4-prefix | ipv6-prefix)* |
| Tree | group |
| Introduced | 21.5.R1 |
| Platforms | All |

### [**group-ip-address**] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Group IP address |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel selective umh-rate-monitoring group *(ipv4-prefix | ipv6-prefix)* source *(ipv4-prefix | ipv6-prefix)* |
| Tree | group |
| Notes | This element is part of a list key. |
| Introduced | 21.5.R1 |
| Platforms | All |

### **source** *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Source IP address |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* mvpn provider-tunnel selective umh-rate-monitoring group *(ipv4-prefix \| ipv6-prefix)* source *(ipv4-prefix \| ipv6-prefix)* |
| Tree | group |
| Notes | This element is part of a list key. |
| Introduced | 21.5.R1 |
| Platforms | All |

### **fpe** *reference*

| | |
|---|---|
| Synopsis | FPE ID for LAG interface of redundant monitoring IOMs |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel selective umh-rate-monitoring group *(ipv4-prefix \| ipv6-prefix)* source *(ipv4-prefix \| ipv6-prefix)* fpe *reference* |
| Tree | fpe |
| Description | This command configures a Forwarding Path Extension (FPE) for the LAG interface when using two monitoring IOMs for redundancy. A PXC port can be created on each IOM and added as a member to a per-link hashing LAG bundle. The FPE is used to create the interface on the LAG bundle with its own Martian IP address. On ingress to the Upstream Multicast Hop (UMH) IOMs, the P-Multicast Service Interfaces (PMSIs) traffic is forwarded to the active LAG IOM and, if there is a failure on the active LAG IOM, the PMSIs traffic is forwarded to the standby IOM. |
| Reference | **configure** fwd-path-ext fpe *number* |
| Introduced | 24.7.R1 |
| Platforms | All |

### **revertive-timer** *number*

| | |
|---|---|
| Synopsis | Time until switch to primary PMSI after recovering rate |
| Context | **configure** service vprn *service-name* mvpn provider-tunnel selective umh-rate-monitoring group *(ipv4-prefix \| ipv6-prefix)* source *(ipv4-prefix \| ipv6-prefix)* revertive-timer *number* |
| Tree | revertive-timer |
| Range | 0 to 3600 |
| Introduced | 21.5.R1 |
| Platforms | All |

### **traffic-rate-delta** *number*

| | |
|---|---|
| Synopsis | Rate delta between PMSIs under which traffic switches |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* mvpn provider-tunnel selective umh-rate-monitoring group *(ipv4-prefix \| ipv6-prefix)* source *(ipv4-prefix \| ipv6-prefix)* traffic-rate-delta *number* |
| Tree | traffic-rate-delta |
| Range | 0 to 4294967294 |
| Introduced | 21.5.R1 |
| Platforms | All |

## redundant-source-list

| | |
|---|---|
| Synopsis | Enter the **redundant-source-list** context |
| Context | **configure** service vprn *service-name* mvpn redundant-source-list |
| Tree | redundant-source-list |
| Introduced | 19.5.R1 |
| Platforms | All |

## **source-prefix** [ip-prefix] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Add a list entry for **source-prefix** |
| Context | **configure** service vprn *service-name* mvpn redundant-source-list source-prefix *(ipv4-prefix \| ipv6-prefix)* |
| Tree | source-prefix |
| Max. instances | 16 |
| Introduced | 19.5.R1 |
| Platforms | All |

## [**ip-prefix**] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Unicast address prefix and mask |
| Context | **configure** service vprn *service-name* mvpn redundant-source-list source-prefix *(ipv4-prefix \| ipv6-prefix)* |
| Tree | source-prefix |
| Notes | This element is part of a list key. |
| Introduced | 19.5.R1 |
| Platforms | All |


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### rpf-select

| | |
|---|---|
| Synopsis | Enter the **rpf-select** context |
| Context | **configure** service vprn *service-name* mvpn rpf-select |
| Tree | rpf-select |
| Introduced | 19.5.R1 |
| Platforms | All |

### **core-mvpn** [core-mvpn-service-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **core-mvpn** list instance |
| Context | **configure** service vprn *service-name* mvpn rpf-select core-mvpn *reference* |
| Tree | core-mvpn |
| Introduced | 19.5.R1 |
| Platforms | All |

### [**core-mvpn-service-name**] *reference*

| | |
|---|---|
| Synopsis | Core MVPN service name |
| Context | **configure** service vprn *service-name* mvpn rpf-select core-mvpn *reference* |
| Tree | core-mvpn |
| Reference | **configure** service vprn *service-name* |
| Notes | This element is part of a list key. |
| Introduced | 19.5.R1 |
| Platforms | All |

### **group-prefix** [ip-group-prefix] *ipv4-multicast-prefix*

| | |
|---|---|
| Synopsis | Enter the **group-prefix** list instance |
| Context | **configure** service vprn *service-name* mvpn rpf-select core-mvpn *reference* group-prefix *ipv4-multicast-prefix* |
| Tree | group-prefix |
| Min. instances | 1 |
| Introduced | 19.5.R1 |


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| | |
|---|---|
| Platforms | All |

### [**ip-group-prefix**] *ipv4-multicast-prefix*

| | |
|---|---|
| Synopsis | IPv4 multicast address prefix and mask |
| Context | **configure** service vprn *service-name* mvpn rpf-select core-mvpn *reference* group-prefix *ipv4-multicast-prefix* |
| Tree | group-prefix |
| Notes | This element is part of a list key. |
| Introduced | 19.5.R1 |
| Platforms | All |

### **starg** *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Starg flag |
| Context | **configure** service vprn *service-name* mvpn rpf-select core-mvpn *reference* group-prefix *ipv4-multicast-prefix* starg *boolean* |
| Tree | starg |
| Default | false |
| Introduced | 19.5.R1 |
| Platforms | All |

### **umh-pe-backup**

| | |
|---|---|
| Synopsis | Enter the **umh-pe-backup** context |
| Context | **configure** service vprn *service-name* mvpn umh-pe-backup |
| Tree | umh-pe-backup |
| Introduced | 19.5.R1 |
| Platforms | All |

### **umh-pe** [ip-address] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Enter the **umh-pe** list instance |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* mvpn umh-pe-backup umh-pe *ipv4-unicast-address* |
| Tree | umh-pe |
| Introduced | 19.5.R1 |
| Platforms | All |

### [**ip-address**] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IP address for the standby PE |
| Context | **configure** service vprn *service-name* mvpn umh-pe-backup umh-pe *ipv4-unicast-address* |
| Tree | umh-pe |
| Notes | This element is part of a list key. |
| Introduced | 19.5.R1 |
| Platforms | All |

### **standby** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IP address |
| Context | **configure** service vprn *service-name* mvpn umh-pe-backup umh-pe *ipv4-unicast-address* standby *ipv4-unicast-address* |
| Tree | standby |
| Notes | This element is mandatory. |
| Introduced | 19.5.R1 |
| Platforms | All |

### **umh-selection** *keyword*

| | |
|---|---|
| Synopsis | UMH selection mechanism |
| Context | **configure** service vprn *service-name* mvpn umh-selection *keyword* |
| Tree | umh-selection |
| Options | highest-ip, hash-based, tunnel-status, unicast-rt-pref |
| Default | highest-ip |
| Introduced | 19.5.R1 |
| Platforms | All |


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## vrf-export

| | |
|---|---|
| Synopsis | Enter the **vrf-export** context |
| Context | **configure** service vprn *service-name* mvpn vrf-export |
| Tree | vrf-export |
| Introduced | 19.5.R1 |
| Platforms | All |

## policy *(policy-expr-string | string)*

| | |
|---|---|
| Synopsis | Route policy name |
| Context | **configure** service vprn *service-name* mvpn vrf-export policy *(policy-expr-string \| string)* |
| Tree | policy |
| Description | This command specifies the route policy name. If the string contains special characters (#, $, spaces, and so on), the entire string must be enclosed between double quotes. |
| String length | 1 to 255 |
| Max. instances | 15 |
| Min. instances | 1 |
| Notes | The following elements are part of a choice: **policy** or **unicast**.<br>This element is ordered by the user. |
| Introduced | 19.5.R1 |
| Platforms | All |

## unicast *boolean*

| | |
|---|---|
| Synopsis | Enable the unicast VRF export policy for the MVPN |
| Context | **configure** service vprn *service-name* mvpn vrf-export unicast *boolean* |
| Tree | unicast |
| Default | false |
| Notes | The following elements are part of a choice: **policy** or **unicast**. |
| Introduced | 19.5.R1 |
| Platforms | All |


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## vrf-import

| | |
|---|---|
| Synopsis | Enter the **vrf-import** context |
| Context | **configure** service vprn *service-name* mvpn vrf-import |
| Tree | vrf-import |
| Introduced | 19.5.R1 |
| Platforms | All |

## policy *(policy-expr-string | string)*

| | |
|---|---|
| Synopsis | Route policy name |
| Context | **configure** service vprn *service-name* mvpn vrf-import policy *(policy-expr-string \| string)* |
| Tree | policy |
| Description | This command specifies the route policy name. If the string contains special characters (#, $, spaces, and so on), the entire string must be enclosed between double quotes. |
| String length | 1 to 255 |
| Max. instances | 15 |
| Min. instances | 1 |
| Notes | The following elements are part of a choice: **policy** or **unicast**.<br>This element is ordered by the user. |
| Introduced | 19.5.R1 |
| Platforms | All |

## unicast *boolean*

| | |
|---|---|
| Synopsis | Enable the unicast VRF import policy for the MVPN |
| Context | **configure** service vprn *service-name* mvpn vrf-import unicast *boolean* |
| Tree | unicast |
| Default | false |
| Notes | The following elements are part of a choice: **policy** or **unicast**. |
| Introduced | 19.5.R1 |
| Platforms | All |


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### vrf-target

| | |
|---|---|
| Synopsis | Enter the **vrf-target** context |
| Context | **configure** service vprn *service-name* mvpn vrf-target |
| Tree | vrf-target |
| Introduced | 19.5.R1 |
| Platforms | All |

### community *route-target*

| | |
|---|---|
| Synopsis | Extended community name for the MVPN |
| Context | **configure** service vprn *service-name* mvpn vrf-target community *route-target* |
| Tree | community |
| String length | 10 to 28 |
| Introduced | 19.5.R1 |
| Platforms | All |

### export

| | |
|---|---|
| Synopsis | Enter the **export** context |
| Context | **configure** service vprn *service-name* mvpn vrf-target export |
| Tree | export |
| Introduced | 19.5.R1 |
| Platforms | All |

### community *route-target*

| | |
|---|---|
| Synopsis | Extended community name for the MVPN |
| Context | **configure** service vprn *service-name* mvpn vrf-target export community *route-target* |
| Tree | community |
| String length | 10 to 28 |
| Introduced | 19.5.R1 |
| Platforms | All |


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### **unicast** *boolean*

| | |
|---|---|
| Synopsis | Enable the unicast vrf-target for the MVPN |
| Context | **configure** service vprn *service-name* mvpn vrf-target export unicast *boolean* |
| Tree | unicast |
| Default | false |
| Introduced | 19.5.R1 |
| Platforms | All |

### **import**

| | |
|---|---|
| Synopsis | Enter the **import** context |
| Context | **configure** service vprn *service-name* mvpn vrf-target import |
| Tree | import |
| Introduced | 19.5.R1 |
| Platforms | All |

### **community** *route-target*

| | |
|---|---|
| Synopsis | Extended community name for the MVPN |
| Context | **configure** service vprn *service-name* mvpn vrf-target import community *route-target* |
| Tree | community |
| String length | 10 to 28 |
| Introduced | 19.5.R1 |
| Platforms | All |

### **unicast** *boolean*

| | |
|---|---|
| Synopsis | Enable the unicast vrf-target for the MVPN |
| Context | **configure** service vprn *service-name* mvpn vrf-target import unicast *boolean* |
| Tree | unicast |
| Default | false |
| Introduced | 19.5.R1 |
| Platforms | All |


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### **unicast** *boolean*

| | |
|---|---|
| Synopsis | Enable unicast vrf-target for the MVPN |
| Context | **configure** service vprn *service-name* mvpn vrf-target unicast *boolean* |
| Tree | unicast |
| Default | false |
| Introduced | 19.5.R1 |
| Platforms | All |

### **nat**

| | |
|---|---|
| Synopsis | Enable the **nat** context |
| Context | **configure** service vprn *service-name* nat |
| Tree | nat |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **inside**

| | |
|---|---|
| Synopsis | Enter the **inside** context |
| Context | **configure** service vprn *service-name* nat inside |
| Tree | inside |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **l2-aware**

| | |
|---|---|
| Synopsis | Enter the **l2-aware** context |
| Context | **configure** service vprn *service-name* nat inside l2-aware |
| Tree | l2-aware |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **force-unique-ip-addresses** *boolean*

| | |
|---|---|
| Synopsis | Enforce unique IPv4 addresses for L2-aware subscribers |
| Context | **configure** service vprn *service-name* nat inside l2-aware force-unique-ip-addresses *boolean* |
| Tree | force-unique-ip-addresses |
| Description | When configured to **true**, the system enforces the uniqueness of IPv4 addresses of L2-aware subscribers in an inside routing context.<br>This functionality is required if multicast sourced from the inside routing context is enabled for L2-aware subscribers. |
| Default | false |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **subscribers** [prefix] *ipv4-prefix-with-host-bits*

| | |
|---|---|
| Synopsis | Add a list entry for **subscribers** |
| Context | **configure** service vprn *service-name* nat inside l2-aware subscribers *ipv4-prefix-with-host-bits* |
| Tree | subscribers |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**prefix**] *ipv4-prefix-with-host-bits*

| | |
|---|---|
| Synopsis | Layer-2 Aware NAT subscriber prefix |
| Context | **configure** service vprn *service-name* nat inside l2-aware subscribers *ipv4-prefix-with-host-bits* |
| Tree | subscribers |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **large-scale**

| | |
|---|---|
| Synopsis | Enter the **large-scale** context |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* nat inside large-scale |
| Tree | large-scale |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## dnat-only

| | |
|---|---|
| Synopsis | Enter the **dnat-only** context |
| Context | **configure** service vprn *service-name* nat inside large-scale dnat-only |
| Tree | dnat-only |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## source-prefix-list *reference*

| | |
|---|---|
| Synopsis | NAT prefix list that contains source IP addresses |
| Context | **configure** service vprn *service-name* nat inside large-scale dnat-only source-prefix-list *reference* |
| Tree | source-prefix-list |
| Reference | **configure** service nat prefix-list *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## dual-stack-lite

| | |
|---|---|
| Synopsis | Enter the **dual-stack-lite** context |
| Context | **configure** service vprn *service-name* nat inside large-scale dual-stack-lite |
| Tree | dual-stack-lite |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of Dual Stack Lite |
| Context | **configure** service vprn *service-name* nat inside large-scale dual-stack-lite admin-state *keyword* |


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| | |
|---|---|
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## deterministic

| | |
|---|---|
| Synopsis | Enter the **deterministic** context |
| Context | **configure** service vprn *service-name* nat inside large-scale dual-stack-lite deterministic |
| Tree | deterministic |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **address-map** [from] *ipv6-prefix* to *ipv6-prefix* nat-policy *reference*

| | |
|---|---|
| Synopsis | Enter the **address-map** list instance |
| Context | **configure** service vprn *service-name* nat inside large-scale dual-stack-lite deterministic address-map *ipv6-prefix* to *ipv6-prefix* nat-policy *reference* |
| Tree | address-map |
| Description | Commands in this context map inside IPv6 addresses of deterministic DS-Lite subscribers to the outside IPv4 addresses in a NAT pool.<br>This context is only applicable to deterministic DS-Lite with a single ESA-VM in a NAT-group. The number of subscribers per outside IP address is flexible and not restricted to a discrete range governed by the 2^n rule. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## [**from**] *ipv6-prefix*

| | |
|---|---|
| Synopsis | Lower bound of IPv6 address of inside IPv6 NAT range |
| Context | **configure** service vprn *service-name* nat inside large-scale dual-stack-lite deterministic address-map *ipv6-prefix* to *ipv6-prefix* nat-policy *reference* |
| Tree | address-map |
| Description | This command specifies the starting IPv6 address or IPv6 prefix for a DS-Lite subscriber or B4 element on the inside IPv6 address range. |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **to** *ipv6-prefix*

| | |
|---|---|
| Synopsis | Upper bound of IPv6 address of inside IPv6 NAT range |
| Context | **configure** service vprn *service-name* nat inside large-scale dual-stack-lite deterministic address-map *ipv6-prefix* to *ipv6-prefix* nat-policy *reference* |
| Tree | address-map |
| Description | This command specifies the ending IPv6 address or IPv6 prefix for a DS-Lite subscriber or B4 element on the inside IPv6 address range. |
| Notes | This element is part of a list key. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **nat-policy** *reference*

| | |
|---|---|
| Synopsis | NAT policy name for LSN |
| Context | **configure** service vprn *service-name* nat inside large-scale dual-stack-lite deterministic address-map *ipv6-prefix* to *ipv6-prefix* nat-policy *reference* |
| Tree | address-map |
| Reference | **configure** service nat nat-policy *external-named-item* |
| Notes | This element is part of a list key. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of address map |
| Context | **configure** service vprn *service-name* nat inside large-scale dual-stack-lite deterministic address-map *ipv6-prefix* to *ipv6-prefix* nat-policy *reference* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **outside-range** *ipv4-address*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | First outside IP address in NAT pool |
| Context | **configure** service vprn *service-name* nat inside large-scale dual-stack-lite deterministic address-map *ipv6-prefix* to *ipv6-prefix* nat-policy *reference* outside-range *ipv4-address* |
| Tree | outside-range |
| Description | This command specifies the first outside IP address in the NAT pool.<br>The last outside IP address is determined by the number of subscribers mapped to an outside IP address via the **configure router nat outside pool large-scale subscriber-limit** and **configure service vprn nat outside pool large-scale subscriber-limit** commands. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **prefix-map** [source-prefix] *ipv6-unicast-prefix* nat-policy *reference*

| | |
|---|---|
| Synopsis | Enter the **prefix-map** list instance |
| Context | **configure** service vprn *service-name* nat inside large-scale dual-stack-lite deterministic prefix-map *ipv6-unicast-prefix* nat-policy *reference* |
| Tree | prefix-map |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**source-prefix**] *ipv6-unicast-prefix*

| | |
|---|---|
| Synopsis | List containing source IP addresses on the private side |
| Context | **configure** service vprn *service-name* nat inside large-scale dual-stack-lite deterministic prefix-map *ipv6-unicast-prefix* nat-policy *reference* |
| Tree | prefix-map |
| Notes | This element is part of a list key. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **nat-policy** *reference*

| | |
|---|---|
| Synopsis | NAT policy |
| Context | **configure** service vprn *service-name* nat inside large-scale dual-stack-lite deterministic prefix-map *ipv6-unicast-prefix* nat-policy *reference* |
| Tree | prefix-map |
| Reference | **configure** service nat nat-policy *external-named-item* |
| Notes | This element is part of a list key. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the prefix |
| Context | **configure** service vprn *service-name* nat inside large-scale dual-stack-lite deterministic prefix-map *ipv6-unicast-prefix* nat-policy *reference* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **map** [from] *ipv6-prefix* to *ipv6-prefix*

| | |
|---|---|
| Synopsis | Enter the **map** list instance |
| Context | **configure** service vprn *service-name* nat inside large-scale dual-stack-lite deterministic prefix-map *ipv6-unicast-prefix* nat-policy *reference* map *ipv6-prefix* to *ipv6-prefix* |
| Tree | map |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**from**] *ipv6-prefix*

| | |
|---|---|
| Synopsis | Beginning of the range for IPv6 addresses |
| Context | **configure** service vprn *service-name* nat inside large-scale dual-stack-lite deterministic prefix-map *ipv6-unicast-prefix* nat-policy *reference* map *ipv6-prefix* to *ipv6-prefix* |


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| | |
|---|---|
| Tree | map |
| Notes | This element is part of a list key. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **to** *ipv6-prefix*

| | |
|---|---|
| Synopsis | End of the range for IPv6 addresses |
| Context | **configure** service vprn *service-name* nat inside large-scale dual-stack-lite deterministic prefix-map *ipv6-unicast-prefix* nat-policy *reference* map *ipv6-prefix* to *ipv6-prefix* |
| Tree | map |
| Notes | This element is part of a list key. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **first-outside-address** *ipv4-address*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Outside IP address mapped to inside IP address range |
| Context | **configure** service vprn *service-name* nat inside large-scale dual-stack-lite deterministic prefix-map *ipv6-unicast-prefix* nat-policy *reference* map *ipv6-prefix* to *ipv6-prefix* first-outside-address *ipv4-address* |
| Tree | first-outside-address |
| Notes | This element is mandatory. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **endpoint** [address] *ipv6-address*

| | |
|---|---|
| Synopsis | Enter the **endpoint** list instance |
| Context | **configure** service vprn *service-name* nat inside large-scale dual-stack-lite endpoint *ipv6-address* |
| Tree | endpoint |


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| | |
|---|---|
| Max. instances | 128 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**address**] *ipv6-address*

| | |
|---|---|
| Synopsis | Dual Stack Lite IPv6 address |
| Context | **configure** service vprn *service-name* nat inside large-scale dual-stack-lite endpoint *ipv6-address* |
| Tree | endpoint |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ip-fragmentation** *keyword*

| | |
|---|---|
| Synopsis | Fragmentation control of the AFTR originated downstream IPv6 traffic |
| Context | **configure** service vprn *service-name* nat inside large-scale dual-stack-lite endpoint *ipv6-address* ip-fragmentation *keyword* |
| Tree | ip-fragmentation |
| Options | fragment-ipv6, fragment-ipv6-unless-ipv4-df-set |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **min-first-fragment-size-rx** *number*

| | |
|---|---|
| Synopsis | Minimum MTU size for upstream packets |
| Context | **configure** service vprn *service-name* nat inside large-scale dual-stack-lite endpoint *ipv6-address* min-first-fragment-size-rx *number* |
| Tree | min-first-fragment-size-rx |
| Description | This command configures the minimum MTU size for the first fragment in the upstream direction. This command can be used to enable processing of first IPv6 fragments smaller than 1280 bytes. RFC 8200 recommends the minimum MTU in IPv6 be 1280 bytes which allows fragmentation only for packets that are larger than 1280 bytes. If a first fragment is smaller than 1280 bytes, DS-lite implementation in the SR OS, by default, drops the first fragment. |
| Range | 512 to 1280 |


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| | |
|---|---|
| Default | 1280 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **reassembly** *boolean*

| | |
|---|---|
| Synopsis | Reassembly of IPv6 payload datagrams |
| Context | **configure** service vprn *service-name* nat inside large-scale dual-stack-lite endpoint *ipv6-address* reassembly *boolean* |
| Tree | reassembly |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **tunnel-mtu** *number*

| | |
|---|---|
| Synopsis | DS-Lite tunnel MTU for this address |
| Context | **configure** service vprn *service-name* nat inside large-scale dual-stack-lite endpoint *ipv6-address* tunnel-mtu *number* |
| Tree | tunnel-mtu |
| Description | This command configures the Dual Stack Lite (DS-Lite) tunnel MTU for this address. |
| Range | 464 to 9212 |
| Default | 1500 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **max-subscriber-limit** *number*

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

| | |
|---|---|
| Synopsis | Largest value for all subscriber limits in each deterministic pool |
| Context | **configure** service vprn *service-name* nat inside large-scale dual-stack-lite max-subscriber-limit *number* |
| Tree | max-subscriber-limit |
| Range | 1 \| 2 \| 4 \| 8 \| 16 \| 32 \| 64 \| 128 \| 256 \| 512 \| 1024 \| 2048 \| 4096 \| 8192 \| 16384 \| 32768 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## subscriber-prefix-length *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

| | |
|---|---|
| Synopsis | IPv6 prefix length of the Dual Stack Lite subscribers |
| Context | **configure** service vprn *service-name* nat inside large-scale dual-stack-lite subscriber-prefix-length *number* |
| Tree | subscriber-prefix-length |
| Range | 32 to 64 \| 128 |
| Default | 128 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## filters

| | |
|---|---|
| Synopsis | Enter the **filters** context |
| Context | **configure** service vprn *service-name* nat inside large-scale filters |
| Tree | filters |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## downstream

| | |
|---|---|
| Synopsis | Enter the **downstream** context |
| Context | **configure** service vprn *service-name* nat inside large-scale filters downstream |
| Tree | downstream |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **ipv4** *reference*

| | |
|---|---|
| Synopsis | IPv4 filter policy name |
| Context | **configure** service vprn *service-name* nat inside large-scale filters downstream ipv4 *reference* |
| Tree | ipv4 |
| Reference | **configure** filter ip-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **nat-policy** *reference*

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

| | |
|---|---|
| Synopsis | NAT policy name for LSN |
| Context | **configure** service vprn *service-name* nat inside large-scale nat-policy *reference* |
| Tree | nat-policy |
| Reference | **configure** service nat nat-policy *external-named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **nat44**

| | |
|---|---|
| Synopsis | Enter the **nat44** context |
| Context | **configure** service vprn *service-name* nat inside large-scale nat44 |
| Tree | nat44 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **destination-prefix** [ip-prefix-length] *ipv4-unicast-prefix*

| | |
|---|---|
| Synopsis | Enter the **destination-prefix** list instance |
| Context | **configure** service vprn *service-name* nat inside large-scale nat44 destination-prefix *ipv4-unicast-prefix* |
| Tree | destination-prefix |


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| | |
|---|---|
| Max. instances | 6144 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## [**ip-prefix-length**] *ipv4-unicast-prefix*

| | |
|---|---|
| Synopsis | IP prefix for the destination address |
| Context | **configure** service vprn *service-name* nat inside large-scale nat44 destination-prefix *ipv4-unicast-prefix* |
| Tree | destination-prefix |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **nat-policy** *reference*

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

| | |
|---|---|
| Synopsis | NAT policy |
| Context | **configure** service vprn *service-name* nat inside large-scale nat44 destination-prefix *ipv4-unicast-prefix* nat-policy *reference* |
| Tree | nat-policy |
| Reference | **configure** service nat nat-policy *external-named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **deterministic**

| | |
|---|---|
| Synopsis | Enter the **deterministic** context |
| Context | **configure** service vprn *service-name* nat inside large-scale nat44 deterministic |
| Tree | deterministic |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **address-map** [from] *ipv4-address* to *ipv4-address* nat-policy *reference*

| | |
|---|---|
| Synopsis | Enter the **address-map** list instance |
| Context | **configure** service vprn *service-name* nat inside large-scale nat44 deterministic address-map *ipv4-address* to *ipv4-address* nat-policy *reference* |
| Tree | address-map |
| Description | Commands in this context map inside IPv4 addresses of deterministic NAT44 subscribers to the outside IPv4 addresses in a NAT pool.<br>This context is only applicable to deterministic NAT44 with a single ESA-VM in a NAT-group. The number of subscribers per outside IPv4 address is flexible and not restricted to a discrete range governed by the 2^n rule. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## [**from**] *ipv4-address*

| | |
|---|---|
| Synopsis | First IP address of inside IP NAT range |
| Context | **configure** service vprn *service-name* nat inside large-scale nat44 deterministic address-map *ipv4-address* to *ipv4-address* nat-policy *reference* |
| Tree | address-map |
| Description | This command specifies the starting IPv4 address, IPv6 address, or IPv6 prefix on the inside IP address range. |
| Notes | This element is part of a list key. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **to** *ipv4-address*

| | |
|---|---|
| Synopsis | Ending IP address of inside IP NAT range |
| Context | **configure** service vprn *service-name* nat inside large-scale nat44 deterministic address-map *ipv4-address* to *ipv4-address* nat-policy *reference* |
| Tree | address-map |
| Description | This command specifies the ending IPv4 address, IPv6 address, or IPv6 prefix on the inside IP address range. |
| Notes | This element is part of a list key. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **nat-policy** *reference*

| | |
|---|---|
| Synopsis | NAT policy name for LSN |
| Context | **configure** service vprn *service-name* nat inside large-scale nat44 deterministic address-map *ipv4-address* to *ipv4-address* nat-policy *reference* |
| Tree | address-map |
| Reference | **configure** service nat nat-policy *external-named-item* |
| Notes | This element is part of a list key. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of address map |
| Context | **configure** service vprn *service-name* nat inside large-scale nat44 deterministic address-map *ipv4-address* to *ipv4-address* nat-policy *reference* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **outside-range** *ipv4-address*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | First outside IP address in NAT pool |
| Context | **configure** service vprn *service-name* nat inside large-scale nat44 deterministic address-map *ipv4-address* to *ipv4-address* nat-policy *reference* outside-range *ipv4-address* |
| Tree | outside-range |
| Description | This command specifies the first outside IP address in the NAT pool.<br>The last outside IP address is determined by the number of subscribers mapped to an outside IP address via the **configure router nat outside pool large-scale subscriber-limit** and **configure service vprn nat outside pool large-scale subscriber-limit** commands. |


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| | |
|---|---|
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **prefix-map** [source-prefix] *ipv4-unicast-prefix* nat-policy *reference*

| | |
|---|---|
| Synopsis | Enter the **prefix-map** list instance |
| Context | **configure** service vprn *service-name* nat inside large-scale nat44 deterministic prefix-map *ipv4-unicast-prefix* nat-policy *reference* |
| Tree | prefix-map |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**source-prefix**] *ipv4-unicast-prefix*

| | |
|---|---|
| Synopsis | Traffic sent from sources within this prefix will be NATed |
| Context | **configure** service vprn *service-name* nat inside large-scale nat44 deterministic prefix-map *ipv4-unicast-prefix* nat-policy *reference* |
| Tree | prefix-map |
| Notes | This element is part of a list key. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **nat-policy** *reference*

| | |
|---|---|
| Synopsis | NAT policy |
| Context | **configure** service vprn *service-name* nat inside large-scale nat44 deterministic prefix-map *ipv4-unicast-prefix* nat-policy *reference* |
| Tree | prefix-map |
| Reference | **configure** service nat nat-policy *external-named-item* |
| Notes | This element is part of a list key. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the prefix |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* nat inside large-scale nat44 deterministic prefix-map *ipv4-unicast-prefix* nat-policy *reference* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **map** [from] *ipv4-address* to *ipv4-address*

| | |
|---|---|
| Synopsis | Enter the **map** list instance |
| Context | **configure** service vprn *service-name* nat inside large-scale nat44 deterministic prefix-map *ipv4-unicast-prefix* nat-policy *reference* map *ipv4-address* to *ipv4-address* |
| Tree | map |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## [**from**] *ipv4-address*

| | |
|---|---|
| Synopsis | First IP address of inside IP NAT range |
| Context | **configure** service vprn *service-name* nat inside large-scale nat44 deterministic prefix-map *ipv4-unicast-prefix* nat-policy *reference* map *ipv4-address* to *ipv4-address* |
| Tree | map |
| Description | This command specifies the starting IPv4 address, IPv6 address, or IPv6 prefix on the inside IP address range. |
| Notes | This element is part of a list key. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **to** *ipv4-address*

| | |
|---|---|
| Synopsis | Ending IP address of inside IP NAT range |
| Context | **configure** service vprn *service-name* nat inside large-scale nat44 deterministic prefix-map *ipv4-unicast-prefix* nat-policy *reference* map *ipv4-address* to *ipv4-address* |
| Tree | map |
| Description | This command specifies the ending IPv4 address, IPv6 address, or IPv6 prefix on the inside IP address range. |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **first-outside-address** *ipv4-address*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Outside IP address mapped to inside IP address range |
| Context | **configure** service vprn *service-name* nat inside large-scale nat44 deterministic prefix-map *ipv4-unicast-prefix* nat-policy *reference* map *ipv4-address* to *ipv4-address* first-outside-address *ipv4-address* |
| Tree | first-outside-address |
| Notes | This element is mandatory. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **max-subscriber-limit** *number*

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

| | |
|---|---|
| Synopsis | Largest value for all subscriber limits in each deterministic pool |
| Context | **configure** service vprn *service-name* nat inside large-scale nat44 max-subscriber-limit *number* |
| Tree | max-subscriber-limit |
| Range | 1 \| 2 \| 4 \| 8 \| 16 \| 32 \| 64 \| 128 \| 256 \| 512 \| 1024 \| 2048 \| 4096 \| 8192 \| 16384 \| 32768 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **nat-import** *reference*

| | |
|---|---|
| Synopsis | Import BGP-VPN routes in NAT inside routing context |
| Context | **configure** service vprn *service-name* nat inside large-scale nat44 nat-import *reference* |
| Tree | nat-import |


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| | |
|---|---|
| Description | This command references an import policy to determine the routes that should be installed in the routing table as NAT routes, which are used to steer traffic to NAT.<br>A dynamic route obtained by BGP-VPN can be imported into an inside (private side) routing context in NAT environment. This route is associated with a NAT policy that maps traffic destined into a NAT pool and outside routing context. If the NAT policy is not explicitly configured in the import route-policy, the imported NAT route is, by default, associated with the default NAT policy defined in the NAT inside routing context.<br>All BGP-VPN routes that are destined to be imported into NAT inside routing context must be configured with action-type accept in the route policy. |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **source-prefix** [ip-prefix-length] *ipv4-unicast-prefix*

| | |
|---|---|
| Synopsis | Enter the **source-prefix** list instance |
| Context | **configure** service vprn *service-name* nat inside large-scale nat44 source-prefix *ipv4-unicast-prefix* |
| Tree | source-prefix |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## [**ip-prefix-length**] *ipv4-unicast-prefix*

| | |
|---|---|
| Synopsis | IPv4 prefix length |
| Context | **configure** service vprn *service-name* nat inside large-scale nat44 source-prefix *ipv4-unicast-prefix* |
| Tree | source-prefix |
| Notes | This element is part of a list key. |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **nat-policy** *reference*

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | AT policy associated with the source prefix |
| Context | **configure** service vprn *service-name* nat inside large-scale nat44 source-prefix *ipv4-unicast-prefix* nat-policy *reference* |
| Tree | nat-policy |
| Reference | **configure** service nat nat-policy *external-named-item* |
| Notes | This element is mandatory. |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **nat64**

| | |
|---|---|
| Synopsis | Enable the **nat64** context |
| Context | **configure** service vprn *service-name* nat inside large-scale nat64 |
| Tree | nat64 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of NAT64 |
| Context | **configure** service vprn *service-name* nat inside large-scale nat64 admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **drop-zero-ipv4-checksum** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Drop UDP datagrams with zero IPv4 checksum |
| Context | **configure** service vprn *service-name* nat inside large-scale nat64 drop-zero-ipv4-checksum *boolean* |
| Tree | drop-zero-ipv4-checksum |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **insert-ipv6-fragment-header** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Include IPv6 fragment header to indicate that the sender allows fragmentation |
| Context | **configure** service vprn *service-name* nat inside large-scale nat64 insert-ipv6-fragment-header *boolean* |
| Tree | insert-ipv6-fragment-header |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **ip-fragmentation** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Control fragmentation of originated downstream IPv6 traffic |
| Context | **configure** service vprn *service-name* nat inside large-scale nat64 ip-fragmentation *keyword* |
| Tree | ip-fragmentation |


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| | |
|---|---|
| Options | fragment-ipv6, fragment-ipv6-unless-ipv4-df-set |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **ipv6-mtu** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Size of the IPv6 downstream packet in NAT64 |
| Context | **configure** service vprn *service-name* nat inside large-scale nat64 ipv6-mtu *number* |
| Tree | ipv6-mtu |
| Range | 1280 to 9212 |
| Default | 1520 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **prefix** *ipv6-prefix*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

| | |
|---|---|
| Synopsis | IPv6 prefix to derive the IPv6 address from the IPv4 address |
| Context | **configure** service vprn *service-name* nat inside large-scale nat64 prefix *ipv6-prefix* |
| Tree | prefix |
| Default | 64:ff9b::/96 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### subscriber-prefix-length *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

| | |
|---|---|
| Synopsis | IPv6 prefix length for the NAT64 subscribers |
| Context | **configure** service vprn *service-name* nat inside large-scale nat64 subscriber-prefix-length *number* |
| Tree | subscriber-prefix-length |
| Range | 32 to 64 \| 128 |
| Default | 128 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### tos

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **tos** context |
| Context | **configure** service vprn *service-name* nat inside large-scale nat64 tos |
| Tree | tos |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### downstream

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **downstream** context |
| Context | **configure** service vprn *service-name* nat inside large-scale nat64 tos downstream |


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| | |
|---|---|
| Tree | downstream |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **use-ipv4** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Copy TOS/DSCP bits from the incoming IPv4 frame to the outgoing IPv6 frame |
| Context | **configure** service vprn *service-name* nat inside large-scale nat64 tos downstream use-ipv4 *boolean* |
| Tree | use-ipv4 |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **upstream**

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **upstream** context |
| Context | **configure** service vprn *service-name* nat inside large-scale nat64 tos upstream |
| Tree | upstream |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **set-tos** *(keyword | number)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | TOS/DSCP bits in IPv4 frame in the upstream direction |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* nat inside large-scale nat64 tos upstream set-tos *(keyword \| number)* |
| Tree | set-tos |
| Range | 0 to 255 |
| Options | use-ipv6 |
| Default | use-ipv6 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## redundancy

| | |
|---|---|
| Synopsis | Enter the **redundancy** context |
| Context | **configure** service vprn *service-name* nat inside large-scale redundancy |
| Tree | redundancy |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## peer *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IP address of the NAT redundancy peer for this virtual router instance |
| Context | **configure** service vprn *service-name* nat inside large-scale redundancy peer *ipv4-unicast-address* |
| Tree | peer |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## peer6 *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | IPv6 address of the NAT redundancy peer for this virtual router instance |
| Context | **configure** service vprn *service-name* nat inside large-scale redundancy peer6 *ipv6-unicast-address* |
| Tree | peer6 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **steering-route** *ipv4-unicast-prefix*

| | |
|---|---|
| Synopsis | IP address and prefix length of the steering route |
| Context | **configure** service vprn *service-name* nat inside large-scale redundancy steering-route *ipv4-unicast-prefix* |
| Tree | steering-route |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **static-port-forwards**

| | |
|---|---|
| Synopsis | Enter the **static-port-forwards** context |
| Context | **configure** service vprn *service-name* nat inside large-scale static-port-forwards |
| Tree | static-port-forwards |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **spf-nat-policy** [nat-policy] *reference*

| | |
|---|---|
| Synopsis | Add a list entry for **spf-nat-policy** |
| Context | **configure** service vprn *service-name* nat inside large-scale static-port-forwards spf-nat-policy *reference* |
| Tree | spf-nat-policy |
| Description | This command specifies that the NAT policy for the **inside** routing context is used when SPF is requested. The predeclaration of the NAT policy used in SPF is mandatory in the following scenarios:<br>• when assigning SPF to NAT subscribers in pools that differ from the ones to which their corresponding source prefixes are mapped<br>• when the source prefixes are not configured for the NAT subscriber |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**nat-policy**] *reference*

| | |
|---|---|
| Synopsis | NAT policy |
| Context | **configure** service vprn *service-name* nat inside large-scale static-port-forwards spf-nat-policy *reference* |


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| | |
|---|---|
| Tree | spf-nat-policy |
| Reference | **configure** service nat nat-policy *external-named-item* |
| Notes | This element is part of a list key. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## subscriber-identification

| | |
|---|---|
| Synopsis | Enter the **subscriber-identification** context |
| Context | **configure** service vprn *service-name* nat inside large-scale subscriber-identification |
| Tree | subscriber-identification |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of subscriber identification |
| Context | **configure** service vprn *service-name* nat inside large-scale subscriber-identification admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## attribute

| | |
|---|---|
| Synopsis | Enter the **attribute** context |
| Context | **configure** service vprn *service-name* nat inside large-scale subscriber-identification attribute |
| Tree | attribute |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **type** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | RADIUS attribute used as subscriber identifier |
| Context | **configure** service vprn *service-name* nat inside large-scale subscriber-identification attribute type *keyword* |
| Tree | type |
| Options | alc-sub-string, user-name, class, station-id, imsi, imei |
| Default | alc-sub-string |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **vendor** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | The RADIUS Vendor |
| Context | **configure** service vprn *service-name* nat inside large-scale subscriber-identification attribute vendor *keyword* |
| Tree | vendor |
| Options | standard, nokia, 3gpp |
| Default | nokia |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* nat inside large-scale subscriber-identification description *description* |
| Tree | description |
| String length | 1 to 80 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **drop-unidentified-traffic** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Drop traffic from unidentified flows |
| Context | **configure** service vprn *service-name* nat inside large-scale subscriber-identification drop-unidentified-traffic *boolean* |
| Tree | drop-unidentified-traffic |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **radius-proxy-server**

| | |
|---|---|
| Synopsis | Enable the **radius-proxy-server** context |
| Context | **configure** service vprn *service-name* nat inside large-scale subscriber-identification radius-proxy-server |
| Tree | radius-proxy-server |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **router-instance** *string*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Router instance |
| Context | **configure** service vprn *service-name* nat inside large-scale subscriber-identification radius-proxy-server router-instance *string* |
| Tree | router-instance |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **server** *named-item*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Server name |
| Context | **configure** service vprn *service-name* nat inside large-scale subscriber-identification radius-proxy-server server *named-item* |
| Tree | server |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## traffic-identification

| | |
|---|---|
| Synopsis | Enter the **traffic-identification** context |
| Context | **configure** service vprn *service-name* nat inside large-scale traffic-identification |
| Tree | traffic-identification |
| Description | Commands in this context configure traffic idenification for NAT processing |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **source-prefix-only** *boolean*

| | |
|---|---|
| Synopsis | Allow traffic associated with source prefixes only |
| Context | **configure** service vprn *service-name* nat inside large-scale traffic-identification source-prefix-only *boolean* |
| Tree | source-prefix-only |
| Default | false |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## map

| | |
|---|---|
| Synopsis | Enter the **map** context |
| Context | **configure** service vprn *service-name* nat map |
| Tree | map |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s, VSR |

## map-domain [domain-name] *reference*

| | |
|---|---|
| Synopsis | Add a list entry for **map-domain** |
| Context | **configure** service vprn *service-name* nat map map-domain *reference* |
| Tree | map-domain |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s, VSR |

## [domain-name] *reference*

| | |
|---|---|
| Synopsis | MAP domain template name |
| Context | **configure** service vprn *service-name* nat map map-domain *reference* |
| Tree | map-domain |
| Reference | **configure** service nat map-t domain *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s, VSR |

## outside

| | |
|---|---|
| Synopsis | Enter the **outside** context |
| Context | **configure** service vprn *service-name* nat outside |
| Tree | outside |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### dnat-only

| | |
|---|---|
| Synopsis | Enter the **dnat-only** context |
| Context | **configure** service vprn *service-name* nat outside dnat-only |
| Tree | dnat-only |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### route-limit *number*

| | |
|---|---|
| Synopsis | Limit for internal routes for downstream traffic |
| Context | **configure** service vprn *service-name* nat outside dnat-only route-limit *number* |
| Tree | route-limit |
| Range | 1 to 131072 |
| Default | 32768 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### filters

| | |
|---|---|
| Synopsis | Enter the **filters** context |
| Context | **configure** service vprn *service-name* nat outside filters |
| Tree | filters |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### downstream

| | |
|---|---|
| Synopsis | Enter the **downstream** context |
| Context | **configure** service vprn *service-name* nat outside filters downstream |
| Tree | downstream |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **ipv4** *reference*

| | |
|---|---|
| Synopsis | IPv4 filter policy name |
| Context | **configure** service vprn *service-name* nat outside filters downstream ipv4 *reference* |
| Tree | ipv4 |
| Reference | **configure** filter ip-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ipv6** *reference*

| | |
|---|---|
| Synopsis | IPv6 filter policy name |
| Context | **configure** service vprn *service-name* nat outside filters downstream ipv6 *reference* |
| Tree | ipv6 |
| Reference | **configure** filter ipv6-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **upstream**

| | |
|---|---|
| Synopsis | Enter the **upstream** context |
| Context | **configure** service vprn *service-name* nat outside filters upstream |
| Tree | upstream |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ipv4** *reference*

| | |
|---|---|
| Synopsis | IPv4 filter policy name |
| Context | **configure** service vprn *service-name* nat outside filters upstream ipv4 *reference* |
| Tree | ipv4 |
| Reference | **configure** filter ip-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **ipv6** *reference*

| | |
|---|---|
| Synopsis | IPv6 filter policy name |
| Context | **configure** service vprn *service-name* nat outside filters upstream ipv6 *reference* |
| Tree | ipv6 |
| Reference | **configure** filter ipv6-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **mtu** *number*

| | |
|---|---|
| Synopsis | MTU for downstream traffic |
| Context | **configure** service vprn *service-name* nat outside mtu *number* |
| Tree | mtu |
| Range | 512 to 9000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **pool** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **pool** list instance |
| Context | **configure** service vprn *service-name* nat outside pool *named-item* |
| Tree | pool |
| Max. instances | 4096 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | NAT pool name |
| Context | **configure** service vprn *service-name* nat outside pool *named-item* |
| Tree | pool |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **address-pooling** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Outside IP address allocation mode for a NAT subscriber |
| Context | **configure** service vprn *service-name* nat outside pool *named-item* address-pooling *keyword* |
| Tree | address-pooling |
| Description | This command configures address pooling which defines a relationship between the NAT subscriber and its outside IP address(es).<br>The behavior in NAT, as defined in RFC 7857, strongly recommends that the NAT subscribers be mapped to a single outside IP address. If this outside IP address runs out of ports, no new ports for the subscriber are allocated. This behavior is called paired address pooling.<br>The alternative behavior is arbitrary address pooling, where a NAT subscriber is mapped to multiple IP addresses when the current outside IP address runs out of ports. This way, the subscriber becomes associated with multiple outside IP addresses. While this results in better resource utilization in NAT, it may negatively affect the behavior of some applications. |
| Options | paired, arbitrary |
| Default | paired |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **address-range** [start] *ipv4-unicast-address* end *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Enter the **address-range** list instance |
| Context | **configure** service vprn *service-name* nat outside pool *named-item* address-range *ipv4-unicast-address* end *ipv4-unicast-address* |
| Tree | address-range |
| Max. instances | 4096 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### [**start**] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Lower bound of the NAT address range |
| Context | **configure** service vprn *service-name* nat outside pool *named-item* address-range *ipv4-unicast-address* end *ipv4-unicast-address* |
| Tree | address-range |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **end** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Upper bound of the NAT address range |
| Context | **configure** service vprn *service-name* nat outside pool *named-item* address-range *ipv4-unicast-address* end *ipv4-unicast-address* |
| Tree | address-range |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* nat outside pool *named-item* address-range *ipv4-unicast-address* end *ipv4-unicast-address* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **drain** *boolean*

| | |
|---|---|
| Synopsis | Start or stop draining this NAT address range |
| Context | **configure** service vprn *service-name* nat outside pool *named-item* address-range *ipv4-unicast-address* end *ipv4-unicast-address* drain *boolean* |
| Tree | drain |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the outside routing NAT pool |
| Context | **configure** service vprn *service-name* nat outside pool *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **applications**

| | |
|---|---|
| Synopsis | Enter the **applications** context |
| Context | **configure** service vprn *service-name* nat outside pool *named-item* applications |
| Tree | applications |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **agnostic** *boolean*

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | NAT pool to create in the outside routing context |
| Context | **configure** service vprn *service-name* nat outside pool *named-item* applications agnostic *boolean* |
| Tree | agnostic |
| Default | false |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **flexible-port-allocation** *boolean*

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Allocates individual ports per subscriber in a pool |
| Context | **configure** service vprn *service-name* nat outside pool *named-item* applications flexible-port-allocation *boolean* |
| Tree | flexible-port-allocation |
| Description | When configured to **true**, the router enables LSN44 pool behavior, where a subscriber allocates ports individually and not through port blocks. The port block is removed and port logging is disabled for this application. Static port forwards can be interleaved with dynamically allocated ports when this application is enabled. A subscriber limit that is the maximum number of subscribers per outside IP address is not supported for this application. |
| Default | false |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* nat outside pool *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **icmp-echo-reply** *boolean*

| | |
|---|---|
| Synopsis | Allow NAT pool IP addresses to respond to ICMP PINGs |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* nat outside pool *named-item* icmp-echo-reply *boolean* |
| Tree | icmp-echo-reply |
| Description | This command allows IP addresses in the NAT pool to respond to ICMP Echo requests (PINGs). The configuration can be toggled while the pool is in use.<br>In L2-aware NAT when port-block-extensions is disabled, the reply from an outside IP address is generated only when this IP address has at least one host (binding) behind it.<br>In L2-aware NAT when port-block-extensions is enabled, the reply from an outside IP address is generated regardless if a binding is present.<br>In LSN, the reply from an outside IP address is generated regardless if a binding is present. |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## l2-aware

| | |
|---|---|
| Synopsis | Enter the **l2-aware** context |
| Context | **configure** service vprn *service-name* nat outside pool *named-item* l2-aware |
| Tree | l2-aware |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## default-host

| | |
|---|---|
| Synopsis | Enable the **default-host** context |
| Context | **configure** service vprn *service-name* nat outside pool *named-item* l2-aware default-host |
| Tree | default-host |
| Description | Commands in this context configure the default DMZ host options. A default DMZ host is a node on the inside to which all unknown traffic is redirected by changing the destination IPv4 address in the traffic header. During this operation, the checksums in the Layer 3 and Layer 4 header (UDP and TCP) are recalculated.<br>Unknown traffic in NAT represent all unmatched traffic arriving from the outside (where there is no pinhole or a matching flow record created by traffic initiated from the inside). The purpose of the default DMZ host is to capture and analyze the unknown traffic as part of threat analysis.<br>The rate of redirected unknown traffic can be restricted by configuration. |
| Introduced | 22.10.R1 |


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Platforms 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR

## **inside-router-instance** *string*

Synopsis Router instance of the DMZ

Context **configure** service vprn *service-name* nat outside pool *named-item* l2-aware default-host inside-router-instance *string*

Tree inside-router-instance

Description This command configures the router instance on the inside where the default DMZ host resides.

Introduced 22.10.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR

## **ip-address** *ipv4-unicast-address*

Synopsis IP address of the default DMZ host

Context **configure** service vprn *service-name* nat outside pool *named-item* l2-aware default-host ip-address *ipv4-unicast-address*

Tree ip-address

Description This command configures the IP address of the default DMZ host. Redirection to the default DMZ host is achieved by replacing the destination IP address in the traffic header in the unknown traffic initiated from the outside with the one of the default DMZ host.

Introduced 22.10.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR

## **rate-limit** *number*

Synopsis Rate limit for unknown traffic sent to default DMZ host

Context **configure** service vprn *service-name* nat outside pool *named-item* l2-aware default-host rate-limit *number*

Tree rate-limit

Description This command configures the rate limit of the unknown traffic sent to the default DMZ host.

Unknown traffic sent to the default DMZ host is rate limited by a configurable value expressed in mbps. The rate limit is configurable per NAT pool per ISA, vISA, or ESA-VM.

Range 1 to 10000


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| | |
|---|---|
| Units | megabps |
| Default | 10 |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **external-assignment** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

| | |
|---|---|
| Synopsis | External IP address for Layer-2-aware |
| Context | **configure** service vprn *service-name* nat outside pool *named-item* l2-aware external-assignment *boolean* |
| Tree | external-assignment |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## port-block-extension

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable the **port-block-extension** context |
| Context | **configure** service vprn *service-name* nat outside pool *named-item* l2-aware port-block-extension |
| Tree | port-block-extension |
| Description | Commands in this context configure the attributes of the port block reserved for a dynamic NAT traffic flow for each subscriber with a port forwarding entry. |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **ports** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Number of ports per dynamic port-block |
| Context | **configure** service vprn *service-name* nat outside pool *named-item* l2-aware port-block-extension ports *number* |
| Tree | ports |
| Description | For Carrier Grade NAT (CGN), this command represents the size of all port blocks for NAT subscribes in the NAT pool.<br>For L2-Aware NAT, this command represents only the size of the initial port block of a subscriber in the L2-aware NAT pool. Additional port-blocks (extended port blocks) for the L2-Aware subscriber must be explicitly enabled under the **l2-aware port-block-extension** hierarchy in the NAT pool.<br>This command does not affect the size of extended port-blocks. |
| Range | 10 to 5000 |
| Notes | This element is mandatory. |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **subscriber**

| | |
|---|---|
| Synopsis | Enter the **subscriber** context |
| Context | **configure** service vprn *service-name* nat outside pool *named-item* l2-aware port-block-extension subscriber |
| Tree | subscriber |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **watermarks**

| | |
|---|---|
| Synopsis | Enable the **watermarks** context |
| Context | **configure** service vprn *service-name* nat outside pool *named-item* l2-aware port-block-extension subscriber watermarks |
| Tree | watermarks |
| Description | This command configures watermarks for NAT resources. |


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| | |
|---|---|
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **high** *number*

| | |
|---|---|
| Synopsis | High watermark percentage |
| Context | **configure** service vprn *service-name* nat outside pool *named-item* l2-aware port-block-extension subscriber watermarks high *number* |
| Tree | high |
| Description | This command configures the high threshold value as a percentage of the total port-block space in a NAT pool. |
| Range | 0 to 100 |
| Units | percent |
| Notes | This element is mandatory. |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **low** *number*

| | |
|---|---|
| Synopsis | Low watermark percentage |
| Context | **configure** service vprn *service-name* nat outside pool *named-item* l2-aware port-block-extension subscriber watermarks low *number* |
| Tree | low |
| Description | This command configures the low threshold value as a percentage of the total port-block space in a NAT pool. |
| Range | 0 to 100 |
| Units | percent |
| Notes | This element is mandatory. |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **subscriber-limit** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.


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| | |
|---|---|
| Synopsis | Number of L2-Aware NAT subscribers per outside address |
| Context | **configure** service vprn *service-name* nat outside pool *named-item* l2-aware port-block-extension subscriber-limit *number* |
| Tree | subscriber-limit |
| Description | When port-block extensions for the L2-Aware subscribers are enabled, the port space for an outside IP address is divided into the following:<br>• well-known port (this is a fixed and permanently allocated block of ports for all NAT types)<br>• static port-forwarding range (if enabled by configuration)<br>• port range allocated for initial port blocks of each L2-Aware subscriber<br>• port range allocated for extended port blocks for the remainder after the three previous port ranges<br>The number of L2-Aware NAT subscribers per an outside IP address multiplied by the size of the initial port-block size determines the size of the port range reserved for initial port-blocks of each subscriber.<br>The lower boundary of the extended port range is determined by adding the upper boundary of the configured port forwarding range and the size of the port range allocated for initial port blocks. |
| Range | 2 to 2000 |
| Notes | This element is mandatory. |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## watermarks

| | |
|---|---|
| Synopsis | Enable the **watermarks** context |
| Context | **configure** service vprn *service-name* nat outside pool *named-item* l2-aware port-block-extension watermarks |
| Tree | watermarks |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## high *number*

| | |
|---|---|
| Synopsis | High watermark percentage |
| Context | **configure** service vprn *service-name* nat outside pool *named-item* l2-aware port-block-extension watermarks high *number* |
| Tree | high |


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| | |
|---|---|
| Description | This command configures the high threshold value as a percentage of the total port-block space in a NAT pool. |
| Range | 0 to 100 |
| Units | percent |
| Notes | This element is mandatory. |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **low** *number*

| | |
|---|---|
| Synopsis | Low watermark percentage |
| Context | **configure** service vprn *service-name* nat outside pool *named-item* l2-aware port-block-extension watermarks low *number* |
| Tree | low |
| Description | This command configures the low threshold value as a percentage of the total port-block space in a NAT pool. |
| Range | 0 to 100 |
| Units | percent |
| Notes | This element is mandatory. |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **large-scale**

| | |
|---|---|
| Synopsis | Enter the **large-scale** context |
| Context | **configure** service vprn *service-name* nat outside pool *named-item* large-scale |
| Tree | large-scale |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **default-host**

| | |
|---|---|
| Synopsis | Enable the **default-host** context |
| Context | **configure** service vprn *service-name* nat outside pool *named-item* large-scale default-host |
| Tree | default-host |


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| | |
|---|---|
| Description | Commands in this context configure the default DMZ host options. A default DMZ host is a node on the inside to which all unknown traffic is redirected by changing the destination IPv4 address in the traffic header. During this operation, the checksums in the Layer 3 and Layer 4 header (UDP and TCP) are recalculated.<br>Unknown traffic in NAT represent all unmatched traffic arriving from the outside (where there is no pinhole or a matching flow record created by traffic initiated from the inside). The purpose of the default DMZ host is to capture and analyze the unknown traffic as part of threat analysis.<br>The rate of redirected unknown traffic can be restricted by configuration. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **inside-router-instance** *string*

| | |
|---|---|
| Synopsis | Router instance of the DMZ |
| Context | **configure** service vprn *service-name* nat outside pool *named-item* large-scale default-host inside-router-instance *string* |
| Tree | inside-router-instance |
| Description | This command configures the router instance on the inside where the default DMZ host resides. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **ip-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IP address of the default DMZ host |
| Context | **configure** service vprn *service-name* nat outside pool *named-item* large-scale default-host ip-address *ipv4-unicast-address* |
| Tree | ip-address |
| Description | This command configures the IP address of the default DMZ host. Redirection to the default DMZ host is achieved by replacing the destination IP address in the traffic header in the unknown traffic initiated from the outside with the one of the default DMZ host. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **rate-limit** *number*

| | |
|---|---|
| Synopsis | Rate limit for unknown traffic sent to default DMZ host |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* nat outside pool *named-item* large-scale default-host rate-limit *number* |
| Tree | rate-limit |
| Description | This command configures the rate limit of the unknown traffic sent to the default DMZ host.<br>Unknown traffic sent to the default DMZ host is rate limited by a configurable value expressed in mbps. The rate limit is configurable per NAT pool per ISA, vISA, or ESA-VM. |
| Range | 1 to 10000 |
| Units | megabps |
| Default | 10 |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## deterministic

| | |
|---|---|
| Synopsis | Enter the **deterministic** context |
| Context | **configure** service vprn *service-name* nat outside pool *named-item* large-scale deterministic |
| Tree | deterministic |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## port-reservation *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

| | |
|---|---|
| Synopsis | Number of ports per deterministic port-block |
| Context | **configure** service vprn *service-name* nat outside pool *named-item* large-scale deterministic port-reservation *number* |
| Tree | port-reservation |
| Range | 1 to 65536 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## watermarks

| | |
|---|---|
| Synopsis | Enable the **watermarks** context |
| Context | **configure** service vprn *service-name* nat outside pool *named-item* large-scale deterministic watermarks |
| Tree | watermarks |
| Description | Commands in this context monitor extended (dynamic) port-block utilization per outside IP in a NAT pool in deterministic LSN.<br>High and low thresholds are configured in percentages of total available extended port-blocks per outside IP in a pool. Both values represent extended port-block utilization or occupancy per outside IP in a pool.<br>For the system to generate those events, the NAT event instance of **tmnxNatPlMember ExtBlockUsageHigh** must be configured in the **configure log log-events** context with **generate** set to **true**. |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## high *number*

| | |
|---|---|
| Synopsis | High watermark percentage |
| Context | **configure** service vprn *service-name* nat outside pool *named-item* large-scale deterministic watermarks high *number* |
| Tree | high |
| Description | This command configures the high threshold value as a percentage of the total port-block space in a NAT pool. |
| Range | 0 to 100 |
| Units | percent |
| Notes | This element is mandatory. |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## low *number*

| | |
|---|---|
| Synopsis | Low watermark percentage |
| Context | **configure** service vprn *service-name* nat outside pool *named-item* large-scale deterministic watermarks low *number* |


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| | |
|---|---|
| Tree | low |
| Description | This command configures the low threshold value as a percentage of the total port-block space in a NAT pool. |
| Range | 0 to 100 |
| Units | percent |
| Notes | This element is mandatory. |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## flexible-port-allocation

| | |
|---|---|
| Synopsis | Enter the **flexible-port-allocation** context |
| Context | **configure** service vprn *service-name* nat outside pool *named-item* large-scale flexible-port-allocation |
| Tree | flexible-port-allocation |
| Description | Commands in this context enable LSN44 pool behavior where a subscriber allocates ports individually instead of through port blocks. The port block concept is removed for this application. Static port forwards can be interleaved with dynamically-allocated ports. Port logging in disabled when this application is enabled. A subscriber limit that is the maximum number of subscribers per outside IP address is not supported for this application. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## free-port-limit

| | |
|---|---|
| Synopsis | Enter the **free-port-limit** context |
| Context | **configure** service vprn *service-name* nat outside pool *named-item* large-scale flexible-port-allocation free-port-limit |
| Tree | free-port-limit |
| Description | Commands in this context configure the minimal number of ports per protocol and per outside IP address in an LSN44 pool with flexible port allocations that must be free to map new subscribers to the outside IP address. This limit avoids rapid port depletion for new subscribers in paired pooling mode, or unnecessary toggling between external IP addresses for existing subscribers in arbitrary pooling mode. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **icmp** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Limit of free ports for ICMP per outside IP address |
| Context | **configure** service vprn *service-name* nat outside pool *named-item* large-scale flexible-port-allocation free-port-limit icmp *number* |
| Tree | icmp |
| Description | This command configures the minimum number of ports for the ICMP protocol per outside IP address in an LSN44 pool with flexible port allocations that are free so that a new subscriber is mapped to the outside IP address. This limit is set to avoid rapid port depletion for new subscribers in paired pooling mode, or unnecessary toggling between external IP addresses for existing subscribers in arbitrary pooling mode. |
| Range | 1 to 10000 |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **tcp** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Limit of free ports for TCP per outside IP address |
| Context | **configure** service vprn *service-name* nat outside pool *named-item* large-scale flexible-port-allocation free-port-limit tcp *number* |
| Tree | tcp |
| Description | This command configures the minimum number of ports for TCP protocol per outside IP address in an LSN44 pool with flexible port allocations that are free so that a new subscriber is mapped to the outside IP address. This limit is set to avoid rapid port depletion for new subscribers in paired pooling mode, or unnecessary toggling between external IP addresses for existing subscribers in arbitrary pooling mode. |
| Range | 1 to 10000 |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **udp** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Limit of free ports for UDP per outside IP address |
| Context | **configure** service vprn *service-name* nat outside pool *named-item* large-scale flexible-port-allocation free-port-limit udp *number* |
| Tree | udp |
| Description | This command configures the minimum number of ports for UDP protocol per outside IP address in an LSN44 pool with flexible port allocations that are free so that a new subscriber is mapped to the outside IP address. This limit is set to avoid rapid port depletion for new subscribers in paired pooling mode, or unnecessary toggling between external IP addresses for existing subscribers in arbitrary pooling mode. |
| Range | 1 to 10000 |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **redundancy**

| | |
|---|---|
| Synopsis | Enter the **redundancy** context |
| Context | **configure** service vprn *service-name* nat outside pool *named-item* large-scale redundancy |
| Tree | redundancy |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of NAT pool redundancy |
| Context | **configure** service vprn *service-name* nat outside pool *named-item* large-scale redundancy admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Notes | The following elements are part of a choice: (**admin-state**, **export-route**, and **monitor-route**) or **follow**. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **export-route** *ipv4-unicast-prefix*

| | |
|---|---|
| Synopsis | Route to export to the peer |
| Context | **configure** service vprn *service-name* nat outside pool *named-item* large-scale redundancy export-route *ipv4-unicast-prefix* |
| Tree | export-route |
| Notes | The following elements are part of a choice: (**admin-state**, **export-route**, and **monitor-route**) or **follow**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **follow**

| | |
|---|---|
| Synopsis | Enter the **follow** context |
| Context | **configure** service vprn *service-name* nat outside pool *named-item* large-scale redundancy follow |
| Tree | follow |
| Notes | The following elements are part of a choice: (**admin-state**, **export-route**, and **monitor-route**) or **follow**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **name** *named-item*

| | |
|---|---|
| Synopsis | Name of the pool where activity is shared |
| Context | **configure** service vprn *service-name* nat outside pool *named-item* large-scale redundancy follow name *named-item* |
| Tree | name |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **router-instance** *string*

| | |
|---|---|
| Synopsis | Router instance where the lead pool resides |
| Context | **configure** service vprn *service-name* nat outside pool *named-item* large-scale redundancy follow router-instance *string* |
| Tree | router-instance |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **monitor-route** *ipv4-unicast-prefix*

| | |
|---|---|
| Synopsis | Monitor the peer route |
| Context | **configure** service vprn *service-name* nat outside pool *named-item* large-scale redundancy monitor-route *ipv4-unicast-prefix* |
| Tree | monitor-route |
| Notes | The following elements are part of a choice: (**admin-state**, **export-route**, and **monitor-route**) or **follow**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **subscriber-limit** *number*

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum number of subscribers per IP address |
| Context | **configure** service vprn *service-name* nat outside pool *named-item* large-scale subscriber-limit *number* |
| Tree | subscriber-limit |
| Range | 1 to 65535 \| 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **mode** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

| | |
|---|---|
| Synopsis | Mode of operation of this NAT address pool |
| Context | **configure** service vprn *service-name* nat outside pool *named-item* mode *keyword* |
| Tree | mode |
| Options | auto, napt, one-to-one |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **nat-group** *reference*

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Create a NAT group |
| Context | **configure** service vprn *service-name* nat outside pool *named-item* nat-group *reference* |
| Tree | nat-group |
| Reference | **configure** isa nat-group *number* |
| Notes | The following elements are part of a mandatory choice: **nat-group** or **wlan-gw-group**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **port-forwarding**

| | |
|---|---|
| Synopsis | Enter the **port-forwarding** context |
| Context | **configure** service vprn *service-name* nat outside pool *named-item* port-forwarding |


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| | |
|---|---|
| Tree | port-forwarding |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **dynamic-block-reservation** *boolean*

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

| | |
|---|---|
| Synopsis | Reserve dynamic block for subscriber |
| Context | **configure** service vprn *service-name* nat outside pool *named-item* port-forwarding dynamic-block-reservation *boolean* |
| Tree | dynamic-block-reservation |
| Description | When configured to **true**, the system reserves dynamic port block when the first port forward for the subscriber is created. The dynamic port block allocation is logged only if the block is being used and mappings are created. Dynamic port block reservation due to the port forward creation but without any dynamic mapping, is not logged.<br>The reserved port block is released only when the last mapping in the block expires and there are no port forwards associated with the subscriber. The de-allocation log (syslog or RADIUS) is generated when the dynamic port block is completely released.<br>Dynamic port block reservations can be enabled only if the configured maximum number of subscribers per outside IP addresses are less than or equal to the maximum number of configured port blocks per outside IP address.<br>When configured to **false**, dynamic port blocks are not reserved when the first port forward for the subscriber is created. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **range-end** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

| | |
|---|---|
| Synopsis | End of the wildcard range for port forwards |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* nat outside pool *named-item* port-forwarding range-end *number* |
| Tree | range-end |
| Description | This command configures the upper boundary of the wildcard port range dedicated to port forwarding in a NAT pool, whereas the **range-start** command configures the lower boundary (the starting port) of the wildcard port range dedicated to port forwarding in a NAT pool.<br>If unconfigured, the **range-end** implicit value is set to 1023, that represents the end of the well-known port range that is always enabled.<br>Port forwards are supported only in pools in NAPT mode. Pools in 1:1 mode do not support port-forwards. |
| Range | 0 \| 1023 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **range-start** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Start of the wildcard range for port forwards |
| Context | **configure** service vprn *service-name* nat outside pool *named-item* port-forwarding range-start *number* |
| Tree | range-start |
| Description | This command configures the lower boundary (the starting port) of the wildcard port range dedicated to port forwarding in a NAT pool, whereas the **range-end** command configures the upper boundary of the wildcard port range dedicated to port forwarding in a NAT pool.<br>Port 0 is always excluded from the port forwarding range.<br>Port forwards are supported only in pools in Network Address and Port Translation (NAPT) mode. Pools in 1:1 mode do not support configured port forwards. |
| Range | 0 \| 1 \| 1025 to 65535 |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **port-reservation**

| | |
|---|---|
| Synopsis | Enter the **port-reservation** context |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* nat outside pool *named-item* port-reservation |
| Tree | port-reservation |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **port-blocks** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

| | |
|---|---|
| Synopsis | Port block size for NAT subscribers |
| Context | **configure** service vprn *service-name* nat outside pool *named-item* port-reservation port-blocks *number* |
| Tree | port-blocks |
| Description | In CGN, this command specifies the number of port-blocks per outside IP address in the NAT pool. The available ports per outside IP address (the end port minus the upper bound value of the static port-forwarding range) are divided into the number of port blocks specified in this command. This implicitly determines the size of each port block.<br>For L2-aware NAT, this command can be configured only if the port block extensions (extended port blocks) are disabled. You must disable the **l2-aware port-block-extension** hierarchy in the NAT pool. |
| Range | 0 to 64512 |
| Notes | The following elements are part of a choice: **port-blocks** or **ports**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **ports** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.


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| | |
|---|---|
| Synopsis | Size of the port block for NAT subscribers |
| Context | **configure** service vprn *service-name* nat outside pool *named-item* port-reservation ports *number* |
| Tree | ports |
| Description | For carrier-grade NAT (CGN), this command specifies the size of port blocks for NAT subscribers in the NAT pool.<br>For Layer 2 aware NAT, this command specifies the size of the initial port block of a subscriber in the pool. Additional port blocks (extended port blocks) for the Layer 2 aware subscriber must be explicitly enabled under the **l2-aware port-block-extension** hierarchy in the NAT pool.<br>This command does not affect the size of extended port blocks.<br>For deterministic pools, the port range begins with zero. However, for non-deterministic pools, the port range begins with one. |
| Range | 0 to 64512 |
| Notes | The following elements are part of a choice: **port-blocks** or **ports**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **type** *keyword*

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | NAT pool type |
| Context | **configure** service vprn *service-name* nat outside pool *named-item* type *keyword* |
| Tree | type |
| Options | large-scale, l2-aware, wlan-gw-anchor |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **watermarks**

| | |
|---|---|
| Synopsis | Enable the **watermarks** context |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* nat outside pool *named-item* watermarks |
| Tree | watermarks |
| Description | This command configures watermarks for NAT resources. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **high** *number*

| | |
|---|---|
| Synopsis | High watermark percentage |
| Context | **configure** service vprn *service-name* nat outside pool *named-item* watermarks high *number* |
| Tree | high |
| Description | This command configures the high threshold value as a percentage of the total port-block space in a NAT pool. |
| Range | 0 to 100 |
| Units | percent |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **low** *number*

| | |
|---|---|
| Synopsis | Low watermark percentage |
| Context | **configure** service vprn *service-name* nat outside pool *named-item* watermarks low *number* |
| Tree | low |
| Description | This command configures the low threshold value as a percentage of the total port-block space in a NAT pool. |
| Range | 0 to 100 |
| Units | percent |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **wlan-gw-group** *reference*

**WARNING:**
Modifying this element clears ISA state, such as flow state, for the new value to take effect.

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Create a WLAN GW group for NAT |
| Context | **configure** service vprn *service-name* nat outside pool *named-item* wlan-gw-group *reference* |
| Tree | wlan-gw-group |
| Reference | **configure** isa wlan-gw-group *number* |
| Notes | The following elements are part of a mandatory choice: **nat-group** or **wlan-gw-group**. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## network

| | |
|---|---|
| Synopsis | Enter the **network** context |
| Context | **configure** service vprn *service-name* network |
| Tree | network |
| Introduced | 16.0.R4 |
| Platforms | All |

## ingress

| | |
|---|---|
| Synopsis | Enter the **ingress** context |
| Context | **configure** service vprn *service-name* network ingress |
| Tree | ingress |
| Introduced | 16.0.R4 |
| Platforms | All |

## filter

| | |
|---|---|
| Synopsis | Enter the **filter** context |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* network ingress filter |
| Tree | filter |
| Introduced | 16.0.R4 |
| Platforms | All |

### **ip** *reference*

| | |
|---|---|
| Synopsis | IPv4 filter policy name |
| Context | **configure** service vprn *service-name* network ingress filter ip *reference* |
| Tree | ip |
| Reference | **configure** filter ip-filter *filter-name* |
| Introduced | 16.0.R4 |
| Platforms | All |

### **ipv6** *reference*

| | |
|---|---|
| Synopsis | IPv6 filter policy name |
| Context | **configure** service vprn *service-name* network ingress filter ipv6 *reference* |
| Tree | ipv6 |
| Reference | **configure** filter ipv6-filter *filter-name* |
| Introduced | 16.0.R4 |
| Platforms | All |

### **qos**

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** service vprn *service-name* network ingress qos |
| Tree | qos |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **fp-redirect-group** *reference*

| | |
|---|---|
| Synopsis | The forwarding-plane queue group Policy for this VPRN |
| Context | **configure** service vprn *service-name* network ingress qos fp-redirect-group *reference* |


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| | |
|---|---|
| Tree | fp-redirect-group |
| Reference | **configure** qos queue-group-templates ingress queue-group *named-item* |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **instance** *number*

| | |
|---|---|
| Synopsis | Forwarding plane ingress queue group instance |
| Context | **configure** service vprn *service-name* network ingress qos instance *number* |
| Tree | instance |
| Range | 1 to 65535 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **network-policy** *reference*

| | |
|---|---|
| Synopsis | Network policy name associated with a VPRN |
| Context | **configure** service vprn *service-name* network ingress qos network-policy *reference* |
| Tree | network-policy |
| Reference | **configure** qos network *network-policy-name* |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, 7950 XRS, VSR |

### **urpf-check** *boolean*

| | |
|---|---|
| Synopsis | Enable unicast RPF check of network ingress traffic |
| Context | **configure** service vprn *service-name* network ingress urpf-check *boolean* |
| Tree | urpf-check |
| Default | true |
| Introduced | 16.0.R4 |
| Platforms | All |

### **network-interface** [interface-name] *interface-name*

| | |
|---|---|
| Synopsis | Enter the **network-interface** list instance |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* network-interface *interface-name* |
| Tree | network-interface |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**interface-name**] *interface-name*

| | |
|---|---|
| Synopsis | Network interface name |
| Context | **configure** service vprn *service-name* network-interface *interface-name* |
| Tree | network-interface |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the interface |
| Context | **configure** service vprn *service-name* network-interface *interface-name* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cflowd-parameters**

| | |
|---|---|
| Synopsis | Enter the **cflowd-parameters** context |
| Context | **configure** service vprn *service-name* network-interface *interface-name* cflowd-parameters |
| Tree | cflowd-parameters |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **sampling** [sampling-type] *keyword*

| | |
|---|---|
| Synopsis | Enter the **sampling** list instance |
| Context | **configure** service vprn *service-name* network-interface *interface-name* cflowd-parameters sampling *keyword* |
| Tree | sampling |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**sampling-type**] *keyword*

| | |
|---|---|
| Synopsis | Traffic sampling type |
| Context | **configure** service vprn *service-name* network-interface *interface-name* cflowd-parameters sampling *keyword* |
| Tree | sampling |
| Description | This command configures the type of traffic to be sampled on the associated IP interface. |
| Options | unicast, multicast, both |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **direction** *keyword*

| | |
|---|---|
| Synopsis | Direction of traffic for cflowd sampling |
| Context | **configure** service vprn *service-name* network-interface *interface-name* cflowd-parameters sampling *keyword* direction *keyword* |
| Tree | direction |
| Description | This command configures the direction in which sampling occurs on the associated IP interfaces. |
| Options | ingress-only, egress-only, both |
| Default | ingress-only |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **sample-profile** *(keyword | number)*

| | |
|---|---|
| Synopsis | Sample profile ID |
| Context | **configure** service vprn *service-name* network-interface *interface-name* cflowd-parameters sampling *keyword* sample-profile *(keyword \| number)* |
| Tree | sample-profile |
| Description | This command defines the sampling rate profile associated with this interface. |
| Max. range | 0 to 4294967295 |
| Options | 1 |
| Introduced | 19.5.R1 |
| Platforms | All |

### **type** *keyword*

| | |
|---|---|
| Synopsis | Type of cflowd analysis |
| Context | **configure** service vprn *service-name* network-interface *interface-name* cflowd-parameters sampling *keyword* type *keyword* |
| Tree | type |
| Description | This command configures the cflowd sampling type on the associated IP interface. |
| Options | acl, interface |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cpu-protection** *reference*

| | |
|---|---|
| Synopsis | CPM Protection policy associated with an interface |
| Context | **configure** service vprn *service-name* network-interface *interface-name* cpu-protection *reference* |
| Tree | cpu-protection |
| Reference | **configure** system security cpu-protection policy *number* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |


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### **description** *very-long-description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* network-interface *interface-name* description *very-long-description* |
| Tree | description |
| String length | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **dist-cpu-protection** *reference*

| | |
|---|---|
| Synopsis | Distributed CPU protection policy |
| Context | **configure** service vprn *service-name* network-interface *interface-name* dist-cpu-protection *reference* |
| Tree | dist-cpu-protection |
| Reference | **configure** system security dist-cpu-protection policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **egress**

| | |
|---|---|
| Synopsis | Enter the **egress** context |
| Context | **configure** service vprn *service-name* network-interface *interface-name* egress |
| Tree | egress |
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter**

| | |
|---|---|
| Synopsis | Enter the **filter** context |
| Context | **configure** service vprn *service-name* network-interface *interface-name* egress filter |
| Tree | filter |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **ip** *reference*

| | |
|---|---|
| Synopsis | IPv4 filter policy name |
| Context | **configure** service vprn *service-name* network-interface *interface-name* egress filter ip *reference* |
| Tree | ip |
| Reference | **configure** filter ip-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hold-time**

| | |
|---|---|
| Synopsis | Enter the **hold-time** context |
| Context | **configure** service vprn *service-name* network-interface *interface-name* hold-time |
| Tree | hold-time |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv4**

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |
| Context | **configure** service vprn *service-name* network-interface *interface-name* hold-time ipv4 |
| Tree | ipv4 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **down**

| | |
|---|---|
| Synopsis | Enter the **down** context |
| Context | **configure** service vprn *service-name* network-interface *interface-name* hold-time ipv4 down |
| Tree | down |
| Description | Commands in this context configure the down hold timer, which specifies the delay before activating the associated interface. The delay is invoked whenever the system attempts to bring the associated IP interface up, unless an operator configures the **init-only** command. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **init-only** *boolean*

| | |
|---|---|
| Synopsis | Apply delay only at interface configuration or reboot |
| Context | **configure** service vprn *service-name* network-interface *interface-name* hold-time ipv4 down init-only *boolean* |
| Tree | init-only |
| Description | This command applies a delay only when the IP interface is first configured or after a system reboot. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **seconds** *number*

| | |
|---|---|
| Synopsis | Down hold time for the IP interface |
| Context | **configure** service vprn *service-name* network-interface *interface-name* hold-time ipv4 down seconds *number* |
| Tree | seconds |
| Range | 1 to 1200 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **up**

| | |
|---|---|
| Synopsis | Enter the **up** context |
| Context | **configure** service vprn *service-name* network-interface *interface-name* hold-time ipv4 up |
| Tree | up |
| Description | Commands in this context configure the up hold timer, which specifies the delay before deactivation of the associated interface. The delay is invoked whenever the system attempts to bring the associated IP interface down. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **seconds** *number*

| | |
|---|---|
| Synopsis | Up hold time for the IP interface |
| Context | **configure** service vprn *service-name* network-interface *interface-name* hold-time ipv4 up seconds *number* |
| Tree | seconds |
| Range | 1 to 1200 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ingress**

| | |
|---|---|
| Synopsis | Enter the **ingress** context |
| Context | **configure** service vprn *service-name* network-interface *interface-name* ingress |
| Tree | ingress |
| Introduced | 16.0.R1 |
| Platforms | All |

### **filter**

| | |
|---|---|
| Synopsis | Enter the **filter** context |
| Context | **configure** service vprn *service-name* network-interface *interface-name* ingress filter |
| Tree | filter |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ip** *reference*

| | |
|---|---|
| Synopsis | IPv4 filter policy name |
| Context | **configure** service vprn *service-name* network-interface *interface-name* ingress filter ip *reference* |
| Tree | ip |
| Reference | **configure** filter ip-filter *filter-name* |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## **ingress-stats** *boolean*

| | |
|---|---|
| Synopsis | Collect ingress statistics |
| Context | **configure** service vprn *service-name* network-interface *interface-name* ingress-stats *boolean* |
| Tree | ingress-stats |
| Description | When configured to **true**, ingress interface IP statistics are collected for the associated interface. This command is only applicable to IP statistics, and not to uRPF statistics.<br>The following statistics are collected:<br>• IPv4 offered packets<br>• IPv4 offered octets<br>• IPv6 offered packets<br>• IPv6 offered octets<br>**Note:** Octet statistics for IPv4 and IPv6 at IP interfaces include the Layer 2 frame overhead.<br>When configured to **false** ingress interface IP statistics are not collected for the associated interface. The "in-packets" statistics field in the **statistics** command output is always 0. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **ip-mtu** *number*

| | |
|---|---|
| Synopsis | IP MTU applied to outgoing packets |
| Context | **configure** service vprn *service-name* network-interface *interface-name* ip-mtu *number* |
| Tree | ip-mtu |
| Description | This command configures the IP maximum transmission unit (MTU) for the associated router IP interface. |
| Range | 512 to 9786 |
| Units | bytes |
| Introduced | 16.0.R1 |
| Platforms | All |


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## ipv4

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |
| Context | **configure** service vprn *service-name* network-interface *interface-name* ipv4 |
| Tree | ipv4 |
| Introduced | 16.0.R1 |
| Platforms | All |

## allow-directed-broadcasts *boolean*

| | |
|---|---|
| Synopsis | Accept broadcasts that are directed to this interface |
| Context | **configure** service vprn *service-name* network-interface *interface-name* ipv4 allow-directed-broadcasts *boolean* |
| Tree | allow-directed-broadcasts |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## bfd

| | |
|---|---|
| Synopsis | Enter the **bfd** context |
| Context | **configure** service vprn *service-name* network-interface *interface-name* ipv4 bfd |
| Tree | bfd |
| Introduced | 16.0.R1 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of BFD sessions |
| Context | **configure** service vprn *service-name* network-interface *interface-name* ipv4 bfd admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **echo-receive** *number*

| | |
|---|---|
| Synopsis | Minimum echo interval over this interface |
| Context | **configure** service vprn *service-name* network-interface *interface-name* ipv4 bfd echo-receive *number* |
| Tree | echo-receive |
| Range | 100 to 100000 |
| Units | milliseconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **multiplier** *number*

| | |
|---|---|
| Synopsis | Number of consecutive BFD messages missed from the peer |
| Context | **configure** service vprn *service-name* network-interface *interface-name* ipv4 bfd multiplier *number* |
| Tree | multiplier |
| Description | This command configures the number of missed messages before the BFD session state is changed to down and the upper-level protocol is notified of the fault. A multiplier of less than 3 should not be used in production environments. |
| Range | 1 to 20 |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **receive** *number*

| | |
|---|---|
| Synopsis | BFD receive interval over this interface |
| Context | **configure** service vprn *service-name* network-interface *interface-name* ipv4 bfd receive *number* |
| Tree | receive |
| Description | This command specifies the receive interval for the BFD session.<br>On the 7750 SR, this command can only be configured to a value less than 100 when the **type** command is configured to **cpm-np**. |
| Range | 10 to 100000 |
| Units | milliseconds |
| Default | 100 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **transmit-interval** *number*

| | |
|---|---|
| Synopsis | BFD transmit interval over this interface |
| Context | **configure** service vprn *service-name* network-interface *interface-name* ipv4 bfd transmit-interval *number* |
| Tree | transmit-interval |
| Description | This command configures the transmit intervals.<br>On the 7750 SR, this command can only be configured to a value less than 100 when the **type** command is configured to **cpm-np**. |
| Range | 10 to 100000 |
| Units | milliseconds |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **type** *keyword*

| | |
|---|---|
| Synopsis | Local termination point for the BFD session |
| Context | **configure** service vprn *service-name* network-interface *interface-name* ipv4 bfd type *keyword* |
| Tree | type |
| Description | This command sets the local termination point for the BFD session to allow for fast timers down to 10 ms granularity.<br>The options to specify where the BFD session runs are:<br>• **auto** (default) – the system chooses and uses the line card CPU only for single-hop BFD sessions with timer intervals equal to or greater than 100ms. All others are placed on the **cpm-np**.<br>• **cpm-np** – BFD session runs on the FP complex associated with the CPM. This is either the FP on the CPM or the one elected on smaller systems.<br>• **fp** – BFD session runs on the line card CPU. This option can only be used for single-hop BFD sessions with timers equal to or greater than 100ms. |
| Options | cpm-np, auto, fp |
| Default | auto |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## icmp

| | |
|---|---|
| Synopsis | Enter the **icmp** context |
| Context | **configure** service vprn *service-name* network-interface *interface-name* ipv4 icmp |
| Tree | icmp |
| Introduced | 16.0.R1 |
| Platforms | All |

## mask-reply *boolean*

| | |
|---|---|
| Synopsis | Allow responses to ICMP mask requests on the interface |
| Context | **configure** service vprn *service-name* network-interface *interface-name* ipv4 icmp mask-reply *boolean* |
| Tree | mask-reply |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

## param-problem

| | |
|---|---|
| Synopsis | Enter the **param-problem** context |
| Context | **configure** service vprn *service-name* network-interface *interface-name* ipv4 icmp param-problem |
| Tree | param-problem |
| Description | Commands in this context specify the settings for ICMP Parameter Problem messages generated by the interface. |
| Introduced | 16.0.R1 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of sent Parameter Problem messages |
| Context | **configure** service vprn *service-name* network-interface *interface-name* ipv4 icmp param-problem admin-state *keyword* |


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| | |
|---|---|
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **number** *number*

| | |
|---|---|
| Synopsis | Maximum number of Parameter Problem messages to send |
| Context | **configure** service vprn *service-name* network-interface *interface-name* ipv4 icmp param-problem number *number* |
| Tree | number |
| Range | 10 to 1000 |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **seconds** *number*

| | |
|---|---|
| Synopsis | Time used to limit number of Parameter Problem messages |
| Context | **configure** service vprn *service-name* network-interface *interface-name* ipv4 icmp param-problem seconds *number* |
| Tree | seconds |
| Range | 1 to 60 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **redirects**

| | |
|---|---|
| Synopsis | Enter the **redirects** context |
| Context | **configure** service vprn *service-name* network-interface *interface-name* ipv4 icmp redirects |
| Tree | redirects |


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| | |
|---|---|
| Description | Commands in this context configure the settings for ICMP redirect messages generated by the interface.<br>The system sends ICMP redirect messages to alert the sending node that a more optimal route is available on another router on the same subnetwork. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of sending ICMP redirect messages |
| Context | **configure** service vprn *service-name* network-interface *interface-name* ipv4 icmp redirects admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **number** *number*

| | |
|---|---|
| Synopsis | Maximum number of ICMP redirect messages to send |
| Context | **configure** service vprn *service-name* network-interface *interface-name* ipv4 icmp redirects number *number* |
| Tree | number |
| Range | 10 to 1000 |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **seconds** *number*

| | |
|---|---|
| Synopsis | Time used to limit the number of ICMP redirect messages |
| Context | **configure** service vprn *service-name* network-interface *interface-name* ipv4 icmp redirects seconds *number* |
| Tree | seconds |
| Range | 1 to 60 |
| Units | seconds |


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| | |
|---|---|
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

## ttl-expired

| | |
|---|---|
| Synopsis | Enter the **ttl-expired** context |
| Context | **configure** service vprn *service-name* network-interface *interface-name* ipv4 icmp ttl-expired |
| Tree | ttl-expired |
| Description | Commands in this context configure the settings for ICMP TTL expired messages generated by the interface. |
| Introduced | 16.0.R1 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of sending TTL expired messages |
| Context | **configure** service vprn *service-name* network-interface *interface-name* ipv4 icmp ttl-expired admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

## number *number*

| | |
|---|---|
| Synopsis | Maximum number of TTL expired messages to send |
| Context | **configure** service vprn *service-name* network-interface *interface-name* ipv4 icmp ttl-expired number *number* |
| Tree | number |
| Range | 10 to 2000 |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **seconds** *number*

| | |
|---|---|
| Synopsis | Time used to limit the number of TTL expired messages |
| Context | **configure** service vprn *service-name* network-interface *interface-name* ipv4 icmp ttl-expired seconds *number* |
| Tree | seconds |
| Range | 1 to 60 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **unreachables**

| | |
|---|---|
| Synopsis | Enter the **unreachables** context |
| Context | **configure** service vprn *service-name* network-interface *interface-name* ipv4 icmp unreachables |
| Tree | unreachables |
| Description | Commands in this context specify the settings for ICMP host and network destination unreachable messages generated by the interface. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of sending unreachable messages |
| Context | **configure** service vprn *service-name* network-interface *interface-name* ipv4 icmp unreachables admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **number** *number*

| | |
|---|---|
| Synopsis | Maximum number of unreachable messages to send |
| Context | **configure** service vprn *service-name* network-interface *interface-name* ipv4 icmp unreachables number *number* |
| Tree | number |
| Range | 10 to 2000 |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **seconds** *number*

| | |
|---|---|
| Synopsis | Time to limit the number of ICMP unreachable messages |
| Context | **configure** service vprn *service-name* network-interface *interface-name* ipv4 icmp unreachables seconds *number* |
| Tree | seconds |
| Range | 1 to 60 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **neighbor-discovery**

| | |
|---|---|
| Synopsis | Enter the **neighbor-discovery** context |
| Context | **configure** service vprn *service-name* network-interface *interface-name* ipv4 neighbor-discovery |
| Tree | neighbor-discovery |
| Introduced | 16.0.R1 |
| Platforms | All |

### **retry-timer** *number*

| | |
|---|---|
| Synopsis | ARP retry interval |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* network-interface *interface-name* ipv4 neighbor-discovery retry-timer *number* |
| Tree | retry-timer |
| Range | 1 to 300 |
| Units | deciseconds |
| Default | 50 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **static-neighbor** [ipv4-address] *ipv4-address*

| | |
|---|---|
| Synopsis | Enter the **static-neighbor** list instance |
| Context | **configure** service vprn *service-name* network-interface *interface-name* ipv4 neighbor-discovery static-neighbor *ipv4-address* |
| Tree | static-neighbor |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ipv4-address**] *ipv4-address*

| | |
|---|---|
| Synopsis | IPv4 address that corresponds to the physical address |
| Context | **configure** service vprn *service-name* network-interface *interface-name* ipv4 neighbor-discovery static-neighbor *ipv4-address* |
| Tree | static-neighbor |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mac-address** *mac-address*

| | |
|---|---|
| Synopsis | MAC address for the static neighbor |
| Context | **configure** service vprn *service-name* network-interface *interface-name* ipv4 neighbor-discovery static-neighbor *ipv4-address* mac-address *mac-address* |
| Tree | mac-address |
| Notes | This element is mandatory. |
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| | |
|---|---|
| Platforms | All |

### **timeout** *number*

| | |
|---|---|
| Synopsis | Timeout for an ARP entry learned on the interface |
| Context | **configure** service vprn *service-name* network-interface *interface-name* ipv4 neighbor-discovery timeout *number* |
| Tree | timeout |
| Description | This command configures the minimum time an ARP entry learned on the IP interface is stored in the ARP table. ARP entries are automatically refreshed when an ARP request or gratuitous ARP is seen by an IP host. Otherwise, the ARP entry is aged from the ARP table. |
| Range | 0 to 65535 |
| Units | seconds |
| Default | 14400 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **primary**

| | |
|---|---|
| Synopsis | Enable the **primary** context |
| Context | **configure** service vprn *service-name* network-interface *interface-name* ipv4 primary |
| Tree | primary |
| Introduced | 16.0.R1 |
| Platforms | All |

### **address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Primary IPv4 address assigned to the interface |
| Context | **configure** service vprn *service-name* network-interface *interface-name* ipv4 primary address *ipv4-unicast-address* |
| Tree | address |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **broadcast** *keyword*

| | |
|---|---|
| Synopsis | Broadcast address format |
| Context | **configure** service vprn *service-name* network-interface *interface-name* ipv4 primary broadcast *keyword* |
| Tree | broadcast |
| Options | all-ones, host-ones |
| Default | host-ones |
| Introduced | 16.0.R1 |
| Platforms | All |

### **prefix-length** *number*

| | |
|---|---|
| Synopsis | IPv4 address prefix length |
| Context | **configure** service vprn *service-name* network-interface *interface-name* ipv4 primary prefix-length *number* |
| Tree | prefix-length |
| Range | 0 to 32 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **secondary** [address] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Enter the **secondary** list instance |
| Context | **configure** service vprn *service-name* network-interface *interface-name* ipv4 secondary *ipv4-unicast-address* |
| Tree | secondary |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**address**] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Secondary IPv4 address assigned to the interface |
| Context | **configure** service vprn *service-name* network-interface *interface-name* ipv4 secondary *ipv4-unicast-address* |


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| | |
|---|---|
| Tree | secondary |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **broadcast** *keyword*

| | |
|---|---|
| Synopsis | Broadcast address format |
| Context | **configure** service vprn *service-name* network-interface *interface-name* ipv4 secondary *ipv4-unicast-address* broadcast *keyword* |
| Tree | broadcast |
| Options | all-ones, host-ones |
| Default | host-ones |
| Introduced | 16.0.R1 |
| Platforms | All |

## **igp-inhibit** *boolean*

| | |
|---|---|
| Synopsis | Disable the running IGP from recognizing secondary IP |
| Context | **configure** service vprn *service-name* network-interface *interface-name* ipv4 secondary *ipv4-unicast-address* igp-inhibit *boolean* |
| Tree | igp-inhibit |
| Description | When configured to **true**, the running IGP does not recognize the secondary IP address as a local interface. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **prefix-length** *number*

| | |
|---|---|
| Synopsis | IPv4 address prefix length |
| Context | **configure** service vprn *service-name* network-interface *interface-name* ipv4 secondary *ipv4-unicast-address* prefix-length *number* |
| Tree | prefix-length |
| Range | 0 to 32 |
| Notes | This element is mandatory. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **tcp-mss** *number*

| | |
|---|---|
| Synopsis | TCP maximum segment size for the interface |
| Context | **configure** service vprn *service-name* network-interface *interface-name* ipv4 tcp-mss *number* |
| Tree | tcp-mss |
| Range | 384 to 9746 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **urpf-check**

| | |
|---|---|
| Synopsis | Enable the **urpf-check** context |
| Context | **configure** service vprn *service-name* network-interface *interface-name* ipv4 urpf-check |
| Tree | urpf-check |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ignore-default** *boolean*

| | |
|---|---|
| Synopsis | Ignore default route when performing a uRPF check |
| Context | **configure** service vprn *service-name* network-interface *interface-name* ipv4 urpf-check ignore-default *boolean* |
| Tree | ignore-default |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mode** *keyword*

| | |
|---|---|
| Synopsis | Unicast RPF check mode |
| Context | **configure** service vprn *service-name* network-interface *interface-name* ipv4 urpf-check mode *keyword* |


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| | |
|---|---|
| Tree | mode |
| Options | strict, loose, strict-no-ecmp |
| Default | strict |
| Introduced | 16.0.R1 |
| Platforms | All |

## lag

| | |
|---|---|
| Synopsis | Enter the **lag** context |
| Context | **configure** service vprn *service-name* network-interface *interface-name* lag |
| Tree | lag |
| Introduced | 16.0.R1 |
| Platforms | All |

## link-map-profile *number*

| | |
|---|---|
| Synopsis | LAG link map profile for a SAP or network interface |
| Context | **configure** service vprn *service-name* network-interface *interface-name* lag link-map-profile *number* |
| Tree | link-map-profile |
| Description | This command assigns a preconfigured LAG link map profile to a SAP or network interface configured on a LAG or a PW port that exists on a LAG. After an operator assigns a LAG link map profile, the system rehashes the SAP or network interface egress traffic over the LAG as required by the new configuration.<br>If the LAG link map profile for a SAP or network interface is deleted, the system reverts back to per-flow hashing. |
| Range | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | All |

## per-link-hash

| | |
|---|---|
| Synopsis | Enter the **per-link-hash** context |
| Context | **configure** service vprn *service-name* network-interface *interface-name* lag per-link-hash |
| Tree | per-link-hash |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **class** *number*

| | |
|---|---|
| Synopsis | Class used on LAG egress using weighted per-link-hash |
| Context | **configure** service vprn *service-name* network-interface *interface-name* lag per-link-hash class *number* |
| Tree | class |
| Range | 1 to 3 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **weight** *number*

| | |
|---|---|
| Synopsis | Weight used on LAG egress using weighted per-link-hash |
| Context | **configure** service vprn *service-name* network-interface *interface-name* lag per-link-hash weight *number* |
| Tree | weight |
| Range | 1 to 1024 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **load-balancing**

| | |
|---|---|
| Synopsis | Enter the **load-balancing** context |
| Context | **configure** service vprn *service-name* network-interface *interface-name* load-balancing |
| Tree | load-balancing |
| Introduced | 16.0.R1 |
| Platforms | All |

### **flow-label-load-balancing** *boolean*

| | |
|---|---|
| Synopsis | Enable flow label load balancing |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* network-interface *interface-name* load-balancing flow-label-load-balancing *boolean* |
| Tree | flow-label-load-balancing |
| Description | When configured to **true**, the router enables load balancing in ECMP and LAG based on the output of a hash performed on the triplet (SA, DA, flow label) in the header of an IPv6 packet received on an IES, VPRN, R-VPLS, CSC, or network interface.<br>When configured to **false**, the router disables load balancing in ECMP and LAG. |
| Default | false |
| Introduced | 21.5.R1 |
| Platforms | All |

## **ip-load-balancing** *keyword*

| | |
|---|---|
| Synopsis | IP load-balancing algorithm |
| Context | **configure** service vprn *service-name* network-interface *interface-name* load-balancing ip-load-balancing *keyword* |
| Tree | ip-load-balancing |
| Description | This command specifies whether to include the source address, destination address, or both in LAG or ECMP hash on IP interfaces. Additionally, when the **l4-load-balancing** command is enabled, this command also includes the source or destination port in the hash inputs. |
| Options | both, destination, source, inner-ip |
| Default | both |
| Introduced | 16.0.R3 |
| Platforms | All |

## **lsr-load-balancing** *keyword*

| | |
|---|---|
| Synopsis | LSR load-balancing algorithm |
| Context | **configure** service vprn *service-name* network-interface *interface-name* load-balancing lsr-load-balancing *keyword* |
| Tree | lsr-load-balancing |
| Description | This command specifies whether the IP header is used in the LAG and ECMP LSR hashing algorithm. This is the per-interface setting. |
| Options | lbl-only, lbl-ip, ip-only, eth-encap-ip, lbl-ip-l4-teid |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **spi-load-balancing** *boolean*

| | |
|---|---|
| Synopsis | Enable SPI use in hashing |
| Context | **configure** service vprn *service-name* network-interface *interface-name* load-balancing spi-load-balancing *boolean* |
| Tree | spi-load-balancing |
| Description | When configured to **true**, the router uses the Security Parameter Index (SPI) in hashing for ESP and AH encrypted IPv4 and IPv6 traffic. This is a per-interface setting. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **teid-load-balancing** *boolean*

| | |
|---|---|
| Synopsis | Enable use of TEID in hashing |
| Context | **configure** service vprn *service-name* network-interface *interface-name* load-balancing teid-load-balancing *boolean* |
| Tree | teid-load-balancing |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **loopback**

| | |
|---|---|
| Synopsis | Use interface as a loopback interface |
| Context | **configure** service vprn *service-name* network-interface *interface-name* loopback |
| Tree | loopback |
| Notes | The following elements are part of a choice: **loopback** or **port**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mac** *mac-unicast-address*

| | |
|---|---|
| Synopsis | MAC address for the interface |
| Context | **configure** service vprn *service-name* network-interface *interface-name* mac *mac-unicast-address* |


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| | |
|---|---|
| Tree | mac |
| Introduced | 16.0.R1 |
| Platforms | All |

### **port** *port-and-encap*

| | |
|---|---|
| Synopsis | Port to bind the interface |
| Context | **configure** service vprn *service-name* network-interface *interface-name* port *port-and-encap* |
| Tree | port |
| String length | 1 to 45 |
| Notes | The following elements are part of a choice: **loopback** or **port**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **qos**

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** service vprn *service-name* network-interface *interface-name* qos |
| Tree | qos |
| Introduced | 16.0.R1 |
| Platforms | All |

### **egress-instance** *number*

| | |
|---|---|
| Synopsis | Port egress queue group instance for this interface |
| Context | **configure** service vprn *service-name* network-interface *interface-name* qos egress-instance *number* |
| Tree | egress-instance |
| Description | This command specifies which instance to associate with this specific network IP interface since multiple instances of the same egress queue-group can be applied to the same port. |
| Range | 1 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **egress-port-redirect-group** *reference*

| | |
|---|---|
| Synopsis | QoS queue group name |
| Context | **configure** service vprn *service-name* network-interface *interface-name* qos egress-port-redirect-group *reference* |
| Tree | egress-port-redirect-group |
| Description | This command configures the egress queue group used for all egress forwarding-class redirections specified within the network QoS policy ID. The specified queue group name must exist as an egress queue group applied to the egress context of the port associated with the IP interface. |
| Reference | **configure** qos queue-group-templates egress queue-group *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **ingress-fp-redirect-group** *reference*

| | |
|---|---|
| Synopsis | Forwarding plane queue group policy for the interface |
| Context | **configure** service vprn *service-name* network-interface *interface-name* qos ingress-fp-redirect-group *reference* |
| Tree | ingress-fp-redirect-group |
| Description | This command configures the ingress queue-group used for all ingress forwarding-class redirections specified within the network QoS policy ID. The specified queue group name must exist as an ingress queue group applied to the ingress context of the forwarding plane associated with the IP interface. |
| Reference | **configure** qos queue-group-templates ingress queue-group *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **ingress-instance** *number*

| | |
|---|---|
| Synopsis | Forwarding plane ingress queue group for this interface |
| Context | **configure** service vprn *service-name* network-interface *interface-name* qos ingress-instance *number* |
| Tree | ingress-instance |
| Description | This command configures which instance to associate with this specific network IP interface. An operator can apply multiple instances of the same ingress queue group to the same forwarding plane. |
| Range | 1 to 65535 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **network-policy** *reference*

| | |
|---|---|
| Synopsis | Network policy name associated with a network interface |
| Context | **configure** service vprn *service-name* network-interface *interface-name* qos network-policy *reference* |
| Tree | network-policy |
| Description | This command associates an existing network policy name with the IP interface. |
| Reference | **configure** qos network *network-policy-name* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **tos-marking-state** *keyword*

| | |
|---|---|
| Synopsis | TOS marking state |
| Context | **configure** service vprn *service-name* network-interface *interface-name* tos-marking-state *keyword* |
| Tree | tos-marking-state |
| Options | trusted, untrusted |
| Default | trusted |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ntp**

| | |
|---|---|
| Synopsis | Enable the **ntp** context |
| Context | **configure** service vprn *service-name* ntp |
| Tree | ntp |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of NTP execution |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* ntp admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **authenticate** *boolean*

| | |
|---|---|
| Synopsis | Authentication of NTP PDUs when acting as a server |
| Context | **configure** service vprn *service-name* ntp authenticate *boolean* |
| Tree | authenticate |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **authentication-check** *boolean*

| | |
|---|---|
| Synopsis | Authenticate NTP PDUs and reject mismatches |
| Context | **configure** service vprn *service-name* ntp authentication-check *boolean* |
| Tree | authentication-check |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **authentication-key** [key-id] *number*

| | |
|---|---|
| Synopsis | Enter the **authentication-key** list instance |
| Context | **configure** service vprn *service-name* ntp authentication-key *number* |
| Tree | authentication-key |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**key-id**] *number*

| | |
|---|---|
| Synopsis | Authentication key ID used for NTP packets |
| Context | **configure** service vprn *service-name* ntp authentication-key *number* |
| Tree | authentication-key |
| Range | 1 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **key** *encrypted-leaf*

| | |
|---|---|
| Synopsis | Key to authenticate NTP packets |
| Context | **configure** service vprn *service-name* ntp authentication-key *number* key *encrypted-leaf* |
| Tree | key |
| String length | 1 to 71 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **type** *keyword*

| | |
|---|---|
| Synopsis | Authentication method to authenticate NTP packet |
| Context | **configure** service vprn *service-name* ntp authentication-key *number* type *keyword* |
| Tree | type |
| Options | des, message-digest |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **authentication-keychain** *reference*

| | |
|---|---|
| Synopsis | Authentication keychain for unsolicited traffic |
| Context | **configure** service vprn *service-name* ntp authentication-keychain *reference* |
| Tree | authentication-keychain |


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| | |
|---|---|
| Description | This command configures the authentication keychain used to handle unsolicited NTP requests.<br>If a request is received with a key ID that matches both a configured key and the keychain, the MAC is checked first using the key information. If the authentication fails, the MAC is checked using the information from the keychain. |
| Reference | **configure** system security keychains keychain *named-item* |
| Introduced | 23.10.R1 |
| Platforms | All |

### **broadcast** [interface-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **broadcast** list instance |
| Context | **configure** service vprn *service-name* ntp broadcast *reference* |
| Tree | broadcast |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**interface-name**] *reference*

| | |
|---|---|
| Synopsis | Local interface used to transmit NTP broadcast packets |
| Context | **configure** service vprn *service-name* ntp broadcast *reference* |
| Tree | broadcast |
| Reference | **configure** service vprn *service-name* interface *interface-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **authentication-keychain** *reference*

| | |
|---|---|
| Synopsis | Keychain used to authenticate broadcast messages |
| Context | **configure** service vprn *service-name* ntp broadcast *reference* authentication-keychain *reference* |
| Tree | authentication-keychain |
| Description | This command configures the keychain used to authenticate messages sent by this node.<br>The keychain infrastructure is queried using this keychain name to get the youngest key used for generating the authentication value for the message. When an NTP packet is |


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received by this node, the keychain infrastructure is queried using the keychain name and the key ID extracted from the received message to get the key used to perform the authentication check. If authentication does not pass, the packet is rejected. Keychain entries also have a direction. The key ID and authentication keychain are mutually exclusive. When neither one is set, for example, the key ID has a value of '0' and the value of this command is empty, no authentication is performed.

| | |
|---|---|
| Reference | **configure** system security keychains keychain *named-item* |
| Notes | The following elements are part of a choice: **authentication-keychain** or **key-id**. |
| Introduced | 23.10.R1 |
| Platforms | All |

### **key-id** *reference*

| | |
|---|---|
| Synopsis | Authentication key and type used by the node |
| Context | **configure** service vprn *service-name* ntp broadcast *reference* key-id *reference* |
| Tree | key-id |
| Reference | **configure** service vprn *service-name* ntp authentication-key *number* |
| Notes | The following elements are part of a choice: **authentication-keychain** or **key-id**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ttl** *number*

| | |
|---|---|
| Synopsis | TTL of messages transmitted by the broadcast address |
| Context | **configure** service vprn *service-name* ntp broadcast *reference* ttl *number* |
| Tree | ttl |
| Range | 1 to 255 |
| Default | 127 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **version** *number*

| | |
|---|---|
| Synopsis | NTP version number generated by the node |
| Context | **configure** service vprn *service-name* ntp broadcast *reference* version *number* |
| Tree | version |


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| | |
|---|---|
| Range | 2 to 4 |
| Default | 4 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ospf** [ospf-instance] *number*

| | |
|---|---|
| Synopsis | Enter the **ospf** list instance |
| Context | **configure** service vprn *service-name* ospf *number* |
| Tree | ospf |
| Max. instances | 32 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ospf-instance**] *number*

| | |
|---|---|
| Synopsis | Integrated OSPF instance |
| Context | **configure** service vprn *service-name* ospf *number* |
| Tree | ospf |
| Range | 0 |
| MD-CLI default | 0 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the OSPF instance |
| Context | **configure** service vprn *service-name* ospf *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **advertise-router-capability** *keyword*

| | |
|---|---|
| Synopsis | Allow router advertisement capabilities |
| Context | **configure** service vprn *service-name* ospf *number* advertise-router-capability *keyword* |
| Tree | advertise-router-capability |
| Options | false, link, area, as |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **area** [area-id] *ipv4-address*

| | |
|---|---|
| Synopsis | Enter the **area** list instance |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* |
| Tree | area |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**area-id**] *ipv4-address*

| | |
|---|---|
| Synopsis | Area-ID attribute |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* |
| Tree | area |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **advertise-ne-profile** *reference*

| | |
|---|---|
| Synopsis | Network element profile to be advertised |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* advertise-ne-profile *reference* |
| Tree | advertise-ne-profile |


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| | |
|---|---|
| Reference | **configure** system network-element-discovery profile *named-item* |
| Introduced | 19.5.R1 |
| Platforms | All |

### **advertise-router-capability** *boolean*

| | |
|---|---|
| Synopsis | Allow router advertisement capabilities |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* advertise-router-capability *boolean* |
| Tree | advertise-router-capability |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **area-range** [ip-prefix-mask] *ipv4-unicast-prefix*

| | |
|---|---|
| Synopsis | Enter the **area-range** list instance |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* area-range *ipv4-unicast-prefix* |
| Tree | area-range |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ip-prefix-mask**] *ipv4-unicast-prefix*

| | |
|---|---|
| Synopsis | IPv4 unicast address prefix and mask |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* area-range *ipv4-unicast-prefix* |
| Tree | area-range |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **advertise** *boolean*

| | |
|---|---|
| Synopsis | Advertise summarized range of addresses to other areas |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* area-range *ipv4-unicast-prefix* advertise *boolean* |
| Tree | advertise |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

## **blackhole-aggregate** *boolean*

| | |
|---|---|
| Synopsis | Install a low priority blackhole route to avoid loops |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* blackhole-aggregate *boolean* |
| Tree | blackhole-aggregate |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

## **export-policy** *reference*

| | |
|---|---|
| Synopsis | Type 3 Summary-LSA/OSPFv3 inter-area-prefix-LSA route |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* export-policy *reference* |
| Tree | export-policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **import-policy** *reference*

| | |
|---|---|
| Synopsis | Route imported as Summary Type 3/Inter-Area-Prefix-LSA |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* import-policy *reference* |
| Tree | import-policy |


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| | |
|---|---|
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **interface** [interface-name] *interface-name*

| | |
|---|---|
| Synopsis | Enter the **interface** list instance |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* interface *interface-name* |
| Tree | interface |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**interface-name**] *interface-name*

| | |
|---|---|
| Synopsis | IP interface name |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* interface *interface-name* |
| Tree | interface |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the OSPF interface |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* interface *interface-name* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **advertise-router-capability** *boolean*

| | |
|---|---|
| Synopsis | Allow router advertisement capabilities |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* interface *interface-name* advertise-router-capability *boolean* |
| Tree | advertise-router-capability |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **advertise-subnet** *boolean*

| | |
|---|---|
| Synopsis | Advertise point-to-point interfaces as subnet routes |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* interface *interface-name* advertise-subnet *boolean* |
| Tree | advertise-subnet |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **authentication-key** *encrypted-leaf*

| | |
|---|---|
| Synopsis | Authentication key |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* interface *interface-name* authentication-key *encrypted-leaf* |
| Tree | authentication-key |
| String length | 1 to 38 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **authentication-keychain** *reference*

| | |
|---|---|
| Synopsis | TCP authentication keychain for the session |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* interface *interface-name* authentication-keychain *reference* |


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| | |
|---|---|
| Tree | authentication-keychain |
| Reference | **configure** system security keychains keychain *named-item* |
| Introduced | 16.0.R3 |
| Platforms | All |

## **authentication-type** *keyword*

| | |
|---|---|
| Synopsis | Authentication type used on OSPF interface |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* interface *interface-name* authentication-type *keyword* |
| Tree | authentication-type |
| Options | password, message-digest |
| Introduced | 16.0.R1 |
| Platforms | All |

## **bfd-liveness**

| | |
|---|---|
| Synopsis | Enable the **bfd-liveness** context |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* interface *interface-name* bfd-liveness |
| Tree | bfd-liveness |
| Introduced | 16.0.R1 |
| Platforms | All |

## **remain-down-on-failure** *boolean*

| | |
|---|---|
| Synopsis | Force adjacency down on failure until session returns |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* interface *interface-name* bfd-liveness remain-down-on-failure *boolean* |
| Tree | remain-down-on-failure |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **strict** *boolean*

| | |
|---|---|
| Synopsis | Enable BFD strict mode |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* interface *interface-name* bfd-liveness strict *boolean* |
| Tree | strict |
| Description | When configured to **true**, the system uses BFD strict-mode. BFD strict-mode mandates that an active BFD session must exist between the OSPF neighbors before establishing a full adjacency. When configured to **true**, the router uses Link-Local Signaling (LLS) with the B-flag set to instruct the OSPF neighbors that BFD must be enabled on the link. BFD strict-mode requires both sides to have the B-flag set.<br><br>During OSPFv3 BFD strict-mode operations, the router advertises the local interface IPv4 address TLV using LLS, but the SR OS router continues to use IPv6-based BFD sessions for both the IPv4 and IPv6 address families. |
| Default | false |
| Introduced | 23.3.R1 |
| Platforms | All |

### **strict-mode-holddown** *number*

| | |
|---|---|
| Synopsis | Adjacency up time delay after BFD session establishment |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* interface *interface-name* bfd-liveness strict-mode-holddown *number* |
| Tree | strict-mode-holddown |
| Description | This command configures a delay timer before bringing up the OSPF adjacency after the BFD session establishment. Holddown helps mitigate potential routing churn when BFD sessions are unstable. The holddown timer is reset when a BFD session operationally toggles. |
| Range | 1 to 600 |
| Units | seconds |
| Introduced | 23.3.R1 |
| Platforms | All |

### **dead-interval** *number*

| | |
|---|---|
| Synopsis | OSPF wait time for Hellos before neighbor declared down |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* interface *interface-name* dead-interval *number* |
| Tree | dead-interval |


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| | |
|---|---|
| Range | 2 to 65535 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

## **hello-interval** *number*

| | |
|---|---|
| Synopsis | Time between OSPF Hellos of this interface |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* interface *interface-name* hello-interval *number* |
| Tree | hello-interval |
| Range | 1 to 65535 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **interface-type** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Interface type |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* interface *interface-name* interface-type *keyword* |
| Tree | interface-type |
| Description | This command specifies the interface type.<br>**broadcast** - Broadcast network<br>To significantly improve adjacency forming and network convergence, configure a network as point-to-point if only two routers are connected, even if the network is a broadcast media such as Ethernet.<br>**non-broadcast** - Non-broadcast network<br>**point-to-point** - Point-to-point link<br>Set the interface type of an Ethernet link to **point-to-point** to avoid having to carry the broadcast adjacency maintenance overhead if the Ethernet link provided is used as a point-to-point.<br>**p2mp-nbma** - Point-to-multipoint on a link without broadcast or multicast support |


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No designated router or backup designated router is elected on this type of interface and all OSPF neighbors connect through individual point-to-point links. Only VPRN and IES services interfaces support this interface type.

**secondary** - Multiple secondary adjacencies allowed

A **secondary** interface allows multiple secondary adjacencies, in addition to the primary adjacency, to be established over a single IP interface. This interface type can also be applied to the system interface and to loopback interfaces to allow them to participate in multiple areas, although no adjacencies are formed over these types of interfaces.

| | |
|---|---|
| Options | broadcast, non-broadcast, point-to-point, secondary, p2mp-nbma |
| Introduced | 16.0.R1 |
| Platforms | All |

## **load-balancing-weight** *number*

| | |
|---|---|
| Synopsis | Load-balancing weight |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* interface *interface-name* load-balancing-weight *number* |
| Tree | load-balancing-weight |
| Range | 1 to 4294967295 |
| Introduced | 20.2.R1 |
| Platforms | All |

## **loopfree-alternate**

| | |
|---|---|
| Synopsis | Enter the **loopfree-alternate** context |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* interface *interface-name* loopfree-alternate |
| Tree | loopfree-alternate |
| Introduced | 16.0.R3 |
| Platforms | All |

## **exclude** *boolean*

| | |
|---|---|
| Synopsis | Enable fast reroute at OSPF primary interface level |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* interface *interface-name* loopfree-alternate exclude *boolean* |
| Tree | exclude |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R3 |
| Platforms | All |

## policy-map

| | |
|---|---|
| Synopsis | Enable the **policy-map** context |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* interface *interface-name* loopfree-alternate policy-map |
| Tree | policy-map |
| Introduced | 16.0.R3 |
| Platforms | All |

## route-nh-template *reference*

| | |
|---|---|
| Synopsis | Route next hop policy template name |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* interface *interface-name* loopfree-alternate policy-map route-nh-template *reference* |
| Tree | route-nh-template |
| Reference | **configure** routing-options route-next-hop-policy template *named-item* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R3 |
| Platforms | All |

## lsa-filter-out *keyword*

| | |
|---|---|
| Synopsis | LSA flooding reduction |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* interface *interface-name* lsa-filter-out *keyword* |
| Tree | lsa-filter-out |
| Options | none, all, except-own-rtrlsa, except-own-rtrlsa-and-defaults |
| Default | none |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **message-digest-key** [key-id] *number*

| | |
|---|---|
| Synopsis | Enter the **message-digest-key** list instance |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* interface *interface-name* message-digest-key *number* |
| Tree | message-digest-key |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**key-id**] *number*

| | |
|---|---|
| Synopsis | Message digest index |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* interface *interface-name* message-digest-key *number* |
| Tree | message-digest-key |
| Range | 1 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **md5** *encrypted-leaf*

| | |
|---|---|
| Synopsis | MD5 hash key |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* interface *interface-name* message-digest-key *number* md5 *encrypted-leaf* |
| Tree | md5 |
| String length | 1 to 51 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **metric** *number*

| | |
|---|---|
| Synopsis | Route cost metric for the interface |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* interface *interface-name* metric *number* |


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| | |
|---|---|
| Tree | metric |
| Range | 1 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mtu** *number*

| | |
|---|---|
| Synopsis | MTU for the OSPF to use on the interface |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* interface *interface-name* mtu *number* |
| Tree | mtu |
| Range | 512 to 9786 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **neighbor** [address] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Add a list entry for **neighbor** |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* interface *interface-name* neighbor *ipv4-unicast-address* |
| Tree | neighbor |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**address**] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IPv4 address of the OSPFv2 neighbor |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* interface *interface-name* neighbor *ipv4-unicast-address* |
| Tree | neighbor |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **passive** *boolean*

| | |
|---|---|
| Synopsis | Advertise passive interfaces as OSPF interfaces |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* interface *interface-name* passive *boolean* |
| Tree | passive |
| Introduced | 16.0.R1 |
| Platforms | All |

### **poll-interval** *number*

| | |
|---|---|
| Synopsis | Interval for Hellos to non-adjacent OSPF NBMA neighbor |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* interface *interface-name* poll-interval *number* |
| Tree | poll-interval |
| Max. range | 0 to 4294967295 |
| Units | seconds |
| Default | 120 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **priority** *number*

| | |
|---|---|
| Synopsis | Interface priority in the DR election on the subnet |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* interface *interface-name* priority *number* |
| Tree | priority |
| Range | 0 to 255 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **retransmit-interval** *number*

| | |
|---|---|
| Synopsis | Time before OSPF retransmits an unacknowledged LSA |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* interface *interface-name* retransmit-interval *number* |
| Tree | retransmit-interval |
| Range | 1 to 1800 |
| Units | seconds |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rib-priority** *keyword*

| | |
|---|---|
| Synopsis | RIB priority for OSPF |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* interface *interface-name* rib-priority *keyword* |
| Tree | rib-priority |
| Options | high |
| Introduced | 16.0.R1 |
| Platforms | All |

### **transit-delay** *number*

| | |
|---|---|
| Synopsis | Required LSA transmit time |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* interface *interface-name* transit-delay *number* |
| Tree | transit-delay |
| Range | 1 to 1800 |
| Units | seconds |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **loopfree-alternate-exclude** *boolean*

| | |
|---|---|
| Synopsis | Exclude interfaces in OSPF areas in SPF LFA computation |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* loopfree-alternate-exclude *boolean* |


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| | |
|---|---|
| Tree | loopfree-alternate-exclude |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### nssa

| | |
|---|---|
| Synopsis | Enable the **nssa** context |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* nssa |
| Tree | nssa |
| Introduced | 16.0.R1 |
| Platforms | All |

### area-range [ip-prefix-mask] *ipv4-unicast-prefix*

| | |
|---|---|
| Synopsis | Enter the **area-range** list instance |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* nssa area-range *ipv4-unicast-prefix* |
| Tree | area-range |
| Introduced | 16.0.R1 |
| Platforms | All |

### [ip-prefix-mask] *ipv4-unicast-prefix*

| | |
|---|---|
| Synopsis | IPv4 unicast address prefix and mask |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* nssa area-range *ipv4-unicast-prefix* |
| Tree | area-range |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### advertise *boolean*

| | |
|---|---|
| Synopsis | Advertise summarized range of addresses to other areas |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* nssa area-range *ipv4-unicast-prefix* advertise *boolean* |
| Tree | advertise |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

## originate-default-route

| | |
|---|---|
| Synopsis | Enable the **originate-default-route** context |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* nssa originate-default-route |
| Tree | originate-default-route |
| Introduced | 16.0.R1 |
| Platforms | All |

## adjacency-check *boolean*

| | |
|---|---|
| Synopsis | Perform adjacency checks before originating a default route |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* nssa originate-default-route adjacency-check *boolean* |
| Tree | adjacency-check |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## type-nssa *boolean*

| | |
|---|---|
| Synopsis | Generate a default route using NSSA-LSA type |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* nssa originate-default-route type-nssa *boolean* |
| Tree | type-nssa |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **redistribute-external** *boolean*

| | |
|---|---|
| Synopsis | Redistribute external routes into the NSSA |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* nssa redistribute-external *boolean* |
| Tree | redistribute-external |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **summaries** *boolean*

| | |
|---|---|
| Synopsis | Send summary (Type 3) LSAs into the NSSA on an ABR |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* nssa summaries *boolean* |
| Tree | summaries |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sham-link** [interface] *interface-name* ip-address *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Enter the **sham-link** list instance |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* sham-link *interface-name* ip-address *ipv4-unicast-address* |
| Tree | sham-link |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**interface**] *interface-name*

| | |
|---|---|
| Synopsis | Local interface name used for the sham-link |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* sham-link *interface-name* ip-address *ipv4-unicast-address* |
| Tree | sham-link |
| String length | 1 to 32 |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ip-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IP address of the sham-link neighbor |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* sham-link *interface-name* ip-address *ipv4-unicast-address* |
| Tree | sham-link |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the OSPF interface |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* sham-link *interface-name* ip-address *ipv4-unicast-address* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **authentication-key** *encrypted-leaf*

| | |
|---|---|
| Synopsis | Authentication key to send and receive OSPF packets |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* sham-link *interface-name* ip-address *ipv4-unicast-address* authentication-key *encrypted-leaf* |
| Tree | authentication-key |
| String length | 1 to 38 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **authentication-keychain** *reference*

| | |
|---|---|
| Synopsis | TCP authentication keychain for the session |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* sham-link *interface-name* ip-address *ipv4-unicast-address* authentication-keychain *reference* |
| Tree | authentication-keychain |
| Reference | **configure** system security keychains keychain *named-item* |
| Introduced | 16.0.R3 |
| Platforms | All |

### **authentication-type** *keyword*

| | |
|---|---|
| Synopsis | Authentication type to be used |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* sham-link *interface-name* ip-address *ipv4-unicast-address* authentication-type *keyword* |
| Tree | authentication-type |
| Options | password, message-digest |
| Introduced | 16.0.R1 |
| Platforms | All |

### **dead-interval** *number*

| | |
|---|---|
| Synopsis | OSPF wait time for Hellos before neighbor declared down |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* sham-link *interface-name* ip-address *ipv4-unicast-address* dead-interval *number* |
| Tree | dead-interval |
| Range | 2 to 65535 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hello-interval** *number*

| | |
|---|---|
| Synopsis | Time between OSPF Hellos of this interface |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* sham-link *interface-name* ip-address *ipv4-unicast-address* hello-interval *number* |


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| | |
|---|---|
| Tree | hello-interval |
| Range | 1 to 65535 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **message-digest-key** [key-id] *number*

| | |
|---|---|
| Synopsis | Enter the **message-digest-key** list instance |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* sham-link *interface-name* ip-address *ipv4-unicast-address* message-digest-key *number* |
| Tree | message-digest-key |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**key-id**] *number*

| | |
|---|---|
| Synopsis | Message digest index |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* sham-link *interface-name* ip-address *ipv4-unicast-address* message-digest-key *number* |
| Tree | message-digest-key |
| Range | 1 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **md5** *encrypted-leaf*

| | |
|---|---|
| Synopsis | MD5 key or hash key |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* sham-link *interface-name* ip-address *ipv4-unicast-address* message-digest-key *number* md5 *encrypted-leaf* |
| Tree | md5 |
| String length | 1 to 51 |
| Notes | This element is mandatory. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **metric** *number*

| | |
|---|---|
| Synopsis | Explicit route cost metric that is applied to the sham link |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* sham-link *interface-name* ip-address *ipv4-unicast-address* metric *number* |
| Tree | metric |
| Range | 1 to 65535 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **retransmit-interval** *number*

| | |
|---|---|
| Synopsis | Time before OSPF retransmits an unacknowledged LSA |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* sham-link *interface-name* ip-address *ipv4-unicast-address* retransmit-interval *number* |
| Tree | retransmit-interval |
| Range | 1 to 1800 |
| Units | seconds |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **transit-delay** *number*

| | |
|---|---|
| Synopsis | Required LSA transmit time |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* sham-link *interface-name* ip-address *ipv4-unicast-address* transit-delay *number* |
| Tree | transit-delay |
| Range | 1 to 1800 |
| Units | seconds |
| Default | 1 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## stub

| | |
|---|---|
| Synopsis | Enable the **stub** context |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* stub |
| Tree | stub |
| Introduced | 16.0.R1 |
| Platforms | All |

## default-metric *number*

| | |
|---|---|
| Synopsis | Metric used by ABR for default route into the stub area |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* stub default-metric *number* |
| Tree | default-metric |
| Range | 1 to 16777214 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

## summaries *boolean*

| | |
|---|---|
| Synopsis | Send summary (Type 3) LSAs into the stub area on an ABR |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* stub summaries *boolean* |
| Tree | summaries |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

## virtual-link [router-id] *ipv4-address* transit-area *reference*

| | |
|---|---|
| Synopsis | Enter the **virtual-link** list instance |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* virtual-link *ipv4-address* transit-area *reference* |


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| | |
|---|---|
| Tree | virtual-link |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**router-id**] *ipv4-address*

| | |
|---|---|
| Synopsis | Router identity of the virtual link neighbor |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* virtual-link *ipv4-address* transit-area *reference* |
| Tree | virtual-link |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **transit-area** *reference*

| | |
|---|---|
| Synopsis | Transit area that links backbone area to area without physical connection with the backbone |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* virtual-link *ipv4-address* transit-area *reference* |
| Tree | virtual-link |
| Reference | **configure** service vprn *service-name* ospf *number* area *ipv4-address* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the OSPF interface |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* virtual-link *ipv4-address* transit-area *reference* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **authentication-key** *encrypted-leaf*

| | |
|---|---|
| Synopsis | Authentication key |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* virtual-link *ipv4-address* transit-area *reference* authentication-key *encrypted-leaf* |
| Tree | authentication-key |
| String length | 1 to 38 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **authentication-keychain** *reference*

| | |
|---|---|
| Synopsis | TCP authentication keychain for the session |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* virtual-link *ipv4-address* transit-area *reference* authentication-keychain *reference* |
| Tree | authentication-keychain |
| Reference | **configure** system security keychains keychain *named-item* |
| Introduced | 16.0.R3 |
| Platforms | All |

### **authentication-type** *keyword*

| | |
|---|---|
| Synopsis | Authentication type used on OSPF interface |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* virtual-link *ipv4-address* transit-area *reference* authentication-type *keyword* |
| Tree | authentication-type |
| Options | password, message-digest |
| Introduced | 16.0.R1 |
| Platforms | All |

### **dead-interval** *number*

| | |
|---|---|
| Synopsis | OSPF wait time for Hellos before neighbor declared down |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* virtual-link *ipv4-address* transit-area *reference* dead-interval *number* |
| Tree | dead-interval |


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| | |
|---|---|
| Range | 2 to 65535 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hello-interval** *number*

| | |
|---|---|
| Synopsis | Time between OSPF Hellos of this interface |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* virtual-link *ipv4-address* transit-area *reference* hello-interval *number* |
| Tree | hello-interval |
| Range | 1 to 65535 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **message-digest-key** [key-id] *number*

| | |
|---|---|
| Synopsis | Enter the **message-digest-key** list instance |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* virtual-link *ipv4-address* transit-area *reference* message-digest-key *number* |
| Tree | message-digest-key |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**key-id**] *number*

| | |
|---|---|
| Synopsis | Message digest index |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* virtual-link *ipv4-address* transit-area *reference* message-digest-key *number* |
| Tree | message-digest-key |
| Range | 1 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **md5** *encrypted-leaf*

| | |
|---|---|
| Synopsis | MD5 hash key |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* virtual-link *ipv4-address* transit-area *reference* message-digest-key *number* md5 *encrypted-leaf* |
| Tree | md5 |
| String length | 1 to 51 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **retransmit-interval** *number*

| | |
|---|---|
| Synopsis | Time before OSPF retransmits an unacknowledged LSA |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* virtual-link *ipv4-address* transit-area *reference* retransmit-interval *number* |
| Tree | retransmit-interval |
| Range | 1 to 1800 |
| Units | seconds |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **transit-delay** *number*

| | |
|---|---|
| Synopsis | Required LSA transmit time |
| Context | **configure** service vprn *service-name* ospf *number* area *ipv4-address* virtual-link *ipv4-address* transit-area *reference* transit-delay *number* |
| Tree | transit-delay |
| Range | 1 to 1800 |
| Units | seconds |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **compatible-rfc1583** *boolean*

| | |
|---|---|
| Synopsis | OSPF summary and external route calculations |
| Context | **configure** service vprn *service-name* ospf *number* compatible-rfc1583 *boolean* |
| Tree | compatible-rfc1583 |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **export-limit**

| | |
|---|---|
| Synopsis | Enable the **export-limit** context |
| Context | **configure** service vprn *service-name* ospf *number* export-limit |
| Tree | export-limit |
| Introduced | 16.0.R1 |
| Platforms | All |

### **log-percent** *number*

| | |
|---|---|
| Synopsis | Export limit before warning and SNMP notification sent |
| Context | **configure** service vprn *service-name* ospf *number* export-limit log-percent *number* |
| Tree | log-percent |
| Range | 1 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **number** *number*

| | |
|---|---|
| Synopsis | Maximum routes or prefixes exported from route table |
| Context | **configure** service vprn *service-name* ospf *number* export-limit number *number* |
| Tree | number |
| Range | 1 to 4294967295 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **export-policy** *reference*

| | |
|---|---|
| Synopsis | Export policies that determine exported routes |
| Context | **configure** service vprn *service-name* ospf *number* export-policy *reference* |
| Tree | export-policy |
| Description | This command configures export routing policies for the routes exported from the routing table to IS-IS.<br>If the export policy is undefined, the system does not export non IS-IS routes from the routing table manager to IS-IS.<br>If multiple policy names are specified, the policies are evaluated in the order they are specified. The first policy that matches is applied.<br>If the **aggregate** command is also configured in the **configure router** context, the aggregation is applied before the export policy is applied.<br>Routing policies are created in the **configure router policy-options** context. |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **external-db-overflow**

| | |
|---|---|
| Synopsis | Enable the **external-db-overflow** context |
| Context | **configure** service vprn *service-name* ospf *number* external-db-overflow |
| Tree | external-db-overflow |
| Introduced | 16.0.R1 |
| Platforms | All |

## **interval** *number*

| | |
|---|---|
| Synopsis | Time during which the router operates in overload |
| Context | **configure** service vprn *service-name* ospf *number* external-db-overflow interval *number* |
| Tree | interval |
| Range | 0 to 2147483647 |
| Units | seconds |


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| | |
|---|---|
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **limit** *number*

| | |
|---|---|
| Synopsis | Number of external LSA at which overload is triggered |
| Context | **configure** service vprn *service-name* ospf *number* external-db-overflow limit *number* |
| Tree | limit |
| Range | 0 to 2147483647 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **external-preference** *number*

| | |
|---|---|
| Synopsis | Preference for OSPF external routes |
| Context | **configure** service vprn *service-name* ospf *number* external-preference *number* |
| Tree | external-preference |
| Range | 1 to 255 |
| Default | 150 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **graceful-restart**

| | |
|---|---|
| Synopsis | Enable the **graceful-restart** context |
| Context | **configure** service vprn *service-name* ospf *number* graceful-restart |
| Tree | graceful-restart |
| Introduced | 16.0.R1 |
| Platforms | All |

### **helper-mode** *boolean*

| | |
|---|---|
| Synopsis | Enable graceful restart helper for OSPF |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* ospf *number* graceful-restart helper-mode *boolean* |
| Tree | helper-mode |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **strict-lsa-checking** *boolean*

| | |
|---|---|
| Synopsis | Perform strict LSA checking during graceful restart |
| Context | **configure** service vprn *service-name* ospf *number* graceful-restart strict-lsa-checking *boolean* |
| Tree | strict-lsa-checking |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ignore-dn-bit** *boolean*

| | |
|---|---|
| Synopsis | Ignore the DN bit for OSPF LSA packets for the instance |
| Context | **configure** service vprn *service-name* ospf *number* ignore-dn-bit *boolean* |
| Tree | ignore-dn-bit |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **import-policy** *reference*

| | |
|---|---|
| Synopsis | Import policy names for routes from IGP to route table |
| Context | **configure** service vprn *service-name* ospf *number* import-policy *reference* |
| Tree | import-policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## loopfree-alternate

| | |
|---|---|
| Synopsis | Enable the **loopfree-alternate** context |
| Context | **configure** service vprn *service-name* ospf *number* loopfree-alternate |
| Tree | loopfree-alternate |
| Introduced | 16.0.R1 |
| Platforms | All |

## exclude

| | |
|---|---|
| Synopsis | Enter the **exclude** context |
| Context | **configure** service vprn *service-name* ospf *number* loopfree-alternate exclude |
| Tree | exclude |
| Introduced | 16.0.R3 |
| Platforms | All |

## prefix-policy *reference*

| | |
|---|---|
| Synopsis | Policy to exclude prefixes from LFA SPF calculation |
| Context | **configure** service vprn *service-name* ospf *number* loopfree-alternate exclude prefix-policy *reference* |
| Tree | prefix-policy |
| Description | This command specifies the name of the policy for the prefixes to exclude from the LFA SPF calculation.<br>An excluded prefix is not included in LFA calculation regardless of its priority. The prefix tag is, however, used in the main SPF. |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R3 |
| Platforms | All |


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### **multicast-import** *boolean*

| | |
|---|---|
| Synopsis | Submit routes into the multicast Route Table Manager |
| Context | **configure** service vprn *service-name* ospf *number* multicast-import *boolean* |
| Tree | multicast-import |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **overload** *boolean*

| | |
|---|---|
| Synopsis | Change local router state to appear overloaded |
| Context | **configure** service vprn *service-name* ospf *number* overload *boolean* |
| Tree | overload |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **overload-include-ext-1** *boolean*

| | |
|---|---|
| Synopsis | Advertise routes with maximum metric value for overload |
| Context | **configure** service vprn *service-name* ospf *number* overload-include-ext-1 *boolean* |
| Tree | overload-include-ext-1 |
| Default | false |
| Introduced | 19.7.R1 |
| Platforms | All |

### **overload-include-ext-2** *boolean*

| | |
|---|---|
| Synopsis | Advertise routes with maximum metric value for overload |
| Context | **configure** service vprn *service-name* ospf *number* overload-include-ext-2 *boolean* |
| Tree | overload-include-ext-2 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **overload-include-stub** *boolean*

| | |
|---|---|
| Synopsis | Advertise all stub interfaces with max metric value |
| Context | **configure** service vprn *service-name* ospf *number* overload-include-stub *boolean* |
| Tree | overload-include-stub |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **overload-on-boot**

| | |
|---|---|
| Synopsis | Enable the **overload-on-boot** context |
| Context | **configure** service vprn *service-name* ospf *number* overload-on-boot |
| Tree | overload-on-boot |
| Introduced | 16.0.R1 |
| Platforms | All |

### **timeout** *number*

| | |
|---|---|
| Synopsis | Time during which the router operates in overload state before reestablishing normal operations |
| Context | **configure** service vprn *service-name* ospf *number* overload-on-boot timeout *number* |
| Tree | timeout |
| Range | 60 to 1800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **preference** *number*

| | |
|---|---|
| Synopsis | Preference for OSPF internal routes |
| Context | **configure** service vprn *service-name* ospf *number* preference *number* |
| Tree | preference |
| Range | 1 to 255 |
| Default | 10 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **reference-bandwidth** *number*

| | |
|---|---|
| Synopsis | Bandwidth to reference default costing of interfaces |
| Context | **configure** service vprn *service-name* ospf *number* reference-bandwidth *number* |
| Tree | reference-bandwidth |
| Range | 1 to 18446744073709551615 |
| Units | kilobps |
| Default | 100000000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rib-priority**

| | |
|---|---|
| Synopsis | Enter the **rib-priority** context |
| Context | **configure** service vprn *service-name* ospf *number* rib-priority |
| Tree | rib-priority |
| Introduced | 16.0.R1 |
| Platforms | All |

### **high**

| | |
|---|---|
| Synopsis | Enter the **high** context |
| Context | **configure** service vprn *service-name* ospf *number* rib-priority high |
| Tree | high |
| Introduced | 16.0.R1 |
| Platforms | All |

### **prefix-list** *reference*

| | |
|---|---|
| Synopsis | Higher priority list used during OSPF route calculation |
| Context | **configure** service vprn *service-name* ospf *number* rib-priority high prefix-list *reference* |
| Tree | prefix-list |


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| | |
|---|---|
| Reference | **configure** policy-options prefix-list *named-item-64* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **router-id** *router-id*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Unique router ID for the OSPF instance |
| Context | **configure** service vprn *service-name* ospf *number* router-id *router-id* |
| Tree | router-id |
| Introduced | 16.0.R1 |
| Platforms | All |

## **rtr-adv-lsa-limit**

| | |
|---|---|
| Synopsis | Enable the **rtr-adv-lsa-limit** context |
| Context | **configure** service vprn *service-name* ospf *number* rtr-adv-lsa-limit |
| Tree | rtr-adv-lsa-limit |
| Introduced | 16.0.R1 |
| Platforms | All |

## **log-only** *boolean*

| | |
|---|---|
| Synopsis | Log the event without triggering overload |
| Context | **configure** service vprn *service-name* ospf *number* rtr-adv-lsa-limit log-only *boolean* |
| Tree | log-only |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **max-lsa-count** *number*

| | |
|---|---|
| Synopsis | Max number of LSAs one router can advertise |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* ospf *number* rtr-adv-lsa-limit max-lsa-count *number* |
| Tree | max-lsa-count |
| Range | 1 to 4294967295 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **overload-timeout** *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum time in overload after LSA limit is reached |
| Context | **configure** service vprn *service-name* ospf *number* rtr-adv-lsa-limit overload-timeout *(number | keyword)* |
| Tree | overload-timeout |
| Range | 1 to 1800 |
| Units | seconds |
| Options | forever |
| Default | forever |
| Introduced | 16.0.R1 |
| Platforms | All |

### **warning-threshold** *number*

| | |
|---|---|
| Synopsis | Percentage of the max LSA count that causes a warning |
| Context | **configure** service vprn *service-name* ospf *number* rtr-adv-lsa-limit warning-threshold *number* |
| Tree | warning-threshold |
| Range | 0 to 100 |
| Units | percent |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **super-backbone** *boolean*

| | |
|---|---|
| Synopsis | Enable super backbone functionality |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* ospf *number* super-backbone *boolean* |
| Tree | super-backbone |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **suppress-dn-bit** *boolean*

| | |
|---|---|
| Synopsis | Suppress the DN bit setting for OSPF LSA packets |
| Context | **configure** service vprn *service-name* ospf *number* suppress-dn-bit *boolean* |
| Tree | suppress-dn-bit |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **timers**

| | |
|---|---|
| Synopsis | Enter the **timers** context |
| Context | **configure** service vprn *service-name* ospf *number* timers |
| Tree | timers |
| Introduced | 16.0.R1 |
| Platforms | All |

### **incremental-spf-wait** *number*

| | |
|---|---|
| Synopsis | Delay time before an incremental SPF calculation starts |
| Context | **configure** service vprn *service-name* ospf *number* timers incremental-spf-wait *number* |
| Tree | incremental-spf-wait |
| Range | 0 to 1000 |
| Units | milliseconds |
| Default | 1000 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **lsa-accumulate** *number*

| | |
|---|---|
| Synopsis | Delay to gather LSAs before advertising to neighbors |
| Context | **configure** service vprn *service-name* ospf *number* timers lsa-accumulate *number* |
| Tree | lsa-accumulate |
| Range | 0 to 1000 |
| Units | milliseconds |
| Default | 1000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lsa-arrival** *number*

| | |
|---|---|
| Synopsis | Min delay between receipt of same LSAs from neighbors |
| Context | **configure** service vprn *service-name* ospf *number* timers lsa-arrival *number* |
| Tree | lsa-arrival |
| Range | 0 to 600000 |
| Units | milliseconds |
| Default | 1000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lsa-generate**

| | |
|---|---|
| Synopsis | Enter the **lsa-generate** context |
| Context | **configure** service vprn *service-name* ospf *number* timers lsa-generate |
| Tree | lsa-generate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lsa-initial-wait** *number*

| | |
|---|---|
| Synopsis | First wait period between OSPF LSA generation |
| Context | **configure** service vprn *service-name* ospf *number* timers lsa-generate lsa-initial-wait *number* |


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| | |
|---|---|
| Tree | lsa-initial-wait |
| Range | 10 to 600000 |
| Units | milliseconds |
| Default | 5000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lsa-second-wait** *number*

| | |
|---|---|
| Synopsis | Hold time between the first and second LSA generation |
| Context | **configure** service vprn *service-name* ospf *number* timers lsa-generate lsa-second-wait *number* |
| Tree | lsa-second-wait |
| Range | 10 to 600000 |
| Units | milliseconds |
| Default | 5000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **max-lsa-wait** *number*

| | |
|---|---|
| Synopsis | Max time between two LSAs being generated |
| Context | **configure** service vprn *service-name* ospf *number* timers lsa-generate max-lsa-wait *number* |
| Tree | max-lsa-wait |
| Range | 10 to 600000 |
| Units | milliseconds |
| Default | 5000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **redistribute-delay** *number*

| | |
|---|---|
| Synopsis | Hold down timer for external routes into OSPF |
| Context | **configure** service vprn *service-name* ospf *number* timers redistribute-delay *number* |
| Tree | redistribute-delay |


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| | |
|---|---|
| Range | 0 to 1000 |
| Units | milliseconds |
| Default | 1000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### spf-wait

| | |
|---|---|
| Synopsis | Enter the **spf-wait** context |
| Context | **configure** service vprn *service-name* ospf *number* timers spf-wait |
| Tree | spf-wait |
| Introduced | 16.0.R1 |
| Platforms | All |

### spf-initial-wait *number*

| | |
|---|---|
| Synopsis | Initial SPF calculation delay after a topology change |
| Context | **configure** service vprn *service-name* ospf *number* timers spf-wait spf-initial-wait *number* |
| Tree | spf-initial-wait |
| Range | 10 to 100000 |
| Units | milliseconds |
| Default | 1000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### spf-max-wait *number*

| | |
|---|---|
| Synopsis | Max interval between two consecutive SPF calculations |
| Context | **configure** service vprn *service-name* ospf *number* timers spf-wait spf-max-wait *number* |
| Tree | spf-max-wait |
| Range | 10 to 120000 |
| Units | milliseconds |
| Default | 10000 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **spf-second-wait** *number*

| | |
|---|---|
| Synopsis | Hold time between the first and second SPF calculation |
| Context | **configure** service vprn *service-name* ospf *number* timers spf-wait spf-second-wait *number* |
| Tree | spf-second-wait |
| Range | 10 to 100000 |
| Units | milliseconds |
| Default | 1000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **unicast-import** *boolean*

| | |
|---|---|
| Synopsis | Submit routes into the unicast Route Table Manager |
| Context | **configure** service vprn *service-name* ospf *number* unicast-import *boolean* |
| Tree | unicast-import |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **vpn-domain**

| | |
|---|---|
| Synopsis | Enable the **vpn-domain** context |
| Context | **configure** service vprn *service-name* ospf *number* vpn-domain |
| Tree | vpn-domain |
| Introduced | 16.0.R1 |
| Platforms | All |

### **id** *system-id*

| | |
|---|---|
| Synopsis | OSPF VPN domain ID |
| Context | **configure** service vprn *service-name* ospf *number* vpn-domain id *system-id* |
| Tree | id |
| Description | This command specifies the OSPF VPN domain. This is exchanged using BGP in the Extended Community attribute associated with a prefix. |


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| | |
|---|---|
| String length | 14 |
| Default | 0000.0000.0000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **type** *keyword*

| | |
|---|---|
| Synopsis | VPN domain type |
| Context | **configure** service vprn *service-name* ospf *number* vpn-domain type *keyword* |
| Tree | type |
| Options | 0005, 0105, 0205, 8005 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **vpn-tag** *number*

| | |
|---|---|
| Synopsis | OSPF VPN tag |
| Context | **configure** service vprn *service-name* ospf *number* vpn-tag *number* |
| Tree | vpn-tag |
| Max. range | 0 to 4294967295 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ospf3** [ospf-instance] *number*

| | |
|---|---|
| Synopsis | Enter the **ospf3** list instance |
| Context | **configure** service vprn *service-name* ospf3 *number* |
| Tree | ospf3 |
| Max. instances | 32 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**ospf-instance**] *number*

| | |
|---|---|
| Synopsis | Integrated OSPF instance |
| Context | **configure** service vprn *service-name* ospf3 *number* |
| Tree | ospf3 |
| Range | 0 to 31 \| 64 to 95 |
| MD-CLI default | 0 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the OSPF instance |
| Context | **configure** service vprn *service-name* ospf3 *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **advertise-router-capability** *keyword*

| | |
|---|---|
| Synopsis | Allow router advertisement capabilities |
| Context | **configure** service vprn *service-name* ospf3 *number* advertise-router-capability *keyword* |
| Tree | advertise-router-capability |
| Options | false, link, area, as |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **area** [area-id] *ipv4-address*

| | |
|---|---|
| Synopsis | Enter the **area** list instance |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* |
| Tree | area |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**area-id**] *ipv4-address*

| | |
|---|---|
| Synopsis | Area-ID attribute |
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* |
| Tree | area |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **advertise-router-capability** *boolean*

| | |
|---|---|
| Synopsis | Allow router advertisement capabilities |
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* advertise-router-capability *boolean* |
| Tree | advertise-router-capability |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **area-range** [ip-prefix-mask] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Enter the **area-range** list instance |
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* area-range *(ipv4-prefix | ipv6-prefix)* |
| Tree | area-range |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ip-prefix-mask**] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Address ranges to create on an ABR for route summarization or suppression |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* area-range *(ipv4-prefix \| ipv6-prefix)* |
| Tree | area-range |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **advertise** *boolean*

| | |
|---|---|
| Synopsis | Advertise summarized range of addresses to other areas |
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* area-range *(ipv4-prefix \| ipv6-prefix)* advertise *boolean* |
| Tree | advertise |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **blackhole-aggregate** *boolean*

| | |
|---|---|
| Synopsis | Install a low priority blackhole route to avoid loops |
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* blackhole-aggregate *boolean* |
| Tree | blackhole-aggregate |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **export-policy** *reference*

| | |
|---|---|
| Synopsis | Type 3 Summary-LSA/OSPFv3 inter-area-prefix-LSA route |
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* export-policy *reference* |
| Tree | export-policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |


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| | |
|---|---|
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **import-policy** *reference*

| | |
|---|---|
| Synopsis | Route imported as Summary Type 3/Inter-Area-Prefix-LSA |
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* import-policy *reference* |
| Tree | import-policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **interface** [interface-name] *interface-name*

| | |
|---|---|
| Synopsis | Enter the **interface** list instance |
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* interface *interface-name* |
| Tree | interface |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**interface-name**] *interface-name*

| | |
|---|---|
| Synopsis | IP interface name |
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* interface *interface-name* |
| Tree | interface |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the OSPF interface |
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* interface *interface-name* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **advertise-router-capability** *boolean*

| | |
|---|---|
| Synopsis | Allow router advertisement capabilities |
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* interface *interface-name* advertise-router-capability *boolean* |
| Tree | advertise-router-capability |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **authentication**

| | |
|---|---|
| Synopsis | Enable the **authentication** context |
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* interface *interface-name* authentication |
| Tree | authentication |
| Introduced | 16.0.R6 |
| Platforms | All |

### **inbound** *reference*

| | |
|---|---|
| Synopsis | sa-name |
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* interface *interface-name* authentication inbound *reference* |
| Tree | inbound |


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| | |
|---|---|
| Reference | **configure** ipsec static-sa *named-item* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R6 |
| Platforms | All |

## **outbound** *reference*

| | |
|---|---|
| Synopsis | sa-name |
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* interface *interface-name* authentication outbound *reference* |
| Tree | outbound |
| Reference | **configure** ipsec static-sa *named-item* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R6 |
| Platforms | All |

## **bfd-liveness**

| | |
|---|---|
| Synopsis | Enable the **bfd-liveness** context |
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* interface *interface-name* bfd-liveness |
| Tree | bfd-liveness |
| Introduced | 16.0.R1 |
| Platforms | All |

## **remain-down-on-failure** *boolean*

| | |
|---|---|
| Synopsis | Force adjacency down on failure until session returns |
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* interface *interface-name* bfd-liveness remain-down-on-failure *boolean* |
| Tree | remain-down-on-failure |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **strict** *boolean*

| | |
|---|---|
| Synopsis | Enable BFD strict mode |
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* interface *interface-name* bfd-liveness strict *boolean* |
| Tree | strict |
| Description | When configured to **true**, the system uses BFD strict-mode. BFD strict-mode mandates that an active BFD session must exist between the OSPF neighbors before establishing a full adjacency. When configured to **true**, the router uses Link-Local Signaling (LLS) with the B-flag set to instruct the OSPF neighbors that BFD must be enabled on the link. BFD strict-mode requires both sides to have the B-flag set.<br><br>During OSPFv3 BFD strict-mode operations, the router advertises the local interface IPv4 address TLV using LLS, but the SR OS router continues to use IPv6-based BFD sessions for both the IPv4 and IPv6 address families. |
| Default | false |
| Introduced | 23.3.R1 |
| Platforms | All |

### **strict-mode-holddown** *number*

| | |
|---|---|
| Synopsis | Adjacency up time delay after BFD session establishment |
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* interface *interface-name* bfd-liveness strict-mode-holddown *number* |
| Tree | strict-mode-holddown |
| Description | This command configures a delay timer before bringing up the OSPF adjacency after the BFD session establishment. Holddown helps mitigate potential routing churn when BFD sessions are unstable. The holddown timer is reset when a BFD session operationally toggles. |
| Range | 1 to 600 |
| Units | seconds |
| Introduced | 23.3.R1 |
| Platforms | All |

### **dead-interval** *number*

| | |
|---|---|
| Synopsis | OSPF wait time for Hellos before neighbor declared down |
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* interface *interface-name* dead-interval *number* |
| Tree | dead-interval |


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| | |
|---|---|
| Range | 2 to 65535 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

## **hello-interval** *number*

| | |
|---|---|
| Synopsis | Time between OSPF Hellos of this interface |
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* interface *interface-name* hello-interval *number* |
| Tree | hello-interval |
| Range | 1 to 65535 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **interface-type** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Interface type |
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* interface *interface-name* interface-type *keyword* |
| Tree | interface-type |
| Description | This command specifies the interface type. |

**broadcast** - Broadcast network

To significantly improve adjacency forming and network convergence, configure a network as point-to-point if only two routers are connected, even if the network is a broadcast media such as Ethernet.

**non-broadcast** - Non-broadcast network

**point-to-point** - Point-to-point link

Set the interface type of an Ethernet link to **point-to-point** to avoid having to carry the broadcast adjacency maintenance overhead if the Ethernet link provided is used as a point-to-point.

**p2mp-nbma** - Point-to-multipoint on a link without broadcast or multicast support


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No designated router or backup designated router is elected on this type of interface and all OSPF neighbors connect through individual point-to-point links. Only VPRN and IES services interfaces support this interface type.

**secondary** - Multiple secondary adjacencies allowed

A **secondary** interface allows multiple secondary adjacencies, in addition to the primary adjacency, to be established over a single IP interface. This interface type can also be applied to the system interface and to loopback interfaces to allow them to participate in multiple areas, although no adjacencies are formed over these types of interfaces.

| | |
|---|---|
| Options | broadcast, non-broadcast, point-to-point, secondary, p2mp-nbma |
| Introduced | 16.0.R1 |
| Platforms | All |

## **load-balancing-weight** *number*

| | |
|---|---|
| Synopsis | Load-balancing weight |
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* interface *interface-name* load-balancing-weight *number* |
| Tree | load-balancing-weight |
| Range | 1 to 4294967295 |
| Introduced | 20.2.R1 |
| Platforms | All |

## **loopfree-alternate**

| | |
|---|---|
| Synopsis | Enter the **loopfree-alternate** context |
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* interface *interface-name* loopfree-alternate |
| Tree | loopfree-alternate |
| Introduced | 16.0.R3 |
| Platforms | All |

## **exclude** *boolean*

| | |
|---|---|
| Synopsis | Enable fast reroute at OSPF primary interface level |
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* interface *interface-name* loopfree-alternate exclude *boolean* |
| Tree | exclude |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R3 |
| Platforms | All |

## policy-map

| | |
|---|---|
| Synopsis | Enable the **policy-map** context |
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* interface *interface-name* loopfree-alternate policy-map |
| Tree | policy-map |
| Introduced | 16.0.R3 |
| Platforms | All |

## route-nh-template *reference*

| | |
|---|---|
| Synopsis | Route next hop policy template name |
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* interface *interface-name* loopfree-alternate policy-map route-nh-template *reference* |
| Tree | route-nh-template |
| Reference | **configure** routing-options route-next-hop-policy template *named-item* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R3 |
| Platforms | All |

## lsa-filter-out *keyword*

| | |
|---|---|
| Synopsis | LSA flooding reduction |
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* interface *interface-name* lsa-filter-out *keyword* |
| Tree | lsa-filter-out |
| Options | none, all, except-own-rtrlsa, except-own-rtrlsa-and-defaults |
| Default | none |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **metric** *number*

| | |
|---|---|
| Synopsis | Route cost metric for the interface |
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* interface *interface-name* metric *number* |
| Tree | metric |
| Range | 1 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mtu** *number*

| | |
|---|---|
| Synopsis | MTU for the OSPF to use on the interface |
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* interface *interface-name* mtu *number* |
| Tree | mtu |
| Range | 512 to 9786 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **neighbor** [address] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Add a list entry for **neighbor** |
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* interface *interface-name* neighbor *(ipv4-address-no-zone | ipv6-address-no-zone)* |
| Tree | neighbor |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**address**] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IPv6 link local address of the OSPFv3 neighbor |
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* interface *interface-name* neighbor *(ipv4-address-no-zone | ipv6-address-no-zone)* |
| Tree | neighbor |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **passive** *boolean*

| | |
|---|---|
| Synopsis | Advertise passive interfaces as OSPF interfaces |
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* interface *interface-name* passive *boolean* |
| Tree | passive |
| Introduced | 16.0.R1 |
| Platforms | All |

### **poll-interval** *number*

| | |
|---|---|
| Synopsis | Interval for Hellos to non-adjacent OSPF NBMA neighbor |
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* interface *interface-name* poll-interval *number* |
| Tree | poll-interval |
| Max. range | 0 to 4294967295 |
| Units | seconds |
| Default | 120 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **priority** *number*

| | |
|---|---|
| Synopsis | Interface priority in the DR election on the subnet |
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* interface *interface-name* priority *number* |
| Tree | priority |
| Range | 0 to 255 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **retransmit-interval** *number*

| | |
|---|---|
| Synopsis | Time before OSPF retransmits an unacknowledged LSA |
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* interface *interface-name* retransmit-interval *number* |
| Tree | retransmit-interval |
| Range | 1 to 1800 |
| Units | seconds |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rib-priority** *keyword*

| | |
|---|---|
| Synopsis | RIB priority for OSPF |
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* interface *interface-name* rib-priority *keyword* |
| Tree | rib-priority |
| Options | high |
| Introduced | 16.0.R1 |
| Platforms | All |

### **transit-delay** *number*

| | |
|---|---|
| Synopsis | Required LSA transmit time |
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* interface *interface-name* transit-delay *number* |
| Tree | transit-delay |
| Range | 1 to 1800 |
| Units | seconds |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **key-rollover-interval** *number*

| | |
|---|---|
| Synopsis | Key rollover interval |
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* key-rollover-interval *number* |
| Tree | key-rollover-interval |
| Range | 10 to 300 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **loopfree-alternate-exclude** *boolean*

| | |
|---|---|
| Synopsis | Exclude interfaces in OSPF areas in SPF LFA computation |
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* loopfree-alternate-exclude *boolean* |
| Tree | loopfree-alternate-exclude |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **nssa**

| | |
|---|---|
| Synopsis | Enable the **nssa** context |
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* nssa |
| Tree | nssa |
| Introduced | 16.0.R1 |
| Platforms | All |

### **area-range** [ip-prefix-mask] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Enter the **area-range** list instance |
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* nssa area-range *(ipv4-prefix | ipv6-prefix)* |
| Tree | area-range |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ip-prefix-mask**] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Address ranges to create on an ABR for route summarization or suppression |
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* nssa area-range *(ipv4-prefix \| ipv6-prefix)* |
| Tree | area-range |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **advertise** *boolean*

| | |
|---|---|
| Synopsis | Advertise summarized range of addresses to other areas |
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* nssa area-range *(ipv4-prefix \| ipv6-prefix)* advertise *boolean* |
| Tree | advertise |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **originate-default-route**

| | |
|---|---|
| Synopsis | Enable the **originate-default-route** context |
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* nssa originate-default-route |
| Tree | originate-default-route |
| Introduced | 16.0.R1 |
| Platforms | All |

### **adjacency-check** *boolean*

| | |
|---|---|
| Synopsis | Perform adjacency checks before originating a default route |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* nssa originate-default-route adjacency-check *boolean* |
| Tree | adjacency-check |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **type-nssa** *boolean*

| | |
|---|---|
| Synopsis | Generate a default route using NSSA-LSA type |
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* nssa originate-default-route type-nssa *boolean* |
| Tree | type-nssa |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **redistribute-external** *boolean*

| | |
|---|---|
| Synopsis | Redistribute external routes into the NSSA |
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* nssa redistribute-external *boolean* |
| Tree | redistribute-external |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **summaries** *boolean*

| | |
|---|---|
| Synopsis | Send summary (Type 3) LSAs into the NSSA on an ABR |
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* nssa summaries *boolean* |
| Tree | summaries |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |


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### stub

| | |
|---|---|
| Synopsis | Enable the **stub** context |
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* stub |
| Tree | stub |
| Introduced | 16.0.R1 |
| Platforms | All |

### default-metric *number*

| | |
|---|---|
| Synopsis | Metric used by ABR for default route into the stub area |
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* stub default-metric *number* |
| Tree | default-metric |
| Range | 1 to 16777214 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### summaries *boolean*

| | |
|---|---|
| Synopsis | Send summary (Type 3) LSAs into the stub area on an ABR |
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* stub summaries *boolean* |
| Tree | summaries |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### virtual-link [router-id] *ipv4-address* transit-area *reference*

| | |
|---|---|
| Synopsis | Enter the **virtual-link** list instance |
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* virtual-link *ipv4-address* transit-area *reference* |
| Tree | virtual-link |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### [**router-id**] *ipv4-address*

| | |
|---|---|
| Synopsis | Router identity of the virtual link neighbor |
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* virtual-link *ipv4-address* transit-area *reference* |
| Tree | virtual-link |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **transit-area** *reference*

| | |
|---|---|
| Synopsis | Transit area that links backbone area to area without physical connection with the backbone |
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* virtual-link *ipv4-address* transit-area *reference* |
| Tree | virtual-link |
| Reference | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the OSPF interface |
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* virtual-link *ipv4-address* transit-area *reference* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |


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## authentication

| | |
|---|---|
| Synopsis | Enable the **authentication** context |
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* virtual-link *ipv4-address* transit-area *reference* authentication |
| Tree | authentication |
| Introduced | 16.0.R6 |
| Platforms | All |

## inbound *reference*

| | |
|---|---|
| Synopsis | sa-name |
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* virtual-link *ipv4-address* transit-area *reference* authentication inbound *reference* |
| Tree | inbound |
| Reference | **configure** ipsec static-sa *named-item* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R6 |
| Platforms | All |

## outbound *reference*

| | |
|---|---|
| Synopsis | sa-name |
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* virtual-link *ipv4-address* transit-area *reference* authentication outbound *reference* |
| Tree | outbound |
| Reference | **configure** ipsec static-sa *named-item* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R6 |
| Platforms | All |

## dead-interval *number*

| | |
|---|---|
| Synopsis | OSPF wait time for Hellos before neighbor declared down |
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* virtual-link *ipv4-address* transit-area *reference* dead-interval *number* |


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| | |
|---|---|
| Tree | dead-interval |
| Range | 2 to 65535 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hello-interval** *number*

| | |
|---|---|
| Synopsis | Time between OSPF Hellos of this interface |
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* virtual-link *ipv4-address* transit-area *reference* hello-interval *number* |
| Tree | hello-interval |
| Range | 1 to 65535 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **retransmit-interval** *number*

| | |
|---|---|
| Synopsis | Time before OSPF retransmits an unacknowledged LSA |
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* virtual-link *ipv4-address* transit-area *reference* retransmit-interval *number* |
| Tree | retransmit-interval |
| Range | 1 to 1800 |
| Units | seconds |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **transit-delay** *number*

| | |
|---|---|
| Synopsis | Required LSA transmit time |
| Context | **configure** service vprn *service-name* ospf3 *number* area *ipv4-address* virtual-link *ipv4-address* transit-area *reference* transit-delay *number* |
| Tree | transit-delay |


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| | |
|---|---|
| Range | 1 to 1800 |
| Units | seconds |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### export-limit

| | |
|---|---|
| Synopsis | Enable the **export-limit** context |
| Context | **configure** service vprn *service-name* ospf3 *number* export-limit |
| Tree | export-limit |
| Introduced | 16.0.R1 |
| Platforms | All |

### log-percent *number*

| | |
|---|---|
| Synopsis | Export limit before warning and SNMP notification sent |
| Context | **configure** service vprn *service-name* ospf3 *number* export-limit log-percent *number* |
| Tree | log-percent |
| Range | 1 to 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### number *number*

| | |
|---|---|
| Synopsis | Maximum routes or prefixes exported from route table |
| Context | **configure** service vprn *service-name* ospf3 *number* export-limit number *number* |
| Tree | number |
| Range | 1 to 4294967295 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **export-policy** *reference*

| | |
|---|---|
| Synopsis | Export policies that determine exported routes |
| Context | **configure** service vprn *service-name* ospf3 *number* export-policy *reference* |
| Tree | export-policy |
| Description | This command configures export routing policies for the routes exported from the routing table to IS-IS.<br>If the export policy is undefined, the system does not export non IS-IS routes from the routing table manager to IS-IS.<br>If multiple policy names are specified, the policies are evaluated in the order they are specified. The first policy that matches is applied.<br>If the **aggregate** command is also configured in the **configure router** context, the aggregation is applied before the export policy is applied.<br>Routing policies are created in the **configure router policy-options** context. |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **external-db-overflow**

| | |
|---|---|
| Synopsis | Enable the **external-db-overflow** context |
| Context | **configure** service vprn *service-name* ospf3 *number* external-db-overflow |
| Tree | external-db-overflow |
| Introduced | 16.0.R1 |
| Platforms | All |

## **interval** *number*

| | |
|---|---|
| Synopsis | Time during which the router operates in overload |
| Context | **configure** service vprn *service-name* ospf3 *number* external-db-overflow interval *number* |
| Tree | interval |
| Range | 0 to 2147483647 |
| Units | seconds |


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| | |
|---|---|
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **limit** *number*

| | |
|---|---|
| Synopsis | Number of external LSA at which overload is triggered |
| Context | **configure** service vprn *service-name* ospf3 *number* external-db-overflow limit *number* |
| Tree | limit |
| Range | 0 to 2147483647 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **external-preference** *number*

| | |
|---|---|
| Synopsis | Preference for OSPF external routes |
| Context | **configure** service vprn *service-name* ospf3 *number* external-preference *number* |
| Tree | external-preference |
| Range | 1 to 255 |
| Default | 150 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **graceful-restart**

| | |
|---|---|
| Synopsis | Enable the **graceful-restart** context |
| Context | **configure** service vprn *service-name* ospf3 *number* graceful-restart |
| Tree | graceful-restart |
| Introduced | 16.0.R1 |
| Platforms | All |

### **helper-mode** *boolean*

| | |
|---|---|
| Synopsis | Enable graceful restart helper for OSPF |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* ospf3 *number* graceful-restart helper-mode *boolean* |
| Tree | helper-mode |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **strict-lsa-checking** *boolean*

| | |
|---|---|
| Synopsis | Perform strict LSA checking during graceful restart |
| Context | **configure** service vprn *service-name* ospf3 *number* graceful-restart strict-lsa-checking *boolean* |
| Tree | strict-lsa-checking |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ignore-dn-bit** *boolean*

| | |
|---|---|
| Synopsis | Ignore the DN bit for OSPF LSA packets for the instance |
| Context | **configure** service vprn *service-name* ospf3 *number* ignore-dn-bit *boolean* |
| Tree | ignore-dn-bit |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **import-policy** *reference*

| | |
|---|---|
| Synopsis | Import policy names for routes from IGP to route table |
| Context | **configure** service vprn *service-name* ospf3 *number* import-policy *reference* |
| Tree | import-policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## loopfree-alternate

| | |
|---|---|
| Synopsis | Enable the **loopfree-alternate** context |
| Context | **configure** service vprn *service-name* ospf3 *number* loopfree-alternate |
| Tree | loopfree-alternate |
| Introduced | 16.0.R1 |
| Platforms | All |

## exclude

| | |
|---|---|
| Synopsis | Enter the **exclude** context |
| Context | **configure** service vprn *service-name* ospf3 *number* loopfree-alternate exclude |
| Tree | exclude |
| Introduced | 16.0.R3 |
| Platforms | All |

## prefix-policy *reference*

| | |
|---|---|
| Synopsis | Policy to exclude prefixes from LFA SPF calculation |
| Context | **configure** service vprn *service-name* ospf3 *number* loopfree-alternate exclude prefix-policy *reference* |
| Tree | prefix-policy |
| Description | This command specifies the name of the policy for the prefixes to exclude from the LFA SPF calculation.<br>An excluded prefix is not included in LFA calculation regardless of its priority. The prefix tag is, however, used in the main SPF. |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R3 |
| Platforms | All |


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### **multicast-import** *boolean*

| | |
|---|---|
| Synopsis | Submit routes into the multicast Route Table Manager |
| Context | **configure** service vprn *service-name* ospf3 *number* multicast-import *boolean* |
| Tree | multicast-import |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **overload** *boolean*

| | |
|---|---|
| Synopsis | Change local router state to appear overloaded |
| Context | **configure** service vprn *service-name* ospf3 *number* overload *boolean* |
| Tree | overload |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **overload-include-ext-1** *boolean*

| | |
|---|---|
| Synopsis | Advertise routes with maximum metric value for overload |
| Context | **configure** service vprn *service-name* ospf3 *number* overload-include-ext-1 *boolean* |
| Tree | overload-include-ext-1 |
| Default | false |
| Introduced | 19.7.R1 |
| Platforms | All |

### **overload-include-ext-2** *boolean*

| | |
|---|---|
| Synopsis | Advertise routes with maximum metric value for overload |
| Context | **configure** service vprn *service-name* ospf3 *number* overload-include-ext-2 *boolean* |
| Tree | overload-include-ext-2 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **overload-include-stub** *boolean*

| | |
|---|---|
| Synopsis | Advertise all stub interfaces with max metric value |
| Context | **configure** service vprn *service-name* ospf3 *number* overload-include-stub *boolean* |
| Tree | overload-include-stub |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **overload-on-boot**

| | |
|---|---|
| Synopsis | Enable the **overload-on-boot** context |
| Context | **configure** service vprn *service-name* ospf3 *number* overload-on-boot |
| Tree | overload-on-boot |
| Introduced | 16.0.R1 |
| Platforms | All |

### **timeout** *number*

| | |
|---|---|
| Synopsis | Time during which the router operates in overload state before reestablishing normal operations |
| Context | **configure** service vprn *service-name* ospf3 *number* overload-on-boot timeout *number* |
| Tree | timeout |
| Range | 60 to 1800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **preference** *number*

| | |
|---|---|
| Synopsis | Preference for OSPF internal routes |
| Context | **configure** service vprn *service-name* ospf3 *number* preference *number* |
| Tree | preference |
| Range | 1 to 255 |
| Default | 10 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **reference-bandwidth** *number*

| | |
|---|---|
| Synopsis | Bandwidth to reference default costing of interfaces |
| Context | **configure** service vprn *service-name* ospf3 *number* reference-bandwidth *number* |
| Tree | reference-bandwidth |
| Range | 1 to 18446744073709551615 |
| Units | kilobps |
| Default | 100000000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rib-priority**

| | |
|---|---|
| Synopsis | Enter the **rib-priority** context |
| Context | **configure** service vprn *service-name* ospf3 *number* rib-priority |
| Tree | rib-priority |
| Introduced | 16.0.R1 |
| Platforms | All |

### **high**

| | |
|---|---|
| Synopsis | Enter the **high** context |
| Context | **configure** service vprn *service-name* ospf3 *number* rib-priority high |
| Tree | high |
| Introduced | 16.0.R1 |
| Platforms | All |

### **prefix-list** *reference*

| | |
|---|---|
| Synopsis | Higher priority list used during OSPF route calculation |
| Context | **configure** service vprn *service-name* ospf3 *number* rib-priority high prefix-list *reference* |
| Tree | prefix-list |


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| | |
|---|---|
| Reference | **configure** policy-options prefix-list *named-item-64* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **router-id** *router-id*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Unique router ID for the OSPF instance |
| Context | **configure** service vprn *service-name* ospf3 *number* router-id *router-id* |
| Tree | router-id |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rtr-adv-lsa-limit**

| | |
|---|---|
| Synopsis | Enable the **rtr-adv-lsa-limit** context |
| Context | **configure** service vprn *service-name* ospf3 *number* rtr-adv-lsa-limit |
| Tree | rtr-adv-lsa-limit |
| Introduced | 16.0.R1 |
| Platforms | All |

### **log-only** *boolean*

| | |
|---|---|
| Synopsis | Log the event without triggering overload |
| Context | **configure** service vprn *service-name* ospf3 *number* rtr-adv-lsa-limit log-only *boolean* |
| Tree | log-only |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **max-lsa-count** *number*

| | |
|---|---|
| Synopsis | Max number of LSAs one router can advertise |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* ospf3 *number* rtr-adv-lsa-limit max-lsa-count *number* |
| Tree | max-lsa-count |
| Range | 1 to 4294967295 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **overload-timeout** *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum time in overload after LSA limit is reached |
| Context | **configure** service vprn *service-name* ospf3 *number* rtr-adv-lsa-limit overload-timeout *(number | keyword)* |
| Tree | overload-timeout |
| Range | 1 to 1800 |
| Units | seconds |
| Options | forever |
| Default | forever |
| Introduced | 16.0.R1 |
| Platforms | All |

### **warning-threshold** *number*

| | |
|---|---|
| Synopsis | Percentage of the max LSA count that causes a warning |
| Context | **configure** service vprn *service-name* ospf3 *number* rtr-adv-lsa-limit warning-threshold *number* |
| Tree | warning-threshold |
| Range | 0 to 100 |
| Units | percent |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **suppress-dn-bit** *boolean*

| | |
|---|---|
| Synopsis | Suppress the DN bit setting for OSPF LSA packets |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* ospf3 *number* suppress-dn-bit *boolean* |
| Tree | suppress-dn-bit |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## timers

| | |
|---|---|
| Synopsis | Enter the **timers** context |
| Context | **configure** service vprn *service-name* ospf3 *number* timers |
| Tree | timers |
| Introduced | 16.0.R1 |
| Platforms | All |

## incremental-spf-wait *number*

| | |
|---|---|
| Synopsis | Delay time before an incremental SPF calculation starts |
| Context | **configure** service vprn *service-name* ospf3 *number* timers incremental-spf-wait *number* |
| Tree | incremental-spf-wait |
| Range | 0 to 1000 |
| Units | milliseconds |
| Default | 1000 |
| Introduced | 16.0.R1 |
| Platforms | All |

## lsa-accumulate *number*

| | |
|---|---|
| Synopsis | Delay to gather LSAs before advertising to neighbors |
| Context | **configure** service vprn *service-name* ospf3 *number* timers lsa-accumulate *number* |
| Tree | lsa-accumulate |
| Range | 0 to 1000 |
| Units | milliseconds |
| Default | 1000 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **lsa-arrival** *number*

| | |
|---|---|
| Synopsis | Min delay between receipt of same LSAs from neighbors |
| Context | **configure** service vprn *service-name* ospf3 *number* timers lsa-arrival *number* |
| Tree | lsa-arrival |
| Range | 0 to 600000 |
| Units | milliseconds |
| Default | 1000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lsa-generate**

| | |
|---|---|
| Synopsis | Enter the **lsa-generate** context |
| Context | **configure** service vprn *service-name* ospf3 *number* timers lsa-generate |
| Tree | lsa-generate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lsa-initial-wait** *number*

| | |
|---|---|
| Synopsis | First wait period between OSPF LSA generation |
| Context | **configure** service vprn *service-name* ospf3 *number* timers lsa-generate lsa-initial-wait *number* |
| Tree | lsa-initial-wait |
| Range | 10 to 600000 |
| Units | milliseconds |
| Default | 5000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lsa-second-wait** *number*

| | |
|---|---|
| Synopsis | Hold time between the first and second LSA generation |
| Context | **configure** service vprn *service-name* ospf3 *number* timers lsa-generate lsa-second-wait *number* |


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| | |
|---|---|
| Tree | lsa-second-wait |
| Range | 10 to 600000 |
| Units | milliseconds |
| Default | 5000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **max-lsa-wait** *number*

| | |
|---|---|
| Synopsis | Max time between two LSAs being generated |
| Context | **configure** service vprn *service-name* ospf3 *number* timers lsa-generate max-lsa-wait *number* |
| Tree | max-lsa-wait |
| Range | 10 to 600000 |
| Units | milliseconds |
| Default | 5000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **redistribute-delay** *number*

| | |
|---|---|
| Synopsis | Hold down timer for external routes into OSPF |
| Context | **configure** service vprn *service-name* ospf3 *number* timers redistribute-delay *number* |
| Tree | redistribute-delay |
| Range | 0 to 1000 |
| Units | milliseconds |
| Default | 1000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **spf-wait**

| | |
|---|---|
| Synopsis | Enter the **spf-wait** context |
| Context | **configure** service vprn *service-name* ospf3 *number* timers spf-wait |
| Tree | spf-wait |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **spf-initial-wait** *number*

| | |
|---|---|
| Synopsis | Initial SPF calculation delay after a topology change |
| Context | **configure** service vprn *service-name* ospf3 *number* timers spf-wait spf-initial-wait *number* |
| Tree | spf-initial-wait |
| Range | 10 to 100000 |
| Units | milliseconds |
| Default | 1000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **spf-max-wait** *number*

| | |
|---|---|
| Synopsis | Max interval between two consecutive SPF calculations |
| Context | **configure** service vprn *service-name* ospf3 *number* timers spf-wait spf-max-wait *number* |
| Tree | spf-max-wait |
| Range | 10 to 120000 |
| Units | milliseconds |
| Default | 10000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **spf-second-wait** *number*

| | |
|---|---|
| Synopsis | Hold time between the first and second SPF calculation |
| Context | **configure** service vprn *service-name* ospf3 *number* timers spf-wait spf-second-wait *number* |
| Tree | spf-second-wait |
| Range | 10 to 100000 |
| Units | milliseconds |
| Default | 1000 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **unicast-import** *boolean*

| | |
|---|---|
| Synopsis | Submit routes into the unicast Route Table Manager |
| Context | **configure** service vprn *service-name* ospf3 *number* unicast-import *boolean* |
| Tree | unicast-import |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **pcp**

| | |
|---|---|
| Synopsis | Enter the **pcp** context |
| Context | **configure** service vprn *service-name* pcp |
| Tree | pcp |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **server** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **server** list instance |
| Context | **configure** service vprn *service-name* pcp server *named-item* |
| Tree | server |
| Max. instances | 8 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | PCP server name |
| Context | **configure** service vprn *service-name* pcp server *named-item* |
| Tree | server |
| String length | 1 to 32 |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the PCP server |
| Context | **configure** service vprn *service-name* pcp server *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* pcp server *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **dual-stack-lite-address** *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Inside Dual Stack Lite AFTR address |
| Context | **configure** service vprn *service-name* pcp server *named-item* dual-stack-lite-address *ipv6-unicast-address* |
| Tree | dual-stack-lite-address |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **fwd-inside-router** *string*

| | |
|---|---|
| Synopsis | PCP forwarding inside virtual router instance |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* pcp server *named-item* fwd-inside-router *string* |
| Tree | fwd-inside-router |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **interface** [name] *reference*

| | |
|---|---|
| Synopsis | Add a list entry for **interface** |
| Context | **configure** service vprn *service-name* pcp server *named-item* interface *reference* |
| Tree | interface |
| Max. instances | 32 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *reference*

| | |
|---|---|
| Synopsis | Interface name |
| Context | **configure** service vprn *service-name* pcp server *named-item* interface *reference* |
| Tree | interface |
| Reference | **configure** service vprn *service-name* interface *interface-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **policy** *reference*

| | |
|---|---|
| Synopsis | PCP server policy |
| Context | **configure** service vprn *service-name* pcp server *named-item* policy *reference* |
| Tree | policy |
| Reference | **configure** service nat pcp-server-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## pim

| | |
|---|---|
| Synopsis | Enable the **pim** context |
| Context | **configure** service vprn *service-name* pim |
| Tree | pim |
| Introduced | 16.0.R1 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of PIM |
| Context | **configure** service vprn *service-name* pim admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

## apply-to *keyword*

| | |
|---|---|
| Synopsis | IES and non-IES interfaces to create in PIM |
| Context | **configure** service vprn *service-name* pim apply-to *keyword* |
| Tree | apply-to |
| Options | all, none |
| Default | none |
| Introduced | 16.0.R1 |
| Platforms | All |

## bgp-nh-override *boolean*

| | |
|---|---|
| Synopsis | Disable VRF import EC support for next-hop resolution |
| Context | **configure** service vprn *service-name* pim bgp-nh-override *boolean* |
| Tree | bgp-nh-override |
| Description | When configured to **true**, the RPF check is performed using IPv4 VPN AF next-hop instead of IPv4 AF VRF import extended community (EC). |


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| | |
|---|---|
| | When configured to **false**, the RPF check is performed using IPv4 AF VRF import EC. |
| Default | false |
| Introduced | 19.7.R1 |
| Platforms | All |

## import

| | |
|---|---|
| Synopsis | Enter the **import** context |
| Context | **configure** service vprn *service-name* pim import |
| Tree | import |
| Introduced | 16.0.R1 |
| Platforms | All |

## join-policy *reference*

| | |
|---|---|
| Synopsis | Policy name |
| Context | **configure** service vprn *service-name* pim import join-policy *reference* |
| Tree | join-policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

## register-policy *reference*

| | |
|---|---|
| Synopsis | Policy name |
| Context | **configure** service vprn *service-name* pim import register-policy *reference* |
| Tree | register-policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **interface** [interface-name] *interface-name*

| | |
|---|---|
| Synopsis | Enter the **interface** list instance |
| Context | **configure** service vprn *service-name* pim interface *interface-name* |
| Tree | interface |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**interface-name**] *interface-name*

| | |
|---|---|
| Synopsis | Interface name |
| Context | **configure** service vprn *service-name* pim interface *interface-name* |
| Tree | interface |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the PIM interface |
| Context | **configure** service vprn *service-name* pim interface *interface-name* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **assert-period** *number*

| | |
|---|---|
| Synopsis | Time for periodic refreshes of PIM Assert messages on an interface |
| Context | **configure** service vprn *service-name* pim interface *interface-name* assert-period *number* |


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| | |
|---|---|
| Tree | assert-period |
| Range | 1 to 300 |
| Default | 60 |
| Introduced | 16.0.R1 |
| Platforms | All |

## bfd-liveness

| | |
|---|---|
| Synopsis | Enter the **bfd-liveness** context |
| Context | **configure** service vprn *service-name* pim interface *interface-name* bfd-liveness |
| Tree | bfd-liveness |
| Introduced | 16.0.R1 |
| Platforms | All |

## ipv4 *boolean*

| | |
|---|---|
| Synopsis | Use Bidirectional Forwarding Detection for IPv4 on PIM interface |
| Context | **configure** service vprn *service-name* pim interface *interface-name* bfd-liveness ipv4 *boolean* |
| Tree | ipv4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## ipv6 *boolean*

| | |
|---|---|
| Synopsis | Use Bidirectional Forwarding Detection for IPv6 on PIM interface |
| Context | **configure** service vprn *service-name* pim interface *interface-name* bfd-liveness ipv6 *boolean* |
| Tree | ipv6 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **bsm-check-rtr-alert** *boolean*

| | |
|---|---|
| Synopsis | Check router alert option in bootstrap messages received |
| Context | **configure** service vprn *service-name* pim interface *interface-name* bsm-check-rtr-alert *boolean* |
| Tree | bsm-check-rtr-alert |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hello-interval** *number*

| | |
|---|---|
| Synopsis | Frequency at which PIM Hello messages are sent over this interface |
| Context | **configure** service vprn *service-name* pim interface *interface-name* hello-interval *number* |
| Tree | hello-interval |
| Range | 0 to 255 |
| Default | 30 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hello-multiplier** *number*

| | |
|---|---|
| Synopsis | Multiplier to determine the hold time for PIM neighbor |
| Context | **configure** service vprn *service-name* pim interface *interface-name* hello-multiplier *number* |
| Tree | hello-multiplier |
| Range | 20 to 100 |
| Default | 35 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **improved-assert** *boolean*

| | |
|---|---|
| Synopsis | Allow improved assert processing on interface |
| Context | **configure** service vprn *service-name* pim interface *interface-name* improved-assert *boolean* |


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| | |
|---|---|
| Tree | improved-assert |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **instant-prune-echo** *boolean*

| | |
|---|---|
| Synopsis | Allow PIM to send an instant prune echo when router starts the prune pending timer for PIM interface |
| Context | **configure** service vprn *service-name* pim interface *interface-name* instant-prune-echo *boolean* |
| Tree | instant-prune-echo |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv4**

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |
| Context | **configure** service vprn *service-name* pim interface *interface-name* ipv4 |
| Tree | ipv4 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **monitor-oper-group**

| | |
|---|---|
| Synopsis | Enter the **monitor-oper-group** context |
| Context | **configure** service vprn *service-name* pim interface *interface-name* ipv4 monitor-oper-group |
| Tree | monitor-oper-group |
| Introduced | 16.0.R1 |
| Platforms | All |

### **name** *reference*

| | |
|---|---|
| Synopsis | Operational group identifier |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* pim interface *interface-name* ipv4 monitor-oper-group name *reference* |
| Tree | name |
| Reference | **configure** service oper-group *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **operation** *keyword*

| | |
|---|---|
| Synopsis | Operation performed when operational group is active |
| Context | **configure** service vprn *service-name* pim interface *interface-name* ipv4 monitor-oper-group operation *keyword* |
| Tree | operation |
| Options | add, subtract, set |
| Introduced | 16.0.R1 |
| Platforms | All |

### **priority-delta** *number*

| | |
|---|---|
| Synopsis | Delta priority with operation when operational group is active |
| Context | **configure** service vprn *service-name* pim interface *interface-name* ipv4 monitor-oper-group priority-delta *number* |
| Tree | priority-delta |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **multicast** *boolean*

| | |
|---|---|
| Synopsis | Enable PIM interface operation |
| Context | **configure** service vprn *service-name* pim interface *interface-name* ipv4 multicast *boolean* |
| Tree | multicast |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |


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## ipv6

| | |
|---|---|
| Synopsis | Enter the **ipv6** context |
| Context | **configure** service vprn *service-name* pim interface *interface-name* ipv6 |
| Tree | ipv6 |
| Introduced | 16.0.R1 |
| Platforms | All |

## monitor-oper-group

| | |
|---|---|
| Synopsis | Enter the **monitor-oper-group** context |
| Context | **configure** service vprn *service-name* pim interface *interface-name* ipv6 monitor-oper-group |
| Tree | monitor-oper-group |
| Introduced | 16.0.R1 |
| Platforms | All |

## name *reference*

| | |
|---|---|
| Synopsis | Operational group identifier |
| Context | **configure** service vprn *service-name* pim interface *interface-name* ipv6 monitor-oper-group name *reference* |
| Tree | name |
| Reference | **configure** service oper-group *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

## operation *keyword*

| | |
|---|---|
| Synopsis | Operation performed when operational group is active |
| Context | **configure** service vprn *service-name* pim interface *interface-name* ipv6 monitor-oper-group operation *keyword* |
| Tree | operation |
| Options | add, subtract, set |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **priority-delta** *number*

| | |
|---|---|
| Synopsis | Delta priority with operation when operational group is active |
| Context | **configure** service vprn *service-name* pim interface *interface-name* ipv6 monitor-oper-group priority-delta *number* |
| Tree | priority-delta |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **multicast** *boolean*

| | |
|---|---|
| Synopsis | Enable PIM interface operation |
| Context | **configure** service vprn *service-name* pim interface *interface-name* ipv6 multicast *boolean* |
| Tree | multicast |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **max-groups** *number*

| | |
|---|---|
| Synopsis | Maximum number of groups for the interface |
| Context | **configure** service vprn *service-name* pim interface *interface-name* max-groups *number* |
| Tree | max-groups |
| Range | 0 \| 1 to 16000 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mcac**

| | |
|---|---|
| Synopsis | Enter the **mcac** context |
| Context | **configure** service vprn *service-name* pim interface *interface-name* mcac |
| Tree | mcac |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## bandwidth

| | |
|---|---|
| Synopsis | Enter the **bandwidth** context |
| Context | **configure** service vprn *service-name* pim interface *interface-name* mcac bandwidth |
| Tree | bandwidth |
| Introduced | 16.0.R1 |
| Platforms | All |

## mandatory *(number | keyword)*

| | |
|---|---|
| Synopsis | Pre-reserved bandwidth for all mandatory channels |
| Context | **configure** service vprn *service-name* pim interface *interface-name* mcac bandwidth mandatory *(number | keyword)* |
| Tree | mandatory |
| Range | 0 to 2147483647 |
| Options | unlimited |
| Default | unlimited |
| Introduced | 16.0.R1 |
| Platforms | All |

## total *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum allowed bandwidth |
| Context | **configure** service vprn *service-name* pim interface *interface-name* mcac bandwidth total *(number | keyword)* |
| Tree | total |
| Range | 0 to 2147483647 |
| Options | unlimited |
| Default | unlimited |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **interface-policy** *reference*

| | |
|---|---|
| Synopsis | Name of multicast CAC interface policy |
| Context | **configure** service vprn *service-name* pim interface *interface-name* mcac interface-policy *reference* |
| Tree | interface-policy |
| Reference | **configure** mcac interface-policy *string* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mc-constraints**

| | |
|---|---|
| Synopsis | Enter the **mc-constraints** context |
| Context | **configure** service vprn *service-name* pim interface *interface-name* mcac mc-constraints |
| Tree | mc-constraints |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the multicast CAC constraints |
| Context | **configure** service vprn *service-name* pim interface *interface-name* mcac mc-constraints admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **level** [level-id] *number*

| | |
|---|---|
| Synopsis | Enter the **level** list instance |
| Context | **configure** service vprn *service-name* pim interface *interface-name* mcac mc-constraints level *number* |
| Tree | level |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### [**level-id**] *number*

| | |
|---|---|
| Synopsis | Bandwidth level ID for an MCAC constraint |
| Context | **configure** service vprn *service-name* pim interface *interface-name* mcac mc-constraints level *number* |
| Tree | level |
| Range | 1 to 8 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bandwidth** *number*

| | |
|---|---|
| Synopsis | Bandwidth available for this level |
| Context | **configure** service vprn *service-name* pim interface *interface-name* mcac mc-constraints level *number* bandwidth *number* |
| Tree | bandwidth |
| Range | 0 to 2147483647 |
| Units | kilobps |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **number-down** [number-lag-port-down] *number*

| | |
|---|---|
| Synopsis | Enter the **number-down** list instance |
| Context | **configure** service vprn *service-name* pim interface *interface-name* mcac mc-constraints number-down *number* |
| Tree | number-down |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**number-lag-port-down**] *number*

| | |
|---|---|
| Synopsis | Number of ports that are down in this LAG link |
| Context | **configure** service vprn *service-name* pim interface *interface-name* mcac mc-constraints number-down *number* |
| Tree | number-down |
| Range | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **level** *number*

| | |
|---|---|
| Synopsis | Level ID to associate with number of down LAG ports |
| Context | **configure** service vprn *service-name* pim interface *interface-name* mcac mc-constraints number-down *number* level *number* |
| Tree | level |
| Description | This command specifies the bandwidth for a given level. Level 1 has the highest priority and level 8 has the lowest priority. |
| Range | 1 to 8 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **use-lag-port-weight** *boolean*

| | |
|---|---|
| Synopsis | Use LAG port weight in calculating MCAC constraints |
| Context | **configure** service vprn *service-name* pim interface *interface-name* mcac mc-constraints use-lag-port-weight *boolean* |
| Tree | use-lag-port-weight |
| Description | When configured to **true**, port weight is used when determining available bandwidth per level when LAG ports go down or come up. This command is required for proper operation on mixed port-speed LAGs and can also be used for unmixed port-speed LAGs. |
| Default | false |
| Introduced | 16.0.R1 |


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Platforms All

## **policy** *reference*

Synopsis Multicast CAC policy name

Context **configure** service vprn *service-name* pim interface *interface-name* mcac policy *reference*

Tree policy

Description This command configures the name of the global channel bandwidth definition policy that is used for (H)MCAC and HQoS adjustment.

Within the scope of HQoS adjustment, the channel definition policy under the group interface is used if redirection is unconfigured. In this case, the HQoS adjustment can be applied to IPoE subscribers in per-SAP replication mode.

If redirection is configured, the channel bandwidth definition policy applied under the Layer 3 redirected interface is in effect.

Hierarchical MCAC (HMCAC) is supported on two levels simultaneously:

- subscriber level and redirected interface when redirection is configured
- subscriber level and group-interface level when redirection is unconfigured

In HMCAC, the subscriber is checked against its bandwidth limits first, then against the bandwidth limits of the redirected or group interface. If redirection is configured but the policy is referenced only under the group interface, no admission control is executed (HMCAC or MCAC).

Reference **configure** mcac policy *string*

Introduced 16.0.R1

Platforms All

## **multicast-senders** *keyword*

Synopsis Subnet matching for the incoming data packets

Context **configure** service vprn *service-name* pim interface *interface-name* multicast-senders *keyword*

Tree multicast-senders

Options auto, always, never

Default auto

Introduced 16.0.R1

Platforms All


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## p2mp-ldp-tree-join

| | |
|---|---|
| Synopsis | Enter the **p2mp-ldp-tree-join** context |
| Context | **configure** service vprn *service-name* pim interface *interface-name* p2mp-ldp-tree-join |
| Tree | p2mp-ldp-tree-join |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## ipv4 *boolean*

| | |
|---|---|
| Synopsis | Allow dynamic mLDP in-band signaling for IPv4 PIM joins |
| Context | **configure** service vprn *service-name* pim interface *interface-name* p2mp-ldp-tree-join ipv4 *boolean* |
| Tree | ipv4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## ipv6 *boolean*

| | |
|---|---|
| Synopsis | Allow dynamic mLDP in-band signaling for IPv6 PIM joins |
| Context | **configure** service vprn *service-name* pim interface *interface-name* p2mp-ldp-tree-join ipv6 *boolean* |
| Tree | ipv6 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## priority *number*

| | |
|---|---|
| Synopsis | DR election priority for this interface |
| Context | **configure** service vprn *service-name* pim interface *interface-name* priority *number* |
| Tree | priority |
| Range | 1 to 4294967295 |
| Default | 1 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## sticky-dr

| | |
|---|---|
| Synopsis | Enable the **sticky-dr** context |
| Context | **configure** service vprn *service-name* pim interface *interface-name* sticky-dr |
| Tree | sticky-dr |
| Introduced | 16.0.R1 |
| Platforms | All |

## priority *number*

| | |
|---|---|
| Synopsis | DR election priority for this interface |
| Context | **configure** service vprn *service-name* pim interface *interface-name* sticky-dr priority *number* |
| Tree | priority |
| Range | 1 to 4294967295 |
| Default | 1024 |
| Introduced | 16.0.R1 |
| Platforms | All |

## three-way-hello *boolean*

| | |
|---|---|
| Synopsis | Allow three-way hello compatibility mode |
| Context | **configure** service vprn *service-name* pim interface *interface-name* three-way-hello *boolean* |
| Tree | three-way-hello |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## tracking-support *boolean*

| | |
|---|---|
| Synopsis | Allow upstream routers to explicitly track join membership |
| Context | **configure** service vprn *service-name* pim interface *interface-name* tracking-support *boolean* |


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| | |
|---|---|
| Tree | tracking-support |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## ipv4

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |
| Context | **configure** service vprn *service-name* pim ipv4 |
| Tree | ipv4 |
| Introduced | 16.0.R1 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of PIM operation for IPv4 |
| Context | **configure** service vprn *service-name* pim ipv4 admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

## grt-extranet

| | |
|---|---|
| Synopsis | Enter the **grt-extranet** context |
| Context | **configure** service vprn *service-name* pim ipv4 grt-extranet |
| Tree | grt-extranet |
| Introduced | 16.0.R1 |
| Platforms | All |

## any

| | |
|---|---|
| Synopsis | GRT or VRF extranet for the instance |
| Context | **configure** service vprn *service-name* pim ipv4 grt-extranet any |


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| | |
|---|---|
| Tree | any |
| Notes | The following elements are part of a choice: **any** or **group-prefix**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **group-prefix** [ip-prefix] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Enter the **group-prefix** list instance |
| Context | **configure** service vprn *service-name* pim ipv4 grt-extranet group-prefix *(ipv4-prefix | ipv6-prefix)* |
| Tree | group-prefix |
| Notes | The following elements are part of a choice: **any** or **group-prefix**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ip-prefix**] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | IP address and mask length |
| Context | **configure** service vprn *service-name* pim ipv4 grt-extranet group-prefix *(ipv4-prefix | ipv6-prefix)* |
| Tree | group-prefix |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **starg** *boolean*

| | |
|---|---|
| Synopsis | Add a static (*,G) entry |
| Context | **configure** service vprn *service-name* pim ipv4 grt-extranet group-prefix *(ipv4-prefix | ipv6-prefix)* starg *boolean* |
| Tree | starg |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **rpf-table** *keyword*

| | |
|---|---|
| Synopsis | Route table for RPF lookup |
| Context | **configure** service vprn *service-name* pim ipv4 rpf-table *keyword* |
| Tree | rpf-table |
| Options | rtable-m, rtable-u, both |
| Default | rtable-u |
| Introduced | 16.0.R1 |
| Platforms | All |

### **source-address**

| | |
|---|---|
| Synopsis | Enter the **source-address** context |
| Context | **configure** service vprn *service-name* pim ipv4 source-address |
| Tree | source-address |
| Description | Commands in this context configure the source IP address for PIM messages. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **register-message** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Source IPv4 address for PIM register messages |
| Context | **configure** service vprn *service-name* pim ipv4 source-address register-message *ipv4-unicast-address* |
| Tree | register-message |
| Description | This command configures the source IPv4 address for register messages in this PIM instance. The IP address can be set to any unicast address, regardless of whether it resides on the node. Ensure that the specified IP address is configured on the router as a loopback or interface IP address.<br>When unconfigured, the source IP address for register messages is selected by choosing the smallest IP address from available interfaces on the node. |
| Introduced | 23.3.R1 |
| Platforms | All |


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### **ssm-assert-compatible-mode** *boolean*

| | |
|---|---|
| Synopsis | Enable SSM assert compatible mode |
| Context | **configure** service vprn *service-name* pim ipv4 ssm-assert-compatible-mode *boolean* |
| Tree | ssm-assert-compatible-mode |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ssm-default-range** *boolean*

| | |
|---|---|
| Synopsis | SSM default range |
| Context | **configure** service vprn *service-name* pim ipv4 ssm-default-range *boolean* |
| Tree | ssm-default-range |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv6**

| | |
|---|---|
| Synopsis | Enter the **ipv6** context |
| Context | **configure** service vprn *service-name* pim ipv6 |
| Tree | ipv6 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of PIM operation for IPv6 |
| Context | **configure** service vprn *service-name* pim ipv6 admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **rpf-table** *keyword*

| | |
|---|---|
| Synopsis | Route table for RPF lookup |
| Context | **configure** service vprn *service-name* pim ipv6 rpf-table *keyword* |
| Tree | rpf-table |
| Options | rtable-m, rtable-u, both |
| Default | rtable-u |
| Introduced | 16.0.R1 |
| Platforms | All |

### **source-address**

| | |
|---|---|
| Synopsis | Enter the **source-address** context |
| Context | **configure** service vprn *service-name* pim ipv6 source-address |
| Tree | source-address |
| Description | Commands in this context configure the source IP address for PIM messages. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **register-message** *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Source IPv6 address for PIM register messages |
| Context | **configure** service vprn *service-name* pim ipv6 source-address register-message *ipv6-unicast-address* |
| Tree | register-message |
| Description | This command configures the source IPv6 address for register messages in this PIM instance. The IP address can be set to any unicast address, regardless of whether it resides on the node. Ensure that the specified IP address is configured on the router as a loopback or interface IP address.<br>When unconfigured, the source IP address for register messages is selected by choosing the smallest IP address from available interfaces on the node. |
| Introduced | 23.3.R1 |
| Platforms | All |


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### **ssm-default-range** *boolean*

| | |
|---|---|
| Synopsis | SSM default range |
| Context | **configure** service vprn *service-name* pim ipv6 ssm-default-range *boolean* |
| Tree | ssm-default-range |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mc-ecmp-balance** *boolean*

| | |
|---|---|
| Synopsis | Enable multicast balancing of traffic over ECMP links |
| Context | **configure** service vprn *service-name* pim mc-ecmp-balance *boolean* |
| Tree | mc-ecmp-balance |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mc-ecmp-balance-hold** *number*

| | |
|---|---|
| Synopsis | Hold time for multicast balancing over ECMP links |
| Context | **configure** service vprn *service-name* pim mc-ecmp-balance-hold *number* |
| Tree | mc-ecmp-balance-hold |
| Range | 2 to 600 |
| Units | minutes |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mc-ecmp-hashing**

| | |
|---|---|
| Synopsis | Enable the **mc-ecmp-hashing** context |
| Context | **configure** service vprn *service-name* pim mc-ecmp-hashing |
| Tree | mc-ecmp-hashing |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **rebalance** *boolean*

| | |
|---|---|
| Synopsis | Rebalance flows to newly added links immediately instead of waiting until they are pruned |
| Context | **configure** service vprn *service-name* pim mc-ecmp-hashing rebalance *boolean* |
| Tree | rebalance |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mtu-over-head** *number*

| | |
|---|---|
| Synopsis | MVPN tunnel MTU size reduction to allow for BIER header |
| Context | **configure** service vprn *service-name* pim mtu-over-head *number* |
| Tree | mtu-over-head |
| Description | This command subtracts the specified value from the MVPN tunnel MTU to allow a BIER header to be added without exceeding the network MTU. |
| Range | 0 \| 44 \| 76 \| 140 \| 268 \| 536 |
| Default | 0 |
| Introduced | 20.5.R1 |
| Platforms | All |

### **non-dr-attract-traffic** *boolean*

| | |
|---|---|
| Synopsis | Attract traffic when the router is not the designated one |
| Context | **configure** service vprn *service-name* pim non-dr-attract-traffic *boolean* |
| Tree | non-dr-attract-traffic |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rp**

| | |
|---|---|
| Synopsis | Enter the **rp** context |
| Context | **configure** service vprn *service-name* pim rp |
| Tree | rp |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## bootstrap

| | |
|---|---|
| Synopsis | Enter the **bootstrap** context |
| Context | **configure** service vprn *service-name* pim rp bootstrap |
| Tree | bootstrap |
| Introduced | 16.0.R1 |
| Platforms | All |

## export *reference*

| | |
|---|---|
| Synopsis | Export policy to control the flow of bootstrap messages |
| Context | **configure** service vprn *service-name* pim rp bootstrap export *reference* |
| Tree | export |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

## import *reference*

| | |
|---|---|
| Synopsis | Import policy to control the flow of bootstrap messages |
| Context | **configure** service vprn *service-name* pim rp bootstrap import *reference* |
| Tree | import |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### ipv4

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |
| Context | **configure** service vprn *service-name* pim rp ipv4 |
| Tree | ipv4 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **anycast** [ipv4-address] *ipv4-unicast-address* rp-set-peer *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Add a list entry for **anycast** |
| Context | **configure** service vprn *service-name* pim rp ipv4 anycast *ipv4-unicast-address* rp-set-peer *ipv4-unicast-address* |
| Tree | anycast |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ipv4-address**] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Loopback IP address shared by routes in RP set |
| Context | **configure** service vprn *service-name* pim rp ipv4 anycast *ipv4-unicast-address* rp-set-peer *ipv4-unicast-address* |
| Tree | anycast |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rp-set-peer** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Peer in the anycast RP-set |
| Context | **configure** service vprn *service-name* pim rp ipv4 anycast *ipv4-unicast-address* rp-set-peer *ipv4-unicast-address* |
| Tree | anycast |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **auto-rp-discovery** *boolean*

| | |
|---|---|
| Synopsis | Enable auto-RP discovery mode and auto-RP listener |
| Context | **configure** service vprn *service-name* pim rp ipv4 auto-rp-discovery *boolean* |
| Tree | auto-rp-discovery |
| Description | When configured to **true**, the system enables the auto-RP protocol in discovery mode and the auto-RP listener functionality.<br>See "Automatic discovery of group-to-RP mappings (auto-RP)" in the *7450 ESS, 7750 SR, 7950 XRS, and VSR Multicast Routing Protocols Guide* for more information about the auto-RP protocol and configuration guidelines. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bsr-candidate**

| | |
|---|---|
| Synopsis | Enter the **bsr-candidate** context |
| Context | **configure** service vprn *service-name* pim rp ipv4 bsr-candidate |
| Tree | bsr-candidate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Candidate BSR IP address for Bootstrap Router election |
| Context | **configure** service vprn *service-name* pim rp ipv4 bsr-candidate address *ipv4-unicast-address* |
| Tree | address |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the Candidate BSR |
| Context | **configure** service vprn *service-name* pim rp ipv4 bsr-candidate admin-state *keyword* |
| Tree | admin-state |


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| | |
|---|---|
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hash-mask-len** *number*

| | |
|---|---|
| Synopsis | Length for bootstrap hash mask |
| Context | **configure** service vprn *service-name* pim rp ipv4 bsr-candidate hash-mask-len *number* |
| Tree | hash-mask-len |
| Range | 0 to 32 |
| Default | 30 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **priority** *number*

| | |
|---|---|
| Synopsis | Bootstrap priority of the router |
| Context | **configure** service vprn *service-name* pim rp ipv4 bsr-candidate priority *number* |
| Tree | priority |
| Range | 0 to 255 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **candidate** *boolean*

| | |
|---|---|
| Synopsis | Enable auto-RP to advertise candidate RP information |
| Context | **configure** service vprn *service-name* pim rp ipv4 candidate *boolean* |
| Tree | candidate |
| Description | When configured to **true**, the auto-RP is enabled to advertise the candidate RP information. The auto-RP candidate RP announces the candidate RP messages on the 224.0.1.39 multicast address. This functionality is in addition to the listener functionality enabled by the auto RP discovery.<br>When configured to **false**, the candidate RP information is not specified. |
| Default | false |


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| | |
|---|---|
| Introduced | 20.10.R1 |
| Platforms | All |

### **mapping-agent** *boolean*

| | |
|---|---|
| Synopsis | Enable the mapping agent on the node |
| Context | **configure** service vprn *service-name* pim rp ipv4 mapping-agent *boolean* |
| Tree | mapping-agent |
| Description | When configured to **true**, the mapping agent is enabled on the node. The auto-RP MA observes the **auto-rp-announcement** messages, selects the RP and generates the RP discovery 224.0.1.40 messages. This functionality is in addition to the auto-RP discovery functionality. |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | All |

### **rp-candidate**

| | |
|---|---|
| Synopsis | Enter the **rp-candidate** context |
| Context | **configure** service vprn *service-name* pim rp ipv4 rp-candidate |
| Tree | rp-candidate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Local RP address |
| Context | **configure** service vprn *service-name* pim rp ipv4 rp-candidate address *ipv4-unicast-address* |
| Tree | address |
| Description | This command specifies the local RP address that is sent in the RP candidate advertisements to the Bootstrap Router. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the Candidate RP |
| Context | **configure** service vprn *service-name* pim rp ipv4 rp-candidate admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **group-range** [ipv4-prefix] *ipv4-multicast-prefix*

| | |
|---|---|
| Synopsis | Add a list entry for **group-range** |
| Context | **configure** service vprn *service-name* pim rp ipv4 rp-candidate group-range *ipv4-multicast-prefix* |
| Tree | group-range |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ipv4-prefix**] *ipv4-multicast-prefix*

| | |
|---|---|
| Synopsis | IPv4 address and prefix length |
| Context | **configure** service vprn *service-name* pim rp ipv4 rp-candidate group-range *ipv4-multicast-prefix* |
| Tree | group-range |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **holdtime** *number*

| | |
|---|---|
| Synopsis | Time during which the neighboring router considers this router to be up |
| Context | **configure** service vprn *service-name* pim rp ipv4 rp-candidate holdtime *number* |
| Tree | holdtime |
| Range | 5 to 255 |
| Units | seconds |


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| | |
|---|---|
| Default | 150 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **priority** *number*

| | |
|---|---|
| Synopsis | Candidate RP priority |
| Context | **configure** service vprn *service-name* pim rp ipv4 rp-candidate priority *number* |
| Tree | priority |
| Range | 0 to 255 |
| Default | 192 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **static**

| | |
|---|---|
| Synopsis | Enter the **static** context |
| Context | **configure** service vprn *service-name* pim rp ipv4 static |
| Tree | static |
| Introduced | 16.0.R1 |
| Platforms | All |

### **address** [ipv4-address] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Enter the **address** list instance |
| Context | **configure** service vprn *service-name* pim rp ipv4 static address *ipv4-unicast-address* |
| Tree | address |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ipv4-address**] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IPv4 address for the static RP |
| Context | **configure** service vprn *service-name* pim rp ipv4 static address *ipv4-unicast-address* |
| Tree | address |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **group-prefix** [ipv4-prefix] *ipv4-multicast-prefix*

| | |
|---|---|
| Synopsis | Add a list entry for **group-prefix** |
| Context | **configure** service vprn *service-name* pim rp ipv4 static address *ipv4-unicast-address* group-prefix *ipv4-multicast-prefix* |
| Tree | group-prefix |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ipv4-prefix**] *ipv4-multicast-prefix*

| | |
|---|---|
| Synopsis | IPv4 address and prefix length |
| Context | **configure** service vprn *service-name* pim rp ipv4 static address *ipv4-unicast-address* group-prefix *ipv4-multicast-prefix* |
| Tree | group-prefix |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **override** *boolean*

| | |
|---|---|
| Synopsis | Change the precedence for static RP over dynamically learnt RP |
| Context | **configure** service vprn *service-name* pim rp ipv4 static address *ipv4-unicast-address* override *boolean* |
| Tree | override |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv6**

| | |
|---|---|
| Synopsis | Enter the **ipv6** context |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* pim rp ipv6 |
| Tree | ipv6 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **anycast** [ipv6-address] *ipv6-unicast-address* rp-set-peer *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Add a list entry for **anycast** |
| Context | **configure** service vprn *service-name* pim rp ipv6 anycast *ipv6-unicast-address* rp-set-peer *ipv6-unicast-address* |
| Tree | anycast |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ipv6-address**] *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Loopback IP address shared by routes in RP set |
| Context | **configure** service vprn *service-name* pim rp ipv6 anycast *ipv6-unicast-address* rp-set-peer *ipv6-unicast-address* |
| Tree | anycast |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rp-set-peer** *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Peer in the anycast RP set |
| Context | **configure** service vprn *service-name* pim rp ipv6 anycast *ipv6-unicast-address* rp-set-peer *ipv6-unicast-address* |
| Tree | anycast |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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## bsr-candidate

| | |
|---|---|
| Synopsis | Enter the **bsr-candidate** context |
| Context | **configure** service vprn *service-name* pim rp ipv6 bsr-candidate |
| Tree | bsr-candidate |
| Introduced | 16.0.R1 |
| Platforms | All |

## address *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Candidate BSR IP address for Bootstrap Router election |
| Context | **configure** service vprn *service-name* pim rp ipv6 bsr-candidate address *ipv6-unicast-address* |
| Tree | address |
| Introduced | 16.0.R1 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the Candidate BSR |
| Context | **configure** service vprn *service-name* pim rp ipv6 bsr-candidate admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

## hash-mask-len *number*

| | |
|---|---|
| Synopsis | Length for bootstrap hash mask |
| Context | **configure** service vprn *service-name* pim rp ipv6 bsr-candidate hash-mask-len *number* |
| Tree | hash-mask-len |
| Range | 0 to 128 |
| Default | 126 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **priority** *number*

| | |
|---|---|
| Synopsis | Bootstrap priority of the router |
| Context | **configure** service vprn *service-name* pim rp ipv6 bsr-candidate priority *number* |
| Tree | priority |
| Range | 0 to 255 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **embedded-rp**

| | |
|---|---|
| Synopsis | Enable the **embedded-rp** context |
| Context | **configure** service vprn *service-name* pim rp ipv6 embedded-rp |
| Tree | embedded-rp |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of embedded RP |
| Context | **configure** service vprn *service-name* pim rp ipv6 embedded-rp admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **group-range** [ipv6-prefix] *ipv6-multicast-prefix*

| | |
|---|---|
| Synopsis | Add a list entry for **group-range** |
| Context | **configure** service vprn *service-name* pim rp ipv6 embedded-rp group-range *ipv6-multicast-prefix* |
| Tree | group-range |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ipv6-prefix**] *ipv6-multicast-prefix*

| | |
|---|---|
| Synopsis | IPv6 address and prefix length |
| Context | **configure** service vprn *service-name* pim rp ipv6 embedded-rp group-range *ipv6-multicast-prefix* |
| Tree | group-range |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rp-candidate**

| | |
|---|---|
| Synopsis | Enter the **rp-candidate** context |
| Context | **configure** service vprn *service-name* pim rp ipv6 rp-candidate |
| Tree | rp-candidate |
| Introduced | 16.0.R1 |
| Platforms | All |

### **address** *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Local RP address |
| Context | **configure** service vprn *service-name* pim rp ipv6 rp-candidate address *ipv6-unicast-address* |
| Tree | address |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the Candidate RP |
| Context | **configure** service vprn *service-name* pim rp ipv6 rp-candidate admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |


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| | |
|---|---|
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **group-range** [ipv6-prefix] *ipv6-multicast-prefix*

| | |
|---|---|
| Synopsis | Add a list entry for **group-range** |
| Context | **configure** service vprn *service-name* pim rp ipv6 rp-candidate group-range *ipv6-multicast-prefix* |
| Tree | group-range |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ipv6-prefix**] *ipv6-multicast-prefix*

| | |
|---|---|
| Synopsis | IPv6 address and prefix length |
| Context | **configure** service vprn *service-name* pim rp ipv6 rp-candidate group-range *ipv6-multicast-prefix* |
| Tree | group-range |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **holdtime** *number*

| | |
|---|---|
| Synopsis | Time during which the neighboring router considers this router to be up |
| Context | **configure** service vprn *service-name* pim rp ipv6 rp-candidate holdtime *number* |
| Tree | holdtime |
| Range | 5 to 255 |
| Units | seconds |
| Default | 150 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **priority** *number*

| | |
|---|---|
| Synopsis | Candidate RP priority |
| Context | **configure** service vprn *service-name* pim rp ipv6 rp-candidate priority *number* |
| Tree | priority |
| Range | 0 to 255 |
| Default | 192 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **static**

| | |
|---|---|
| Synopsis | Enter the **static** context |
| Context | **configure** service vprn *service-name* pim rp ipv6 static |
| Tree | static |
| Introduced | 16.0.R1 |
| Platforms | All |

### **address** [ipv6-address] *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Enter the **address** list instance |
| Context | **configure** service vprn *service-name* pim rp ipv6 static address *ipv6-unicast-address* |
| Tree | address |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ipv6-address**] *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Static IP address of the RP |
| Context | **configure** service vprn *service-name* pim rp ipv6 static address *ipv6-unicast-address* |
| Tree | address |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **group-prefix** [ipv6-prefix] *ipv6-multicast-prefix*

| | |
|---|---|
| Synopsis | Add a list entry for **group-prefix** |
| Context | **configure** service vprn *service-name* pim rp ipv6 static address *ipv6-unicast-address* group-prefix *ipv6-multicast-prefix* |
| Tree | group-prefix |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ipv6-prefix**] *ipv6-multicast-prefix*

| | |
|---|---|
| Synopsis | IPv6 address and prefix length |
| Context | **configure** service vprn *service-name* pim rp ipv6 static address *ipv6-unicast-address* group-prefix *ipv6-multicast-prefix* |
| Tree | group-prefix |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **override** *boolean*

| | |
|---|---|
| Synopsis | Change the precedence for static RP over dynamically learnt RP |
| Context | **configure** service vprn *service-name* pim rp ipv6 static address *ipv6-unicast-address* override *boolean* |
| Tree | override |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **spt-switchover** [ip-prefix] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Enter the **spt-switchover** list instance |
| Context | **configure** service vprn *service-name* pim spt-switchover *(ipv4-prefix | ipv6-prefix)* |
| Tree | spt-switchover |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**ip-prefix**] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | IP address and mask length |
| Context | **configure** service vprn *service-name* pim spt-switchover *(ipv4-prefix \| ipv6-prefix)* |
| Tree | spt-switchover |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **threshold** *(number | keyword)*

| | |
|---|---|
| Synopsis | SPT switchover threshold |
| Context | **configure** service vprn *service-name* pim spt-switchover *(ipv4-prefix \| ipv6-prefix)* threshold *(number \| keyword)* |
| Tree | threshold |
| Range | 1 to 4294967294 |
| Units | kilobps |
| Options | infinity |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ssm-groups**

| | |
|---|---|
| Synopsis | Enter the **ssm-groups** context |
| Context | **configure** service vprn *service-name* pim ssm-groups |
| Tree | ssm-groups |
| Introduced | 16.0.R1 |
| Platforms | All |

### **group-range** [ip-prefix] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Add a list entry for **group-range** |
| Context | **configure** service vprn *service-name* pim ssm-groups group-range *(ipv4-prefix \| ipv6-prefix)* |


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| | |
|---|---|
| Tree | group-range |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ip-prefix**] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | IP address and mask length |
| Context | **configure** service vprn *service-name* pim ssm-groups group-range *(ipv4-prefix | ipv6-prefix)* |
| Tree | group-range |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **radius**

| | |
|---|---|
| Synopsis | Enter the **radius** context |
| Context | **configure** service vprn *service-name* radius |
| Tree | radius |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **proxy** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **proxy** list instance |
| Context | **configure** service vprn *service-name* radius proxy *named-item* |
| Tree | proxy |
| Max. instances | 8 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | RADIUS proxy name |
| Context | **configure** service vprn *service-name* radius proxy *named-item* |


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| | |
|---|---|
| Tree | proxy |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of RADIUS proxy |
| Context | **configure** service vprn *service-name* radius proxy *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **attribute-matching**

| | |
|---|---|
| Synopsis | Enter the **attribute-matching** context |
| Context | **configure** service vprn *service-name* radius proxy *named-item* attribute-matching |
| Tree | attribute-matching |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **entry** [index] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** service vprn *service-name* radius proxy *named-item* attribute-matching entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### [**index**] *number*

| | |
|---|---|
| Synopsis | Index of this entry |
| Context | **configure** service vprn *service-name* radius proxy *named-item* attribute-matching entry *number* |
| Tree | entry |
| Range | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **accounting-server-policy** *named-item*

| | |
|---|---|
| Synopsis | Accounting server policy |
| Context | **configure** service vprn *service-name* radius proxy *named-item* attribute-matching entry *number* accounting-server-policy *named-item* |
| Tree | accounting-server-policy |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **authentication-server-policy** *named-item*

| | |
|---|---|
| Synopsis | Authentication server policy |
| Context | **configure** service vprn *service-name* radius proxy *named-item* attribute-matching entry *number* authentication-server-policy *named-item* |
| Tree | authentication-server-policy |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **prefix-string** *display-string*

| | |
|---|---|
| Synopsis | Prefix string |
| Context | **configure** service vprn *service-name* radius proxy *named-item* attribute-matching entry *number* prefix-string *display-string* |


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| | |
|---|---|
| Tree | prefix-string |
| String length | 1 to 128 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **suffix-string** *display-string*

| | |
|---|---|
| Synopsis | Prefix string |
| Context | **configure** service vprn *service-name* radius proxy *named-item* attribute-matching entry *number* suffix-string *display-string* |
| Tree | suffix-string |
| String length | 1 to 128 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **type** *number*

| | |
|---|---|
| Synopsis | Matching attribute type to RADIUS server policy |
| Context | **configure** service vprn *service-name* radius proxy *named-item* attribute-matching type *number* |
| Tree | type |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **vendor** *(number | keyword)*

| | |
|---|---|
| Synopsis | Matching Vendor ID to RADIUS server policy |
| Context | **configure** service vprn *service-name* radius proxy *named-item* attribute-matching vendor *(number | keyword)* |
| Tree | vendor |
| Range | 1 to 16777215 |
| Options | nokia |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## cache

| | |
|---|---|
| Synopsis | Enter the **cache** context |
| Context | **configure** service vprn *service-name* radius proxy *named-item* cache |
| Tree | cache |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the RADIUS proxy cache |
| Context | **configure** service vprn *service-name* radius proxy *named-item* cache admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## key

| | |
|---|---|
| Synopsis | Enable the **key** context |
| Context | **configure** service vprn *service-name* radius proxy *named-item* cache key |
| Tree | key |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## attribute-type *number*

| | |
|---|---|
| Synopsis | RADIUS attribute type to cache for this RADIUS proxy server |
| Context | **configure** service vprn *service-name* radius proxy *named-item* cache key attribute-type *number* |
| Tree | attribute-type |
| Range | 1 to 255 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **packet-type** *keyword*

| | |
|---|---|
| Synopsis | Packet type of the RADIUS messages |
| Context | **configure** service vprn *service-name* radius proxy *named-item* cache key packet-type *keyword* |
| Tree | packet-type |
| Options | access-request, access-accept |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **vendor** *(number | keyword)*

| | |
|---|---|
| Synopsis | RADIUS Vendor ID |
| Context | **configure** service vprn *service-name* radius proxy *named-item* cache key vendor *(number | keyword)* |
| Tree | vendor |
| Range | 1 to 16777215 |
| Options | nokia |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **timeout** *number*

| | |
|---|---|
| Synopsis | Idle timeout value |
| Context | **configure** service vprn *service-name* radius proxy *named-item* cache timeout *number* |
| Tree | timeout |
| Range | 60 to 3600 |
| Units | seconds |
| Default | 300 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## track-accounting

| | |
|---|---|
| Synopsis | Enter the **track-accounting** context |
| Context | **configure** service vprn *service-name* radius proxy *named-item* cache track-accounting |
| Tree | track-accounting |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## accounting-off *boolean*

| | |
|---|---|
| Synopsis | Remove all ESM hosts associated with the RADIUS client |
| Context | **configure** service vprn *service-name* radius proxy *named-item* cache track-accounting accounting-off *boolean* |
| Tree | accounting-off |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## accounting-on *boolean*

| | |
|---|---|
| Synopsis | Remove all ESM hosts associated with the RADIUS client |
| Context | **configure** service vprn *service-name* radius proxy *named-item* cache track-accounting accounting-on *boolean* |
| Tree | accounting-on |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## interim-update *boolean*

| | |
|---|---|
| Synopsis | Update the ESM host with the RADIUS client that generated the interim update |
| Context | **configure** service vprn *service-name* radius proxy *named-item* cache track-accounting interim-update *boolean* |
| Tree | interim-update |
| Default | false |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **start** *boolean*

| | |
|---|---|
| Synopsis | Update host with client that generated accounting-start |
| Context | **configure** service vprn *service-name* radius proxy *named-item* cache track-accounting start *boolean* |
| Tree | start |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **stop** *boolean*

| | |
|---|---|
| Synopsis | Remove ESM host and forward accounting-stop packet |
| Context | **configure** service vprn *service-name* radius proxy *named-item* cache track-accounting stop *boolean* |
| Tree | stop |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **track-authentication**

| | |
|---|---|
| Synopsis | Enter the **track-authentication** context |
| Context | **configure** service vprn *service-name* radius proxy *named-item* cache track-authentication |
| Tree | track-authentication |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **accept** *boolean*

| | |
|---|---|
| Synopsis | Track Access-Accept message for mobility |
| Context | **configure** service vprn *service-name* radius proxy *named-item* cache track-authentication accept *boolean* |
| Tree | accept |


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| | |
|---|---|
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **track-delete-hold-time** *number*

| | |
|---|---|
| Synopsis | Delete hold time |
| Context | **configure** service vprn *service-name* radius proxy *named-item* cache track-delete-hold-time *number* |
| Tree | track-delete-hold-time |
| Range | 0 to 6000 |
| Units | seconds |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **defaults**

| | |
|---|---|
| Synopsis | Enter the **defaults** context |
| Context | **configure** service vprn *service-name* radius proxy *named-item* defaults |
| Tree | defaults |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **accounting-server-policy** *named-item*

| | |
|---|---|
| Synopsis | Default accounting RADIUS server policy |
| Context | **configure** service vprn *service-name* radius proxy *named-item* defaults accounting-server-policy *named-item* |
| Tree | accounting-server-policy |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **authentication-server-policy** *named-item*

| | |
|---|---|
| Synopsis | Default authentication RADIUS server policy |
| Context | **configure** service vprn *service-name* radius proxy *named-item* defaults authentication-server-policy *named-item* |
| Tree | authentication-server-policy |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* radius proxy *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **interface** [interface-name] *reference*

| | |
|---|---|
| Synopsis | Add a list entry for **interface** |
| Context | **configure** service vprn *service-name* radius proxy *named-item* interface *reference* |
| Tree | interface |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**interface-name**] *reference*

| | |
|---|---|
| Synopsis | IP interface name |
| Context | **configure** service vprn *service-name* radius proxy *named-item* interface *reference* |
| Tree | interface |
| Reference | **configure** service vprn *service-name* interface *interface-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## load-balance-key

| | |
|---|---|
| Synopsis | Enter the **load-balance-key** context |
| Context | **configure** service vprn *service-name* radius proxy *named-item* load-balance-key |
| Tree | load-balance-key |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## attribute-1

| | |
|---|---|
| Synopsis | Enter the **attribute-1** context |
| Context | **configure** service vprn *service-name* radius proxy *named-item* load-balance-key attribute-1 |
| Tree | attribute-1 |
| Notes | The following elements are part of a choice: (**attribute-1**, **attribute-2**, **attribute-3**, **attribute-4**, and **attribute-5**) or **source-ip-udp**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## type *number*

| | |
|---|---|
| Synopsis | Attribute type to cache for this RADIUS Proxy server |
| Context | **configure** service vprn *service-name* radius proxy *named-item* load-balance-key attribute-1 type *number* |
| Tree | type |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## vendor *(number | keyword)*

| | |
|---|---|
| Synopsis | Vendor-Id attribute |
| Context | **configure** service vprn *service-name* radius proxy *named-item* load-balance-key attribute-1 vendor *(number | keyword)* |


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| | |
|---|---|
| Tree | vendor |
| Range | 1 to 16777215 |
| Options | nokia |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## attribute-2

| | |
|---|---|
| Synopsis | Enter the **attribute-2** context |
| Context | **configure** service vprn *service-name* radius proxy *named-item* load-balance-key attribute-2 |
| Tree | attribute-2 |
| Notes | The following elements are part of a choice: (**attribute-1**, **attribute-2**, **attribute-3**, **attribute-4**, and **attribute-5**) or **source-ip-udp**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## type *number*

| | |
|---|---|
| Synopsis | Attribute type to cache for this RADIUS Proxy server |
| Context | **configure** service vprn *service-name* radius proxy *named-item* load-balance-key attribute-2 type *number* |
| Tree | type |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## vendor *(number | keyword)*

| | |
|---|---|
| Synopsis | Vendor-Id attribute |
| Context | **configure** service vprn *service-name* radius proxy *named-item* load-balance-key attribute-2 vendor *(number | keyword)* |
| Tree | vendor |
| Range | 1 to 16777215 |
| Options | nokia |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## attribute-3

| | |
|---|---|
| Synopsis | Enter the **attribute-3** context |
| Context | **configure** service vprn *service-name* radius proxy *named-item* load-balance-key attribute-3 |
| Tree | attribute-3 |
| Notes | The following elements are part of a choice: (**attribute-1**, **attribute-2**, **attribute-3**, **attribute-4**, and **attribute-5**) or **source-ip-udp**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## type *number*

| | |
|---|---|
| Synopsis | Attribute type to cache for this RADIUS Proxy server |
| Context | **configure** service vprn *service-name* radius proxy *named-item* load-balance-key attribute-3 type *number* |
| Tree | type |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## vendor *(number | keyword)*

| | |
|---|---|
| Synopsis | Vendor-Id attribute |
| Context | **configure** service vprn *service-name* radius proxy *named-item* load-balance-key attribute-3 vendor *(number | keyword)* |
| Tree | vendor |
| Range | 1 to 16777215 |
| Options | nokia |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## attribute-4

| | |
|---|---|
| Synopsis | Enter the **attribute-4** context |
| Context | **configure** service vprn *service-name* radius proxy *named-item* load-balance-key attribute-4 |
| Tree | attribute-4 |
| Notes | The following elements are part of a choice: (**attribute-1**, **attribute-2**, **attribute-3**, **attribute-4**, and **attribute-5**) or **source-ip-udp**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## type *number*

| | |
|---|---|
| Synopsis | Attribute type to cache for this RADIUS Proxy server |
| Context | **configure** service vprn *service-name* radius proxy *named-item* load-balance-key attribute-4 type *number* |
| Tree | type |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## vendor *(number | keyword)*

| | |
|---|---|
| Synopsis | Vendor-Id attribute |
| Context | **configure** service vprn *service-name* radius proxy *named-item* load-balance-key attribute-4 vendor *(number | keyword)* |
| Tree | vendor |
| Range | 1 to 16777215 |
| Options | nokia |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## attribute-5

| | |
|---|---|
| Synopsis | Enter the **attribute-5** context |
| Context | **configure** service vprn *service-name* radius proxy *named-item* load-balance-key attribute-5 |


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| | |
|---|---|
| Tree | attribute-5 |
| Notes | The following elements are part of a choice: (**attribute-1**, **attribute-2**, **attribute-3**, **attribute-4**, and **attribute-5**) or **source-ip-udp**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **type** *number*

| | |
|---|---|
| Synopsis | Attribute type to cache for this RADIUS Proxy server |
| Context | **configure** service vprn *service-name* radius proxy *named-item* load-balance-key attribute-5 type *number* |
| Tree | type |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **vendor** *(number | keyword)*

| | |
|---|---|
| Synopsis | Vendor-Id attribute |
| Context | **configure** service vprn *service-name* radius proxy *named-item* load-balance-key attribute-5 vendor *(number | keyword)* |
| Tree | vendor |
| Range | 1 to 16777215 |
| Options | nokia |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **source-ip-udp**

| | |
|---|---|
| Synopsis | Key to consist of the source IP address and source UDP port of the RADIUS message |
| Context | **configure** service vprn *service-name* radius proxy *named-item* load-balance-key source-ip-udp |
| Tree | source-ip-udp |
| Notes | The following elements are part of a choice: (**attribute-1**, **attribute-2**, **attribute-3**, **attribute-4**, and **attribute-5**) or **source-ip-udp**. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **purpose** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Purpose of the RADIUS proxy |
| Context | **configure** service vprn *service-name* radius proxy *named-item* purpose *keyword* |
| Tree | purpose |
| Options | accounting, authentication, accounting-authentication |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **python-policy** *reference*

| | |
|---|---|
| Synopsis | Python policy |
| Context | **configure** service vprn *service-name* radius proxy *named-item* python-policy *reference* |
| Tree | python-policy |
| Reference | **configure** python python-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **secret** *encrypted-leaf*

| | |
|---|---|
| Synopsis | Format of the secret key to access the RADIUS proxy server |
| Context | **configure** service vprn *service-name* radius proxy *named-item* secret *encrypted-leaf* |
| Tree | secret |
| String length | 1 to 115 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **send-accounting-response** *boolean*

| | |
|---|---|
| Synopsis | Allow RADIUS proxy server to respond to Accounting-Response messages |
| Context | **configure** service vprn *service-name* radius proxy *named-item* send-accounting-response *boolean* |
| Tree | send-accounting-response |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **wlan-gw**

| | |
|---|---|
| Synopsis | Enter the **wlan-gw** context |
| Context | **configure** service vprn *service-name* radius proxy *named-item* wlan-gw |
| Tree | wlan-gw |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IPv4 address of the distributed RADIUS proxy server |
| Context | **configure** service vprn *service-name* radius proxy *named-item* wlan-gw address *ipv4-unicast-address* |
| Tree | address |
| Description | This command configures the IPv4 address of the distributed RADIUS proxy server for use by the access points. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ipv6-address** *ipv6-unicast-without-local-address*

| | |
|---|---|
| Synopsis | IPv6 address of the distributed RADIUS proxy server |
| Context | **configure** service vprn *service-name* radius proxy *named-item* wlan-gw ipv6-address *ipv6-unicast-without-local-address* |
| Tree | ipv6-address |


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| | |
|---|---|
| Description | This command configures the IPv6 address of the distributed RADIUS proxy server for use by the access points. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **wlan-gw-group** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | ISA WLAN gateway group |
| Context | **configure** service vprn *service-name* radius proxy *named-item* wlan-gw-group *reference* |
| Tree | wlan-gw-group |
| Reference | **configure** isa wlan-gw-group *number* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **server** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **server** list instance |
| Context | **configure** service vprn *service-name* radius server *named-item* |
| Tree | server |
| Max. instances | 64 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## [**name**] *named-item*

| | |
|---|---|
| Synopsis | External RADIUS server name |
| Context | **configure** service vprn *service-name* radius server *named-item* |
| Tree | server |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **accept-coa** *boolean*

| | |
|---|---|
| Synopsis | Process Change of Authorization (CoA) messages |
| Context | **configure** service vprn *service-name* radius server *named-item* accept-coa *boolean* |
| Tree | accept-coa |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **acct-port** *number*

| | |
|---|---|
| Synopsis | UDP port number of the RADIUS for accounting events |
| Context | **configure** service vprn *service-name* radius server *named-item* acct-port *number* |
| Tree | acct-port |
| Range | 1 to 65535 |
| Default | 1813 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the RADIUS server |
| Context | **configure** service vprn *service-name* radius server *named-item* address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | address |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **auth-port** *number*

| | |
|---|---|
| Synopsis | UDP port number of the RADIUS to be used as match criteria |
| Context | **configure** service vprn *service-name* radius server *named-item* auth-port *number* |


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| | |
|---|---|
| Tree | auth-port |
| Range | 1 to 65535 |
| Default | 1812 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* radius server *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **pending-requests-limit** *number*

| | |
|---|---|
| Synopsis | Limit of the number for pending RADIUS requests |
| Context | **configure** service vprn *service-name* radius server *named-item* pending-requests-limit *number* |
| Tree | pending-requests-limit |
| Range | 1 to 4096 |
| Default | 4096 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **python-policy** *reference*

| | |
|---|---|
| Synopsis | Python script policy to modify CoA messages |
| Context | **configure** service vprn *service-name* radius server *named-item* python-policy *reference* |
| Tree | python-policy |
| Reference | **configure** python python-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **secret** *encrypted-leaf*

| | |
|---|---|
| Synopsis | Secret key associated with this RADIUS server |
| Context | **configure** service vprn *service-name* radius server *named-item* secret *encrypted-leaf* |
| Tree | secret |
| String length | 1 to 115 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **reassembly**

| | |
|---|---|
| Synopsis | Enable the **reassembly** context |
| Context | **configure** service vprn *service-name* reassembly |
| Tree | reassembly |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **nat-group** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | NAT group (including WLAN Gateway group) that executes the reassembly |
| Context | **configure** service vprn *service-name* reassembly nat-group *number* |
| Tree | nat-group |
| Max. range | 0 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **to-base-network** *boolean*

| | |
|---|---|
| Synopsis | Allow reassembled traffic sent to network interface |
| Context | **configure** service vprn *service-name* reassembly to-base-network *boolean* |
| Tree | to-base-network |


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| | |
|---|---|
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **redundant-interface** [interface-name] *interface-name*

| | |
|---|---|
| Synopsis | Enter the **redundant-interface** list instance |
| Context | **configure** service vprn *service-name* redundant-interface *interface-name* |
| Tree | redundant-interface |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**interface-name**] *interface-name*

| | |
|---|---|
| Synopsis | Interface name |
| Context | **configure** service vprn *service-name* redundant-interface *interface-name* |
| Tree | redundant-interface |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the interface |
| Context | **configure** service vprn *service-name* redundant-interface *interface-name* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **description** *very-long-description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* redundant-interface *interface-name* description *very-long-description* |
| Tree | description |
| String length | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### hold-time

| | |
|---|---|
| Synopsis | Enter the **hold-time** context |
| Context | **configure** service vprn *service-name* redundant-interface *interface-name* hold-time |
| Tree | hold-time |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### ipv4

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |
| Context | **configure** service vprn *service-name* redundant-interface *interface-name* hold-time ipv4 |
| Tree | ipv4 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### down

| | |
|---|---|
| Synopsis | Enter the **down** context |
| Context | **configure** service vprn *service-name* redundant-interface *interface-name* hold-time ipv4 down |
| Tree | down |
| Description | Commands in this context configure the down hold timer, which specifies the delay before activating the associated interface. The delay is invoked whenever the system attempts to bring the associated IP interface up, unless an operator configures the **init-only** command. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **init-only** *boolean*

| | |
|---|---|
| Synopsis | Apply delay only at interface configuration or reboot |
| Context | **configure** service vprn *service-name* redundant-interface *interface-name* hold-time ipv4 down init-only *boolean* |
| Tree | init-only |
| Description | This command applies a delay only when the IP interface is first configured or after a system reboot. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **seconds** *number*

| | |
|---|---|
| Synopsis | Down hold time for the IP interface |
| Context | **configure** service vprn *service-name* redundant-interface *interface-name* hold-time ipv4 down seconds *number* |
| Tree | seconds |
| Range | 1 to 1200 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **up**

| | |
|---|---|
| Synopsis | Enter the **up** context |
| Context | **configure** service vprn *service-name* redundant-interface *interface-name* hold-time ipv4 up |
| Tree | up |
| Description | Commands in this context configure the up hold timer, which specifies the delay before deactivation of the associated interface. The delay is invoked whenever the system attempts to bring the associated IP interface down. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **seconds** *number*

| | |
|---|---|
| Synopsis | Up hold time for the IP interface |
| Context | **configure** service vprn *service-name* redundant-interface *interface-name* hold-time ipv4 up seconds *number* |
| Tree | seconds |
| Range | 1 to 1200 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ip-mtu** *number*

| | |
|---|---|
| Synopsis | IP MTU applied to outgoing packets |
| Context | **configure** service vprn *service-name* redundant-interface *interface-name* ip-mtu *number* |
| Tree | ip-mtu |
| Description | This command configures the IP maximum transmission unit (MTU) for the associated router IP interface. |
| Range | 512 to 9786 |
| Units | bytes |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ipv4**

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |
| Context | **configure** service vprn *service-name* redundant-interface *interface-name* ipv4 |
| Tree | ipv4 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **primary**

| | |
|---|---|
| Synopsis | Enable the **primary** context |
| Context | **configure** service vprn *service-name* redundant-interface *interface-name* ipv4 primary |
| Tree | primary |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IPv4 address to be assigned to the interface |
| Context | **configure** service vprn *service-name* redundant-interface *interface-name* ipv4 primary address *ipv4-unicast-address* |
| Tree | address |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **prefix-length** *number*

| | |
|---|---|
| Synopsis | IPv4 address prefix length |
| Context | **configure** service vprn *service-name* redundant-interface *interface-name* ipv4 primary prefix-length *number* |
| Tree | prefix-length |
| Range | 0 to 32 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **remote-ip** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Remote IP address for the interface |
| Context | **configure** service vprn *service-name* redundant-interface *interface-name* ipv4 primary remote-ip *ipv4-unicast-address* |
| Tree | remote-ip |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **spoke-sdp** [sdp-bind-id] *sdp-bind-id*

| | |
|---|---|
| Synopsis | Enter the **spoke-sdp** list instance |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* redundant-interface *interface-name* spoke-sdp *sdp-bind-id* |
| Tree | spoke-sdp |
| Max. instances | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## [**sdp-bind-id**] *sdp-bind-id*

| | |
|---|---|
| Synopsis | SDP binding ID |
| Context | **configure** service vprn *service-name* redundant-interface *interface-name* spoke-sdp *sdp-bind-id* |
| Tree | spoke-sdp |
| String length | 3 to 16 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the SDP binding to the service |
| Context | **configure** service vprn *service-name* redundant-interface *interface-name* spoke-sdp *sdp-bind-id* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **control-word** *boolean*

| | |
|---|---|
| Synopsis | Use the control word as preferred |
| Context | **configure** service vprn *service-name* redundant-interface *interface-name* spoke-sdp *sdp-bind-id* control-word *boolean* |
| Tree | control-word |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* redundant-interface *interface-name* spoke-sdp *sdp-bind-id* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **egress**

| | |
|---|---|
| Synopsis | Enter the **egress** context |
| Context | **configure** service vprn *service-name* redundant-interface *interface-name* spoke-sdp *sdp-bind-id* egress |
| Tree | egress |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **filter**

| | |
|---|---|
| Synopsis | Enter the **filter** context |
| Context | **configure** service vprn *service-name* redundant-interface *interface-name* spoke-sdp *sdp-bind-id* egress filter |
| Tree | filter |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **ip** *reference*

| | |
|---|---|
| Synopsis | IPv4 filter policy name |
| Context | **configure** service vprn *service-name* redundant-interface *interface-name* spoke-sdp *sdp-bind-id* egress filter ip *reference* |


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| | |
|---|---|
| Tree | ip |
| Reference | **configure** filter ip-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **vc-label** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Egress MPLS VC label to send packets to the far end |
| Context | **configure** service vprn *service-name* redundant-interface *interface-name* spoke-sdp *sdp-bind-id* egress vc-label *number* |
| Tree | vc-label |
| Range | 16 to 1048575 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **ingress**

| | |
|---|---|
| Synopsis | Enter the **ingress** context |
| Context | **configure** service vprn *service-name* redundant-interface *interface-name* spoke-sdp *sdp-bind-id* ingress |
| Tree | ingress |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **filter**

| | |
|---|---|
| Synopsis | Enter the **filter** context |
| Context | **configure** service vprn *service-name* redundant-interface *interface-name* spoke-sdp *sdp-bind-id* ingress filter |
| Tree | filter |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **ip** *reference*

| | |
|---|---|
| Synopsis | IPv4 filter policy name |
| Context | **configure** service vprn *service-name* redundant-interface *interface-name* spoke-sdp *sdp-bind-id* ingress filter ip *reference* |
| Tree | ip |
| Reference | **configure** filter ip-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **vc-label** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Ingress MPLS VC label to send packets to the far end |
| Context | **configure** service vprn *service-name* redundant-interface *interface-name* spoke-sdp *sdp-bind-id* ingress vc-label *number* |
| Tree | vc-label |
| Range | 1 to 1048575 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **rip**

| | |
|---|---|
| Synopsis | Enable the **rip** context |
| Context | **configure** service vprn *service-name* rip |
| Tree | rip |
| Introduced | 16.0.R4 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the RIP instance |
| Context | **configure** service vprn *service-name* rip admin-state *keyword* |


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| | |
|---|---|
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R4 |
| Platforms | All |

## **authentication-key** *encrypted-leaf*

| | |
|---|---|
| Synopsis | Authentication password passed between RIP neighbors |
| Context | **configure** service vprn *service-name* rip authentication-key *encrypted-leaf* |
| Tree | authentication-key |
| Description | This command sets the authentication password to be passed between RIP neighbors. If the string contains special characters (#, $, spaces, and so on), the entire string must be enclosed within double quotes.<br>The authentication type and authentication key must match exactly for the RIP message to be considered authentic and processed.<br>When unconfigured, this command removes the authentication password from the configuration and disables authentication. |
| String length | 1 to 51 |
| Introduced | 16.0.R4 |
| Platforms | All |

## **authentication-type** *keyword*

| | |
|---|---|
| Synopsis | Authentication type used between RIP neighbors |
| Context | **configure** service vprn *service-name* rip authentication-type *keyword* |
| Tree | authentication-type |
| Description | This command sets the type of authentication to be used between RIP neighbors.<br>The authentication type and authentication key must match exactly for the RIP message to be considered authentic and processed.<br>When unconfigured, this command removes the authentication type from the configuration and effectively disables authentication. |
| Options | none, password, md5, md20 |
| Default | none |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **bfd-liveness** *boolean*

| | |
|---|---|
| Synopsis | Enable BFD to control the state of protocol adjacency |
| Context | **configure** service vprn *service-name* rip bfd-liveness *boolean* |
| Tree | bfd-liveness |
| Description | When configured to **true**, this command enables BFD to control the state of the associated protocol adjacency.<br>When configured to **false**, this command removes BFD from the associated protocol adjacency. |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **check-zero** *boolean*

| | |
|---|---|
| Synopsis | Enable checking of mandatory zero fields |
| Context | **configure** service vprn *service-name* rip check-zero *boolean* |
| Tree | check-zero |
| Description | When configured to **true**, this command enables checking of the mandatory zero fields in the RIPv1 and RIPv2 specifications and rejecting non-compliant RIP messages.<br>When configured to **false**, this command disables the check and allows the receipt of RIP messages even if the mandatory zero fields are non-zero. |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* rip description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R4 |
| Platforms | All |


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### export-limit

| | |
|---|---|
| Synopsis | Enable the **export-limit** context |
| Context | **configure** service vprn *service-name* rip export-limit |
| Tree | export-limit |
| Introduced | 16.0.R4 |
| Platforms | All |

### log-percent *number*

| | |
|---|---|
| Synopsis | Export limit before warning and SNMP notification sent |
| Context | **configure** service vprn *service-name* rip export-limit log-percent *number* |
| Tree | log-percent |
| Range | 1 to 100 |
| Introduced | 16.0.R4 |
| Platforms | All |

### number *number*

| | |
|---|---|
| Synopsis | Maximum routes or prefixes exported from route table |
| Context | **configure** service vprn *service-name* rip export-limit number *number* |
| Tree | number |
| Range | 1 to 4294967295 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### export-policy *reference*

| | |
|---|---|
| Synopsis | Policies to determine exported routes |
| Context | **configure** service vprn *service-name* rip export-policy *reference* |
| Tree | export-policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |


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| | |
|---|---|
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **group** [group-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **group** list instance |
| Context | **configure** service vprn *service-name* rip group *named-item* |
| Tree | group |
| Introduced | 16.0.R4 |
| Platforms | All |

### [**group-name**] *named-item*

| | |
|---|---|
| Synopsis | RIP group name |
| Context | **configure** service vprn *service-name* rip group *named-item* |
| Tree | group |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of RIP neighbor interface group |
| Context | **configure** service vprn *service-name* rip group *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R4 |
| Platforms | All |

### **authentication-key** *encrypted-leaf*

| | |
|---|---|
| Synopsis | Authentication password passed between RIP neighbors |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* rip group *named-item* authentication-key *encrypted-leaf* |
| Tree | authentication-key |
| Description | This command sets the authentication password to be passed between RIP neighbors. If the string contains special characters (#, $, spaces, and so on), the entire string must be enclosed within double quotes.<br>The authentication type and authentication key must match exactly for the RIP message to be considered authentic and processed.<br>When unconfigured, the authentication password is removed from the configuration and authentication is disabled. |
| String length | 1 to 51 |
| Introduced | 16.0.R4 |
| Platforms | All |

## **authentication-type** *keyword*

| | |
|---|---|
| Synopsis | Authentication type |
| Context | **configure** service vprn *service-name* rip group *named-item* authentication-type *keyword* |
| Tree | authentication-type |
| Description | This command configures the type of authentication to be used.<br>The authentication type and authentication key must match exactly for the RIP message to be considered authentic and processed.<br>When unconfigured, this command removes the authentication type from the configuration and effectively disables authentication. |
| Options | none, password, md5, md20 |
| Introduced | 16.0.R4 |
| Platforms | All |

## **bfd-liveness** *boolean*

| | |
|---|---|
| Synopsis | Enable BFD to control the state of protocol adjacency |
| Context | **configure** service vprn *service-name* rip group *named-item* bfd-liveness *boolean* |
| Tree | bfd-liveness |
| Description | When configured to **true**, this command enables BFD to control the state of the associated protocol adjacency.<br>When configured to **false**, this command removes BFD from the associated protocol adjacency. |
| Introduced | 16.0.R4 |


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| | |
|---|---|
| Platforms | All |

## **check-zero** *boolean*

| | |
|---|---|
| Synopsis | Enable checking of mandatory zero fields |
| Context | **configure** service vprn *service-name* rip group *named-item* check-zero *boolean* |
| Tree | check-zero |
| Description | When configured to **true**, this command enables checking of the mandatory zero fields in the RIPv1 and RIPv2 specifications and rejecting non-compliant RIP messages.<br>When configured to **false**, this command disables the check and allows the receipt of RIP messages even if the mandatory zero fields are non-zero. |
| Introduced | 16.0.R4 |
| Platforms | All |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* rip group *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R4 |
| Platforms | All |

## **export-policy** *reference*

| | |
|---|---|
| Synopsis | Policies used to rule which routes are exported to RIP |
| Context | **configure** service vprn *service-name* rip group *named-item* export-policy *reference* |
| Tree | export-policy |
| Description | This command specifies the export route policies used to determine which routes are exported to RIP.<br>If multiple policy names are specified, the policies are evaluated in the order they are specified. The first policy that matches is applied. |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | All |

## **import-policy** *reference*

| | |
|---|---|
| Synopsis | Policies to decide routes accepted from RIP neighbors |
| Context | **configure** service vprn *service-name* rip group *named-item* import-policy *reference* |
| Tree | import-policy |
| Description | This command configures import route policies to determine which routes are accepted from RIP neighbors.<br>If multiple policy names are specified, the policies are evaluated in the order they are specified. The first policy that matches is applied. |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R4 |
| Platforms | All |

## **message-size** *number*

| | |
|---|---|
| Synopsis | Maximum number of routes per RIP update message |
| Context | **configure** service vprn *service-name* rip group *named-item* message-size *number* |
| Tree | message-size |
| Range | 25 to 255 |
| Introduced | 16.0.R4 |
| Platforms | All |

## **metric-in** *number*

| | |
|---|---|
| Synopsis | Metric added to routes received from a RIP neighbor |
| Context | **configure** service vprn *service-name* rip group *named-item* metric-in *number* |
| Tree | metric-in |
| Range | 1 to 16 |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **metric-out** *number*

| | |
|---|---|
| Synopsis | Metric added to routes exported into RIP |
| Context | **configure** service vprn *service-name* rip group *named-item* metric-out *number* |
| Tree | metric-out |
| Range | 1 to 16 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **neighbor** [interface-name] *interface-name*

| | |
|---|---|
| Synopsis | Enter the **neighbor** list instance |
| Context | **configure** service vprn *service-name* rip group *named-item* neighbor *interface-name* |
| Tree | neighbor |
| Introduced | 16.0.R4 |
| Platforms | All |

### [**interface-name**] *interface-name*

| | |
|---|---|
| Synopsis | IP interface name |
| Context | **configure** service vprn *service-name* rip group *named-item* neighbor *interface-name* |
| Tree | neighbor |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the RIP neighbor interface |
| Context | **configure** service vprn *service-name* rip group *named-item* neighbor *interface-name* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | All |

## **authentication-key** *encrypted-leaf*

| | |
|---|---|
| Synopsis | Authentication password passed between RIP neighbors |
| Context | **configure** service vprn *service-name* rip group *named-item* neighbor *interface-name* authentication-key *encrypted-leaf* |
| Tree | authentication-key |
| Description | This command sets the authentication password to be passed between RIP neighbors. If the string contains special characters (#, $, spaces, and so on), the entire string must be enclosed within double quotes.<br>The authentication type and authentication key must match exactly for the RIP message to be considered authentic and processed.<br>When unconfigured, this command removes the authentication password from the configuration and disables authentication. |
| String length | 1 to 51 |
| Introduced | 16.0.R4 |
| Platforms | All |

## **authentication-type** *keyword*

| | |
|---|---|
| Synopsis | Authentication type |
| Context | **configure** service vprn *service-name* rip group *named-item* neighbor *interface-name* authentication-type *keyword* |
| Tree | authentication-type |
| Description | This command configures the type of authentication to be used.<br>The authentication type and authentication key must match exactly for the RIP message to be considered authentic and processed.<br>When unconfigured, this command removes the authentication type from the configuration and effectively disables authentication. |
| Options | none, password, md5, md20 |
| Introduced | 16.0.R4 |
| Platforms | All |

## **bfd-liveness** *boolean*

| | |
|---|---|
| Synopsis | Enable BFD to control the state of protocol adjacency |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* rip group *named-item* neighbor *interface-name* bfd-liveness *boolean* |
| Tree | bfd-liveness |
| Description | When configured to **true**, this command enables BFD to control the state of the associated protocol adjacency.<br>When configured to **false**, this command removes BFD from the associated protocol adjacency. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **check-zero** *boolean*

| | |
|---|---|
| Synopsis | Enable checking of mandatory zero fields |
| Context | **configure** service vprn *service-name* rip group *named-item* neighbor *interface-name* check-zero *boolean* |
| Tree | check-zero |
| Description | When configured to **true**, this command enables checking of the mandatory zero fields in the RIPv1 and RIPv2 specifications and rejecting non-compliant RIP messages.<br>When configured to **false**, this command disables the check and allows the receipt of RIP messages even if the mandatory zero fields are non-zero. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* rip group *named-item* neighbor *interface-name* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **export-policy** *reference*

| | |
|---|---|
| Synopsis | Policies used to rule which routes are exported to RIP |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* rip group *named-item* neighbor *interface-name* export-policy *reference* |
| Tree | export-policy |
| Description | This command specifies the export route policies used to determine which routes are exported to RIP.<br>If multiple policy names are specified, the policies are evaluated in the order they are specified. The first policy that matches is applied. |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R4 |
| Platforms | All |

## **import-policy** *reference*

| | |
|---|---|
| Synopsis | Policies to decide routes accepted from RIP neighbors |
| Context | **configure** service vprn *service-name* rip group *named-item* neighbor *interface-name* import-policy *reference* |
| Tree | import-policy |
| Description | This command configures import route policies to determine which routes are accepted from RIP neighbors.<br>If multiple policy names are specified, the policies are evaluated in the order they are specified. The first policy that matches is applied. |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R4 |
| Platforms | All |

## **message-size** *number*

| | |
|---|---|
| Synopsis | Maximum number of routes per RIP update message |
| Context | **configure** service vprn *service-name* rip group *named-item* neighbor *interface-name* message-size *number* |
| Tree | message-size |


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| | |
|---|---|
| Range | 25 to 255 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **metric-in** *number*

| | |
|---|---|
| Synopsis | Metric added to routes received from a RIP neighbor |
| Context | **configure** service vprn *service-name* rip group *named-item* neighbor *interface-name* metric-in *number* |
| Tree | metric-in |
| Range | 1 to 16 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **metric-out** *number*

| | |
|---|---|
| Synopsis | Metric added to routes exported into RIP |
| Context | **configure** service vprn *service-name* rip group *named-item* neighbor *interface-name* metric-out *number* |
| Tree | metric-out |
| Range | 1 to 16 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **preference** *number*

| | |
|---|---|
| Synopsis | Route preference |
| Context | **configure** service vprn *service-name* rip group *named-item* neighbor *interface-name* preference *number* |
| Tree | preference |
| Range | 1 to 255 |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **receive** *keyword*

| | |
|---|---|
| Synopsis | Accepted version on received packets |
| Context | **configure** service vprn *service-name* rip group *named-item* neighbor *interface-name* receive *keyword* |
| Tree | receive |
| Options | version-1, version-2, both, none |
| Introduced | 16.0.R4 |
| Platforms | All |

### **send** *keyword*

| | |
|---|---|
| Synopsis | RIP version and method used to send RIP updates |
| Context | **configure** service vprn *service-name* rip group *named-item* neighbor *interface-name* send *keyword* |
| Tree | send |
| Options | none, version-1, broadcast, multicast, unicast |
| Introduced | 16.0.R4 |
| Platforms | All |

### **split-horizon** *boolean*

| | |
|---|---|
| Synopsis | Enable split horizon and poison reverse |
| Context | **configure** service vprn *service-name* rip group *named-item* neighbor *interface-name* split-horizon *boolean* |
| Tree | split-horizon |
| Description | When configured to **true**, this command enables the use of split horizon with poison reverse. Split-horizon with poison reverse means that routes learned from a neighbor through a given interface are advertised in updates out of the same interface but with a metric of 16 (infinity).<br><br>When configured to **false**. this command enables split horizon without poison reverse. This allows the routes to be re-advertised on interfaces other than the interface that learned the route, with the advertised metric equaling an increment of the metric-in value. |
| Introduced | 16.0.R4 |
| Platforms | All |


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## timers

| | |
|---|---|
| Synopsis | Enable the **timers** context |
| Context | **configure** service vprn *service-name* rip group *named-item* neighbor *interface-name* timers |
| Tree | timers |
| Introduced | 16.0.R4 |
| Platforms | All |

## flush *number*

| | |
|---|---|
| Synopsis | RIP flush timer |
| Context | **configure** service vprn *service-name* rip group *named-item* neighbor *interface-name* timers flush *number* |
| Tree | flush |
| Description | This command specifies the time a route is maintained in the RIP database after it has been declared invalid. When the timer expires, the route is flushed from the RIP database completely. |
| Range | 1 to 1200 |
| Units | seconds |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

## timeout *number*

| | |
|---|---|
| Synopsis | RIP timeout timer |
| Context | **configure** service vprn *service-name* rip group *named-item* neighbor *interface-name* timers timeout *number* |
| Tree | timeout |
| Description | This command specifies the RIP timeout timer. If a route is not updated by the time the timer expires, the route is declared invalid, but the route is maintained in the RIP database. |
| Range | 1 to 1200 |
| Units | seconds |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |


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| | |
|---|---|
| Platforms | All |

### **update** *number*

| | |
|---|---|
| Synopsis | Timer that controls the frequency of updates |
| Context | **configure** service vprn *service-name* rip group *named-item* neighbor *interface-name* timers update *number* |
| Tree | update |
| Range | 1 to 600 |
| Units | seconds |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **unicast-address** [address] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Add a list entry for **unicast-address** |
| Context | **configure** service vprn *service-name* rip group *named-item* neighbor *interface-name* unicast-address *ipv4-unicast-address* |
| Tree | unicast-address |
| Introduced | 16.0.R4 |
| Platforms | All |

### [**address**] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Unicast IPv6 address for the neighbor |
| Context | **configure** service vprn *service-name* rip group *named-item* neighbor *interface-name* unicast-address *ipv4-unicast-address* |
| Tree | unicast-address |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **preference** *number*

| | |
|---|---|
| Synopsis | Route preference |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* rip group *named-item* preference *number* |
| Tree | preference |
| Range | 1 to 255 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **receive** *keyword*

| | |
|---|---|
| Synopsis | Accepted version on received packets |
| Context | **configure** service vprn *service-name* rip group *named-item* receive *keyword* |
| Tree | receive |
| Options | version-1, version-2, both, none |
| Introduced | 16.0.R4 |
| Platforms | All |

### **send** *keyword*

| | |
|---|---|
| Synopsis | RIP version and method used to send RIP updates |
| Context | **configure** service vprn *service-name* rip group *named-item* send *keyword* |
| Tree | send |
| Options | none, version-1, broadcast, multicast |
| Introduced | 16.0.R4 |
| Platforms | All |

### **split-horizon** *boolean*

| | |
|---|---|
| Synopsis | Enable split horizon and poison reverse |
| Context | **configure** service vprn *service-name* rip group *named-item* split-horizon *boolean* |
| Tree | split-horizon |
| Description | When configured to **true**, this command enables the use of split horizon with poison reverse. Split-horizon with poison reverse means that routes learned from a neighbor through a given interface are advertised in updates out of the same interface but with a metric of 16 (infinity).<br><br>When configured to **false**. this command enables split horizon without poison reverse. This allows the routes to be re-advertised on interfaces other than the interface that learned the route, with the advertised metric equaling an increment of the metric-in value. |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | All |

## timers

| | |
|---|---|
| Synopsis | Enable the **timers** context |
| Context | **configure** service vprn *service-name* rip group *named-item* timers |
| Tree | timers |
| Introduced | 16.0.R4 |
| Platforms | All |

## flush *number*

| | |
|---|---|
| Synopsis | RIP flush timer |
| Context | **configure** service vprn *service-name* rip group *named-item* timers flush *number* |
| Tree | flush |
| Description | This command specifies the time a route is maintained in the RIP database after it has been declared invalid. When the timer expires, the route is flushed from the RIP database completely. |
| Range | 1 to 1200 |
| Units | seconds |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

## timeout *number*

| | |
|---|---|
| Synopsis | RIP timeout timer |
| Context | **configure** service vprn *service-name* rip group *named-item* timers timeout *number* |
| Tree | timeout |
| Description | This command specifies the RIP timeout timer. If a route is not updated by the time the timer expires, the route is declared invalid, but the route is maintained in the RIP database. |
| Range | 1 to 1200 |
| Units | seconds |
| Notes | This element is mandatory. |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | All |

### **update** *number*

| | |
|---|---|
| Synopsis | Timer that controls the frequency of updates |
| Context | **configure** service vprn *service-name* rip group *named-item* timers update *number* |
| Tree | update |
| Range | 1 to 600 |
| Units | seconds |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **import-policy** *reference*

| | |
|---|---|
| Synopsis | Import policies to decide routes for routing table |
| Context | **configure** service vprn *service-name* rip import-policy *reference* |
| Tree | import-policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **message-size** *number*

| | |
|---|---|
| Synopsis | Maximum number of routes in the RIP message |
| Context | **configure** service vprn *service-name* rip message-size *number* |
| Tree | message-size |
| Range | 25 to 255 |
| Default | 25 |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **metric-in** *number*

| | |
|---|---|
| Synopsis | Metric added to routes received from a RIP neighbor |
| Context | **configure** service vprn *service-name* rip metric-in *number* |
| Tree | metric-in |
| Range | 1 to 16 |
| Default | 1 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **metric-out** *number*

| | |
|---|---|
| Synopsis | Metric added to routes exported into RIP |
| Context | **configure** service vprn *service-name* rip metric-out *number* |
| Tree | metric-out |
| Range | 1 to 16 |
| Default | 1 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **preference** *number*

| | |
|---|---|
| Synopsis | Route preference |
| Context | **configure** service vprn *service-name* rip preference *number* |
| Tree | preference |
| Range | 1 to 255 |
| Default | 100 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **propagate-metric** *boolean*

| | |
|---|---|
| Synopsis | Enable the BGP MED used to configure the RIP metric |
| Context | **configure** service vprn *service-name* rip propagate-metric *boolean* |
| Tree | propagate-metric |


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| | |
|---|---|
| Description | When configured to **true**, this command enables the BGP MED to be used to configure the RIP metric at the BGP to RIP transition on egress routers.<br>When configured to **false**, this command sets the RIP metric to the optional value configured with the **metric-out** command plus one. |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **receive** *keyword*

| | |
|---|---|
| Synopsis | Accepted version on received packets |
| Context | **configure** service vprn *service-name* rip receive *keyword* |
| Tree | receive |
| Options | version-1, version-2, both, none |
| Default | both |
| Introduced | 16.0.R4 |
| Platforms | All |

### **send** *keyword*

| | |
|---|---|
| Synopsis | RIP version and method used to send RIP updates |
| Context | **configure** service vprn *service-name* rip send *keyword* |
| Tree | send |
| Options | none, version-1, broadcast, multicast |
| Default | broadcast |
| Introduced | 16.0.R4 |
| Platforms | All |

### **split-horizon** *boolean*

| | |
|---|---|
| Synopsis | Enable split horizon and poison reverse |
| Context | **configure** service vprn *service-name* rip split-horizon *boolean* |
| Tree | split-horizon |
| Description | When configured to **true**, this command enables the use of split horizon with poison reverse. Split-horizon with poison reverse means that routes learned from a neighbor through a given interface are advertised in updates out of the same interface but with a metric of 16 (infinity). |


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| | |
|---|---|
| | When configured to **false**. this command enables split horizon without poison reverse. This allows the routes to be re-advertised on interfaces other than the interface that learned the route, with the advertised metric equaling an increment of the metric-in value. |
| Default | true |
| Introduced | 16.0.R4 |
| Platforms | All |

## timers

| | |
|---|---|
| Synopsis | Enable the **timers** context |
| Context | **configure** service vprn *service-name* rip timers |
| Tree | timers |
| Introduced | 16.0.R4 |
| Platforms | All |

## flush *number*

| | |
|---|---|
| Synopsis | RIP flush timer |
| Context | **configure** service vprn *service-name* rip timers flush *number* |
| Tree | flush |
| Description | This command specifies the time a route is maintained in the RIP database after it has been declared invalid. When the timer expires, the route is flushed from the RIP database completely. |
| Range | 1 to 1200 |
| Units | seconds |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

## timeout *number*

| | |
|---|---|
| Synopsis | RIP timeout timer |
| Context | **configure** service vprn *service-name* rip timers timeout *number* |
| Tree | timeout |


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| | |
|---|---|
| Description | This command specifies the RIP timeout timer. If a route is not updated by the time the timer expires, the route is declared invalid, but the route is maintained in the RIP database. |
| Range | 1 to 1200 |
| Units | seconds |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **update** *number*

| | |
|---|---|
| Synopsis | Timer that controls the frequency of updates |
| Context | **configure** service vprn *service-name* rip timers update *number* |
| Tree | update |
| Range | 1 to 600 |
| Units | seconds |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **ripng**

| | |
|---|---|
| Synopsis | Enable the **ripng** context |
| Context | **configure** service vprn *service-name* ripng |
| Tree | ripng |
| Introduced | 16.0.R4 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the RIPng instance |
| Context | **configure** service vprn *service-name* ripng admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | All |

### **bfd-liveness** *boolean*

| | |
|---|---|
| Synopsis | Enable BFD to control the state of protocol adjacency |
| Context | **configure** service vprn *service-name* ripng bfd-liveness *boolean* |
| Tree | bfd-liveness |
| Description | When configured to **true**, this command enables BFD to control the state of the associated protocol adjacency.<br>When configured to **false**, this command removes BFD from the associated protocol adjacency. |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **check-zero** *boolean*

| | |
|---|---|
| Synopsis | Enable checking of mandatory zero fields |
| Context | **configure** service vprn *service-name* ripng check-zero *boolean* |
| Tree | check-zero |
| Description | When configured to **true**, this command enables checking of the mandatory zero fields in the RIPv1 and RIPv2 specifications and rejecting non-compliant RIP messages.<br>When configured to **false**, this command disables the check and allows the receipt of RIP messages even if the mandatory zero fields are non-zero. |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* ripng description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R4 |


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| | |
|---|---|
| Platforms | All |

## export-limit

| | |
|---|---|
| Synopsis | Enable the **export-limit** context |
| Context | **configure** service vprn *service-name* ripng export-limit |
| Tree | export-limit |
| Introduced | 16.0.R4 |
| Platforms | All |

## log-percent *number*

| | |
|---|---|
| Synopsis | Export limit before warning and SNMP notification sent |
| Context | **configure** service vprn *service-name* ripng export-limit log-percent *number* |
| Tree | log-percent |
| Range | 1 to 100 |
| Introduced | 16.0.R4 |
| Platforms | All |

## number *number*

| | |
|---|---|
| Synopsis | Maximum routes or prefixes exported from route table |
| Context | **configure** service vprn *service-name* ripng export-limit number *number* |
| Tree | number |
| Range | 1 to 4294967295 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

## export-policy *reference*

| | |
|---|---|
| Synopsis | Policies to determine exported routes |
| Context | **configure** service vprn *service-name* ripng export-policy *reference* |
| Tree | export-policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |


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| | |
|---|---|
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **group** [group-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **group** list instance |
| Context | **configure** service vprn *service-name* ripng group *named-item* |
| Tree | group |
| Introduced | 16.0.R4 |
| Platforms | All |

### [**group-name**] *named-item*

| | |
|---|---|
| Synopsis | RIP group name |
| Context | **configure** service vprn *service-name* ripng group *named-item* |
| Tree | group |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of RIPng neighbor interface group |
| Context | **configure** service vprn *service-name* ripng group *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **bfd-liveness** *boolean*

| | |
|---|---|
| Synopsis | Enable BFD to control the state of protocol adjacency |
| Context | **configure** service vprn *service-name* ripng group *named-item* bfd-liveness *boolean* |
| Tree | bfd-liveness |
| Description | When configured to **true**, this command enables BFD to control the state of the associated protocol adjacency.<br>When configured to **false**, this command removes BFD from the associated protocol adjacency. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **check-zero** *boolean*

| | |
|---|---|
| Synopsis | Enable checking of mandatory zero fields |
| Context | **configure** service vprn *service-name* ripng group *named-item* check-zero *boolean* |
| Tree | check-zero |
| Description | When configured to **true**, this command enables checking of the mandatory zero fields in the RIPv1 and RIPv2 specifications and rejecting non-compliant RIP messages.<br>When configured to **false**, this command disables the check and allows the receipt of RIP messages even if the mandatory zero fields are non-zero. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* ripng group *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **export-policy** *reference*

| | |
|---|---|
| Synopsis | Policies used to rule which routes are exported to RIP |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* ripng group *named-item* export-policy *reference* |
| Tree | export-policy |
| Description | This command specifies the export route policies used to determine which routes are exported to RIP.<br>If multiple policy names are specified, the policies are evaluated in the order they are specified. The first policy that matches is applied. |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R4 |
| Platforms | All |

## **import-policy** *reference*

| | |
|---|---|
| Synopsis | Policies to decide routes accepted from RIP neighbors |
| Context | **configure** service vprn *service-name* ripng group *named-item* import-policy *reference* |
| Tree | import-policy |
| Description | This command configures import route policies to determine which routes are accepted from RIP neighbors.<br>If multiple policy names are specified, the policies are evaluated in the order they are specified. The first policy that matches is applied. |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R4 |
| Platforms | All |

## **message-size** *number*

| | |
|---|---|
| Synopsis | Maximum number of routes in the message |
| Context | **configure** service vprn *service-name* ripng group *named-item* message-size *number* |
| Tree | message-size |
| Range | 25 to 255 |
| Introduced | 16.0.R4 |


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| | |
|---|---|
| Platforms | All |

### **metric-in** *number*

| | |
|---|---|
| Synopsis | Metric added to routes received from the neighbor |
| Context | **configure** service vprn *service-name* ripng group *named-item* metric-in *number* |
| Tree | metric-in |
| Range | 1 to 16 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **metric-out** *number*

| | |
|---|---|
| Synopsis | Metric added to routes exported into RIPng |
| Context | **configure** service vprn *service-name* ripng group *named-item* metric-out *number* |
| Tree | metric-out |
| Range | 1 to 16 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **neighbor** [interface-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **neighbor** list instance |
| Context | **configure** service vprn *service-name* ripng group *named-item* neighbor *reference* |
| Tree | neighbor |
| Introduced | 16.0.R4 |
| Platforms | All |

### [**interface-name**] *reference*

| | |
|---|---|
| Synopsis | IP interface name |
| Context | **configure** service vprn *service-name* ripng group *named-item* neighbor *reference* |
| Tree | neighbor |
| Reference | **configure** service vprn *service-name* interface *interface-name* |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the RIPng neighbor |
| Context | **configure** service vprn *service-name* ripng group *named-item* neighbor *reference* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R4 |
| Platforms | All |

### **bfd-liveness** *boolean*

| | |
|---|---|
| Synopsis | Enable BFD to control the state of protocol adjacency |
| Context | **configure** service vprn *service-name* ripng group *named-item* neighbor *reference* bfd-liveness *boolean* |
| Tree | bfd-liveness |
| Description | When configured to **true**, this command enables BFD to control the state of the associated protocol adjacency.<br>When configured to **false**, this command removes BFD from the associated protocol adjacency. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **check-zero** *boolean*

| | |
|---|---|
| Synopsis | Enable checking of mandatory zero fields |
| Context | **configure** service vprn *service-name* ripng group *named-item* neighbor *reference* check-zero *boolean* |
| Tree | check-zero |
| Description | When configured to **true**, this command enables checking of the mandatory zero fields in the RIPv1 and RIPv2 specifications and rejecting non-compliant RIP messages.<br>When configured to **false**, this command disables the check and allows the receipt of RIP messages even if the mandatory zero fields are non-zero. |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | All |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* ripng group *named-item* neighbor *reference* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R4 |
| Platforms | All |

## **export-policy** *reference*

| | |
|---|---|
| Synopsis | Policies used to rule which routes are exported to RIP |
| Context | **configure** service vprn *service-name* ripng group *named-item* neighbor *reference* export-policy *reference* |
| Tree | export-policy |
| Description | This command specifies the export route policies used to determine which routes are exported to RIP.<br>If multiple policy names are specified, the policies are evaluated in the order they are specified. The first policy that matches is applied. |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R4 |
| Platforms | All |

## **import-policy** *reference*

| | |
|---|---|
| Synopsis | Policies to decide routes accepted from RIP neighbors |
| Context | **configure** service vprn *service-name* ripng group *named-item* neighbor *reference* import-policy *reference* |
| Tree | import-policy |


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| | |
|---|---|
| Description | This command configures import route policies to determine which routes are accepted from RIP neighbors.<br>If multiple policy names are specified, the policies are evaluated in the order they are specified. The first policy that matches is applied. |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R4 |
| Platforms | All |

## **message-size** *number*

| | |
|---|---|
| Synopsis | Maximum number of routes in the message |
| Context | **configure** service vprn *service-name* ripng group *named-item* neighbor *reference* message-size *number* |
| Tree | message-size |
| Range | 25 to 255 |
| Introduced | 16.0.R4 |
| Platforms | All |

## **metric-in** *number*

| | |
|---|---|
| Synopsis | Metric added to routes received from the neighbor |
| Context | **configure** service vprn *service-name* ripng group *named-item* neighbor *reference* metric-in *number* |
| Tree | metric-in |
| Range | 1 to 16 |
| Introduced | 16.0.R4 |
| Platforms | All |

## **metric-out** *number*

| | |
|---|---|
| Synopsis | Metric added to routes exported into RIPng |
| Context | **configure** service vprn *service-name* ripng group *named-item* neighbor *reference* metric-out *number* |
| Tree | metric-out |


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| | |
|---|---|
| Range | 1 to 16 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **preference** *number*

| | |
|---|---|
| Synopsis | Route preference |
| Context | **configure** service vprn *service-name* ripng group *named-item* neighbor *reference* preference *number* |
| Tree | preference |
| Range | 1 to 255 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **receive** *keyword*

| | |
|---|---|
| Synopsis | Accepted version on received packets |
| Context | **configure** service vprn *service-name* ripng group *named-item* neighbor *reference* receive *keyword* |
| Tree | receive |
| Options | none, ripng |
| Introduced | 16.0.R4 |
| Platforms | All |

### **send** *keyword*

| | |
|---|---|
| Synopsis | RIPng version and method used to send RIPng updates |
| Context | **configure** service vprn *service-name* ripng group *named-item* neighbor *reference* send *keyword* |
| Tree | send |
| Options | none, ripng, unicast |
| Introduced | 16.0.R4 |
| Platforms | All |


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## **split-horizon** *boolean*

| | |
|---|---|
| Synopsis | Enable split horizon and poison reverse |
| Context | **configure** service vprn *service-name* ripng group *named-item* neighbor *reference* split-horizon *boolean* |
| Tree | split-horizon |
| Description | When configured to **true**, this command enables the use of split horizon with poison reverse. Split-horizon with poison reverse means that routes learned from a neighbor through a given interface are advertised in updates out of the same interface but with a metric of 16 (infinity).<br><br>When configured to **false**. this command enables split horizon without poison reverse. This allows the routes to be re-advertised on interfaces other than the interface that learned the route, with the advertised metric equaling an increment of the metric-in value. |
| Introduced | 16.0.R4 |
| Platforms | All |

## **timers**

| | |
|---|---|
| Synopsis | Enable the **timers** context |
| Context | **configure** service vprn *service-name* ripng group *named-item* neighbor *reference* timers |
| Tree | timers |
| Introduced | 16.0.R4 |
| Platforms | All |

## **flush** *number*

| | |
|---|---|
| Synopsis | RIP flush timer |
| Context | **configure** service vprn *service-name* ripng group *named-item* neighbor *reference* timers flush *number* |
| Tree | flush |
| Description | This command specifies the time a route is maintained in the RIP database after it has been declared invalid. When the timer expires, the route is flushed from the RIP database completely. |
| Range | 1 to 1200 |
| Units | seconds |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |


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| | |
|---|---|
| Platforms | All |

### **timeout** *number*

| | |
|---|---|
| Synopsis | RIP timeout timer |
| Context | **configure** service vprn *service-name* ripng group *named-item* neighbor *reference* timers timeout *number* |
| Tree | timeout |
| Description | This command specifies the RIP timeout timer. If a route is not updated by the time the timer expires, the route is declared invalid, but the route is maintained in the RIP database. |
| Range | 1 to 1200 |
| Units | seconds |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **update** *number*

| | |
|---|---|
| Synopsis | Timer that controls the frequency of updates |
| Context | **configure** service vprn *service-name* ripng group *named-item* neighbor *reference* timers update *number* |
| Tree | update |
| Range | 1 to 600 |
| Units | seconds |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **unicast-address** [address] *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Add a list entry for **unicast-address** |
| Context | **configure** service vprn *service-name* ripng group *named-item* neighbor *reference* unicast-address *ipv6-unicast-address* |
| Tree | unicast-address |
| Introduced | 16.0.R4 |


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| | |
|---|---|
| Platforms | All |

### [**address**] *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Unicast IPv6 address for the neighbor |
| Context | **configure** service vprn *service-name* ripng group *named-item* neighbor *reference* unicast-address *ipv6-unicast-address* |
| Tree | unicast-address |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **preference** *number*

| | |
|---|---|
| Synopsis | Route preference |
| Context | **configure** service vprn *service-name* ripng group *named-item* preference *number* |
| Tree | preference |
| Range | 1 to 255 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **receive** *keyword*

| | |
|---|---|
| Synopsis | Accepted version on received packets |
| Context | **configure** service vprn *service-name* ripng group *named-item* receive *keyword* |
| Tree | receive |
| Options | none, ripng |
| Introduced | 16.0.R4 |
| Platforms | All |

### **send** *keyword*

| | |
|---|---|
| Synopsis | RIPng version and method used to send RIPng updates |
| Context | **configure** service vprn *service-name* ripng group *named-item* send *keyword* |
| Tree | send |


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| | |
|---|---|
| Options | none, ripng |
| Introduced | 16.0.R4 |
| Platforms | All |

## **split-horizon** *boolean*

| | |
|---|---|
| Synopsis | Enable split horizon and poison reverse |
| Context | **configure** service vprn *service-name* ripng group *named-item* split-horizon *boolean* |
| Tree | split-horizon |
| Description | When configured to **true**, this command enables the use of split horizon with poison reverse. Split-horizon with poison reverse means that routes learned from a neighbor through a given interface are advertised in updates out of the same interface but with a metric of 16 (infinity).<br>When configured to **false**. this command enables split horizon without poison reverse. This allows the routes to be re-advertised on interfaces other than the interface that learned the route, with the advertised metric equaling an increment of the metric-in value. |
| Introduced | 16.0.R4 |
| Platforms | All |

## **timers**

| | |
|---|---|
| Synopsis | Enable the **timers** context |
| Context | **configure** service vprn *service-name* ripng group *named-item* timers |
| Tree | timers |
| Introduced | 16.0.R4 |
| Platforms | All |

## **flush** *number*

| | |
|---|---|
| Synopsis | RIP flush timer |
| Context | **configure** service vprn *service-name* ripng group *named-item* timers flush *number* |
| Tree | flush |
| Description | This command specifies the time a route is maintained in the RIP database after it has been declared invalid. When the timer expires, the route is flushed from the RIP database completely. |
| Range | 1 to 1200 |


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| | |
|---|---|
| Units | seconds |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **timeout** *number*

| | |
|---|---|
| Synopsis | RIP timeout timer |
| Context | **configure** service vprn *service-name* ripng group *named-item* timers timeout *number* |
| Tree | timeout |
| Description | This command specifies the RIP timeout timer. If a route is not updated by the time the timer expires, the route is declared invalid, but the route is maintained in the RIP database. |
| Range | 1 to 1200 |
| Units | seconds |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **update** *number*

| | |
|---|---|
| Synopsis | Timer that controls the frequency of updates |
| Context | **configure** service vprn *service-name* ripng group *named-item* timers update *number* |
| Tree | update |
| Range | 1 to 600 |
| Units | seconds |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **import-policy** *reference*

| | |
|---|---|
| Synopsis | Import policies to decide routes for routing table |
| Context | **configure** service vprn *service-name* ripng import-policy *reference* |
| Tree | import-policy |


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| | |
|---|---|
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **message-size** *number*

| | |
|---|---|
| Synopsis | Maximum number of routes in the message |
| Context | **configure** service vprn *service-name* ripng message-size *number* |
| Tree | message-size |
| Range | 25 to 255 |
| Default | 25 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **metric-in** *number*

| | |
|---|---|
| Synopsis | Metric added to routes received from the neighbor |
| Context | **configure** service vprn *service-name* ripng metric-in *number* |
| Tree | metric-in |
| Range | 1 to 16 |
| Default | 1 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **metric-out** *number*

| | |
|---|---|
| Synopsis | Metric added to routes exported into RIPng |
| Context | **configure** service vprn *service-name* ripng metric-out *number* |
| Tree | metric-out |
| Range | 1 to 16 |
| Default | 1 |
| Introduced | 16.0.R4 |


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| | |
|---|---|
| Platforms | All |

### **preference** *number*

| | |
|---|---|
| Synopsis | Route preference |
| Context | **configure** service vprn *service-name* ripng preference *number* |
| Tree | preference |
| Range | 1 to 255 |
| Default | 100 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **receive** *keyword*

| | |
|---|---|
| Synopsis | Accepted version on received packets |
| Context | **configure** service vprn *service-name* ripng receive *keyword* |
| Tree | receive |
| Options | none, ripng |
| Default | ripng |
| Introduced | 16.0.R4 |
| Platforms | All |

### **send** *keyword*

| | |
|---|---|
| Synopsis | RIPng version and method used to send RIPng updates |
| Context | **configure** service vprn *service-name* ripng send *keyword* |
| Tree | send |
| Options | none, ripng |
| Default | ripng |
| Introduced | 16.0.R4 |
| Platforms | All |

### **split-horizon** *boolean*

| | |
|---|---|
| Synopsis | Enable split horizon and poison reverse |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* ripng split-horizon *boolean* |
| Tree | split-horizon |
| Description | When configured to **true**, this command enables the use of split horizon with poison reverse. Split-horizon with poison reverse means that routes learned from a neighbor through a given interface are advertised in updates out of the same interface but with a metric of 16 (infinity).<br>When configured to **false**, this command enables split horizon without poison reverse. This allows the routes to be re-advertised on interfaces other than the interface that learned the route, with the advertised metric equaling an increment of the metric-in value. |
| Default | true |
| Introduced | 16.0.R4 |
| Platforms | All |

## timers

| | |
|---|---|
| Synopsis | Enable the **timers** context |
| Context | **configure** service vprn *service-name* ripng timers |
| Tree | timers |
| Introduced | 16.0.R4 |
| Platforms | All |

## flush *number*

| | |
|---|---|
| Synopsis | RIP flush timer |
| Context | **configure** service vprn *service-name* ripng timers flush *number* |
| Tree | flush |
| Description | This command specifies the time a route is maintained in the RIP database after it has been declared invalid. When the timer expires, the route is flushed from the RIP database completely. |
| Range | 1 to 1200 |
| Units | seconds |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **timeout** *number*

| | |
|---|---|
| Synopsis | RIP timeout timer |
| Context | **configure** service vprn *service-name* ripng timers timeout *number* |
| Tree | timeout |
| Description | This command specifies the RIP timeout timer. If a route is not updated by the time the timer expires, the route is declared invalid, but the route is maintained in the RIP database. |
| Range | 1 to 1200 |
| Units | seconds |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **update** *number*

| | |
|---|---|
| Synopsis | Timer that controls the frequency of updates |
| Context | **configure** service vprn *service-name* ripng timers update *number* |
| Tree | update |
| Range | 1 to 600 |
| Units | seconds |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **router-id** *router-id*

| | |
|---|---|
| Synopsis | Unique router ID for the router in the AS |
| Context | **configure** service vprn *service-name* router-id *router-id* |
| Tree | router-id |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **segment-routing-v6** [instance] *number*

| | |
|---|---|
| Synopsis | Enter the **segment-routing-v6** list instance |
| Context | **configure** service vprn *service-name* segment-routing-v6 *number* |
| Tree | segment-routing-v6 |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### [**instance**] *number*

| | |
|---|---|
| Synopsis | Segment routing IPv6 instance |
| Context | **configure** service vprn *service-name* segment-routing-v6 *number* |
| Tree | segment-routing-v6 |
| Range | 1 to 2 |
| Notes | This element is part of a list key. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **locator** [locator-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **locator** list instance |
| Context | **configure** service vprn *service-name* segment-routing-v6 *number* locator *reference* |
| Tree | locator |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### [**locator-name**] *reference*

| | |
|---|---|
| Synopsis | SRv6 locator name |
| Context | **configure** service vprn *service-name* segment-routing-v6 *number* locator *reference* |
| Tree | locator |
| Reference | **configure** router *named-item-64* segment-routing segment-routing-v6 locator *named-item-64* |
| Notes | This element is part of a list key. |
| Introduced | 21.5.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## function

| | |
|---|---|
| Synopsis | Enter the **function** context |
| Context | **configure** service vprn *service-name* segment-routing-v6 *number* locator *reference* function |
| Tree | function |
| Description | Commands in this context configure the End SID functions for each SRH mode.<br>The **end-dt4** configuration and the **end-dt46** configuration are mutually exclusive.<br>The **end-dt6** configuration and the **end-dt46** configuration are mutually exclusive. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## end-dt4

| | |
|---|---|
| Synopsis | Enable the **end-dt4** context |
| Context | **configure** service vprn *service-name* segment-routing-v6 *number* locator *reference* function end-dt4 |
| Tree | end-dt4 |
| Description | Commands in this context assign a value for IPv4 routes in the VPRN service instance. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## value *number*

| | |
|---|---|
| Synopsis | SRv6 function value |
| Context | **configure** service vprn *service-name* segment-routing-v6 *number* locator *reference* function end-dt4 value *number* |
| Tree | value |
| Description | This command assigns the optional static function value for the routes in the VPRN, VPLS, or Epipe instance.<br>When unconfigured, the system allocates a value dynamically. |
| Range | 1 to 1048575 |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |


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## end-dt46

| | |
|---|---|
| Synopsis | Enable the **end-dt46** context |
| Context | **configure** service vprn *service-name* segment-routing-v6 *number* locator *reference* function end-dt46 |
| Tree | end-dt46 |
| Description | Commands in this context assign a value for all IPv4 and IPv6 routes in the VPRN service instance. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## value *number*

| | |
|---|---|
| Synopsis | SRv6 function value |
| Context | **configure** service vprn *service-name* segment-routing-v6 *number* locator *reference* function end-dt46 value *number* |
| Tree | value |
| Description | This command assigns the optional static function value for the routes in the VPRN, VPLS, or Epipe instance.<br>When unconfigured, the system allocates a value dynamically. |
| Range | 1 to 1048575 |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## end-dt6

| | |
|---|---|
| Synopsis | Enable the **end-dt6** context |
| Context | **configure** service vprn *service-name* segment-routing-v6 *number* locator *reference* function end-dt6 |
| Tree | end-dt6 |
| Description | Commands in this context assign a value for IPv6 routes in the VPRN service instance. |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |


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### **value** *number*

| | |
|---|---|
| Synopsis | SRv6 function value |
| Context | **configure** service vprn *service-name* segment-routing-v6 *number* locator *reference* function end-dt6 value *number* |
| Tree | value |
| Description | This command assigns the optional static function value for the routes in the VPRN, VPLS, or Epipe instance.<br>When unconfigured, the system allocates a value dynamically. |
| Range | 1 to 1048575 |
| Introduced | 21.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **micro-segment-locator** [locator-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **micro-segment-locator** list instance |
| Context | **configure** service vprn *service-name* segment-routing-v6 *number* micro-segment-locator *reference* |
| Tree | micro-segment-locator |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### [**locator-name**] *reference*

| | |
|---|---|
| Synopsis | Micro-segment SRv6 locator name |
| Context | **configure** service vprn *service-name* segment-routing-v6 *number* micro-segment-locator *reference* |
| Tree | micro-segment-locator |
| Description | This command associates a pre-defined micro-segment SRv6 locator (defined in the **configure router segment-routing segment-routing-v6** context) with the SRv6 instance in the service. The same micro-segment locator can be referenced in multiple BGP instances used by IPVPN or EVPN. |
| Reference | **configure** router *named-item-64* segment-routing segment-routing-v6 micro-segment-locator *named-item-64* |
| Notes | This element is part of a list key. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |


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## function

| | |
|---|---|
| Synopsis | Enter the **function** context |
| Context | **configure** service vprn *service-name* segment-routing-v6 *number* micro-segment-locator *reference* function |
| Tree | function |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## udt4

| | |
|---|---|
| Synopsis | Enable the **udt4** context |
| Context | **configure** service vprn *service-name* segment-routing-v6 *number* micro-segment-locator *reference* function udt4 |
| Tree | udt4 |
| Description | Commands in this context configure the SRv6 uDT4 behavior and the function value that is associated with the SRv6 instance in the service. When configured, decapsulation and table lookup for IPv4 prefixes occur in the VPRN service. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## value *number*

| | |
|---|---|
| Synopsis | SRv6 function value |
| Context | **configure** service vprn *service-name* segment-routing-v6 *number* micro-segment-locator *reference* function udt4 value *number* |
| Tree | value |
| Description | This command assigns the optional static function value for the routes in the VPRN, VPLS, or Epipe instance.<br>When unconfigured, the system allocates a value dynamically. |
| Range | 1 to 1048575 |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## udt46

| | |
|---|---|
| Synopsis | Enable the **udt46** context |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* segment-routing-v6 *number* micro-segment-locator *reference* function udt46 |
| Tree | udt46 |
| Description | The commands in this context configure the SRv6 uDT46 behavior and the function value that is associated with the SRv6 instance in the service. When configured, decapsulation and table lookup for IPv4 and IPv6 prefixes occur in the VPRN service. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **value** *number*

| | |
|---|---|
| Synopsis | SRv6 function value |
| Context | **configure** service vprn *service-name* segment-routing-v6 *number* micro-segment-locator *reference* function udt46 value *number* |
| Tree | value |
| Description | This command assigns the optional static function value for the routes in the VPRN, VPLS, or Epipe instance.<br>When unconfigured, the system allocates a value dynamically. |
| Range | 1 to 1048575 |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **udt6**

| | |
|---|---|
| Synopsis | Enable the **udt6** context |
| Context | **configure** service vprn *service-name* segment-routing-v6 *number* micro-segment-locator *reference* function udt6 |
| Tree | udt6 |
| Description | Commands in this context configure the SRv6 uDT6 behavior and the function value that is associated with the SRv6 instance in the service. When configured, decapsulation and table lookup for IPv6 prefixes occur in the VPRN service. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

### **value** *number*

| | |
|---|---|
| Synopsis | SRv6 function value |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* segment-routing-v6 *number* micro-segment-locator *reference* function udt6 value *number* |
| Tree | value |
| Description | This command assigns the optional static function value for the routes in the VPRN, VPLS, or Epipe instance.<br>When unconfigured, the system allocates a value dynamically. |
| Range | 1 to 1048575 |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS, VSR |

## **selective-fib** *boolean*

| | |
|---|---|
| Synopsis | Enable selective FIB |
| Context | **configure** service vprn *service-name* selective-fib *boolean* |
| Tree | selective-fib |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **service-id** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Service ID |
| Context | **configure** service vprn *service-name* service-id *number* |
| Tree | service-id |
| Range | 1 to 2147483647 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **sfm-overload**

| | |
|---|---|
| Synopsis | Enable the **sfm-overload** context |
| Context | **configure** service vprn *service-name* sfm-overload |


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| | |
|---|---|
| Tree | sfm-overload |
| Introduced | 16.0.R2 |
| Platforms | 7450 ESS, 7750 SR-1, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s, 7950 XRS, VSR |

### **holdoff-time** *number*

| | |
|---|---|
| Synopsis | Delay in detecting SFM failures and setting overload |
| Context | **configure** service vprn *service-name* sfm-overload holdoff-time *number* |
| Tree | holdoff-time |
| Range | 1 to 600 |
| Units | seconds |
| Introduced | 16.0.R2 |
| Platforms | 7450 ESS, 7750 SR-1, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s, 7950 XRS, VSR |

### **sgt-qos**

| | |
|---|---|
| Synopsis | Enter the **sgt-qos** context |
| Context | **configure** service vprn *service-name* sgt-qos |
| Tree | sgt-qos |
| Introduced | 16.0.R1 |
| Platforms | All |

### **dot1p**

| | |
|---|---|
| Synopsis | Enter the **dot1p** context |
| Context | **configure** service vprn *service-name* sgt-qos dot1p |
| Tree | dot1p |
| Introduced | 16.0.R1 |
| Platforms | All |

### **application** [dot1p-app-name] *keyword*

| | |
|---|---|
| Synopsis | Enter the **application** list instance |
| Context | **configure** service vprn *service-name* sgt-qos dot1p application *keyword* |


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| | |
|---|---|
| Tree | application |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**dot1p-app-name**] *keyword*

| | |
|---|---|
| Synopsis | Dot1p application ID that generates control traffic |
| Context | **configure** service vprn *service-name* sgt-qos dot1p application *keyword* |
| Tree | application |
| Options | arp, isis, pppoe |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **dot1p** *(keyword | number)*

| | |
|---|---|
| Synopsis | Dot1p value to the traffic generated by this application |
| Context | **configure** service vprn *service-name* sgt-qos dot1p application *keyword* dot1p *(keyword \| number)* |
| Tree | dot1p |
| Range | 0 to 7 |
| Options | be – Best effort<br>l2 – Low 2 (best effort)<br>af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority)<br>ef – Expedited forwarding (high priority)<br>h1 – High 1 (high priority)<br>nc – Network control (high priority) |
| Introduced | 16.0.R1 |
| Platforms | All |

### **dscp**

| | |
|---|---|
| Synopsis | Enter the **dscp** context |
| Context | **configure** service vprn *service-name* sgt-qos dscp |
| Tree | dscp |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## **application** [dscp-app-name] *keyword*

| | |
|---|---|
| Synopsis | Enter the **application** list instance |
| Context | **configure** service vprn *service-name* sgt-qos dscp application *keyword* |
| Tree | application |
| Description | Commands in this context configure DSCP remarking for self-generated application traffic.<br>All packets generated by the configured application instance use the value configured for the DSCP name or value. The instance can be Base, router, VPRN, or management.<br>The system uses the DSCP value configured in this instance to:<br>• set the DSCP bits in the IP packet<br>• signal from the CPM to the egress FC QoS policy to set the Ethernet 802.1p and MPLS EXP bits including, PPPoE, and IS-IS packets that do not carry DSCP bits<br>• configure the DSCP value in the egress IP header (which the egress QoS policy does not overwrite) |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**dscp-app-name**] *keyword*

| | |
|---|---|
| Synopsis | DSCP application ID that generates control traffic |
| Context | **configure** service vprn *service-name* sgt-qos dscp application *keyword* |
| Tree | application |
| Description | This command configures the DSCP application ID that generates control traffic. |
| Options | bgp, dhcp, dns, ftp, icmp, igmp, l2tp, ldp, mld, msdp, ndis, ntp, ospf, pim, radius, rip, rsvp, snmp, snmp-notification, srrp, ssh, syslog, tacplus, telnet, tftp, traceroute, vrrp, ptp, gtp, diameter, pcep, call-trace, bmp, grpc, mtrace2, http, pfcp, ibcp |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **dscp** *(keyword* | *number)*

| | |
|---|---|
| Synopsis | DSCP value to the traffic generated by this application |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* sgt-qos dscp application *keyword* dscp *(keyword \| number)* |
| Tree | dscp |
| Range | 0 to 63 |
| Options | be, cp1, cp2, cp3, cp4, cp5, cp6, cp7, cs1, cp9, af11, cp11, af12, cp13, af13, cp15, cs2, cp17, af21, cp19, af22, cp21, af23, cp23, cs3, cp25, af31, cp27, af32, cp29, af33, cp31, cs4, cp33, af41, cp35, af42, cp37, af43, cp39, cs5, cp41, cp42, cp43, cp44, cp45, ef, cp47, nc1, cp49, cp50, cp51, cp52, cp53, cp54, cp55, nc2, cp57, cp58, cp59, cp60, cp61, cp62, cp63 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **dscp-map** [dscp-name] *keyword*

| | |
|---|---|
| Synopsis | Enter the **dscp-map** list instance |
| Context | **configure** service vprn *service-name* sgt-qos dscp dscp-map *keyword* |
| Tree | dscp-map |
| Introduced | 16.0.R2 |
| Platforms | All |

## [**dscp-name**] *keyword*

| | |
|---|---|
| Synopsis | DSCP name mapped to forwarding class |
| Context | **configure** service vprn *service-name* sgt-qos dscp dscp-map *keyword* |
| Tree | dscp-map |
| Options | be, cp1, cp2, cp3, cp4, cp5, cp6, cp7, cs1, cp9, af11, cp11, af12, cp13, af13, cp15, cs2, cp17, af21, cp19, af22, cp21, af23, cp23, cs3, cp25, af31, cp27, af32, cp29, af33, cp31, cs4, cp33, af41, cp35, af42, cp37, af43, cp39, cs5, cp41, cp42, cp43, cp44, cp45, ef, cp47, nc1, cp49, cp50, cp51, cp52, cp53, cp54, cp55, nc2, cp57, cp58, cp59, cp60, cp61, cp62, cp63 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R2 |
| Platforms | All |

## **fc** *keyword*

| | |
|---|---|
| Synopsis | Value for the forwarding class for this mapping |
| Context | **configure** service vprn *service-name* sgt-qos dscp dscp-map *keyword* fc *keyword* |


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| | |
|---|---|
| Tree | fc |
| Options | be – Best effort<br>l2 – Low 2 (best effort)<br>af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority)<br>ef – Expedited forwarding (high priority)<br>h1 – High 1 (high priority)<br>nc – Network control (high priority) |
| Introduced | 16.0.R2 |
| Platforms | All |

## snmp

| | |
|---|---|
| Synopsis | Enter the **snmp** context |
| Context | **configure** service vprn *service-name* snmp |
| Tree | snmp |
| Introduced | 16.0.R5 |
| Platforms | All |

## access *boolean*

| | |
|---|---|
| Synopsis | Enable SNMP access for the VPRN service |
| Context | **configure** service vprn *service-name* snmp access *boolean* |
| Tree | access |
| Default | false |
| Introduced | 16.0.R5 |
| Platforms | All |

## community [community-string] *encrypted-leaf*

| | |
|---|---|
| Synopsis | Enter the **community** list instance |
| Context | **configure** service vprn *service-name* snmp community *encrypted-leaf* |
| Tree | community |
| Description | Commands in this context set the SNMP community names to be used with the associated VPRN instance. These VPRN community names are used to associate SNMP v1/v2c requests with a particular VPRN context and to return a reply that contains VPRN-specific data or limit SNMP access to data in a specific VPRN instance. |


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VPRN SNMP communities configured with an access permission of 'r' are automatically associated with the default access group "snmp-vprn-ro" and the “vprn-view” view (read only). VPRN SNMP communities configured with an access permission of 'rw' are automatically associated with the default access group "snmp-vprn” and the “vprn-view” view (read/write).

The community in an SNMP v1/v2 request determines the SNMP context (that is, the VPRN number for accessing SNMP tables) and not the VPRN of the incoming interface on which the request was received. For example, when an SNMP request arrives on VPRN 5 interface “ringo” with a destination IP address equal to the “ringo” interface, but the community in the SNMP request is the community configured against VPRN 101, the SNMP request is processed using the VPRN 101 context. (the response contains information about VPRN 101). Nokia recommends avoiding the use of a simple series of VPRN SNMP community values that are similar to each other (for example, avoid my-vprncomm-1, my-vprn-comm-2, and so on).

| | |
|---|---|
| Introduced | 16.0.R5 |
| Platforms | All |

## [**community-string**] *encrypted-leaf*

| | |
|---|---|
| Synopsis | SNMP v1/v2c community name associated with the VPRN |
| Context | **configure** service vprn *service-name* snmp community *encrypted-leaf* |
| Tree | community |
| String length | 1 to 114 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R5 |
| Platforms | All |

## **access-permissions** *keyword*

| | |
|---|---|
| Synopsis | Access permissions to MIB objects |
| Context | **configure** service vprn *service-name* snmp community *encrypted-leaf* access-permissions *keyword* |
| Tree | access-permissions |
| Options | r, rw |
| Notes | This element is mandatory. |
| Introduced | 16.0.R5 |
| Platforms | All |


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### **source-access-list** *reference*

| | |
|---|---|
| Synopsis | List name used to validate the source IP address |
| Context | **configure** service vprn *service-name* snmp community *encrypted-leaf* source-access-list *reference* |
| Tree | source-access-list |
| Description | This command specifies the SNMP source access list to use with the SNMP community. The source access list is used to validate the source IP address of all received SNMP requests that use the community. |
| Reference | **configure** system security snmp source-access-list *string-not-all-spaces* |
| Introduced | 16.0.R5 |
| Platforms | All |

### **version** *keyword*

| | |
|---|---|
| Synopsis | SNMP version |
| Context | **configure** service vprn *service-name* snmp community *encrypted-leaf* version *keyword* |
| Tree | version |
| Options | v1, v2c, both |
| Default | both |
| Introduced | 16.0.R5 |
| Platforms | All |

### **source-address**

| | |
|---|---|
| Synopsis | Enter the **source-address** context |
| Context | **configure** service vprn *service-name* source-address |
| Tree | source-address |
| Description | Commands in this context configure the source address and application to use in all unsolicited packets. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv4** [application] *keyword*

| | |
|---|---|
| Synopsis | Enter the **ipv4** list instance |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* source-address ipv4 *keyword* |
| Tree | ipv4 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**application**] *keyword*

| | |
|---|---|
| Synopsis | Application that uses the source IP address |
| Context | **configure** service vprn *service-name* source-address ipv4 *keyword* |
| Tree | ipv4 |
| Options | telnet, ssh, snmptrap, ping, traceroute, ntp, cflowd, ptp, icmp-error |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **address** *ipv4-address*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Source IPv4 address |
| Context | **configure** service vprn *service-name* source-address ipv4 *keyword* address *ipv4-address* |
| Tree | address |
| Notes | The following elements are part of a mandatory choice: **address** or **interface-name**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **interface-name** *interface-name*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IP interface name |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* source-address ipv4 *keyword* interface-name *interface-name* |
| Tree | interface-name |
| String length | 1 to 32 |
| Notes | The following elements are part of a mandatory choice: **address** or **interface-name**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv6** [application] *keyword*

| | |
|---|---|
| Synopsis | Enter the **ipv6** list instance |
| Context | **configure** service vprn *service-name* source-address ipv6 *keyword* |
| Tree | ipv6 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**application**] *keyword*

| | |
|---|---|
| Synopsis | Application that uses the source IP address |
| Context | **configure** service vprn *service-name* source-address ipv6 *keyword* |
| Tree | ipv6 |
| Options | telnet, snmptrap, ping, traceroute, cflowd, ntp, icmp6-error, ssh, ptp |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **address** *ipv6-address*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Source IPv6 address |
| Context | **configure** service vprn *service-name* source-address ipv6 *keyword* address *ipv6-address* |
| Tree | address |


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| | |
|---|---|
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **spoke-sdp** [sdp-bind-id] *sdp-bind-id*

| | |
|---|---|
| Synopsis | Enter the **spoke-sdp** list instance |
| Context | **configure** service vprn *service-name* spoke-sdp *sdp-bind-id* |
| Tree | spoke-sdp |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**sdp-bind-id**] *sdp-bind-id*

| | |
|---|---|
| Synopsis | SDP binding ID |
| Context | **configure** service vprn *service-name* spoke-sdp *sdp-bind-id* |
| Tree | spoke-sdp |
| String length | 3 to 16 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R3 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* spoke-sdp *sdp-bind-id* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **static-routes**

| | |
|---|---|
| Synopsis | Enter the **static-routes** context |
| Context | **configure** service vprn *service-name* static-routes |


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| | |
|---|---|
| Tree | static-routes |
| Introduced | 16.0.R1 |
| Platforms | All |

## hold-down

| | |
|---|---|
| Synopsis | Enable the **hold-down** context |
| Context | **configure** service vprn *service-name* static-routes hold-down |
| Tree | hold-down |
| Description | Commands in this context enable the hold-down time feature globally for static routes in the system.<br>The static route hold-down time is a mechanism to protect from rapid, fluctuating state changes of static routes resulting from issues with reachability because of link flap.<br>The commands in this context apply to all static routes in the VPRN and the base router instance in which this hold-down time is configured in. |
| Introduced | 16.0.R1 |
| Platforms | All |

## initial *number*

| | |
|---|---|
| Synopsis | Value for the initial hold-down time |
| Context | **configure** service vprn *service-name* static-routes hold-down initial *number* |
| Tree | initial |
| Description | This command specifies the initial value of the hold-down time globally for static routes in the system.<br>When a static route is ready to become active, it remains inactive for the hold-down time before activating the static-route. If, during this hold-down period, the static route becomes inactive again because of factors such as interface failure, the hold-down timer is reset, effectively postponing the activation of the route until the next opportunity. |
| Range | 1 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## max-value *number*

| | |
|---|---|
| Synopsis | Maximum value of the hold-down time |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* static-routes hold-down max-value *number* |
| Tree | max-value |
| Description | This command specifies the maximum value of the hold-down time globally for static routes in the system. |
| Range | 1 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **multiplier** *number*

| | |
|---|---|
| Synopsis | Multiplier of the previous hold-down time |
| Context | **configure** service vprn *service-name* static-routes hold-down multiplier *number* |
| Tree | multiplier |
| Description | This command specifies the multiplier value by which the previous hold-down time is multiplied to calculate the new one. This value applies globally for static routes in the system. |
| Range | 1 to 10 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **route** [ip-prefix] *(ipv4-prefix | ipv6-prefix)* route-type *keyword*

| | |
|---|---|
| Synopsis | Enter the **route** list instance |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* |
| Tree | route |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ip-prefix**] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | IP prefix and prefix length for the static routes |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* |


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| | |
|---|---|
| Tree | route |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **route-type** *keyword*

| | |
|---|---|
| Synopsis | Static route type |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* |
| Tree | route |
| Options | unicast, multicast |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **backup-tag** *number*

| | |
|---|---|
| Synopsis | Static route backup tag |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* backup-tag *number* |
| Tree | backup-tag |
| Description | This command associates a 4-byte backup route tag with the static route when the backup next-hop functionality is activated. The tag value is used in route policies to control distribution of the static route into other protocols when the backup next-hop function is activated for the associated static route.<br>The tag specified at this level of the static route causes the tag values that are configured under the **next-hop**, **black-hole**, and **indirect** contexts of the static route to be ignored. |
| Range | 1 to 4294967295 |
| Introduced | 21.2.R1 |
| Platforms | All |

### **blackhole**

| | |
|---|---|
| Synopsis | Enable the **blackhole** context |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* blackhole |
| Tree | blackhole |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the static route operation |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* blackhole admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **community** *community*

| | |
|---|---|
| Synopsis | Community ID associated with the static route |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* blackhole community *community* |
| Tree | community |
| String length | 1 to 72 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description-allow-all-white-spaces*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* blackhole description *description-allow-all-white-spaces* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **generate-icmp** *boolean*

| | |
|---|---|
| Synopsis | Send ICMP unreachable messages when received packets match a static route with black-hole next-hop |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* blackhole generate-icmp *boolean* |
| Tree | generate-icmp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **metric** *number*

| | |
|---|---|
| Synopsis | Static route metric |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* blackhole metric *number* |
| Tree | metric |
| Range | 0 to 65535 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **preference** *number*

| | |
|---|---|
| Synopsis | Priority of this static route over the routes from different sources |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* blackhole preference *number* |
| Tree | preference |
| Range | 1 to 255 |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **prefix-list**

| | |
|---|---|
| Synopsis | Enter the **prefix-list** context |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* blackhole prefix-list |
| Tree | prefix-list |
| Introduced | 16.0.R1 |
| Platforms | All |

### **flag** *keyword*

| | |
|---|---|
| Synopsis | Static route match condition from prefix list |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* blackhole prefix-list flag *keyword* |
| Tree | flag |
| Options | any, all, none |
| Default | any |
| Introduced | 16.0.R1 |
| Platforms | All |

### **name** *reference*

| | |
|---|---|
| Synopsis | Prefix list name |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* blackhole prefix-list name *reference* |
| Tree | name |
| Reference | **configure** policy-options prefix-list *named-item-64* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **router-instance** *string*

| | |
|---|---|
| Synopsis | Router instance used for matching prefix list |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* blackhole prefix-list router-instance *string* |
| Tree | router-instance |
| Description | This command configures the router instance used for matching against the prefix list. If the conditional static route is configured in a VPRN and the router instance is configured as "Base", the activation of the static route is dependent on the existence of routes in the Base router and the evaluation of the prefix list and flag is done in that context. |


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By default there is no configured value for this command option, and the conditional static route is dependent on the existence of routes in the same router instance as the static route itself, subject to the details of the prefix list and the flag setting.

Entries in a referenced prefix list that are not match type 'exact' are interpreted as though they are 'exact'.

| | |
|---|---|
| Introduced | 24.7.R1 |
| Platforms | All |

## **tag** *number*

| | |
|---|---|
| Synopsis | Static route tag |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* blackhole tag *number* |
| Tree | tag |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **community** *community*

| | |
|---|---|
| Synopsis | Community ID associated with the static route |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* community *community* |
| Tree | community |
| String length | 1 to 72 |
| Max. instances | 12 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **grt**

| | |
|---|---|
| Synopsis | Enable the **grt** context |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* grt |
| Tree | grt |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the static route operation |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* grt admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description-allow-all-white-spaces*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* grt description *description-allow-all-white-spaces* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **metric** *number*

| | |
|---|---|
| Synopsis | Static route metric |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* grt metric *number* |
| Tree | metric |
| Range | 0 to 65535 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **preference** *number*

| | |
|---|---|
| Synopsis | Priority of this static route over the routes from different sources |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* grt preference *number* |
| Tree | preference |
| Range | 1 to 255 |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **indirect** [ip-address] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Enter the **indirect** list instance |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* indirect *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | indirect |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ip-address**] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Next-hop IP address used to reach the destination |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* indirect *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | indirect |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the static route operation |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* indirect *(ipv4-address-no-zone \| ipv6-address-no-zone)* admin-state *keyword* |
| Tree | admin-state |


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| | |
|---|---|
| Options | enable, disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **community** *community*

| | |
|---|---|
| Synopsis | Community ID associated with the static route |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* indirect *(ipv4-address-no-zone \| ipv6-address-no-zone)* community *community* |
| Tree | community |
| String length | 1 to 72 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cpe-check** [address] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Enter the **cpe-check** list instance |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* indirect *(ipv4-address-no-zone \| ipv6-address-no-zone)* cpe-check *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | cpe-check |
| Description | When configured, this command enables the Customer Premises Equipment (CPE) check feature and specifies the IP address of the target CPE device.<br><br>This option initiates a background ICMP ping test to the configured target IP address. The IP address can either be an IPv4 address for IPv4 static routes or an IPv6 address for IPv6 static routes. To avoid possible circular references, the target IP address cannot exist in the same subnet as the static route subnet. This command is mutually exclusive with BFD support on a specific static route.<br><br>**Note**: A node that is sourcing CPE-check packets waits an additional full interval before taking action, which gives the CPE time to respond. For example, with a drop-count of 3 and an interval of 1s, three CPE-check packets are sent out and the node waits for the duration of another interval before acting on the loss. Failure declaration may take extra time depending on the load, interval, and other factors. In line with multitasking, multi-priority operating principles of the node, and the relative priority of **cpe-ping**, the node paces these minor events. |
| Max. instances | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**address**] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the target CPE device |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* indirect *(ipv4-address-no-zone \| ipv6-address-no-zone)* cpe-check *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | cpe-check |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **drop-count** *number*

| | |
|---|---|
| Synopsis | Consecutive ping replies missed before CPE deemed down |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* indirect *(ipv4-address-no-zone \| ipv6-address-no-zone)* cpe-check *(ipv4-address-no-zone \| ipv6-address-no-zone)* drop-count *number* |
| Tree | drop-count |
| Range | 1 to 255 |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **interval** *number*

| | |
|---|---|
| Synopsis | Interval between ICMP pings to target CPE IP address |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* indirect *(ipv4-address-no-zone \| ipv6-address-no-zone)* cpe-check *(ipv4-address-no-zone \| ipv6-address-no-zone)* interval *number* |
| Tree | interval |
| Range | 1 to 255 |
| Units | seconds |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **log** *boolean*

| | |
|---|---|
| Synopsis | Log CPE connectivity checks transitions |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* indirect *(ipv4-address-no-zone \| ipv6-address-no-zone)* cpe-check *(ipv4-address-no-zone \| ipv6-address-no-zone)* log *boolean* |
| Tree | log |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **padding-size** *number*

| | |
|---|---|
| Synopsis | Padding size for CPE connectivity checks |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* indirect *(ipv4-address-no-zone \| ipv6-address-no-zone)* cpe-check *(ipv4-address-no-zone \| ipv6-address-no-zone)* padding-size *number* |
| Tree | padding-size |
| Range | 0 to 16384 |
| Units | bytes |
| Default | 56 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description-allow-all-white-spaces*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* indirect *(ipv4-address-no-zone \| ipv6-address-no-zone)* description *description-allow-all-white-spaces* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **destination-class** *number*

| | |
|---|---|
| Synopsis | Destination class for this static route |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* indirect *(ipv4-address-no-zone \| ipv6-address-no-zone)* destination-class *number* |
| Tree | destination-class |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### **metric** *number*

| | |
|---|---|
| Synopsis | Static route metric |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* indirect *(ipv4-address-no-zone \| ipv6-address-no-zone)* metric *number* |
| Tree | metric |
| Range | 0 to 65535 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **preference** *number*

| | |
|---|---|
| Synopsis | Priority of this static route over the routes from different sources |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* indirect *(ipv4-address-no-zone \| ipv6-address-no-zone)* preference *number* |
| Tree | preference |
| Range | 1 to 255 |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **prefix-list**

| | |
|---|---|
| Synopsis | Enter the **prefix-list** context |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* indirect *(ipv4-address-no-zone \| ipv6-address-no-zone)* prefix-list |
| Tree | prefix-list |
| Introduced | 16.0.R1 |
| Platforms | All |

### **flag** *keyword*

| | |
|---|---|
| Synopsis | Static route match condition from prefix list |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* indirect *(ipv4-address-no-zone \| ipv6-address-no-zone)* prefix-list flag *keyword* |
| Tree | flag |
| Options | any, all, none |
| Default | any |
| Introduced | 16.0.R1 |
| Platforms | All |

### **name** *reference*

| | |
|---|---|
| Synopsis | Prefix list name |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* indirect *(ipv4-address-no-zone \| ipv6-address-no-zone)* prefix-list name *reference* |
| Tree | name |
| Reference | **configure** policy-options prefix-list *named-item-64* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **router-instance** *string*

| | |
|---|---|
| Synopsis | Router instance used for matching prefix list |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* indirect *(ipv4-address-no-zone \| ipv6-address-no-zone)* prefix-list router-instance *string* |
| Tree | router-instance |
| Description | This command configures the router instance used for matching against the prefix list. If the conditional static route is configured in a VPRN and the router instance is configured |


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as "Base", the activation of the static route is dependent on the existence of routes in the Base router and the evaluation of the prefix list and flag is done in that context.

By default there is no configured value for this command option, and the conditional static route is dependent on the existence of routes in the same router instance as the static route itself, subject to the details of the prefix list and the flag setting.

Entries in a referenced prefix list that are not match type 'exact' are interpreted as though they are 'exact'.

Introduced 24.7.R1

Platforms All

## qos

Synopsis Enter the **qos** context

Context **configure** service vprn *service-name* static-routes route *(ipv4-prefix | ipv6-prefix)* route-type *keyword* indirect *(ipv4-address-no-zone | ipv6-address-no-zone)* qos

Tree qos

Introduced 16.0.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS

## forwarding-class *keyword*

Synopsis Forwarding class associated with the static route

Context **configure** service vprn *service-name* static-routes route *(ipv4-prefix | ipv6-prefix)* route-type *keyword* indirect *(ipv4-address-no-zone | ipv6-address-no-zone)* qos forwarding-class *keyword*

Tree forwarding-class

Options be – Best effort
l2 – Low 2 (best effort)
af – Assured forwarding (assured)
l1 – Low 1 (assured)
h2 – High 2 (high priority)
ef – Expedited forwarding (high priority)
h1 – High 1 (high priority)
nc – Network control (high priority)

Introduced 16.0.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS

## priority *keyword*

Synopsis Static route priority


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| | |
|---|---|
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* indirect *(ipv4-address-no-zone \| ipv6-address-no-zone)* qos priority *keyword* |
| Tree | priority |
| Options | low, high |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **source-class** *number*

| | |
|---|---|
| Synopsis | Source class for the static route |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* indirect *(ipv4-address-no-zone \| ipv6-address-no-zone)* source-class *number* |
| Tree | source-class |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### **tag** *number*

| | |
|---|---|
| Synopsis | Static route tag |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* indirect *(ipv4-address-no-zone \| ipv6-address-no-zone)* tag *number* |
| Tree | tag |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **interface** [interface-name] *interface-name*

| | |
|---|---|
| Synopsis | Enter the **interface** list instance |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* interface *interface-name* |
| Tree | interface |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**interface-name**] *interface-name*

| | |
|---|---|
| Synopsis | Router interface name |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* interface *interface-name* |
| Tree | interface |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the static route operation |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* interface *interface-name* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **community** *community*

| | |
|---|---|
| Synopsis | Community ID associated with the static route |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* interface *interface-name* community *community* |
| Tree | community |
| String length | 1 to 72 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cpe-check** [address] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Enter the **cpe-check** list instance |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* interface *interface-name* cpe-check *(ipv4-address-no-zone \| ipv6-address-no-zone)* |


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| | |
|---|---|
| Tree | cpe-check |
| Description | When configured, this command enables the Customer Premises Equipment (CPE) check feature and specifies the IP address of the target CPE device.<br><br>This option initiates a background ICMP ping test to the configured target IP address. The IP address can either be an IPv4 address for IPv4 static routes or an IPv6 address for IPv6 static routes. To avoid possible circular references, the target IP address cannot exist in the same subnet as the static route subnet. This command is mutually exclusive with BFD support on a specific static route.<br><br>**Note**: A node that is sourcing CPE-check packets waits an additional full interval before taking action, which gives the CPE time to respond. For example, with a drop-count of 3 and an interval of 1s, three CPE-check packets are sent out and the node waits for the duration of another interval before acting on the loss. Failure declaration may take extra time depending on the load, interval, and other factors. In line with multitasking, multi-priority operating principles of the node, and the relative priority of **cpe-ping**, the node paces these minor events. |
| Max. instances | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**address**] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the target CPE device |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* interface *interface-name* cpe-check *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | cpe-check |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **drop-count** *number*

| | |
|---|---|
| Synopsis | Consecutive ping replies missed before CPE deemed down |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* interface *interface-name* cpe-check *(ipv4-address-no-zone \| ipv6-address-no-zone)* drop-count *number* |
| Tree | drop-count |
| Range | 1 to 255 |
| Default | 3 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## **interval** *number*

| | |
|---|---|
| Synopsis | Interval between ICMP pings to target CPE IP address |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* interface *interface-name* cpe-check *(ipv4-address-no-zone \| ipv6-address-no-zone)* interval *number* |
| Tree | interval |
| Range | 1 to 255 |
| Units | seconds |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **log** *boolean*

| | |
|---|---|
| Synopsis | Log CPE connectivity checks transitions |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* interface *interface-name* cpe-check *(ipv4-address-no-zone \| ipv6-address-no-zone)* log *boolean* |
| Tree | log |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **padding-size** *number*

| | |
|---|---|
| Synopsis | Padding size for CPE connectivity checks |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* interface *interface-name* cpe-check *(ipv4-address-no-zone \| ipv6-address-no-zone)* padding-size *number* |
| Tree | padding-size |
| Range | 0 to 16384 |
| Units | bytes |
| Default | 56 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description-allow-all-white-spaces*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* interface *interface-name* description *description-allow-all-white-spaces* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **destination-class** *number*

| | |
|---|---|
| Synopsis | Destination class for this static route |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* interface *interface-name* destination-class *number* |
| Tree | destination-class |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### **load-balancing-weight** *number*

| | |
|---|---|
| Synopsis | Load-balancing weight for all of the ECMP next hops |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* interface *interface-name* load-balancing-weight *number* |
| Tree | load-balancing-weight |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **metric** *number*

| | |
|---|---|
| Synopsis | Static route metric |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* interface *interface-name* metric *number* |
| Tree | metric |
| Range | 0 to 65535 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **preference** *number*

| | |
|---|---|
| Synopsis | Priority of this static route over the routes from different sources |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* interface *interface-name* preference *number* |
| Tree | preference |
| Range | 1 to 255 |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **prefix-list**

| | |
|---|---|
| Synopsis | Enter the **prefix-list** context |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* interface *interface-name* prefix-list |
| Tree | prefix-list |
| Introduced | 16.0.R1 |
| Platforms | All |

## **flag** *keyword*

| | |
|---|---|
| Synopsis | Static route match condition from prefix list |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* interface *interface-name* prefix-list flag *keyword* |
| Tree | flag |
| Options | any, all, none |
| Default | any |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **name** *reference*

| | |
|---|---|
| Synopsis | Prefix list name |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* interface *interface-name* prefix-list name *reference* |
| Tree | name |
| Reference | **configure** policy-options prefix-list *named-item-64* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **router-instance** *string*

| | |
|---|---|
| Synopsis | Router instance used for matching prefix list |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* interface *interface-name* prefix-list router-instance *string* |
| Tree | router-instance |
| Description | This command configures the router instance used for matching against the prefix list. If the conditional static route is configured in a VPRN and the router instance is configured as "Base", the activation of the static route is dependent on the existence of routes in the Base router and the evaluation of the prefix list and flag is done in that context.<br>By default there is no configured value for this command option, and the conditional static route is dependent on the existence of routes in the same router instance as the static route itself, subject to the details of the prefix list and the flag setting.<br>Entries in a referenced prefix list that are not match type 'exact' are interpreted as though they are 'exact'. |
| Introduced | 24.7.R1 |
| Platforms | All |

### **qos**

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* interface *interface-name* qos |
| Tree | qos |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **forwarding-class** *keyword*

| | |
|---|---|
| Synopsis | Forwarding class associated with the static route |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* interface *interface-name* qos forwarding-class *keyword* |
| Tree | forwarding-class |
| Options | be – Best effort<br>l2 – Low 2 (best effort)<br>af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority)<br>ef – Expedited forwarding (high priority)<br>h1 – High 1 (high priority)<br>nc – Network control (high priority) |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **priority** *keyword*

| | |
|---|---|
| Synopsis | Static route priority |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* interface *interface-name* qos priority *keyword* |
| Tree | priority |
| Options | low, high |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **source-class** *number*

| | |
|---|---|
| Synopsis | Source class for the static route |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* interface *interface-name* source-class *number* |
| Tree | source-class |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |


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### **tag** *number*

| | |
|---|---|
| Synopsis | Static route tag |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* interface *interface-name* tag *number* |
| Tree | tag |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipsec-tunnel** [ipsec-tunnel-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **ipsec-tunnel** list instance |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* ipsec-tunnel *named-item* |
| Tree | ipsec-tunnel |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ipsec-tunnel-name**] *named-item*

| | |
|---|---|
| Synopsis | IPsec tunnel name |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* ipsec-tunnel *named-item* |
| Tree | ipsec-tunnel |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the static route operation |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* ipsec-tunnel *named-item* admin-state *keyword* |
| Tree | admin-state |


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| | |
|---|---|
| Options | enable, disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **community** *community*

| | |
|---|---|
| Synopsis | Community ID associated with the static route |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* ipsec-tunnel *named-item* community *community* |
| Tree | community |
| String length | 1 to 72 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description-allow-all-white-spaces*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* ipsec-tunnel *named-item* description *description-allow-all-white-spaces* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **destination-class** *number*

| | |
|---|---|
| Synopsis | Destination class for this static route |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* ipsec-tunnel *named-item* destination-class *number* |
| Tree | destination-class |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |


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### **metric** *number*

| | |
|---|---|
| Synopsis | Static route metric |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* ipsec-tunnel *named-item* metric *number* |
| Tree | metric |
| Range | 0 to 65535 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **preference** *number*

| | |
|---|---|
| Synopsis | Priority of this static route over the routes from different sources |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* ipsec-tunnel *named-item* preference *number* |
| Tree | preference |
| Range | 1 to 255 |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **qos**

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* ipsec-tunnel *named-item* qos |
| Tree | qos |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **forwarding-class** *keyword*

| | |
|---|---|
| Synopsis | Forwarding class associated with the static route |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* ipsec-tunnel *named-item* qos forwarding-class *keyword* |


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| | |
|---|---|
| Tree | forwarding-class |
| Options | be – Best effort<br>l2 – Low 2 (best effort)<br>af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority)<br>ef – Expedited forwarding (high priority)<br>h1 – High 1 (high priority)<br>nc – Network control (high priority) |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **priority** *keyword*

| | |
|---|---|
| Synopsis | Static route priority |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* ipsec-tunnel *named-item* qos priority *keyword* |
| Tree | priority |
| Options | low, high |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **source-class** *number*

| | |
|---|---|
| Synopsis | Source class for the static route |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* ipsec-tunnel *named-item* source-class *number* |
| Tree | source-class |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### **tag** *number*

| | |
|---|---|
| Synopsis | Static route tag |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* ipsec-tunnel *named-item* tag *number* |
| Tree | tag |


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| | |
|---|---|
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **next-hop** [ip-address] *(ipv4-address-with-zone | ipv6-address-with-zone)*

| | |
|---|---|
| Synopsis | Enter the **next-hop** list instance |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* next-hop *(ipv4-address-with-zone \| ipv6-address-with-zone)* |
| Tree | next-hop |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ip-address**] *(ipv4-address-with-zone | ipv6-address-with-zone)*

| | |
|---|---|
| Synopsis | Next-hop IP address used to reach the destination |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* next-hop *(ipv4-address-with-zone \| ipv6-address-with-zone)* |
| Tree | next-hop |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the static route operation |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* next-hop *(ipv4-address-with-zone \| ipv6-address-with-zone)* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Introduced | 16.0.R1 |
| Platforms | All |


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## backup-next-hop

| | |
|---|---|
| Synopsis | Enter the **backup-next-hop** context |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* next-hop *(ipv4-address-with-zone \| ipv6-address-with-zone)* backup-next-hop |
| Tree | backup-next-hop |
| Description | Commands in this context configure static route entry fast failover. |
| Introduced | 21.2.R1 |
| Platforms | All |

## address *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Backup next-hop IP address |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* next-hop *(ipv4-address-with-zone \| ipv6-address-with-zone)* backup-next-hop address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | address |
| Description | This command specifies the backup IP forwarding address that is used for static route Fast ReRoute (FRR). The configured address, if reachable, acts as pre-installed backup forwarding information that can be used when the primary IP next-hop suddenly fails.<br><br>The configured backup next-hop IP address can be directly or indirectly connected (using an IGP or tunnel) to the node. The backup next-hop forwarding information or the Next-hop Label Forwarding Entry (NHLFE) tunnel forwarding information from the IP Routing Table Manager (RTM) is used to preconfigure an IP fast-reroute backup path.<br><br>One backup next-hop address can protect a single primary static route entry next-hop address without ECMP and it is only activated when the primary next-hop has no active ECMP.<br><br>The configured IP address can be either on the network or the access side. |
| Introduced | 21.2.R1 |
| Platforms | All |

## bfd-liveness *boolean*

| | |
|---|---|
| Synopsis | Use Bidirectional Forwarding Detection on this static route |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* next-hop *(ipv4-address-with-zone \| ipv6-address-with-zone)* bfd-liveness *boolean* |
| Tree | bfd-liveness |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **community** *community*

| | |
|---|---|
| Synopsis | Community ID associated with the static route |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* next-hop *(ipv4-address-with-zone \| ipv6-address-with-zone)* community *community* |
| Tree | community |
| String length | 1 to 72 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cpe-check** [address] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Enter the **cpe-check** list instance |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* next-hop *(ipv4-address-with-zone \| ipv6-address-with-zone)* cpe-check *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | cpe-check |
| Max. instances | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**address**] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the target CPE device |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* next-hop *(ipv4-address-with-zone \| ipv6-address-with-zone)* cpe-check *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | cpe-check |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **drop-count** *number*

| | |
|---|---|
| Synopsis | Consecutive ping replies missed before CPE deemed down |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* next-hop *(ipv4-address-with-zone \| ipv6-address-with-zone)* cpe-check *(ipv4-address-no-zone \| ipv6-address-no-zone)* drop-count *number* |
| Tree | drop-count |
| Range | 1 to 255 |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **interval** *number*

| | |
|---|---|
| Synopsis | Interval between ICMP pings to target CPE IP address |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* next-hop *(ipv4-address-with-zone \| ipv6-address-with-zone)* cpe-check *(ipv4-address-no-zone \| ipv6-address-no-zone)* interval *number* |
| Tree | interval |
| Range | 1 to 255 |
| Units | seconds |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **log** *boolean*

| | |
|---|---|
| Synopsis | Log CPE connectivity checks transitions |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* next-hop *(ipv4-address-with-zone \| ipv6-address-with-zone)* cpe-check *(ipv4-address-no-zone \| ipv6-address-no-zone)* log *boolean* |
| Tree | log |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **padding-size** *number*

| | |
|---|---|
| Synopsis | Padding size for CPE connectivity checks |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* next-hop *(ipv4-address-with-zone \| ipv6-address-with-zone)* cpe-check *(ipv4-address-no-zone \| ipv6-address-no-zone)* padding-size *number* |
| Tree | padding-size |
| Range | 0 to 16384 |
| Units | bytes |
| Default | 56 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description-allow-all-white-spaces*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* next-hop *(ipv4-address-with-zone \| ipv6-address-with-zone)* description *description-allow-all-white-spaces* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **destination-class** *number*

| | |
|---|---|
| Synopsis | Destination class for this static route |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* next-hop *(ipv4-address-with-zone \| ipv6-address-with-zone)* destination-class *number* |
| Tree | destination-class |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |


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### **load-balancing-weight** *number*

| | |
|---|---|
| Synopsis | Load-balancing weight for all of the ECMP next hops |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* next-hop *(ipv4-address-with-zone \| ipv6-address-with-zone)* load-balancing-weight *number* |
| Tree | load-balancing-weight |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **metric** *number*

| | |
|---|---|
| Synopsis | Static route metric |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* next-hop *(ipv4-address-with-zone \| ipv6-address-with-zone)* metric *number* |
| Tree | metric |
| Range | 0 to 65535 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **preference** *number*

| | |
|---|---|
| Synopsis | Priority of this static route over the routes from different sources |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* next-hop *(ipv4-address-with-zone \| ipv6-address-with-zone)* preference *number* |
| Tree | preference |
| Range | 1 to 255 |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | All |


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## prefix-list

| | |
|---|---|
| Synopsis | Enter the **prefix-list** context |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* next-hop *(ipv4-address-with-zone \| ipv6-address-with-zone)* prefix-list |
| Tree | prefix-list |
| Introduced | 16.0.R1 |
| Platforms | All |

## flag *keyword*

| | |
|---|---|
| Synopsis | Static route match condition from prefix list |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* next-hop *(ipv4-address-with-zone \| ipv6-address-with-zone)* prefix-list flag *keyword* |
| Tree | flag |
| Options | any, all, none |
| Default | any |
| Introduced | 16.0.R1 |
| Platforms | All |

## name *reference*

| | |
|---|---|
| Synopsis | Prefix list name |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* next-hop *(ipv4-address-with-zone \| ipv6-address-with-zone)* prefix-list name *reference* |
| Tree | name |
| Reference | **configure** policy-options prefix-list *named-item-64* |
| Introduced | 16.0.R1 |
| Platforms | All |

## router-instance *string*

| | |
|---|---|
| Synopsis | Router instance used for matching prefix list |


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Context **configure** service vprn *service-name* static-routes route *(ipv4-prefix | ipv6-prefix)* route-type *keyword* next-hop *(ipv4-address-with-zone | ipv6-address-with-zone)* prefix-list router-instance *string*

Tree router-instance

Description This command configures the router instance used for matching against the prefix list. If the conditional static route is configured in a VPRN and the router instance is configured as "Base", the activation of the static route is dependent on the existence of routes in the Base router and the evaluation of the prefix list and flag is done in that context.

By default there is no configured value for this command option, and the conditional static route is dependent on the existence of routes in the same router instance as the static route itself, subject to the details of the prefix list and the flag setting.

Entries in a referenced prefix list that are not match type 'exact' are interpreted as though they are 'exact'.

Introduced 24.7.R1

Platforms All

## qos

Synopsis Enter the **qos** context

Context **configure** service vprn *service-name* static-routes route *(ipv4-prefix | ipv6-prefix)* route-type *keyword* next-hop *(ipv4-address-with-zone | ipv6-address-with-zone)* qos

Tree qos

Introduced 16.0.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS

## forwarding-class *keyword*

Synopsis Forwarding class associated with the static route

Context **configure** service vprn *service-name* static-routes route *(ipv4-prefix | ipv6-prefix)* route-type *keyword* next-hop *(ipv4-address-with-zone | ipv6-address-with-zone)* qos forwarding-class *keyword*

Tree forwarding-class

Options be – Best effort
l2 – Low 2 (best effort)
af – Assured forwarding (assured)
l1 – Low 1 (assured)
h2 – High 2 (high priority)
ef – Expedited forwarding (high priority)
h1 – High 1 (high priority)
nc – Network control (high priority)

Introduced 16.0.R1


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **priority** *keyword*

| | |
|---|---|
| Synopsis | Static route priority |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* next-hop *(ipv4-address-with-zone \| ipv6-address-with-zone)* qos priority *keyword* |
| Tree | priority |
| Options | low, high |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **source-class** *number*

| | |
|---|---|
| Synopsis | Source class for the static route |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* next-hop *(ipv4-address-with-zone \| ipv6-address-with-zone)* source-class *number* |
| Tree | source-class |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### **tag** *number*

| | |
|---|---|
| Synopsis | Static route tag |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* next-hop *(ipv4-address-with-zone \| ipv6-address-with-zone)* tag *number* |
| Tree | tag |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **validate-next-hop** *boolean*

| | |
|---|---|
| Synopsis | Track the state of the next hop in the IPv4 ARP Cache or the IPv6 Neighbor Cache |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* next-hop *(ipv4-address-with-zone \| ipv6-address-with-zone)* validate-next-hop *boolean* |
| Tree | validate-next-hop |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **tag** *number*

| | |
|---|---|
| Synopsis | Static route tag |
| Context | **configure** service vprn *service-name* static-routes route *(ipv4-prefix \| ipv6-prefix)* route-type *keyword* tag *number* |
| Tree | tag |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **subscriber-interface** [interface-name] *interface-name*

| | |
|---|---|
| Synopsis | Enter the **subscriber-interface** list instance |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* |
| Tree | subscriber-interface |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**interface-name**] *interface-name*

| | |
|---|---|
| Synopsis | Subscriber interface name |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* |
| Tree | subscriber-interface |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the subscriber interface |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **description** *very-long-description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* description *very-long-description* |
| Tree | description |
| String length | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **fwd-service** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Forwarding service |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* fwd-service *reference* |
| Tree | fwd-service |
| Reference | **configure** service vprn *service-name* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **fwd-subscriber-interface** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Forwarding subscriber interface name |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* fwd-subscriber-interface *reference* |
| Tree | fwd-subscriber-interface |
| Reference | **configure** service vprn *service-name* subscriber-interface *interface-name* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **group-interface** [group-interface-name] *interface-name*

| | |
|---|---|
| Synopsis | Enter the **group-interface** list instance |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* |
| Tree | group-interface |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**group-interface-name**] *interface-name*

| | |
|---|---|
| Synopsis | Group interface name |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* |
| Tree | group-interface |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the interface |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## bonding-parameters

| | |
|---|---|
| Synopsis | Enter the **bonding-parameters** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* bonding-parameters |
| Tree | bonding-parameters |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of ESM connection bonding |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* bonding-parameters admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## connection [connection-index] *number*

| | |
|---|---|
| Synopsis | Enter the **connection** list instance |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* bonding-parameters connection *number* |
| Tree | connection |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### [**connection-index**] *number*

| | |
|---|---|
| Synopsis | Bonding connection index |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* bonding-parameters connection *number* |
| Tree | connection |
| Range | 1 to 2 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **service** *service-name*

| | |
|---|---|
| Synopsis | Connection service |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* bonding-parameters connection *number* service *service-name* |
| Tree | service |
| String length | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **fpe** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | FPE that provisions bonding functionality |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* bonding-parameters fpe *reference* |
| Tree | fpe |
| Reference | **configure** fwd-path-ext fpe *number* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## multicast

| | |
|---|---|
| Synopsis | Enter the **multicast** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* bonding-parameters multicast |
| Tree | multicast |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## connection *(number | keyword)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Multicast connection |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* bonding-parameters multicast connection *(number \| keyword)* |
| Tree | connection |
| Range | 1 to 2 |
| Options | use-incoming |
| Default | use-incoming |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## brg

| | |
|---|---|
| Synopsis | Enter the **brg** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* brg |
| Tree | brg |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of BRG |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* brg admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **authenticated-brg-only** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Allow BRGs that have been pre-authenticated |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* brg authenticated-brg-only *boolean* |
| Tree | authenticated-brg-only |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **default-brg-profile** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Default BRG profile for new BRGs |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* brg default-brg-profile *reference* |
| Tree | default-brg-profile |
| Reference | **configure** subscriber-mgmt vrgw brg-profile *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## cflowd-parameters

| | |
|---|---|
| Synopsis | Enter the **cflowd-parameters** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* cflowd-parameters |
| Tree | cflowd-parameters |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **sampling** [sampling-type] *keyword*

| | |
|---|---|
| Synopsis | Enter the **sampling** list instance |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* cflowd-parameters sampling *keyword* |
| Tree | sampling |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## [**sampling-type**] *keyword*

| | |
|---|---|
| Synopsis | Traffic sampling type |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* cflowd-parameters sampling *keyword* |
| Tree | sampling |
| Description | This command configures the type of traffic to be sampled on the associated IP interface. |
| Options | unicast, multicast, both |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **direction** *keyword*

| | |
|---|---|
| Synopsis | Direction of traffic for cflowd sampling |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* cflowd-parameters sampling *keyword* direction *keyword* |


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| | |
|---|---|
| Tree | direction |
| Description | This command configures the direction in which sampling occurs on the associated IP interfaces. |
| Options | ingress-only, egress-only, both |
| Default | ingress-only |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **sample-profile** *(keyword | number)*

| | |
|---|---|
| Synopsis | Sample profile ID |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* cflowd-parameters sampling *keyword* sample-profile *(keyword \| number)* |
| Tree | sample-profile |
| Description | This command defines the sampling rate profile associated with this interface. |
| Max. range | 0 to 4294967295 |
| Options | 1 |
| Introduced | 19.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **type** *keyword*

| | |
|---|---|
| Synopsis | Type of cflowd analysis |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* cflowd-parameters sampling *keyword* type *keyword* |
| Tree | type |
| Description | This command configures the cflowd sampling type on the associated IP interface. |
| Options | acl, interface |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **data-trigger**

| | |
|---|---|
| Synopsis | Enter the **data-trigger** context |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* data-trigger |
| Tree | data-trigger |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **accept-ipv6-link-local-address** *boolean*

| | |
|---|---|
| Synopsis | Enable IPv6 Link Local Address to start authentication |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* data-trigger accept-ipv6-link-local-address *boolean* |
| Tree | accept-ipv6-link-local-address |
| Description | When configured to **true**, the system triggers authentication of the subscriber based on an IPv6 packet with a source IP Link Local Address (LLA). The authentication trigger only occurs if the anti-spoof is type nh-mac. If the anti-spoof is not nh-mac, the packet with an IPv6 LLA is ignored.<br>When configured to **false**, the system ignores all IPv6 packets with a LLA as a source IP address. |
| Default | false |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of data-triggered host creation |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* data-trigger admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **description** *very-long-description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* description *very-long-description* |


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| | |
|---|---|
| Tree | description |
| String length | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## dynamic-routes-track-srrp

| | |
|---|---|
| Synopsis | Enable the **dynamic-routes-track-srrp** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* dynamic-routes-track-srrp |
| Tree | dynamic-routes-track-srrp |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## hold-time *number*

| | |
|---|---|
| Synopsis | Time before route state updated after SRRP transition |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* dynamic-routes-track-srrp hold-time *number* |
| Tree | hold-time |
| Range | 1 to 50 |
| Units | deciseconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## gtp-parameters

| | |
|---|---|
| Synopsis | Enter the **gtp-parameters** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* gtp-parameters |
| Tree | gtp-parameters |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of GTP access |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* gtp-parameters admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **fpe** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | PE that provisions the GTP user interface |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* gtp-parameters fpe *reference* |
| Tree | fpe |
| Reference | **configure** fwd-path-ext fpe *number* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **gx-policy** *reference*

| | |
|---|---|
| Synopsis | Diameter application policy |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* gx-policy *reference* |
| Tree | gx-policy |
| Reference | **configure** subscriber-mgmt diameter-gx-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## ingress

| | |
|---|---|
| Synopsis | Enter the **ingress** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ingress |
| Tree | ingress |
| Introduced | 19.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## policy-accounting *reference*

| | |
|---|---|
| Synopsis | Ingress policy accounting template name |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ingress policy-accounting *reference* |
| Tree | policy-accounting |
| Reference | **configure** routing-options policy-accounting policy-acct-template *named-item* |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## ingress-stats *boolean*

| | |
|---|---|
| Synopsis | Collect ingress interface statistics |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ingress-stats *boolean* |
| Tree | ingress-stats |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ip-mtu *number*

| | |
|---|---|
| Synopsis | Interface IP MTU |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ip-mtu *number* |
| Tree | ip-mtu |
| Range | 512 to 9786 |


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| | |
|---|---|
| Units | bytes |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ipoe-linking

| | |
|---|---|
| Synopsis | Enter the **ipoe-linking** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipoe-linking |
| Tree | ipoe-linking |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of IPoE host linking |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipoe-linking admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## gratuitous-router-advertisement *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Send unsolicited router advertisement after DHCP setup |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipoe-linking gratuitous-router-advertisement *boolean* |
| Tree | gratuitous-router-advertisement |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **shared-circuit-id** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable circuit ID in DHCPv4 Option82 to validate DHCPv6 |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipoe-linking shared-circuit-id *boolean* |
| Tree | shared-circuit-id |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ipoe-session**

| | |
|---|---|
| Synopsis | Enter the **ipoe-session** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipoe-session |
| Tree | ipoe-session |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of IPoE session management |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipoe-session admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipoe-session description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## force-auth

| | |
|---|---|
| Synopsis | Enter the **force-auth** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipoe-session force-auth |
| Tree | force-auth |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## cid-change *boolean*

| | |
|---|---|
| Synopsis | Ignore min-auth-interval when circuit ID changed |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipoe-session force-auth cid-change *boolean* |
| Tree | cid-change |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## rid-change *boolean*

| | |
|---|---|
| Synopsis | Ignore min-auth-interval when remote ID changed |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipoe-session force-auth rid-change *boolean* |
| Tree | rid-change |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## **ipoe-session-policy** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IPoE Session policy to be used for new sessions |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipoe-session ipoe-session-policy *reference* |
| Tree | ipoe-session-policy |
| Reference | **configure** subscriber-mgmt ipoe-session-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **min-auth-interval** *(keyword | number)*

| | |
|---|---|
| Synopsis | Minimum time between two authentication attempts |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipoe-session min-auth-interval *(keyword | number)* |
| Tree | min-auth-interval |
| Range | 1 to 32000000 |
| Units | seconds |
| Options | infinite, always-reauthenticate |
| Default | infinite |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **radius-session-timeout** *keyword*

| | |
|---|---|
| Synopsis | Session timeout attribute to be interpreted |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipoe-session radius-session-timeout *keyword* |
| Tree | radius-session-timeout |
| Options | absolute, ignore, backwards-compatible |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **sap-session-limit** *number*

| | |
|---|---|
| Synopsis | Maximum number of sessions per SAP |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipoe-session sap-session-limit *number* |
| Tree | sap-session-limit |
| Range | 1 to 131071 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **session-limit** *number*

| | |
|---|---|
| Synopsis | Maximum number of sessions on this group interface |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipoe-session session-limit *number* |
| Tree | session-limit |
| Range | 1 to 500000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **stateless-redundancy** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Remove IPoE sessions when the system becomes stand-by in a stateless multi-chassis redundancy setup |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipoe-session stateless-redundancy *boolean* |
| Tree | stateless-redundancy |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## **user-db** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Local user database for IPoE session authentication |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipoe-session user-db *reference* |
| Tree | user-db |
| Reference | **configure** subscriber-mgmt local-user-db *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **ipv4**

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 |
| Tree | ipv4 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **arp-host**

| | |
|---|---|
| Synopsis | Enter the **arp-host** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 arp-host |
| Tree | arp-host |
| Introduced | 16.0.R6 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of ARP hosts |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 arp-host admin-state *keyword* |


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| | |
|---|---|
| Tree | admin-state |
| Options | enable, disable |
| Introduced | 16.0.R6 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **host-limit** *number*

| | |
|---|---|
| Synopsis | Maximum number of ARP hosts |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 arp-host host-limit *number* |
| Tree | host-limit |
| Range | 1 to 524287 |
| Introduced | 16.0.R6 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **min-auth-interval** *number*

| | |
|---|---|
| Synopsis | Minimum authentication interval |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 arp-host min-auth-interval *number* |
| Tree | min-auth-interval |
| Range | 1 to 6000 |
| Units | minutes |
| Default | 15 |
| Introduced | 16.0.R6 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sap-host-limit** *number*

| | |
|---|---|
| Synopsis | Maximum number of ARP hosts per SAP |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 arp-host sap-host-limit *number* |
| Tree | sap-host-limit |
| Range | 1 to 131071 |
| Default | 1 |
| Introduced | 16.0.R6 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## bfd

| | |
|---|---|
| Synopsis | Enter the **bfd** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 bfd |
| Tree | bfd |
| Description | Commands in this context configure the attributes of bidirectional forwarding detection (BFD) sessions that control the state of ESM dynamic BGP peers. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of BFD sessions |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 bfd admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## echo-receive *number*

| | |
|---|---|
| Synopsis | Minimum echo interval over this interface |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 bfd echo-receive *number* |
| Tree | echo-receive |
| Range | 100 to 100000 |
| Units | milliseconds |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **multiplier** *number*

| | |
|---|---|
| Synopsis | Number of consecutive BFD messages missed from the peer |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 bfd multiplier *number* |
| Tree | multiplier |
| Description | This command configures the number of missed messages before the BFD session state is changed to down and the upper-level protocol is notified of the fault. A multiplier of less than 3 should not be used in production environments. |
| Range | 1 to 20 |
| Default | 3 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **receive** *number*

| | |
|---|---|
| Synopsis | BFD receive interval over this interface |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 bfd receive *number* |
| Tree | receive |
| Description | This command specifies the receive interval for the BFD session.<br>On the 7750 SR, this command can only be configured to a value less than 100 when the **type** command is configured to **cpm-np**. |
| Range | 10 to 100000 |
| Units | milliseconds |
| Default | 100 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **transmit-interval** *number*

| | |
|---|---|
| Synopsis | BFD transmit interval over this interface |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 bfd transmit-interval *number* |
| Tree | transmit-interval |
| Description | This command configures the transmit intervals. |


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On the 7750 SR, this command can only be configured to a value less than 100 when the **type** command is configured to **cpm-np**.

| | |
|---|---|
| Range | 10 to 100000 |
| Units | milliseconds |
| Default | 100 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **type** *keyword*

| | |
|---|---|
| Synopsis | Local termination point for the BFD session |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 bfd type *keyword* |
| Tree | type |
| Description | This command sets the local termination point for the BFD session to allow for fast timers down to 10 ms granularity.<br>The options to specify where the BFD session runs are:<br>• **auto** (default) – the system chooses and uses the line card CPU only for single-hop BFD sessions with timer intervals equal to or greater than 100ms. All others are placed on the **cpm-np**.<br>• **cpm-np** – BFD session runs on the FP complex associated with the CPM. This is either the FP on the CPM or the one elected on smaller systems.<br>• **fp** – BFD session runs on the line card CPU. This option can only be used for single-hop BFD sessions with timers equal to or greater than 100ms. |
| Options | cpm-np, auto, fp |
| Default | auto |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## **dhcp**

| | |
|---|---|
| Synopsis | Enter the **dhcp** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp |
| Tree | dhcp |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of DHCP |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **client-applications**

| | |
|---|---|
| Synopsis | Enter the **client-applications** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp client-applications |
| Tree | client-applications |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **dhcp** *boolean*

| | |
|---|---|
| Synopsis | Enable IPoE clients to use DHCP relay or proxy server |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp client-applications dhcp *boolean* |
| Tree | dhcp |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ppp** *boolean*

| | |
|---|---|
| Synopsis | Enable PPPoE clients to use DHCP relay or proxy server |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp client-applications ppp *boolean* |
| Tree | ppp |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **filter** *reference*

| | |
|---|---|
| Synopsis | DHCP filter ID for the group interface |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp filter *reference* |
| Tree | filter |
| Reference | **configure** filter dhcp-filter *number* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **gi-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | GI address for the DHCP relay |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp gi-address *ipv4-unicast-address* |
| Tree | gi-address |
| Description | This command configures the GI address to distinguish between the different subscriber interfaces (and potentially group interfaces) defined when the router functions as a DHCP relay.<br><br>By default, the GI address used in the relayed DHCP packet is the primary IP address of a normal IES interface. Specifying the GI address allows the user to choose a secondary address. For group interfaces, a GI address must be specified under the group interface DHCP context or subscriber interface DHCP context for DHCP to function. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### lease-populate

| | |
|---|---|
| Synopsis | Enter the **lease-populate** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp lease-populate |
| Tree | lease-populate |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### l2-header

| | |
|---|---|
| Synopsis | Enable the **l2-header** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp lease-populate l2-header |
| Tree | l2-header |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### mac *mac-unicast-address*

| | |
|---|---|
| Synopsis | IEEE address used in anti-spoofing entries for the SAP |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp lease-populate l2-header mac *mac-unicast-address* |
| Tree | mac |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### max-leases *number*

| | |
|---|---|
| Synopsis | Maximum number of DHCPv4 leases |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp lease-populate max-leases *number* |
| Tree | max-leases |
| Range | 1 to 511999 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **match-circuit-id** *boolean*

| | |
|---|---|
| Synopsis | Enable Option 82 circuit ID on relayed DHCP packets |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp match-circuit-id *boolean* |
| Tree | match-circuit-id |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **offer-selection**

| | |
|---|---|
| Synopsis | Enter the **offer-selection** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp offer-selection |
| Tree | offer-selection |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **client-mac**

| | |
|---|---|
| Synopsis | Enter the **client-mac** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp offer-selection client-mac |
| Tree | client-mac |
| Notes | The following elements are part of a choice: **client-mac** or **server**. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **discover-delay** *number*

| | |
|---|---|
| Synopsis | Delay before sending DHCP Discover messages |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp offer-selection client-mac discover-delay *number* |


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| | |
|---|---|
| Tree | discover-delay |
| Description | This command configures the time to delay sending DHCP Discover messages from the specified MAC addresses. |
| Range | 1 to 100 |
| Units | deciseconds |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **mac-address** *keyword*

| | |
|---|---|
| Synopsis | Designated client MAC addresses for Offer selection |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp offer-selection client-mac mac-address *keyword* |
| Tree | mac-address |
| Description | This command specifies the client MAC addresses for which the Discover delay applies. |
| Options | odd, even |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **discover-delay** *number*

| | |
|---|---|
| Synopsis | Delay before sending DHCP Discover messages |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp offer-selection discover-delay *number* |
| Tree | discover-delay |
| Description | This command configures the time to delay sending DHCP Discover messages. The delay is applied to all DHCP Discover messages for which no per DHCP server or per client MAC delay is configured. |
| Range | 1 to 100 |
| Units | deciseconds |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **server** [ipv4-address] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Enter the **server** list instance |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp offer-selection server *ipv4-unicast-address* |
| Tree | server |
| Max. instances | 8 |
| Notes | The following elements are part of a choice: **client-mac** or **server**. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## [**ipv4-address**] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IP address of the DHCP server |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp offer-selection server *ipv4-unicast-address* |
| Tree | server |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **discover-delay** *number*

| | |
|---|---|
| Synopsis | Delay before sending DHCP Discover messages |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp offer-selection server *ipv4-unicast-address* discover-delay *number* |
| Tree | discover-delay |
| Description | This command configures the time to delay DHCP Discover messages sent to the server. |
| Range | 1 to 100 |
| Units | deciseconds |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **option-82**

| | |
|---|---|
| Synopsis | Enter the **option-82** context |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp option-82 |
| Tree | option-82 |
| Description | Commands in this context configure the processing required when the router receives a DHCP request that already has an Option 82 field in the packet. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **action** *keyword*

| | |
|---|---|
| Synopsis | Action to take with received DHCP Option 82 |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp option-82 action *keyword* |
| Tree | action |
| Options | replace, drop, keep |
| Default | keep |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **circuit-id**

| | |
|---|---|
| Synopsis | Enter the **circuit-id** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp option-82 circuit-id |
| Tree | circuit-id |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **ascii-tuple**

| | |
|---|---|
| Synopsis | Use the ASCII-encoded tuple for the circuit ID |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp option-82 circuit-id ascii-tuple |
| Tree | ascii-tuple |
| Notes | The following elements are part of a choice: **ascii-tuple**, **ifindex**, **none**, **sap-id**, or **vlan-ascii-tuple**. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ifindex

| | |
|---|---|
| Synopsis | Use the interface index for the circuit ID |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp option-82 circuit-id ifindex |
| Tree | ifindex |
| Notes | The following elements are part of a choice: **ascii-tuple**, **ifindex**, **none**, **sap-id**, or **vlan-ascii-tuple**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## none

| | |
|---|---|
| Synopsis | Do not include the circuit ID |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp option-82 circuit-id none |
| Tree | none |
| Notes | The following elements are part of a choice: **ascii-tuple**, **ifindex**, **none**, **sap-id**, or **vlan-ascii-tuple**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## sap-id

| | |
|---|---|
| Synopsis | Use the SAP ID |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp option-82 circuit-id sap-id |
| Tree | sap-id |
| Notes | The following elements are part of a choice: **ascii-tuple**, **ifindex**, **none**, **sap-id**, or **vlan-ascii-tuple**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## vlan-ascii-tuple

| | |
|---|---|
| Synopsis | Include the VLAN ID and dot1p bits in the ASCII tuple |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp option-82 circuit-id vlan-ascii-tuple |
| Tree | vlan-ascii-tuple |
| Description | When configured, the router includes the VLAN ID and dot1p bits with the ASCII-tuple information. This only occurs on dot1q and QinQ-encapsulated ports. When the Option 82 bits are stripped, dot1p bits are copied to the Ethernet header of the outgoing packet.<br>When unconfigured, the router leaves the circuit ID sub-option of the DHCP packet empty. |
| Notes | The following elements are part of a choice: **ascii-tuple**, **ifindex**, **none**, **sap-id**, or **vlan-ascii-tuple**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## remote-id

| | |
|---|---|
| Synopsis | Enter the **remote-id** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp option-82 remote-id |
| Tree | remote-id |
| Description | Commands in this context configure the remote IP sub-option of the DHCP packet with the identity of the remote host end (typically the DHCP client). |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ascii-string *string-not-all-spaces*

| | |
|---|---|
| Synopsis | User-defined ASCII string for the remote ID |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp option-82 remote-id ascii-string *string-not-all-spaces* |
| Tree | ascii-string |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **ascii-string**, **mac**, or **none**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### mac

| | |
|---|---|
| Synopsis | Use the MAC address for the remote ID |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp option-82 remote-id mac |
| Tree | mac |
| Notes | The following elements are part of a choice: **ascii-string**, **mac**, or **none**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### none

| | |
|---|---|
| Synopsis | Do not include the remote ID |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp option-82 remote-id none |
| Tree | none |
| Notes | The following elements are part of a choice: **ascii-string**, **mac**, or **none**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### vendor-specific-option

| | |
|---|---|
| Synopsis | Enter the **vendor-specific-option** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp option-82 vendor-specific-option |
| Tree | vendor-specific-option |
| Description | Commands in this context configure the Nokia Vendor-Specific Option (VSO) of the DHCP packet. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### client-mac-address *boolean*

| | |
|---|---|
| Synopsis | Send the MAC address in the VSO |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp option-82 vendor-specific-option client-mac-address *boolean* |


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| | |
|---|---|
| Tree | client-mac-address |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **pool-name** *boolean*

| | |
|---|---|
| Synopsis | Send the pool name in the VSO |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp option-82 vendor-specific-option pool-name *boolean* |
| Tree | pool-name |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sap-id** *boolean*

| | |
|---|---|
| Synopsis | Send SAP ID in the sub-option of the DHCP relay packet |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp option-82 vendor-specific-option sap-id *boolean* |
| Tree | sap-id |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **service-id** *boolean*

| | |
|---|---|
| Synopsis | Send the service ID in the Vendor Specific Option |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp option-82 vendor-specific-option service-id *boolean* |
| Tree | service-id |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **string** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | User-defined ASCII string for the VSO |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp option-82 vendor-specific-option string *string-not-all-spaces* |
| Tree | string |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **system-id** *boolean*

| | |
|---|---|
| Synopsis | Send the system ID in the VSO |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp option-82 vendor-specific-option system-id *boolean* |
| Tree | system-id |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **proxy-server**

| | |
|---|---|
| Synopsis | Enter the **proxy-server** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp proxy-server |
| Tree | proxy-server |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the DHCP proxy server |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp proxy-server admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |


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| | |
|---|---|
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **emulated-server** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IP address used as DHCP server address in SAP context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp proxy-server emulated-server *ipv4-unicast-address* |
| Tree | emulated-server |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **lease-time**

| | |
|---|---|
| Synopsis | Enter the **lease-time** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp proxy-server lease-time |
| Tree | lease-time |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **radius-override** *boolean*

| | |
|---|---|
| Synopsis | Use lease time information provided by RADIUS server |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp proxy-server lease-time radius-override *boolean* |
| Tree | radius-override |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **value** *number*

| | |
|---|---|
| Synopsis | DHCP lease time |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp proxy-server lease-time value *number* |


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| | |
|---|---|
| Tree | value |
| Range | 300 to 315446399 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **python-policy** *reference*

| | |
|---|---|
| Synopsis | Python policy name |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp python-policy *reference* |
| Tree | python-policy |
| Description | This command associates a Python policy name with the interface. |
| Reference | **configure** python python-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **relay-proxy**

| | |
|---|---|
| Synopsis | Enable the **relay-proxy** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp relay-proxy |
| Tree | relay-proxy |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **release-update-src-ip** *boolean*

| | |
|---|---|
| Synopsis | Update the source IP address of a DHCP RELEASE message |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp relay-proxy release-update-src-ip *boolean* |
| Tree | release-update-src-ip |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **siaddr-override** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | DHCP server IP address for address hiding function |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp relay-proxy siaddr-override *ipv4-unicast-address* |
| Tree | siaddr-override |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **release-include-gi-address** *boolean*

| | |
|---|---|
| Synopsis | Include gateway IP address in DHCP Release messages |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp release-include-gi-address *boolean* |
| Tree | release-include-gi-address |
| Default | false |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **server** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IP addresses for DHCP server requests |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp server *ipv4-unicast-address* |
| Tree | server |
| Description | This command configures a list of servers that this interface forwards requests to.<br>The operator can enter the list of servers as either IP addresses or fully qualified domain names. The operator must specify at least one server specified for DHCP relay to work. If there are multiple servers, the system forwards the request to all the servers in the list. |
| Max. instances | 8 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **src-ip-addr** *keyword*

| | |
|---|---|
| Synopsis | Type of source address to use for DHCP relay |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp src-ip-addr *keyword* |
| Tree | src-ip-addr |
| Options | auto, gi-address |
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **trusted** *boolean*

| | |
|---|---|
| Synopsis | Relay untrusted packets |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp trusted *boolean* |
| Tree | trusted |
| Description | When configured to **true**, the router enables the trusted mode on the interface. When enabled, the relay agent changes the existing GI address (of the request) to the ingress interface, and forwards the request.<br>A DHCP request that contains a GI address of 0.0.0.0 and an Option 82 field in the packet is discarded unless it arrives on a trusted circuit.<br>This behavior only applies if the Relay Agent Information Option action is to keep the existing information. When the Option 82 field is replaced by the relay agent, the original Option 82 information is lost, and there is no reason to enable the trusted option. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **user-db** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Local user database for authentication |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 dhcp user-db *reference* |


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| | |
|---|---|
| Tree | user-db |
| Reference | **configure** subscriber-mgmt local-user-db *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## icmp

| | |
|---|---|
| Synopsis | Enter the **icmp** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 icmp |
| Tree | icmp |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## mask-reply *boolean*

| | |
|---|---|
| Synopsis | Allow responses to ICMP mask requests on the interface |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 icmp mask-reply *boolean* |
| Tree | mask-reply |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## param-problem

| | |
|---|---|
| Synopsis | Enter the **param-problem** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 icmp param-problem |
| Tree | param-problem |
| Description | Commands in this context specify the settings for ICMP Parameter Problem messages generated by the interface. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of sent Parameter Problem messages |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 icmp param-problem admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **number** *number*

| | |
|---|---|
| Synopsis | Maximum number of Parameter Problem messages to send |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 icmp param-problem number *number* |
| Tree | number |
| Range | 10 to 1000 |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **seconds** *number*

| | |
|---|---|
| Synopsis | Time used to limit number of Parameter Problem messages |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 icmp param-problem seconds *number* |
| Tree | seconds |
| Range | 1 to 60 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## redirects

| | |
|---|---|
| Synopsis | Enter the **redirects** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 icmp redirects |
| Tree | redirects |
| Description | Commands in this context configure the settings for ICMP redirect messages generated by the interface.<br>The system sends ICMP redirect messages to alert the sending node that a more optimal route is available on another router on the same subnetwork. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of sending ICMP redirect messages |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 icmp redirects admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## number *number*

| | |
|---|---|
| Synopsis | Maximum number of ICMP redirect messages to send |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 icmp redirects number *number* |
| Tree | number |
| Range | 10 to 1000 |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **seconds** *number*

| | |
|---|---|
| Synopsis | Time used to limit the number of ICMP redirect messages |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 icmp redirects seconds *number* |
| Tree | seconds |
| Range | 1 to 60 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ttl-expired**

| | |
|---|---|
| Synopsis | Enter the **ttl-expired** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 icmp ttl-expired |
| Tree | ttl-expired |
| Description | Commands in this context configure the settings for ICMP TTL expired messages generated by the interface. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of sending TTL expired messages |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 icmp ttl-expired admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **number** *number*

| | |
|---|---|
| Synopsis | Maximum number of TTL expired messages to send |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 icmp ttl-expired number *number* |
| Tree | number |
| Range | 10 to 2000 |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **seconds** *number*

| | |
|---|---|
| Synopsis | Time used to limit the number of TTL expired messages |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 icmp ttl-expired seconds *number* |
| Tree | seconds |
| Range | 1 to 60 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **use-matching-address** *boolean*

| | |
|---|---|
| Synopsis | Use the subscriber interface address as source address |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 icmp ttl-expired use-matching-address *boolean* |
| Tree | use-matching-address |
| Description | When configured to **true**, the system uses a matching subscriber interface address as the source address of the ICMP TTL expired message.<br>For matching to occur, the source address of the offending packet must be in the same subnet of the subscriber interface address.<br>When configured to **false**, the system uses the first configured address. |
| Default | false |
| Introduced | 22.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## unreachables

| | |
|---|---|
| Synopsis | Enter the **unreachables** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 icmp unreachables |
| Tree | unreachables |
| Description | Commands in this context specify the settings for ICMP host and network destination unreachable messages generated by the interface. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of sending unreachable messages |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 icmp unreachables admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## number *number*

| | |
|---|---|
| Synopsis | Maximum number of unreachable messages to send |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 icmp unreachables number *number* |
| Tree | number |
| Range | 10 to 2000 |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **seconds** *number*

| | |
|---|---|
| Synopsis | Time to limit the number of ICMP unreachable messages |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 icmp unreachables seconds *number* |
| Tree | seconds |
| Range | 1 to 60 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ignore-df-bit** *boolean*

| | |
|---|---|
| Synopsis | Ignore DF bit in the IPv4 header when fragmenting |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 ignore-df-bit *boolean* |
| Tree | ignore-df-bit |
| Description | When configured to **true**, fragmentation is applied according to the applicable egress MTU instead of the DF bit for frames egressing the WLAN-GW group. The DF bit is reset for frames that are fragmented.<br>When configured to **false**, the router fragments a packet larger than the MTU if the DF bit is set to 0 and drops the packet if the DF bit is set to 1. |
| Default | false |
| Introduced | 20.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **neighbor-discovery**

| | |
|---|---|
| Synopsis | Enter the **neighbor-discovery** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 neighbor-discovery |
| Tree | neighbor-discovery |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **local-proxy-arp** *boolean*

| | |
|---|---|
| Synopsis | Enable local proxy ARP on interface |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 neighbor-discovery local-proxy-arp *boolean* |
| Tree | local-proxy-arp |
| Description | When configured to **true**, the router enables local proxy ARP on the interface.<br>When configured to **false**, the router does not respond to ARP requests for addresses on the same subnet. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **populate** *boolean*

| | |
|---|---|
| Synopsis | Allow population of static and dynamic hosts |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 neighbor-discovery populate *boolean* |
| Tree | populate |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **proxy-arp-policy** *reference*

| | |
|---|---|
| Synopsis | Proxy ARP policy name |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 neighbor-discovery proxy-arp-policy *reference* |
| Tree | proxy-arp-policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **remote-proxy-arp** *boolean*

| | |
|---|---|
| Synopsis | Enable remote proxy ARP on the interface |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 neighbor-discovery remote-proxy-arp *boolean* |
| Tree | remote-proxy-arp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **timeout** *number*

| | |
|---|---|
| Synopsis | Timeout for an ARP entry learned on the interface |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 neighbor-discovery timeout *number* |
| Tree | timeout |
| Range | 0 to 65535 |
| Units | seconds |
| Default | 14400 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **qos-route-lookup** *keyword*

| | |
|---|---|
| Synopsis | QoS route lookup |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 qos-route-lookup *keyword* |
| Tree | qos-route-lookup |
| Options | destination |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

### **urpf-check**

| | |
|---|---|
| Synopsis | Enable the **urpf-check** context |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 urpf-check |
| Tree | urpf-check |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **mode** *keyword*

| | |
|---|---|
| Synopsis | Unicast RPF check mode |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv4 urpf-check mode *keyword* |
| Tree | mode |
| Options | strict, loose, strict-no-ecmp |
| Default | strict |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ipv6**

| | |
|---|---|
| Synopsis | Enable the **ipv6** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 |
| Tree | ipv6 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **allow-multiple-wan-addresses** *boolean*

| | |
|---|---|
| Synopsis | Allow multiple WAN addresses |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 allow-multiple-wan-addresses *boolean* |
| Tree | allow-multiple-wan-addresses |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### auto-reply

| | |
|---|---|
| Synopsis | Enter the **auto-reply** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 auto-reply |
| Tree | auto-reply |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### neighbor-solicitation *boolean*

| | |
|---|---|
| Synopsis | Enable auto-reply for NS |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 auto-reply neighbor-solicitation *boolean* |
| Tree | neighbor-solicitation |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### router-solicitation *boolean*

| | |
|---|---|
| Synopsis | Enable auto-reply for RS |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 auto-reply router-solicitation *boolean* |
| Tree | router-solicitation |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### bfd

| | |
|---|---|
| Synopsis | Enter the **bfd** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 bfd |
| Tree | bfd |
| Description | Commands in this context configure the attributes of bidirectional forwarding detection (BFD) sessions that control the state of ESM dynamic BGP peers. |


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| | |
|---|---|
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of BFD sessions |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 bfd admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **echo-receive** *number*

| | |
|---|---|
| Synopsis | Minimum echo interval over this interface |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 bfd echo-receive *number* |
| Tree | echo-receive |
| Range | 100 to 100000 |
| Units | milliseconds |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **multiplier** *number*

| | |
|---|---|
| Synopsis | Number of consecutive BFD messages missed from the peer |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 bfd multiplier *number* |
| Tree | multiplier |
| Description | This command configures the number of missed messages before the BFD session state is changed to down and the upper-level protocol is notified of the fault. A multiplier of less than 3 should not be used in production environments. |
| Range | 1 to 20 |
| Default | 3 |


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| | |
|---|---|
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **receive** *number*

| | |
|---|---|
| Synopsis | BFD receive interval over this interface |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 bfd receive *number* |
| Tree | receive |
| Description | This command specifies the receive interval for the BFD session.<br>On the 7750 SR, this command can only be configured to a value less than 100 when the **type** command is configured to **cpm-np**. |
| Range | 10 to 100000 |
| Units | milliseconds |
| Default | 100 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **transmit-interval** *number*

| | |
|---|---|
| Synopsis | BFD transmit interval over this interface |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 bfd transmit-interval *number* |
| Tree | transmit-interval |
| Description | This command configures the transmit intervals.<br>On the 7750 SR, this command can only be configured to a value less than 100 when the **type** command is configured to **cpm-np**. |
| Range | 10 to 100000 |
| Units | milliseconds |
| Default | 100 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **type** *keyword*

| | |
|---|---|
| Synopsis | Local termination point for the BFD session |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 bfd type *keyword* |
| Tree | type |
| Description | This command sets the local termination point for the BFD session to allow for fast timers down to 10 ms granularity.<br>The options to specify where the BFD session runs are:<br>• **auto** (default) – the system chooses and uses the line card CPU only for single-hop BFD sessions with timer intervals equal to or greater than 100ms. All others are placed on the **cpm-np**.<br>• **cpm-np** – BFD session runs on the FP complex associated with the CPM. This is either the FP on the CPM or the one elected on smaller systems.<br>• **fp** – BFD session runs on the line card CPU. This option can only be used for single-hop BFD sessions with timers equal to or greater than 100ms. |
| Options | cpm-np, auto, fp |
| Default | auto |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## dhcp6

| | |
|---|---|
| Synopsis | Enter the **dhcp6** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 |
| Tree | dhcp6 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## allow-client-id-change *boolean*

| | |
|---|---|
| Synopsis | Allow changes to the client ID |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 allow-client-id-change *boolean* |
| Tree | allow-client-id-change |
| Default | false |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **filter** *reference*

| | |
|---|---|
| Synopsis | DHCPv6 filter |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 filter *reference* |
| Tree | filter |
| Reference | **configure** filter dhcp6-filter *number* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **option**

| | |
|---|---|
| Synopsis | Enter the **option** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 option |
| Tree | option |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **interface-id**

| | |
|---|---|
| Synopsis | Enter the **interface-id** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 option interface-id |
| Tree | interface-id |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ascii-tuple**

| | |
|---|---|
| Synopsis | Use ASCII-encoded concatenated tuple |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 option interface-id ascii-tuple |
| Tree | ascii-tuple |
| Notes | The following elements are part of a choice: **ascii-tuple**, **if-index**, **sap-id**, or **string**. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## if-index

| | |
|---|---|
| Synopsis | Use interface index in the DHCPv6 relay packet |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 option interface-id if-index |
| Tree | if-index |
| Notes | The following elements are part of a choice: **ascii-tuple**, **if-index**, **sap-id**, or **string**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## sap-id

| | |
|---|---|
| Synopsis | Use SAP ID in interface ID option in relay packet |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 option interface-id sap-id |
| Tree | sap-id |
| Notes | The following elements are part of a choice: **ascii-tuple**, **if-index**, **sap-id**, or **string**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **string** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | String for interface ID option in DHCPv6 relay packet |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 option interface-id string *string-not-all-spaces* |
| Tree | string |
| String length | 1 to 80 |
| Notes | The following elements are part of a choice: **ascii-tuple**, **if-index**, **sap-id**, or **string**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **remote-id** *boolean*

| | |
|---|---|
| Synopsis | Send remote ID option in the DHCPv6 relay packet |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 option remote-id *boolean* |
| Tree | remote-id |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **override-slaac** *boolean*

| | |
|---|---|
| Synopsis | Allow WAN address offered by DHCP to overwrite the WAN address acquired from SLAAC |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 override-slaac *boolean* |
| Tree | override-slaac |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **pd-managed-route**

| | |
|---|---|
| Synopsis | Enable the **pd-managed-route** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 pd-managed-route |
| Tree | pd-managed-route |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **next-hop** *keyword*

| | |
|---|---|
| Synopsis | Next hop type |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 pd-managed-route next-hop *keyword* |
| Tree | next-hop |
| Options | ipv4, ipv6 |
| Default | ipv6 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## proxy-server

| | |
|---|---|
| Synopsis | Enter the **proxy-server** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 proxy-server |
| Tree | proxy-server |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the DHCPv6 proxy server |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 proxy-server admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## client-applications

| | |
|---|---|
| Synopsis | Enter the **client-applications** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 proxy-server client-applications |
| Tree | client-applications |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## dhcp *boolean*

| | |
|---|---|
| Synopsis | Enable IPoE clients to use DHCP relay or proxy server |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 proxy-server client-applications dhcp *boolean* |
| Tree | dhcp |


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| | |
|---|---|
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ppp** *boolean*

| | |
|---|---|
| Synopsis | Allow PPPoE clients to use DHCP relay functionality |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 proxy-server client-applications ppp *boolean* |
| Tree | ppp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **preferred-lifetime** *(number | keyword)*

| | |
|---|---|
| Synopsis | Time for prefix to remain preferred on this interface |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 proxy-server preferred-lifetime *(number | keyword)* |
| Tree | preferred-lifetime |
| Range | 300 to 4294967294 |
| Units | seconds |
| Options | infinite |
| Default | 3600 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **rebind-timer** *number*

| | |
|---|---|
| Synopsis | Rebind timer (T2) for this interface |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 proxy-server rebind-timer *number* |
| Tree | rebind-timer |
| Range | 0 to 1209600 |
| Units | seconds |
| Default | 2880 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **renew-timer** *number*

| | |
|---|---|
| Synopsis | Renew timer (T1) |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 proxy-server renew-timer *number* |
| Tree | renew-timer |
| Range | 0 to 604800 |
| Units | seconds |
| Default | 1800 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **server-id**

| | |
|---|---|
| Synopsis | Enter the **server-id** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 proxy-server server-id |
| Tree | server-id |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **duid-en-ascii** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | Vendor-assigned ID based on Enterprise Number (DUID-EN) |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 proxy-server server-id duid-en-ascii *string-not-all-spaces* |
| Tree | duid-en-ascii |
| String length | 1 to 58 |
| Notes | The following elements are part of a choice: **duid-en-ascii**, **duid-en-hex**, or **duid-ll**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **duid-en-hex** *string*

| | |
|---|---|
| Synopsis | DUID system ID in hexadecimal format |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 proxy-server server-id duid-en-hex *string* |
| Tree | duid-en-hex |
| String length | 1 to 118 |
| Notes | The following elements are part of a choice: **duid-en-ascii**, **duid-en-hex**, or **duid-ll**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **duid-ll**

| | |
|---|---|
| Synopsis | Use link-layer address (DUID-LL) as DUID |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 proxy-server server-id duid-ll |
| Tree | duid-ll |
| Notes | The following elements are part of a choice: **duid-en-ascii**, **duid-en-hex**, or **duid-ll**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **valid-lifetime** *(number | keyword)*

| | |
|---|---|
| Synopsis | Time for prefix to remain valid on this interface |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 proxy-server valid-lifetime *(number | keyword)* |
| Tree | valid-lifetime |
| Range | 300 to 4294967294 |
| Units | seconds |
| Options | infinite |
| Default | 86400 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## **python-policy** *reference*

| | |
|---|---|
| Synopsis | Python policy |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 python-policy *reference* |
| Tree | python-policy |
| Reference | **configure** python python-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **relay**

| | |
|---|---|
| Synopsis | Enter the **relay** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 relay |
| Tree | relay |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of DHCPv6 Relay |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 relay admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **advertise-selection**

| | |
|---|---|
| Synopsis | Enter the **advertise-selection** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 relay advertise-selection |
| Tree | advertise-selection |


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| | |
|---|---|
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## client-mac

| | |
|---|---|
| Synopsis | Enter the **client-mac** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 relay advertise-selection client-mac |
| Tree | client-mac |
| Notes | The following elements are part of a choice: **client-mac** or **server**. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## mac-address *keyword*

| | |
|---|---|
| Synopsis | Designated client MAC addresses for Advertise selection |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 relay advertise-selection client-mac mac-address *keyword* |
| Tree | mac-address |
| Options | odd, even |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## preference-option

| | |
|---|---|
| Synopsis | Enter the **preference-option** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 relay advertise-selection client-mac preference-option |
| Tree | preference-option |
| Description | Commands in this context configure the DHCPv6 preference option that is inserted in the DHCPv6 Advertise message. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **value** *number*

| | |
|---|---|
| Synopsis | Preference option value for DHCPv6 Advertise messages |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 relay advertise-selection client-mac preference-option value *number* |
| Tree | value |
| Range | 0 to 255 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **solicit-delay** *number*

| | |
|---|---|
| Synopsis | Delay before sending DHCPv6 Solicit messages |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 relay advertise-selection client-mac solicit-delay *number* |
| Tree | solicit-delay |
| Description | This command configures the time to delay DHCPv6 Solicit messages sent from the designated client MAC addresses. |
| Range | 1 to 100 |
| Units | deciseconds |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **preference-option**

| | |
|---|---|
| Synopsis | Enter the **preference-option** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 relay advertise-selection preference-option |
| Tree | preference-option |
| Description | Commands in this context configure the DHCPv6 preference option that is inserted in the DHCPv6 Advertise message. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **value** *number*

| | |
|---|---|
| Synopsis | Preference option value for DHCPv6 Advertise messages |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 relay advertise-selection preference-option value *number* |
| Tree | value |
| Range | 0 to 255 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **server** [ipv6-address] *ipv6-address*

| | |
|---|---|
| Synopsis | Enter the **server** list instance |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 relay advertise-selection server *ipv6-address* |
| Tree | server |
| Max. instances | 8 |
| Notes | The following elements are part of a choice: **client-mac** or **server**. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**ipv6-address**] *ipv6-address*

| | |
|---|---|
| Synopsis | IP address of the DHCPv6 server |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 relay advertise-selection server *ipv6-address* |
| Tree | server |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **preference-option**

| | |
|---|---|
| Synopsis | Enter the **preference-option** context |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 relay advertise-selection server *ipv6-address* preference-option |
| Tree | preference-option |
| Description | Commands in this context configure the DHCPv6 preference option that is inserted in the DHCPv6 Advertise message. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **value** *number*

| | |
|---|---|
| Synopsis | Preference option value for DHCPv6 Advertise messages |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 relay advertise-selection server *ipv6-address* preference-option value *number* |
| Tree | value |
| Range | 0 to 255 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **solicit-delay** *number*

| | |
|---|---|
| Synopsis | Delay before sending DHCPv6 Solicit messages |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 relay advertise-selection server *ipv6-address* solicit-delay *number* |
| Tree | solicit-delay |
| Description | This command configures the time to delay DHCPv6 Solicit messages sent to the server. |
| Range | 1 to 100 |
| Units | deciseconds |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **solicit-delay** *number*

| | |
|---|---|
| Synopsis | Delay before sending DHCPv6 Solicit messages |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 relay advertise-selection solicit-delay *number* |
| Tree | solicit-delay |
| Description | This command configures the time to delay DHCPv6 Solicit messages. The delay is applied to DHCPv6 Solicit messages for which no overriding value is configured in the **server** instance or the **client-mac** context. |
| Range | 1 to 100 |
| Units | deciseconds |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## client-applications

| | |
|---|---|
| Synopsis | Enter the **client-applications** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 relay client-applications |
| Tree | client-applications |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## dhcp *boolean*

| | |
|---|---|
| Synopsis | Enable IPoE clients to use DHCP relay or proxy server |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 relay client-applications dhcp *boolean* |
| Tree | dhcp |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ppp *boolean*

| | |
|---|---|
| Synopsis | Allow the PPP application to use DHCP relay functionality |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 relay client-applications ppp *boolean* |
| Tree | ppp |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 relay description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **lease-split**

| | |
|---|---|
| Synopsis | Enter the **lease-split** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 relay lease-split |
| Tree | lease-split |
| Description | Commands in this context configure DHCPv6 lease split.<br>DHCPv6 lease split is active when administratively enabled and for all IA_NA and IA_PD options in the transaction, the configured lease split valid lifetime (short lease time) is less than or equal to one of the following:<br>• the renew time T1 committed by the server (long renew time)<br>• half of the preferred lifetime committed by the server when T1 committed by the server equals zero |
| Introduced | 21.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of DHCPv6 lease split |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 relay lease-split admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |


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| | |
|---|---|
| Introduced | 21.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **valid-lifetime** *number*

| | |
|---|---|
| Synopsis | DHCPv6 lease split valid lifetime (short lease time) |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 relay lease-split valid-lifetime *number* |
| Tree | valid-lifetime |
| Range | 300 to 315446399 |
| Units | seconds |
| Default | 3600 |
| Introduced | 21.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **link-address** *ipv6-address*

| | |
|---|---|
| Synopsis | Link address for the DHCPv6 relay messages |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 relay link-address *ipv6-address* |
| Tree | link-address |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **server** *ipv6-address-with-zone*

| | |
|---|---|
| Synopsis | DHCP6 server(s) to which the DHCP6 requests are forwarded |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 relay server *ipv6-address-with-zone* |
| Tree | server |
| Max. instances | 8 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **source-address** *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Source IPv6 address for the DHCPv6 relay messages |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 relay source-address *ipv6-unicast-address* |
| Tree | source-address |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **snooping**

| | |
|---|---|
| Synopsis | Enter the **snooping** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 snooping |
| Tree | snooping |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of DHCPv6 snooping |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 snooping admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

### **user-db** *reference*

| | |
|---|---|
| Synopsis | Local user database used for authentication |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 user-db *reference* |
| Tree | user-db |
| Reference | **configure** subscriber-mgmt local-user-db *named-item* |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **user-ident** *keyword*

| | |
|---|---|
| Synopsis | DHCP6 user identification for this interface |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 dhcp6 user-ident *keyword* |
| Tree | user-ident |
| Options | mac, mac-interface-id |
| Default | mac |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ipoe-bridged-mode** *boolean*

| | |
|---|---|
| Synopsis | Enable IPv6 IPoE bridged mode |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 ipoe-bridged-mode *boolean* |
| Tree | ipoe-bridged-mode |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **neighbor-discovery**

| | |
|---|---|
| Synopsis | Enter the **neighbor-discovery** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 neighbor-discovery |
| Tree | neighbor-discovery |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **dad-snooping** *boolean*

| | |
|---|---|
| Synopsis | Populate table via duplicate address detection packets |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 neighbor-discovery dad-snooping *boolean* |
| Tree | dad-snooping |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **neighbor-limit** *number*

| | |
|---|---|
| Synopsis | Maximum neighbor entries learned per SLAAC host |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 neighbor-discovery neighbor-limit *number* |
| Tree | neighbor-limit |
| Range | 1 to 8 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **qos-route-lookup** *keyword*

| | |
|---|---|
| Synopsis | QoS route lookup |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 qos-route-lookup *keyword* |
| Tree | qos-route-lookup |
| Options | destination |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## **router-advertisements**

| | |
|---|---|
| Synopsis | Enter the **router-advertisements** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 router-advertisements |
| Tree | router-advertisements |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of router advertisements |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 router-advertisements admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **force-mcast** *keyword*

| | |
|---|---|
| Synopsis | Protocol with forced multicast |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 router-advertisements force-mcast *keyword* |
| Tree | force-mcast |
| Options | ip, ip-mac |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **max-advertisement-interval** *number*

| | |
|---|---|
| Synopsis | Maximum advertisement interval |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 router-advertisements max-advertisement-interval *number* |
| Tree | max-advertisement-interval |
| Range | 900 to 1800 |
| Units | seconds |
| Default | 1800 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **min-advertisement-interval** *number*

| | |
|---|---|
| Synopsis | Minimum advertisement interval |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 router-advertisements min-advertisement-interval *number* |
| Tree | min-advertisement-interval |
| Range | 900 to 1350 |
| Units | seconds |
| Default | 900 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## options

| | |
|---|---|
| Synopsis | Enter the **options** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 router-advertisements options |
| Tree | options |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## current-hop-limit *number*

| | |
|---|---|
| Synopsis | Hop limit to be advertised |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 router-advertisements options current-hop-limit *number* |
| Tree | current-hop-limit |
| Range | 0 to 255 |
| Default | 64 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## dns

| | |
|---|---|
| Synopsis | Enter the **dns** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 router-advertisements options dns |
| Tree | dns |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **include-rdnss** *boolean*

| | |
|---|---|
| Synopsis | Include the RDNSS server option 25 |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 router-advertisements options dns include-rdnss *boolean* |
| Tree | include-rdnss |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **rdnss-lifetime** *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum time for the RDNSS address to remain valid |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 router-advertisements options dns rdnss-lifetime *(number | keyword)* |
| Tree | rdnss-lifetime |
| Range | 900 to 3600 |
| Units | seconds |
| Options | infinite |
| Default | 3600 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **managed-configuration** *boolean*

| | |
|---|---|
| Synopsis | Managed address configuration flag |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 router-advertisements options managed-configuration *boolean* |
| Tree | managed-configuration |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **mtu** *(number | keyword)*

| | |
|---|---|
| Synopsis | Advertised MTU value |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 router-advertisements options mtu *(number \| keyword)* |
| Tree | mtu |
| Range | 1280 to 9212 |
| Units | bytes |
| Options | not-included |
| Default | not-included |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **other-stateful-configuration** *boolean*

| | |
|---|---|
| Synopsis | Other stateful configuration flag |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 router-advertisements options other-stateful-configuration *boolean* |
| Tree | other-stateful-configuration |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **reachable-time** *number*

| | |
|---|---|
| Synopsis | Reachable time for advertisements |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 router-advertisements options reachable-time *number* |
| Tree | reachable-time |
| Range | 0 to 3600000 |
| Units | milliseconds |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **retransmit-timer** *number*

| | |
|---|---|
| Synopsis | Retransmit time in router advertisements from interface |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 router-advertisements options retransmit-timer *number* |
| Tree | retransmit-timer |
| Range | 0 to 1800000 |
| Units | seconds |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **router-lifetime** *(number | keyword)*

| | |
|---|---|
| Synopsis | Router lifetime |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 router-advertisements options router-lifetime *(number | keyword)* |
| Tree | router-lifetime |
| Range | 2700 to 9000 |
| Units | seconds |
| Options | no-default-router |
| Default | 4500 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **prefix-options**

| | |
|---|---|
| Synopsis | Enter the **prefix-options** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 router-advertisements prefix-options |
| Tree | prefix-options |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **autonomous** *boolean*

| | |
|---|---|
| Synopsis | Value of the autonomous flag |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 router-advertisements prefix-options autonomous *boolean* |
| Tree | autonomous |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **on-link** *boolean*

| | |
|---|---|
| Synopsis | Assign the prefix to an interface on the specified link |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 router-advertisements prefix-options on-link *boolean* |
| Tree | on-link |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **preferred-lifetime** *(number | keyword)*

| | |
|---|---|
| Synopsis | Time for a prefix to remain preferred |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 router-advertisements prefix-options preferred-lifetime *(number \| keyword)* |
| Tree | preferred-lifetime |
| Range | 0 to 4294967294 |
| Units | seconds |
| Options | infinite |
| Default | 3600 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **valid-lifetime** *(number | keyword)*

| | |
|---|---|
| Synopsis | Time for a prefix to remain valid |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 router-advertisements prefix-options valid-lifetime *(number \| keyword)* |
| Tree | valid-lifetime |
| Range | 0 to 4294967294 |
| Units | seconds |
| Options | infinite |
| Default | 86400 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **router-solicit**

| | |
|---|---|
| Synopsis | Enter the **router-solicit** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 router-solicit |
| Tree | router-solicit |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of router-solicit authentication |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 router-solicit admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **inactivity-timer** *(number | keyword)*

| | |
|---|---|
| Synopsis | Time before an inactive host is removed |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 router-solicit inactivity-timer *(number \| keyword)* |
| Tree | inactivity-timer |
| Range | 1 to 31536000 |
| Units | seconds |
| Options | infinite |
| Default | 300 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **min-auth-interval** *number*

| | |
|---|---|
| Synopsis | Minimum time between successive authentication attempts |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 router-solicit min-auth-interval *number* |
| Tree | min-auth-interval |
| Range | 1 to 360000 |
| Units | seconds |
| Default | 300 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **user-db** *reference*

| | |
|---|---|
| Synopsis | Local user database used for authentication |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 router-solicit user-db *reference* |
| Tree | user-db |
| Reference | **configure** subscriber-mgmt local-user-db *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## urpf-check

| | |
|---|---|
| Synopsis | Enable the **urpf-check** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 urpf-check |
| Tree | urpf-check |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## mode *keyword*

| | |
|---|---|
| Synopsis | Unicast RPF check mode |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* ipv6 urpf-check mode *keyword* |
| Tree | mode |
| Options | strict, loose, strict-no-ecmp |
| Default | strict |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## local-address-assignment

| | |
|---|---|
| Synopsis | Enter the **local-address-assignment** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* local-address-assignment |
| Tree | local-address-assignment |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of Local Address Assignment |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* local-address-assignment admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |


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| | |
|---|---|
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ipv4

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* local-address-assignment ipv4 |
| Tree | ipv4 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## client-applications

| | |
|---|---|
| Synopsis | Enter the **client-applications** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* local-address-assignment ipv4 client-applications |
| Tree | client-applications |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ipoe *boolean*

| | |
|---|---|
| Synopsis | Request local addresses for non-DHCP/managed IPoE hosts |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* local-address-assignment ipv4 client-applications ipoe *boolean* |
| Tree | ipoe |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ppp *boolean*

| | |
|---|---|
| Synopsis | Request local addresses for PPP IPCP hosts |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* local-address-assignment ipv4 client-applications ppp *boolean* |


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| | |
|---|---|
| Tree | ppp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **default-pool** *named-item*

| | |
|---|---|
| Synopsis | Default pools |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* local-address-assignment ipv4 default-pool *named-item* |
| Tree | default-pool |
| String length | 1 to 32 |
| Max. instances | 2 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **server** *reference*

| | |
|---|---|
| Synopsis | Local DHCPv4 server for local pools management |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* local-address-assignment ipv4 server *reference* |
| Tree | server |
| Reference | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ipv6**

| | |
|---|---|
| Synopsis | Enter the **ipv6** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* local-address-assignment ipv6 |
| Tree | ipv6 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## client-applications

| | |
|---|---|
| Synopsis | Enter the **client-applications** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* local-address-assignment ipv6 client-applications |
| Tree | client-applications |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ipoe-slaac *boolean*

| | |
|---|---|
| Synopsis | Request local addresses for IPoE SLAAC hosts |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* local-address-assignment ipv6 client-applications ipoe-slaac *boolean* |
| Tree | ipoe-slaac |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ipoe-wan *boolean*

| | |
|---|---|
| Synopsis | Request local addresses for IPoE IA NA hosts |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* local-address-assignment ipv6 client-applications ipoe-wan *boolean* |
| Tree | ipoe-wan |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ppp-slaac *boolean*

| | |
|---|---|
| Synopsis | Request local addresses for PPP SLAAC hosts |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* local-address-assignment ipv6 client-applications ppp-slaac *boolean* |


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| | |
|---|---|
| Tree | ppp-slaac |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **server** *reference*

| | |
|---|---|
| Synopsis | Local DHCPv6 server for local pools management |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* local-address-assignment ipv6 server *reference* |
| Tree | server |
| Reference | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **mac** *mac-unicast-address*

| | |
|---|---|
| Synopsis | MAC address for the interface |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* mac *mac-unicast-address* |
| Tree | mac |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **nasreq-auth-policy** *reference*

| | |
|---|---|
| Synopsis | Diameter NASREQ application policy to use for authentication |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* nasreq-auth-policy *reference* |
| Tree | nasreq-auth-policy |
| Reference | **configure** subscriber-mgmt diameter-nasreq-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **oper-up-while-empty** *boolean*

| | |
|---|---|
| Synopsis | Enable this group interface without any active SAPs |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* oper-up-while-empty *boolean* |
| Tree | oper-up-while-empty |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **pppoe**

| | |
|---|---|
| Synopsis | Enter the **pppoe** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* pppoe |
| Tree | pppoe |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of PPPoE |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* pppoe admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **anti-spoof** *keyword*

| | |
|---|---|
| Synopsis | PPPoE anti-spoof filtering |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* pppoe anti-spoof *keyword* |
| Tree | anti-spoof |


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| | |
|---|---|
| Options | mac-sid, mac-sid-ip |
| Default | mac-sid |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* pppoe description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **dhcp-client**

| | |
|---|---|
| Synopsis | Enter the **dhcp-client** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* pppoe dhcp-client |
| Tree | dhcp-client |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **client-id** *keyword*

| | |
|---|---|
| Synopsis | Type of information that DHCP option 61 contains |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* pppoe dhcp-client client-id *keyword* |
| Tree | client-id |
| Options | mac-pppoe-session-id |
| Introduced | 16.0.R7 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **policy** *reference*

| | |
|---|---|
| Synopsis | PPPoE policy |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* pppoe policy *reference* |
| Tree | policy |
| Reference | **configure** subscriber-mgmt ppp-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **python-policy** *reference*

| | |
|---|---|
| Synopsis | Python policy used to modify PPPoE packets |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* pppoe python-policy *reference* |
| Tree | python-policy |
| Reference | **configure** python python-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sap-session-limit** *number*

| | |
|---|---|
| Synopsis | Maximum PPPoE sessions per SAP |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* pppoe sap-session-limit *number* |
| Tree | sap-session-limit |
| Range | 1 to 131071 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **session-limit** *number*

| | |
|---|---|
| Synopsis | Maximum PPPoE sessions |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* pppoe session-limit *number* |


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| | |
|---|---|
| Tree | session-limit |
| Range | 1 to 333823 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **user-db** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Local user database for authentication |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* pppoe user-db *reference* |
| Tree | user-db |
| Reference | **configure** subscriber-mgmt local-user-db *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **radius-auth-policy** *reference*

| | |
|---|---|
| Synopsis | RADIUS authentication policy |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* radius-auth-policy *reference* |
| Tree | radius-auth-policy |
| Reference | **configure** subscriber-mgmt radius-authentication-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **redundant-interface** *reference*

| | |
|---|---|
| Synopsis | Redundant interface |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* redundant-interface *reference* |
| Tree | redundant-interface |


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| | |
|---|---|
| Reference | **configure** service vprn *service-name* redundant-interface *interface-name* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sap** [sap-id] *sap*

| | |
|---|---|
| Synopsis | Enter the **sap** list instance |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* |
| Tree | sap |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**sap-id**] *sap*

| | |
|---|---|
| Synopsis | SAP ID |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* |
| Tree | sap |
| String length | 1 to 45 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **accounting-policy** *reference*

| | |
|---|---|
| Synopsis | Accounting policy |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* accounting-policy *reference* |
| Tree | accounting-policy |
| Reference | **configure** log accounting-policy *number* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the SAP |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **anti-spoof** *keyword*

| | |
|---|---|
| Synopsis | Type of anti-spoof filtering |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* anti-spoof *keyword* |
| Tree | anti-spoof |
| Options | source-ip-addr, source-ip-and-mac-addr, next-hop-ip-and-mac-addr |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **app-profile** *reference*

| | |
|---|---|
| Synopsis | Application profile name |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* app-profile *reference* |
| Tree | app-profile |
| Reference | **configure** application-assurance group *number* partition *number* policy app-profile *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **calling-station-id** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | Calling station ID |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* calling-station-id *string-not-all-spaces* |


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| | |
|---|---|
| Tree | calling-station-id |
| String length | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **collect-stats** *boolean*

| | |
|---|---|
| Synopsis | Collect accounting statistics |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* collect-stats *boolean* |
| Tree | collect-stats |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## cpu-protection

| | |
|---|---|
| Synopsis | Enter the **cpu-protection** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* cpu-protection |
| Tree | cpu-protection |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s |

## eth-cfm-monitoring

| | |
|---|---|
| Synopsis | Enable the **eth-cfm-monitoring** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* cpu-protection eth-cfm-monitoring |
| Tree | eth-cfm-monitoring |
| Notes | The following elements are part of a choice: **eth-cfm-monitoring**, **ip-src-monitoring**, or **mac-monitoring**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s |


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## aggregate

| | |
|---|---|
| Synopsis | Apply rate limit to the sum of the per peer packet rates |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* cpu-protection eth-cfm-monitoring aggregate |
| Tree | aggregate |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s |

## car

| | |
|---|---|
| Synopsis | Ignore Ethernet CFM packets when enforcing overall rate |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* cpu-protection eth-cfm-monitoring car |
| Tree | car |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s |

## ip-src-monitoring

| | |
|---|---|
| Synopsis | Enable IP source monitoring for CPU protection |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* cpu-protection ip-src-monitoring |
| Tree | ip-src-monitoring |
| Notes | The following elements are part of a choice: **eth-cfm-monitoring**, **ip-src-monitoring**, or **mac-monitoring**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s |

## mac-monitoring

| | |
|---|---|
| Synopsis | Monitor MAC for CPU protection |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* cpu-protection mac-monitoring |
| Tree | mac-monitoring |
| Notes | The following elements are part of a choice: **eth-cfm-monitoring**, **ip-src-monitoring**, or **mac-monitoring**. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s |

### **policy-id** *reference*

| | |
|---|---|
| Synopsis | CPM protection policy |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* cpu-protection policy-id *reference* |
| Tree | policy-id |
| Reference | **configure** system security cpu-protection policy *number* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s |

### **default-host**

| | |
|---|---|
| Synopsis | Enter the **default-host** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* default-host |
| Tree | default-host |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

### **ipv4** [address] *reference* prefix-length *number*

| | |
|---|---|
| Synopsis | Enter the **ipv4** list instance |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* default-host ipv4 *reference* prefix-length *number* |
| Tree | ipv4 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

### [**address**] *reference*

| | |
|---|---|
| Synopsis | IPv4 default host address |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* default-host ipv4 *reference* prefix-length *number* |


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| | |
|---|---|
| Tree | ipv4 |
| Reference | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv4 address *ipv4-unicast-address* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

### **prefix-length** *number*

| | |
|---|---|
| Synopsis | IPv4 address prefix length |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* default-host ipv4 *reference* prefix-length *number* |
| Tree | ipv4 |
| Range | 0 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

### **next-hop** *ipv4-unicast-address*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Next-hop IP address used to forward traffic on the SAP |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* default-host ipv4 *reference* prefix-length *number* next-hop *ipv4-unicast-address* |
| Tree | next-hop |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

### **ipv6** [address] *ipv6-unicast-address* prefix-length *number*

| | |
|---|---|
| Synopsis | Enter the **ipv6** list instance |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* default-host ipv6 *ipv6-unicast-address* prefix-length *number* |
| Tree | ipv6 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

### [**address**] *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | IPv6 default host address |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* default-host ipv6 *ipv6-unicast-address* prefix-length *number* |
| Tree | ipv6 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

### **prefix-length** *number*

| | |
|---|---|
| Synopsis | IPv6 prefix length |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* default-host ipv6 *ipv6-unicast-address* prefix-length *number* |
| Tree | ipv6 |
| Range | 0 to 128 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

### **next-hop** *ipv6-unicast-address*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Next-hop IP address used to forward traffic on the SAP |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* default-host ipv6 *ipv6-unicast-address* prefix-length *number* next-hop *ipv6-unicast-address* |
| Tree | next-hop |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## **description** *long-description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* description *long-description* |
| Tree | description |
| String length | 1 to 160 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **dist-cpu-protection** *reference*

| | |
|---|---|
| Synopsis | Distributed CPU protection policy for SAP |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* dist-cpu-protection *reference* |
| Tree | dist-cpu-protection |
| Reference | **configure** system security dist-cpu-protection policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **egress**

| | |
|---|---|
| Synopsis | Enter the **egress** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* egress |
| Tree | egress |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### agg-rate

| | |
|---|---|
| Synopsis | Enter the **agg-rate** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* egress agg-rate |
| Tree | agg-rate |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### adaptation-rule *keyword*

| | |
|---|---|
| Synopsis | Adaptation rule to compute the operational PIR value when an aggregate shaper is used |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* egress agg-rate adaptation-rule *keyword* |
| Tree | adaptation-rule |
| Options | max, min, closest |
| Default | closest |
| Introduced | 22.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### burst-limit *(number | keyword)*

| | |
|---|---|
| Synopsis | Shaping burst size when an aggregate shaper is used |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* egress agg-rate burst-limit *(number | keyword)* |
| Tree | burst-limit |
| Range | 1 to 14000000 |
| Units | bytes |
| Options | auto |
| Default | auto |
| Introduced | 22.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### limit-unused-bandwidth *boolean*

| | |
|---|---|
| Synopsis | Enable aggregate rate overrun protection |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* egress agg-rate limit-unused-bandwidth *boolean* |
| Tree | limit-unused-bandwidth |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **queue-frame-based-accounting** *boolean*

| | |
|---|---|
| Synopsis | Enable frame based accounting on policers and queues |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* egress agg-rate queue-frame-based-accounting *boolean* |
| Tree | queue-frame-based-accounting |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **rate** *number*

| | |
|---|---|
| Synopsis | Enforced aggregate rate for all queues |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* egress agg-rate rate *number* |
| Tree | rate |
| Range | 1 to 6400000000 |
| Units | kilobps |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **filter**

| | |
|---|---|
| Synopsis | Enter the **filter** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* egress filter |
| Tree | filter |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ip** *reference*

| | |
|---|---|
| Synopsis | IPv4 filter policy name |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* egress filter ip *reference* |
| Tree | ip |
| Reference | **configure** filter ip-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ipv6** *reference*

| | |
|---|---|
| Synopsis | IPv6 filter policy name |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* egress filter ipv6 *reference* |
| Tree | ipv6 |
| Reference | **configure** filter ipv6-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **qos**

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* egress qos |
| Tree | qos |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **latency-budget** *number*

| | |
|---|---|
| Synopsis | SAP egress latency budget |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* egress qos latency-budget *number* |


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| | |
|---|---|
| Tree | latency-budget |
| Range | 1 to 1000000 |
| Units | microseconds |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## policer-control-policy

| | |
|---|---|
| Synopsis | Enter the **policer-control-policy** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* egress qos policer-control-policy |
| Tree | policer-control-policy |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## policy-name *reference*

| | |
|---|---|
| Synopsis | Policer control policy name |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* egress qos policer-control-policy policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos policer-control-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## qinq-mark-top-only *boolean*

| | |
|---|---|
| Synopsis | Mark top Q-tags |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* egress qos qinq-mark-top-only *boolean* |
| Tree | qinq-mark-top-only |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### sap-egress

| | |
|---|---|
| Synopsis | Enter the **sap-egress** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* egress qos sap-egress |
| Tree | sap-egress |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### policy-name *reference*

| | |
|---|---|
| Synopsis | Policy ID to associate with SAP for mirrored service |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* egress qos sap-egress policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos sap-egress *qos-policy-name* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### scheduler-policy

| | |
|---|---|
| Synopsis | Enter the **scheduler-policy** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* egress qos scheduler-policy |
| Tree | scheduler-policy |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### policy-name *reference*

| | |
|---|---|
| Synopsis | Scheduler policy name |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* egress qos scheduler-policy policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos scheduler-policy *named-item* |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## virtual-port

| | |
|---|---|
| Synopsis | Enter the **virtual-port** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* egress virtual-port |
| Tree | virtual-port |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## vport-name *reference*

| | |
|---|---|
| Synopsis | Virtual port assigned to the SAP |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* egress virtual-port vport-name *reference* |
| Tree | vport-name |
| Reference | **configure** port *port* ethernet access egress virtual-port *named-item* |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## eth-cfm

| | |
|---|---|
| Synopsis | Enter the **eth-cfm** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm |
| Tree | eth-cfm |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## collect-lmm-fc-stats

| | |
|---|---|
| Synopsis | Enter the **collect-lmm-fc-stats** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm collect-lmm-fc-stats |
| Tree | collect-lmm-fc-stats |


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| | |
|---|---|
| Description | Commands in this context configure per forwarding class (FC) LMM information collection.<br>The commands **fc-in-profile** and **fc** in this context are mutually exclusive. The commands apply to either profile-aware or profile-unaware FCs respectively.<br>This command and the **collect-lmm-stats** command are mutually exclusive when there is entity resource contention. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## **fc** *keyword*

| | |
|---|---|
| Synopsis | Forwarding class name for profile-unaware counter |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm collect-lmm-fc-stats fc *keyword* |
| Tree | fc |
| Description | This command configures individual counters for the specified FCs without regard for profile. The system includes all countable packets that match a configured FC, regardless of profile, in this counter.<br>An FC specified as part of this command and for this specific context cannot be specified as a profile-aware FC using the **fc-in-profile** command under the **collect-lmm-fc-stats** context.<br>When this command is reentered, a differential is performed. Omitted FCs stop counting, newly added FCs start counting, and unchanged FCs continue to count. |
| Options | be, l2, af, l1, h2, ef, h1, nc |
| Max. instances | 8 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## **fc-in-profile** *keyword*

| | |
|---|---|
| Synopsis | Forwarding class name for profile-aware counter |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm collect-lmm-fc-stats fc-in-profile *keyword* |
| Tree | fc-in-profile |
| Description | This command configures individual counters for the specified FCs with regard to profile. The system includes all countable packets that match a configured FC and that are deemed to be in-profile in this counter. |


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An FC specified as part of this command and for this specific context cannot be specified as a profile-unaware FC using the **fc** command under the **collect-lmm-fc-stats** context.

When this command is reentered, a differential is performed. Omitted FCs stop counting, newly added FCs start counting, and unchanged FCs continue to count.

| | |
|---|---|
| Options | be, l2, af, l1, h2, ef, h1, nc |
| Max. instances | 8 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## **collect-lmm-stats** *boolean*

| | |
|---|---|
| Synopsis | Collect statistics for loss measurement message tests |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm collect-lmm-stats *boolean* |
| Tree | collect-lmm-stats |
| Description | When configured to **true**, the router instantiates the statistical counter to transmit and receive packets for the LAG facility MEP bindings.<br>The **show eth-cfm collect-lmm-stats** command displays entities that have been enabled to collect transit and receive counters.<br>When configured to **false**, the router does not instantiate the counter and the LMM PDU associated with the MEP does not populate the counters in the packet. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## **mep** md-admin-name *reference* ma-admin-name *reference* mep-id *number*

| | |
|---|---|
| Synopsis | Enter the **mep** list instance |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |
| Tree | mep |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |


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### **md-admin-name** *reference*

| | |
|---|---|
| Synopsis | Maintenance Domain (MD) name |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |
| Tree | mep |
| Reference | **configure** eth-cfm domain *admin-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

### **ma-admin-name** *reference*

| | |
|---|---|
| Synopsis | Maintenance Association (MA) name |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |
| Tree | mep |
| Reference | **configure** eth-cfm domain *admin-name* association *admin-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

### **mep-id** *number*

| | |
|---|---|
| Synopsis | Maintenance Endpoint (MEP) ID |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* |
| Tree | mep |
| Range | 1 to 8191 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the MEP |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

### **ais** *boolean*

| | |
|---|---|
| Synopsis | Enable the generation and the reception of AIS messages |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ais *boolean* |
| Tree | ais |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

### **alarm-notification**

| | |
|---|---|
| Synopsis | Enter the **alarm-notification** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* alarm-notification |
| Tree | alarm-notification |
| Description | Commands in this context configure the Fault Notification Generator (FNG) time values to raise an alarm or reset the CCM defect alarm.<br>Use these timers for network management processes. The timers are not tied into delaying the notification to the fault management system on the network element and do not affect fault propagation mechanisms. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |


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### **fng-alarm-time** *number*

| | |
|---|---|
| Synopsis | Time that must expire before an FNG alarm is raised |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* alarm-notification fng-alarm-time *number* |
| Tree | fng-alarm-time |
| Range | 250 \| 500 \| 1000 |
| Units | centiseconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

### **fng-reset-time** *number*

| | |
|---|---|
| Synopsis | Time that must expire before an FNG alarm is reset |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* alarm-notification fng-reset-time *number* |
| Tree | fng-reset-time |
| Range | 250 \| 500 \| 1000 |
| Units | centiseconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

### **ccm** *boolean*

| | |
|---|---|
| Synopsis | Generate CCM messages |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ccm *boolean* |
| Tree | ccm |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |


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## **ccm-ltm-priority** *number*

| | |
|---|---|
| Synopsis | Priority of CCM and LTM messages transmitted by the MEP |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ccm-ltm-priority *number* |
| Tree | ccm-ltm-priority |
| Range | 0 to 7 |
| Default | 7 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## **ccm-padding-size** *number*

| | |
|---|---|
| Synopsis | Number of octets of padding to insert in CCM packets |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* ccm-padding-size *number* |
| Tree | ccm-padding-size |
| Description | This command sets the byte size of the optional Data TLV to be included in the ETH-CC PDU.<br>This command increases the size of the ETH-CC PDU by the configured value. The base size of the ETH-CC PDU, including the Interface Status TLV and Port Status TLV, is 83 bytes not including the Layer 2 encapsulation. CCM padding is not supported when the CCM interval (configured through **configure eth-cfm domain association ccm-interval)** is less than 1 second. |
| Range | 3 to 1500 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## **csf**

| | |
|---|---|
| Synopsis | Enable the **csf** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* csf |
| Tree | csf |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

### **multiplier** *decimal-number*

| | |
|---|---|
| Synopsis | Multiplication factor used to clear the CSF condition |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* csf multiplier *decimal-number* |
| Tree | multiplier |
| Range | 0.0 \| 2.0 to 30.0 |
| Default | 3.5 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

### **eth-test**

| | |
|---|---|
| Synopsis | Enable the **eth-test** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test |
| Tree | eth-test |
| Description | Commands in this context configure information used by the Ethernet Test (ETH-TST) packet. The commands must be configured on both the sender and the receiver nodes. The test packets are used with the **oam eth-cfm eth-test** command. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |


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### **bit-error-threshold** *number*

| | |
|---|---|
| Synopsis | Lowest priority defect allowed to generate fault alarm |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test bit-error-threshold *number* |
| Tree | bit-error-threshold |
| Range | 0 to 11840 |
| Units | bit errors |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

### **test-pattern**

| | |
|---|---|
| Synopsis | Enter the **test-pattern** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test test-pattern |
| Tree | test-pattern |
| Description | Commands in this context specify the test pattern for the ETH-TST frames. The pattern does not have to be the same on the sender and the receiver. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

### **crc-tlv** *boolean*

| | |
|---|---|
| Synopsis | Generate a CRC checksum |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test test-pattern crc-tlv *boolean* |
| Tree | crc-tlv |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |


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### **pattern** *keyword*

| | |
|---|---|
| Synopsis | Test pattern for Ethernet Test frames |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* eth-test test-pattern pattern *keyword* |
| Tree | pattern |
| Description | This command specifies the test pattern of the Ethernet Test (ETH-TST) frames. This does not have to be configured the same on the sender and the receiver. |
| Options | all-zeros, all-ones |
| Default | all-zeros |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

### **fault-propagation** *keyword*

| | |
|---|---|
| Synopsis | Fault propagation for the MEP |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* fault-propagation *keyword* |
| Tree | fault-propagation |
| Options | use-if-status-tlv, suspend-ccm |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

### **grace**

| | |
|---|---|
| Synopsis | Enter the **grace** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace |
| Tree | grace |
| Description | Commands in this context configure the Nokia ETH-CFM Grace function and the ITU-T Y.1731 Ethernet Expected Default (ETH-ED) function. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |


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## eth-ed

| | |
|---|---|
| Synopsis | Enter the **eth-ed** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed |
| Tree | eth-ed |
| Description | Commands in this context configure the ITU-T Y.1731 ETH-ED function. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## max-rx-defect-window *number*

| | |
|---|---|
| Synopsis | Maximum received ETH-ED expected defect window duration |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed max-rx-defect-window *number* |
| Tree | max-rx-defect-window |
| Range | 1 to 86400 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## priority *number*

| | |
|---|---|
| Synopsis | Transmission priority for ETH-ED PDUs |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed priority *number* |
| Tree | priority |
| Range | 0 to 7 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## rx-eth-ed *boolean*

| | |
|---|---|
| Synopsis | Receive and process ETH-ED ITU-T Y.1731 PDUs on the MEP |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed rx-eth-ed *boolean* |
| Tree | rx-eth-ed |
| Description | This command enables the reception and processing of the ITU-T Y.1731 ETH-ED PDU on the MEP. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## **tx-eth-ed** *boolean*

| | |
|---|---|
| Synopsis | Transmit ETH-ED PDUs from the MEP |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-ed tx-eth-ed *boolean* |
| Tree | tx-eth-ed |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## **eth-vsm-grace**

| | |
|---|---|
| Synopsis | Enter the **eth-vsm-grace** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-vsm-grace |
| Tree | eth-vsm-grace |
| Description | Commands in this context configure the Nokia ETH-CFM Grace function. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## **rx-eth-vsm-grace** *boolean*

| | |
|---|---|
| Synopsis | Receive and process Nokia ETH-CFM Grace PDU on the MEP |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-vsm-grace rx-eth-vsm-grace *boolean* |


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| | |
|---|---|
| Tree | rx-eth-vsm-grace |
| Description | When configured to **true**, the router enables the Nokia Grace function, which is a vendor-specific PDU that informs MEP peers that the local node may be entering a period of expected defect.<br>When configured to **false**, the router disables the Nokia Grace function. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## **tx-eth-vsm-grace** *boolean*

| | |
|---|---|
| Synopsis | Transmit ETH-ED PDUs from the MEP |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* grace eth-vsm-grace tx-eth-vsm-grace *boolean* |
| Tree | tx-eth-vsm-grace |
| Description | When configured to **true**, the router can transmit the Nokia ETH-CFM Grace PDU from the MEP when a system soft reset notification is received for one or more cards.<br>The Nokia Grace function is a vendor-specific PDU that informs MEP peers that the local node may be entering a period of expected defect.<br>The operator must configure the **configure system eth-cfm grace** command to instruct the system that the node is capable of transmitting expected-defect windows to peers. The system can only transmit one form of ETH-CFM grace (Nokia ETH-CFM Grace or ITU-T Y.1731 ETH-ED).<br>When configured to **false**, the router disables the transmission of the Nokia ETH-CFM Grace PDU from the MEP. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## **low-priority-defect** *keyword*

| | |
|---|---|
| Synopsis | Lowest priority defect allowed to generate fault alarm |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* low-priority-defect *keyword* |
| Tree | low-priority-defect |
| Options | all-def, mac-rem-err-xcon, rem-err-xcon, err-xcon, xcon, no-xcon |
| Default | mac-rem-err-xcon |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## **one-way-delay-threshold** *number*

| | |
|---|---|
| Synopsis | Threshold time limit for the one-way delay test |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm mep md-admin-name *reference* ma-admin-name *reference* mep-id *number* one-way-delay-threshold *number* |
| Tree | one-way-delay-threshold |
| Range | 0 to 600 |
| Units | seconds |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## **squelch-ingress-levels** *number*

| | |
|---|---|
| Synopsis | Levels for which ETH-CFM packets are silently discarded |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* eth-cfm squelch-ingress-levels *number* |
| Tree | squelch-ingress-levels |
| Description | This command defines the levels of the ETH-CFM packets that are silently discarded.<br>At ingress, ETH-CFM packets that meet the following conditions are silently discarded:<br>• The packet is ingressing into the SAP or SDP binding from the wire that matches the service delineation of the SAP or SDP binding.<br>• The packet level matches the configured levels.<br>All ETH-CFM packets ingressing to the SAP or SDP binding that match the configured levels are dropped without regard for other ETH-CFM criteria. No statistical information or drop count is available for any ETH-CFM packet that is silently discarded by this option.<br>The list of levels must be a complete contiguous list from 0 up to the highest level that is to be dropped. |
| Range | 0 to 7 |
| Max. instances | 8 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |


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## fwd-wholesale

| | |
|---|---|
| Synopsis | Enter the **fwd-wholesale** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* fwd-wholesale |
| Tree | fwd-wholesale |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## pppoe-service *reference*

| | |
|---|---|
| Synopsis | PPPoE service name |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* fwd-wholesale pppoe-service *reference* |
| Tree | pppoe-service |
| Reference | **configure** service epipe *service-name* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## host-admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the hosts |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* host-admin-state *keyword* |
| Tree | host-admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## host-lockout-policy *reference*

| | |
|---|---|
| Synopsis | Host lockout policy |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* host-lockout-policy *reference* |
| Tree | host-lockout-policy |


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| | |
|---|---|
| Reference | **configure** subscriber-mgmt host-lockout-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## igmp-host-tracking

| | |
|---|---|
| Synopsis | Enter the **igmp-host-tracking** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* igmp-host-tracking |
| Tree | igmp-host-tracking |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## expiry-time *number*

| | |
|---|---|
| Synopsis | Time that the system continues to track inactive hosts |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* igmp-host-tracking expiry-time *number* |
| Tree | expiry-time |
| Range | 1 to 65535 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## import-policy *reference*

| | |
|---|---|
| Synopsis | Import policy that filters IGMP packets |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* igmp-host-tracking import-policy *reference* |
| Tree | import-policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **maximum-number-group-sources** *number*

| | |
|---|---|
| Synopsis | Maximum number of multicast groups to track per group |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* igmp-host-tracking maximum-number-group-sources *number* |
| Tree | maximum-number-group-sources |
| Range | 1 to 32000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **maximum-number-groups** *number*

| | |
|---|---|
| Synopsis | Maximum number of multicast groups to be tracked |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* igmp-host-tracking maximum-number-groups *number* |
| Tree | maximum-number-groups |
| Range | 1 to 16000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **maximum-number-sources** *number*

| | |
|---|---|
| Synopsis | Maximum number of multicast sources to be tracked |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* igmp-host-tracking maximum-number-sources *number* |
| Tree | maximum-number-sources |
| Range | 1 to 1000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **router-alert-check** *boolean*

| | |
|---|---|
| Synopsis | Enable IGMP router alert check option |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* igmp-host-tracking router-alert-check *boolean* |
| Tree | router-alert-check |


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| | |
|---|---|
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ingress

| | |
|---|---|
| Synopsis | Enter the **ingress** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* ingress |
| Tree | ingress |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## filter

| | |
|---|---|
| Synopsis | Enter the **filter** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* ingress filter |
| Tree | filter |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ip *reference*

| | |
|---|---|
| Synopsis | IPv4 filter policy name |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* ingress filter ip *reference* |
| Tree | ip |
| Reference | **configure** filter ip-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ipv6 *reference*

| | |
|---|---|
| Synopsis | IPv6 filter policy name |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* ingress filter ipv6 *reference* |
| Tree | ipv6 |
| Reference | **configure** filter ipv6-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## qos

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* ingress qos |
| Tree | qos |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## match-qinq-dot1p *keyword*

| | |
|---|---|
| Synopsis | Ingress match QinQ Dot1p |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* ingress qos match-qinq-dot1p *keyword* |
| Tree | match-qinq-dot1p |
| Options | top, bottom |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## policer-control-policy

| | |
|---|---|
| Synopsis | Enter the **policer-control-policy** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* ingress qos policer-control-policy |
| Tree | policer-control-policy |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **policy-name** *reference*

| | |
|---|---|
| Synopsis | Policer control policy name |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* ingress qos policer-control-policy policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos policer-control-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **sap-ingress**

| | |
|---|---|
| Synopsis | Enter the **sap-ingress** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* ingress qos sap-ingress |
| Tree | sap-ingress |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **policy-name** *reference*

| | |
|---|---|
| Synopsis | Policy ID |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* ingress qos sap-ingress policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos sap-ingress *qos-policy-name* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **queuing-type** *keyword*

| | |
|---|---|
| Synopsis | Queuing type |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* ingress qos sap-ingress queuing-type *keyword* |
| Tree | queuing-type |


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| | |
|---|---|
| Options | shared, multipoint-shared |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-a, 7750 SR-e, VSR |

## scheduler-policy

| | |
|---|---|
| Synopsis | Enter the **scheduler-policy** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* ingress qos scheduler-policy |
| Tree | scheduler-policy |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## policy-name *reference*

| | |
|---|---|
| Synopsis | Scheduler policy name |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* ingress qos scheduler-policy policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos scheduler-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## lag

| | |
|---|---|
| Synopsis | Enter the **lag** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* lag |
| Tree | lag |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## link-map-profile *number*

| | |
|---|---|
| Synopsis | LAG link map profile for a SAP or network interface |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* lag link-map-profile *number* |
| Tree | link-map-profile |
| Description | This command assigns a preconfigured LAG link map profile to a SAP or network interface configured on a LAG or a PW port that exists on a LAG. After an operator assigns a LAG link map profile, the system rehashes the SAP or network interface egress traffic over the LAG as required by the new configuration.<br>If the LAG link map profile for a SAP or network interface is deleted, the system reverts back to per-flow hashing. |
| Range | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## per-link-hash

| | |
|---|---|
| Synopsis | Enter the **per-link-hash** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* lag per-link-hash |
| Tree | per-link-hash |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## class *number*

| | |
|---|---|
| Synopsis | Class used on LAG egress using weighted per-link-hash |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* lag per-link-hash class *number* |
| Tree | class |
| Range | 1 to 3 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## weight *number*

| | |
|---|---|
| Synopsis | Weight used on LAG egress using weighted per-link-hash |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* lag per-link-hash weight *number* |


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| | |
|---|---|
| Tree | weight |
| Range | 1 to 1024 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **monitor-oper-group** *reference*

| | |
|---|---|
| Synopsis | Monitor operational group |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* monitor-oper-group *reference* |
| Tree | monitor-oper-group |
| Reference | **configure** service oper-group *named-item* |
| Notes | The following elements are part of a choice: **monitor-oper-group** or **oper-group**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **multi-service-site** *reference*

| | |
|---|---|
| Synopsis | Multi service site name |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* multi-service-site *reference* |
| Tree | multi-service-site |
| Reference | **configure** service customer *customer-name* multi-service-site *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **oper-group** *reference*

| | |
|---|---|
| Synopsis | Operational group |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* oper-group *reference* |
| Tree | oper-group |
| Reference | **configure** service oper-group *named-item* |
| Notes | The following elements are part of a choice: **monitor-oper-group** or **oper-group**. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## qtag-normalization

| | |
|---|---|
| Synopsis | Enable the **qtag-normalization** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* qtag-normalization |
| Tree | qtag-normalization |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

## double-tag

| | |
|---|---|
| Synopsis | Enter the **double-tag** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* qtag-normalization double-tag |
| Tree | double-tag |
| Notes | The following elements are part of a choice: **double-tag** or **single-tag**. |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

## c-tag *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | C-tag value used for the tag normalization |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* qtag-normalization double-tag c-tag *number* |
| Tree | c-tag |
| Description | This command configures the normalized C-tag for the SAP. When configured, the tag value is pushed as the C-tag (inner tag) into the frames coming from this SAP and sent to EVPN. On network ingress, the inner and outer VLAN tags are looked up and the frames matching this value and the normalized S-tag value are sent to the associated SAP.<br><br>When unconfigured, the normalized C-tag is derived from the service delimiting C-tag. |


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| | |
|---|---|
| Range | 0 to 4094 |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

## **s-tag** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | S-tag value used for the tag normalization |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* qtag-normalization double-tag s-tag *number* |
| Tree | s-tag |
| Description | This command configures the normalized S-tag for the SAP. When configured, the tag value is pushed as the S-tag (outer tag) into the frames coming from this SAP and sent to EVPN. On network ingress, the inner and outer VLAN tags are looked up and the frames matching this value and the normalized C-tag value are sent to the associated SAP.<br>When unconfigured, the normalized S-tag is derived from the service delimiting S-tag. |
| Range | 0 to 4094 |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

## **single-tag**

| | |
|---|---|
| Synopsis | Enter the **single-tag** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* qtag-normalization single-tag |
| Tree | single-tag |
| Notes | The following elements are part of a choice: **double-tag** or **single-tag**. |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |


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### **tag** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Tag normalization value |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* qtag-normalization single-tag tag *number* |
| Tree | tag |
| Description | This command configures the normalized S-tag for the SAP. When configured, the tag value is pushed as the S-tag (outer tag) into the frames coming from this SAP and sent to EVPN. On network ingress, the inner and outer VLAN tags are looked up and the frames matching this value and the normalized C-tag value are sent to the associated SAP.<br>When unconfigured, the normalized S-tag is derived from the service delimiting S-tag. |
| Range | 0 to 4094 |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### **static-host**

| | |
|---|---|
| Synopsis | Enter the **static-host** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host |
| Tree | static-host |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ipv4** [ip] *ipv4-unicast-address* mac *mac-unicast-address*

| | |
|---|---|
| Synopsis | Enter the **ipv4** list instance |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* |
| Tree | ipv4 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### [**ip**] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IPv4 address used by the static host |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* |
| Tree | ipv4 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **mac** *mac-unicast-address*

| | |
|---|---|
| Synopsis | MAC address used by the static host |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* |
| Tree | ipv4 |
| MD-CLI default | 00:00:00:00:00:00 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the static host |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **ancp-string** *ancp-string*

| | |
|---|---|
| Synopsis | ANCP string |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* ancp-string *ancp-string* |
| Tree | ancp-string |
| String length | 1 to 63 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **app-profile**

| | |
|---|---|
| Synopsis | Enter the **app-profile** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* app-profile |
| Tree | app-profile |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **profile** *reference*

| | |
|---|---|
| Synopsis | Application profile used by the static host |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* app-profile profile *reference* |
| Tree | profile |
| Reference | **configure** application-assurance group *number* partition *number* policy app-profile *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **scope** *keyword*

| | |
|---|---|
| Synopsis | Scope of the static host application profile |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* app-profile scope *keyword* |
| Tree | scope |
| Options | subscriber, mac |
| Default | subscriber |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **int-dest-id** *int-dest-id*

| | |
|---|---|
| Synopsis | Intermediate destination ID |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* int-dest-id *int-dest-id* |
| Tree | int-dest-id |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **managed-route** [prefix] *ipv4-unicast-prefix*

| | |
|---|---|
| Synopsis | Enter the **managed-route** list instance |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* managed-route *ipv4-unicast-prefix* |
| Tree | managed-route |
| Description | Commands in this context configure managed route parameters. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**prefix**] *ipv4-unicast-prefix*

| | |
|---|---|
| Synopsis | Managed route prefix associated with IPv4 static host |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* managed-route *ipv4-unicast-prefix* |


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| | |
|---|---|
| Tree | managed-route |
| Description | This command configures the managed route prefix. The prefix length must be in the range of 1 to 32. |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## cpe-check

| | |
|---|---|
| Synopsis | Enable the **cpe-check** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* managed-route *ipv4-unicast-prefix* cpe-check |
| Tree | cpe-check |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## destination-ip-address *(ipv4-address-no-zone | ipv6-address-no-zone)*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IP address of the target CPE device |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* managed-route *ipv4-unicast-prefix* cpe-check destination-ip-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | destination-ip-address |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## drop-count *number*

| | |
|---|---|
| Synopsis | Consecutive ping replies missed before CPE deemed down |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* managed-route *ipv4-unicast-prefix* cpe-check drop-count *number* |


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| | |
|---|---|
| Tree | drop-count |
| Range | 1 to 255 |
| Default | 3 |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## failed-action

| | |
|---|---|
| Synopsis | Enter the **failed-action** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* managed-route *ipv4-unicast-prefix* cpe-check failed-action |
| Tree | failed-action |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## metric *number*

| | |
|---|---|
| Synopsis | Metric associated with the provisioned managed route |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* managed-route *ipv4-unicast-prefix* cpe-check failed-action metric *number* |
| Tree | metric |
| Max. range | 0 to 4294967295 |
| Default | 0 |
| Notes | The following elements are part of a choice: (**metric**, **preference**, and **tag**) or **withdraw**. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## preference *number*

| | |
|---|---|
| Synopsis | Preference associated to the provisioned managed route |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* managed-route *ipv4-unicast-prefix* cpe-check failed-action preference *number* |


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| | |
|---|---|
| Tree | preference |
| Range | 0 to 255 |
| Notes | The following elements are part of a choice: (**metric**, **preference**, and **tag**) or **withdraw**. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **tag** *number*

| | |
|---|---|
| Synopsis | Route tag used if CPE check fails |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* managed-route *ipv4-unicast-prefix* cpe-check failed-action tag *number* |
| Tree | tag |
| Max. range | 0 to 4294967295 |
| Default | 0 |
| Notes | The following elements are part of a choice: (**metric**, **preference**, and **tag**) or **withdraw**. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **withdraw** *boolean*

| | |
|---|---|
| Synopsis | Withdraw the route when the CPE check fails |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* managed-route *ipv4-unicast-prefix* cpe-check failed-action withdraw *boolean* |
| Tree | withdraw |
| Default | false |
| Notes | The following elements are part of a choice: (**metric**, **preference**, and **tag**) or **withdraw**. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **interval** *number*

| | |
|---|---|
| Synopsis | Interval between ICMP pings to target CPE IP address |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* managed-route *ipv4-unicast-prefix* cpe-check interval *number* |
| Tree | interval |
| Range | 1 to 255 |
| Units | seconds |
| Default | 1 |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **log** *boolean*

| | |
|---|---|
| Synopsis | Log CPE connectivity checks transitions |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* managed-route *ipv4-unicast-prefix* cpe-check log *boolean* |
| Tree | log |
| Default | false |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **padding-size** *number*

| | |
|---|---|
| Synopsis | Padding size for CPE connectivity checks |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* managed-route *ipv4-unicast-prefix* cpe-check padding-size *number* |
| Tree | padding-size |
| Range | 0 to 16384 |
| Units | bytes |
| Default | 56 |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **source-ip-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source IP address used in the ICMP messages |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* managed-route *ipv4-unicast-prefix* cpe-check source-ip-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | source-ip-address |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **timeout** *number*

| | |
|---|---|
| Synopsis | Time interval determining that a ping is missed |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* managed-route *ipv4-unicast-prefix* cpe-check timeout *number* |
| Tree | timeout |
| Range | 1 to 10 |
| Units | seconds |
| Default | 1 |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **metric** *number*

| | |
|---|---|
| Synopsis | Metric associated with the managed route |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* managed-route *ipv4-unicast-prefix* metric *number* |
| Tree | metric |
| Max. range | 0 to 4294967295 |
| Default | 0 |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **preference** *number*

| | |
|---|---|
| Synopsis | Preference associated with the managed route |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* managed-route *ipv4-unicast-prefix* preference *number* |
| Tree | preference |
| Range | 0 to 255 |
| Default | 0 |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **tag** *number*

| | |
|---|---|
| Synopsis | Route tag associated with the managed route |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* managed-route *ipv4-unicast-prefix* tag *number* |
| Tree | tag |
| Max. range | 0 to 4294967295 |
| Default | 0 |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **rip-policy** *reference*

| | |
|---|---|
| Synopsis | RIP policy name |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* rip-policy *reference* |
| Tree | rip-policy |
| Reference | **configure** subscriber-mgmt rip-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **shcv**

| | |
|---|---|
| Synopsis | Enter the **shcv** context |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* shcv |
| Tree | shcv |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **sla-profile** *reference*

| | |
|---|---|
| Synopsis | SLA profile name |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* sla-profile *reference* |
| Tree | sla-profile |
| Reference | **configure** subscriber-mgmt sla-profile *external-named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **sub-profile** *reference*

| | |
|---|---|
| Synopsis | Sub-profile name |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* sub-profile *reference* |
| Tree | sub-profile |
| Reference | **configure** subscriber-mgmt sub-profile *external-named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **subscriber-id**

| | |
|---|---|
| Synopsis | Enter the **subscriber-id** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* subscriber-id |
| Tree | subscriber-id |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **string** *subscriber-id*

| | |
|---|---|
| Synopsis | Subscriber identification |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* subscriber-id string *subscriber-id* |
| Tree | string |
| String length | 1 to 64 |
| Notes | The following elements are part of a choice: **string** or **use-sap-id**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **use-sap-id**

| | |
|---|---|
| Synopsis | Use the SAP id as subscriber ID |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv4 *ipv4-unicast-address* mac *mac-unicast-address* subscriber-id use-sap-id |
| Tree | use-sap-id |
| Notes | The following elements are part of a choice: **string** or **use-sap-id**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ipv6** [prefix] *ipv6-unicast-prefix* mac *mac-unicast-address*

| | |
|---|---|
| Synopsis | Enter the **ipv6** list instance |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* |
| Tree | ipv6 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### [**prefix**] *ipv6-unicast-prefix*

| | |
|---|---|
| Synopsis | IPv6 prefix |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* |
| Tree | ipv6 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **mac** *mac-unicast-address*

| | |
|---|---|
| Synopsis | MAC address |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* |
| Tree | ipv6 |
| MD-CLI default | 00:00:00:00:00:00 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the static host |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **ancp-string** *ancp-string*

| | |
|---|---|
| Synopsis | ANCP string |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* ancp-string *ancp-string* |
| Tree | ancp-string |
| String length | 1 to 63 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **app-profile**

| | |
|---|---|
| Synopsis | Enter the **app-profile** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* app-profile |
| Tree | app-profile |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **profile** *reference*

| | |
|---|---|
| Synopsis | Application profile used by the static host |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* app-profile profile *reference* |
| Tree | profile |
| Reference | **configure** application-assurance group *number* partition *number* policy app-profile *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **scope** *keyword*

| | |
|---|---|
| Synopsis | Scope of the static host application profile |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* app-profile scope *keyword* |
| Tree | scope |
| Options | subscriber, mac |
| Default | subscriber |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **int-dest-id** *int-dest-id*

| | |
|---|---|
| Synopsis | Intermediate destination ID |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* int-dest-id *int-dest-id* |
| Tree | int-dest-id |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **mac-linking** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IPv6 host linked with IPv4 host via learned MAC address |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* mac-linking *ipv4-unicast-address* |
| Tree | mac-linking |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **managed-route** [ipv6-prefix] *ipv6-unicast-prefix*

| | |
|---|---|
| Synopsis | Enter the **managed-route** list instance |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* managed-route *ipv6-unicast-prefix* |
| Tree | managed-route |


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| | |
|---|---|
| Description | Commands in this context configure managed route parameters. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**ipv6-prefix**] *ipv6-unicast-prefix*

| | |
|---|---|
| Synopsis | Managed route prefix associated with IPv6 static host |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* managed-route *ipv6-unicast-prefix* |
| Tree | managed-route |
| Description | This command configures the managed route prefix. The prefix length must be in the range of 1 to 128. |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **cpe-check**

| | |
|---|---|
| Synopsis | Enable the **cpe-check** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* managed-route *ipv6-unicast-prefix* cpe-check |
| Tree | cpe-check |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **destination-ip-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IP address of the target CPE device |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* managed-route *ipv6-unicast-prefix* cpe-check destination-ip-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |


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| | |
|---|---|
| Tree | destination-ip-address |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **drop-count** *number*

| | |
|---|---|
| Synopsis | Consecutive ping replies missed before CPE deemed down |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* managed-route *ipv6-unicast-prefix* cpe-check drop-count *number* |
| Tree | drop-count |
| Range | 1 to 255 |
| Default | 3 |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **failed-action**

| | |
|---|---|
| Synopsis | Enter the **failed-action** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* managed-route *ipv6-unicast-prefix* cpe-check failed-action |
| Tree | failed-action |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **metric** *number*

| | |
|---|---|
| Synopsis | Metric associated with the provisioned managed route |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* managed-route *ipv6-unicast-prefix* cpe-check failed-action metric *number* |
| Tree | metric |
| Max. range | 0 to 4294967295 |
| Default | 0 |
| Notes | The following elements are part of a choice: (**metric**, **preference**, and **tag**) or **withdraw**. |
| Introduced | 22.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **preference** *number*

| | |
|---|---|
| Synopsis | Preference associated to the provisioned managed route |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* managed-route *ipv6-unicast-prefix* cpe-check failed-action preference *number* |
| Tree | preference |
| Range | 0 to 255 |
| Notes | The following elements are part of a choice: (**metric**, **preference**, and **tag**) or **withdraw**. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **tag** *number*

| | |
|---|---|
| Synopsis | Route tag used if CPE check fails |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* managed-route *ipv6-unicast-prefix* cpe-check failed-action tag *number* |
| Tree | tag |
| Max. range | 0 to 4294967295 |
| Default | 0 |
| Notes | The following elements are part of a choice: (**metric**, **preference**, and **tag**) or **withdraw**. |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **withdraw** *boolean*

| | |
|---|---|
| Synopsis | Withdraw the route when the CPE check fails |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* managed-route *ipv6-unicast-prefix* cpe-check failed-action withdraw *boolean* |
| Tree | withdraw |
| Default | false |
| Notes | The following elements are part of a choice: (**metric**, **preference**, and **tag**) or **withdraw**. |
| Introduced | 22.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **interval** *number*

| | |
|---|---|
| Synopsis | Interval between ICMP pings to target CPE IP address |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* managed-route *ipv6-unicast-prefix* cpe-check interval *number* |
| Tree | interval |
| Range | 1 to 255 |
| Units | seconds |
| Default | 1 |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **log** *boolean*

| | |
|---|---|
| Synopsis | Log CPE connectivity checks transitions |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* managed-route *ipv6-unicast-prefix* cpe-check log *boolean* |
| Tree | log |
| Default | false |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **padding-size** *number*

| | |
|---|---|
| Synopsis | Padding size for CPE connectivity checks |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* managed-route *ipv6-unicast-prefix* cpe-check padding-size *number* |
| Tree | padding-size |
| Range | 0 to 16384 |
| Units | bytes |
| Default | 56 |
| Introduced | 22.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **source-ip-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source IP address used in the ICMP messages |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* managed-route *ipv6-unicast-prefix* cpe-check source-ip-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | source-ip-address |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **timeout** *number*

| | |
|---|---|
| Synopsis | Time interval determining that a ping is missed |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* managed-route *ipv6-unicast-prefix* cpe-check timeout *number* |
| Tree | timeout |
| Range | 1 to 10 |
| Units | seconds |
| Default | 1 |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **metric** *number*

| | |
|---|---|
| Synopsis | Metric associated with the managed route |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* managed-route *ipv6-unicast-prefix* metric *number* |
| Tree | metric |
| Max. range | 0 to 4294967295 |
| Default | 0 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **preference** *number*

| | |
|---|---|
| Synopsis | Preference associated with the managed route |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* managed-route *ipv6-unicast-prefix* preference *number* |
| Tree | preference |
| Range | 0 to 255 |
| Default | 0 |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **tag** *number*

| | |
|---|---|
| Synopsis | Route tag associated with the managed route |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* managed-route *ipv6-unicast-prefix* tag *number* |
| Tree | tag |
| Max. range | 0 to 4294967295 |
| Default | 0 |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **retail-svc-id** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Retail service ID |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* retail-svc-id *number* |
| Tree | retail-svc-id |
| Range | 1 to 2147483647 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## shcv

| | |
|---|---|
| Synopsis | Enter the **shcv** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* shcv |
| Tree | shcv |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## sla-profile *reference*

| | |
|---|---|
| Synopsis | SLA profile name |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* sla-profile *reference* |
| Tree | sla-profile |
| Reference | **configure** subscriber-mgmt sla-profile *external-named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## sub-profile *reference*

| | |
|---|---|
| Synopsis | Sub-profile name |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* sub-profile *reference* |
| Tree | sub-profile |
| Reference | **configure** subscriber-mgmt sub-profile *external-named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## subscriber-id

| | |
|---|---|
| Synopsis | Enter the **subscriber-id** context |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* subscriber-id |
| Tree | subscriber-id |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **string** *subscriber-id*

| | |
|---|---|
| Synopsis | Subscriber identification |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* subscriber-id string *subscriber-id* |
| Tree | string |
| String length | 1 to 64 |
| Notes | The following elements are part of a choice: **string** or **use-sap-id**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **use-sap-id**

| | |
|---|---|
| Synopsis | Use the SAP id as subscriber ID |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host ipv6 *ipv6-unicast-prefix* mac *mac-unicast-address* subscriber-id use-sap-id |
| Tree | use-sap-id |
| Notes | The following elements are part of a choice: **string** or **use-sap-id**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **mac-learning**

| | |
|---|---|
| Synopsis | Enter the **mac-learning** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host mac-learning |
| Tree | mac-learning |
| Introduced | 16.0.R4 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **data-triggered** *boolean*

| | |
|---|---|
| Synopsis | Enable learning of MAC addresses from data packets |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host mac-learning data-triggered *boolean* |
| Tree | data-triggered |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **single-mac** *boolean*

| | |
|---|---|
| Synopsis | Enforce single MAC address and subscriber for the SAP |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* static-host mac-learning single-mac *boolean* |
| Tree | single-mac |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sub-sla-mgmt**

| | |
|---|---|
| Synopsis | Enter the **sub-sla-mgmt** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* sub-sla-mgmt |
| Tree | sub-sla-mgmt |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of SAP subscriber management |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* sub-sla-mgmt admin-state *keyword* |
| Tree | admin-state |


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| | |
|---|---|
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## defaults

| | |
|---|---|
| Synopsis | Enter the **defaults** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* sub-sla-mgmt defaults |
| Tree | defaults |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## app-profile *reference*

| | |
|---|---|
| Synopsis | Default application profile name for this SAP |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* sub-sla-mgmt defaults app-profile *reference* |
| Tree | app-profile |
| Reference | **configure** application-assurance group *number* partition *number* policy app-profile *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## int-dest-id

| | |
|---|---|
| Synopsis | Enter the **int-dest-id** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* sub-sla-mgmt defaults int-dest-id |
| Tree | int-dest-id |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **string** *int-dest-id*

| | |
|---|---|
| Synopsis | Use the configured string |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* sub-sla-mgmt defaults int-dest-id string *int-dest-id* |
| Tree | string |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **string** or **top-q-tag**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **top-q-tag**

| | |
|---|---|
| Synopsis | Use the top Q-tag of this SAP |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* sub-sla-mgmt defaults int-dest-id top-q-tag |
| Tree | top-q-tag |
| Notes | The following elements are part of a choice: **string** or **top-q-tag**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sla-profile** *reference*

| | |
|---|---|
| Synopsis | Default SLA profile for hosts on this SAP |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* sub-sla-mgmt defaults sla-profile *reference* |
| Tree | sla-profile |
| Reference | **configure** subscriber-mgmt sla-profile *external-named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sub-profile** *reference*

| | |
|---|---|
| Synopsis | Default subscriber profile for the SAP |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* sub-sla-mgmt defaults sub-profile *reference* |


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| | |
|---|---|
| Tree | sub-profile |
| Reference | **configure** subscriber-mgmt sub-profile *external-named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## subscriber-id

| | |
|---|---|
| Synopsis | Enter the **subscriber-id** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* sub-sla-mgmt defaults subscriber-id |
| Tree | subscriber-id |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## auto-id

| | |
|---|---|
| Synopsis | Use auto-generated subscriber identification string |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* sub-sla-mgmt defaults subscriber-id auto-id |
| Tree | auto-id |
| Notes | The following elements are part of a choice: **auto-id**, **sap-id**, or **string**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## sap-id

| | |
|---|---|
| Synopsis | Use SAP ID as default subscriber identification string |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* sub-sla-mgmt defaults subscriber-id sap-id |
| Tree | sap-id |
| Notes | The following elements are part of a choice: **auto-id**, **sap-id**, or **string**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **string** *subscriber-id*

| | |
|---|---|
| Synopsis | Default subscriber identification string for the SAP |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* sub-sla-mgmt defaults subscriber-id string *subscriber-id* |
| Tree | string |
| String length | 1 to 64 |
| Notes | The following elements are part of a choice: **auto-id**, **sap-id**, or **string**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **single-sub-parameters**

| | |
|---|---|
| Synopsis | Enter the **single-sub-parameters** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* sub-sla-mgmt single-sub-parameters |
| Tree | single-sub-parameters |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **non-sub-traffic**

| | |
|---|---|
| Synopsis | Enable the **non-sub-traffic** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* sub-sla-mgmt single-sub-parameters non-sub-traffic |
| Tree | non-sub-traffic |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **app-profile** *reference*

| | |
|---|---|
| Synopsis | Application profile name for all non-subscriber traffic |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* sub-sla-mgmt single-sub-parameters non-sub-traffic app-profile *reference* |
| Tree | app-profile |


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| | |
|---|---|
| Reference | **configure** application-assurance group *number* partition *number* policy app-profile *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **sla-profile** *reference*

| | |
|---|---|
| Synopsis | SLA profile applicable for all non-subscriber traffic |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* sub-sla-mgmt single-sub-parameters non-sub-traffic sla-profile *reference* |
| Tree | sla-profile |
| Reference | **configure** subscriber-mgmt sla-profile *external-named-item* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **sub-profile** *reference*

| | |
|---|---|
| Synopsis | Subscriber profile all non-subscriber traffic |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* sub-sla-mgmt single-sub-parameters non-sub-traffic sub-profile *reference* |
| Tree | sub-profile |
| Reference | **configure** subscriber-mgmt sub-profile *external-named-item* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **subscriber-id** *subscriber-id*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Subscriber ID applied for all non-subscriber traffic |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* sub-sla-mgmt single-sub-parameters non-sub-traffic subscriber-id *subscriber-id* |
| Tree | subscriber-id |
| String length | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **profiled-traffic-only** *boolean*

| | |
|---|---|
| Synopsis | Include all traffic in subscriber profile |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* sub-sla-mgmt single-sub-parameters profiled-traffic-only *boolean* |
| Tree | profiled-traffic-only |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sub-ident-policy** *reference*

| | |
|---|---|
| Synopsis | Subscriber identification policy used on this SAP |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* sub-sla-mgmt sub-ident-policy *reference* |
| Tree | sub-ident-policy |
| Reference | **configure** subscriber-mgmt sub-ident-policy *external-named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **subscriber-limit** *(keyword | number)*

| | |
|---|---|
| Synopsis | Maximum number of subscribers on this SAP |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* sub-sla-mgmt subscriber-limit *(keyword | number)* |
| Tree | subscriber-limit |
| Range | 1 to 131071 |
| Options | no-limit |


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| | |
|---|---|
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## sap-parameters

| | |
|---|---|
| Synopsis | Enter the **sap-parameters** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap-parameters |
| Tree | sap-parameters |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## anti-spoof *keyword*

| | |
|---|---|
| Synopsis | Anti-spoof type of the SAP |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap-parameters anti-spoof *keyword* |
| Tree | anti-spoof |
| Options | ip-mac, nh-mac |
| Default | ip-mac |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## description *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap-parameters description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## sub-sla-mgmt

| | |
|---|---|
| Synopsis | Enter the **sub-sla-mgmt** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap-parameters sub-sla-mgmt |
| Tree | sub-sla-mgmt |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## defaults

| | |
|---|---|
| Synopsis | Enter the **defaults** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap-parameters sub-sla-mgmt defaults |
| Tree | defaults |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## app-profile *reference*

| | |
|---|---|
| Synopsis | Default application profile name |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap-parameters sub-sla-mgmt defaults app-profile *reference* |
| Tree | app-profile |
| Reference | **configure** application-assurance group *number* partition *number* policy app-profile *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## sla-profile *reference*

| | |
|---|---|
| Synopsis | Default SLA profile |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap-parameters sub-sla-mgmt defaults sla-profile *reference* |
| Tree | sla-profile |
| Reference | **configure** subscriber-mgmt sla-profile *external-named-item* |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sub-profile** *reference*

| | |
|---|---|
| Synopsis | Default subscriber profile |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap-parameters sub-sla-mgmt defaults sub-profile *reference* |
| Tree | sub-profile |
| Reference | **configure** subscriber-mgmt sub-profile *external-named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **subscriber-id**

| | |
|---|---|
| Synopsis | Enter the **subscriber-id** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap-parameters sub-sla-mgmt defaults subscriber-id |
| Tree | subscriber-id |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **auto-id**

| | |
|---|---|
| Synopsis | Subscriber ID that is autogenerated |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap-parameters sub-sla-mgmt defaults subscriber-id auto-id |
| Tree | auto-id |
| Notes | The following elements are part of a choice: **auto-id** or **string**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **string** *subscriber-id*

| | |
|---|---|
| Synopsis | String to be used as default subscriber ID |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap-parameters sub-sla-mgmt defaults subscriber-id string *subscriber-id* |
| Tree | string |
| String length | 1 to 64 |
| Notes | The following elements are part of a choice: **auto-id** or **string**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **sub-ident-policy** *reference*

| | |
|---|---|
| Synopsis | Subscriber identification policy |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap-parameters sub-sla-mgmt sub-ident-policy *reference* |
| Tree | sub-ident-policy |
| Reference | **configure** subscriber-mgmt sub-ident-policy *external-named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **shcv-policy** *reference*

| | |
|---|---|
| Synopsis | SHCV policy for IPv4 and IPv6 subscriber hosts |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* shcv-policy *reference* |
| Tree | shcv-policy |
| Reference | **configure** subscriber-mgmt shcv-policy *external-named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **shcv-policy-ipv4** *reference*

| | |
|---|---|
| Synopsis | SHCV for IPv4 subscriber hosts |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* shcv-policy-ipv4 *reference* |
| Tree | shcv-policy-ipv4 |
| Reference | **configure** subscriber-mgmt shcv-policy *external-named-item* |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **shcv-policy-ipv6** *reference*

| | |
|---|---|
| Synopsis | SHCV for IPv6 subscriber hosts |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* shcv-policy-ipv6 *reference* |
| Tree | shcv-policy-ipv6 |
| Reference | **configure** subscriber-mgmt shcv-policy *external-named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **srrp** [srrp-id] *number*

| | |
|---|---|
| Synopsis | Enter the **srrp** list instance |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* srrp *number* |
| Tree | srrp |
| Max. instances | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**srrp-id**] *number*

| | |
|---|---|
| Synopsis | SRRP instance ID |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* srrp *number* |
| Tree | srrp |
| Range | 1 to 4294967295 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of SRRP |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* srrp *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **bfd-liveness**

| | |
|---|---|
| Synopsis | Enable the **bfd-liveness** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* srrp *number* bfd-liveness |
| Tree | bfd-liveness |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **dest-ip** *ipv4-address*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Destination IPv4 prefix |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* srrp *number* bfd-liveness dest-ip *ipv4-address* |
| Tree | dest-ip |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## **interface-name** *interface-name*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Name of the interface running BFD |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* srrp *number* bfd-liveness interface-name *interface-name* |
| Tree | interface-name |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **service-name** *service-name*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Administrative service name |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* srrp *number* bfd-liveness service-name *service-name* |
| Tree | service-name |
| String length | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* srrp *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **gw-mac** *mac-unicast-address*

| | |
|---|---|
| Synopsis | Gateway MAC address |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* srrp *number* gw-mac *mac-unicast-address* |
| Tree | gw-mac |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **keep-alive-interval** *number*

| | |
|---|---|
| Synopsis | Interval between SRRP advertisements |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* srrp *number* keep-alive-interval *number* |
| Tree | keep-alive-interval |
| Range | 1 to 100 |
| Units | deciseconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **message-path** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | SAP to use as the SRRP message path |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* srrp *number* message-path *reference* |
| Tree | message-path |
| Reference | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* sap *sap* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## monitor-oper-group

| | |
|---|---|
| Synopsis | Enter the **monitor-oper-group** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* srrp *number* monitor-oper-group |
| Tree | monitor-oper-group |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## group-name *reference*

| | |
|---|---|
| Synopsis | Operational group name |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* srrp *number* monitor-oper-group group-name *reference* |
| Tree | group-name |
| Reference | **configure** service oper-group *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## priority-step *number*

| | |
|---|---|
| Synopsis | Step value to change priority of SRRP instance |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* srrp *number* monitor-oper-group priority-step *number* |
| Tree | priority-step |
| Range | 1 to 10 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## one-garp-per-sap *boolean*

| | |
|---|---|
| Synopsis | Send one gratuitous ARP to each SAP |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* srrp *number* one-garp-per-sap *boolean* |
| Tree | one-garp-per-sap |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **policy** *reference*

| | |
|---|---|
| Synopsis | VRRP priority control policy associated with the SRRP |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* srrp *number* policy *reference* |
| Tree | policy |
| Reference | **configure** vrrp policy *number* |
| Max. instances | 2 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **preempt** *boolean*

| | |
|---|---|
| Synopsis | Allow the SRRP instance to override an existing master |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* srrp *number* preempt *boolean* |
| Tree | preempt |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **priority** *number*

| | |
|---|---|
| Synopsis | Priority for this interface at this level |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* srrp *number* priority *number* |
| Tree | priority |
| Range | 1 to 254 |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **send-fib-population-packets** *keyword*

| | |
|---|---|
| Synopsis | Mode used to send FIB population packets on switchover |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* srrp *number* send-fib-population-packets *keyword* |
| Tree | send-fib-population-packets |
| Options | all, outer-tag-only |
| Default | all |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **suppress-aa-sub** *boolean*

| | |
|---|---|
| Synopsis | Enable application assurance suppression for ESM subscribers |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* suppress-aa-sub *boolean* |
| Tree | suppress-aa-sub |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **tos-marking-state** *keyword*

| | |
|---|---|
| Synopsis | TOS marking state |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* tos-marking-state *keyword* |
| Tree | tos-marking-state |
| Options | trusted, untrusted |
| Default | trusted |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## **type** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Group interface type |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* type *keyword* |
| Tree | type |
| Options | plain, lns, wlan-gw, gtp, bonding |
| Default | plain |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **wlan-gw**

| | |
|---|---|
| Synopsis | Enter the **wlan-gw** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw |
| Tree | wlan-gw |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of WLAN Gateway |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **gateway-address** [address] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Enter the **gateway-address** list instance |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw gateway-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | gateway-address |
| Max. instances | 10 |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**address**] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Gateway endpoint address of the WLAN Gateway tunnel |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw gateway-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | gateway-address |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **purpose**

| | |
|---|---|
| Synopsis | Enter the **purpose** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw gateway-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* purpose |
| Tree | purpose |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **xconnect** *boolean*

| | |
|---|---|
| Synopsis | Use tunnel IP address for crosse-connect traffic |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw gateway-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* purpose xconnect *boolean* |
| Tree | xconnect |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **gateway-router** *string*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Routing instance the WLAN-GW endpoint resides in |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw gateway-router *string* |
| Tree | gateway-router |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **group-encryption**

| | |
|---|---|
| Synopsis | Enter the **group-encryption** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw group-encryption |
| Tree | group-encryption |
| Introduced | 21.10.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **encryption-keygroup-inbound** *reference*

| | |
|---|---|
| Synopsis | Encryption keygroup for inbound traffic |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw group-encryption encryption-keygroup-inbound *reference* |
| Tree | encryption-keygroup-inbound |
| Reference | **configure** group-encryption encryption-keygroup *number* |


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| | |
|---|---|
| Introduced | 21.10.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **encryption-keygroup-outbound** *reference*

| | |
|---|---|
| Synopsis | Encryption keygroup for inbound traffic |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw group-encryption encryption-keygroup-outbound *reference* |
| Tree | encryption-keygroup-outbound |
| Reference | **configure** group-encryption encryption-keygroup *number* |
| Introduced | 21.10.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **l2-ap**

| | |
|---|---|
| Synopsis | Enter the **l2-ap** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw l2-ap |
| Tree | l2-ap |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **access-point** [sap-id] *sap*

| | |
|---|---|
| Synopsis | Enter the **access-point** list instance |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw l2-ap access-point *sap* |
| Tree | access-point |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**sap-id**] *sap*

| | |
|---|---|
| Synopsis | SAP ID for the Layer 2 access point |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw l2-ap access-point *sap* |


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| | |
|---|---|
| Tree | access-point |
| String length | 1 to 45 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the L2 access points |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw l2-ap access-point *sap* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **encap-type** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Service encapsulation type of this access point |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw l2-ap access-point *sap* encap-type *keyword* |
| Tree | encap-type |
| Options | null, dot1q, qinq |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **epipe-sap-template** *reference*

**WARNING:**
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| | |
|---|---|
| Synopsis | Parameters template for the L2 access point SAP |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw l2-ap access-point *sap* epipe-sap-template *reference* |
| Tree | epipe-sap-template |
| Reference | **configure** service template epipe-sap-template *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **auto-sub-id-fmt** *keyword*

| | |
|---|---|
| Synopsis | Format of the auto-generated subscriber ID |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw l2-ap auto-sub-id-fmt *keyword* |
| Tree | auto-sub-id-fmt |
| Options | include-ap-tags, sap-only |
| Default | include-ap-tags |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **default-encap-type** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Default encapsulation type for Layer 2 access points |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw l2-ap default-encap-type *keyword* |
| Tree | default-encap-type |
| Options | null, dot1q, qinq |
| Default | null |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## lanext

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable the **lanext** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw lanext |
| Tree | lanext |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## max-bd *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum number of bridge domains |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw lanext max-bd *number* |
| Tree | max-bd |
| Range | 1 to 131071 |
| Default | 131071 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## learn-ap-mac

| | |
|---|---|
| Synopsis | Enable the **learn-ap-mac** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw learn-ap-mac |
| Tree | learn-ap-mac |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **delay-auth** *boolean*

| | |
|---|---|
| Synopsis | Delay AP-MAC until after ARP/ND authentication response |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw learn-ap-mac delay-auth *boolean* |
| Tree | delay-auth |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **mcs-peer**

| | |
|---|---|
| Synopsis | Enable the **mcs-peer** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw mcs-peer |
| Tree | mcs-peer |
| Description | Commands in this context configure a multi-chassis synchronization peer. |
| Introduced | 23.10.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **address** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IP address of the MCS peer |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw mcs-peer address *reference* |
| Tree | address |
| Description | This command configures the IPv4 address or the global IPv6 unicast address for a multi-chassis synchronization peer. |
| Reference | **configure** redundancy multi-chassis peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* |


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| | |
|---|---|
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **sync-tag** *named-item*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Synchronization tag shared by MCS peers |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw mcs-peer sync-tag *named-item* |
| Tree | sync-tag |
| Description | This command configures the synchronization tag for synchronization of ESM and the tunnel state for ESM over soft-GRE with an MCS peer. |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 23.10.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **mobility**

| | |
|---|---|
| Synopsis | Enter the **mobility** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw mobility |
| Tree | mobility |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **hold-time** *number*

| | |
|---|---|
| Synopsis | Minimum time between two mobility events for single UE |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw mobility hold-time *number* |
| Tree | hold-time |
| Range | 0 to 255 |
| Units | seconds |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **inter-tunnel-type** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable mobility between terminating tunnel types |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw mobility inter-tunnel-type *boolean* |
| Tree | inter-tunnel-type |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **inter-vlan** *boolean*

| | |
|---|---|
| Synopsis | Allow mobility within different VLANs of the same range |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw mobility inter-vlan *boolean* |
| Tree | inter-vlan |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **trigger**

| | |
|---|---|
| Synopsis | Enter the **trigger** context |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw mobility trigger |
| Tree | trigger |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **control** *boolean*

| | |
|---|---|
| Synopsis | Use control traffic as a mobility trigger |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw mobility trigger control *boolean* |
| Tree | control |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **data** *boolean*

| | |
|---|---|
| Synopsis | Use data traffic as mobility trigger |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw mobility trigger data *boolean* |
| Tree | data |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **iapp** *boolean*

| | |
|---|---|
| Synopsis | Use IAPP messages as a mobility trigger |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw mobility trigger iapp *boolean* |
| Tree | iapp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **oper-down-on-group-degrade** *boolean*

| | |
|---|---|
| Synopsis | Bring interface down when the ISA WLAN Gateway degraded |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw oper-down-on-group-degrade *boolean* |
| Tree | oper-down-on-group-degrade |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **promiscuous-mode** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable promiscuous mode for this group interface |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw promiscuous-mode *boolean* |
| Tree | promiscuous-mode |
| Description | When configured to **true**, the router accepts all traffic, including traffic that is not destined for a WLAN gateway group interface MAC or virtual MAC address for ESM processing.<br>When configured to **false**, the router only accepts traffic that is destined for a WLAN gateway group interface MAC or virtual MAC address for ESM processing. |
| Default | false |
| Introduced | 23.10.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **tcp-mss-adjust** *number*

| | |
|---|---|
| Synopsis | TCP Maximum Segment Size (MSS) adjustment for gateway |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw tcp-mss-adjust *number* |
| Tree | tcp-mss-adjust |
| Range | 160 to 10240 |
| Units | bytes |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## tunnel-egress-qos

| | |
|---|---|
| Synopsis | Enter the **tunnel-egress-qos** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw tunnel-egress-qos |
| Tree | tunnel-egress-qos |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Administrative state of egress QoS for WLAN-GW tunnels |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw tunnel-egress-qos admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## agg-rate-limit *(number | keyword)*

| | |
|---|---|
| Synopsis | HQoS aggregate rate limit |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw tunnel-egress-qos agg-rate-limit *(number | keyword)* |
| Tree | agg-rate-limit |
| Range | 1 to 100000000 |
| Options | max |
| Default | max |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **granularity** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Granularity of the egress shaping for WLAN Gateway |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw tunnel-egress-qos granularity *keyword* |
| Tree | granularity |
| Options | per-tunnel – Applied to each tunnel<br>per-retailer – Applied to each retailer Mobile Network Operator's fraction of the tunnel payload |
| Default | per-tunnel |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **hold-time** *(number | keyword)*

| | |
|---|---|
| Synopsis | Minimum time to hold egress shaping resources |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw tunnel-egress-qos hold-time *(number \| keyword)* |
| Tree | hold-time |
| Range | 1 to 86400 |
| Units | seconds |
| Options | infinite |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **multi-client-only** *boolean*

| | |
|---|---|
| Synopsis | Allow shaping for tunnel traffic for multiple UEs |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw tunnel-egress-qos multi-client-only *boolean* |
| Tree | multi-client-only |
| Default | false |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **qos** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Egress QoS policy linked with each interface tunnel |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw tunnel-egress-qos qos *reference* |
| Tree | qos |
| Reference | **configure** qos sap-egress *qos-policy-name* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **scheduler-policy** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Egress scheduler policy linked with each tunnel |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw tunnel-egress-qos scheduler-policy *reference* |
| Tree | scheduler-policy |
| Reference | **configure** qos scheduler-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **tunnel-encaps**

| | |
|---|---|
| Synopsis | Enter the **tunnel-encaps** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw tunnel-encaps |
| Tree | tunnel-encaps |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **learn-l2tp-cookie** *(keyword | hex-string)*

| | |
|---|---|
| Synopsis | System that learns the cookie from L2TP tunnels terminating on this interface |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw tunnel-encaps learn-l2tp-cookie *(keyword \| hex-string)* |
| Tree | learn-l2tp-cookie |
| String length | 6 |
| Options | never – Never interpret the cookie<br>always – Interpret cookie regardless of first two octets value |
| Default | never |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **vlan-range** [range] *string*

| | |
|---|---|
| Synopsis | Enter the **vlan-range** list instance |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* |
| Tree | vlan-range |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**range**] *string*

| | |
|---|---|
| Synopsis | IEEE 802.1q VLAN tag range |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* |
| Tree | vlan-range |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## authentication

| | |
|---|---|
| Synopsis | Enter the **authentication** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* authentication |
| Tree | authentication |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## hold-time *number*

| | |
|---|---|
| Synopsis | Minimum time UE held down after failed authentication |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* authentication hold-time *number* |
| Tree | hold-time |
| Range | 0 to 3600 |
| Units | seconds |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## local

| | |
|---|---|
| Synopsis | Enable the **local** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* authentication local |
| Tree | local |
| Introduced | 22.2.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## coa-policy *reference*

| | |
|---|---|
| Synopsis | RADIUS ISA policy applied to CoA or disconnect messages |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* authentication local coa-policy *reference* |
| Tree | coa-policy |


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| | |
|---|---|
| Reference | **configure** aaa radius isa-policy *named-item* |
| Introduced | 22.2.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **default-ue-state** *keyword*

| | |
|---|---|
| Synopsis | UE state accepted for immediate authentication |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* authentication local default-ue-state *keyword* |
| Tree | default-ue-state |
| Options | portal – Portal redirect UE using the http-redirect-policy<br>dsm – DSM UE using DSM parameters |
| Notes | This element is mandatory. |
| Introduced | 22.2.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **on-control-plane** *boolean*

| | |
|---|---|
| Synopsis | Allow authentication on first control plane packet |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* authentication on-control-plane *boolean* |
| Tree | on-control-plane |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **policy** *reference*

| | |
|---|---|
| Synopsis | RADIUS policy for authentication |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* authentication policy *reference* |
| Tree | policy |
| Reference | **configure** aaa radius isa-policy *named-item* |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **vlan-mismatch-timeout** *number*

| | |
|---|---|
| Synopsis | Timeout if packet received with a non-matching VLAN tag |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* authentication vlan-mismatch-timeout *number* |
| Tree | vlan-mismatch-timeout |
| Range | 5 to 60 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **data-triggered-ue-creation**

| | |
|---|---|
| Synopsis | Enter the **data-triggered-ue-creation** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* data-triggered-ue-creation |
| Tree | data-triggered-ue-creation |
| Description | Commands in this context configure data-triggered subscriber creation for Wi-Fi subscribers. Data-triggered UE creation only works upon receipt of TCP and UDP packets. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of data-triggered UE creation |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* data-triggered-ue-creation admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **arp** *boolean*

| | |
|---|---|
| Synopsis | Authenticate ARP packets received from an unknown UE |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* data-triggered-ue-creation arp *boolean* |
| Tree | arp |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **create-proxy-cache-entry**

| | |
|---|---|
| Synopsis | Enter the **create-proxy-cache-entry** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* data-triggered-ue-creation create-proxy-cache-entry |
| Tree | create-proxy-cache-entry |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **mac-format** *mac-specification*

| | |
|---|---|
| Synopsis | MAC address format |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* data-triggered-ue-creation create-proxy-cache-entry mac-format *mac-specification* |
| Tree | mac-format |
| String length | 2 to 7 |
| Default | aa: |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **proxy-server**

| | |
|---|---|
| Synopsis | Enable the **proxy-server** context |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* data-triggered-ue-creation create-proxy-cache-entry proxy-server |
| Tree | proxy-server |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **name** *named-item*

| | |
|---|---|
| Synopsis | RADIUS Proxy server name |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* data-triggered-ue-creation create-proxy-cache-entry proxy-server name *named-item* |
| Tree | name |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **router-instance** *string*

| | |
|---|---|
| Synopsis | Router instance of the RADIUS proxy server |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* data-triggered-ue-creation create-proxy-cache-entry proxy-server router-instance *string* |
| Tree | router-instance |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ospf** *boolean*

| | |
|---|---|
| Synopsis | Authenticate OSPF packets received from an unknown UE |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* data-triggered-ue-creation ospf *boolean* |
| Tree | ospf |


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| | |
|---|---|
| Description | When configured to **true**, the system triggers UE authentication based on OSPFv2 or OSPFv3 packets. These packets are used with the dynamic VPLS service. |
| Default | false |
| Introduced | 23.7.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## dhcp4

| | |
|---|---|
| Synopsis | Enter the **dhcp4** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dhcp4 |
| Tree | dhcp4 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of DHCPv4 |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dhcp4 admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## dns *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | DNS servers signaled in DHCP |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dhcp4 dns *ipv4-unicast-address* |
| Tree | dns |
| Max. instances | 2 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **l2-aware-ip-address** *(ipv4-unicast-address | keyword)*

| | |
|---|---|
| Synopsis | L2-Aware NAT inside IP address |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dhcp4 l2-aware-ip-address *(ipv4-unicast-address \| keyword)* |
| Tree | l2-aware-ip-address |
| Options | from-pool – IP address allocated from a pool |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **lease-time**

| | |
|---|---|
| Synopsis | Enter the **lease-time** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dhcp4 lease-time |
| Tree | lease-time |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **active** *number*

| | |
|---|---|
| Synopsis | Lease time an authenticated user |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dhcp4 lease-time active *number* |
| Tree | active |
| Range | 300 to 3600 |
| Units | seconds |
| Default | 600 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **initial** *number*

| | |
|---|---|
| Synopsis | Lease time for migrant user (unauthenticated) |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dhcp4 lease-time initial *number* |
| Tree | initial |
| Range | 300 to 3600 |
| Units | seconds |
| Default | 600 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **nbns** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | NetBIOS servers signaled in DHCP |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dhcp4 nbns *ipv4-unicast-address* |
| Tree | nbns |
| Max. instances | 2 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **dhcp6**

| | |
|---|---|
| Synopsis | Enter the **dhcp6** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dhcp6 |
| Tree | dhcp6 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the protocol |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dhcp6 admin-state *keyword* |
| Tree | admin-state |


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| | |
|---|---|
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## preferred-lifetime

| | |
|---|---|
| Synopsis | Enter the **preferred-lifetime** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dhcp6 preferred-lifetime |
| Tree | preferred-lifetime |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **active** *number*

| | |
|---|---|
| Synopsis | Preferred signaled lifetime after full authentication |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dhcp6 preferred-lifetime active *number* |
| Tree | active |
| Range | 300 to 3600 |
| Units | seconds |
| Default | 600 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **initial** *number*

| | |
|---|---|
| Synopsis | Signaled preferred lifetime after full authentication |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dhcp6 preferred-lifetime initial *number* |
| Tree | initial |
| Range | 300 to 3600 |
| Units | seconds |
| Default | 300 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## valid-lifetime

| | |
|---|---|
| Synopsis | Enter the **valid-lifetime** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dhcp6 valid-lifetime |
| Tree | valid-lifetime |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **active** *number*

| | |
|---|---|
| Synopsis | Signaled valid lifetime after full authentication |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dhcp6 valid-lifetime active *number* |
| Tree | active |
| Range | 300 to 3600 |
| Units | seconds |
| Default | 600 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **initial** *number*

| | |
|---|---|
| Synopsis | Valid signaled lifetime UE is not fully authenticated |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dhcp6 valid-lifetime initial *number* |
| Tree | initial |
| Range | 300 to 3600 |
| Units | seconds |
| Default | 300 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## dsm

| | |
|---|---|
| Synopsis | Enter the **dsm** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dsm |
| Tree | dsm |
| Description | Commands in this context configure distributed subscriber management (DSM) per VLAN range. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## accounting-policy *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | ISA Radius Policy for accounting |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dsm accounting-policy *reference* |
| Tree | accounting-policy |
| Reference | **configure** aaa radius isa-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## accounting-update

| | |
|---|---|
| Synopsis | Enable the **accounting-update** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dsm accounting-update |
| Tree | accounting-update |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## interval *number*

| | |
|---|---|
| Synopsis | Interim accounting update messages interval |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dsm accounting-update interval *number* |
| Tree | interval |
| Range | 5 to 259200 |
| Units | minutes |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of DSM |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dsm admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **application-assurance**

| | |
|---|---|
| Synopsis | Enter the **application-assurance** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dsm application-assurance |
| Tree | application-assurance |
| Introduced | 21.10.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **accounting-statistics** *boolean*

| | |
|---|---|
| Synopsis | Collect AA statistics |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dsm application-assurance accounting-statistics *boolean* |
| Tree | accounting-statistics |


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| | |
|---|---|
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **profile** *reference*

| | |
|---|---|
| Synopsis | AA application profile used for portal authentication |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dsm application-assurance profile *reference* |
| Tree | profile |
| Reference | **configure** application-assurance group *number* partition *number* policy app-profile *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **url-parameter** *aa-http-url-param*

| | |
|---|---|
| Synopsis | AA URL parameter included for HTTP portal redirect |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dsm application-assurance url-parameter *aa-http-url-param* |
| Tree | url-parameter |
| String length | 1 to 247 |
| Introduced | 22.2.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **captive-portal-api-url** *one-time-http-redirect-url*

| | |
|---|---|
| Synopsis | Captive portal URL |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dsm captive-portal-api-url *one-time-http-redirect-url* |
| Tree | captive-portal-api-url |
| Description | This command specifies a URL for an RFC 8908 captive portal API server that is included in DHCP, RA, and DHCPv6 messages as described in RFC 8910. This command supports the same macro substitutions as the **configure subscriber-mgmt http-redirect-policy url** command. |


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This command is mutually exclusive with the **one-time-redirect** and **send-unrestricted-portal-url** commands in the same context.

When unconfigured, the WLAN-GW populates the URL in DHCP, RA, and DHCPv6 messages based on whether redirect is applied and the value of the **one-time-redirect** command.

| | |
|---|---|
| String length | 1 to 255 |
| Introduced | 24.3.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## egress

| | |
|---|---|
| Synopsis | Enter the **egress** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dsm egress |
| Tree | egress |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## policer *reference*

| | |
|---|---|
| Synopsis | Policer for egress traffic |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dsm egress policer *reference* |
| Tree | policer |
| Reference | **configure** subscriber-mgmt isa-policer *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## ingress

| | |
|---|---|
| Synopsis | Enter the **ingress** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dsm ingress |
| Tree | ingress |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **ip-filter** *reference*

| | |
|---|---|
| Synopsis | Filter for ingress traffic |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dsm ingress ip-filter *reference* |
| Tree | ip-filter |
| Reference | **configure** subscriber-mgmt isa-filter *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **policer** *reference*

| | |
|---|---|
| Synopsis | Policer for ingress traffic |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dsm ingress policer *reference* |
| Tree | policer |
| Reference | **configure** subscriber-mgmt isa-policer *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **soft-quota-exhausted-filter** *reference*

| | |
|---|---|
| Synopsis | Filter applied when soft volume quota is reached |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dsm ingress soft-quota-exhausted-filter *reference* |
| Tree | soft-quota-exhausted-filter |
| Description | This command applies a filter when a soft volume quota is reached. The filter replaces the currently applied filter (which can be preconfigured using the **ip-filter** command in the **configure service vprn subscriber-interface group-interface wlan-gw vlan-range dsm ingress ip-filter** context or be set using a RADIUS CoA message) for the UE upon quota exhaustion. If the quota is extended using a RADIUS CoA message, the filter is automatically reverted. Configuration changes apply only to new DSM UEs and not to existing UEs. |
| Reference | **configure** subscriber-mgmt isa-filter *named-item* |
| Introduced | 21.7.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### one-time-redirect

| | |
|---|---|
| Synopsis | Enter the **one-time-redirect** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dsm one-time-redirect |
| Tree | one-time-redirect |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### port *number*

| | |
|---|---|
| Synopsis | Destination port of packets for HTTP redirect |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dsm one-time-redirect port *number* |
| Tree | port |
| Range | 1 to 65535 |
| Default | 80 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### url *one-time-http-redirect-url*

| | |
|---|---|
| Synopsis | URL for redirected HTTP protocol packets |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dsm one-time-redirect url *one-time-http-redirect-url* |
| Tree | url |
| String length | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### send-unrestricted-portal-url *boolean*

| | |
|---|---|
| Synopsis | Send an indicator if no captive portal is enabled |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dsm send-unrestricted-portal-url *boolean* |


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| | |
|---|---|
| Tree | send-unrestricted-portal-url |
| Description | When configured to **true**, the router sends the special URL indicator urn:ietf:params:capport:unrestricted in DHCP, DHCPv6, and RA messages, to indicate to the client that no captive portal is enabled. This allows the client to disable all portal detection logic, thereby optimizing the user experience. |
| Default | false |
| Introduced | 24.3.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **volume-quota-direction** *keyword*

| | |
|---|---|
| Synopsis | Volume quota direction for WLAN GW |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dsm volume-quota-direction *keyword* |
| Tree | volume-quota-direction |
| Description | This command specifies the direction that volume quotas are applied. Configuration changes apply only to new DSM UEs and not to existing UEs. |
| Options | both – Both directions<br>ingress – Ingress direction (upstream)<br>egress – Egress direction (downstream) |
| Default | both |
| Introduced | 21.7.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **dynamic-service** *boolean*

| | |
|---|---|
| Synopsis | Dynamically assign WLAN-GW subscriber to a VPLS service |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* dynamic-service *boolean* |
| Tree | dynamic-service |
| Description | When configured to **true**, the WLAN-GW subscriber is dynamically assigned to a VPLS service, based on RADIUS authentication reply attributes. This feature is used in conjunction with the **configure service vpls wlan-gw wlan-gw-group** command.<br><br>See "Dynamic VPLS service" in the *7450 ESS, 7750 SR, and VSR Triple Play Service Delivery Architecture Guide* for more information about the dynamic VPLS service feature. |
| Default | false |
| Introduced | 23.3.R1 |


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| | |
|---|---|
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **extension** [extension-range] *string*

| | |
|---|---|
| Synopsis | Add a list entry for **extension** |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* extension *string* |
| Tree | extension |
| Introduced | 21.7.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**extension-range**] *string*

| | |
|---|---|
| Synopsis | VLAN tag range used for matching |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* extension *string* |
| Tree | extension |
| Description | This command configures the additional VLAN range that is used for matching. Any traffic within the extension range is considered part of the same VLAN range for purposes of intra-SSID mobility. |
| Notes | This element is part of a list key. |
| Introduced | 21.7.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **http-redirect-policy** *reference*

| | |
|---|---|
| Synopsis | Default HTTP redirect policy for portal authentication |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* http-redirect-policy *reference* |
| Tree | http-redirect-policy |
| Reference | **configure** subscriber-mgmt http-redirect-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **idle-timeout-action** *keyword*

| | |
|---|---|
| Synopsis | Action to perform when the idle timeout expires |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* idle-timeout-action *keyword* |
| Tree | idle-timeout-action |
| Options | remove, shcv |
| Default | remove |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## l2-service

| | |
|---|---|
| Synopsis | Enable the **l2-service** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* l2-service |
| Tree | l2-service |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of Layer 2 service for VLAN range |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* l2-service admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## description *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* l2-service description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **service** *reference*

| | |
|---|---|
| Synopsis | Layer 2 service associated with the range |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* l2-service service *reference* |
| Tree | service |
| Reference | **configure** service vpls *service-name* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **nat-policy** *reference*

| | |
|---|---|
| Synopsis | NAT policy for DSM and ISA portal authentication |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* nat-policy *reference* |
| Tree | nat-policy |
| Reference | **configure** service nat nat-policy *external-named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **retail-service** *service-name*

| | |
|---|---|
| Synopsis | Default retail service for new UEs in this range |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* retail-service *service-name* |
| Tree | retail-service |
| String length | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **slaac**

| | |
|---|---|
| Synopsis | Enter the **slaac** context |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* slaac |
| Tree | slaac |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the protocol |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* slaac admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **preferred-lifetime**

| | |
|---|---|
| Synopsis | Enter the **preferred-lifetime** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* slaac preferred-lifetime |
| Tree | preferred-lifetime |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **active** *number*

| | |
|---|---|
| Synopsis | Preferred signaled lifetime after full authentication |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* slaac preferred-lifetime active *number* |
| Tree | active |
| Range | 300 to 3600 |
| Units | seconds |
| Default | 600 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **initial** *number*

| | |
|---|---|
| Synopsis | Signaled preferred lifetime after full authentication |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* slaac preferred-lifetime initial *number* |
| Tree | initial |
| Range | 300 to 3600 |
| Units | seconds |
| Default | 300 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **valid-lifetime**

| | |
|---|---|
| Synopsis | Enter the **valid-lifetime** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* slaac valid-lifetime |
| Tree | valid-lifetime |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **active** *number*

| | |
|---|---|
| Synopsis | Signaled valid lifetime after full authentication |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* slaac valid-lifetime active *number* |
| Tree | active |
| Range | 300 to 3600 |
| Units | seconds |
| Default | 600 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **initial** *number*

| | |
|---|---|
| Synopsis | Valid signaled lifetime UE is not fully authenticated |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* slaac valid-lifetime initial *number* |
| Tree | initial |
| Range | 300 to 3600 |
| Units | seconds |
| Default | 300 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **vrgw**

| | |
|---|---|
| Synopsis | Enter the **vrgw** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* vrgw |
| Tree | vrgw |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of vRGW |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* vrgw admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **brg**

| | |
|---|---|
| Synopsis | Enter the **brg** context |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* vrgw brg |
| Tree | brg |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **authenticated-brg-only** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Only allow hosts from BRGs pre-authenticated using the radius-proxy |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* vrgw brg authenticated-brg-only *boolean* |
| Tree | authenticated-brg-only |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **default-brg-profile** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Default BRG profile to use if the AAA server does not specify one |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* vrgw brg default-brg-profile *reference* |
| Tree | default-brg-profile |
| Reference | **configure** subscriber-mgmt vrgw brg-profile *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## lanext

| | |
|---|---|
| Synopsis | Enter the **lanext** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* vrgw lanext |
| Tree | lanext |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## access

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **access** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* vrgw lanext access |
| Tree | access |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## max-mac *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum number of allowed MAC entries on access side |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* vrgw lanext access max-mac *number* |
| Tree | max-mac |
| Range | 1 to 256 |
| Default | 20 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **multi-access** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Allow multiple access points |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* vrgw lanext access multi-access *boolean* |
| Tree | multi-access |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **policer** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Policer for ingress home traffic |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* vrgw lanext access policer *reference* |
| Tree | policer |
| Reference | **configure** subscriber-mgmt isa-policer *named-item* |
| Introduced | 19.7.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of HLE |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* vrgw lanext admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **assistive-address-resolution** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | ISA assists in address resolution |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* vrgw lanext assistive-address-resolution *boolean* |
| Tree | assistive-address-resolution |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **bd-mac-prefix** *string*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Prefix of the HLE BD MAC address |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* vrgw lanext bd-mac-prefix *string* |
| Tree | bd-mac-prefix |
| String length | 8 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **mac-translation** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Allow MAC address translation for HLE services |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* vrgw lanext mac-translation *boolean* |
| Tree | mac-translation |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## network

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **network** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* vrgw lanext network |
| Tree | network |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Administrative state of the HLE network |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* vrgw lanext network admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **max-mac** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum number of allowed MAC entries on network side |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* vrgw lanext network max-mac *number* |
| Tree | max-mac |
| Range | 1 to 64 |
| Default | 20 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **policer** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Policer for ingress data center traffic |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* vrgw lanext network policer *reference* |
| Tree | policer |
| Reference | **configure** subscriber-mgmt isa-policer *named-item* |
| Introduced | 19.7.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **xconnect**

| | |
|---|---|
| Synopsis | Enter the **xconnect** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* xconnect |
| Tree | xconnect |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## accounting

| | |
|---|---|
| Synopsis | Enter the **accounting** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* xconnect accounting |
| Tree | accounting |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## mobility-updates *boolean*

| | |
|---|---|
| Synopsis | Accounting updates triggered by mobility |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* xconnect accounting mobility-updates *boolean* |
| Tree | mobility-updates |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## policy *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | ISA RADIUS accounting policy for cross-connected UEs |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* xconnect accounting policy *reference* |
| Tree | policy |
| Reference | **configure** aaa radius isa-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **update-interval** *number*

| | |
|---|---|
| Synopsis | Time between successive interim accounting updates |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* xconnect accounting update-interval *number* |
| Tree | update-interval |
| Range | 5 to 259200 |
| Units | minutes |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the cross-connect |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw vlan-range *string* xconnect admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **wlan-gw-group** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | ID of WLAN Gateway ISA group that gateway binds to |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wlan-gw wlan-gw-group *reference* |
| Tree | wlan-gw-group |
| Reference | **configure** isa wlan-gw-group *number* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## wpp

| | |
|---|---|
| Synopsis | Enable the **wpp** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wpp |
| Tree | wpp |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of WPP |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wpp admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## initial

| | |
|---|---|
| Synopsis | Enter the **initial** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wpp initial |
| Tree | initial |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## app-profile *reference*

| | |
|---|---|
| Synopsis | Initial application profile name |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wpp initial app-profile *reference* |
| Tree | app-profile |
| Reference | **configure** application-assurance group *number* partition *number* policy app-profile *named-item* |


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| | |
|---|---|
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **sla-profile** *reference*

| | |
|---|---|
| Synopsis | Initial SLA profile |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wpp initial sla-profile *reference* |
| Tree | sla-profile |
| Reference | **configure** subscriber-mgmt sla-profile *external-named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sub-profile** *reference*

| | |
|---|---|
| Synopsis | Initial subscriber profile |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wpp initial sub-profile *reference* |
| Tree | sub-profile |
| Reference | **configure** subscriber-mgmt sub-profile *external-named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **lease-time** *number*

| | |
|---|---|
| Synopsis | Lease time |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wpp lease-time *number* |
| Tree | lease-time |
| Range | 10 to 315446399 |
| Units | seconds |
| Default | 600 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## portal

| | |
|---|---|
| Synopsis | Enter the **portal** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wpp portal |
| Tree | portal |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## name *named-item*

| | |
|---|---|
| Synopsis | Web portal server name |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wpp portal name *named-item* |
| Tree | name |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **portal-group** or (**name** and **router-instance**). |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## portal-group *reference*

| | |
|---|---|
| Synopsis | WPP portal group for this interface |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wpp portal portal-group *reference* |
| Tree | portal-group |
| Reference | **configure** aaa wpp portal-group *named-item* |
| Notes | The following elements are part of a choice: **portal-group** or (**name** and **router-instance**). |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## router-instance *string*

| | |
|---|---|
| Synopsis | Virtual router instance of WPP portal for interface |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wpp portal router-instance *string* |
| Tree | router-instance |
| Notes | The following elements are part of a choice: **portal-group** or (**name** and **router-instance**). |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **restore-to-initial-on-disconnect** *boolean*

| | |
|---|---|
| Synopsis | Restore initial profiles after a host has disconnected |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wpp restore-to-initial-on-disconnect *boolean* |
| Tree | restore-to-initial-on-disconnect |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **triggered-hosts** *boolean*

| | |
|---|---|
| Synopsis | Enable/disable triggered hosts |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wpp triggered-hosts *boolean* |
| Tree | triggered-hosts |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **user-db** *reference*

| | |
|---|---|
| Synopsis | User database |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* group-interface *interface-name* wpp user-db *reference* |
| Tree | user-db |
| Reference | **configure** subscriber-mgmt local-user-db *named-item* |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## hold-time

| | |
|---|---|
| Synopsis | Enter the **hold-time** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* hold-time |
| Tree | hold-time |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ipv4

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* hold-time ipv4 |
| Tree | ipv4 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## down

| | |
|---|---|
| Synopsis | Enter the **down** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* hold-time ipv4 down |
| Tree | down |
| Description | Commands in this context configure the down hold timer, which specifies the delay before activating the associated interface. The delay is invoked whenever the system attempts to bring the associated IP interface up, unless an operator configures the **init-only** command. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## init-only *boolean*

| | |
|---|---|
| Synopsis | Apply delay only at interface configuration or reboot |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* hold-time ipv4 down init-only *boolean* |
| Tree | init-only |


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| | |
|---|---|
| Description | This command applies a delay only when the IP interface is first configured or after a system reboot. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **seconds** *number*

| | |
|---|---|
| Synopsis | Down hold time for the IP interface |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* hold-time ipv4 down seconds *number* |
| Tree | seconds |
| Range | 1 to 1200 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **up**

| | |
|---|---|
| Synopsis | Enter the **up** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* hold-time ipv4 up |
| Tree | up |
| Description | Commands in this context configure the up hold timer, which specifies the delay before deactivation of the associated interface. The delay is invoked whenever the system attempts to bring the associated IP interface down. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **seconds** *number*

| | |
|---|---|
| Synopsis | Up hold time for the IP interface |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* hold-time ipv4 up seconds *number* |
| Tree | seconds |
| Range | 1 to 1200 |
| Units | seconds |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ipv6

| | |
|---|---|
| Synopsis | Enter the **ipv6** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* hold-time ipv6 |
| Tree | ipv6 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## down

| | |
|---|---|
| Synopsis | Enter the **down** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* hold-time ipv6 down |
| Tree | down |
| Description | Commands in this context configure the down hold timer, which specifies the delay before activation of the associated interface. The delay is invoked whenever the system attempts to bring the associated IP interface up, unless an operator configures the **init-only** command. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## init-only *boolean*

| | |
|---|---|
| Synopsis | Apply delay only at interface configuration or reboot |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* hold-time ipv6 down init-only *boolean* |
| Tree | init-only |
| Description | When configured to **true**, the system applies a delay only when the IP interface is first configured or after a system reboot. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **seconds** *number*

| | |
|---|---|
| Synopsis | Down hold time for the IP interface |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* hold-time ipv6 down seconds *number* |
| Tree | seconds |
| Range | 1 to 1200 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **up**

| | |
|---|---|
| Synopsis | Enter the **up** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* hold-time ipv6 up |
| Tree | up |
| Description | Commands in this context configure the up hold timer, which specifies the delay before deactivation of the associated interface. The delay is invoked whenever the system attempts to bring the associated IP interface down. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **seconds** *number*

| | |
|---|---|
| Synopsis | Up hold time for the IP interface |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* hold-time ipv6 up seconds *number* |
| Tree | seconds |
| Range | 1 to 1200 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ipoe-linking**

| | |
|---|---|
| Synopsis | Enter the **ipoe-linking** context |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipoe-linking |
| Tree | ipoe-linking |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **gratuitous-router-advertisement** *boolean*

| | |
|---|---|
| Synopsis | Send unsolicited router advertisement after DHCP setup |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipoe-linking gratuitous-router-advertisement *boolean* |
| Tree | gratuitous-router-advertisement |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ipoe-session**

| | |
|---|---|
| Synopsis | Enter the **ipoe-session** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipoe-session |
| Tree | ipoe-session |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **session-limit** *number*

| | |
|---|---|
| Synopsis | Maximum number of sessions on this group interface |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipoe-session session-limit *number* |
| Tree | session-limit |
| Range | 1 to 500000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ipv4**

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv4 |
| Tree | ipv4 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **address** [ipv4-address] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Enter the **address** list instance |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv4 address *ipv4-unicast-address* |
| Tree | address |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**ipv4-address**] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IP address associated with the subscriber subnet |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv4 address *ipv4-unicast-address* |
| Tree | address |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **gateway** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Gateway IP address within the subnet for SRRP routing |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv4 address *ipv4-unicast-address* gateway *ipv4-unicast-address* |
| Tree | gateway |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **holdup-time** *number*

| | |
|---|---|
| Synopsis | Wait time before accepting new state attribute |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv4 address *ipv4-unicast-address* holdup-time *number* |
| Tree | holdup-time |
| Range | 100 to 5000 |
| Units | milliseconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **populate-host-routes** *boolean*

| | |
|---|---|
| Synopsis | Populate subscriber host routes in local FIB |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv4 address *ipv4-unicast-address* populate-host-routes *boolean* |
| Tree | populate-host-routes |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **prefix-length** *number*

| | |
|---|---|
| Synopsis | IPv4 address prefix length |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv4 address *ipv4-unicast-address* prefix-length *number* |
| Tree | prefix-length |
| Range | 0 to 32 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **track-srrp** *number*

| | |
|---|---|
| Synopsis | SRRP instance whose state is tracked on this IP address |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv4 address *ipv4-unicast-address* track-srrp *number* |
| Tree | track-srrp |
| Range | 1 to 4294967295 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **allow-unmatching-subnets** *boolean*

| | |
|---|---|
| Synopsis | Allow subscriber hosts without a matching subnet |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv4 allow-unmatching-subnets *boolean* |
| Tree | allow-unmatching-subnets |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **arp-host**

| | |
|---|---|
| Synopsis | Enter the **arp-host** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv4 arp-host |
| Tree | arp-host |
| Introduced | 16.0.R6 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of ARP hosts |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv4 arp-host admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Introduced | 16.0.R6 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **host-limit** *number*

| | |
|---|---|
| Synopsis | Maximum number of ARP hosts |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv4 arp-host host-limit *number* |


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| | |
|---|---|
| Tree | host-limit |
| Range | 1 to 524287 |
| Introduced | 16.0.R6 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## bfd

| | |
|---|---|
| Synopsis | Enter the **bfd** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv4 bfd |
| Tree | bfd |
| Description | Commands in this context configure the attributes of bidirectional forwarding detection (BFD) sessions that control the state of ESM dynamic BGP peers. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of BFD sessions |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv4 bfd admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## echo-receive *number*

| | |
|---|---|
| Synopsis | Minimum echo interval over this interface |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv4 bfd echo-receive *number* |
| Tree | echo-receive |
| Range | 100 to 100000 |
| Units | milliseconds |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **multiplier** *number*

| | |
|---|---|
| Synopsis | Number of consecutive BFD messages missed from the peer |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv4 bfd multiplier *number* |
| Tree | multiplier |
| Description | This command configures the number of missed messages before the BFD session state is changed to down and the upper-level protocol is notified of the fault. A multiplier of less than 3 should not be used in production environments. |
| Range | 1 to 20 |
| Default | 3 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **receive** *number*

| | |
|---|---|
| Synopsis | BFD receive interval over this interface |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv4 bfd receive *number* |
| Tree | receive |
| Description | This command specifies the receive interval for the BFD session.<br>On the 7750 SR, this command can only be configured to a value less than 100 when the **type** command is configured to **cpm-np**. |
| Range | 10 to 100000 |
| Units | milliseconds |
| Default | 100 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **transmit-interval** *number*

| | |
|---|---|
| Synopsis | BFD transmit interval over this interface |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv4 bfd transmit-interval *number* |
| Tree | transmit-interval |
| Description | This command configures the transmit intervals. |


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On the 7750 SR, this command can only be configured to a value less than 100 when the **type** command is configured to **cpm-np**.

| | |
|---|---|
| Range | 10 to 100000 |
| Units | milliseconds |
| Default | 100 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **type** *keyword*

| | |
|---|---|
| Synopsis | Local termination point for the BFD session |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv4 bfd type *keyword* |
| Tree | type |
| Description | This command sets the local termination point for the BFD session to allow for fast timers down to 10 ms granularity.<br>The options to specify where the BFD session runs are:<br>• **auto** (default) – the system chooses and uses the line card CPU only for single-hop BFD sessions with timer intervals equal to or greater than 100ms. All others are placed on the **cpm-np**.<br>• **cpm-np** – BFD session runs on the FP complex associated with the CPM. This is either the FP on the CPM or the one elected on smaller systems.<br>• **fp** – BFD session runs on the line card CPU. This option can only be used for single-hop BFD sessions with timers equal to or greater than 100ms. |
| Options | cpm-np, auto, fp |
| Default | auto |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## **default-dns** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Default DNS server addresses |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv4 default-dns *ipv4-unicast-address* |
| Tree | default-dns |
| Max. instances | 2 |
| Notes | This element is ordered by the user. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## dhcp

| | |
|---|---|
| Synopsis | Enter the **dhcp** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv4 dhcp |
| Tree | dhcp |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of DHCP |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv4 dhcp admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## client-applications

| | |
|---|---|
| Synopsis | Enter the **client-applications** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv4 dhcp client-applications |
| Tree | client-applications |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## dhcp *boolean*

| | |
|---|---|
| Synopsis | Enable IPoE clients to use DHCP relay or proxy server |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv4 dhcp client-applications dhcp *boolean* |
| Tree | dhcp |


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| | |
|---|---|
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ppp** *boolean*

| | |
|---|---|
| Synopsis | Enable PPPoE clients to use DHCP relay or proxy server |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv4 dhcp client-applications ppp *boolean* |
| Tree | ppp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv4 dhcp description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **gi-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | GI address for the DHCP relay |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv4 dhcp gi-address *ipv4-unicast-address* |
| Tree | gi-address |
| Description | This command configures the GI address to distinguish between the different subscriber interfaces (and potentially group interfaces) defined when the router functions as a DHCP relay.<br><br>By default, the GI address used in the relayed DHCP packet is the primary IP address of a normal IES interface. Specifying the GI address allows the user to choose a secondary address. For group interfaces, a GI address must be specified under the group interface DHCP context or subscriber interface DHCP context for DHCP to function. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## lease-populate

| | |
|---|---|
| Synopsis | Enter the **lease-populate** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv4 dhcp lease-populate |
| Tree | lease-populate |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## max-leases *number*

| | |
|---|---|
| Synopsis | Maximum number of DHCPv4 leases |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv4 dhcp lease-populate max-leases *number* |
| Tree | max-leases |
| Range | 0 to 511999 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## offer-selection

| | |
|---|---|
| Synopsis | Enter the **offer-selection** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv4 dhcp offer-selection |
| Tree | offer-selection |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## client-mac

| | |
|---|---|
| Synopsis | Enter the **client-mac** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv4 dhcp offer-selection client-mac |
| Tree | client-mac |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **client-mac** or **server**. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **discover-delay** *number*

| | |
|---|---|
| Synopsis | Delay before sending DHCP Discover messages |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv4 dhcp offer-selection client-mac discover-delay *number* |
| Tree | discover-delay |
| Description | This command configures the time to delay sending DHCP Discover messages from the specified MAC addresses. |
| Range | 1 to 100 |
| Units | deciseconds |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **mac-address** *keyword*

| | |
|---|---|
| Synopsis | Designated client MAC addresses for Offer selection |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv4 dhcp offer-selection client-mac mac-address *keyword* |
| Tree | mac-address |
| Description | This command specifies the client MAC addresses for which the Discover delay applies. |
| Options | odd, even |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **discover-delay** *number*

| | |
|---|---|
| Synopsis | Delay before sending DHCP Discover messages |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv4 dhcp offer-selection discover-delay *number* |
| Tree | discover-delay |


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| | |
|---|---|
| Description | This command configures the time to delay sending DHCP Discover messages. The delay is applied to all DHCP Discover messages for which no per DHCP server or per client MAC delay is configured. |
| Range | 1 to 100 |
| Units | deciseconds |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **server** [ipv4-address] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Enter the **server** list instance |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv4 dhcp offer-selection server *ipv4-unicast-address* |
| Tree | server |
| Max. instances | 8 |
| Notes | The following elements are part of a choice: **client-mac** or **server**. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**ipv4-address**] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IP address of the DHCP server |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv4 dhcp offer-selection server *ipv4-unicast-address* |
| Tree | server |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **discover-delay** *number*

| | |
|---|---|
| Synopsis | Delay before sending DHCP Discover messages |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv4 dhcp offer-selection server *ipv4-unicast-address* discover-delay *number* |
| Tree | discover-delay |


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| | |
|---|---|
| Description | This command configures the time to delay DHCP Discover messages sent to the server. |
| Range | 1 to 100 |
| Units | deciseconds |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## option-82

| | |
|---|---|
| Synopsis | Enter the **option-82** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv4 dhcp option-82 |
| Tree | option-82 |
| Description | Commands in this context configure the processing required when the router receives a DHCP request that already has an Option 82 field in the packet. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## vendor-specific-option

| | |
|---|---|
| Synopsis | Enter the **vendor-specific-option** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv4 dhcp option-82 vendor-specific-option |
| Tree | vendor-specific-option |
| Description | Commands in this context configure the Nokia Vendor-Specific Option (VSO) of the DHCP packet. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## client-mac-address *boolean*

| | |
|---|---|
| Synopsis | Send the MAC address in the VSO |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv4 dhcp option-82 vendor-specific-option client-mac-address *boolean* |
| Tree | client-mac-address |
| Default | false |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sap-id** *boolean*

| | |
|---|---|
| Synopsis | Send SAP ID in the sub-option of the DHCP relay packet |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv4 dhcp option-82 vendor-specific-option sap-id *boolean* |
| Tree | sap-id |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **service-id** *boolean*

| | |
|---|---|
| Synopsis | Send the service ID in the Vendor Specific Option |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv4 dhcp option-82 vendor-specific-option service-id *boolean* |
| Tree | service-id |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **string** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | User-defined ASCII string for the VSO |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv4 dhcp option-82 vendor-specific-option string *string-not-all-spaces* |
| Tree | string |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **system-id** *boolean*

| | |
|---|---|
| Synopsis | Send the system ID in the VSO |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv4 dhcp option-82 vendor-specific-option system-id *boolean* |


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| | |
|---|---|
| Tree | system-id |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## proxy-server

| | |
|---|---|
| Synopsis | Enter the **proxy-server** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv4 dhcp proxy-server |
| Tree | proxy-server |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the DHCP proxy server |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv4 dhcp proxy-server admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## emulated-server *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IP address used as DHCP server address in SAP context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv4 dhcp proxy-server emulated-server *ipv4-unicast-address* |
| Tree | emulated-server |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### lease-time

| | |
|---|---|
| Synopsis | Enter the **lease-time** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv4 dhcp proxy-server lease-time |
| Tree | lease-time |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### radius-override *boolean*

| | |
|---|---|
| Synopsis | Use lease time information provided by RADIUS server |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv4 dhcp proxy-server lease-time radius-override *boolean* |
| Tree | radius-override |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### value *number*

| | |
|---|---|
| Synopsis | DHCP lease time |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv4 dhcp proxy-server lease-time value *number* |
| Tree | value |
| Range | 300 to 315446399 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### python-policy *reference*

| | |
|---|---|
| Synopsis | Python policy |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv4 dhcp python-policy *reference* |
| Tree | python-policy |


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| | |
|---|---|
| Reference | **configure** python python-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## relay-proxy

| | |
|---|---|
| Synopsis | Enable the **relay-proxy** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv4 dhcp relay-proxy |
| Tree | relay-proxy |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## release-update-src-ip *boolean*

| | |
|---|---|
| Synopsis | Update the source IP address of a DHCP RELEASE message |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv4 dhcp relay-proxy release-update-src-ip *boolean* |
| Tree | release-update-src-ip |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## siaddr-override *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | DHCP server IP address for address hiding function |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv4 dhcp relay-proxy siaddr-override *ipv4-unicast-address* |
| Tree | siaddr-override |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## release-include-gi-address *boolean*

| | |
|---|---|
| Synopsis | Include the GI address in DHCP relay messages |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv4 dhcp release-include-gi-address *boolean* |
| Tree | release-include-gi-address |
| Default | false |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **server** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | DHCP server IP addresses |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv4 dhcp server *ipv4-unicast-address* |
| Tree | server |
| Max. instances | 8 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **src-ip-addr** *keyword*

| | |
|---|---|
| Synopsis | Type of source address to use for DHCP relay |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv4 dhcp src-ip-addr *keyword* |
| Tree | src-ip-addr |
| Options | auto, gi-address |
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **virtual-subnet** *boolean*

| | |
|---|---|
| Synopsis | Enable a virtual subnet for DHCPv4 hosts |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv4 dhcp virtual-subnet *boolean* |
| Tree | virtual-subnet |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **export-host-routes** *boolean*

| | |
|---|---|
| Synopsis | Allow export of subscriber management host routes |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv4 export-host-routes *boolean* |
| Tree | export-host-routes |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **unnumbered**

| | |
|---|---|
| Synopsis | Enter the **unnumbered** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv4 unnumbered |
| Tree | unnumbered |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ip-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IP address for the subscriber interface |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv4 unnumbered ip-address *ipv4-unicast-address* |
| Tree | ip-address |
| Notes | The following elements are part of a choice: **ip-address** or **ip-int-name**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ip-int-name** *interface-name*

| | |
|---|---|
| Synopsis | Interface name from which an IPv4 addressed is borrowed |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv4 unnumbered ip-int-name *interface-name* |
| Tree | ip-int-name |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **ip-address** or **ip-int-name**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ipv6

| | |
|---|---|
| Synopsis | Enable the **ipv6** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 |
| Tree | ipv6 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **address** [ipv6-address] *ipv6-address*

| | |
|---|---|
| Synopsis | Enter the **address** list instance |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 address *ipv6-address* |
| Tree | address |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## [**ipv6-address**] *ipv6-address*

| | |
|---|---|
| Synopsis | IPv6 address for the subscriber interface |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 address *ipv6-address* |
| Tree | address |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## **host-type** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Host type for subscriber interface prefixes |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 address *ipv6-address* host-type *keyword* |
| Tree | host-type |
| Options | pd – IPv6 ESM hosts for DHCPv6 prefix-delegation<br>wan – ESM hosts for DHCPv6 addresses or by WAN interface<br>pd-wan – Both prefix-delegation and ESM hosts |
| Default | pd |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **prefix-length** *number*

| | |
|---|---|
| Synopsis | IPv6 address prefix length |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 address *ipv6-address* prefix-length *number* |
| Tree | prefix-length |
| Range | 0 to 128 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **allow-multiple-wan-addresses** *boolean*

| | |
|---|---|
| Synopsis | Allow multiple WAN addresses |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 allow-multiple-wan-addresses *boolean* |
| Tree | allow-multiple-wan-addresses |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **allow-unmatching-prefixes** *boolean*

| | |
|---|---|
| Synopsis | Allow subscriber hosts without a matching prefix |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 allow-unmatching-prefixes *boolean* |
| Tree | allow-unmatching-prefixes |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **bfd**

| | |
|---|---|
| Synopsis | Enter the **bfd** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 bfd |
| Tree | bfd |
| Description | Commands in this context configure the attributes of bidirectional forwarding detection (BFD) sessions that control the state of ESM dynamic BGP peers. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of BFD sessions |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 bfd admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **echo-receive** *number*

| | |
|---|---|
| Synopsis | Minimum echo interval over this interface |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 bfd echo-receive *number* |


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| | |
|---|---|
| Tree | echo-receive |
| Range | 100 to 100000 |
| Units | milliseconds |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **multiplier** *number*

| | |
|---|---|
| Synopsis | Number of consecutive BFD messages missed from the peer |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 bfd multiplier *number* |
| Tree | multiplier |
| Description | This command configures the number of missed messages before the BFD session state is changed to down and the upper-level protocol is notified of the fault. A multiplier of less than 3 should not be used in production environments. |
| Range | 1 to 20 |
| Default | 3 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **receive** *number*

| | |
|---|---|
| Synopsis | BFD receive interval over this interface |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 bfd receive *number* |
| Tree | receive |
| Description | This command specifies the receive interval for the BFD session.<br>On the 7750 SR, this command can only be configured to a value less than 100 when the **type** command is configured to **cpm-np**. |
| Range | 10 to 100000 |
| Units | milliseconds |
| Default | 100 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **transmit-interval** *number*

| | |
|---|---|
| Synopsis | BFD transmit interval over this interface |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 bfd transmit-interval *number* |
| Tree | transmit-interval |
| Description | This command configures the transmit intervals.<br>On the 7750 SR, this command can only be configured to a value less than 100 when the **type** command is configured to **cpm-np**. |
| Range | 10 to 100000 |
| Units | milliseconds |
| Default | 100 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **type** *keyword*

| | |
|---|---|
| Synopsis | Local termination point for the BFD session |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 bfd type *keyword* |
| Tree | type |
| Description | This command sets the local termination point for the BFD session to allow for fast timers down to 10 ms granularity.<br>The options to specify where the BFD session runs are:<br>• **auto** (default) – the system chooses and uses the line card CPU only for single-hop BFD sessions with timer intervals equal to or greater than 100ms. All others are placed on the **cpm-np**.<br>• **cpm-np** – BFD session runs on the FP complex associated with the CPM. This is either the FP on the CPM or the one elected on smaller systems.<br>• **fp** – BFD session runs on the line card CPU. This option can only be used for single-hop BFD sessions with timers equal to or greater than 100ms. |
| Options | cpm-np, auto, fp |
| Default | auto |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |


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### **default-dns** *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Default DNS server addresses |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 default-dns *ipv6-unicast-address* |
| Tree | default-dns |
| Max. instances | 2 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **delegated-prefix-length** *(number | keyword)*

| | |
|---|---|
| Synopsis | IPv6 delegated prefix length |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 delegated-prefix-length *(number | keyword)* |
| Tree | delegated-prefix-length |
| Range | 48 to 64 |
| Options | variable |
| Default | 64 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **dhcp6**

| | |
|---|---|
| Synopsis | Enter the **dhcp6** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 dhcp6 |
| Tree | dhcp6 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **allow-client-id-change** *boolean*

| | |
|---|---|
| Synopsis | Allow changes to the client ID |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 dhcp6 allow-client-id-change *boolean* |
| Tree | allow-client-id-change |
| Default | false |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **override-slaac** *boolean*

| | |
|---|---|
| Synopsis | Allow WAN address offered by DHCP to overwrite the WAN address acquired from SLAAC |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 dhcp6 override-slaac *boolean* |
| Tree | override-slaac |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **pd-managed-route**

| | |
|---|---|
| Synopsis | Enable the **pd-managed-route** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 dhcp6 pd-managed-route |
| Tree | pd-managed-route |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **next-hop** *keyword*

| | |
|---|---|
| Synopsis | Next hop type |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 dhcp6 pd-managed-route next-hop *keyword* |
| Tree | next-hop |
| Options | ipv4, ipv6 |
| Default | ipv6 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## proxy-server

| | |
|---|---|
| Synopsis | Enter the **proxy-server** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 dhcp6 proxy-server |
| Tree | proxy-server |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the DHCPv6 proxy server |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 dhcp6 proxy-server admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## client-applications

| | |
|---|---|
| Synopsis | Enter the **client-applications** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 dhcp6 proxy-server client-applications |
| Tree | client-applications |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## dhcp *boolean*

| | |
|---|---|
| Synopsis | Enable IPoE clients to use DHCP relay or proxy server |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 dhcp6 proxy-server client-applications dhcp *boolean* |
| Tree | dhcp |


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| | |
|---|---|
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ppp** *boolean*

| | |
|---|---|
| Synopsis | Allow PPPoE clients to use DHCP relay functionality |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 dhcp6 proxy-server client-applications ppp *boolean* |
| Tree | ppp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **preferred-lifetime** *(number | keyword)*

| | |
|---|---|
| Synopsis | Time for prefix to remain preferred on this interface |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 dhcp6 proxy-server preferred-lifetime *(number | keyword)* |
| Tree | preferred-lifetime |
| Range | 300 to 4294967294 |
| Units | seconds |
| Options | infinite |
| Default | 3600 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **rebind-timer** *number*

| | |
|---|---|
| Synopsis | Rebind timer (T2) for this interface |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 dhcp6 proxy-server rebind-timer *number* |
| Tree | rebind-timer |
| Range | 0 to 1209600 |
| Units | seconds |
| Default | 2880 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **renew-timer** *number*

| | |
|---|---|
| Synopsis | Renew timer (T1) |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 dhcp6 proxy-server renew-timer *number* |
| Tree | renew-timer |
| Range | 0 to 604800 |
| Units | seconds |
| Default | 1800 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **server-id**

| | |
|---|---|
| Synopsis | Enter the **server-id** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 dhcp6 proxy-server server-id |
| Tree | server-id |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **duid-en-ascii** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | Vendor-assigned ID based on Enterprise Number (DUID-EN) |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 dhcp6 proxy-server server-id duid-en-ascii *string-not-all-spaces* |
| Tree | duid-en-ascii |
| String length | 1 to 58 |
| Notes | The following elements are part of a choice: **duid-en-ascii**, **duid-en-hex**, or **duid-ll**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **duid-en-hex** *string*

| | |
|---|---|
| Synopsis | DUID system ID in hexadecimal format |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 dhcp6 proxy-server server-id duid-en-hex *string* |
| Tree | duid-en-hex |
| String length | 1 to 118 |
| Notes | The following elements are part of a choice: **duid-en-ascii**, **duid-en-hex**, or **duid-ll**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **duid-ll**

| | |
|---|---|
| Synopsis | Use link-layer address (DUID-LL) as DUID |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 dhcp6 proxy-server server-id duid-ll |
| Tree | duid-ll |
| Notes | The following elements are part of a choice: **duid-en-ascii**, **duid-en-hex**, or **duid-ll**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **valid-lifetime** *(number | keyword)*

| | |
|---|---|
| Synopsis | Time for prefix to remain valid on this interface |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 dhcp6 proxy-server valid-lifetime *(number | keyword)* |
| Tree | valid-lifetime |
| Range | 300 to 4294967294 |
| Units | seconds |
| Options | infinite |
| Default | 86400 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## **python-policy** *reference*

| | |
|---|---|
| Synopsis | Python policy |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 dhcp6 python-policy *reference* |
| Tree | python-policy |
| Reference | **configure** python python-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **relay**

| | |
|---|---|
| Synopsis | Enter the **relay** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 dhcp6 relay |
| Tree | relay |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of DHCPv6 Relay |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 dhcp6 relay admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **advertise-selection**

| | |
|---|---|
| Synopsis | Enter the **advertise-selection** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 dhcp6 relay advertise-selection |
| Tree | advertise-selection |


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| | |
|---|---|
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## client-mac

| | |
|---|---|
| Synopsis | Enter the **client-mac** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 dhcp6 relay advertise-selection client-mac |
| Tree | client-mac |
| Notes | The following elements are part of a choice: **client-mac** or **server**. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## mac-address *keyword*

| | |
|---|---|
| Synopsis | Designated client MAC addresses for Advertise selection |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 dhcp6 relay advertise-selection client-mac mac-address *keyword* |
| Tree | mac-address |
| Options | odd, even |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## preference-option

| | |
|---|---|
| Synopsis | Enter the **preference-option** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 dhcp6 relay advertise-selection client-mac preference-option |
| Tree | preference-option |
| Description | Commands in this context configure the DHCPv6 preference option that is inserted in the DHCPv6 Advertise message. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **value** *number*

| | |
|---|---|
| Synopsis | Preference option value for DHCPv6 Advertise messages |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 dhcp6 relay advertise-selection client-mac preference-option value *number* |
| Tree | value |
| Range | 0 to 255 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **solicit-delay** *number*

| | |
|---|---|
| Synopsis | Delay before sending DHCPv6 Solicit messages |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 dhcp6 relay advertise-selection client-mac solicit-delay *number* |
| Tree | solicit-delay |
| Description | This command configures the time to delay DHCPv6 Solicit messages sent from the designated client MAC addresses. |
| Range | 1 to 100 |
| Units | deciseconds |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **preference-option**

| | |
|---|---|
| Synopsis | Enter the **preference-option** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 dhcp6 relay advertise-selection preference-option |
| Tree | preference-option |
| Description | Commands in this context configure the DHCPv6 preference option that is inserted in the DHCPv6 Advertise message. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **value** *number*

| | |
|---|---|
| Synopsis | Preference option value for DHCPv6 Advertise messages |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 dhcp6 relay advertise-selection preference-option value *number* |
| Tree | value |
| Range | 0 to 255 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **server** [ipv6-address] *ipv6-address*

| | |
|---|---|
| Synopsis | Enter the **server** list instance |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 dhcp6 relay advertise-selection server *ipv6-address* |
| Tree | server |
| Max. instances | 8 |
| Notes | The following elements are part of a choice: **client-mac** or **server**. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**ipv6-address**] *ipv6-address*

| | |
|---|---|
| Synopsis | IP address of the DHCPv6 server |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 dhcp6 relay advertise-selection server *ipv6-address* |
| Tree | server |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **preference-option**

| | |
|---|---|
| Synopsis | Enter the **preference-option** context |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 dhcp6 relay advertise-selection server *ipv6-address* preference-option |
| Tree | preference-option |
| Description | Commands in this context configure the DHCPv6 preference option that is inserted in the DHCPv6 Advertise message. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **value** *number*

| | |
|---|---|
| Synopsis | Preference option value for DHCPv6 Advertise messages |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 dhcp6 relay advertise-selection server *ipv6-address* preference-option value *number* |
| Tree | value |
| Range | 0 to 255 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **solicit-delay** *number*

| | |
|---|---|
| Synopsis | Delay before sending DHCPv6 Solicit messages |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 dhcp6 relay advertise-selection server *ipv6-address* solicit-delay *number* |
| Tree | solicit-delay |
| Description | This command configures the time to delay DHCPv6 Solicit messages sent to the server. |
| Range | 1 to 100 |
| Units | deciseconds |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **solicit-delay** *number*

| | |
|---|---|
| Synopsis | Delay before sending DHCPv6 Solicit messages |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 dhcp6 relay advertise-selection solicit-delay *number* |
| Tree | solicit-delay |


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| | |
|---|---|
| Description | This command configures the time to delay DHCPv6 Solicit messages. The delay is applied to DHCPv6 Solicit messages for which no overriding value is configured in the **server** instance or the **client-mac** context. |
| Range | 1 to 100 |
| Units | deciseconds |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## client-applications

| | |
|---|---|
| Synopsis | Enter the **client-applications** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 dhcp6 relay client-applications |
| Tree | client-applications |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## dhcp *boolean*

| | |
|---|---|
| Synopsis | Enable IPoE clients to use DHCP relay or proxy server |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 dhcp6 relay client-applications dhcp *boolean* |
| Tree | dhcp |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ppp *boolean*

| | |
|---|---|
| Synopsis | Allow PPPoE clients to use DHCP relay functionality |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 dhcp6 relay client-applications ppp *boolean* |
| Tree | ppp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 dhcp6 relay description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **lease-split**

| | |
|---|---|
| Synopsis | Enter the **lease-split** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 dhcp6 relay lease-split |
| Tree | lease-split |
| Description | Commands in this context configure DHCPv6 lease split.<br>DHCPv6 lease split is active when administratively enabled and for all IA_NA and IA_PD options in the transaction, the configured lease split valid lifetime (short lease time) is less than or equal to one of the following:<br>• the renew time T1 committed by the server (long renew time)<br>• half of the preferred lifetime committed by the server when T1 committed by the server equals zero |
| Introduced | 21.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of DHCPv6 lease split |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 dhcp6 relay lease-split admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **valid-lifetime** *number*

| | |
|---|---|
| Synopsis | DHCPv6 lease split valid lifetime (short lease time) |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 dhcp6 relay lease-split valid-lifetime *number* |
| Tree | valid-lifetime |
| Range | 300 to 315446399 |
| Units | seconds |
| Default | 3600 |
| Introduced | 21.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **link-address** *ipv6-address*

| | |
|---|---|
| Synopsis | Link address for the DHCPv6 relay messages |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 dhcp6 relay link-address *ipv6-address* |
| Tree | link-address |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **server** *ipv6-address-with-zone*

| | |
|---|---|
| Synopsis | DHCP6 server(s) to which the DHCP6 requests are forwarded |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 dhcp6 relay server *ipv6-address-with-zone* |
| Tree | server |
| Max. instances | 8 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **source-address** *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Source IPv6 address for the DHCPv6 relay messages |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 dhcp6 relay source-address *ipv6-unicast-address* |
| Tree | source-address |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ipoe-bridged-mode** *boolean*

| | |
|---|---|
| Synopsis | Enable IPv6 IPoE bridged mode |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 ipoe-bridged-mode *boolean* |
| Tree | ipoe-bridged-mode |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **link-local-address**

| | |
|---|---|
| Synopsis | Enter the **link-local-address** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 link-local-address |
| Tree | link-local-address |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **address** *ipv6-address*

| | |
|---|---|
| Synopsis | IPv6 link local address |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 link-local-address address *ipv6-address* |
| Tree | address |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **prefix** [ipv6-prefix] *ipv6-prefix*

| | |
|---|---|
| Synopsis | Enter the **prefix** list instance |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 prefix *ipv6-prefix* |
| Tree | prefix |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**ipv6-prefix**] *ipv6-prefix*

| | |
|---|---|
| Synopsis | IPv6 address for a router interface |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 prefix *ipv6-prefix* |
| Tree | prefix |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **holdup-time** *number*

| | |
|---|---|
| Synopsis | Time to wait before route accepts new state attribute |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 prefix *ipv6-prefix* holdup-time *number* |
| Tree | holdup-time |
| Range | 100 to 5000 |
| Units | milliseconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **host-type** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Host type for subscriber interface prefixes |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 prefix *ipv6-prefix* host-type *keyword* |
| Tree | host-type |


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| | |
|---|---|
| Options | pd – IPv6 ESM hosts for DHCPv6 prefix-delegation<br>wan – ESM hosts for DHCPv6 addresses or by WAN interface<br>pd-wan – Both prefix-delegation and ESM hosts |
| Default | pd |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **track-srrp** *number*

| | |
|---|---|
| Synopsis | SRRP instance whose state is tracked on this IP address |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 prefix *ipv6-prefix* track-srrp *number* |
| Tree | track-srrp |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **router-advertisements**

| | |
|---|---|
| Synopsis | Enter the **router-advertisements** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 router-advertisements |
| Tree | router-advertisements |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of router advertisements |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 router-advertisements admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **force-mcast** *keyword*

| | |
|---|---|
| Synopsis | Protocol with forced multicast |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 router-advertisements force-mcast *keyword* |
| Tree | force-mcast |
| Options | ip, ip-mac |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **max-advertisement-interval** *number*

| | |
|---|---|
| Synopsis | Maximum advertisement interval |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 router-advertisements max-advertisement-interval *number* |
| Tree | max-advertisement-interval |
| Range | 900 to 1800 |
| Units | seconds |
| Default | 1800 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **min-advertisement-interval** *number*

| | |
|---|---|
| Synopsis | Minimum advertisement interval |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 router-advertisements min-advertisement-interval *number* |
| Tree | min-advertisement-interval |
| Range | 900 to 1350 |
| Units | seconds |
| Default | 900 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## options

| | |
|---|---|
| Synopsis | Enter the **options** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 router-advertisements options |
| Tree | options |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## current-hop-limit *number*

| | |
|---|---|
| Synopsis | Hop limit to be advertised |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 router-advertisements options current-hop-limit *number* |
| Tree | current-hop-limit |
| Range | 0 to 255 |
| Default | 64 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## dns

| | |
|---|---|
| Synopsis | Enter the **dns** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 router-advertisements options dns |
| Tree | dns |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## include-rdnss *boolean*

| | |
|---|---|
| Synopsis | Include the RDNSS server option 25 |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 router-advertisements options dns include-rdnss *boolean* |
| Tree | include-rdnss |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **rdnss-lifetime** *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum time for the RDNSS address to remain valid |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 router-advertisements options dns rdnss-lifetime *(number | keyword)* |
| Tree | rdnss-lifetime |
| Range | 900 to 3600 |
| Units | seconds |
| Options | infinite |
| Default | 3600 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **managed-configuration** *boolean*

| | |
|---|---|
| Synopsis | Managed address configuration flag |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 router-advertisements options managed-configuration *boolean* |
| Tree | managed-configuration |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **mtu** *(number | keyword)*

| | |
|---|---|
| Synopsis | Advertised MTU value |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 router-advertisements options mtu *(number | keyword)* |
| Tree | mtu |
| Range | 1280 to 9212 |
| Units | bytes |
| Options | not-included |
| Default | not-included |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **other-stateful-configuration** *boolean*

| | |
|---|---|
| Synopsis | Other stateful configuration flag |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 router-advertisements options other-stateful-configuration *boolean* |
| Tree | other-stateful-configuration |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **reachable-time** *number*

| | |
|---|---|
| Synopsis | Reachable time for advertisements |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 router-advertisements options reachable-time *number* |
| Tree | reachable-time |
| Range | 0 to 3600000 |
| Units | milliseconds |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **retransmit-timer** *number*

| | |
|---|---|
| Synopsis | Retransmit time in router advertisements from interface |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 router-advertisements options retransmit-timer *number* |
| Tree | retransmit-timer |
| Range | 0 to 1800000 |
| Units | seconds |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **router-lifetime** *(number | keyword)*

| | |
|---|---|
| Synopsis | Router lifetime |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 router-advertisements options router-lifetime *(number \| keyword)* |
| Tree | router-lifetime |
| Range | 2700 to 9000 |
| Units | seconds |
| Options | no-default-router |
| Default | 4500 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **prefix-options**

| | |
|---|---|
| Synopsis | Enter the **prefix-options** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 router-advertisements prefix-options |
| Tree | prefix-options |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **autonomous** *boolean*

| | |
|---|---|
| Synopsis | Value of the autonomous flag |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 router-advertisements prefix-options autonomous *boolean* |
| Tree | autonomous |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **on-link** *boolean*

| | |
|---|---|
| Synopsis | Assign the prefix to an interface on the specified link |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 router-advertisements prefix-options on-link *boolean* |
| Tree | on-link |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **preferred-lifetime** *(number | keyword)*

| | |
|---|---|
| Synopsis | Time for a prefix to remain preferred |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 router-advertisements prefix-options preferred-lifetime *(number | keyword)* |
| Tree | preferred-lifetime |
| Range | 0 to 4294967294 |
| Units | seconds |
| Options | infinite |
| Default | 3600 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **valid-lifetime** *(number | keyword)*

| | |
|---|---|
| Synopsis | Time for a prefix to remain valid |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 router-advertisements prefix-options valid-lifetime *(number | keyword)* |
| Tree | valid-lifetime |
| Range | 0 to 4294967294 |
| Units | seconds |
| Options | infinite |
| Default | 86400 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **router-solicit**

| | |
|---|---|
| Synopsis | Enter the **router-solicit** context |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 router-solicit |
| Tree | router-solicit |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **inactivity-timer** *(number | keyword)*

| | |
|---|---|
| Synopsis | Time before an inactive host is removed |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* ipv6 router-solicit inactivity-timer *(number | keyword)* |
| Tree | inactivity-timer |
| Range | 1 to 31536000 |
| Units | seconds |
| Options | infinite |
| Default | 300 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **local-address-assignment**

| | |
|---|---|
| Synopsis | Enter the **local-address-assignment** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* local-address-assignment |
| Tree | local-address-assignment |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of Local Address Assignment |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* local-address-assignment admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ipv4

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* local-address-assignment ipv4 |
| Tree | ipv4 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## client-applications

| | |
|---|---|
| Synopsis | Enter the **client-applications** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* local-address-assignment ipv4 client-applications |
| Tree | client-applications |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ppp *boolean*

| | |
|---|---|
| Synopsis | Request local addresses for PPP IPCP hosts |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* local-address-assignment ipv4 client-applications ppp *boolean* |
| Tree | ppp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## default-pool *named-item*

| | |
|---|---|
| Synopsis | Default pools |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* local-address-assignment ipv4 default-pool *named-item* |
| Tree | default-pool |


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| | |
|---|---|
| String length | 1 to 32 |
| Max. instances | 2 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **server** *reference*

| | |
|---|---|
| Synopsis | Local DHCPv4 server for local pools management |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* local-address-assignment ipv4 server *reference* |
| Tree | server |
| Reference | **configure** service vprn *service-name* dhcp-server dhcpv4 *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ipv6

| | |
|---|---|
| Synopsis | Enter the **ipv6** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* local-address-assignment ipv6 |
| Tree | ipv6 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## client-applications

| | |
|---|---|
| Synopsis | Enter the **client-applications** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* local-address-assignment ipv6 client-applications |
| Tree | client-applications |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **ipoe-slaac** *boolean*

| | |
|---|---|
| Synopsis | Request local addresses for IPoE SLAAC hosts |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* local-address-assignment ipv6 client-applications ipoe-slaac *boolean* |
| Tree | ipoe-slaac |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ipoe-wan** *boolean*

| | |
|---|---|
| Synopsis | Request local addresses for IPoE IA NA hosts |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* local-address-assignment ipv6 client-applications ipoe-wan *boolean* |
| Tree | ipoe-wan |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ppp-slaac** *boolean*

| | |
|---|---|
| Synopsis | Request local addresses for PPP SLAAC hosts |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* local-address-assignment ipv6 client-applications ppp-slaac *boolean* |
| Tree | ppp-slaac |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **server** *reference*

| | |
|---|---|
| Synopsis | Local DHCPv6 server for local pools management |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* local-address-assignment ipv6 server *reference* |
| Tree | server |


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| | |
|---|---|
| Reference | **configure** service vprn *service-name* dhcp-server dhcpv6 *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## pppoe

| | |
|---|---|
| Synopsis | Enter the **pppoe** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* pppoe |
| Tree | pppoe |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## description *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* pppoe description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## session-limit *number*

| | |
|---|---|
| Synopsis | Maximum PPPoE sessions |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* pppoe session-limit *number* |
| Tree | session-limit |
| Range | 1 to 333823 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **private-retail-subnets** *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Export subnets to the forwarding service |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* private-retail-subnets *boolean* |
| Tree | private-retail-subnets |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **wan-mode** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Mode of operation for hosts with /128 WAN IPv6 address |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* wan-mode *keyword* |
| Tree | wan-mode |
| Options | mode64, mode128 |
| Default | mode64 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **wlan-gw**

| | |
|---|---|
| Synopsis | Enable the **wlan-gw** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* wlan-gw |
| Tree | wlan-gw |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## pool-manager

| | |
|---|---|
| Synopsis | Enter the **pool-manager** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* wlan-gw pool-manager |
| Tree | pool-manager |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## dhcp6-client

| | |
|---|---|
| Synopsis | Enter the **dhcp6-client** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* wlan-gw pool-manager dhcp6-client |
| Tree | dhcp6-client |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## dhcpv4-nat

| | |
|---|---|
| Synopsis | Enter the **dhcpv4-nat** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* wlan-gw pool-manager dhcp6-client dhcpv4-nat |
| Tree | dhcpv4-nat |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the DHCPv6 client entity |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* wlan-gw pool-manager dhcp6-client dhcpv4-nat admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **link-address** *ipv6-address*

| | |
|---|---|
| Synopsis | IPv6 address in the link address field of relay header |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* wlan-gw pool-manager dhcp6-client dhcpv4-nat link-address *ipv6-address* |
| Tree | link-address |
| Default | :: |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **pool-name** *named-item*

| | |
|---|---|
| Synopsis | Pool name to be sent in the DHCPv6 messages |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* wlan-gw pool-manager dhcp6-client dhcpv4-nat pool-name *named-item* |
| Tree | pool-name |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ia-na**

| | |
|---|---|
| Synopsis | Enter the **ia-na** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* wlan-gw pool-manager dhcp6-client ia-na |
| Tree | ia-na |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the DHCPv6 client entity |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* wlan-gw pool-manager dhcp6-client ia-na admin-state *keyword* |
| Tree | admin-state |


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| | |
|---|---|
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **link-address** *ipv6-address*

| | |
|---|---|
| Synopsis | IPv6 address in the link address field of relay header |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* wlan-gw pool-manager dhcp6-client ia-na link-address *ipv6-address* |
| Tree | link-address |
| Default | :: |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **pool-name** *named-item*

| | |
|---|---|
| Synopsis | Pool name to be sent in the DHCPv6 messages |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* wlan-gw pool-manager dhcp6-client ia-na pool-name *named-item* |
| Tree | pool-name |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **lease-query**

| | |
|---|---|
| Synopsis | Enable the **lease-query** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* wlan-gw pool-manager dhcp6-client lease-query |
| Tree | lease-query |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **max-retries** *number*

| | |
|---|---|
| Synopsis | Retries before lease query assumes no allocated subnets |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* wlan-gw pool-manager dhcp6-client lease-query max-retries *number* |
| Tree | max-retries |
| Range | 0 to 10 |
| Default | 2 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **servers** *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | DHCPv6 servers that are used for requesting addresses |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* wlan-gw pool-manager dhcp6-client servers *ipv6-unicast-address* |
| Tree | servers |
| Max. instances | 8 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **slaac**

| | |
|---|---|
| Synopsis | Enter the **slaac** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* wlan-gw pool-manager dhcp6-client slaac |
| Tree | slaac |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the DHCPv6 client entity |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* wlan-gw pool-manager dhcp6-client slaac admin-state *keyword* |
| Tree | admin-state |


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| | |
|---|---|
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **link-address** *ipv6-address*

| | |
|---|---|
| Synopsis | IPv6 address in the link address field of relay header |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* wlan-gw pool-manager dhcp6-client slaac link-address *ipv6-address* |
| Tree | link-address |
| Default | :: |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **pool-name** *named-item*

| | |
|---|---|
| Synopsis | Pool name to be sent in the DHCPv6 messages |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* wlan-gw pool-manager dhcp6-client slaac pool-name *named-item* |
| Tree | pool-name |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **source-ip** *(keyword | ipv6-address)*

| | |
|---|---|
| Synopsis | Source IP address that is used by the DHCPv6 client |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* wlan-gw pool-manager dhcp6-client source-ip *(keyword | ipv6-address)* |
| Tree | source-ip |
| Options | use-interface-ip |
| Default | use-interface-ip |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### watermarks

| | |
|---|---|
| Synopsis | Enter the **watermarks** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* wlan-gw pool-manager watermarks |
| Tree | watermarks |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### high *number*

| | |
|---|---|
| Synopsis | High watermark when new prefix is allocated |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* wlan-gw pool-manager watermarks high *number* |
| Tree | high |
| Range | 51 to 99 |
| Default | 95 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### low *number*

| | |
|---|---|
| Synopsis | Low watermark when unused prefix is released |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* wlan-gw pool-manager watermarks low *number* |
| Tree | low |
| Range | 50 to 98 |
| Default | 90 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### wlan-gw-group *reference*

| | |
|---|---|
| Synopsis | ID of WLAN gateway group where prefixes are installed |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* wlan-gw pool-manager wlan-gw-group *reference* |


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| | |
|---|---|
| Tree | wlan-gw-group |
| Reference | **configure** isa wlan-gw-group *number* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## redundancy

| | |
|---|---|
| Synopsis | Enter the **redundancy** context |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* wlan-gw redundancy |
| Tree | redundancy |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of WLAN-GW redundancy |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* wlan-gw redundancy admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## export *ipv4-unicast-prefix*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Route to export to peer |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* wlan-gw redundancy export *ipv4-unicast-prefix* |
| Tree | export |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **monitor** *ipv4-unicast-prefix*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Peer route to monitor |
| Context | **configure** service vprn *service-name* subscriber-interface *interface-name* wlan-gw redundancy monitor *ipv4-unicast-prefix* |
| Tree | monitor |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **subscriber-mgmt**

| | |
|---|---|
| Synopsis | Enter the **subscriber-mgmt** context |
| Context | **configure** service vprn *service-name* subscriber-mgmt |
| Tree | subscriber-mgmt |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **dhcpv4**

| | |
|---|---|
| Synopsis | Enter the **dhcpv4** context |
| Context | **configure** service vprn *service-name* subscriber-mgmt dhcpv4 |
| Tree | dhcpv4 |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **routed-subnet-transparent-forward** *boolean*

| | |
|---|---|
| Synopsis | Transparently forward DHCPv4 from CPE LAN over IPoE |
| Context | **configure** service vprn *service-name* subscriber-mgmt dhcpv4 routed-subnet-transparent-forward *boolean* |
| Tree | routed-subnet-transparent-forward |


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| | |
|---|---|
| Description | When configured to **true**, the router transparently forwards DHCPv4 packets received on a subscriber interface with a source IP in a routed subnet that is associated with a routed IPoE session or host.<br>Supported routed subnets are:<br>• RADIUS and NASREQ framed routes<br>• routes learned via an ESM dynamic BGP peer<br>• managed routes that are associated with a static IPv4 host<br>When configured to **false**, the system disables transparent forwarding of DHCPv4 packets. |
| Default | false |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **multi-chassis-shunt-id** *number*

| | |
|---|---|
| Synopsis | Shunt ID for a pair of resilient nodes |
| Context | **configure** service vprn *service-name* subscriber-mgmt multi-chassis-shunt-id *number* |
| Tree | multi-chassis-shunt-id |
| Description | This command configures the shunt ID that is used to shunt downstream traffic from a standby node to an active node. Because this ID identifies the traffic service on the standby node, the same ID must be configured per service on each node.<br>This configuration is required for inter-BNG-UP resiliency shunting, but not for non-BNG-UP shunting. However, when configured, it is also used for shunting non-BNG-UP sessions in the same service. |
| Range | 1 to 8191 |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **up-resiliency**

| | |
|---|---|
| Synopsis | Enter the **up-resiliency** context |
| Context | **configure** service vprn *service-name* subscriber-mgmt up-resiliency |
| Tree | up-resiliency |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## **monitor-oper-group** [oper-group] *reference*

| | |
|---|---|
| Synopsis | Enter the **monitor-oper-group** list instance |
| Context | **configure** service vprn *service-name* subscriber-mgmt up-resiliency monitor-oper-group *reference* |
| Tree | monitor-oper-group |
| Description | Commands in this context define parameters to derive the service health based on monitored operational groups. The BNG-UP sends the health value to the MAG-c. The MAG-c uses the value to determine the need for a BNG-UP status change (active or standby).<br><br>**Note:** The following is only applicable for the **configure service vpls capture-sap** context. If the configured groups are not the same for all capture SAPs sharing the same underlying port or LAG, the configuration of a Layer 2 access ID alias is required, or else the system chooses arbitrarily one set of configured groups. |
| Max. instances | 2 |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## [**oper-group**] *reference*

| | |
|---|---|
| Synopsis | Operational group name |
| Context | **configure** service vprn *service-name* subscriber-mgmt up-resiliency monitor-oper-group *reference* |
| Tree | monitor-oper-group |
| Reference | **configure** service oper-group *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **health-drop** *number*

| | |
|---|---|
| Synopsis | Number subtracted from the health value per failure |
| Context | **configure** service vprn *service-name* subscriber-mgmt up-resiliency monitor-oper-group *reference* health-drop *number* |
| Tree | health-drop |


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| | |
|---|---|
| Description | This command configures the drop in the health value for every operational group member failure. Every failure of an operational group member decreases the base health value to a possible minimum of 0. |
| Range | 1 to 100 |
| Default | 1 |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ttl-propagate

| | |
|---|---|
| Synopsis | Enter the **ttl-propagate** context |
| Context | **configure** service vprn *service-name* ttl-propagate |
| Tree | ttl-propagate |
| Introduced | 16.0.R1 |
| Platforms | All |

## local *keyword*

| | |
|---|---|
| Synopsis | Local TTL propagation control for the VPRN |
| Context | **configure** service vprn *service-name* ttl-propagate local *keyword* |
| Tree | local |
| Description | This command specifies the local TTL propagation control for the VPRN and overrides the global configuration of the TTL propagation for locally generated packets that are forwarded over MPLS LSPs in a given VPRN service context. |
| Options | none, all, vc-only, use-base |
| Default | use-base |
| Introduced | 16.0.R1 |
| Platforms | All |

## transit *keyword*

| | |
|---|---|
| Synopsis | Transit TTL propagation control for the VPRN |
| Context | **configure** service vprn *service-name* ttl-propagate transit *keyword* |
| Tree | transit |
| Description | This command overrides the global configuration of the TTL propagation for in transit packets that are forwarded over MPLS LSPs in a given VPRN service context. |


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| | |
|---|---|
| Options | none, all, vc-only, use-base |
| Default | use-base |
| Introduced | 16.0.R1 |
| Platforms | All |

## twamp-light

| | |
|---|---|
| Synopsis | Enter the **twamp-light** context |
| Context | **configure** service vprn *service-name* twamp-light |
| Tree | twamp-light |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## reflector

| | |
|---|---|
| Synopsis | Enable the **reflector** context |
| Context | **configure** service vprn *service-name* twamp-light reflector |
| Tree | reflector |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of TWAMP Light functionality |
| Context | **configure** service vprn *service-name* twamp-light reflector admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **allow-ipv6-udp-checksum-zero** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Process IPv6 packets with a zero UDP checksum |
| Context | **configure** service vprn *service-name* twamp-light reflector allow-ipv6-udp-checksum-zero *boolean* |
| Tree | allow-ipv6-udp-checksum-zero |
| Description | When configured to **true**, this command allows the processing of IPv6 packets that arrive with a UDP checksum of zero. The destination UDP ports that are registered as TWAMP Test packets as part of this template allow this behavior.<br>When configured to **false**, IPv6 packets that arrive with a UDP checksum of zero are discarded. |
| Default | false |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* twamp-light reflector description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **prefix** [ip-prefix] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Enter the **prefix** list instance |
| Context | **configure** service vprn *service-name* twamp-light reflector prefix *(ipv4-prefix | ipv6-prefix)* |
| Tree | prefix |
| Max. instances | 50 |
| Introduced | 16.0.R4 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### [**ip-prefix**] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Source prefix for the TWAMP-Light reflector |
| Context | **configure** service vprn *service-name* twamp-light reflector prefix *(ipv4-prefix \| ipv6-prefix)* |
| Tree | prefix |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* twamp-light reflector prefix *(ipv4-prefix \| ipv6-prefix)* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **type** *keyword*

| | |
|---|---|
| Synopsis | Processing behavior type for the reflector |
| Context | **configure** service vprn *service-name* twamp-light reflector type *keyword* |
| Tree | type |
| Description | This command configures the processing behavior of the TWAMP Light reflector. When the value is **twamp-light** the reflector does not check the received PDU as a traditional base TWAMP Light packet without TLV processing. When the value is **stamp**, the reflector attempts to find and process supported STAMP TLVs that follow the base STAMP packet.<br><br>In mixed environments where different types of Session-Senders may be targeting a common TWAMP Light reflector, set the value to **stamp**. When the reflector is operating in **stamp** mode, the primary parsing is based on STAMP, checking and processing known TLVs, or determining if the arriving PDU is a TWAMP Light PDU. A Session-Sender launching a TWAMP Light-based packet must use all zeros padding pattern when the pad size is non zero. |


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| | |
|---|---|
| Options | stamp, twamp-light |
| Default | twamp-light |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **udp-port** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | UDP port on which the specified TWAMP-Light reflector listens for TWAMP PDUs |
| Context | **configure** service vprn *service-name* twamp-light reflector udp-port *number* |
| Tree | udp-port |
| Range | 862 \| 64364 to 64373 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **video-interface** [interface-name] *interface-name*

| | |
|---|---|
| Synopsis | Enter the **video-interface** list instance |
| Context | **configure** service vprn *service-name* video-interface *interface-name* |
| Tree | video-interface |
| Max. instances | 9 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### [**interface-name**] *interface-name*

| | |
|---|---|
| Synopsis | Video interface name |
| Context | **configure** service vprn *service-name* video-interface *interface-name* |
| Tree | video-interface |
| String length | 1 to 29 |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **accounting-policy** *reference*

| | |
|---|---|
| Synopsis | Accounting Policy |
| Context | **configure** service vprn *service-name* video-interface *interface-name* accounting-policy *reference* |
| Tree | accounting-policy |
| Reference | **configure** log accounting-policy *number* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **address** [ip-address] *ipv4-prefix-with-host-bits*

| | |
|---|---|
| Synopsis | Add a list entry for **address** |
| Context | **configure** service vprn *service-name* video-interface *interface-name* address *ipv4-prefix-with-host-bits* |
| Tree | address |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### [**ip-address**] *ipv4-prefix-with-host-bits*

| | |
|---|---|
| Synopsis | IPv4 address for the video interface within the service |
| Context | **configure** service vprn *service-name* video-interface *interface-name* address *ipv4-prefix-with-host-bits* |
| Tree | address |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the video interface |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* video-interface *interface-name* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **channel** [mcast-address] *ipv4-multicast-address* source *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Enter the **channel** list instance |
| Context | **configure** service vprn *service-name* video-interface *interface-name* channel *ipv4-multicast-address* source *ipv4-unicast-address* |
| Tree | channel |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### [**mcast-address**] *ipv4-multicast-address*

| | |
|---|---|
| Synopsis | Multicast channel address |
| Context | **configure** service vprn *service-name* video-interface *interface-name* channel *ipv4-multicast-address* source *ipv4-unicast-address* |
| Tree | channel |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **source** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Unicast source address |
| Context | **configure** service vprn *service-name* video-interface *interface-name* channel *ipv4-multicast-address* source *ipv4-unicast-address* |
| Tree | channel |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |


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### **channel-name** *named-item*

| | |
|---|---|
| Synopsis | Channel name |
| Context | **configure** service vprn *service-name* video-interface *interface-name* channel *ipv4-multicast-address* source *ipv4-unicast-address* channel-name *named-item* |
| Tree | channel-name |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* video-interface *interface-name* channel *ipv4-multicast-address* source *ipv4-unicast-address* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **scte35-action** *keyword*

| | |
|---|---|
| Synopsis | Enable downstream forwarding of SCTE 35 cue avails |
| Context | **configure** service vprn *service-name* video-interface *interface-name* channel *ipv4-multicast-address* source *ipv4-unicast-address* scte35-action *keyword* |
| Tree | scte35-action |
| Options | forward, drop |
| Default | forward |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **zone-channel** [zone-mcast-address] *ipv4-multicast-address* zone-source *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Enter the **zone-channel** list instance |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* video-interface *interface-name* channel *ipv4-multicast-address* source *ipv4-unicast-address* zone-channel *ipv4-multicast-address* zone-source *ipv4-unicast-address* |
| Tree | zone-channel |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### [**zone-mcast-address**] *ipv4-multicast-address*

| | |
|---|---|
| Synopsis | Multicast zone channel address |
| Context | **configure** service vprn *service-name* video-interface *interface-name* channel *ipv4-multicast-address* source *ipv4-unicast-address* zone-channel *ipv4-multicast-address* zone-source *ipv4-unicast-address* |
| Tree | zone-channel |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **zone-source** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Unicast source address |
| Context | **configure** service vprn *service-name* video-interface *interface-name* channel *ipv4-multicast-address* source *ipv4-unicast-address* zone-channel *ipv4-multicast-address* zone-source *ipv4-unicast-address* |
| Tree | zone-channel |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **adi-channel-name** *named-item*

| | |
|---|---|
| Synopsis | Zone channel name |
| Context | **configure** service vprn *service-name* video-interface *interface-name* channel *ipv4-multicast-address* source *ipv4-unicast-address* zone-channel *ipv4-multicast-address* zone-source *ipv4-unicast-address* adi-channel-name *named-item* |
| Tree | adi-channel-name |
| String length | 1 to 32 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **cpu-protection** *reference*

| | |
|---|---|
| Synopsis | CPU protection policy |
| Context | **configure** service vprn *service-name* video-interface *interface-name* cpu-protection *reference* |
| Tree | cpu-protection |
| Reference | **configure** system security cpu-protection policy *number* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** service vprn *service-name* video-interface *interface-name* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **multicast-service** *number*

| | |
|---|---|
| Synopsis | Associated multicast service ID |
| Context | **configure** service vprn *service-name* video-interface *interface-name* multicast-service *number* |
| Tree | multicast-service |
| Range | 1 to 2147483647 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### **output-format** *keyword*

| | |
|---|---|
| Synopsis | Output format |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* video-interface *interface-name* output-format *keyword* |
| Tree | output-format |
| Options | udp, rtp-udp |
| Default | rtp-udp |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## video-sap

| | |
|---|---|
| Synopsis | Enable the **video-sap** context |
| Context | **configure** service vprn *service-name* video-interface *interface-name* video-sap |
| Tree | video-sap |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## egress

| | |
|---|---|
| Synopsis | Enter the **egress** context |
| Context | **configure** service vprn *service-name* video-interface *interface-name* video-sap egress |
| Tree | egress |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## filter

| | |
|---|---|
| Synopsis | Enter the **filter** context |
| Context | **configure** service vprn *service-name* video-interface *interface-name* video-sap egress filter |
| Tree | filter |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## ip *reference*

| | |
|---|---|
| Synopsis | IPv4 filter policy name |


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| | |
|---|---|
| Context | **configure** service vprn *service-name* video-interface *interface-name* video-sap egress filter ip *reference* |
| Tree | ip |
| Reference | **configure** filter ip-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## qos

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** service vprn *service-name* video-interface *interface-name* video-sap egress qos |
| Tree | qos |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## policy-name *reference*

| | |
|---|---|
| Synopsis | SAP egress QoS policy ID |
| Context | **configure** service vprn *service-name* video-interface *interface-name* video-sap egress qos policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos sap-egress *qos-policy-name* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## ingress

| | |
|---|---|
| Synopsis | Enter the **ingress** context |
| Context | **configure** service vprn *service-name* video-interface *interface-name* video-sap ingress |
| Tree | ingress |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |


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### filter

| | |
|---|---|
| Synopsis | Enter the **filter** context |
| Context | **configure** service vprn *service-name* video-interface *interface-name* video-sap ingress filter |
| Tree | filter |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### ip *reference*

| | |
|---|---|
| Synopsis | IPv4 filter policy name |
| Context | **configure** service vprn *service-name* video-interface *interface-name* video-sap ingress filter ip *reference* |
| Tree | ip |
| Reference | **configure** filter ip-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### qos

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** service vprn *service-name* video-interface *interface-name* video-sap ingress qos |
| Tree | qos |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

### policy-name *reference*

| | |
|---|---|
| Synopsis | SAP ingress QoS policy ID |
| Context | **configure** service vprn *service-name* video-interface *interface-name* video-sap ingress qos policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos sap-ingress *qos-policy-name* |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## **video-group-id** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Video group ID |
| Context | **configure** service vprn *service-name* video-interface *interface-name* video-sap video-group-id *reference* |
| Tree | video-group-id |
| Reference | **configure** isa video-group *number* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s |

## **vprn-type** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | VPRN type |
| Context | **configure** service vprn *service-name* vprn-type *keyword* |
| Tree | vprn-type |
| Options | regular, hub, spoke, subscriber-split-horizon |
| Default | regular |
| Introduced | 16.0.R1 |
| Platforms | All |

## **vxlan**

| | |
|---|---|
| Synopsis | Enter the **vxlan** context |
| Context | **configure** service vprn *service-name* vxlan |
| Tree | vxlan |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **instance** [vxlan-instance] *number*

| | |
|---|---|
| Synopsis | Enter the **instance** list instance |
| Context | **configure** service vprn *service-name* vxlan instance *number* |
| Tree | instance |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### [**vxlan-instance**] *number*

| | |
|---|---|
| Synopsis | VXLAN instance |
| Context | **configure** service vprn *service-name* vxlan instance *number* |
| Tree | instance |
| Range | 1 |
| Notes | This element is part of a list key. |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### **network**

| | |
|---|---|
| Synopsis | Enter the **network** context |
| Context | **configure** service vprn *service-name* vxlan instance *number* network |
| Tree | network |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### **ingress**

| | |
|---|---|
| Synopsis | Enter the **ingress** context |
| Context | **configure** service vprn *service-name* vxlan instance *number* network ingress |
| Tree | ingress |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |


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## qos

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** service vprn *service-name* vxlan instance *number* network ingress qos |
| Tree | qos |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

## network

| | |
|---|---|
| Synopsis | Enter the **network** context |
| Context | **configure** service vprn *service-name* vxlan instance *number* network ingress qos network |
| Tree | network |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

## fp-redirect-group

| | |
|---|---|
| Synopsis | Enter the **fp-redirect-group** context |
| Context | **configure** service vprn *service-name* vxlan instance *number* network ingress qos network fp-redirect-group |
| Tree | fp-redirect-group |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

## group-name *reference*

| | |
|---|---|
| Synopsis | Forwarding plane queue group template name |
| Context | **configure** service vprn *service-name* vxlan instance *number* network ingress qos network fp-redirect-group group-name *reference* |
| Tree | group-name |
| Reference | **configure** qos queue-group-templates ingress queue-group *named-item* |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |


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### **instance** *number*

| | |
|---|---|
| Synopsis | Forwarding plane ingress queue group instance |
| Context | **configure** service vprn *service-name* vxlan instance *number* network ingress qos network fp-redirect-group instance *number* |
| Tree | instance |
| Range | 1 to 65535 |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### **policy-name** *reference*

| | |
|---|---|
| Synopsis | Ingress network policy name applied to this SDP binding |
| Context | **configure** service vprn *service-name* vxlan instance *number* network ingress qos network policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos network *network-policy-name* |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### **source-vtep-security** *boolean*

| | |
|---|---|
| Synopsis | Enable source VTEP security |
| Context | **configure** service vprn *service-name* vxlan instance *number* source-vtep-security *boolean* |
| Tree | source-vtep-security |
| Description | When configured to **true**, the router enables the lookup of the source VXLAN Termination End Point (VTEP) on received VXLAN packets and discards packets coming from untrusted VTEPs.<br>The trusted VTEPs are listed in the **show service vxlan** command. |
| Default | false |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |


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### **vni** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Ingress VXLAN network ID of the VXLAN instance |
| Context | **configure** service vprn *service-name* vxlan instance *number* vni *number* |
| Tree | vni |
| Range | 1 to 16777215 |
| Notes | This element is mandatory. |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### **source-vtep** *reference*

| | |
|---|---|
| Synopsis | VXLAN source termination end point |
| Context | **configure** service vprn *service-name* vxlan source-vtep *reference* |
| Tree | source-vtep |
| Description | This command enables the router to use the configured IPv4 address as the tunnel source IP address (source VTEP) when originating VXLAN-encapsulated packets for this VPRN service. This command does modify the next hop of the EVPN IFL routes advertised for the VPRN service.<br>When unconfigured, the system uses the IPv4 address as the VTEP source. |
| Reference | **configure** service system vxlan tunnel-termination *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* |
| Introduced | 24.10.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### **tunnel-termination** [ip-address] *(ipv4-address-no-zone* | *ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Enter the **tunnel-termination** list instance |
| Context | **configure** service vprn *service-name* vxlan tunnel-termination *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* |
| Tree | tunnel-termination |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**ip-address**] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Non-system IP address that terminates the VXLAN |
| Context | **configure** service vprn *service-name* vxlan tunnel-termination *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | tunnel-termination |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **fpe-id** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | FPE id for this entry |
| Context | **configure** service vprn *service-name* vxlan tunnel-termination *(ipv4-address-no-zone \| ipv6-address-no-zone)* fpe-id *reference* |
| Tree | fpe-id |
| Reference | **configure** fwd-path-ext fpe *number* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **weighted-ecmp** *keyword*

| | |
|---|---|
| Synopsis | Weighted load-balancing capability for ECMP routes |
| Context | **configure** service vprn *service-name* weighted-ecmp *keyword* |
| Tree | weighted-ecmp |
| Options | false, true, strict |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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## wlan-gw

| | |
|---|---|
| Synopsis | Enable the **wlan-gw** context |
| Context | **configure** service vprn *service-name* wlan-gw |
| Tree | wlan-gw |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## distributed-subscriber-mgmt

| | |
|---|---|
| Synopsis | Enter the **distributed-subscriber-mgmt** context |
| Context | **configure** service vprn *service-name* wlan-gw distributed-subscriber-mgmt |
| Tree | distributed-subscriber-mgmt |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## ipv6-tcp-mss-adjust *number*

| | |
|---|---|
| Synopsis | TCP-MSS adjustment value in upstream direction for DSM |
| Context | **configure** service vprn *service-name* wlan-gw distributed-subscriber-mgmt ipv6-tcp-mss-adjust *number* |
| Tree | ipv6-tcp-mss-adjust |
| Range | 160 to 10240 |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## mobility-triggered-accounting

| | |
|---|---|
| Synopsis | Enter the **mobility-triggered-accounting** context |
| Context | **configure** service vprn *service-name* wlan-gw mobility-triggered-accounting |
| Tree | mobility-triggered-accounting |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of mobility triggered accounting |
| Context | **configure** service vprn *service-name* wlan-gw mobility-triggered-accounting admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **hold-down** *number*

| | |
|---|---|
| Synopsis | Hold additional mobility-triggered update until this timer expires |
| Context | **configure** service vprn *service-name* wlan-gw mobility-triggered-accounting hold-down *number* |
| Tree | hold-down |
| Range | 60 to 86400 |
| Units | seconds |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **include-counters** *boolean*

| | |
|---|---|
| Synopsis | Include counters in interim updates |
| Context | **configure** service vprn *service-name* wlan-gw mobility-triggered-accounting include-counters *boolean* |
| Tree | include-counters |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **xconnect**

| | |
|---|---|
| Synopsis | Enter the **xconnect** context |
| Context | **configure** service vprn *service-name* wlan-gw xconnect |


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| | |
|---|---|
| Tree | xconnect |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the WLAN-GW cross-connect |
| Context | **configure** service vprn *service-name* wlan-gw xconnect admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **tunnel-source-ip** *ipv6-prefix*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IPv6 address and prefix for the tunnel source |
| Context | **configure** service vprn *service-name* wlan-gw xconnect tunnel-source-ip *ipv6-prefix* |
| Tree | tunnel-source-ip |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **wlan-gw-group** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | ISA WLAN-GW Group |
| Context | **configure** service vprn *service-name* wlan-gw xconnect wlan-gw-group *reference* |
| Tree | wlan-gw-group |
| Reference | **configure** isa wlan-gw-group *number* |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### wpp

| | |
|---|---|
| Synopsis | Enable the **wpp** context |
| Context | **configure** service vprn *service-name* wpp |
| Tree | wpp |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of WPP |
| Context | **configure** service vprn *service-name* wpp admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### portal [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **portal** list instance |
| Context | **configure** service vprn *service-name* wpp portal *named-item* |
| Tree | portal |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [name] *named-item*

| | |
|---|---|
| Synopsis | Web portal name |
| Context | **configure** service vprn *service-name* wpp portal *named-item* |
| Tree | portal |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ack-auth-retry-count** *number*

| | |
|---|---|
| Synopsis | Number of retransmissions of an ACK_OUT message |
| Context | **configure** service vprn *service-name* wpp portal *named-item* ack-auth-retry-count *number* |
| Tree | ack-auth-retry-count |
| Range | 0 to 5 |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | WPP portal address |
| Context | **configure** service vprn *service-name* wpp portal *named-item* address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | address |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the WPP portal server |
| Context | **configure** service vprn *service-name* wpp portal *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ntf-logout-retry-count** *number*

| | |
|---|---|
| Synopsis | Number of retransmissions of an NTF_LOGOUT message |
| Context | **configure** service vprn *service-name* wpp portal *named-item* ntf-logout-retry-count *number* |
| Tree | ntf-logout-retry-count |
| Range | 0 to 5 |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **port-format** *keyword*

| | |
|---|---|
| Synopsis | Format of the port in the ACK_INO message |
| Context | **configure** service vprn *service-name* wpp portal *named-item* port-format *keyword* |
| Tree | port-format |
| Options | standard, vendor-specific |
| Default | standard |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **retry-interval** *number*

| | |
|---|---|
| Synopsis | Time between two consecutive retransmissions |
| Context | **configure** service vprn *service-name* wpp portal *named-item* retry-interval *number* |
| Tree | retry-interval |
| Range | 10 to 2000 |
| Units | milliseconds |
| Default | 2000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **secret** *encrypted-leaf*

| | |
|---|---|
| Synopsis | Message authentication between portal and BRAS by applying the secret used by WPPv2 |
| Context | **configure** service vprn *service-name* wpp portal *named-item* secret *encrypted-leaf* |
| Tree | secret |
| String length | 1 to 115 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **version** *number*

| | |
|---|---|
| Synopsis | Protocol version to be expected by the WPP portal |
| Context | **configure** service vprn *service-name* wpp portal *named-item* version *number* |
| Tree | version |
| Range | 1 \| 2 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## 4.44 sfm commands

```
configure
   -  sfm number
      -  admin-state keyword
      -  apply-groups reference
      -  apply-groups-exclude reference
      -  sfm-type keyword
```


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## 4.44.1 sfm command descriptions

### **sfm** [sfm-slot] *number*

| | |
|---|---|
| Synopsis | Enter the **sfm** list instance |
| Context | **configure** sfm *number* |
| Tree | sfm |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

### [**sfm-slot**] *number*

| | |
|---|---|
| Synopsis | Unique value to identify this SFM slot within a chassis in the system |
| Context | **configure** sfm *number* |
| Tree | sfm |
| Range | 1 to 16 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of SFM |
| Context | **configure** sfm *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s, 7950 XRS |


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## **sfm-type** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Provision the SFM type |
| Context | **configure** sfm *number* sfm-type *keyword* |
| Tree | sfm-type |
| Options | sfm-x20, sfm-x20-b, m-sfm5-7, m-sfm5-12, m-sfm5-12e, sfm-x20s-b, sfm-ixr-6, sfm-ixr-10, sfm-s, m-sfm6-12e, sfm2-x20s, sfm-2s, m-sfm6-7/12, sfm-2se, sfm2-s |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s, 7950 XRS |


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## 4.45 subscriber-mgmt commands

```
configure
   –  subscriber-mgmt
      –  accu-stats-policy named-item
         –  apply-groups reference
         –  apply-groups-exclude reference
         –  description description
         –  egress keyword id number
         –  ingress keyword id number
      –  alternate-profile-threshold
         –  apply-groups reference
         –  apply-groups-exclude reference
         –  subscriber-count number
      –  ancp
         –  ancp-policy named-item
            –  apply-groups reference
            –  apply-groups-exclude reference
            –  egress
               –  rate-adjustment number
               –  rate-modify
                  –  agg-rate
                  –  scheduler named-item
               –  rate-monitor
                  –  alarm boolean
                  –  rate number
               –  rate-reduction number
            –  ingress
               –  rate-adjustment number
               –  rate-modify
                  –  scheduler named-item
               –  rate-monitor
                  –  alarm boolean
                  –  rate number
               –  rate-reduction number
            –  port-down
               –  suspend-shcv
                  –  alarm boolean
                  –  hold-time number
         –  ancp-static-map
            –  multi-service-site-entry ancp-string customer-name reference customer-site-
name reference
               –  ancp-policy reference
               –  apply-groups reference
               –  apply-groups-exclude reference
            –  sap-entry ancp-string sap-id sap
               –  ancp-policy reference
               –  apply-groups reference
               –  apply-groups-exclude reference
         –  apply-groups reference
         –  apply-groups-exclude reference
      –  apply-groups reference
      –  apply-groups-exclude reference
      –  authentication-origin
         –  overrides
            –  priority number
               –  apply-groups reference
               –  apply-groups-exclude reference
               –  source keyword
      –  auto-sub-id
         –  apply-groups reference
```


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configure subscriber-mgmt auto-sub-id apply-groups-exclude

```
        - apply-groups-exclude reference
        - implicit-generation boolean
        - ipoe-key keyword
        - ppp-key keyword
    - bgp-peering-policy named-item
        - advertise-inactive boolean
        - aggregator-id-zero boolean
        - apply-groups reference
        - apply-groups-exclude reference
        - as-override boolean
        - asn-4-byte boolean
        - authentication-key encrypted-leaf
        - authentication-keychain reference
        - bfd-liveness boolean
        - client-reflect boolean
        - cluster ipv4-address
        - connect-retry number
        - damping boolean
        - description description
        - export reference
        - family
            - ipv4 boolean
            - ipv6 boolean
        - fast-external-failover boolean
        - hold-time number
        - import reference
        - keepalive number
        - local-address (ipv4-address-no-zone | ipv6-address-no-zone)
        - local-as
            - as-number number
            - private boolean
        - local-preference number
        - loop-detect keyword
        - med-out (number | keyword)
        - min-route-advertisement number
        - multihop number
        - next-hop-self boolean
        - passive boolean
        - peer-as number
        - preference number
        - prefix-limits keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - idle-timeout number
            - log-only boolean
            - maximum number
            - post-import boolean
            - threshold number
        - remove-private
            - limited boolean
        - send-communities
            - extended boolean
            - standard boolean
        - ttl-security number
        - type keyword
    - category-map named-item
        - activity-threshold number
        - apply-groups reference
        - apply-groups-exclude reference
        - category named-item
            - apply-groups reference
            - apply-groups-exclude reference
            - credit-type-override keyword
            - default-credit
```


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```
                - time number
                - volume
                  - unit keyword
                  - value number
            - description description
            - egress
                - policer number
                - queue number
            - exhausted-credit-service-level
                - egress
                  - ip-filter
                    - entry number
                      - action
                        - drop
                        - forward
                        - http-redirect
                          - allow-override boolean
                          - url http-redirect-url
                      - apply-groups reference
                      - apply-groups-exclude reference
                      - description description
                      - match
                        - dscp keyword
                        - dst-port
                          - eq number
                          - gt number
                          - lt number
                          - range
                            - end number
                            - start number
                        - fragment keyword
                        - icmp
                          - code number
                          - type number
                        - ip-option
                          - mask number
                          - type number
                        - multiple-option boolean
                        - option-present boolean
                        - protocol (number | keyword)
                        - src-ip ipv4-address-and-mask
                        - src-port
                          - eq number
                          - gt number
                          - lt number
                          - range
                            - end number
                            - start number
                        - tcp-flags
                          - ack boolean
                          - syn boolean
                  - ipv6-filter
                    - entry number
                      - action
                        - drop
                        - forward
                      - apply-groups reference
                      - apply-groups-exclude reference
                      - description description
                      - match
                        - dscp keyword
                        - dst-port
                          - eq number
                          - gt number
```


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configure subscriber-mgmt category-map category exhausted-credit-service-level egress ipv6-filter entry match dst-port lt

```
                        - lt number
                        - range
                          - end number
                          - start number
                    - icmp
                        - code number
                        - type number
                    - next-header (number | keyword)
                    - src-ip ipv6-address-and-mask
                    - src-port
                        - eq number
                        - gt number
                        - lt number
                        - range
                          - end number
                          - start number
                    - tcp-flags
                        - ack boolean
                        - syn boolean
            - ingress
                - ip-filter
                    - entry number
                        - action
                            - drop
                            - forward
                            - http-redirect
                                - allow-override boolean
                                - url http-redirect-url
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - description description
                        - match
                            - dscp keyword
                            - dst-ip ipv4-address-and-mask
                            - dst-port
                                - eq number
                                - gt number
                                - lt number
                                - range
                                  - end number
                                  - start number
                            - fragment keyword
                            - icmp
                                - code number
                                - type number
                            - ip-option
                                - mask number
                                - type number
                            - multiple-option boolean
                            - option-present boolean
                            - protocol (number | keyword)
                            - src-port
                                - eq number
                                - gt number
                                - lt number
                                - range
                                  - end number
                                  - start number
                            - tcp-flags
                                - ack boolean
                                - syn boolean
                - ipv6-filter
                    - entry number
                        - action
```


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configure subscriber-mgmt category-map category exhausted-credit-service-level ingress ipv6-filter entry action drop

```
                        - drop
                        - forward
                     - apply-groups reference
                     - apply-groups-exclude reference
                     - description description
                     - match
                        - dscp keyword
                        - dst-ip ipv6-address-and-mask
                        - dst-port
                           - eq number
                           - gt number
                           - lt number
                           - range
                              - end number
                              - start number
                        - icmp
                           - code number
                           - type number
                        - next-header (number | keyword)
                        - src-port
                           - eq number
                           - gt number
                           - lt number
                           - range
                              - end number
                              - start number
                        - tcp-flags
                           - ack boolean
                           - syn boolean
            - pir (number | keyword)
         - ingress
            - policer number
            - queue number
         - out-of-credit-action-override keyword
         - rating-group number
      - credit-exhaust-threshold number
      - credit-type keyword
      - description description
      - gx-session-level-usage boolean
   - credit-control-policy named-item
      - apply-groups reference
      - apply-groups-exclude reference
      - default-category-map reference
      - description description
      - error-handling-action keyword
      - out-of-credit-action keyword
      - server
         - diameter reference
         - radius
   - diameter-gx-policy named-item
      - apply-groups reference
      - apply-groups-exclude reference
      - description description
      - gx
         - avp-subscription-id
            - origin keyword
            - type keyword
         - ccrt-replay
            - interval number
            - max-lifetime number
         - credit-mcs-interval number
         - destination-realm-learning boolean
         - features
            - extended-bandwidth boolean
```


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```
            - include-avp
              - an-gw-address boolean
              - apn-ambr boolean
              - called-station-id boolean
              - calling-station-id
                - type keyword
              - ip-can-type boolean
              - logical-access-id boolean
              - nas-port
                - bit-spec binary-specification
              - nas-port-id
                - prefix-string string
                - suffix
                  - circuit-id
                  - not-included
                  - remote-id
                  - user-string string
              - nas-port-type
                - type number
              - pdn-connection-id boolean
              - physical-access-id boolean
              - rai boolean
              - rat-type boolean
              - sgsn-mcc-mnc boolean
              - supported-features boolean
              - user-equipment-info
                - type keyword
              - user-location-info boolean
            - mac-format mac-specification
            - report-ip-address-event boolean
            - three-gpp-qos-mapping
              - apn-ambr-dl
                - aggregate-rate
                - arbiter named-item
                - hs-sla-agg-rate
                - ignore-override
                - policer number
                - queue number
                - scheduler named-item
              - apn-ambr-ul
                - arbiter named-item
                - ignore-override
                - policer number
                - queue number
                - scheduler named-item
          - node
            - destination-realm string
            - origin-host reference
          - on-failure
            - failover boolean
            - handling keyword
          - tx-timer number
      - diameter-gy-policy named-item
          - apply-groups reference
          - apply-groups-exclude reference
          - description description
          - gy
            - avp-subscription-id
              - origin keyword
              - type keyword
            - ccrt-replay
              - interval number
              - max-lifetime number
            - destination-realm-learning boolean
```


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configure subscriber-mgmt diameter-gy-policy gy extended-failure-handling

```
            - extended-failure-handling
               - admin-state keyword
               - interim-credit
                  - max-attempts (number | keyword)
                  - reporting boolean
                  - validity-time (number | keyword)
                  - volume
                     - credits number
                     - units keyword
               - new-session-id boolean
            - include-avp
               - aaa-user-name boolean
               - address-avp boolean
               - called-station-id
                  - id string-not-all-spaces
               - charging-rule-base-name
                  - category-map
                  - not-included
                  - user-string string-not-all-spaces
               - ggsn-address
                  - type keyword
               - pdp-context-type boolean
               - ps-information boolean
               - service-context-id
                  - id string-not-all-spaces
               - three-gpp-charging-characteristics boolean
               - three-gpp-charging-id keyword
               - three-gpp-ggsn-ipv4-address boolean
               - three-gpp-ggsn-ipv6-address boolean
               - three-gpp-gprs-negotiated-qos-profile boolean
               - three-gpp-imsi keyword
               - three-gpp-nsapi boolean
               - three-gpp-rat-type
                  - type number
               - three-gpp-selection-mode boolean
               - three-gpp-session-stop-indicator boolean
               - three-gpp-user-location-info boolean
               - user-equipment-info-type
                  - type keyword
            - mac-format mac-specification
            - out-of-credit-reporting keyword
            - vendor-support keyword
         - node
            - destination-realm string
            - origin-host reference
         - on-failure
            - failover boolean
            - handling keyword
         - tx-timer number
      - diameter-nasreq-policy named-item
         - apply-groups reference
         - apply-groups-exclude reference
         - description description
         - nasreq
            - include-avp
               - called-station-id boolean
               - calling-station-id
                  - type keyword
               - circuit-id boolean
               - imei boolean
               - nas-port
                  - bit-spec binary-specification
               - nas-port-id
                  - prefix-string string
```


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configure subscriber-mgmt diameter-nasreq-policy nasreq include-avp nas-port-id suffix

```
                  - suffix
                     - circuit-id
                     - not-included
                     - remote-id
                     - user-string string
               - nas-port-type
                  - type (keyword | number)
               - rat-type boolean
               - remote-id boolean
               - user-location-info boolean
            - mac-format mac-specification
            - password encrypted-leaf
            - user-name
               - domain-name string
               - format keyword
               - operation keyword
         - node
            - destination-realm string
            - origin-host reference
         - on-failure
            - failover boolean
            - handling keyword
         - tx-timer number
      - explicit-subscriber-map
         - entry subscriber-id
            - alias string
            - app-profile reference
            - apply-groups reference
            - apply-groups-exclude reference
            - sla-profile reference
            - sub-profile reference
      - group-interface-statistics
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
      - group-interface-template named-item
         - apply-groups reference
         - apply-groups-exclude reference
         - description description
         - ip-mtu number
         - ipv4
            - icmp
               - mask-reply boolean
               - param-problem
                  - admin-state keyword
                  - number number
                  - seconds number
               - redirects
                  - admin-state keyword
                  - number number
                  - seconds number
               - ttl-expired
                  - admin-state keyword
                  - number number
                  - seconds number
               - unreachables
                  - admin-state keyword
                  - number number
                  - seconds number
            - neighbor-discovery
               - proxy-arp-policy reference
               - remote-proxy-arp boolean
            - urpf-check
               - mode keyword
```


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```
        – ipv6
          – urpf-check
            – mode keyword
        – trigger-packet
          – data boolean
      – gtp
        – apn-policy named-item
          – apn string
            – ambr-qos-mapping
              – apply-groups reference
              – apply-groups-exclude reference
              – downlink
                – aggregate-rate
                – arbiter named-item
                – policer number
                – queue number
                – scheduler named-item
              – uplink
                – arbiter named-item
                – policer number
                – queue number
                – scheduler named-item
            – apply-groups reference
            – apply-groups-exclude reference
            – defaults
              – group-interface
                – name interface-name
                – svc-name service-name
            – diameter-nasreq-policy reference
            – radius-auth-policy reference
            – skip-gtp-ipv4-allocation boolean
            – user-db reference
          – apply-groups reference
          – apply-groups-exclude reference
        – apply-groups reference
        – apply-groups-exclude reference
        – max-held-uplink-sessions number
        – peer-profile named-item
          – apply-groups reference
          – apply-groups-exclude reference
          – description description
          – interface-type keyword
          – ip-ttl number
          – keep-alive
            – admin-state keyword
            – interval number
            – retry-count number
            – timeout number
          – message-retransmit
            – retry-count number
            – timeout number
          – python-policy reference
          – s11
            – change-reporting-action (number | keyword)
            – end-marker-count number
            – ipv4-mtu number
            – qos
              – ambr
                – down-link number
                – up-link number
              – arp number
              – down-link
                – gbr number
                – mbr number
```


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```
                  - qci number
                  - up-link
                     - gbr number
                     - mbr number
            - uplink
               - charging-characteristics
                  - home
                     - bit0 boolean
                     - bit1 boolean
                     - bit10 boolean
                     - bit11 boolean
                     - bit12 boolean
                     - bit13 boolean
                     - bit14 boolean
                     - bit15 boolean
                     - bit2 boolean
                     - bit3 boolean
                     - bit4 boolean
                     - bit5 boolean
                     - bit6 boolean
                     - bit7 boolean
                     - bit8 boolean
                     - bit9 boolean
                  - roaming
                     - bit0 boolean
                     - bit1 boolean
                     - bit10 boolean
                     - bit11 boolean
                     - bit12 boolean
                     - bit13 boolean
                     - bit14 boolean
                     - bit15 boolean
                     - bit2 boolean
                     - bit3 boolean
                     - bit4 boolean
                     - bit5 boolean
                     - bit6 boolean
                     - bit7 boolean
                     - bit8 boolean
                     - bit9 boolean
               - ggsn
                  - qos
                     - ambr
                        - down-link number
                        - up-link number
                     - arp number
                     - down-link
                        - gbr number
                        - mbr number
                     - up-link
                        - gbr number
                        - mbr number
               - pgw
                  - qos
                     - ambr
                        - down-link number
                        - up-link number
                     - arp number
                     - down-link
                        - gbr number
                        - mbr number
                     - qci number
                     - up-link
                        - gbr number
```


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configure subscriber-mgmt gtp peer-profile uplink pgw qos up-link mbr

```
                        – mbr number
                – protocol-configuration-options keyword
                – rat-type (number | keyword)
                – report-wlan-location boolean
                – session-hold-time (number | keyword)
            – serving-network
                – mcc string
                – mnc string
        – host-lockout-policy named-item
            – apply-groups reference
            – apply-groups-exclude reference
            – description description
            – host-key keyword
            – lockout-reset-time number
            – lockout-time
                – max number
                – min number
            – max-lockout-hosts number
        – host-tracking-policy named-item
            – apply-groups reference
            – apply-groups-exclude reference
            – description description
            – egress-rate-modify
                – agg-rate
                – scheduler named-item
        – http-redirect-policy named-item
            – aa-url-parameter aa-http-url-param
            – application-assurance reference
            – apply-groups reference
            – apply-groups-exclude reference
            – description description
            – dst-port number
            – forward-entry dst-ip (ipv4-prefix | ipv6-prefix) protocol keyword dst-port number
            – ignore-app-profile boolean
            – portal-hold-time number
            – url http-redirect-url
        – igmp-policy named-item
            – apply-groups reference
            – apply-groups-exclude reference
            – description description
            – egress-rate-modify
                – agg-rate
                – scheduler named-item
            – fast-leave boolean
            – import-policy reference
            – maximum-number-group-sources number
            – maximum-number-groups number
            – maximum-number-sources number
            – multicast-reporter
                – admin-state keyword
                – destination reference
                – optional-fields
                    – host-mac boolean
                    – pppoe-session-id boolean
                    – sap-id boolean
                    – svc-id boolean
            – query-interval number
            – query-last-member-interval number
            – query-response-interval number
            – redirection-policy reference
            – replication keyword
            – router-alert-check boolean
            – static
                – group ipv4-multicast-address
```


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configure subscriber-mgmt igmp-policy static group apply-groups

```
            - apply-groups reference
            - apply-groups-exclude reference
            - source ipv4-unicast-address
            - starg
         - use-multicast-destination-mac boolean
         - version keyword
      - ipoe-session-policy named-item
         - apply-groups reference
         - apply-groups-exclude reference
         - circuit-id-from-auth boolean
         - description description
         - session-key
            - cid boolean
            - mac boolean
            - rid boolean
            - sap boolean
         - session-timeout (number | keyword)
      - isa-filter named-item
         - apply-groups reference
         - apply-groups-exclude reference
         - description description
         - ipv4
            - default-action keyword
            - entry number
               - action
                  - drop
                  - forward
                  - http-redirect
                     - url http-redirect-url
               - apply-groups reference
               - apply-groups-exclude reference
               - description description
               - match
                  - dst-ip ipv4-prefix
                  - dst-port
                     - equals number
                  - protocol keyword
         - ipv6
            - default-action keyword
            - entry number
               - action
                  - drop
                  - forward
                  - http-redirect
                     - url http-redirect-url
               - apply-groups reference
               - apply-groups-exclude reference
               - description description
               - match
                  - dst-ip ipv6-prefix
                  - dst-port
                     - equals number
                  - protocol keyword
         - type keyword
      - isa-policer named-item
         - action keyword
         - adaptation-rule
            - cir keyword
            - pir keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - cbs number
         - description description
         - mbs number
```


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```
        - rate
          - cir (number | keyword)
          - pir (number | keyword)
        - type keyword
    - isa-service-chaining
        - apply-groups reference
        - apply-groups-exclude reference
        - evpn service-name
          - admin-state keyword
          - apply-groups reference
          - apply-groups-exclude reference
          - bgp
            - route-distinguisher
              - rd (keyword | vpn-route-distinguisher)
            - route-target
              - export route-target-32
              - import route-target-32
          - description description
          - export
            - advertise-pools
              - admin-state keyword
              - pool router-instance string name named-item
            - gateway-address-range
              - end ipv4-unicast-address
              - start ipv4-unicast-address
            - vxlan
              - vni number
          - import-mode keyword
          - prefix-route-resolution keyword
        - mac-prefix string
        - vas-filter named-item
          - apply-groups reference
          - apply-groups-exclude reference
          - description description
          - entry number
            - action keyword
              - apply-groups reference
              - apply-groups-exclude reference
              - fail-action keyword
              - forward
                - esi ethernet-segment-id
                - sf-ip (ipv4-address-no-zone | ipv6-address-no-zone)
                - svc reference
              - insert-nsh
                - meta-data
                  - insert-subscriber-id
                  - opaque-data string
                - svc-path
                  - path-id number
                  - svc-index number
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - match
              - foreign-ip (ipv4-unicast-prefix | ipv4-unicast-address)
              - foreign-port number
              - protocol keyword
    - local-user-db named-item
        - admin-state keyword
        - apply-groups reference
        - apply-groups-exclude reference
        - description description
        - ipoe
```


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configure subscriber-mgmt local-user-db ipoe host

```
            - host named-item
              - admin-state keyword
              - apply-groups reference
              - apply-groups-exclude reference
              - authentication
                - auth-domain-name named-item
                - gx-policy named-item
                - nasreq-auth-policy named-item
                - radius-auth-policy named-item
              - gtp-interface
                - name named-item
                - service-id number
              - host-identification
                - circuit-id
                  - ascii-string string
                  - hex-string hex-string
                - derived-id display-string
                - duid-en
                  - hex-string hex-string
                - duid-ll-llt mac-unicast-address-no-zero
                - encap-tag-range
                  - from atm-or-vlan-encap
                  - to atm-or-vlan-encap
                - encap-tag-separate-range
                  - inner
                    - end number
                    - start number
                  - outer
                    - end number
                    - start number
                - ip-prefix (ipv4-prefix-with-host-bits | ipv6-prefix-with-host-bits)
                - mac mac-unicast-address-no-zero
                - option60
                  - ascii-string named-item
                  - hex-string hex-string
                - remote-id
                  - ascii-string string
                  - hex-string hex-string
                - sap-id display-string
                - service-id number
                - string display-string
                - system-id display-string
              - identification
                - ancp-string string
                - app-profile-string string
                - category-map-name named-item
                - int-dest-id int-dest-id
                - option-number number
                - sla-profile-string string
                - spi-sharing-group-id number
                - sub-profile-string string
                - subscriber-id named-item-64
              - ipv4
                - address
                  - gi-address keyword
                  - ip-address ipv4-unicast-address
                  - pool
                    - delimiter string
                    - primary named-item
                    - secondary named-item
                  - use-pool-from-client
                    - delimiter string
                - gi-address ipv4-unicast-address
                - option (number | keyword)
```


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configure subscriber-mgmt local-user-db ipoe host ipv4 option apply-groups

```
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - ascii-string string-not-all-spaces
                    - duration number
                    - empty
                    - hex-string hex-string
                    - ipv4-address ipv4-address
                    - netbios-node-type keyword
                  - server ipv4-unicast-address
               - ipv6
                  - address ipv6-unicast-address
                  - address-pool named-item
                  - delegated-prefix ipv6-unicast-prefix
                  - delegated-prefix-length number
                  - delegated-prefix-pool named-item
                  - link-address ipv6-unicast-address
                  - option (number | keyword)
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - ascii-string string-not-all-spaces
                    - hex-string hex-string
                    - ipv6-address ipv6-address
                  - router-advertisement-policy named-item
                  - server ipv6-unicast-address
                  - slaac-prefix ipv6-unicast-prefix
                  - slaac-prefix-pool named-item
                  - timers
                    - preferred-lifetime (number | keyword)
                    - rebind number
                    - renew number
                    - valid-lifetime (number | keyword)
               - match-radius-proxy-cache
                  - fail-action keyword
                  - mac-format mac-specification
                  - match
                    - circuit-id boolean
                    - ipv4-option number
                    - ipv6-option number
                    - mac boolean
                    - remote-id boolean
                  - server
                    - name named-item
                    - service number
               - mld-import named-item
               - msap-defaults
                  - group-interface
                    - name named-item
                    - prefix keyword
                    - suffix keyword
                  - policy named-item
                  - service number
               - radius-accounting-policy
                  - duplicate named-item
                  - name named-item
               - retail-service-id number
               - rip-policy named-item
               - to-client-options
                  - ipv4-option (number | keyword)
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - ascii-string string-not-all-spaces
                    - duration number
                    - empty
                    - hex-string hex-string
```


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configure subscriber-mgmt local-user-db ipoe host to-client-options ipv4-option ipv4-address

```
                    - ipv4-address ipv4-address
                    - netbios-node-type keyword
                  - ipv6-option (number | keyword)
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - ascii-string string-not-all-spaces
                    - domain-string string
                    - empty
                    - hex-string hex-string
                    - ipv6-address ipv6-address
               - to-server-options
                  - ipv6-option (number | keyword)
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - ascii-string string-not-all-spaces
                    - domain-string string
                    - empty
                    - hex-string hex-string
                    - ipv6-address ipv6-address
               - wpp
                  - initial
                    - app-profile named-item
                    - sla-profile named-item
                    - sub-profile named-item
                  - portal
                    - name named-item
                    - portal-group named-item
                    - router-instance (keyword | number)
                  - restore-to-initial-on-disconnect keyword
            - mask type keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - prefix
                  - length number
                  - string string
               - suffix
                  - length number
                  - string string
            - match-list keyword
         - ppp
            - host named-item
               - access-loop-encapsulation
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - encap-offset
                    - type keyword
                  - rate-down number
               - access-loop-information
                  - circuit-id
                    - ascii-string string
                    - use-sap-id
                  - remote-id
                    - ascii-string string
                    - use-mac-address
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - authentication
                  - gx-policy named-item
                  - nasreq-auth-policy named-item
                  - padi-auth-policy named-item
                  - pre-auth-policy named-item
                  - radius-auth-policy named-item
                  - user-db named-item
```


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configure subscriber-mgmt local-user-db ppp host host-identification

```
                - host-identification
                  - circuit-id
                    - ascii-string string
                    - hex-string hex-string
                  - derived-id display-string
                  - encap-tag-range
                    - from atm-or-vlan-encap
                    - to atm-or-vlan-encap
                  - encap-tag-separate-range
                    - inner
                      - end number
                      - start number
                    - outer
                      - end number
                      - start number
                  - mac mac-unicast-address-no-zero
                  - remote-id
                    - ascii-string string
                    - hex-string hex-string
                  - sap-id display-string
                  - service-name display-string
                  - user-name
                    - format keyword
                    - name display-string
                - identification
                  - ancp-string string
                  - app-profile-string string
                  - category-map-name named-item
                  - int-dest-id int-dest-id
                  - option-number number
                  - sla-profile-string string
                  - spi-sharing-group-id number
                  - sub-profile-string string
                  - subscriber-id named-item-64
                - ipv4
                  - address
                    - gi-address keyword
                    - ip-address ipv4-unicast-address
                    - pool
                      - delimiter string
                      - primary named-item
                      - secondary named-item
                    - prefix-length number
                    - use-pool-from-client
                      - delimiter string
                  - ignore-df-bit boolean
                  - option (number | keyword)
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - ascii-string string-not-all-spaces
                    - duration number
                    - empty
                    - hex-string hex-string
                    - ipv4-address ipv4-address
                    - netbios-node-type keyword
                - ipv6
                  - address ipv6-unicast-address
                  - address-pool named-item
                  - delegated-prefix ipv6-unicast-prefix
                  - delegated-prefix-length number
                  - delegated-prefix-pool named-item
                  - force-ipv6cp boolean
                  - option (number | keyword)
                    - apply-groups reference
```


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```
                    - apply-groups-exclude reference
                    - hex-string hex-string
                    - ipv6-address ipv6-address
                 - router-advertisement-policy named-item
                 - slaac-prefix ipv6-unicast-prefix
                 - slaac-prefix-pool named-item
                 - timers
                    - preferred-lifetime (number | keyword)
                    - rebind number
                    - renew number
                    - valid-lifetime (number | keyword)
              - l2tp
                 - group
                    - name string
                    - service-id number
              - lns-interface
                 - name named-item
                 - service-id number
              - mld-import named-item
              - msap-defaults
                 - group-interface
                    - name named-item
                    - prefix keyword
                    - suffix keyword
                 - policy named-item
                 - service number
              - pado-delay number
              - password
                 - chap encrypted-leaf
                 - ignore
                 - pap encrypted-leaf
              - ppp-policy-parameters
                 - keepalive
                    - hold-up-multiplier number
                    - interval number
                 - max-sessions-per-mac number
              - radius-accounting-policy
                 - duplicate named-item
                 - name named-item
              - retail-service-id number
              - rip-policy named-item
              - steering-profile named-item
              - to-client-options
                 - ipv6-option (number | keyword)
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - ascii-string string-not-all-spaces
                    - domain-string string
                    - empty
                    - hex-string hex-string
                    - ipv6-address ipv6-address
           - mask type keyword
              - apply-groups reference
              - apply-groups-exclude reference
              - prefix
                 - length number
                 - string string
              - suffix
                 - length number
                 - string string
           - match-list keyword
        - mld-policy named-item
           - apply-groups reference
           - apply-groups-exclude reference
```


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configure subscriber-mgmt mld-policy description

```
        - description description
        - egress-rate-modify
          - agg-rate
          - scheduler named-item
        - fast-leave boolean
        - import-policy reference
        - maximum-number-group-sources number
        - maximum-number-groups number
        - maximum-number-sources number
        - query-interval number
        - query-last-member-interval number
        - query-response-interval number
        - redirection-policy reference
        - replication keyword
        - router-alert-check boolean
        - static
          - group ipv6-multicast-address
            - apply-groups reference
            - apply-groups-exclude reference
            - source ipv6-unicast-address
            - starg
        - use-multicast-destination-mac boolean
        - version keyword
    - msap-policy named-item
        - apply-groups reference
        - apply-groups-exclude reference
        - cpu-protection
          - ip-src-monitoring
          - mac-monitoring
          - policy-id reference
        - description description
        - dist-cpu-protection named-item
        - ies-vprn-only-sap-parameters
          - anti-spoof keyword
          - apply-groups reference
          - apply-groups-exclude reference
          - egress
            - qos
              - policy-name reference
          - ingress
            - qos
              - policy-name reference
              - queuing-type keyword
        - igmp-host-tracking
          - expiry-time number
          - import-policy reference
          - maximum-number-group-sources number
          - maximum-number-groups number
          - maximum-number-sources number
        - lag-link-map-profile number
        - sticky-msaps boolean
        - sticky-msaps-idle-timeout number
        - sub-sla-mgmt
          - defaults
            - app-profile reference
            - int-dest-id
              - string int-dest-id
              - top-q-tag
            - sla-profile reference
            - sub-profile reference
            - subscriber-id
              - auto-id
              - sap-id
              - string subscriber-id
```


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configure subscriber-mgmt msap-policy sub-sla-mgmt single-sub-parameters

```
            - single-sub-parameters
               - non-sub-traffic-profiles
                  - app-profile reference
                  - sla-profile reference
                  - sub-profile reference
                  - subscriber-id subscriber-id
               - profiled-traffic-only boolean
            - sub-ident-policy reference
            - subscriber-limit (keyword | number)
         - vpls-only-sap-parameters
            - apply-groups reference
            - apply-groups-exclude reference
            - arp-host
               - host-limit number
               - min-auth-interval number
            - arp-reply-agent keyword
            - dhcp
               - lease-populate number
               - option-82
                  - action keyword
                  - circuit-id keyword
                  - remote-id
                     - mac
                     - string named-item
                  - vendor-specific-option
                     - client-mac-address boolean
                     - sap-id boolean
                     - service-id boolean
                     - string string-not-all-spaces
                     - system-id boolean
               - proxy-server
                  - admin-state keyword
                  - emulated-server ipv4-unicast-address
                  - lease-time
                     - radius-override boolean
                     - value number
            - egress
               - qos
                  - policy-name reference
            - igmp-snooping
               - fast-leave boolean
               - import-policy reference
               - maximum-number-groups (keyword | number)
               - mcac
                  - bandwidth
                     - mandatory (number | keyword)
                     - total (number | keyword)
                  - interface-policy reference
                  - mc-constraints
                     - level number
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - bandwidth number
                     - number-down number
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - level number
                     - use-lag-port-weight boolean
                  - policy reference
               - mvr
                  - from-vpls reference
               - query-interval number
               - query-last-member-interval number
               - query-response-interval number
```


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configure subscriber-mgmt msap-policy vpls-only-sap-parameters igmp-snooping robust-count

```
            - robust-count number
            - send-queries boolean
            - version keyword
         - ingress
            - qos
               - policy-name reference
               - queuing-type keyword
         - mac-da-hashing boolean
         - split-horizon-group named-item
      - pfcp
         - association named-item
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - association-release-timeout (keyword | number)
            - bfd-expedited-path-down boolean
            - default-calltrace-profile reference
            - description description
            - heartbeat
               - interval number
               - retries number
               - timeout number
            - interface
               - name interface-name
               - router-instance string
            - nat
               - nat-group reference
               - wlan-gw-group reference
            - node-id
               - fqdn fully-qualified-domain-name
               - use-ip-address
            - path-restoration-time number
            - peer
               - ip-address (ipv4-address-no-zone | ipv6-address-no-zone)
               - node-id
                  - fully-qualified-domain-name fully-qualified-domain-name
                  - use-ip-address
            - python-policy reference
            - tx
               - retries number
               - timeout number
               - ttl number
      - pim-policy named-item
         - apply-groups reference
         - apply-groups-exclude reference
         - description description
      - ppp-policy named-item
         - allow-same-circuit-id-for-dhcp boolean
         - apply-groups reference
         - apply-groups-exclude reference
         - cookies boolean
         - default-pap-password encrypted-leaf
         - default-user-name string-not-all-spaces
         - description description
         - force-ppp-mtu-gt-1492 boolean
         - ipcp-subnet-negotiation boolean
         - keepalive
            - hold-up-multiplier number
            - interval number
         - lcp-ignore-identifier boolean
         - lcp-ignore-magic-numbers boolean
         - max-sessions-per-cid
            - allow-sessions-without-cid boolean
            - limit number
```


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configure subscriber-mgmt ppp-policy max-sessions-per-mac

```
        - max-sessions-per-mac number
        - mlppp
          - accept-mrru boolean
          - apply-groups reference
          - apply-groups-exclude reference
          - endpoint
            - ip (ipv4-address | keyword)
            - mac (mac-address | keyword)
          - short-sequence-numbers boolean
        - ncp-renegotiation keyword
        - pado-ac-name string-not-all-spaces
        - pado-delay number
        - ppp-authentication keyword
        - ppp-chap-challenge-length
          - max number
          - min number
        - ppp-initial-delay boolean
        - ppp-mtu number
        - ppp-options
          - custom-option protocol keyword option-number number
            - address ipv4-address
            - apply-groups reference
            - apply-groups-exclude reference
            - ascii-string string-not-all-spaces
            - empty
            - hex-string hex-string
        - re-establish-session boolean
        - reject-unconfigured-ncp boolean
        - reply-on-padt boolean
        - session-timeout number
        - sid-allocation keyword
        - unique-sid keyword
    - pppoe-client-policy named-item
        - apply-groups reference
        - apply-groups-exclude reference
        - description description
        - keepalive
          - hold-up-multiplier number
          - interval number
        - mru number
        - mtu number
        - python-policy reference
        - restart-backoff
          - initial-time number
          - max-time number
        - stack
          - ipv4 boolean
          - ipv6-slaac boolean
    - radius-accounting-policy named-item
        - acct-tunnel-connection-fmt ascii-specification
        - apply-groups reference
        - apply-groups-exclude reference
        - custom-record
          - apply-groups reference
          - apply-groups-exclude reference
          - queue number
            - apply-groups reference
            - apply-groups-exclude reference
            - e-counters
              - in-profile-octets-discarded-count boolean
              - in-profile-octets-forwarded-count boolean
              - in-profile-packets-discarded-count boolean
              - in-profile-packets-forwarded-count boolean
              - out-profile-octets-discarded-count boolean
```


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configure subscriber-mgmt radius-accounting-policy custom-record queue e-counters out-profile-octets-forwarded-count

```
                  - out-profile-octets-forwarded-count boolean
                  - out-profile-packets-discarded-count boolean
                  - out-profile-packets-forwarded-count boolean
               - i-counters
                  - all-octets-offered-count boolean
                  - all-packets-offered-count boolean
                  - high-octets-discarded-count boolean
                  - high-octets-offered-count boolean
                  - high-packets-discarded-count boolean
                  - high-packets-offered-count boolean
                  - in-profile-octets-forwarded-count boolean
                  - in-profile-packets-forwarded-count boolean
                  - low-octets-discarded-count boolean
                  - low-octets-offered-count boolean
                  - low-packets-discarded-count boolean
                  - low-packets-offered-count boolean
                  - out-profile-octets-forwarded-count boolean
                  - out-profile-packets-forwarded-count boolean
                  - uncoloured-octets-offered-count boolean
                  - uncoloured-packets-offered-count boolean
            - ref-queue
               - all
               - e-counters
                  - in-profile-octets-discarded-count boolean
                  - in-profile-octets-forwarded-count boolean
                  - in-profile-packets-discarded-count boolean
                  - in-profile-packets-forwarded-count boolean
                  - out-profile-octets-discarded-count boolean
                  - out-profile-octets-forwarded-count boolean
                  - out-profile-packets-discarded-count boolean
                  - out-profile-packets-forwarded-count boolean
               - i-counters
                  - all-octets-offered-count boolean
                  - all-packets-offered-count boolean
                  - high-octets-discarded-count boolean
                  - high-octets-offered-count boolean
                  - high-packets-discarded-count boolean
                  - high-packets-offered-count boolean
                  - in-profile-octets-forwarded-count boolean
                  - in-profile-packets-forwarded-count boolean
                  - low-octets-discarded-count boolean
                  - low-octets-offered-count boolean
                  - low-packets-discarded-count boolean
                  - low-packets-offered-count boolean
                  - out-profile-octets-forwarded-count boolean
                  - out-profile-packets-forwarded-count boolean
                  - uncoloured-octets-offered-count boolean
                  - uncoloured-packets-offered-count boolean
               - id reference
            - significant-change number
         - delay-start-time number
         - description description
         - host-accounting
            - admin-state keyword
            - interim-update boolean
         - include-radius-attribute
            - access-loop-options boolean
            - acct-authentic boolean
            - acct-delay-time boolean
            - acct-triggered-reason boolean
            - all-authorized-session-addresses boolean
            - apn boolean
            - bearer-fteid boolean
            - bonding-active-connections boolean
```


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configure subscriber-mgmt radius-accounting-policy include-radius-attribute bonding-id

```
            - bonding-id boolean
            - brg-num-active-sessions boolean
            - called-station-id boolean
            - calling-station-id
              - type keyword
            - circuit-id boolean
            - delegated-ipv6-prefix boolean
            - detailed-acct-attributes boolean
            - dhcp-vendor-class-id boolean
            - error-code boolean
            - firewall-info boolean
            - framed-interface-id boolean
            - framed-ip-address boolean
            - framed-ip-netmask boolean
            - framed-ipv6-prefix boolean
            - framed-ipv6-route boolean
            - framed-route boolean
            - imei boolean
            - imsi boolean
            - ipv6-address boolean
            - lanext-bridge-id boolean
            - lanext-device-type boolean
            - lanext-route-distinguisher boolean
            - lanext-route-target boolean
            - lanext-vni boolean
            - mac-address boolean
            - msisdn boolean
            - nas-identifier boolean
            - nas-port
              - bit-spec binary-specification
            - nas-port-id
              - prefix-string string
              - suffix keyword
            - nas-port-type
              - type (keyword | number)
            - nat-port-range boolean
            - remote-id boolean
            - sla-profile boolean
            - spi-sharing-id boolean
            - std-acct-attributes boolean
            - steering-profile boolean
            - sub-profile boolean
            - subscriber-id boolean
            - tunnel-client-attrs boolean
            - tunnel-server-attrs boolean
            - uli boolean
            - user-name boolean
            - v6-aggregate-stats boolean
            - wifi-num-attached-ues boolean
            - wifi-rssi boolean
            - wifi-ssid-vlan boolean
            - xconnect-tunnel-home-address boolean
        - mcs-interval
            - interval (keyword | number)
        - queue-instance-accounting
            - admin-state keyword
            - interim-update boolean
        - radius-server-policy reference
        - session-accounting
            - admin-state keyword
            - host-update boolean
            - interim-update boolean
        - session-id-format keyword
        - triggered-updates
```


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configure subscriber-mgmt radius-accounting-policy triggered-updates gtp-change

```
            - gtp-change
               - s1-release boolean
               - service-request boolean
               - teidc-change boolean
               - teidu-change boolean
               - uli-change boolean
            - gtp-mobility boolean
         - update-interval
            - interval number
            - jitter (keyword | number)
      - radius-authentication-policy named-item
         - apply-groups reference
         - apply-groups-exclude reference
         - description description
         - fallback
            - action
               - accept
               - user-db named-item
            - force-probing boolean
         - include-radius-attribute
            - access-loop-options boolean
            - acct-session-id
               - type keyword
            - apn boolean
            - called-station-id boolean
            - calling-station-id
               - type keyword
            - circuit-id boolean
            - dhcp-options boolean
            - dhcp-vendor-class-id boolean
            - dhcp6-options boolean
            - gprs-negotiated-qos-profile boolean
            - imei boolean
            - imsi boolean
            - mac-address boolean
            - msisdn boolean
            - nas-identifier boolean
            - nas-port
               - bit-spec binary-specification
            - nas-port-id
               - prefix-string string
               - suffix keyword
            - nas-port-type
               - type (keyword | number)
            - pppoe-service-name boolean
            - rat-type boolean
            - remote-id boolean
            - sap-session-index boolean
            - tunnel-server-attrs boolean
            - uli boolean
            - wifi-num-attached-ues boolean
            - wifi-ssid-vlan boolean
            - xconnect-tunnel-home-address boolean
         - password encrypted-leaf
         - ppp-user-name
            - domain-name string
            - domain-operation keyword
         - pppoe-access-method keyword
         - radius-server-policy reference
         - re-authentication boolean
         - send-acct-stop-on-fail
            - on-accept-failure boolean
            - on-reject boolean
            - on-request-failure boolean
```


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```
        - user-name
          - domain-name string
          - domain-operation keyword
          - format keyword
          - gtp-format keyword
          - mac-format mac-specification
    - rip-policy named-item
      - apply-groups reference
      - apply-groups-exclude reference
      - authentication-key encrypted-leaf
      - authentication-type keyword
      - description description
    - router-advertisement-policy external-named-item
      - apply-groups reference
      - apply-groups-exclude reference
      - force-mcast keyword
      - max-advertisement-interval number
      - min-advertisement-interval number
      - options
        - current-hop-limit number
        - dns
          - include-rdnss boolean
          - rdnss-lifetime (number | keyword)
        - managed-configuration boolean
        - mtu (number | keyword)
        - other-stateful-configuration boolean
        - reachable-time number
        - retransmit-timer number
        - router-lifetime (number | keyword)
      - prefix-options
        - stateful
          - auto-lifetimes boolean
          - on-link boolean
          - preferred-lifetime (number | keyword)
          - valid-lifetime (number | keyword)
        - stateless
          - on-link boolean
          - preferred-lifetime (number | keyword)
          - valid-lifetime (number | keyword)
    - sap-template named-item
      - apply-groups reference
      - apply-groups-exclude reference
      - cpu-protection
        - ip-src-monitoring
        - mac-monitoring
        - policy-id reference
      - description description
      - dist-cpu-protection reference
      - hold-time (number | keyword)
    - shcv-policy external-named-item
      - apply-groups reference
      - apply-groups-exclude reference
      - description description
      - layer-3
        - source-ip-origin keyword
        - unnumbered-source-ip ipv4-unicast-address
      - periodic
        - action keyword
        - admin-state keyword
        - interval number
        - retry-count number
        - timeout number
      - trigger
        - host-limit-exceeded
```


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```
                - admin-state keyword
                - apply-groups reference
                - apply-groups-exclude reference
                - retry-count number
                - timeout number
            - inactivity
                - admin-state keyword
                - apply-groups reference
                - apply-groups-exclude reference
                - retry-count number
                - timeout number
            - ip-conflict
                - admin-state keyword
                - apply-groups reference
                - apply-groups-exclude reference
                - retry-count number
                - timeout number
            - mac-learning
                - admin-state keyword
                - apply-groups reference
                - apply-groups-exclude reference
                - retry-count number
                - timeout number
            - mobility
                - admin-state keyword
                - apply-groups reference
                - apply-groups-exclude reference
                - retry-count number
                - timeout number
        - vpls
            - source-ip ipv4-unicast-address
            - source-mac mac-address
    - sla-profile external-named-item
        - aggregate-qos-statistics
            - egress
                - policers
                    - all
                    - all-dynamic
                    - all-static
                    - none
                    - policer reference
                - queues
                    - all
                    - all-dynamic
                    - all-static
                    - none
                    - queue reference
        - alternate-sla-profile reference
        - apply-groups reference
        - apply-groups-exclude reference
        - control
            - cups boolean
            - local boolean
        - credit-control-policy reference
        - custom-statistics-group named-item
            - apply-groups reference
            - apply-groups-exclude reference
            - egress
                - policers
                    - none
                    - policer reference
        - def-instance-sharing keyword
        - description description
        - egress
```


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```
            - bonding-selection
              - apply-groups reference
              - apply-groups-exclude reference
              - rate-thresholds
                - high number
                - low number
              - weight
                - change number
                - initial number
            - ip-filter reference
            - ipv6-filter reference
            - qos
              - hs-agg-rate number
              - qos-marking-from-sap boolean
              - sap-egress
                - overrides
                  - hs-queue-stat-mode keyword
                  - hs-wrr-group reference
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - hs-class-weight number
                    - rate (number | keyword)
                  - policer reference
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - cbs (number | keyword)
                    - mbs (number | keyword)
                    - packet-byte-offset number
                    - rate
                      - cir (number | keyword)
                      - pir (number | keyword)
                    - stat-mode keyword
                  - queue reference
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - avg-frame-overhead decimal-number
                    - cbs (number | keyword)
                    - high-prio-only (number | keyword)
                    - hs-class-weight number
                    - hs-wred-queue
                      - policy reference
                    - hs-wrr-weight number
                    - mbs (number | keyword)
                    - rate
                      - cir (number | keyword)
                      - pir (number | keyword)
                    - stat-mode keyword
                - policy-name reference
                - port-parent-location keyword
              - scheduler-policy
                - overrides
                  - scheduler reference
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - rate
                      - cir (number | keyword)
                      - pir (number | keyword)
                - policy-name reference
              - use-ingress-l2tp-dscp boolean
            - report-rate
              - agg-rate
              - policer number
              - pppoe-actual-rate
              - rfc5515-actual-rate
```


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configure subscriber-mgmt sla-profile egress report-rate scheduler

```
            - scheduler named-item
      - host-limits
         - ipv4
            - arp number
            - dhcp number
            - overall number
            - ppp number
         - ipv6
            - overall number
            - pd-ipoe-dhcp number
            - pd-overall number
            - pd-ppp-dhcp number
            - wan-ipoe-dhcp number
            - wan-ipoe-slaac number
            - wan-overall number
            - wan-ppp-dhcp number
            - wan-ppp-slaac number
         - lac-overall number
         - overall number
         - remove-oldest boolean
      - idle-timeout
         - apply-groups reference
         - apply-groups-exclude reference
         - category reference
            - action keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - timeout number
         - category-map-name reference
      - ingress
         - ip-filter reference
         - ipv6-filter reference
         - qos
            - sap-ingress
               - overrides
                  - policer reference
                     - apply-groups reference
                     - apply-groups-exclude reference
                     - cbs (number | keyword)
                     - mbs (number | keyword)
                     - packet-byte-offset number
                     - rate
                        - cir (number | keyword)
                        - pir (number | keyword)
                     - stat-mode keyword
                  - queue reference
                     - apply-groups reference
                     - apply-groups-exclude reference
                     - cbs (number | keyword)
                     - high-prio-only (number | keyword)
                     - mbs (number | keyword)
                     - rate
                        - cir (number | keyword)
                        - pir (number | keyword)
                     - stat-mode keyword
               - policy-name reference
               - queuing-type keyword
         - report-rate
            - agg-rate
            - policer number
            - pppoe-actual-rate
            - rfc5515-actual-rate
            - scheduler named-item
      - one-time-http-redirection
```


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configure subscriber-mgmt sla-profile one-time-http-redirection ip-filter

```
            - ip-filter reference
         - pfcp-mappings
            - session-qer
               - downlink
                  - aggregate-rate
                  - arbiter named-item
                  - policer number
                  - queue number
                  - scheduler named-item
               - uplink
                  - arbiter named-item
                  - policer number
                  - queue number
                  - scheduler named-item
         - session-limits
            - ipoe number
            - l2tp
               - lns number
               - lts number
               - overall number
            - overall number
            - pppoe
               - lac number
               - local number
               - overall number
      - steering-profile named-item
         - access
            - router-instance string
         - apply-groups reference
         - apply-groups-exclude reference
         - description description
         - network
            - next-hop ipv4-unicast-address
            - router-instance string
      - sub-ident-policy external-named-item
         - app-profile-map
            - entry string
               - app-profile reference
               - apply-groups reference
               - apply-groups-exclude reference
            - use-direct-map-as-default boolean
         - apply-groups reference
         - apply-groups-exclude reference
         - description description
         - primary
            - admin-state keyword
            - script-url url
         - secondary
            - admin-state keyword
            - script-url url
         - sla-profile-map
            - entry string
               - apply-groups reference
               - apply-groups-exclude reference
               - sla-profile reference
            - use-direct-map-as-default boolean
         - strings-from-option number
         - sub-profile-map
            - entry string
               - apply-groups reference
               - apply-groups-exclude reference
               - sub-profile reference
            - use-direct-map-as-default boolean
         - tertiary
```


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configure subscriber-mgmt sub-ident-policy tertiary admin-state

```
            - admin-state keyword
            - script-url url
      - sub-mcac-policy named-item
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - bandwidth
            - mandatory (number | keyword)
            - total (number | keyword)
         - description description
      - sub-profile external-named-item
         - accounting-policy reference
         - accu-stats-policy reference
         - alternate-sub-profile reference
         - ancp
            - ancp-policy reference
            - apply-groups reference
            - apply-groups-exclude reference
         - apply-groups reference
         - apply-groups-exclude reference
         - collect-stats boolean
         - control
            - cups boolean
            - local boolean
         - description description
         - egress
            - lag-per-link-hash
               - apply-groups reference
               - apply-groups-exclude reference
               - class number
               - weight number
            - qos
               - agg-rate
                  - adaptation-rule keyword
                  - burst-limit (number | keyword)
                  - min-resv-bw number
                  - queue-frame-based-accounting boolean
                  - rate number
               - encap-offset
                  - type keyword
               - hs-agg-rate number
               - hs-low-burst-max-class number
               - hs-min-resv-bw number
               - policer-control-policy
                  - overrides
                     - root
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - max-rate (number | keyword)
                        - priority-mbs-thresholds
                           - min-thresh-separation (number | keyword)
                           - priority number
                              - apply-groups reference
                              - apply-groups-exclude reference
                              - mbs-contribution (number | keyword)
                  - policy-name reference
               - scheduler-policy
                  - overrides
                     - scheduler reference
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - rate
                           - cir (number | keyword)
                           - pir (number | keyword)
```


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configure subscriber-mgmt sub-profile egress qos scheduler-policy policy-name

```
                - policy-name reference
        - firewall-policy reference
        - host-limits
            - ipv4
                - arp number
                - dhcp number
                - overall number
                - ppp number
            - ipv6
                - overall number
                - pd-ipoe-dhcp number
                - pd-overall number
                - pd-ppp-dhcp number
                - wan-ipoe-dhcp number
                - wan-ipoe-slaac number
                - wan-overall number
                - wan-ppp-dhcp number
                - wan-ppp-slaac number
            - lac-overall number
            - overall number
        - host-tracking-policy reference
        - hs-sla-mode keyword
        - igmp-policy reference
        - ingress
            - qos
                - policer-control-policy
                    - overrides
                        - root
                            - apply-groups reference
                            - apply-groups-exclude reference
                            - max-rate (number | keyword)
                            - priority-mbs-thresholds
                                - min-thresh-separation (number | keyword)
                                - priority number
                                    - apply-groups reference
                                    - apply-groups-exclude reference
                                    - mbs-contribution (number | keyword)
                    - policy-name reference
                - scheduler-policy
                    - overrides
                        - scheduler reference
                            - apply-groups reference
                            - apply-groups-exclude reference
                            - rate
                                - cir (number | keyword)
                                - pir (number | keyword)
                    - policy-name reference
        - mld-policy reference
        - nat
            - access-mode keyword
            - allow-bypass boolean
            - policy reference
            - prefix-list reference
        - pim-policy reference
        - preference number
        - radius-accounting
            - policy reference
            - session-optimized-stop boolean
        - secondary-shaper-hashing boolean
        - session-limits
            - ipoe number
            - l2tp
                - lns number
                - lts number
```


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```
                - overall number
            - overall number
            - pppoe
                - lac number
                - local number
                - overall number
        - sla-profile-map
            - entry string
                - apply-groups reference
                - apply-groups-exclude reference
                - sla-profile reference
            - use-direct-map-as-default boolean
        - sub-mcac-policy reference
        - upnp-policy reference
        - volume-stats-type keyword
        - vport-hashing boolean
    - subscriber-interface-statistics
        - admin-state keyword
        - apply-groups reference
        - apply-groups-exclude reference
    - svlan-statistics
        - admin-state keyword
        - apply-groups reference
        - apply-groups-exclude reference
    - system-behavior
        - apply-groups reference
        - apply-groups-exclude reference
        - legacy-dns-nbns boolean
    - up-resiliency
        - apply-groups reference
        - apply-groups-exclude reference
        - fate-sharing-group-template named-item
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - gratuitous-arp keyword
            - path-restoration-state keyword
            - redundant-interface
                - name interface-name
                - service service-name
            - uplink-forwarding-while-standby boolean
    - vrgw
        - apply-groups reference
        - apply-groups-exclude reference
        - brg-profile named-item
            - apply-groups reference
            - apply-groups-exclude reference
            - connectivity-verification
                - admin-state keyword
                - count number
                - retry-time number
                - timeout number
            - description description
            - hold-time number
            - home-pool
                - lease-time number
                - option (number | keyword)
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - ascii-string string-not-all-spaces
                    - duration number
                    - empty
                    - hex-string hex-string
                    - ipv4-address ipv4-address
```


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configure subscriber-mgmt vrgw brg-profile home-pool option netbios-node-type

```
                  - netbios-node-type keyword
               - standby-ip-lifetime number
               - subnet
                  - end ipv4-unicast-address
                  - prefix ipv4-prefix-with-host-bits
                  - start ipv4-unicast-address
            - initial-hold-time number
            - radius-authentication
               - password encrypted-leaf
               - server-policy reference
            - radius-proxy-server string name named-item
            - sla-profile-string named-item-or-empty
            - sub-profile-string named-item-or-empty
            - uplink-initial-wait number
         - lanext
            - apply-groups reference
            - apply-groups-exclude reference
            - router-target-as-number number
      - wlan-gw
         - apply-groups reference
         - apply-groups-exclude reference
         - queries
            - apply-groups reference
            - apply-groups-exclude reference
            - tunnel named-item
               - access-point-mac-address-learning-status keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - calculate-counts boolean
               - encapsulation
                  - gre boolean
                  - l2 boolean
                  - l2tp boolean
                  - vxlan boolean
               - l2
                  - inner-vlan number
                  - outer-vlan number
                  - sap sap
               - l3
                  - address-type keyword
                  - local-address (ipv4-address-no-zone | ipv6-address-no-zone)
                  - remote-address (ipv4-address-no-zone | ipv6-address-no-zone)
                  - router-instance string
               - ues
                  - custom-user-group named-item-or-empty
                  - maximum number
                  - minimum number
                  - state
                     - cross-connect boolean
                     - dsm boolean
                     - esm boolean
                     - l2 boolean
                     - migrant boolean
            - ue named-item
               - address
                  - dhcp6-na ipv6-unicast-without-local-address
                  - ipv4 ipv4-unicast-address
                  - slaac ipv6-unicast-without-local-address
                  - type keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - bridge-domain number
               - connection-state
                  - already-signed-in boolean
```


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configure subscriber-mgmt wlan-gw queries ue connection-state authorized-only

```
                  - authorized-only boolean
                  - cross-connect boolean
                  - data-triggered boolean
                  - delete-pending boolean
                  - dhcp-triggered boolean
                  - dsm boolean
                  - esm boolean
                  - gtp-authorized boolean
                  - ip-assigned boolean
                  - ip-assigned-authorized boolean
                  - l2 boolean
                  - portal boolean
               - custom-user-group named-item-or-empty
               - mac-address mac-address
               - soft-quota-exhausted boolean
               - tunnel
                  - encapsulation keyword
                  - local-address (ipv4-address-no-zone | ipv6-address-no-zone)
                  - remote-address (ipv4-address-no-zone | ipv6-address-no-zone)
                  - router-instance string
               - vlan number
               - wlan-gw-group
                  - id number
                  - member number
         - virtual-chassis-identifier string-not-all-spaces
```


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## 4.45.1 subscriber-mgmt command descriptions

### subscriber-mgmt

| | |
|---|---|
| Synopsis | Enter the **subscriber-mgmt** context |
| Context | **configure** subscriber-mgmt |
| Tree | subscriber-mgmt |
| Description | Commands in this context configure subscriber management attributes, policies, and profiles. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **accu-stats-policy** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **accu-stats-policy** list instance |
| Context | **configure** subscriber-mgmt accu-stats-policy *named-item* |
| Tree | accu-stats-policy |
| Description | Commands in this context configure a storage policy for cumulative statistics for subscribers.<br>The policy defines the direction for the policer or the queue to be stored.<br>The policy stores subscriber statistics even if the subscriber session has ended. The subscriber statistics can be viewed even if the subscriber is offline.<br>When the subscriber session ends, the statistics are added to the past statistics stored in memory so that all previous session statistics are accumulated. The accumulated statistics are not persistent; they are only stored in memory and reset to zero when the chassis reboots. |
| Max. instances | 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | Policy name |
| Context | **configure** subscriber-mgmt accu-stats-policy *named-item* |
| Tree | accu-stats-policy |
| String length | 1 to 32 |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** subscriber-mgmt accu-stats-policy *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **egress** [type] *keyword* id *number*

| | |
|---|---|
| Synopsis | Add a list entry for **egress** |
| Context | **configure** subscriber-mgmt accu-stats-policy *named-item* egress *keyword* id *number* |
| Tree | egress |
| Max. instances | 4 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**type**] *keyword*

| | |
|---|---|
| Synopsis | Type |
| Context | **configure** subscriber-mgmt accu-stats-policy *named-item* egress *keyword* id *number* |
| Tree | egress |
| Options | queue, policer |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **id** *number*

| | |
|---|---|
| Synopsis | Queue or policer ID |
| Context | **configure** subscriber-mgmt accu-stats-policy *named-item* egress *keyword* id *number* |
| Tree | egress |
| Range | 1 to 63 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ingress** [type] *keyword* id *number*

| | |
|---|---|
| Synopsis | Add a list entry for **ingress** |
| Context | **configure** subscriber-mgmt accu-stats-policy *named-item* ingress *keyword* id *number* |
| Tree | ingress |
| Max. instances | 4 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**type**] *keyword*

| | |
|---|---|
| Synopsis | Type |
| Context | **configure** subscriber-mgmt accu-stats-policy *named-item* ingress *keyword* id *number* |
| Tree | ingress |
| Options | queue, policer |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **id** *number*

| | |
|---|---|
| Synopsis | Queue or policer ID |
| Context | **configure** subscriber-mgmt accu-stats-policy *named-item* ingress *keyword* id *number* |
| Tree | ingress |


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| | |
|---|---|
| Range | 1 to 63 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## alternate-profile-threshold

| | |
|---|---|
| Synopsis | Enter the **alternate-profile-threshold** context |
| Context | **configure** subscriber-mgmt alternate-profile-threshold |
| Tree | alternate-profile-threshold |
| Description | Commands in this context specifiy thresholds that determine when an alternate subscriber-management profile is used instead of the original profile. The alternate profile is configured under the original profile, for example using the **alternate-sub-profile** command in the **configure subscriber-management sub-profile** context and the **alternate-sla-profile** command in the **configure subscriber-management sla-profile** context. |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## subscriber-count *number*

| | |
|---|---|
| Synopsis | Apply alternate profiles based on subscriber threshold |
| Context | **configure** subscriber-mgmt alternate-profile-threshold subscriber-count *number* |
| Tree | subscriber-count |
| Description | This command configures the subscriber-count threshold. The system classifies every new subscriber either as "alternate" or "non-alternate". By default, the system classifies new subscribers as non-alternate. When the number of non-alternate subscribers reaches the configured subscriber-count threshold, the system classifies new subscribers as alternate.<br><br>When the number of subscribers is set to 0, the threshold is disabled. |
| Range | 0 to 500000 |
| Default | 0 |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ancp

| | |
|---|---|
| Synopsis | Enter the **ancp** context |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt ancp |
| Tree | ancp |
| Description | Commands in this context configure Access Node Control Protocol (ANCP) settings. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **ancp-policy** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **ancp-policy** list instance |
| Context | **configure** subscriber-mgmt ancp ancp-policy *named-item* |
| Tree | ancp-policy |
| Description | Commands in this context configure the specified ANCP policy, which can be associated with either an ANCP string (static) or a subscriber-profile (dynamic), and define the behavior of hosts belonging to these profiles.<br>ANCP policies control rates and subscribers based on port-up/port-down messages from the access node. When configured, the node stops SHCV to a host that is part of a port that is down (by port-down message). When a port-up message is received for the port that was down, the node initiates the SHCV process immediately to verify connectivity.<br>When ANCP is used with ESM, all hosts of a subscriber are updated with the ANCP string last associated with the subscriber. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## [**name**] *named-item*

| | |
|---|---|
| Synopsis | Policy name |
| Context | **configure** subscriber-mgmt ancp ancp-policy *named-item* |
| Tree | ancp-policy |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **egress**

| | |
|---|---|
| Synopsis | Enter the **egress** context |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt ancp ancp-policy *named-item* egress |
| Tree | egress |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **rate-adjustment** *number*

| | |
|---|---|
| Synopsis | Rate adjustment for the scheduler |
| Context | **configure** subscriber-mgmt ancp ancp-policy *named-item* egress rate-adjustment *number* |
| Tree | rate-adjustment |
| Description | This command configures the rate adjustment for the scheduler. This setting is used when the rate returned by the DSLAM is calculated with a different encapsulation than the SR node. The node adjusts the rate by the percentage specified as:<br>DSLAM_RATE * (adjustment rate)/100 — (rate reduction) |
| Range | 1 to 200 |
| Units | percent |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **rate-modify**

| | |
|---|---|
| Synopsis | Enter the **rate-modify** context |
| Context | **configure** subscriber-mgmt ancp ancp-policy *named-item* egress rate-modify |
| Tree | rate-modify |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **agg-rate**

| | |
|---|---|
| Synopsis | Maximum total rate for all subscriber egress queues |
| Context | **configure** subscriber-mgmt ancp ancp-policy *named-item* egress rate-modify agg-rate |
| Tree | agg-rate |
| Description | This command specifies the maximum total rate for all subscriber egress queues for each subscriber associated with the policy. |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **agg-rate** or **scheduler**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **scheduler** *named-item*

| | |
|---|---|
| Synopsis | Scheduler to be applied for rate modification |
| Context | **configure** subscriber-mgmt ancp ancp-policy *named-item* egress rate-modify scheduler *named-item* |
| Tree | scheduler |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **agg-rate** or **scheduler**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **rate-monitor**

| | |
|---|---|
| Synopsis | Enter the **rate-monitor** context |
| Context | **configure** subscriber-mgmt ancp ancp-policy *named-item* egress rate-monitor |
| Tree | rate-monitor |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **alarm** *boolean*

| | |
|---|---|
| Synopsis | Generate SNMP notification when monitor event is raised |
| Context | **configure** subscriber-mgmt ancp ancp-policy *named-item* egress rate-monitor alarm *boolean* |
| Tree | alarm |
| Description | When configured to **true**, the system generates an alarm (trap) to the management system including the rate, the ANCP policy name, and the ANCP string when the monitored rate is below the configured rate.<br>When configured to **false**, no alarm is generated. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **rate** *number*

| | |
|---|---|
| Synopsis | Rate below which the system generates an event |
| Context | **configure** subscriber-mgmt ancp ancp-policy *named-item* egress rate-monitor rate *number* |
| Tree | rate |
| Range | 1 to 4294967295 |
| Units | kilobps |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **rate-reduction** *number*

| | |
|---|---|
| Synopsis | Constant rate reduction to specified DSLAM rate |
| Context | **configure** subscriber-mgmt ancp ancp-policy *named-item* egress rate-reduction *number* |
| Tree | rate-reduction |
| Description | This command configures a constant rate reduction to the rate specified by the DSLAM. This setting is used if the node must adjust the rate to a value that is offset (for example by a fixed multicast dedicated bandwidth) compared to the total available on the DSLAM. The rate is calculated as:<br>DSLAM_RATE * (adjustment rate)/100 — (rate reduction) |
| Range | 1 to 4294967295 |
| Units | kilobps |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ingress**

| | |
|---|---|
| Synopsis | Enter the **ingress** context |
| Context | **configure** subscriber-mgmt ancp ancp-policy *named-item* ingress |
| Tree | ingress |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **rate-adjustment** *number*

| | |
|---|---|
| Synopsis | Rate adjustment for the scheduler |
| Context | **configure** subscriber-mgmt ancp ancp-policy *named-item* ingress rate-adjustment *number* |
| Tree | rate-adjustment |
| Description | This command configures the rate adjustment for the scheduler. This setting is used when the rate returned by the DSLAM is calculated with a different encapsulation than the SR node. The node adjusts the rate by the percentage specified as:<br>DSLAM_RATE * (adjustment rate)/100 — (rate reduction) |
| Range | 1 to 200 |
| Units | percent |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **rate-modify**

| | |
|---|---|
| Synopsis | Enter the **rate-modify** context |
| Context | **configure** subscriber-mgmt ancp ancp-policy *named-item* ingress rate-modify |
| Tree | rate-modify |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **scheduler** *named-item*

| | |
|---|---|
| Synopsis | Scheduler to be applied for rate modification |
| Context | **configure** subscriber-mgmt ancp ancp-policy *named-item* ingress rate-modify scheduler *named-item* |
| Tree | scheduler |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## rate-monitor

| | |
|---|---|
| Synopsis | Enter the **rate-monitor** context |
| Context | **configure** subscriber-mgmt ancp ancp-policy *named-item* ingress rate-monitor |
| Tree | rate-monitor |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## alarm *boolean*

| | |
|---|---|
| Synopsis | Generate SNMP notification when monitor event is raised |
| Context | **configure** subscriber-mgmt ancp ancp-policy *named-item* ingress rate-monitor alarm *boolean* |
| Tree | alarm |
| Description | When configured to **true**, the system generates an alarm (trap) to the management system including the rate, the ANCP policy name, and the ANCP string when the monitored rate is below the configured rate.<br>When configured to **false**, no alarm is generated. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## rate *number*

| | |
|---|---|
| Synopsis | Rate below which the system generates an event |
| Context | **configure** subscriber-mgmt ancp ancp-policy *named-item* ingress rate-monitor rate *number* |
| Tree | rate |
| Range | 1 to 4294967295 |
| Units | kilobps |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## rate-reduction *number*

| | |
|---|---|
| Synopsis | Constant rate reduction to specified DSLAM rate |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt ancp ancp-policy *named-item* ingress rate-reduction *number* |
| Tree | rate-reduction |
| Description | This command configures a constant rate reduction to the rate specified by the DSLAM. This setting is used if the node must adjust the rate to a value that is offset (for example by a fixed multicast dedicated bandwidth) compared to the total available on the DSLAM. The rate is calculated as:<br>DSLAM_RATE * (adjustment rate)/100 — (rate reduction) |
| Range | 1 to 4294967295 |
| Units | kilobps |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## port-down

| | |
|---|---|
| Synopsis | Enter the **port-down** context |
| Context | **configure** subscriber-mgmt ancp ancp-policy *named-item* port-down |
| Tree | port-down |
| Description | Commands in this context configure the actions taken on port-down. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## suspend-shcv

| | |
|---|---|
| Synopsis | Enable the **suspend-shcv** context |
| Context | **configure** subscriber-mgmt ancp ancp-policy *named-item* port-down suspend-shcv |
| Tree | suspend-shcv |
| Description | Commands in this context specify the configuration to suspend SHCV for the hosts defined with the ANCP policy. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## alarm *boolean*

| | |
|---|---|
| Synopsis | Send an alarm before suspending SHCV |
| Context | **configure** subscriber-mgmt ancp ancp-policy *named-item* port-down suspend-shcv alarm *boolean* |


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| | |
|---|---|
| Tree | alarm |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **hold-time** *number*

| | |
|---|---|
| Synopsis | Time that SHCV is suspended |
| Context | **configure** subscriber-mgmt ancp ancp-policy *named-item* port-down suspend-shcv hold-time *number* |
| Tree | hold-time |
| Description | This command configures the time that the node suspends SHCV.<br>When unconfigured, SHCV is suspended until a port-up message is received. |
| Range | 1 to 7200 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ancp-static-map**

| | |
|---|---|
| Synopsis | Enter the **ancp-static-map** context |
| Context | **configure** subscriber-mgmt ancp ancp-static-map |
| Tree | ancp-static-map |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **multi-service-site-entry** [ancp-string] *ancp-string* customer-name *reference* customer-site-name *reference*

| | |
|---|---|
| Synopsis | Enter the **multi-service-site-entry** list instance |
| Context | **configure** subscriber-mgmt ancp ancp-static-map multi-service-site-entry *ancp-string* customer-name *reference* customer-site-name *reference* |
| Tree | multi-service-site-entry |
| Description | Commands in this context configure the ANCP key mapping (usually the circuit ID of the DSLAM port) to a customer, site, and scheduler name when Multi-Service site (MSS) is used. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**ancp-string**] *ancp-string*

| | |
|---|---|
| Synopsis | ANCP string |
| Context | **configure** subscriber-mgmt ancp ancp-static-map multi-service-site-entry *ancp-string* customer-name *reference* customer-site-name *reference* |
| Tree | multi-service-site-entry |
| String length | 1 to 63 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **customer-name** *reference*

| | |
|---|---|
| Synopsis | Customer ID |
| Context | **configure** subscriber-mgmt ancp ancp-static-map multi-service-site-entry *ancp-string* customer-name *reference* customer-site-name *reference* |
| Tree | multi-service-site-entry |
| Reference | **configure** service customer *customer-name* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **customer-site-name** *reference*

| | |
|---|---|
| Synopsis | Service customer multi-service site name |
| Context | **configure** subscriber-mgmt ancp ancp-static-map multi-service-site-entry *ancp-string* customer-name *reference* customer-site-name *reference* |
| Tree | multi-service-site-entry |
| Reference | **configure** service customer *customer-name* multi-service-site *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **ancp-policy** *reference*

| | |
|---|---|
| Synopsis | ANCP policy name |
| Context | **configure** subscriber-mgmt ancp ancp-static-map multi-service-site-entry *ancp-string* customer-name *reference* customer-site-name *reference* ancp-policy *reference* |
| Tree | ancp-policy |
| Reference | **configure** subscriber-mgmt ancp ancp-policy *named-item* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sap-entry** [ancp-string] *ancp-string* sap-id *sap*

| | |
|---|---|
| Synopsis | Enter the **sap-entry** list instance |
| Context | **configure** subscriber-mgmt ancp ancp-static-map sap-entry *ancp-string* sap-id *sap* |
| Tree | sap-entry |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**ancp-string**] *ancp-string*

| | |
|---|---|
| Synopsis | ANCP key name |
| Context | **configure** subscriber-mgmt ancp ancp-static-map sap-entry *ancp-string* sap-id *sap* |
| Tree | sap-entry |
| String length | 1 to 63 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sap-id** *sap*

| | |
|---|---|
| Synopsis | SAP ID |
| Context | **configure** subscriber-mgmt ancp ancp-static-map sap-entry *ancp-string* sap-id *sap* |
| Tree | sap-entry |
| String length | 1 to 45 |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **ancp-policy** *reference*

| | |
|---|---|
| Synopsis | ANCP policy name |
| Context | **configure** subscriber-mgmt ancp ancp-static-map sap-entry *ancp-string* sap-id *sap* ancp-policy *reference* |
| Tree | ancp-policy |
| Reference | **configure** subscriber-mgmt ancp ancp-policy *named-item* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **authentication-origin**

| | |
|---|---|
| Synopsis | Enter the **authentication-origin** context |
| Context | **configure** subscriber-mgmt authentication-origin |
| Tree | authentication-origin |
| Introduced | 21.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **overrides**

| | |
|---|---|
| Synopsis | Enter the **overrides** context |
| Context | **configure** subscriber-mgmt authentication-origin overrides |
| Tree | overrides |
| Introduced | 21.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **priority** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **priority** list instance |
| Context | **configure** subscriber-mgmt authentication-origin overrides priority *number* |


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| | |
|---|---|
| Tree | priority |
| Description | Commands in this context arrange the relative order of authentication priorities. |
| Introduced | 21.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**id**] *number*

| | |
|---|---|
| Synopsis | Authentication origin priority override |
| Context | **configure** subscriber-mgmt authentication-origin overrides priority *number* |
| Tree | priority |
| Description | This command configures the insert position of the authentication origin priority override. |
| Range | 1 to 4294967295 |
| Notes | This element is part of a list key. |
| Introduced | 21.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **source** *keyword*

| | |
|---|---|
| Synopsis | Source of authentication priority |
| Context | **configure** subscriber-mgmt authentication-origin overrides priority *number* source *keyword* |
| Tree | source |
| Description | This command specifies the prioritization of authentication sources. |
| Options | python, diameter-gx, ludb, radius, diameter-nasreq, gtp, dhcp, local-address-assignment, pfcp, config |
| Notes | This element is mandatory. |
| Introduced | 21.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **auto-sub-id**

| | |
|---|---|
| Synopsis | Enter the **auto-sub-id** context |
| Context | **configure** subscriber-mgmt auto-sub-id |
| Tree | auto-sub-id |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **implicit-generation** *boolean*

| | |
|---|---|
| Synopsis | Generate implicitly a subscriber ID when not provided |
| Context | **configure** subscriber-mgmt auto-sub-id implicit-generation *boolean* |
| Tree | implicit-generation |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ipoe-key** *keyword*

| | |
|---|---|
| Synopsis | Auto-generated subscriber ID key1 for IPoE hosts |
| Context | **configure** subscriber-mgmt auto-sub-id ipoe-key *keyword* |
| Tree | ipoe-key |
| Options | mac, sap-id, circuit-id, remote-id, dual-stack-remote-id, service-name |
| Max. instances | 4 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ppp-key** *keyword*

| | |
|---|---|
| Synopsis | Auto-generated subscriber identifier key1 for PPP hosts |
| Context | **configure** subscriber-mgmt auto-sub-id ppp-key *keyword* |
| Tree | ppp-key |
| Options | mac, sap-id, circuit-id, remote-id, session-id |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **bgp-peering-policy** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **bgp-peering-policy** list instance |
| Context | **configure** subscriber-mgmt bgp-peering-policy *named-item* |
| Tree | bgp-peering-policy |
| Max. instances | 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | BGP peer policy name |
| Context | **configure** subscriber-mgmt bgp-peering-policy *named-item* |
| Tree | bgp-peering-policy |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **advertise-inactive** *boolean*

| | |
|---|---|
| Synopsis | Advertise inactive BGP routes to other BGP peers |
| Context | **configure** subscriber-mgmt bgp-peering-policy *named-item* advertise-inactive *boolean* |
| Tree | advertise-inactive |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **aggregator-id-zero** *boolean*

| | |
|---|---|
| Synopsis | Add router ID to BGP aggregator path attribute |
| Context | **configure** subscriber-mgmt bgp-peering-policy *named-item* aggregator-id-zero *boolean* |
| Tree | aggregator-id-zero |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **as-override** *boolean*

| | |
|---|---|
| Synopsis | Replace the peer ASN with the local ASN in AS Path |
| Context | **configure** subscriber-mgmt bgp-peering-policy *named-item* as-override *boolean* |
| Tree | as-override |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **asn-4-byte** *boolean*

| | |
|---|---|
| Synopsis | Enable the use of 4-byte ASNs |
| Context | **configure** subscriber-mgmt bgp-peering-policy *named-item* asn-4-byte *boolean* |
| Tree | asn-4-byte |
| Introduced | 16.0.R3 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **authentication-key** *encrypted-leaf*

| | |
|---|---|
| Synopsis | BGP authentication key for all peers |
| Context | **configure** subscriber-mgmt bgp-peering-policy *named-item* authentication-key *encrypted-leaf* |
| Tree | authentication-key |
| String length | 1 to 370 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **authentication-keychain** *reference*

| | |
|---|---|
| Synopsis | Keychain name used for the TCP session |
| Context | **configure** subscriber-mgmt bgp-peering-policy *named-item* authentication-keychain *reference* |
| Tree | authentication-keychain |
| Reference | **configure** system security keychains keychain *named-item* |
| Introduced | 16.0.R3 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **bfd-liveness** *boolean*

| | |
|---|---|
| Synopsis | Enable BFD |
| Context | **configure** subscriber-mgmt bgp-peering-policy *named-item* bfd-liveness *boolean* |
| Tree | bfd-liveness |
| Description | When configured to **true**, this command enables the use of Bi-directional Forwarding Detection (BFD) to control the state of an ESM dynamic BGP peer that is set up with the BGP peering policy. The parameters used for the BFD session are configured in the BFD context of the group interface or retail subscriber interface.<br>When configured to **false**, this command disables the use of BFD for new ESM dynamic BGP peers that are set up with the BGP peering policy. |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **client-reflect** *boolean*

| | |
|---|---|
| Synopsis | Enable client reflection of routes to all client peers |
| Context | **configure** subscriber-mgmt bgp-peering-policy *named-item* client-reflect *boolean* |
| Tree | client-reflect |
| Introduced | 16.0.R3 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **cluster** *ipv4-address*

| | |
|---|---|
| Synopsis | Cluster ID for route reflector server |
| Context | **configure** subscriber-mgmt bgp-peering-policy *named-item* cluster *ipv4-address* |
| Tree | cluster |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **connect-retry** *number*

| | |
|---|---|
| Synopsis | BGP connect retry timer value |
| Context | **configure** subscriber-mgmt bgp-peering-policy *named-item* connect-retry *number* |
| Tree | connect-retry |


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| | |
|---|---|
| Range | 1 to 65535 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **damping** *boolean*

| | |
|---|---|
| Synopsis | Use BGP route damping for learned routes |
| Context | **configure** subscriber-mgmt bgp-peering-policy *named-item* damping *boolean* |
| Tree | damping |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** subscriber-mgmt bgp-peering-policy *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **export** *reference*

| | |
|---|---|
| Synopsis | Export route policies to control advertised routes |
| Context | **configure** subscriber-mgmt bgp-peering-policy *named-item* export *reference* |
| Tree | export |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 15 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## family

| | |
|---|---|
| Synopsis | Enter the **family** context |
| Context | **configure** subscriber-mgmt bgp-peering-policy *named-item* family |
| Tree | family |
| Description | Commands in this context specify the BGP address families supported by the ESM dynamic BGP peers. When no address family is configured, the IPv4 address family is supported on BGPv4 peers and the IPv6 address family is supported on BGPv6 peers. |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ipv4 *boolean*

| | |
|---|---|
| Synopsis | Advertise MP-BGP support for the IPv4 address family |
| Context | **configure** subscriber-mgmt bgp-peering-policy *named-item* family ipv4 *boolean* |
| Tree | ipv4 |
| Default | false |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ipv6 *boolean*

| | |
|---|---|
| Synopsis | Advertise MP-BGP support for the IPv6 address family |
| Context | **configure** subscriber-mgmt bgp-peering-policy *named-item* family ipv6 *boolean* |
| Tree | ipv6 |
| Default | false |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## fast-external-failover *boolean*

| | |
|---|---|
| Synopsis | Enable BGP fast external failover |
| Context | **configure** subscriber-mgmt bgp-peering-policy *named-item* fast-external-failover *boolean* |
| Tree | fast-external-failover |
| Introduced | 16.0.R3 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **hold-time** *number*

| | |
|---|---|
| Synopsis | BGP hold time before closing connection |
| Context | **configure** subscriber-mgmt bgp-peering-policy *named-item* hold-time *number* |
| Tree | hold-time |
| Range | 0 \| 3 to 65535 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **import** *reference*

| | |
|---|---|
| Synopsis | Import route policies to control advertised routes |
| Context | **configure** subscriber-mgmt bgp-peering-policy *named-item* import *reference* |
| Tree | import |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 15 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **keepalive** *number*

| | |
|---|---|
| Synopsis | BGP keepalive timer |
| Context | **configure** subscriber-mgmt bgp-peering-policy *named-item* keepalive *number* |
| Tree | keepalive |
| Range | 0 to 21845 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **local-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Local IP address used when communicating with BGP peers |
| Context | **configure** subscriber-mgmt bgp-peering-policy *named-item* local-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | local-address |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **local-as**

| | |
|---|---|
| Synopsis | Enter the **local-as** context |
| Context | **configure** subscriber-mgmt bgp-peering-policy *named-item* local-as |
| Tree | local-as |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **as-number** *number*

| | |
|---|---|
| Synopsis | AS number to be advertised to peer |
| Context | **configure** subscriber-mgmt bgp-peering-policy *named-item* local-as as-number *number* |
| Tree | as-number |
| Range | 1 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **private** *boolean*

| | |
|---|---|
| Synopsis | Hide local AS number in paths learned from peering |
| Context | **configure** subscriber-mgmt bgp-peering-policy *named-item* local-as private *boolean* |
| Tree | private |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **local-preference** *number*

| | |
|---|---|
| Synopsis | Local preference for incoming routes if not specified |
| Context | **configure** subscriber-mgmt bgp-peering-policy *named-item* local-preference *number* |
| Tree | local-preference |
| Range | 0 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **loop-detect** *keyword*

| | |
|---|---|
| Synopsis | Strategy for loop detection in the AS path |
| Context | **configure** subscriber-mgmt bgp-peering-policy *named-item* loop-detect *keyword* |
| Tree | loop-detect |
| Options | drop-peer, ignore-loop, off, discard-route |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **med-out** *(number | keyword)*

| | |
|---|---|
| Synopsis | Multi-Exit Discriminator (MED) advertising |
| Context | **configure** subscriber-mgmt bgp-peering-policy *named-item* med-out *(number \| keyword)* |
| Tree | med-out |
| Max. range | 0 to 4294967295 |
| Options | igp-cost |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **min-route-advertisement** *number*

| | |
|---|---|
| Synopsis | Minimum interval for prefix to be advertised to a peer |
| Context | **configure** subscriber-mgmt bgp-peering-policy *named-item* min-route-advertisement *number* |
| Tree | min-route-advertisement |
| Range | 1 to 255 |


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| | |
|---|---|
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **multihop** *number*

| | |
|---|---|
| Synopsis | TTL value entered in IP header of packets sent to peer |
| Context | **configure** subscriber-mgmt bgp-peering-policy *named-item* multihop *number* |
| Tree | multihop |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **next-hop-self** *boolean*

| | |
|---|---|
| Synopsis | Set net hop path attribute to self when advertising |
| Context | **configure** subscriber-mgmt bgp-peering-policy *named-item* next-hop-self *boolean* |
| Tree | next-hop-self |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **passive** *boolean*

| | |
|---|---|
| Synopsis | Wait passively for BGP peer to connect |
| Context | **configure** subscriber-mgmt bgp-peering-policy *named-item* passive *boolean* |
| Tree | passive |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **peer-as** *number*

| | |
|---|---|
| Synopsis | AS number for remote peer |
| Context | **configure** subscriber-mgmt bgp-peering-policy *named-item* peer-as *number* |
| Tree | peer-as |
| Range | 1 to 4294967295 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **preference** *number*

| | |
|---|---|
| Synopsis | Route preference for routes learned via configured peer |
| Context | **configure** subscriber-mgmt bgp-peering-policy *named-item* preference *number* |
| Tree | preference |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **prefix-limits** [family] *keyword*

| | |
|---|---|
| Synopsis | Enter the **prefix-limits** list instance |
| Context | **configure** subscriber-mgmt bgp-peering-policy *named-item* prefix-limits *keyword* |
| Tree | prefix-limits |
| Description | Commands in this context limit the number of BGP routes per address family received from a BGP peer and define the actions when crossing the configured maximum. |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**family**] *keyword*

| | |
|---|---|
| Synopsis | Address family to which the limit applies |
| Context | **configure** subscriber-mgmt bgp-peering-policy *named-item* prefix-limits *keyword* |
| Tree | prefix-limits |
| Options | ipv4, ipv6 |
| Notes | This element is part of a list key. |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **idle-timeout** *number*

| | |
|---|---|
| Synopsis | Time BGP peering remains idle before reconnecting |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt bgp-peering-policy *named-item* prefix-limits *keyword* idle-timeout *number* |
| Tree | idle-timeout |
| Description | This command configures the time in minutes before a BGP peer is automatically re-established after reaching the prefix limit.<br>When unconfigured, the BGP peer stays down until the operator performs a reset. This command and **log-only** cannot be configured simultaneously. |
| Range | 1 to 1024 |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **log-only** *boolean*

| | |
|---|---|
| Synopsis | Send warning message at threshold instead of take-down |
| Context | **configure** subscriber-mgmt bgp-peering-policy *named-item* prefix-limits *keyword* log-only *boolean* |
| Tree | log-only |
| Description | When configured to **true**, the router disables the BGP session from being taken down upon reaching the prefix limit. Instead, only a warning message is sent when the limit is reached. A warning message is also sent when the configured threshold percentage of the limit is reached.<br>This command and **idle-timeout** cannot be configured simultaneously.<br>When configured to **false**, the router generates a log event and takes the BGP session down upon reaching the prefix limit. |
| Default | false |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **maximum** *number*

| | |
|---|---|
| Synopsis | Maximum number of routes to be learned from a peer |
| Context | **configure** subscriber-mgmt bgp-peering-policy *named-item* prefix-limits *keyword* maximum *number* |
| Tree | maximum |
| Description | This command configures the maximum number of BGP routes of the specified address family that can be received from a peer before administrative action is taken.<br>When **log-only** is unconfigured, the BGP session is taken down whenever the limit of any family is exceeded even if the limits of the other family has not been exceeded. |


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| | |
|---|---|
| Range | 1 to 4294967295 |
| Notes | This element is mandatory. |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **post-import** *boolean*

| | |
|---|---|
| Synopsis | Apply limit only to routes accepted by import policies |
| Context | **configure** subscriber-mgmt bgp-peering-policy *named-item* prefix-limits *keyword* post-import *boolean* |
| Tree | post-import |
| Description | When configured to **true**, the system limits the number of routes that are accepted by import policies. Routes rejected by import policies are not counted against the configured limit.<br>When configured to **false**, the system limits the number of routes to all routes received from the peer. |
| Default | false |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **threshold** *number*

| | |
|---|---|
| Synopsis | Percentage threshold that triggers a warning message |
| Context | **configure** subscriber-mgmt bgp-peering-policy *named-item* prefix-limits *keyword* threshold *number* |
| Tree | threshold |
| Range | 1 to 100 |
| Default | 90 |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **remove-private**

| | |
|---|---|
| Synopsis | Enable the **remove-private** context |
| Context | **configure** subscriber-mgmt bgp-peering-policy *named-item* remove-private |
| Tree | remove-private |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **limited** *boolean*

| | |
|---|---|
| Synopsis | Remove private AS numbers up to first public ASN encountered |
| Context | **configure** subscriber-mgmt bgp-peering-policy *named-item* remove-private limited *boolean* |
| Tree | limited |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **send-communities**

| | |
|---|---|
| Synopsis | Enter the **send-communities** context |
| Context | **configure** subscriber-mgmt bgp-peering-policy *named-item* send-communities |
| Tree | send-communities |
| Introduced | 16.0.R3 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **extended** *boolean*

| | |
|---|---|
| Synopsis | Send communities which includes VRF target handling |
| Context | **configure** subscriber-mgmt bgp-peering-policy *named-item* send-communities extended *boolean* |
| Tree | extended |
| Introduced | 16.0.R3 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **standard** *boolean*

| | |
|---|---|
| Synopsis | Send standard communities that existed before VPRNs |
| Context | **configure** subscriber-mgmt bgp-peering-policy *named-item* send-communities standard *boolean* |
| Tree | standard |


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| | |
|---|---|
| Introduced | 16.0.R3 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ttl-security** *number*

| | |
|---|---|
| Synopsis | Minimum TTL value for incoming BGP packet |
| Context | **configure** subscriber-mgmt bgp-peering-policy *named-item* ttl-security *number* |
| Tree | ttl-security |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **type** *keyword*

| | |
|---|---|
| Synopsis | Peer type |
| Context | **configure** subscriber-mgmt bgp-peering-policy *named-item* type *keyword* |
| Tree | type |
| Options | no-type, internal, external |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **category-map** [category-map-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **category-map** list instance |
| Context | **configure** subscriber-mgmt category-map *named-item* |
| Tree | category-map |
| Max. instances | 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**category-map-name**] *named-item*

| | |
|---|---|
| Synopsis | Category map name |
| Context | **configure** subscriber-mgmt category-map *named-item* |
| Tree | category-map |


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| | |
|---|---|
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **activity-threshold** *number*

| | |
|---|---|
| Synopsis | Threshold to determine whether an activity is ongoing |
| Context | **configure** subscriber-mgmt category-map *named-item* activity-threshold *number* |
| Tree | activity-threshold |
| Range | 1 to 100000000 |
| Units | kilobps |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **category** [category-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **category** list instance |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* |
| Tree | category |
| Max. instances | 16 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**category-name**] *named-item*

| | |
|---|---|
| Synopsis | Category name |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* |
| Tree | category |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **credit-type-override** *keyword*

| | |
|---|---|
| Synopsis | Credit type override in category map |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* credit-type-override *keyword* |
| Tree | credit-type-override |
| Options | volume, time |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **default-credit**

| | |
|---|---|
| Synopsis | Enter the **default-credit** context |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* default-credit |
| Tree | default-credit |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **time** *number*

| | |
|---|---|
| Synopsis | Default time credit |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* default-credit time *number* |
| Tree | time |
| Range | 1 to 4294967295 |
| Units | seconds |
| Notes | The following elements are part of a choice: **time** or **volume**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **volume**

| | |
|---|---|
| Synopsis | Enable the **volume** context |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* default-credit volume |


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| | |
|---|---|
| Tree | volume |
| Notes | The following elements are part of a choice: **time** or **volume**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **unit** *keyword*

| | |
|---|---|
| Synopsis | Unit for the default volume credit |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* default-credit volume unit *keyword* |
| Tree | unit |
| Options | bytes, kilobytes, megabytes, gigabytes |
| Default | bytes |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **value** *number*

| | |
|---|---|
| Synopsis | Default volume credit |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* default-credit volume value *number* |
| Tree | value |
| Range | 1 to 4294967295 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## egress

| | |
|---|---|
| Synopsis | Enter the **egress** context |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* egress |
| Tree | egress |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## policer *number*

| | |
|---|---|
| Synopsis | Egress policers for this category |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* egress policer *number* |
| Tree | policer |
| Range | 1 to 63 |
| Max. instances | 63 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## queue *number*

| | |
|---|---|
| Synopsis | Egress queues for this category |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* egress queue *number* |
| Tree | queue |
| Range | 1 to 8 |
| Max. instances | 8 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## exhausted-credit-service-level

| | |
|---|---|
| Synopsis | Enter the **exhausted-credit-service-level** context |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level |


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| | |
|---|---|
| Tree | exhausted-credit-service-level |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## egress

| | |
|---|---|
| Synopsis | Enter the **egress** context |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress |
| Tree | egress |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ip-filter

| | |
|---|---|
| Synopsis | Enter the **ip-filter** context |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ip-filter |
| Tree | ip-filter |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ip-filter entry *number* |
| Tree | entry |
| Max. instances | 10 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## [**id**] *number*

| | |
|---|---|
| Synopsis | IP filter entry ID |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ip-filter entry *number* |
| Tree | entry |
| Range | 1 to 65535 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## action

| | |
|---|---|
| Synopsis | Enter the **action** context |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ip-filter entry *number* action |
| Tree | action |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## drop

| | |
|---|---|
| Synopsis | Packets matching the filter entry are dropped |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ip-filter entry *number* action drop |
| Tree | drop |
| Notes | The following elements are part of a choice: **drop**, **forward**, or **http-redirect**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## forward

| | |
|---|---|
| Synopsis | Packets matching the filter entry are forwarded |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ip-filter entry *number* action forward |
| Tree | forward |
| Notes | The following elements are part of a choice: **drop**, **forward**, or **http-redirect**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## http-redirect

| | |
|---|---|
| Synopsis | Enable the **http-redirect** context |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ip-filter entry *number* action http-redirect |
| Tree | http-redirect |
| Notes | The following elements are part of a choice: **drop**, **forward**, or **http-redirect**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## allow-override *boolean*

| | |
|---|---|
| Synopsis | Allow URL to be overridden by RADIUS/Diameter |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ip-filter entry *number* action http-redirect allow-override *boolean* |
| Tree | allow-override |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## url *http-redirect-url*

| | |
|---|---|
| Synopsis | URL that is used to redirect the packets |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ip-filter entry *number* action http-redirect url *http-redirect-url* |
| Tree | url |
| String length | 1 to 255 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## description *description*

| | |
|---|---|
| Synopsis | Text description |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ip-filter entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## match

| | |
|---|---|
| Synopsis | Enter the **match** context |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ip-filter entry *number* match |
| Tree | match |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## dscp *keyword*

| | |
|---|---|
| Synopsis | DSCP to match |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ip-filter entry *number* match dscp *keyword* |
| Tree | dscp |
| Options | be, cp1, cp2, cp3, cp4, cp5, cp6, cp7, cs1, cp9, af11, cp11, af12, cp13, af13, cp15, cs2, cp17, af21, cp19, af22, cp21, af23, cp23, cs3, cp25, af31, cp27, af32, cp29, af33, cp31, cs4, cp33, af41, cp35, af42, cp37, af43, cp39, cs5, cp41, cp42, cp43, cp44, cp45, ef, cp47, nc1, cp49, cp50, cp51, cp52, cp53, cp54, cp55, nc2, cp57, cp58, cp59, cp60, cp61, cp62, cp63 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## dst-port

| | |
|---|---|
| Synopsis | Enter the **dst-port** context |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ip-filter entry *number* match dst-port |
| Tree | dst-port |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **eq** *number*

| | |
|---|---|
| Synopsis | Port equal |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ip-filter entry *number* match dst-port eq *number* |
| Tree | eq |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **gt** *number*

| | |
|---|---|
| Synopsis | Port greater than |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ip-filter entry *number* match dst-port gt *number* |
| Tree | gt |
| Range | 0 to 65534 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **lt** *number*

| | |
|---|---|
| Synopsis | Port less than |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ip-filter entry *number* match dst-port lt *number* |
| Tree | lt |
| Range | 1 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### range

| | |
|---|---|
| Synopsis | Enable the **range** context |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ip-filter entry *number* match dst-port range |
| Tree | range |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### end *number*

| | |
|---|---|
| Synopsis | Upper bound of the port range to match |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ip-filter entry *number* match dst-port range end *number* |
| Tree | end |
| Range | 0 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### start *number*

| | |
|---|---|
| Synopsis | Lower bound of the port range to match |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ip-filter entry *number* match dst-port range start *number* |
| Tree | start |
| Range | 0 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### fragment *keyword*

| | |
|---|---|
| Synopsis | Fragmentation to match |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ip-filter entry *number* match fragment *keyword* |
| Tree | fragment |
| Options | false, true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## icmp

| | |
|---|---|
| Synopsis | Enter the **icmp** context |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ip-filter entry *number* match icmp |
| Tree | icmp |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## code *number*

| | |
|---|---|
| Synopsis | ICMP code to match |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ip-filter entry *number* match icmp code *number* |
| Tree | code |
| Range | 0 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## type *number*

| | |
|---|---|
| Synopsis | ICMP type to match |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ip-filter entry *number* match icmp type *number* |
| Tree | type |
| Range | 0 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## ip-option

| | |
|---|---|
| Synopsis | Enter the **ip-option** context |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ip-filter entry *number* match ip-option |
| Tree | ip-option |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## mask *number*

| | |
|---|---|
| Synopsis | IP option mask |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ip-filter entry *number* match ip-option mask *number* |
| Tree | mask |
| Range | 0 to 255 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## type *number*

| | |
|---|---|
| Synopsis | First IP option value for the IP header |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ip-filter entry *number* match ip-option type *number* |
| Tree | type |
| Range | 0 to 255 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## multiple-option *boolean*

| | |
|---|---|
| Synopsis | Match the multiple option |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ip-filter entry *number* match multiple-option *boolean* |


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| | |
|---|---|
| Tree | multiple-option |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **option-present** *boolean*

| | |
|---|---|
| Synopsis | Match the present option |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ip-filter entry *number* match option-present *boolean* |
| Tree | option-present |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **protocol** *(number | keyword)*

| | |
|---|---|
| Synopsis | IPv4 protocol to match |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ip-filter entry *number* match protocol *(number \| keyword)* |
| Tree | protocol |
| Range | 0 to 255 |
| Options | tcp-udp, icmp, igmp, ip, tcp, egp, igp, udp, rdp, ipv6, ipv6-route, ipv6-frag, idrp, rsvp, gre, ipv6-icmp, ipv6-no-nxt, ipv6-opts, iso-ip, eigrp, ospf-igp, ether-ip, encap, pnni, pim, vrrp, l2tp, stp, ptp, isis, crtp, crudp, sctp |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **src-ip** *ipv4-address-and-mask*

| | |
|---|---|
| Synopsis | Source IP address and mask to match |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ip-filter entry *number* match src-ip *ipv4-address-and-mask* |
| Tree | src-ip |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## src-port

| | |
|---|---|
| Synopsis | Enter the **src-port** context |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ip-filter entry *number* match src-port |
| Tree | src-port |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## eq *number*

| | |
|---|---|
| Synopsis | Port equal |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ip-filter entry *number* match src-port eq *number* |
| Tree | eq |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## gt *number*

| | |
|---|---|
| Synopsis | Port greater than |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ip-filter entry *number* match src-port gt *number* |
| Tree | gt |
| Range | 0 to 65534 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## lt *number*

| | |
|---|---|
| Synopsis | Port less than |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ip-filter entry *number* match src-port lt *number* |


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| | |
|---|---|
| Tree | lt |
| Range | 1 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## range

| | |
|---|---|
| Synopsis | Enable the **range** context |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ip-filter entry *number* match src-port range |
| Tree | range |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## end *number*

| | |
|---|---|
| Synopsis | Upper bound of the port range to match |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ip-filter entry *number* match src-port range end *number* |
| Tree | end |
| Range | 0 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## start *number*

| | |
|---|---|
| Synopsis | Lower bound of the port range to match |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ip-filter entry *number* match src-port range start *number* |
| Tree | start |
| Range | 0 to 65535 |
| Notes | This element is mandatory. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## tcp-flags

| | |
|---|---|
| Synopsis | Enter the **tcp-flags** context |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ip-filter entry *number* match tcp-flags |
| Tree | tcp-flags |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ack *boolean*

| | |
|---|---|
| Synopsis | Check for ACK bit |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ip-filter entry *number* match tcp-flags ack *boolean* |
| Tree | ack |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## syn *boolean*

| | |
|---|---|
| Synopsis | Check for SYN bit |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ip-filter entry *number* match tcp-flags syn *boolean* |
| Tree | syn |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ipv6-filter

| | |
|---|---|
| Synopsis | Enter the **ipv6-filter** context |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ipv6-filter |
| Tree | ipv6-filter |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ipv6-filter entry *number* |
| Tree | entry |
| Max. instances | 10 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## [**id**] *number*

| | |
|---|---|
| Synopsis | IP filter entry ID |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ipv6-filter entry *number* |
| Tree | entry |
| Range | 1 to 65535 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **action**

| | |
|---|---|
| Synopsis | Enter the **action** context |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ipv6-filter entry *number* action |
| Tree | action |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **drop**

| | |
|---|---|
| Synopsis | Packets matching the filter entry are dropped |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ipv6-filter entry *number* action drop |
| Tree | drop |
| Notes | The following elements are part of a choice: **drop** or **forward**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## forward

| | |
|---|---|
| Synopsis | Packets matching the filter entry are forwarded |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ipv6-filter entry *number* action forward |
| Tree | forward |
| Notes | The following elements are part of a choice: **drop** or **forward**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## description *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ipv6-filter entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## match

| | |
|---|---|
| Synopsis | Enter the **match** context |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ipv6-filter entry *number* match |
| Tree | match |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **dscp** *keyword*

| | |
|---|---|
| Synopsis | DSCP to match |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ipv6-filter entry *number* match dscp *keyword* |
| Tree | dscp |
| Options | be, cp1, cp2, cp3, cp4, cp5, cp6, cp7, cs1, cp9, af11, cp11, af12, cp13, af13, cp15, cs2, cp17, af21, cp19, af22, cp21, af23, cp23, cs3, cp25, af31, cp27, af32, cp29, af33, cp31, cs4, cp33, af41, cp35, af42, cp37, af43, cp39, cs5, cp41, cp42, cp43, cp44, cp45, ef, cp47, nc1, cp49, cp50, cp51, cp52, cp53, cp54, cp55, nc2, cp57, cp58, cp59, cp60, cp61, cp62, cp63 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **dst-port**

| | |
|---|---|
| Synopsis | Enter the **dst-port** context |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ipv6-filter entry *number* match dst-port |
| Tree | dst-port |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **eq** *number*

| | |
|---|---|
| Synopsis | Port equal |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ipv6-filter entry *number* match dst-port eq *number* |
| Tree | eq |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **gt** *number*

| | |
|---|---|
| Synopsis | Port greater than |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ipv6-filter entry *number* match dst-port gt *number* |
| Tree | gt |
| Range | 0 to 65534 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **lt** *number*

| | |
|---|---|
| Synopsis | Port less than |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ipv6-filter entry *number* match dst-port lt *number* |
| Tree | lt |
| Range | 1 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **range**

| | |
|---|---|
| Synopsis | Enable the **range** context |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ipv6-filter entry *number* match dst-port range |
| Tree | range |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the port range to match |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ipv6-filter entry *number* match dst-port range end *number* |
| Tree | end |
| Range | 0 to 65535 |


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| | |
|---|---|
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of the port range to match |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ipv6-filter entry *number* match dst-port range start *number* |
| Tree | start |
| Range | 0 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **icmp**

| | |
|---|---|
| Synopsis | Enter the **icmp** context |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ipv6-filter entry *number* match icmp |
| Tree | icmp |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **code** *number*

| | |
|---|---|
| Synopsis | ICMP code to match |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ipv6-filter entry *number* match icmp code *number* |
| Tree | code |
| Range | 0 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **type** *number*

| | |
|---|---|
| Synopsis | ICMP type to match |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ipv6-filter entry *number* match icmp type *number* |
| Tree | type |
| Range | 0 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **next-header** *(number | keyword)*

| | |
|---|---|
| Synopsis | IP protocol to match |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ipv6-filter entry *number* match next-header *(number | keyword)* |
| Tree | next-header |
| Range | 0 to 255 |
| Options | tcp-udp, icmp, igmp, ip, tcp, egp, igp, udp, rdp, ipv6, ipv6-route, ipv6-frag, idrp, rsvp, gre, ipv6-icmp, ipv6-no-nxt, ipv6-opts, iso-ip, eigrp, ospf-igp, ether-ip, encap, pnni, pim, vrrp, l2tp, stp, ptp, isis, crtp, crudp, sctp |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **src-ip** *ipv6-address-and-mask*

| | |
|---|---|
| Synopsis | Source IP address and mask as the match condition |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ipv6-filter entry *number* match src-ip *ipv6-address-and-mask* |
| Tree | src-ip |
| Default | 0::0 0::0 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **src-port**

| | |
|---|---|
| Synopsis | Enter the **src-port** context |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ipv6-filter entry *number* match src-port |
| Tree | src-port |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **eq** *number*

| | |
|---|---|
| Synopsis | Port equal |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ipv6-filter entry *number* match src-port eq *number* |
| Tree | eq |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **gt** *number*

| | |
|---|---|
| Synopsis | Port greater than |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ipv6-filter entry *number* match src-port gt *number* |
| Tree | gt |
| Range | 0 to 65534 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **lt** *number*

| | |
|---|---|
| Synopsis | Port less than |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ipv6-filter entry *number* match src-port lt *number* |
| Tree | lt |
| Range | 1 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## range

| | |
|---|---|
| Synopsis | Enable the **range** context |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ipv6-filter entry *number* match src-port range |
| Tree | range |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## end *number*

| | |
|---|---|
| Synopsis | Upper bound of the port range to match |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ipv6-filter entry *number* match src-port range end *number* |
| Tree | end |
| Range | 0 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## start *number*

| | |
|---|---|
| Synopsis | Lower bound of the port range to match |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ipv6-filter entry *number* match src-port range start *number* |
| Tree | start |
| Range | 0 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## tcp-flags

| | |
|---|---|
| Synopsis | Enter the **tcp-flags** context |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ipv6-filter entry *number* match tcp-flags |
| Tree | tcp-flags |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ack *boolean*

| | |
|---|---|
| Synopsis | Check for ACK bit |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ipv6-filter entry *number* match tcp-flags ack *boolean* |
| Tree | ack |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## syn *boolean*

| | |
|---|---|
| Synopsis | Check for SYN bit |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level egress ipv6-filter entry *number* match tcp-flags syn *boolean* |
| Tree | syn |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ingress

| | |
|---|---|
| Synopsis | Enter the **ingress** context |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress |
| Tree | ingress |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## ip-filter

| | |
|---|---|
| Synopsis | Enter the **ip-filter** context |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ip-filter |
| Tree | ip-filter |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ip-filter entry *number* |
| Tree | entry |
| Max. instances | 10 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## [**id**] *number*

| | |
|---|---|
| Synopsis | IP filter entry ID |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ip-filter entry *number* |
| Tree | entry |
| Range | 1 to 65535 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## action

| | |
|---|---|
| Synopsis | Enter the **action** context |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ip-filter entry *number* action |
| Tree | action |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## drop

| | |
|---|---|
| Synopsis | Packets matching the filter entry are dropped |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ip-filter entry *number* action drop |
| Tree | drop |
| Notes | The following elements are part of a choice: **drop**, **forward**, or **http-redirect**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## forward

| | |
|---|---|
| Synopsis | Packets matching the filter entry are forwarded |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ip-filter entry *number* action forward |
| Tree | forward |
| Notes | The following elements are part of a choice: **drop**, **forward**, or **http-redirect**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## http-redirect

| | |
|---|---|
| Synopsis | Enable the **http-redirect** context |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ip-filter entry *number* action http-redirect |
| Tree | http-redirect |
| Notes | The following elements are part of a choice: **drop**, **forward**, or **http-redirect**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## allow-override *boolean*

| | |
|---|---|
| Synopsis | Allow URL to be overridden by RADIUS/Diameter |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ip-filter entry *number* action http-redirect allow-override *boolean* |
| Tree | allow-override |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **url** *http-redirect-url*

| | |
|---|---|
| Synopsis | URL that is used to redirect the packets |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ip-filter entry *number* action http-redirect url *http-redirect-url* |
| Tree | url |
| String length | 1 to 255 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ip-filter entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **match**

| | |
|---|---|
| Synopsis | Enter the **match** context |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ip-filter entry *number* match |
| Tree | match |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **dscp** *keyword*

| | |
|---|---|
| Synopsis | DSCP to match |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ip-filter entry *number* match dscp *keyword* |
| Tree | dscp |
| Options | be, cp1, cp2, cp3, cp4, cp5, cp6, cp7, cs1, cp9, af11, cp11, af12, cp13, af13, cp15, cs2, cp17, af21, cp19, af22, cp21, af23, cp23, cs3, cp25, af31, cp27, af32, cp29, af33, cp31, cs4, cp33, af41, cp35, af42, cp37, af43, cp39, cs5, cp41, cp42, cp43, cp44, cp45, ef, cp47, nc1, cp49, cp50, cp51, cp52, cp53, cp54, cp55, nc2, cp57, cp58, cp59, cp60, cp61, cp62, cp63 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **dst-ip** *ipv4-address-and-mask*

| | |
|---|---|
| Synopsis | Destination IP address and mask to match |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ip-filter entry *number* match dst-ip *ipv4-address-and-mask* |
| Tree | dst-ip |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **dst-port**

| | |
|---|---|
| Synopsis | Enter the **dst-port** context |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ip-filter entry *number* match dst-port |
| Tree | dst-port |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **eq** *number*

| | |
|---|---|
| Synopsis | Port equal |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ip-filter entry *number* match dst-port eq *number* |
| Tree | eq |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **gt** *number*

| | |
|---|---|
| Synopsis | Port greater than |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ip-filter entry *number* match dst-port gt *number* |
| Tree | gt |
| Range | 0 to 65534 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **lt** *number*

| | |
|---|---|
| Synopsis | Port less than |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ip-filter entry *number* match dst-port lt *number* |
| Tree | lt |
| Range | 1 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **range**

| | |
|---|---|
| Synopsis | Enable the **range** context |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ip-filter entry *number* match dst-port range |
| Tree | range |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the port range to match |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ip-filter entry *number* match dst-port range end *number* |
| Tree | end |
| Range | 0 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of the port range to match |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ip-filter entry *number* match dst-port range start *number* |
| Tree | start |
| Range | 0 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **fragment** *keyword*

| | |
|---|---|
| Synopsis | Fragmentation to match |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ip-filter entry *number* match fragment *keyword* |
| Tree | fragment |
| Options | false, true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## icmp

| | |
|---|---|
| Synopsis | Enter the **icmp** context |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ip-filter entry *number* match icmp |
| Tree | icmp |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## code *number*

| | |
|---|---|
| Synopsis | ICMP code to match |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ip-filter entry *number* match icmp code *number* |
| Tree | code |
| Range | 0 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## type *number*

| | |
|---|---|
| Synopsis | ICMP type to match |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ip-filter entry *number* match icmp type *number* |
| Tree | type |
| Range | 0 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ip-option

| | |
|---|---|
| Synopsis | Enter the **ip-option** context |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ip-filter entry *number* match ip-option |
| Tree | ip-option |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **mask** *number*

| | |
|---|---|
| Synopsis | IP option mask |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ip-filter entry *number* match ip-option mask *number* |
| Tree | mask |
| Range | 0 to 255 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **type** *number*

| | |
|---|---|
| Synopsis | First IP option value for the IP header |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ip-filter entry *number* match ip-option type *number* |
| Tree | type |
| Range | 0 to 255 |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **multiple-option** *boolean*

| | |
|---|---|
| Synopsis | Match the multiple option |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ip-filter entry *number* match multiple-option *boolean* |
| Tree | multiple-option |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **option-present** *boolean*

| | |
|---|---|
| Synopsis | Match the present option |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ip-filter entry *number* match option-present *boolean* |
| Tree | option-present |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **protocol** *(number | keyword)*

| | |
|---|---|
| Synopsis | IPv4 protocol to match |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ip-filter entry *number* match protocol *(number | keyword)* |
| Tree | protocol |
| Range | 0 to 255 |
| Options | tcp-udp, icmp, igmp, ip, tcp, egp, igp, udp, rdp, ipv6, ipv6-route, ipv6-frag, idrp, rsvp, gre, ipv6-icmp, ipv6-no-nxt, ipv6-opts, iso-ip, eigrp, ospf-igp, ether-ip, encap, pnni, pim, vrrp, l2tp, stp, ptp, isis, crtp, crudp, sctp |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **src-port**

| | |
|---|---|
| Synopsis | Enter the **src-port** context |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ip-filter entry *number* match src-port |
| Tree | src-port |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **eq** *number*

| | |
|---|---|
| Synopsis | Port equal |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ip-filter entry *number* match src-port eq *number* |
| Tree | eq |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **gt** *number*

| | |
|---|---|
| Synopsis | Port greater than |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ip-filter entry *number* match src-port gt *number* |
| Tree | gt |
| Range | 0 to 65534 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **lt** *number*

| | |
|---|---|
| Synopsis | Port less than |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ip-filter entry *number* match src-port lt *number* |
| Tree | lt |
| Range | 1 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **range**

| | |
|---|---|
| Synopsis | Enable the **range** context |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ip-filter entry *number* match src-port range |
| Tree | range |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the port range to match |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ip-filter entry *number* match src-port range end *number* |
| Tree | end |
| Range | 0 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of the port range to match |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ip-filter entry *number* match src-port range start *number* |
| Tree | start |
| Range | 0 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **tcp-flags**

| | |
|---|---|
| Synopsis | Enter the **tcp-flags** context |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ip-filter entry *number* match tcp-flags |
| Tree | tcp-flags |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ack** *boolean*

| | |
|---|---|
| Synopsis | Check for ACK bit |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ip-filter entry *number* match tcp-flags ack *boolean* |


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| | |
|---|---|
| Tree | ack |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **syn** *boolean*

| | |
|---|---|
| Synopsis | Check for SYN bit |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ip-filter entry *number* match tcp-flags syn *boolean* |
| Tree | syn |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ipv6-filter**

| | |
|---|---|
| Synopsis | Enter the **ipv6-filter** context |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ipv6-filter |
| Tree | ipv6-filter |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ipv6-filter entry *number* |
| Tree | entry |
| Max. instances | 10 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**id**] *number*

| | |
|---|---|
| Synopsis | IP filter entry ID |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ipv6-filter entry *number* |
| Tree | entry |
| Range | 1 to 65535 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## action

| | |
|---|---|
| Synopsis | Enter the **action** context |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ipv6-filter entry *number* action |
| Tree | action |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## drop

| | |
|---|---|
| Synopsis | Packets matching the filter entry are dropped |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ipv6-filter entry *number* action drop |
| Tree | drop |
| Notes | The following elements are part of a choice: **drop** or **forward**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## forward

| | |
|---|---|
| Synopsis | Packets matching the filter entry are forwarded |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ipv6-filter entry *number* action forward |
| Tree | forward |
| Notes | The following elements are part of a choice: **drop** or **forward**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ipv6-filter entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **match**

| | |
|---|---|
| Synopsis | Enter the **match** context |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ipv6-filter entry *number* match |
| Tree | match |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **dscp** *keyword*

| | |
|---|---|
| Synopsis | DSCP to match |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ipv6-filter entry *number* match dscp *keyword* |
| Tree | dscp |
| Options | be, cp1, cp2, cp3, cp4, cp5, cp6, cp7, cs1, cp9, af11, cp11, af12, cp13, af13, cp15, cs2, cp17, af21, cp19, af22, cp21, af23, cp23, cs3, cp25, af31, cp27, af32, cp29, af33, cp31, cs4, cp33, af41, cp35, af42, cp37, af43, cp39, cs5, cp41, cp42, cp43, cp44, cp45, ef, cp47, nc1, cp49, cp50, cp51, cp52, cp53, cp54, cp55, nc2, cp57, cp58, cp59, cp60, cp61, cp62, cp63 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **dst-ip** *ipv6-address-and-mask*

| | |
|---|---|
| Synopsis | Destination IP address and mask to match |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ipv6-filter entry *number* match dst-ip *ipv6-address-and-mask* |


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| | |
|---|---|
| Tree | dst-ip |
| Default | 0::0 0::0 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## dst-port

| | |
|---|---|
| Synopsis | Enter the **dst-port** context |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ipv6-filter entry *number* match dst-port |
| Tree | dst-port |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **eq** *number*

| | |
|---|---|
| Synopsis | Port equal |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ipv6-filter entry *number* match dst-port eq *number* |
| Tree | eq |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **gt** *number*

| | |
|---|---|
| Synopsis | Port greater than |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ipv6-filter entry *number* match dst-port gt *number* |
| Tree | gt |
| Range | 0 to 65534 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **lt** *number*

| | |
|---|---|
| Synopsis | Port less than |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ipv6-filter entry *number* match dst-port lt *number* |
| Tree | lt |
| Range | 1 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **range**

| | |
|---|---|
| Synopsis | Enable the **range** context |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ipv6-filter entry *number* match dst-port range |
| Tree | range |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the port range to match |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ipv6-filter entry *number* match dst-port range end *number* |
| Tree | end |
| Range | 0 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of the port range to match |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ipv6-filter entry *number* match dst-port range start *number* |
| Tree | start |
| Range | 0 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## icmp

| | |
|---|---|
| Synopsis | Enter the **icmp** context |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ipv6-filter entry *number* match icmp |
| Tree | icmp |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## code *number*

| | |
|---|---|
| Synopsis | ICMP code to match |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ipv6-filter entry *number* match icmp code *number* |
| Tree | code |
| Range | 0 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## type *number*

| | |
|---|---|
| Synopsis | ICMP type to match |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ipv6-filter entry *number* match icmp type *number* |
| Tree | type |
| Range | 0 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **next-header** *(number | keyword)*

| | |
|---|---|
| Synopsis | IP protocol to match |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ipv6-filter entry *number* match next-header *(number \| keyword)* |
| Tree | next-header |
| Range | 0 to 255 |
| Options | tcp-udp, icmp, igmp, ip, tcp, egp, igp, udp, rdp, ipv6, ipv6-route, ipv6-frag, idrp, rsvp, gre, ipv6-icmp, ipv6-no-nxt, ipv6-opts, iso-ip, eigrp, ospf-igp, ether-ip, encap, pnni, pim, vrrp, l2tp, stp, ptp, isis, crtp, crudp, sctp |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **src-port**

| | |
|---|---|
| Synopsis | Enter the **src-port** context |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ipv6-filter entry *number* match src-port |
| Tree | src-port |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **eq** *number*

| | |
|---|---|
| Synopsis | Port equal |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ipv6-filter entry *number* match src-port eq *number* |
| Tree | eq |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **gt** *number*

| | |
|---|---|
| Synopsis | Port greater than |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ipv6-filter entry *number* match src-port gt *number* |
| Tree | gt |
| Range | 0 to 65534 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **lt** *number*

| | |
|---|---|
| Synopsis | Port less than |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ipv6-filter entry *number* match src-port lt *number* |
| Tree | lt |
| Range | 1 to 65535 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **range**

| | |
|---|---|
| Synopsis | Enable the **range** context |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ipv6-filter entry *number* match src-port range |
| Tree | range |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the port range to match |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ipv6-filter entry *number* match src-port range end *number* |
| Tree | end |
| Range | 0 to 65535 |


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| | |
|---|---|
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of the port range to match |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ipv6-filter entry *number* match src-port range start *number* |
| Tree | start |
| Range | 0 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **tcp-flags**

| | |
|---|---|
| Synopsis | Enter the **tcp-flags** context |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ipv6-filter entry *number* match tcp-flags |
| Tree | tcp-flags |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ack** *boolean*

| | |
|---|---|
| Synopsis | Check for ACK bit |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ipv6-filter entry *number* match tcp-flags ack *boolean* |
| Tree | ack |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **syn** *boolean*

| | |
|---|---|
| Synopsis | Check for SYN bit |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level ingress ipv6-filter entry *number* match tcp-flags syn *boolean* |
| Tree | syn |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | PIR |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* exhausted-credit-service-level pir *(number | keyword)* |
| Tree | pir |
| Range | 1 to 100000000 |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **ingress**

| | |
|---|---|
| Synopsis | Enter the **ingress** context |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* ingress |
| Tree | ingress |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **policer** *number*

| | |
|---|---|
| Synopsis | Ingress policers used in this category |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* ingress policer *number* |
| Tree | policer |
| Range | 1 to 63 |
| Max. instances | 63 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **queue** *number*

| | |
|---|---|
| Synopsis | Ingress queues used in this category |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* ingress queue *number* |
| Tree | queue |
| Range | 1 to 32 |
| Max. instances | 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **out-of-credit-action-override** *keyword*

| | |
|---|---|
| Synopsis | Out of credit action that is overridden in category map |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* out-of-credit-action-override *keyword* |
| Tree | out-of-credit-action-override |
| Options | continue, disconnect-host, block-category, change-service-level |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **rating-group** *number*

| | |
|---|---|
| Synopsis | Rating group for this category |
| Context | **configure** subscriber-mgmt category-map *named-item* category *named-item* rating-group *number* |
| Tree | rating-group |
| Range | 0 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **credit-exhaust-threshold** *number*

| | |
|---|---|
| Synopsis | Percentage for credit exhaust threshold |
| Context | **configure** subscriber-mgmt category-map *named-item* credit-exhaust-threshold *number* |


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| | |
|---|---|
| Tree | credit-exhaust-threshold |
| Range | 50 to 100 |
| Units | percent |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **credit-type** *keyword*

| | |
|---|---|
| Synopsis | Credit type |
| Context | **configure** subscriber-mgmt category-map *named-item* credit-type *keyword* |
| Tree | credit-type |
| Options | volume, time |
| Default | volume |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** subscriber-mgmt category-map *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **gx-session-level-usage** *boolean*

| | |
|---|---|
| Synopsis | Allow Gx session level Usage Monitoring |
| Context | **configure** subscriber-mgmt category-map *named-item* gx-session-level-usage *boolean* |
| Tree | gx-session-level-usage |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **credit-control-policy** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **credit-control-policy** list instance |
| Context | **configure** subscriber-mgmt credit-control-policy *named-item* |
| Tree | credit-control-policy |
| Max. instances | 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | Credit control policy name |
| Context | **configure** subscriber-mgmt credit-control-policy *named-item* |
| Tree | credit-control-policy |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **default-category-map** *reference*

| | |
|---|---|
| Synopsis | Default category map for this policy |
| Context | **configure** subscriber-mgmt credit-control-policy *named-item* default-category-map *reference* |
| Tree | default-category-map |
| Reference | **configure** subscriber-mgmt category-map *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** subscriber-mgmt credit-control-policy *named-item* description *description* |
| Tree | description |


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| | |
|---|---|
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **error-handling-action** *keyword*

| | |
|---|---|
| Synopsis | Error handling action for the policy |
| Context | **configure** subscriber-mgmt credit-control-policy *named-item* error-handling-action *keyword* |
| Tree | error-handling-action |
| Options | continue, block |
| Default | continue |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **out-of-credit-action** *keyword*

| | |
|---|---|
| Synopsis | Action when out of credit is reached |
| Context | **configure** subscriber-mgmt credit-control-policy *named-item* out-of-credit-action *keyword* |
| Tree | out-of-credit-action |
| Options | continue, disconnect-host, block-category, change-service-level |
| Default | continue |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **server**

| | |
|---|---|
| Synopsis | Enter the **server** context |
| Context | **configure** subscriber-mgmt credit-control-policy *named-item* server |
| Tree | server |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **diameter** *reference*

| | |
|---|---|
| Synopsis | Diameter policy that specifies Diameter peers to use |
| Context | **configure** subscriber-mgmt credit-control-policy *named-item* server diameter *reference* |
| Tree | diameter |
| Reference | **configure** subscriber-mgmt diameter-gy-policy *named-item* |
| Notes | The following elements are part of a choice: **diameter** or **radius**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **radius**

| | |
|---|---|
| Synopsis | Use RADIUS servers in the authentication policy |
| Context | **configure** subscriber-mgmt credit-control-policy *named-item* server radius |
| Tree | radius |
| Notes | The following elements are part of a choice: **diameter** or **radius**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **diameter-gx-policy** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **diameter-gx-policy** list instance |
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* |
| Tree | diameter-gx-policy |
| Max. instances | 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | Diameter application policy name |
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* |
| Tree | diameter-gx-policy |
| String length | 1 to 32 |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **gx**

| | |
|---|---|
| Synopsis | Enter the **gx** context |
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* gx |
| Tree | gx |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **avp-subscription-id**

| | |
|---|---|
| Synopsis | Enter the **avp-subscription-id** context |
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* gx avp-subscription-id |
| Tree | avp-subscription-id |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **origin** *keyword*

| | |
|---|---|
| Synopsis | Format of the Subscription-Id-Data AVP |
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* gx avp-subscription-id origin *keyword* |
| Tree | origin |


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| | |
|---|---|
| Options | subscriber-id, circuit-id, imsi, msisdn, imei, dual-stack-remote-id, mac, username, nas-port-id |
| Default | subscriber-id |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **type** *keyword*

| | |
|---|---|
| Synopsis | Format of the Subscription-Id-Type AVP |
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* gx avp-subscription-id type *keyword* |
| Tree | type |
| Options | e164, imsi, nai, private |
| Default | private |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **ccrt-replay**

| | |
|---|---|
| Synopsis | Enable the **ccrt-replay** context |
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* gx ccrt-replay |
| Tree | ccrt-replay |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **interval** *number*

| | |
|---|---|
| Synopsis | Time between consecutive CCR-T replay attempts |
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* gx ccrt-replay interval *number* |
| Tree | interval |
| Range | 60 to 86400 |
| Default | 3600 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **max-lifetime** *number*

| | |
|---|---|
| Synopsis | Maximum time that CCR-t messages are replayed |
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* gx ccrt-replay max-lifetime *number* |
| Tree | max-lifetime |
| Description | This command specifies the maximum time that CCR-t messages for Diameter Gx sessions that belong to the Diameter application policy are replayed. |
| Range | 1 to 24 |
| Units | hours |
| Default | 24 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **credit-mcs-interval** *number*

| | |
|---|---|
| Synopsis | Volume syncing interval for usage monitoring |
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* gx credit-mcs-interval *number* |
| Tree | credit-mcs-interval |
| Description | This command configures the MCS interval at which the accounting data of subscriber hosts is updated. |
| Range | 5 to 60 |
| Units | minutes |
| Default | 10 |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **destination-realm-learning** *boolean*

| | |
|---|---|
| Synopsis | Learn the destination realm from the incoming messages |
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* gx destination-realm-learning *boolean* |
| Tree | destination-realm-learning |
| Description | When configured to **true**, destination realm learning is enabled on the application level.<br>The destination realm is a mandatory configuration parameter used in outgoing Credit Control Request messages (CCR). The configured destination realm is always used in |


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the initial request (CCR-I) message. The consecutive request message of a Gx session can use the destination realm learned from the replies.

When configured to **false**, destination realm learning is disabled and the configured destination realm is used in outgoing request messages.

Default true

Introduced 20.5.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR

## features

Synopsis Enter the **features** context

Context **configure** subscriber-mgmt diameter-gx-policy *named-item* gx features

Tree features

Introduced 20.7.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR

## extended-bandwidth *boolean*

Synopsis Negotiate support for extended bandwidth AVPs

Context **configure** subscriber-mgmt diameter-gx-policy *named-item* gx features extended-bandwidth *boolean*

Tree extended-bandwidth

Description When configured to **true**, negotiation occurs for the support of extended AVPs that are capable of supporting bandwidth values greater than (2^32 –1) b/s. The extended AVPs allow bitrates in kb/s and are as follows:

- Extended-GBR-DL (AVP code 2850)
- Extended-GBR-UL (AVP code 2851)
- Extended-Max-Requested-BW-DL (AVP code 554)
- Extended-Max-Requested-BW-UL (AVP code 555)
- Extended-APN-AMBR-DL (AVP code 2848)
- Extended-APN-AMBR-UL (AVP code 2849)

When configured to **false**, the extended AVPs are not supported.

Default false

Introduced 20.7.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR


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## include-avp

| | |
|---|---|
| Synopsis | Enter the **include-avp** context |
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* gx include-avp |
| Tree | include-avp |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## an-gw-address *boolean*

| | |
|---|---|
| Synopsis | Include the IP address of this gateway |
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* gx include-avp an-gw-address *boolean* |
| Tree | an-gw-address |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## apn-ambr *boolean*

| | |
|---|---|
| Synopsis | Include the APN aggregate maximum bitrate |
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* gx include-avp apn-ambr *boolean* |
| Tree | apn-ambr |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## called-station-id *boolean*

| | |
|---|---|
| Synopsis | Include the called station ID |
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* gx include-avp called-station-id *boolean* |
| Tree | called-station-id |
| Default | false |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## calling-station-id

| | |
|---|---|
| Synopsis | Enable the **calling-station-id** context |
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* gx include-avp calling-station-id |
| Tree | calling-station-id |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## type *keyword*

| | |
|---|---|
| Synopsis | Format of the Calling-Station-ID AVP |
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* gx include-avp calling-station-id type *keyword* |
| Tree | type |
| Options | sap-string, mac, sap-id, remote-id, llid |
| Default | sap-string |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ip-can-type *boolean*

| | |
|---|---|
| Synopsis | Include the IP CAN type |
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* gx include-avp ip-can-type *boolean* |
| Tree | ip-can-type |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## logical-access-id *boolean*

| | |
|---|---|
| Synopsis | Include the logical access id |
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* gx include-avp logical-access-id *boolean* |


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| | |
|---|---|
| Tree | logical-access-id |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## nas-port

| | |
|---|---|
| Synopsis | Enable the **nas-port** context |
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* gx include-avp nas-port |
| Tree | nas-port |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## bit-spec *binary-specification*

| | |
|---|---|
| Synopsis | NAS-Port AVP format |
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* gx include-avp nas-port bit-spec *binary-specification* |
| Tree | bit-spec |
| String length | 1 to 255 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## nas-port-id

| | |
|---|---|
| Synopsis | Enable the **nas-port-id** context |
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* gx include-avp nas-port-id |
| Tree | nas-port-id |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## prefix-string *string*

| | |
|---|---|
| Synopsis | Prefix string for NAS-Port-Id AVP |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* gx include-avp nas-port-id prefix-string *string* |
| Tree | prefix-string |
| String length | 1 to 8 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## suffix

| | |
|---|---|
| Synopsis | Enter the **suffix** context |
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* gx include-avp nas-port-id suffix |
| Tree | suffix |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## circuit-id

| | |
|---|---|
| Synopsis | Add Circuit ID as suffix |
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* gx include-avp nas-port-id suffix circuit-id |
| Tree | circuit-id |
| Notes | The following elements are part of a choice: **circuit-id**, **not-included**, **remote-id**, or **user-string**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## not-included

| | |
|---|---|
| Synopsis | Do not add a suffix |
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* gx include-avp nas-port-id suffix not-included |
| Tree | not-included |
| Notes | The following elements are part of a choice: **circuit-id**, **not-included**, **remote-id**, or **user-string**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### remote-id

| | |
|---|---|
| Synopsis | Add Remote ID as suffix |
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* gx include-avp nas-port-id suffix remote-id |
| Tree | remote-id |
| Notes | The following elements are part of a choice: **circuit-id**, **not-included**, **remote-id**, or **user-string**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### user-string *string*

| | |
|---|---|
| Synopsis | Add a user configurable string as suffix |
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* gx include-avp nas-port-id suffix user-string *string* |
| Tree | user-string |
| String length | 1 to 64 |
| Notes | The following elements are part of a choice: **circuit-id**, **not-included**, **remote-id**, or **user-string**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### nas-port-type

| | |
|---|---|
| Synopsis | Enable the **nas-port-type** context |
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* gx include-avp nas-port-type |
| Tree | nas-port-type |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### type *number*

| | |
|---|---|
| Synopsis | NAS-Port-Type AVP value |
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* gx include-avp nas-port-type type *number* |


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| | |
|---|---|
| Tree | type |
| Range | 0 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **pdn-connection-id** *boolean*

| | |
|---|---|
| Synopsis | Include the PDN connection id |
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* gx include-avp pdn-connection-id *boolean* |
| Tree | pdn-connection-id |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **physical-access-id** *boolean*

| | |
|---|---|
| Synopsis | Include the physical access ID |
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* gx include-avp physical-access-id *boolean* |
| Tree | physical-access-id |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **rai** *boolean*

| | |
|---|---|
| Synopsis | Include the routing area identity |
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* gx include-avp rai *boolean* |
| Tree | rai |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **rat-type** *boolean*

| | |
|---|---|
| Synopsis | Include the RAT type |
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* gx include-avp rat-type *boolean* |
| Tree | rat-type |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sgsn-mcc-mnc** *boolean*

| | |
|---|---|
| Synopsis | Include the 3GPP-SGSN-MCC-MNC AVP |
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* gx include-avp sgsn-mcc-mnc *boolean* |
| Tree | sgsn-mcc-mnc |
| Description | When configured to **true**, this command enables the inclusion of the 3GPP-SGSN-MCC-MNC AVP, which contains the MCC and MNC as configured under **configure subscriber-mgmt gtp serving-network**. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **supported-features** *boolean*

| | |
|---|---|
| Synopsis | Include the supported features |
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* gx include-avp supported-features *boolean* |
| Tree | supported-features |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **user-equipment-info**

| | |
|---|---|
| Synopsis | Enable the **user-equipment-info** context |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* gx include-avp user-equipment-info |
| Tree | user-equipment-info |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **type** *keyword*

| | |
|---|---|
| Synopsis | Information for User-Equipment-Info attribute |
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* gx include-avp user-equipment-info type *keyword* |
| Tree | type |
| Options | imeisv, mac, eui64, modified-eui64 |
| Default | mac |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **user-location-info** *boolean*

| | |
|---|---|
| Synopsis | Include the 3GPP-User-Location-Information AVP |
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* gx include-avp user-location-info *boolean* |
| Tree | user-location-info |
| Description | When configured to **true**, this command enables the inclusion of the 3GPP-User-Location-Information AVP as signaled in the incoming GTP setup message. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **mac-format** *mac-specification*

| | |
|---|---|
| Synopsis | MAC address format |
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* gx mac-format *mac-specification* |
| Tree | mac-format |
| String length | 2 to 7 |


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| | |
|---|---|
| Default | aa: |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **report-ip-address-event** *boolean*

| | |
|---|---|
| Synopsis | Enable CCR-u messages on IP address allocation events |
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* gx report-ip-address-event *boolean* |
| Tree | report-ip-address-event |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### three-gpp-qos-mapping

| | |
|---|---|
| Synopsis | Enter the **three-gpp-qos-mapping** context |
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* gx three-gpp-qos-mapping |
| Tree | three-gpp-qos-mapping |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### apn-ambr-dl

| | |
|---|---|
| Synopsis | Enter the **apn-ambr-dl** context |
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* gx three-gpp-qos-mapping apn-ambr-dl |
| Tree | apn-ambr-dl |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### aggregate-rate

| | |
|---|---|
| Synopsis | Map to an aggregate rate |
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* gx three-gpp-qos-mapping apn-ambr-dl aggregate-rate |


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| | |
|---|---|
| Tree | aggregate-rate |
| Notes | The following elements are part of a choice: **aggregate-rate**, **arbiter**, **hs-sla-agg-rate**, **ignore-override**, **policer**, **queue**, or **scheduler**. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **arbiter** *named-item*

| | |
|---|---|
| Synopsis | Arbiter name to be overridden |
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* gx three-gpp-qos-mapping apn-ambr-dl arbiter *named-item* |
| Tree | arbiter |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **aggregate-rate**, **arbiter**, **hs-sla-agg-rate**, **ignore-override**, **policer**, **queue**, or **scheduler**. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### hs-sla-agg-rate

| | |
|---|---|
| Synopsis | Map to an HS SLA aggregate rate |
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* gx three-gpp-qos-mapping apn-ambr-dl hs-sla-agg-rate |
| Tree | hs-sla-agg-rate |
| Notes | The following elements are part of a choice: **aggregate-rate**, **arbiter**, **hs-sla-agg-rate**, **ignore-override**, **policer**, **queue**, or **scheduler**. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### ignore-override

| | |
|---|---|
| Synopsis | no override on apn-ambr-dl |
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* gx three-gpp-qos-mapping apn-ambr-dl ignore-override |
| Tree | ignore-override |
| Notes | The following elements are part of a choice: **aggregate-rate**, **arbiter**, **hs-sla-agg-rate**, **ignore-override**, **policer**, **queue**, or **scheduler**. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **policer** *number*

| | |
|---|---|
| Synopsis | Policer ID to be overidden |
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* gx three-gpp-qos-mapping apn-ambr-dl policer *number* |
| Tree | policer |
| Range | 1 to 63 |
| Notes | The following elements are part of a choice: **aggregate-rate**, **arbiter**, **hs-sla-agg-rate**, **ignore-override**, **policer**, **queue**, or **scheduler**. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **queue** *number*

| | |
|---|---|
| Synopsis | Queue ID to be overridden |
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* gx three-gpp-qos-mapping apn-ambr-dl queue *number* |
| Tree | queue |
| Range | 1 to 8 |
| Notes | The following elements are part of a choice: **aggregate-rate**, **arbiter**, **hs-sla-agg-rate**, **ignore-override**, **policer**, **queue**, or **scheduler**. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **scheduler** *named-item*

| | |
|---|---|
| Synopsis | Name of the scheduler to be overridden |
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* gx three-gpp-qos-mapping apn-ambr-dl scheduler *named-item* |
| Tree | scheduler |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **aggregate-rate**, **arbiter**, **hs-sla-agg-rate**, **ignore-override**, **policer**, **queue**, or **scheduler**. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## apn-ambr-ul

| | |
|---|---|
| Synopsis | Enter the **apn-ambr-ul** context |
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* gx three-gpp-qos-mapping apn-ambr-ul |
| Tree | apn-ambr-ul |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **arbiter** *named-item*

| | |
|---|---|
| Synopsis | Arbiter name to be overridden |
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* gx three-gpp-qos-mapping apn-ambr-ul arbiter *named-item* |
| Tree | arbiter |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **arbiter**, **ignore-override**, **policer**, **queue**, or **scheduler**. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## ignore-override

| | |
|---|---|
| Synopsis | no override on apn-ambr-ul |
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* gx three-gpp-qos-mapping apn-ambr-ul ignore-override |
| Tree | ignore-override |
| Notes | The following elements are part of a choice: **arbiter**, **ignore-override**, **policer**, **queue**, or **scheduler**. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **policer** *number*

| | |
|---|---|
| Synopsis | Policer ID to be overridden |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* gx three-gpp-qos-mapping apn-ambr-ul policer *number* |
| Tree | policer |
| Range | 1 to 63 |
| Notes | The following elements are part of a choice: **arbiter**, **ignore-override**, **policer**, **queue**, or **scheduler**. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **queue** *number*

| | |
|---|---|
| Synopsis | Queue ID to be overridden |
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* gx three-gpp-qos-mapping apn-ambr-ul queue *number* |
| Tree | queue |
| Range | 1 to 32 |
| Notes | The following elements are part of a choice: **arbiter**, **ignore-override**, **policer**, **queue**, or **scheduler**. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **scheduler** *named-item*

| | |
|---|---|
| Synopsis | Name of the scheduler to be overridden |
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* gx three-gpp-qos-mapping apn-ambr-ul scheduler *named-item* |
| Tree | scheduler |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **arbiter**, **ignore-override**, **policer**, **queue**, or **scheduler**. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **node**

| | |
|---|---|
| Synopsis | Enter the **node** context |
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* node |


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| | |
|---|---|
| Tree | node |
| Notes | The following elements are part of a choice: **node** or **peer-policy**. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **destination-realm** *string*

| | |
|---|---|
| Synopsis | Destination-Realm AVP used by the Diameter peer policy |
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* node destination-realm *string* |
| Tree | destination-realm |
| String length | 1 to 80 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **origin-host** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Origin-Host AVP used by the Diameter policy |
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* node origin-host *reference* |
| Tree | origin-host |
| Reference | **configure** aaa diameter node *diam-fqdn* |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **on-failure**

| | |
|---|---|
| Synopsis | Enter the **on-failure** context |
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* on-failure |
| Tree | on-failure |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **failover** *boolean*

| | |
|---|---|
| Synopsis | Session peer failover |
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* on-failure failover *boolean* |
| Tree | failover |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **handling** *keyword*

| | |
|---|---|
| Synopsis | Session peer failure handling |
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* on-failure handling *keyword* |
| Tree | handling |
| Options | terminate, continue, retry-and-terminate |
| Default | terminate |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **tx-timer** *number*

| | |
|---|---|
| Synopsis | Maximum wait time for a pending session request |
| Context | **configure** subscriber-mgmt diameter-gx-policy *named-item* tx-timer *number* |
| Tree | tx-timer |
| Range | 10 to 1000 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **diameter-gy-policy** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **diameter-gy-policy** list instance |
| Context | **configure** subscriber-mgmt diameter-gy-policy *named-item* |
| Tree | diameter-gy-policy |


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| | |
|---|---|
| Max. instances | 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | Diameter application policy name |
| Context | **configure** subscriber-mgmt diameter-gy-policy *named-item* |
| Tree | diameter-gy-policy |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** subscriber-mgmt diameter-gy-policy *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **gy**

| | |
|---|---|
| Synopsis | Enter the **gy** context |
| Context | **configure** subscriber-mgmt diameter-gy-policy *named-item* gy |
| Tree | gy |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **avp-subscription-id**

| | |
|---|---|
| Synopsis | Enter the **avp-subscription-id** context |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt diameter-gy-policy *named-item* gy avp-subscription-id |
| Tree | avp-subscription-id |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **origin** *keyword*

| | |
|---|---|
| Synopsis | Origin for the Subscription-Id-Data AVP |
| Context | **configure** subscriber-mgmt diameter-gy-policy *named-item* gy avp-subscription-id origin *keyword* |
| Tree | origin |
| Options | subscriber-id, circuit-id, imsi, msisdn, imei, dual-stack-remote-id, mac, username, nas-port-id |
| Default | subscriber-id |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **type** *keyword*

| | |
|---|---|
| Synopsis | Origin for the Subscription-Id-Type AVP |
| Context | **configure** subscriber-mgmt diameter-gy-policy *named-item* gy avp-subscription-id type *keyword* |
| Tree | type |
| Options | e164, imsi, nai, private |
| Default | private |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **ccrt-replay**

| | |
|---|---|
| Synopsis | Enable the **ccrt-replay** context |
| Context | **configure** subscriber-mgmt diameter-gy-policy *named-item* gy ccrt-replay |
| Tree | ccrt-replay |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **interval** *number*

| | |
|---|---|
| Synopsis | Interval at which CCR-t messages are replayed |
| Context | **configure** subscriber-mgmt diameter-gy-policy *named-item* gy ccrt-replay interval *number* |
| Tree | interval |
| Description | This command specifies the interval at which CCR-t messages for Diameter Gy sessions that belong to the Diameter application policy are replayed, until a valid CCA-t response is received or until the configured maximum lifetime period expires. |
| Range | 60 to 86400 |
| Default | 3600 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **max-lifetime** *number*

| | |
|---|---|
| Synopsis | Maximum time that CCR-t messages are replayed |
| Context | **configure** subscriber-mgmt diameter-gy-policy *named-item* gy ccrt-replay max-lifetime *number* |
| Tree | max-lifetime |
| Description | This command specifies the maximum period of time that CCR-t messages for Diameter Gy sessions that belong to the Diameter application policy are replayed. |
| Range | 1 to 24 |
| Units | hours |
| Default | 24 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **destination-realm-learning** *boolean*

| | |
|---|---|
| Synopsis | Learn the destination realm from the incoming messages |
| Context | **configure** subscriber-mgmt diameter-gy-policy *named-item* gy destination-realm-learning *boolean* |
| Tree | destination-realm-learning |
| Description | When configured to **true**, destination realm learning is enabled on the application level.<br>The destination realm is a mandatory configuration parameter used in outgoing Credit Control Request messages (CCR). The configured destination realm is always used in |


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the initial request (CCR-I) message. The consecutive request message of a Gy session can use the destination realm learned from the replies.

When configured to **false**, destination realm learning is disabled and the configured destination realm is used in outgoing request messages.

| | |
|---|---|
| Default | true |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## extended-failure-handling

| | |
|---|---|
| Synopsis | Enter the **extended-failure-handling** context |
| Context | **configure** subscriber-mgmt diameter-gy-policy *named-item* gy extended-failure-handling |
| Tree | extended-failure-handling |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of Extended Failure Handling |
| Context | **configure** subscriber-mgmt diameter-gy-policy *named-item* gy extended-failure-handling admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## interim-credit

| | |
|---|---|
| Synopsis | Enter the **interim-credit** context |
| Context | **configure** subscriber-mgmt diameter-gy-policy *named-item* gy extended-failure-handling interim-credit |
| Tree | interim-credit |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **max-attempts** *(number | keyword)*

| | |
|---|---|
| Synopsis | Attempts to retry setting up a session to the OCS |
| Context | **configure** subscriber-mgmt diameter-gy-policy *named-item* gy extended-failure-handling interim-credit max-attempts *(number \| keyword)* |
| Tree | max-attempts |
| Range | 1 to 4294967295 |
| Options | infinite |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **reporting** *boolean*

| | |
|---|---|
| Synopsis | Report interim Credit |
| Context | **configure** subscriber-mgmt diameter-gy-policy *named-item* gy extended-failure-handling interim-credit reporting *boolean* |
| Tree | reporting |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **validity-time** *(number | keyword)*

| | |
|---|---|
| Synopsis | Validity time for interim credit |
| Context | **configure** subscriber-mgmt diameter-gy-policy *named-item* gy extended-failure-handling interim-credit validity-time *(number \| keyword)* |
| Tree | validity-time |
| Range | 1 to 4294967295 |
| Units | seconds |
| Options | none |
| Default | 1800 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### volume

| | |
|---|---|
| Synopsis | Enter the **volume** context |
| Context | **configure** subscriber-mgmt diameter-gy-policy *named-item* gy extended-failure-handling interim-credit volume |
| Tree | volume |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### credits *number*

| | |
|---|---|
| Synopsis | Default volume credit value |
| Context | **configure** subscriber-mgmt diameter-gy-policy *named-item* gy extended-failure-handling interim-credit volume credits *number* |
| Tree | credits |
| Range | 1 to 4294967295 |
| Default | 500 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### units *keyword*

| | |
|---|---|
| Synopsis | Default volume credit units |
| Context | **configure** subscriber-mgmt diameter-gy-policy *named-item* gy extended-failure-handling interim-credit volume units *keyword* |
| Tree | units |
| Options | bytes, kilobytes, megabytes, gigabytes |
| Default | megabytes |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### new-session-id *boolean*

| | |
|---|---|
| Synopsis | Enable use of a new session ID for CCR-i messages |
| Context | **configure** subscriber-mgmt diameter-gy-policy *named-item* gy extended-failure-handling new-session-id *boolean* |


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| | |
|---|---|
| Tree | new-session-id |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## include-avp

| | |
|---|---|
| Synopsis | Enter the **include-avp** context |
| Context | **configure** subscriber-mgmt diameter-gy-policy *named-item* gy include-avp |
| Tree | include-avp |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## aaa-user-name *boolean*

| | |
|---|---|
| Synopsis | Include RADIUS user name AVP in Diameter Gy messages |
| Context | **configure** subscriber-mgmt diameter-gy-policy *named-item* gy include-avp aaa-user-name *boolean* |
| Tree | aaa-user-name |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## address-avp *boolean*

| | |
|---|---|
| Synopsis | DCCA AVPs that contain the host address or prefix |
| Context | **configure** subscriber-mgmt diameter-gy-policy *named-item* gy include-avp address-avp *boolean* |
| Tree | address-avp |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## called-station-id

| | |
|---|---|
| Synopsis | Enable the **called-station-id** context |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt diameter-gy-policy *named-item* gy include-avp called-station-id |
| Tree | called-station-id |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **id** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | Called station ID |
| Context | **configure** subscriber-mgmt diameter-gy-policy *named-item* gy include-avp called-station-id id *string-not-all-spaces* |
| Tree | id |
| String length | 1 to 64 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### charging-rule-base-name

| | |
|---|---|
| Synopsis | Enter the **charging-rule-base-name** context |
| Context | **configure** subscriber-mgmt diameter-gy-policy *named-item* gy include-avp charging-rule-base-name |
| Tree | charging-rule-base-name |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### category-map

| | |
|---|---|
| Synopsis | Use the category map name in use for this session |
| Context | **configure** subscriber-mgmt diameter-gy-policy *named-item* gy include-avp charging-rule-base-name category-map |
| Tree | category-map |
| Notes | The following elements are part of a choice: **category-map**, **not-included**, or **user-string**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## not-included

| | |
|---|---|
| Synopsis | Do not include Charging-Rule-Base-Name AVP in Diameter DCCA CCR messages |
| Context | **configure** subscriber-mgmt diameter-gy-policy *named-item* gy include-avp charging-rule-base-name not-included |
| Tree | not-included |
| Notes | The following elements are part of a choice: **category-map**, **not-included**, or **user-string**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## user-string *string-not-all-spaces*

| | |
|---|---|
| Synopsis | String for charging rule base name |
| Context | **configure** subscriber-mgmt diameter-gy-policy *named-item* gy include-avp charging-rule-base-name user-string *string-not-all-spaces* |
| Tree | user-string |
| String length | 1 to 64 |
| Notes | The following elements are part of a choice: **category-map**, **not-included**, or **user-string**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ggsn-address

| | |
|---|---|
| Synopsis | Enable the **ggsn-address** context |
| Context | **configure** subscriber-mgmt diameter-gy-policy *named-item* gy include-avp ggsn-address |
| Tree | ggsn-address |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## type *keyword*

| | |
|---|---|
| Synopsis | Address type of GGSN address AVP |
| Context | **configure** subscriber-mgmt diameter-gy-policy *named-item* gy include-avp ggsn-address type *keyword* |


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| | |
|---|---|
| Tree | type |
| Options | ipv4, ipv6 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **pdp-context-type** *boolean*

| | |
|---|---|
| Synopsis | Include the DCCA PDP-Context-Type AVP Parameter |
| Context | **configure** subscriber-mgmt diameter-gy-policy *named-item* gy include-avp pdp-context-type *boolean* |
| Tree | pdp-context-type |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **ps-information** *boolean*

| | |
|---|---|
| Synopsis | Enable reporting of AVPs in grouped PS-Information AVP |
| Context | **configure** subscriber-mgmt diameter-gy-policy *named-item* gy include-avp ps-information *boolean* |
| Tree | ps-information |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **service-context-id**

| | |
|---|---|
| Synopsis | Enable the **service-context-id** context |
| Context | **configure** subscriber-mgmt diameter-gy-policy *named-item* gy include-avp service-context-id |
| Tree | service-context-id |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **id** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | Name for the service context ID AVP |
| Context | **configure** subscriber-mgmt diameter-gy-policy *named-item* gy include-avp service-context-id id *string-not-all-spaces* |
| Tree | id |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **three-gpp-charging-characteristics** *boolean*

| | |
|---|---|
| Synopsis | DCCA 3GPP charging characteristics AVP parameter |
| Context | **configure** subscriber-mgmt diameter-gy-policy *named-item* gy include-avp three-gpp-charging-characteristics *boolean* |
| Tree | three-gpp-charging-characteristics |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **three-gpp-charging-id** *keyword*

| | |
|---|---|
| Synopsis | DCCA 3GPP charging ID AVP parameter |
| Context | **configure** subscriber-mgmt diameter-gy-policy *named-item* gy include-avp three-gpp-charging-id *keyword* |
| Tree | three-gpp-charging-id |
| Options | false, auto, esm-info, id |
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **three-gpp-ggsn-ipv4-address** *boolean*

| | |
|---|---|
| Synopsis | Include the 3GPP-GGSN Address in Diameter Gy messages |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt diameter-gy-policy *named-item* gy include-avp three-gpp-ggsn-ipv4-address *boolean* |
| Tree | three-gpp-ggsn-ipv4-address |
| Description | When configured to **true**, this command includes the 3GPP GGSN Address AVP in the Diameter Gy messages. The value is set to the source IPv4 address that is used for outgoing diameter messages. |
| Default | true |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **three-gpp-ggsn-ipv6-address** *boolean*

| | |
|---|---|
| Synopsis | Include the 3GPP-GGSN-Ipv6 address |
| Context | **configure** subscriber-mgmt diameter-gy-policy *named-item* gy include-avp three-gpp-ggsn-ipv6-address *boolean* |
| Tree | three-gpp-ggsn-ipv6-address |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **three-gpp-gprs-negotiated-qos-profile** *boolean*

| | |
|---|---|
| Synopsis | Include the 3GPP GPRS-QoS-Negotiated-Profile AVP |
| Context | **configure** subscriber-mgmt diameter-gy-policy *named-item* gy include-avp three-gpp-gprs-negotiated-qos-profile *boolean* |
| Tree | three-gpp-gprs-negotiated-qos-profile |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **three-gpp-imsi** *keyword*

| | |
|---|---|
| Synopsis | Origin of the information to send in the IMSI AVP |
| Context | **configure** subscriber-mgmt diameter-gy-policy *named-item* gy include-avp three-gpp-imsi *keyword* |
| Tree | three-gpp-imsi |
| Options | false, subscriber-id, circuit-id, imsi |


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| | |
|---|---|
| Default | subscriber-id |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **three-gpp-nsapi** *boolean*

| | |
|---|---|
| Synopsis | Include the 3GPP-NSAPI |
| Context | **configure** subscriber-mgmt diameter-gy-policy *named-item* gy include-avp three-gpp-nsapi *boolean* |
| Tree | three-gpp-nsapi |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **three-gpp-rat-type**

| | |
|---|---|
| Synopsis | Enable the **three-gpp-rat-type** context |
| Context | **configure** subscriber-mgmt diameter-gy-policy *named-item* gy include-avp three-gpp-rat-type |
| Tree | three-gpp-rat-type |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **type** *number*

| | |
|---|---|
| Synopsis | Value for 3GPP-RAT-Type AVP |
| Context | **configure** subscriber-mgmt diameter-gy-policy *named-item* gy include-avp three-gpp-rat-type type *number* |
| Tree | type |
| Range | 1 to 255 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **three-gpp-selection-mode** *boolean*

| | |
|---|---|
| Synopsis | DCCA 3GPP selection mode AVP parameter |
| Context | **configure** subscriber-mgmt diameter-gy-policy *named-item* gy include-avp three-gpp-selection-mode *boolean* |
| Tree | three-gpp-selection-mode |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **three-gpp-session-stop-indicator** *boolean*

| | |
|---|---|
| Synopsis | DCCA 3GPP session stop indicator AVP parameter |
| Context | **configure** subscriber-mgmt diameter-gy-policy *named-item* gy include-avp three-gpp-session-stop-indicator *boolean* |
| Tree | three-gpp-session-stop-indicator |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **three-gpp-user-location-info** *boolean*

| | |
|---|---|
| Synopsis | DCCA 3GPP session stop indicator AVP parameter |
| Context | **configure** subscriber-mgmt diameter-gy-policy *named-item* gy include-avp three-gpp-user-location-info *boolean* |
| Tree | three-gpp-user-location-info |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **user-equipment-info-type**

| | |
|---|---|
| Synopsis | Enable the **user-equipment-info-type** context |
| Context | **configure** subscriber-mgmt diameter-gy-policy *named-item* gy include-avp user-equipment-info-type |
| Tree | user-equipment-info-type |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **type** *keyword*

| | |
|---|---|
| Synopsis | Information to include in User-Equipment-Info attribute |
| Context | **configure** subscriber-mgmt diameter-gy-policy *named-item* gy include-avp user-equipment-info-type type *keyword* |
| Tree | type |
| Options | imeisv |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **mac-format** *mac-specification*

| | |
|---|---|
| Synopsis | MAC address format |
| Context | **configure** subscriber-mgmt diameter-gy-policy *named-item* gy mac-format *mac-specification* |
| Tree | mac-format |
| String length | 2 to 7 |
| Default | aa: |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **out-of-credit-reporting** *keyword*

| | |
|---|---|
| Synopsis | Reporting reason when final granted units are consumed |
| Context | **configure** subscriber-mgmt diameter-gy-policy *named-item* gy out-of-credit-reporting *keyword* |
| Tree | out-of-credit-reporting |
| Options | final, quota-exhausted |
| Default | final |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **vendor-support** *keyword*

| | |
|---|---|
| Synopsis | Vendor support type announced in capability exchange |
| Context | **configure** subscriber-mgmt diameter-gy-policy *named-item* gy vendor-support *keyword* |
| Tree | vendor-support |
| Options | vodafone, three-gpp |
| Default | three-gpp |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **node**

| | |
|---|---|
| Synopsis | Enter the **node** context |
| Context | **configure** subscriber-mgmt diameter-gy-policy *named-item* node |
| Tree | node |
| Notes | The following elements are part of a choice: **node** or **peer-policy**. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **destination-realm** *string*

| | |
|---|---|
| Synopsis | Destination-Realm AVP used by the Diameter peer policy |
| Context | **configure** subscriber-mgmt diameter-gy-policy *named-item* node destination-realm *string* |
| Tree | destination-realm |
| String length | 1 to 80 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **origin-host** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Origin-Host AVP used by the Diameter policy |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt diameter-gy-policy *named-item* node origin-host *reference* |
| Tree | origin-host |
| Reference | **configure** aaa diameter node *diam-fqdn* |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## on-failure

| | |
|---|---|
| Synopsis | Enter the **on-failure** context |
| Context | **configure** subscriber-mgmt diameter-gy-policy *named-item* on-failure |
| Tree | on-failure |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## failover *boolean*

| | |
|---|---|
| Synopsis | Session peer failover |
| Context | **configure** subscriber-mgmt diameter-gy-policy *named-item* on-failure failover *boolean* |
| Tree | failover |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## handling *keyword*

| | |
|---|---|
| Synopsis | Session peer failure handling |
| Context | **configure** subscriber-mgmt diameter-gy-policy *named-item* on-failure handling *keyword* |
| Tree | handling |
| Options | terminate, continue, retry-and-terminate |
| Default | terminate |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **tx-timer** *number*

| | |
|---|---|
| Synopsis | Maximum wait time for a pending session request |
| Context | **configure** subscriber-mgmt diameter-gy-policy *named-item* tx-timer *number* |
| Tree | tx-timer |
| Range | 10 to 1000 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **diameter-nasreq-policy** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **diameter-nasreq-policy** list instance |
| Context | **configure** subscriber-mgmt diameter-nasreq-policy *named-item* |
| Tree | diameter-nasreq-policy |
| Max. instances | 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | Diameter application policy name |
| Context | **configure** subscriber-mgmt diameter-nasreq-policy *named-item* |
| Tree | diameter-nasreq-policy |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** subscriber-mgmt diameter-nasreq-policy *named-item* description *description* |


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| | |
|---|---|
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## nasreq

| | |
|---|---|
| Synopsis | Enter the **nasreq** context |
| Context | **configure** subscriber-mgmt diameter-nasreq-policy *named-item* nasreq |
| Tree | nasreq |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## include-avp

| | |
|---|---|
| Synopsis | Enter the **include-avp** context |
| Context | **configure** subscriber-mgmt diameter-nasreq-policy *named-item* nasreq include-avp |
| Tree | include-avp |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## called-station-id *boolean*

| | |
|---|---|
| Synopsis | Include the called station ID AVP |
| Context | **configure** subscriber-mgmt diameter-nasreq-policy *named-item* nasreq include-avp called-station-id *boolean* |
| Tree | called-station-id |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## calling-station-id

| | |
|---|---|
| Synopsis | Enable the **calling-station-id** context |
| Context | **configure** subscriber-mgmt diameter-nasreq-policy *named-item* nasreq include-avp calling-station-id |


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| | |
|---|---|
| Tree | calling-station-id |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **type** *keyword*

| | |
|---|---|
| Synopsis | Format of the Calling-Station-ID AVP |
| Context | **configure** subscriber-mgmt diameter-nasreq-policy *named-item* nasreq include-avp calling-station-id type *keyword* |
| Tree | type |
| Options | sap-string, mac, sap-id, remote-id, llid |
| Default | sap-string |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **circuit-id** *boolean*

| | |
|---|---|
| Synopsis | Include the Agent-Circuit-ID AVP |
| Context | **configure** subscriber-mgmt diameter-nasreq-policy *named-item* nasreq include-avp circuit-id *boolean* |
| Tree | circuit-id |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **imei** *boolean*

| | |
|---|---|
| Synopsis | Include the IMEI |
| Context | **configure** subscriber-mgmt diameter-nasreq-policy *named-item* nasreq include-avp imei *boolean* |
| Tree | imei |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## nas-port

| | |
|---|---|
| Synopsis | Enable the **nas-port** context |
| Context | **configure** subscriber-mgmt diameter-nasreq-policy *named-item* nasreq include-avp nas-port |
| Tree | nas-port |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## bit-spec *binary-specification*

| | |
|---|---|
| Synopsis | NAS-Port AVP format |
| Context | **configure** subscriber-mgmt diameter-nasreq-policy *named-item* nasreq include-avp nas-port bit-spec *binary-specification* |
| Tree | bit-spec |
| String length | 1 to 255 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## nas-port-id

| | |
|---|---|
| Synopsis | Enable the **nas-port-id** context |
| Context | **configure** subscriber-mgmt diameter-nasreq-policy *named-item* nasreq include-avp nas-port-id |
| Tree | nas-port-id |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## prefix-string *string*

| | |
|---|---|
| Synopsis | Prefix string for NAS-Port-Id AVP |
| Context | **configure** subscriber-mgmt diameter-nasreq-policy *named-item* nasreq include-avp nas-port-id prefix-string *string* |
| Tree | prefix-string |
| String length | 1 to 8 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## suffix

| | |
|---|---|
| Synopsis | Enter the **suffix** context |
| Context | **configure** subscriber-mgmt diameter-nasreq-policy *named-item* nasreq include-avp nas-port-id suffix |
| Tree | suffix |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## circuit-id

| | |
|---|---|
| Synopsis | Add Circuit ID as suffix |
| Context | **configure** subscriber-mgmt diameter-nasreq-policy *named-item* nasreq include-avp nas-port-id suffix circuit-id |
| Tree | circuit-id |
| Notes | The following elements are part of a choice: **circuit-id**, **not-included**, **remote-id**, or **user-string**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## not-included

| | |
|---|---|
| Synopsis | Do not add a suffix |
| Context | **configure** subscriber-mgmt diameter-nasreq-policy *named-item* nasreq include-avp nas-port-id suffix not-included |
| Tree | not-included |
| Notes | The following elements are part of a choice: **circuit-id**, **not-included**, **remote-id**, or **user-string**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## remote-id

| | |
|---|---|
| Synopsis | Add Remote ID as suffix |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt diameter-nasreq-policy *named-item* nasreq include-avp nas-port-id suffix remote-id |
| Tree | remote-id |
| Notes | The following elements are part of a choice: **circuit-id**, **not-included**, **remote-id**, or **user-string**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **user-string** *string*

| | |
|---|---|
| Synopsis | Add a user configurable string as suffix |
| Context | **configure** subscriber-mgmt diameter-nasreq-policy *named-item* nasreq include-avp nas-port-id suffix user-string *string* |
| Tree | user-string |
| String length | 1 to 64 |
| Notes | The following elements are part of a choice: **circuit-id**, **not-included**, **remote-id**, or **user-string**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **nas-port-type**

| | |
|---|---|
| Synopsis | Enable the **nas-port-type** context |
| Context | **configure** subscriber-mgmt diameter-nasreq-policy *named-item* nasreq include-avp nas-port-type |
| Tree | nas-port-type |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **type** *(keyword | number)*

| | |
|---|---|
| Synopsis | NAS-Port-Type AVP value |
| Context | **configure** subscriber-mgmt diameter-nasreq-policy *named-item* nasreq include-avp nas-port-type type *(keyword | number)* |
| Tree | type |
| Range | 0 to 255 |
| Options | rfc-aligned |


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| | |
|---|---|
| Default | rfc-aligned |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **rat-type** *boolean*

| | |
|---|---|
| Synopsis | Include the Radio Access Technology (RAT) type AVP |
| Context | **configure** subscriber-mgmt diameter-nasreq-policy *named-item* nasreq include-avp rat-type *boolean* |
| Tree | rat-type |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **remote-id** *boolean*

| | |
|---|---|
| Synopsis | Include the agent remote ID AVP |
| Context | **configure** subscriber-mgmt diameter-nasreq-policy *named-item* nasreq include-avp remote-id *boolean* |
| Tree | remote-id |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **user-location-info** *boolean*

| | |
|---|---|
| Synopsis | Include the 3GPP-User-Location-Information AVP |
| Context | **configure** subscriber-mgmt diameter-nasreq-policy *named-item* nasreq include-avp user-location-info *boolean* |
| Tree | user-location-info |
| Description | When configured to **true**, this command enables the inclusion of the 3GPP-User-Location-Information AVP as signaled in the incoming GTP setup message. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **mac-format** *mac-specification*

| | |
|---|---|
| Synopsis | MAC address format |
| Context | **configure** subscriber-mgmt diameter-nasreq-policy *named-item* nasreq mac-format *mac-specification* |
| Tree | mac-format |
| String length | 2 to 7 |
| Default | aa: |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **password** *encrypted-leaf*

| | |
|---|---|
| Synopsis | AA-request password |
| Context | **configure** subscriber-mgmt diameter-nasreq-policy *named-item* nasreq password *encrypted-leaf* |
| Tree | password |
| String length | 1 to 115 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **user-name**

| | |
|---|---|
| Synopsis | Enter the **user-name** context |
| Context | **configure** subscriber-mgmt diameter-nasreq-policy *named-item* nasreq user-name |
| Tree | user-name |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **domain-name** *string*

| | |
|---|---|
| Synopsis | Domain name |
| Context | **configure** subscriber-mgmt diameter-nasreq-policy *named-item* nasreq user-name domain-name *string* |
| Tree | domain-name |
| String length | 1 to 128 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **format** *keyword*

| | |
|---|---|
| Synopsis | Format type for username |
| Context | **configure** subscriber-mgmt diameter-nasreq-policy *named-item* nasreq user-name format *keyword* |
| Tree | format |
| Options | mac, circuit-id, tuple, ascii-converted-circuit-id, ascii-converted-tuple, dhcp-client-vendor-opts, mac-giaddr, nas-port-id |
| Default | mac |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **operation** *keyword*

| | |
|---|---|
| Synopsis | Operation to perform |
| Context | **configure** subscriber-mgmt diameter-nasreq-policy *named-item* nasreq user-name operation *keyword* |
| Tree | operation |
| Options | append, strip, replace, default |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **node**

| | |
|---|---|
| Synopsis | Enter the **node** context |
| Context | **configure** subscriber-mgmt diameter-nasreq-policy *named-item* node |
| Tree | node |
| Notes | The following elements are part of a choice: **node** or **peer-policy**. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **destination-realm** *string*

| | |
|---|---|
| Synopsis | Destination-Realm AVP used by the Diameter peer policy |
| Context | **configure** subscriber-mgmt diameter-nasreq-policy *named-item* node destination-realm *string* |
| Tree | destination-realm |
| String length | 1 to 80 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **origin-host** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Origin-Host AVP used by the Diameter policy |
| Context | **configure** subscriber-mgmt diameter-nasreq-policy *named-item* node origin-host *reference* |
| Tree | origin-host |
| Reference | **configure** aaa diameter node *diam-fqdn* |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **on-failure**

| | |
|---|---|
| Synopsis | Enter the **on-failure** context |
| Context | **configure** subscriber-mgmt diameter-nasreq-policy *named-item* on-failure |
| Tree | on-failure |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **failover** *boolean*

| | |
|---|---|
| Synopsis | Session peer failover |
| Context | **configure** subscriber-mgmt diameter-nasreq-policy *named-item* on-failure failover *boolean* |


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| | |
|---|---|
| Tree | failover |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **handling** *keyword*

| | |
|---|---|
| Synopsis | Session peer failure handling |
| Context | **configure** subscriber-mgmt diameter-nasreq-policy *named-item* on-failure handling *keyword* |
| Tree | handling |
| Options | terminate, continue, retry-and-terminate |
| Default | terminate |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **tx-timer** *number*

| | |
|---|---|
| Synopsis | Maximum wait time for a pending session request |
| Context | **configure** subscriber-mgmt diameter-nasreq-policy *named-item* tx-timer *number* |
| Tree | tx-timer |
| Range | 10 to 1000 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **explicit-subscriber-map**

| | |
|---|---|
| Synopsis | Enter the **explicit-subscriber-map** context |
| Context | **configure** subscriber-mgmt explicit-subscriber-map |
| Tree | explicit-subscriber-map |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **entry** [subscriber-id] *subscriber-id*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** subscriber-mgmt explicit-subscriber-map entry *subscriber-id* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**subscriber-id**] *subscriber-id*

| | |
|---|---|
| Synopsis | Subscriber Identification string |
| Context | **configure** subscriber-mgmt explicit-subscriber-map entry *subscriber-id* |
| Tree | entry |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **alias** *string*

| | |
|---|---|
| Synopsis | Alias for subscriber identification string |
| Context | **configure** subscriber-mgmt explicit-subscriber-map entry *subscriber-id* alias *string* |
| Tree | alias |
| String length | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **app-profile** *reference*

| | |
|---|---|
| Synopsis | Application profile name |
| Context | **configure** subscriber-mgmt explicit-subscriber-map entry *subscriber-id* app-profile *reference* |
| Tree | app-profile |
| Reference | **configure** application-assurance group *number* partition *number* policy app-profile *named-item* |


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| | |
|---|---|
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **sla-profile** *reference*

| | |
|---|---|
| Synopsis | SLA profile name |
| Context | **configure** subscriber-mgmt explicit-subscriber-map entry *subscriber-id* sla-profile *reference* |
| Tree | sla-profile |
| Reference | **configure** subscriber-mgmt sla-profile *external-named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sub-profile** *reference*

| | |
|---|---|
| Synopsis | Subscriber profile name |
| Context | **configure** subscriber-mgmt explicit-subscriber-map entry *subscriber-id* sub-profile *reference* |
| Tree | sub-profile |
| Reference | **configure** subscriber-mgmt sub-profile *external-named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **group-interface-statistics**

| | |
|---|---|
| Synopsis | Enter the **group-interface-statistics** context |
| Context | **configure** subscriber-mgmt group-interface-statistics |
| Tree | group-interface-statistics |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state for statistics collection |
| Context | **configure** subscriber-mgmt group-interface-statistics admin-state *keyword* |
| Tree | admin-state |


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| | |
|---|---|
| Options | enable, disable |
| Default | disable |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **group-interface-template** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **group-interface-template** list instance |
| Context | **configure** subscriber-mgmt group-interface-template *named-item* |
| Tree | group-interface-template |
| Description | Commands in this context configure a template for automatically-generated group interfaces that is used when creating CUPS sessions. A template with the name "default" is used when no other instance is created, however, the "default" template must be explicitly provisioned. |
| Max. instances | 256 |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## [**name**] *named-item*

| | |
|---|---|
| Synopsis | Identifies this group interface template template |
| Context | **configure** subscriber-mgmt group-interface-template *named-item* |
| Tree | group-interface-template |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** subscriber-mgmt group-interface-template *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |


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| | |
|---|---|
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ip-mtu** *number*

| | |
|---|---|
| Synopsis | IP MTU applied to outgoing packets |
| Context | **configure** subscriber-mgmt group-interface-template *named-item* ip-mtu *number* |
| Tree | ip-mtu |
| Description | This command configures the IP maximum transmission unit (MTU) for the associated router IP interface. |
| Range | 512 to 9786 |
| Units | bytes |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ipv4**

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |
| Context | **configure** subscriber-mgmt group-interface-template *named-item* ipv4 |
| Tree | ipv4 |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **icmp**

| | |
|---|---|
| Synopsis | Enter the **icmp** context |
| Context | **configure** subscriber-mgmt group-interface-template *named-item* ipv4 icmp |
| Tree | icmp |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **mask-reply** *boolean*

| | |
|---|---|
| Synopsis | Allow responses to ICMP mask requests on the interface |
| Context | **configure** subscriber-mgmt group-interface-template *named-item* ipv4 icmp mask-reply *boolean* |


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| | |
|---|---|
| Tree | mask-reply |
| Default | true |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## param-problem

| | |
|---|---|
| Synopsis | Enter the **param-problem** context |
| Context | **configure** subscriber-mgmt group-interface-template *named-item* ipv4 icmp param-problem |
| Tree | param-problem |
| Description | Commands in this context specify the settings for ICMP Parameter Problem messages generated by the interface. |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of sent Parameter Problem messages |
| Context | **configure** subscriber-mgmt group-interface-template *named-item* ipv4 icmp param-problem admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## number *number*

| | |
|---|---|
| Synopsis | Maximum number of Parameter Problem messages to send |
| Context | **configure** subscriber-mgmt group-interface-template *named-item* ipv4 icmp param-problem number *number* |
| Tree | number |
| Range | 10 to 1000 |
| Default | 100 |
| Introduced | 20.5.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **seconds** *number*

| | |
|---|---|
| Synopsis | Time used to limit number of Parameter Problem messages |
| Context | **configure** subscriber-mgmt group-interface-template *named-item* ipv4 icmp param-problem seconds *number* |
| Tree | seconds |
| Range | 1 to 60 |
| Units | seconds |
| Default | 10 |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **redirects**

| | |
|---|---|
| Synopsis | Enter the **redirects** context |
| Context | **configure** subscriber-mgmt group-interface-template *named-item* ipv4 icmp redirects |
| Tree | redirects |
| Description | Commands in this context configure the settings for ICMP redirect messages generated by the interface.<br>The system sends ICMP redirect messages to alert the sending node that a more optimal route is available on another router on the same subnetwork. |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of sending ICMP redirect messages |
| Context | **configure** subscriber-mgmt group-interface-template *named-item* ipv4 icmp redirects admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **number** *number*

| | |
|---|---|
| Synopsis | Maximum number of ICMP redirect messages to send |
| Context | **configure** subscriber-mgmt group-interface-template *named-item* ipv4 icmp redirects number *number* |
| Tree | number |
| Range | 10 to 1000 |
| Default | 100 |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **seconds** *number*

| | |
|---|---|
| Synopsis | Time used to limit the number of ICMP redirect messages |
| Context | **configure** subscriber-mgmt group-interface-template *named-item* ipv4 icmp redirects seconds *number* |
| Tree | seconds |
| Range | 1 to 60 |
| Units | seconds |
| Default | 10 |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ttl-expired**

| | |
|---|---|
| Synopsis | Enter the **ttl-expired** context |
| Context | **configure** subscriber-mgmt group-interface-template *named-item* ipv4 icmp ttl-expired |
| Tree | ttl-expired |
| Description | Commands in this context configure the settings for ICMP TTL expired messages generated by the interface. |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of sending TTL expired messages |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt group-interface-template *named-item* ipv4 icmp ttl-expired admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **number** *number*

| | |
|---|---|
| Synopsis | Maximum number of TTL expired messages to send |
| Context | **configure** subscriber-mgmt group-interface-template *named-item* ipv4 icmp ttl-expired number *number* |
| Tree | number |
| Range | 10 to 2000 |
| Default | 100 |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **seconds** *number*

| | |
|---|---|
| Synopsis | Time used to limit the number of TTL expired messages |
| Context | **configure** subscriber-mgmt group-interface-template *named-item* ipv4 icmp ttl-expired seconds *number* |
| Tree | seconds |
| Range | 1 to 60 |
| Units | seconds |
| Default | 10 |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **unreachables**

| | |
|---|---|
| Synopsis | Enter the **unreachables** context |
| Context | **configure** subscriber-mgmt group-interface-template *named-item* ipv4 icmp unreachables |


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| | |
|---|---|
| Tree | unreachables |
| Description | Commands in this context specify the settings for ICMP host and network destination unreachable messages generated by the interface. |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of sending unreachable messages |
| Context | **configure** subscriber-mgmt group-interface-template *named-item* ipv4 icmp unreachables admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **number** *number*

| | |
|---|---|
| Synopsis | Maximum number of unreachable messages to send |
| Context | **configure** subscriber-mgmt group-interface-template *named-item* ipv4 icmp unreachables number *number* |
| Tree | number |
| Range | 10 to 2000 |
| Default | 100 |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **seconds** *number*

| | |
|---|---|
| Synopsis | Time to limit the number of ICMP unreachable messages |
| Context | **configure** subscriber-mgmt group-interface-template *named-item* ipv4 icmp unreachables seconds *number* |
| Tree | seconds |
| Range | 1 to 60 |
| Units | seconds |


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| | |
|---|---|
| Default | 10 |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## neighbor-discovery

| | |
|---|---|
| Synopsis | Enter the **neighbor-discovery** context |
| Context | **configure** subscriber-mgmt group-interface-template *named-item* ipv4 neighbor-discovery |
| Tree | neighbor-discovery |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## proxy-arp-policy *reference*

| | |
|---|---|
| Synopsis | Proxy ARP policy name |
| Context | **configure** subscriber-mgmt group-interface-template *named-item* ipv4 neighbor-discovery proxy-arp-policy *reference* |
| Tree | proxy-arp-policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## remote-proxy-arp *boolean*

| | |
|---|---|
| Synopsis | Enable remote proxy ARP on the interface |
| Context | **configure** subscriber-mgmt group-interface-template *named-item* ipv4 neighbor-discovery remote-proxy-arp *boolean* |
| Tree | remote-proxy-arp |
| Default | false |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## urpf-check

| | |
|---|---|
| Synopsis | Enable the **urpf-check** context |
| Context | **configure** subscriber-mgmt group-interface-template *named-item* ipv4 urpf-check |
| Tree | urpf-check |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## mode *keyword*

| | |
|---|---|
| Synopsis | Unicast RPF check mode |
| Context | **configure** subscriber-mgmt group-interface-template *named-item* ipv4 urpf-check mode *keyword* |
| Tree | mode |
| Options | strict, loose, strict-no-ecmp |
| Default | strict |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ipv6

| | |
|---|---|
| Synopsis | Enter the **ipv6** context |
| Context | **configure** subscriber-mgmt group-interface-template *named-item* ipv6 |
| Tree | ipv6 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## urpf-check

| | |
|---|---|
| Synopsis | Enable the **urpf-check** context |
| Context | **configure** subscriber-mgmt group-interface-template *named-item* ipv6 urpf-check |
| Tree | urpf-check |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **mode** *keyword*

| | |
|---|---|
| Synopsis | Unicast RPF check mode |
| Context | **configure** subscriber-mgmt group-interface-template *named-item* ipv6 urpf-check mode *keyword* |
| Tree | mode |
| Options | strict, loose, strict-no-ecmp |
| Default | strict |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **trigger-packet**

| | |
|---|---|
| Synopsis | Enter the **trigger-packet** context |
| Context | **configure** subscriber-mgmt group-interface-template *named-item* trigger-packet |
| Tree | trigger-packet |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **data** *boolean*

| | |
|---|---|
| Synopsis | Sample and forward data packets |
| Context | **configure** subscriber-mgmt group-interface-template *named-item* trigger-packet data *boolean* |
| Tree | data |
| Description | When configured to **true**, the router processes data-trigger packets on dynamic SAPs. Data-trigger packets must also be enabled on the capture SAP. |
| Default | false |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **gtp**

| | |
|---|---|
| Synopsis | Enter the **gtp** context |
| Context | **configure** subscriber-mgmt gtp |
| Tree | gtp |


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| | |
|---|---|
| Description | This command enables the context to configure box-wide GTP parameters and profiles. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **apn-policy** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **apn-policy** list instance |
| Context | **configure** subscriber-mgmt gtp apn-policy *named-item* |
| Tree | apn-policy |
| Max. instances | 128 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | APN policy name for a new incoming GTP connection |
| Context | **configure** subscriber-mgmt gtp apn-policy *named-item* |
| Tree | apn-policy |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **apn** [apn-name] *string*

| | |
|---|---|
| Synopsis | Enter the **apn** list instance |
| Context | **configure** subscriber-mgmt gtp apn-policy *named-item* apn *string* |
| Tree | apn |
| Max. instances | 1024 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### [**apn-name**] *string*

| | |
|---|---|
| Synopsis | GTP APN name |
| Context | **configure** subscriber-mgmt gtp apn-policy *named-item* apn *string* |
| Tree | apn |
| String length | 1 to 80 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### ambr-qos-mapping

| | |
|---|---|
| Synopsis | Enter the **ambr-qos-mapping** context |
| Context | **configure** subscriber-mgmt gtp apn-policy *named-item* apn *string* ambr-qos-mapping |
| Tree | ambr-qos-mapping |
| Introduced | 16.0.R7 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### downlink

| | |
|---|---|
| Synopsis | Enable the **downlink** context |
| Context | **configure** subscriber-mgmt gtp apn-policy *named-item* apn *string* ambr-qos-mapping downlink |
| Tree | downlink |
| Introduced | 16.0.R7 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### aggregate-rate

| | |
|---|---|
| Synopsis | Map the downlink APN-AMBR rate to an aggregate rate |
| Context | **configure** subscriber-mgmt gtp apn-policy *named-item* apn *string* ambr-qos-mapping downlink aggregate-rate |
| Tree | aggregate-rate |
| Notes | The following elements are part of a mandatory choice: **aggregate-rate**, **arbiter**, **policer**, **queue**, or **scheduler**. |
| Introduced | 16.0.R7 |


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| | |
|---|---|
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **arbiter** *named-item*

| | |
|---|---|
| Synopsis | Name of arbiter to be overridden |
| Context | **configure** subscriber-mgmt gtp apn-policy *named-item* apn *string* ambr-qos-mapping downlink arbiter *named-item* |
| Tree | arbiter |
| String length | 1 to 32 |
| Notes | The following elements are part of a mandatory choice: **aggregate-rate**, **arbiter**, **policer**, **queue**, or **scheduler**. |
| Introduced | 16.0.R7 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **policer** *number*

| | |
|---|---|
| Synopsis | ID of policer to be overridden |
| Context | **configure** subscriber-mgmt gtp apn-policy *named-item* apn *string* ambr-qos-mapping downlink policer *number* |
| Tree | policer |
| Range | 1 to 63 |
| Notes | The following elements are part of a mandatory choice: **aggregate-rate**, **arbiter**, **policer**, **queue**, or **scheduler**. |
| Introduced | 16.0.R7 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **queue** *number*

| | |
|---|---|
| Synopsis | Map the downlink APN-AMBR rate to a queue PIR override |
| Context | **configure** subscriber-mgmt gtp apn-policy *named-item* apn *string* ambr-qos-mapping downlink queue *number* |
| Tree | queue |
| Range | 1 to 8 |
| Notes | The following elements are part of a mandatory choice: **aggregate-rate**, **arbiter**, **policer**, **queue**, or **scheduler**. |
| Introduced | 16.0.R7 |


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| | |
|---|---|
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **scheduler** *named-item*

| | |
|---|---|
| Synopsis | Name of the scheduler to be overridden |
| Context | **configure** subscriber-mgmt gtp apn-policy *named-item* apn *string* ambr-qos-mapping downlink scheduler *named-item* |
| Tree | scheduler |
| String length | 1 to 32 |
| Notes | The following elements are part of a mandatory choice: **aggregate-rate**, **arbiter**, **policer**, **queue**, or **scheduler**. |
| Introduced | 16.0.R7 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **uplink**

| | |
|---|---|
| Synopsis | Enable the **uplink** context |
| Context | **configure** subscriber-mgmt gtp apn-policy *named-item* apn *string* ambr-qos-mapping uplink |
| Tree | uplink |
| Introduced | 16.0.R7 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **arbiter** *named-item*

| | |
|---|---|
| Synopsis | Name of arbiter to be overridden |
| Context | **configure** subscriber-mgmt gtp apn-policy *named-item* apn *string* ambr-qos-mapping uplink arbiter *named-item* |
| Tree | arbiter |
| String length | 1 to 32 |
| Notes | The following elements are part of a mandatory choice: **arbiter**, **policer**, **queue**, or **scheduler**. |
| Introduced | 16.0.R7 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **policer** *number*

| | |
|---|---|
| Synopsis | Map the uplink APN-AMBR rate to a policer PIR override |
| Context | **configure** subscriber-mgmt gtp apn-policy *named-item* apn *string* ambr-qos-mapping uplink policer *number* |
| Tree | policer |
| Range | 1 to 63 |
| Notes | The following elements are part of a mandatory choice: **arbiter**, **policer**, **queue**, or **scheduler**. |
| Introduced | 16.0.R7 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **queue** *number*

| | |
|---|---|
| Synopsis | Map the uplink APN-AMBR rate to a queue PIR override |
| Context | **configure** subscriber-mgmt gtp apn-policy *named-item* apn *string* ambr-qos-mapping uplink queue *number* |
| Tree | queue |
| Range | 1 to 32 |
| Notes | The following elements are part of a mandatory choice: **arbiter**, **policer**, **queue**, or **scheduler**. |
| Introduced | 16.0.R7 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **scheduler** *named-item*

| | |
|---|---|
| Synopsis | Name of scheduler to be overridden |
| Context | **configure** subscriber-mgmt gtp apn-policy *named-item* apn *string* ambr-qos-mapping uplink scheduler *named-item* |
| Tree | scheduler |
| String length | 1 to 32 |
| Notes | The following elements are part of a mandatory choice: **arbiter**, **policer**, **queue**, or **scheduler**. |
| Introduced | 16.0.R7 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## defaults

| | |
|---|---|
| Synopsis | Enter the **defaults** context |
| Context | **configure** subscriber-mgmt gtp apn-policy *named-item* apn *string* defaults |
| Tree | defaults |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## group-interface

| | |
|---|---|
| Synopsis | Enable the **group-interface** context |
| Context | **configure** subscriber-mgmt gtp apn-policy *named-item* apn *string* defaults group-interface |
| Tree | group-interface |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **name** *interface-name*

| | |
|---|---|
| Synopsis | Group interface name |
| Context | **configure** subscriber-mgmt gtp apn-policy *named-item* apn *string* defaults group-interface name *interface-name* |
| Tree | name |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **svc-name** *service-name*

| | |
|---|---|
| Synopsis | Service name where the group interface resides |
| Context | **configure** subscriber-mgmt gtp apn-policy *named-item* apn *string* defaults group-interface svc-name *service-name* |
| Tree | svc-name |
| String length | 1 to 64 |
| Notes | This element is mandatory. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **diameter-nasreq-policy** *reference*

| | |
|---|---|
| Synopsis | NASREQ authentication policy name |
| Context | **configure** subscriber-mgmt gtp apn-policy *named-item* apn *string* diameter-nasreq-policy *reference* |
| Tree | diameter-nasreq-policy |
| Reference | **configure** subscriber-mgmt diameter-nasreq-policy *named-item* |
| Notes | The following elements are part of a choice: **diameter-nasreq-policy**, **radius-auth-policy**, or **user-db**. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **radius-auth-policy** *reference*

| | |
|---|---|
| Synopsis | RADIUS authentication policy name |
| Context | **configure** subscriber-mgmt gtp apn-policy *named-item* apn *string* radius-auth-policy *reference* |
| Tree | radius-auth-policy |
| Reference | **configure** subscriber-mgmt radius-authentication-policy *named-item* |
| Notes | The following elements are part of a choice: **diameter-nasreq-policy**, **radius-auth-policy**, or **user-db**. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **skip-gtp-ipv4-allocation** *boolean*

| | |
|---|---|
| Synopsis | defer IPv4 address allocation to DHCP |
| Context | **configure** subscriber-mgmt gtp apn-policy *named-item* apn *string* skip-gtp-ipv4-allocation *boolean* |
| Tree | skip-gtp-ipv4-allocation |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **user-db** *reference*

| | |
|---|---|
| Synopsis | Local user database name |
| Context | **configure** subscriber-mgmt gtp apn-policy *named-item* apn *string* user-db *reference* |
| Tree | user-db |
| Reference | **configure** subscriber-mgmt local-user-db *named-item* |
| Notes | The following elements are part of a choice: **diameter-nasreq-policy**, **radius-auth-policy**, or **user-db**. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **max-held-uplink-sessions** *number*

| | |
|---|---|
| Synopsis | Maximum GTP sessions held while UE is disconnected |
| Context | **configure** subscriber-mgmt gtp max-held-uplink-sessions *number* |
| Tree | max-held-uplink-sessions |
| Range | 0 to 500000 |
| Default | 2000 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **peer-profile** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **peer-profile** list instance |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* |
| Tree | peer-profile |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | Peer profile name |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* |
| Tree | peer-profile |
| String length | 1 to 32 |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **interface-type** *keyword*

| | |
|---|---|
| Synopsis | 3GPP interface type for connections toward this peer |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* interface-type *keyword* |
| Tree | interface-type |
| Options | gn, s2a, s2b, s11 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ip-ttl** *number*

| | |
|---|---|
| Synopsis | IP header TTL value for GTP control messages |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* ip-ttl *number* |
| Tree | ip-ttl |
| Range | 1 to 255 |
| Default | 255 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **keep-alive**

| | |
|---|---|
| Synopsis | Enter the **keep-alive** context |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* keep-alive |
| Tree | keep-alive |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of GTP-C echo request messages |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* keep-alive admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **interval** *number*

| | |
|---|---|
| Synopsis | Frequency for sending keepalives |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* keep-alive interval *number* |
| Tree | interval |
| Range | 60 to 180 |
| Units | seconds |
| Default | 60 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **retry-count** *number*

| | |
|---|---|
| Synopsis | Time between echo retries toward the same peer |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* keep-alive retry-count *number* |
| Tree | retry-count |
| Range | 1 to 15 |
| Default | 4 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **timeout** *number*

| | |
|---|---|
| Synopsis | Timeout after which echo request is deemed unanswered |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* keep-alive timeout *number* |
| Tree | timeout |
| Range | 1 to 20 |
| Units | seconds |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **message-retransmit**

| | |
|---|---|
| Synopsis | Enter the **message-retransmit** context |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* message-retransmit |
| Tree | message-retransmit |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **retry-count** *number*

| | |
|---|---|
| Synopsis | Maximum unanswered retries before message deemed failed |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* message-retransmit retry-count *number* |
| Tree | retry-count |
| Range | 1 to 8 |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **timeout** *number*

| | |
|---|---|
| Synopsis | Timeout after which a message is considered unanswered |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* message-retransmit timeout *number* |
| Tree | timeout |
| Range | 1 to 30 |
| Units | seconds |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **python-policy** *reference*

| | |
|---|---|
| Synopsis | Python policy for MGW profile packets sent or received |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* python-policy *reference* |
| Tree | python-policy |
| Reference | **configure** python python-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **s11**

| | |
|---|---|
| Synopsis | Enter the **s11** context |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* s11 |
| Tree | s11 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **change-reporting-action** *(number | keyword)*

| | |
|---|---|
| Synopsis | Value of change reporting action IE sends to the peer |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* s11 change-reporting-action *(number \| keyword)* |
| Tree | change-reporting-action |
| Description | This command specifies the value of the change reporting action IE sends to the peer in applicable messages. The peer needs to indicate support first using the appropriate flag in the indication IE. |


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This can be overridden by AAA, if AAA explicitly request notification changes for either ECGI, TAI or both. If AAA does not request any notification changes or only the generic location changes, the configured value is used.

When unconfigured, this command indicates that the IE is not sent, unless specified by AAA.

| | |
|---|---|
| Range | 0 to 255 |
| Options | cgi-sai, rai, tai, ecgi, cgi-sai-rai, tai-ecgi |
| Introduced | 16.0.R5 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **end-marker-count** *number*

| | |
|---|---|
| Synopsis | Number of GTP-U end marker packets that are sent |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* s11 end-marker-count *number* |
| Tree | end-marker-count |
| Description | This command specifies the number of end marker packets that are sent when it is certain no more packets will be sent over the corresponding GTP-U tunnel, such as after a completed mobility event. |
| Range | 0 to 5 |
| Default | 1 |
| Introduced | 16.0.R5 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ipv4-mtu** *number*

| | |
|---|---|
| Synopsis | IPv4-MTU PCO sent in S11 GTP messages |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* s11 ipv4-mtu *number* |
| Tree | ipv4-mtu |
| Range | 512 to 9000 |
| Default | 1400 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **qos**

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* s11 qos |


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| | |
|---|---|
| Tree | qos |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## ambr

| | |
|---|---|
| Synopsis | Enter the **ambr** context |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* s11 qos ambr |
| Tree | ambr |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## down-link *number*

| | |
|---|---|
| Synopsis | Downlink Aggregated Maximum Bit Rate (AMBR) |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* s11 qos ambr down-link *number* |
| Tree | down-link |
| Range | 0 to 10000000 |
| Units | kilobps |
| Default | 20000 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## up-link *number*

| | |
|---|---|
| Synopsis | Uplink Aggregated Maximum Bit Rate (AMBR) |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* s11 qos ambr up-link *number* |
| Tree | up-link |
| Range | 0 to 10000000 |
| Units | kilobps |
| Default | 10000 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **arp** *number*

| | |
|---|---|
| Synopsis | Allocation or retention priority |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* s11 qos arp *number* |
| Tree | arp |
| Range | 1 to 15 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **down-link**

| | |
|---|---|
| Synopsis | Enter the **down-link** context |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* s11 qos down-link |
| Tree | down-link |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **gbr** *number*

| | |
|---|---|
| Synopsis | Guaranteed Bit Rate (GBR) |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* s11 qos down-link gbr *number* |
| Tree | gbr |
| Range | 0 to 100000 |
| Units | kilobps |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **mbr** *number*

| | |
|---|---|
| Synopsis | Maximum Bit Rate (MBR) |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* s11 qos down-link mbr *number* |
| Tree | mbr |
| Range | 0 to 100000 |


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| | |
|---|---|
| Units | kilobps |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **qci** *number*

| | |
|---|---|
| Synopsis | QoS Class Identifier (QCI) to send in GTP messages |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* s11 qos qci *number* |
| Tree | qci |
| Range | 1 to 9 |
| Default | 8 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **up-link**

| | |
|---|---|
| Synopsis | Enter the **up-link** context |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* s11 qos up-link |
| Tree | up-link |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **gbr** *number*

| | |
|---|---|
| Synopsis | Guaranteed Bit Rate (GBR) |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* s11 qos up-link gbr *number* |
| Tree | gbr |
| Range | 0 to 100000 |
| Units | kilobps |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **mbr** *number*

| | |
|---|---|
| Synopsis | Maximum Bit Rate (MBR) |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* s11 qos up-link mbr *number* |
| Tree | mbr |
| Range | 0 to 100000 |
| Units | kilobps |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **uplink**

| | |
|---|---|
| Synopsis | Enter the **uplink** context |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink |
| Tree | uplink |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **charging-characteristics**

| | |
|---|---|
| Synopsis | Enter the **charging-characteristics** context |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink charging-characteristics |
| Tree | charging-characteristics |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **home**

| | |
|---|---|
| Synopsis | Enter the **home** context |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink charging-characteristics home |
| Tree | home |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **bit0** *boolean*

| | |
|---|---|
| Synopsis | Set bit in charging characteristics information element |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink charging-characteristics home bit0 *boolean* |
| Tree | bit0 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **bit1** *boolean*

| | |
|---|---|
| Synopsis | Set bit in charging characteristics information element |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink charging-characteristics home bit1 *boolean* |
| Tree | bit1 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **bit10** *boolean*

| | |
|---|---|
| Synopsis | Set bit in charging characteristics information element |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink charging-characteristics home bit10 *boolean* |
| Tree | bit10 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **bit11** *boolean*

| | |
|---|---|
| Synopsis | Set bit in charging characteristics information element |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink charging-characteristics home bit11 *boolean* |
| Tree | bit11 |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **bit12** *boolean*

| | |
|---|---|
| Synopsis | Set bit in charging characteristics information element |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink charging-characteristics home bit12 *boolean* |
| Tree | bit12 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **bit13** *boolean*

| | |
|---|---|
| Synopsis | Set bit in charging characteristics information element |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink charging-characteristics home bit13 *boolean* |
| Tree | bit13 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **bit14** *boolean*

| | |
|---|---|
| Synopsis | Set bit in charging characteristics information element |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink charging-characteristics home bit14 *boolean* |
| Tree | bit14 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **bit15** *boolean*

| | |
|---|---|
| Synopsis | Set bit in charging characteristics information element |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink charging-characteristics home bit15 *boolean* |
| Tree | bit15 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **bit2** *boolean*

| | |
|---|---|
| Synopsis | Set bit in charging characteristics information element |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink charging-characteristics home bit2 *boolean* |
| Tree | bit2 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **bit3** *boolean*

| | |
|---|---|
| Synopsis | Set bit in charging characteristics information element |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink charging-characteristics home bit3 *boolean* |
| Tree | bit3 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **bit4** *boolean*

| | |
|---|---|
| Synopsis | Set bit in charging characteristics information element |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink charging-characteristics home bit4 *boolean* |
| Tree | bit4 |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **bit5** *boolean*

| | |
|---|---|
| Synopsis | Set bit in charging characteristics information element |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink charging-characteristics home bit5 *boolean* |
| Tree | bit5 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **bit6** *boolean*

| | |
|---|---|
| Synopsis | Set bit in charging characteristics information element |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink charging-characteristics home bit6 *boolean* |
| Tree | bit6 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **bit7** *boolean*

| | |
|---|---|
| Synopsis | Set bit in charging characteristics information element |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink charging-characteristics home bit7 *boolean* |
| Tree | bit7 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **bit8** *boolean*

| | |
|---|---|
| Synopsis | Set bit in charging characteristics information element |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink charging-characteristics home bit8 *boolean* |
| Tree | bit8 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **bit9** *boolean*

| | |
|---|---|
| Synopsis | Set bit in charging characteristics information element |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink charging-characteristics home bit9 *boolean* |
| Tree | bit9 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **roaming**

| | |
|---|---|
| Synopsis | Enter the **roaming** context |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink charging-characteristics roaming |
| Tree | roaming |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **bit0** *boolean*

| | |
|---|---|
| Synopsis | Set bit in charging characteristics information element |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink charging-characteristics roaming bit0 *boolean* |
| Tree | bit0 |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **bit1** *boolean*

| | |
|---|---|
| Synopsis | Set bit in charging characteristics information element |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink charging-characteristics roaming bit1 *boolean* |
| Tree | bit1 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **bit10** *boolean*

| | |
|---|---|
| Synopsis | Set bit in charging characteristics information element |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink charging-characteristics roaming bit10 *boolean* |
| Tree | bit10 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **bit11** *boolean*

| | |
|---|---|
| Synopsis | Set bit in charging characteristics information element |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink charging-characteristics roaming bit11 *boolean* |
| Tree | bit11 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **bit12** *boolean*

| | |
|---|---|
| Synopsis | Set bit in charging characteristics information element |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink charging-characteristics roaming bit12 *boolean* |
| Tree | bit12 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **bit13** *boolean*

| | |
|---|---|
| Synopsis | Set bit in charging characteristics information element |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink charging-characteristics roaming bit13 *boolean* |
| Tree | bit13 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **bit14** *boolean*

| | |
|---|---|
| Synopsis | Set bit in charging characteristics information element |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink charging-characteristics roaming bit14 *boolean* |
| Tree | bit14 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **bit15** *boolean*

| | |
|---|---|
| Synopsis | Set bit in charging characteristics information element |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink charging-characteristics roaming bit15 *boolean* |
| Tree | bit15 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **bit2** *boolean*

| | |
|---|---|
| Synopsis | Set bit in charging characteristics information element |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink charging-characteristics roaming bit2 *boolean* |
| Tree | bit2 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **bit3** *boolean*

| | |
|---|---|
| Synopsis | Set bit in charging characteristics information element |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink charging-characteristics roaming bit3 *boolean* |
| Tree | bit3 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **bit4** *boolean*

| | |
|---|---|
| Synopsis | Set bit in charging characteristics information element |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink charging-characteristics roaming bit4 *boolean* |
| Tree | bit4 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **bit5** *boolean*

| | |
|---|---|
| Synopsis | Set bit in charging characteristics information element |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink charging-characteristics roaming bit5 *boolean* |
| Tree | bit5 |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **bit6** *boolean*

| | |
|---|---|
| Synopsis | Set bit in charging characteristics information element |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink charging-characteristics roaming bit6 *boolean* |
| Tree | bit6 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **bit7** *boolean*

| | |
|---|---|
| Synopsis | Set bit in charging characteristics information element |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink charging-characteristics roaming bit7 *boolean* |
| Tree | bit7 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **bit8** *boolean*

| | |
|---|---|
| Synopsis | Set bit in charging characteristics information element |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink charging-characteristics roaming bit8 *boolean* |
| Tree | bit8 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **bit9** *boolean*

| | |
|---|---|
| Synopsis | Set bit in charging characteristics information element |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink charging-characteristics roaming bit9 *boolean* |
| Tree | bit9 |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### ggsn

| | |
|---|---|
| Synopsis | Enter the **ggsn** context |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink ggsn |
| Tree | ggsn |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### qos

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink ggsn qos |
| Tree | qos |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### ambr

| | |
|---|---|
| Synopsis | Enable the **ambr** context |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink ggsn qos ambr |
| Tree | ambr |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **down-link** *number*

| | |
|---|---|
| Synopsis | Downlink Aggregated Maximum Bit Rate (AMBR) |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink ggsn qos ambr down-link *number* |
| Tree | down-link |
| Range | 0 to 10000000 |
| Units | kilobps |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **up-link** *number*

| | |
|---|---|
| Synopsis | Uplink Aggregated Maximum Bit Rate (AMBR) |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink ggsn qos ambr up-link *number* |
| Tree | up-link |
| Range | 0 to 10000000 |
| Units | kilobps |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **arp** *number*

| | |
|---|---|
| Synopsis | Allocation or retention priority |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink ggsn qos arp *number* |
| Tree | arp |
| Range | 1 to 3 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## down-link

| | |
|---|---|
| Synopsis | Enter the **down-link** context |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink ggsn qos down-link |
| Tree | down-link |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## gbr *number*

| | |
|---|---|
| Synopsis | Guaranteed Bit Rate (GBR) |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink ggsn qos down-link gbr *number* |
| Tree | gbr |
| Range | 0 to 100000 |
| Units | kilobps |
| Default | 2000 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## mbr *number*

| | |
|---|---|
| Synopsis | Maximum Bit Rate (MBR) |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink ggsn qos down-link mbr *number* |
| Tree | mbr |
| Range | 0 to 100000 |
| Units | kilobps |
| Default | 2000 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## up-link

| | |
|---|---|
| Synopsis | Enter the **up-link** context |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink ggsn qos up-link |


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| | |
|---|---|
| Tree | up-link |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **gbr** *number*

| | |
|---|---|
| Synopsis | Guaranteed Bit Rate (GBR) |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink ggsn qos up-link gbr *number* |
| Tree | gbr |
| Range | 0 to 100000 |
| Units | kilobps |
| Default | 5000 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **mbr** *number*

| | |
|---|---|
| Synopsis | Maximum Bit Rate (MBR) |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink ggsn qos up-link mbr *number* |
| Tree | mbr |
| Range | 0 to 100000 |
| Units | kilobps |
| Default | 5000 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **pgw**

| | |
|---|---|
| Synopsis | Enter the **pgw** context |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink pgw |
| Tree | pgw |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## qos

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink pgw qos |
| Tree | qos |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## ambr

| | |
|---|---|
| Synopsis | Enter the **ambr** context |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink pgw qos ambr |
| Tree | ambr |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## down-link *number*

| | |
|---|---|
| Synopsis | Downlink Aggregated Maximum Bit Rate (AMBR) |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink pgw qos ambr down-link *number* |
| Tree | down-link |
| Range | 0 to 10000000 |
| Units | kilobps |
| Default | 20000 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## up-link *number*

| | |
|---|---|
| Synopsis | Uplink Aggregated Maximum Bit Rate (AMBR) |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink pgw qos ambr up-link *number* |
| Tree | up-link |
| Range | 0 to 10000000 |
| Units | kilobps |


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| | |
|---|---|
| Default | 10000 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **arp** *number*

| | |
|---|---|
| Synopsis | Allocation or retention priority |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink pgw qos arp *number* |
| Tree | arp |
| Range | 1 to 15 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **down-link**

| | |
|---|---|
| Synopsis | Enter the **down-link** context |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink pgw qos down-link |
| Tree | down-link |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **gbr** *number*

| | |
|---|---|
| Synopsis | Guaranteed Bit Rate (GBR) |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink pgw qos down-link gbr *number* |
| Tree | gbr |
| Range | 0 to 100000 |
| Units | kilobps |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **mbr** *number*

| | |
|---|---|
| Synopsis | Maximum Bit Rate (MBR) |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink pgw qos down-link mbr *number* |
| Tree | mbr |
| Range | 0 to 100000 |
| Units | kilobps |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **qci** *number*

| | |
|---|---|
| Synopsis | QoS Class Identifier (QCI) to send in GTP messages |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink pgw qos qci *number* |
| Tree | qci |
| Range | 1 to 9 |
| Default | 8 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **up-link**

| | |
|---|---|
| Synopsis | Enter the **up-link** context |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink pgw qos up-link |
| Tree | up-link |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **gbr** *number*

| | |
|---|---|
| Synopsis | Guaranteed Bit Rate (GBR) |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink pgw qos up-link gbr *number* |
| Tree | gbr |


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| | |
|---|---|
| Range | 0 to 100000 |
| Units | kilobps |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **mbr** *number*

| | |
|---|---|
| Synopsis | Maximum Bit Rate (MBR) |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink pgw qos up-link mbr *number* |
| Tree | mbr |
| Range | 0 to 100000 |
| Units | kilobps |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **protocol-configuration-options** *keyword*

| | |
|---|---|
| Synopsis | Information Element for Protocol Configuration Options |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink protocol-configuration-options *keyword* |
| Tree | protocol-configuration-options |
| Options | pco, apco |
| Default | pco |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **rat-type** *(number | keyword)*

| | |
|---|---|
| Synopsis | Default Radio Access Type (RAT) signaled in GTP setup |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink rat-type *(number | keyword)* |
| Tree | rat-type |


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| | |
|---|---|
| Description | This command configures the default Radio Access Technology (RAT) type signaled during GTP setup. RAT identifies the underlying physical connection method for a radio-based communication network. This can be overridden by RADIUS. |
| Range | 0 to 255 |
| Options | utran, geran, wlan, gan, hspa, eutran, virtual |
| Default | wlan |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **report-wlan-location** *boolean*

| | |
|---|---|
| Synopsis | Report WLAN or cellular location of UE during setup |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink report-wlan-location *boolean* |
| Tree | report-wlan-location |
| Description | When configured to **true**, this command enables reporting of the WLAN location or cellular location of the UE in the signaling interface (S2a or Gn) between the WLAN GW and the mobile gateway (PGW or GGSN).<br>When configured to **false**, this command disables location reporting. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **session-hold-time** *(number | keyword)*

| | |
|---|---|
| Synopsis | Time to hold a GTP session after its UE is disconnected |
| Context | **configure** subscriber-mgmt gtp peer-profile *named-item* uplink session-hold-time *(number | keyword)* |
| Tree | session-hold-time |
| Range | 0 to 3600 |
| Units | seconds |
| Options | remaining-lease-time |
| Default | 30 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### serving-network

| | |
|---|---|
| Synopsis | Enable the **serving-network** context |
| Context | **configure** subscriber-mgmt gtp serving-network |
| Tree | serving-network |
| Description | Commands in this context configure the 3GPP serving network that the node is part of. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### mcc *string*

| | |
|---|---|
| Synopsis | Mobile Country Code (MCC) portion of serving network |
| Context | **configure** subscriber-mgmt gtp serving-network mcc *string* |
| Tree | mcc |
| String length | 3 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### mnc *string*

| | |
|---|---|
| Synopsis | Mobile Network Code (MNC) portion of serving network |
| Context | **configure** subscriber-mgmt gtp serving-network mnc *string* |
| Tree | mnc |
| String length | 2 to 3 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### host-lockout-policy [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **host-lockout-policy** list instance |
| Context | **configure** subscriber-mgmt host-lockout-policy *named-item* |
| Tree | host-lockout-policy |


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| | |
|---|---|
| Max. instances | 128 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | Host lockout policy name to associate with the SAP |
| Context | **configure** subscriber-mgmt host-lockout-policy *named-item* |
| Tree | host-lockout-policy |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** subscriber-mgmt host-lockout-policy *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **host-key** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Parameters in host identification for lockout on a SAP |
| Context | **configure** subscriber-mgmt host-lockout-policy *named-item* host-key *keyword* |
| Tree | host-key |
| Options | all, mac |
| Default | all |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **lockout-reset-time** *number*

| | |
|---|---|
| Synopsis | Lockout reset time settings |
| Context | **configure** subscriber-mgmt host-lockout-policy *named-item* lockout-reset-time *number* |
| Tree | lockout-reset-time |
| Range | 1 to 86400 |
| Units | seconds |
| Default | 60 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **lockout-time**

| | |
|---|---|
| Synopsis | Enter the **lockout-time** context |
| Context | **configure** subscriber-mgmt host-lockout-policy *named-item* lockout-time |
| Tree | lockout-time |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **max** *number*

| | |
|---|---|
| Synopsis | Maximum lockout time |
| Context | **configure** subscriber-mgmt host-lockout-policy *named-item* lockout-time max *number* |
| Tree | max |
| Range | 1 to 86400 |
| Units | seconds |
| Default | 3600 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **min** *number*

| | |
|---|---|
| Synopsis | Minimum lockout time |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt host-lockout-policy *named-item* lockout-time min *number* |
| Tree | min |
| Range | 1 to 86400 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **max-lockout-hosts** *number*

| | |
|---|---|
| Synopsis | Max lockout hosts |
| Context | **configure** subscriber-mgmt host-lockout-policy *named-item* max-lockout-hosts *number* |
| Tree | max-lockout-hosts |
| Range | 1 to 32000 |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **host-tracking-policy** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **host-tracking-policy** list instance |
| Context | **configure** subscriber-mgmt host-tracking-policy *named-item* |
| Tree | host-tracking-policy |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | Host tracking policy name |
| Context | **configure** subscriber-mgmt host-tracking-policy *named-item* |
| Tree | host-tracking-policy |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** subscriber-mgmt host-tracking-policy *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **egress-rate-modify**

| | |
|---|---|
| Synopsis | Enter the **egress-rate-modify** context |
| Context | **configure** subscriber-mgmt host-tracking-policy *named-item* egress-rate-modify |
| Tree | egress-rate-modify |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **agg-rate**

| | |
|---|---|
| Synopsis | Maximum total rate for all subscriber egress queues |
| Context | **configure** subscriber-mgmt host-tracking-policy *named-item* egress-rate-modify agg-rate |
| Tree | agg-rate |
| Description | This command specifies the maximum total rate for all subscriber egress queues for each subscriber associated with the policy. |
| Notes | The following elements are part of a choice: **agg-rate** or **scheduler**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **scheduler** *named-item*

| | |
|---|---|
| Synopsis | Scheduler to be applied for rate modification |
| Context | **configure** subscriber-mgmt host-tracking-policy *named-item* egress-rate-modify scheduler *named-item* |
| Tree | scheduler |
| String length | 1 to 32 |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **agg-rate** or **scheduler**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **http-redirect-policy** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **http-redirect-policy** list instance |
| Context | **configure** subscriber-mgmt http-redirect-policy *named-item* |
| Tree | http-redirect-policy |
| Max. instances | 16 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | HTTP redirect policy name |
| Context | **configure** subscriber-mgmt http-redirect-policy *named-item* |
| Tree | http-redirect-policy |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **aa-url-parameter** *aa-http-url-param*

| | |
|---|---|
| Synopsis | AA URL parameter included for HTTP portal redirect |
| Context | **configure** subscriber-mgmt http-redirect-policy *named-item* aa-url-parameter *aa-http-url-param* |
| Tree | aa-url-parameter |
| String length | 1 to 247 |
| Introduced | 22.2.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **application-assurance** *reference*

| | |
|---|---|
| Synopsis | AA application profile used for portal authentication |
| Context | **configure** subscriber-mgmt http-redirect-policy *named-item* application-assurance *reference* |
| Tree | application-assurance |
| Reference | **configure** application-assurance group *number* partition *number* policy app-profile *named-item* |
| Introduced | 22.2.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** subscriber-mgmt http-redirect-policy *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **dst-port** *number*

| | |
|---|---|
| Synopsis | Destination port number of the HTTP request to match |
| Context | **configure** subscriber-mgmt http-redirect-policy *named-item* dst-port *number* |
| Tree | dst-port |
| Range | 1 to 65535 |
| Default | 80 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **forward-entry** dst-ip *(ipv4-prefix | ipv6-prefix)* protocol *keyword* dst-port *number*

| | |
|---|---|
| Synopsis | Add a list entry for **forward-entry** |
| Context | **configure** subscriber-mgmt http-redirect-policy *named-item* forward-entry dst-ip *(ipv4-prefix \| ipv6-prefix)* protocol *keyword* dst-port *number* |
| Tree | forward-entry |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **dst-ip** *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Destination address |
| Context | **configure** subscriber-mgmt http-redirect-policy *named-item* forward-entry dst-ip *(ipv4-prefix \| ipv6-prefix)* protocol *keyword* dst-port *number* |
| Tree | forward-entry |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **protocol** *keyword*

| | |
|---|---|
| Synopsis | Destination protocol |
| Context | **configure** subscriber-mgmt http-redirect-policy *named-item* forward-entry dst-ip *(ipv4-prefix \| ipv6-prefix)* protocol *keyword* dst-port *number* |
| Tree | forward-entry |
| Options | tcp, udp |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **dst-port** *number*

| | |
|---|---|
| Synopsis | Destination port |
| Context | **configure** subscriber-mgmt http-redirect-policy *named-item* forward-entry dst-ip *(ipv4-prefix \| ipv6-prefix)* protocol *keyword* dst-port *number* |
| Tree | forward-entry |
| Range | 1 to 65535 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **ignore-app-profile** *boolean*

| | |
|---|---|
| Synopsis | Ignore application profile attribute in the RADIUS Access-Accept message |
| Context | **configure** subscriber-mgmt http-redirect-policy *named-item* ignore-app-profile *boolean* |
| Tree | ignore-app-profile |
| Default | false |
| Introduced | 19.7.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **portal-hold-time** *number*

| | |
|---|---|
| Synopsis | Time to hold redirect forwarding resources |
| Context | **configure** subscriber-mgmt http-redirect-policy *named-item* portal-hold-time *number* |
| Tree | portal-hold-time |
| Range | 1 to 60 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **url** *http-redirect-url*

| | |
|---|---|
| Synopsis | HTTP URL to which the matching traffic is redirected |
| Context | **configure** subscriber-mgmt http-redirect-policy *named-item* url *http-redirect-url* |
| Tree | url |
| Description | This command configures the HTTP redirect URL to which the matching traffic is redirected. Use the following variables to insert subscriber session data in the URL:<br>• $URL (Request-URI in the HTTP GET Request received)<br>• $MAC (a string that represents the MAC address of the subscriber host)<br>• $IP (a string that represents the IP address of the subscriber host)<br>• $NASIP (a string that represents the RADIUS IP address of the ISA/ESA-VM) |
| String length | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **igmp-policy** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **igmp-policy** list instance |
| Context | **configure** subscriber-mgmt igmp-policy *named-item* |
| Tree | igmp-policy |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | Policy name |
| Context | **configure** subscriber-mgmt igmp-policy *named-item* |
| Tree | igmp-policy |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** subscriber-mgmt igmp-policy *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **egress-rate-modify**

| | |
|---|---|
| Synopsis | Enter the **egress-rate-modify** context |
| Context | **configure** subscriber-mgmt igmp-policy *named-item* egress-rate-modify |
| Tree | egress-rate-modify |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### agg-rate

| | |
|---|---|
| Synopsis | Maximum total rate for all subscriber egress queues |
| Context | **configure** subscriber-mgmt igmp-policy *named-item* egress-rate-modify agg-rate |
| Tree | agg-rate |
| Description | This command specifies the maximum total rate for all subscriber egress queues for each subscriber associated with the policy. |
| Notes | The following elements are part of a choice: **agg-rate** or **scheduler**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### scheduler *named-item*

| | |
|---|---|
| Synopsis | Scheduler to be applied for rate modification |
| Context | **configure** subscriber-mgmt igmp-policy *named-item* egress-rate-modify scheduler *named-item* |
| Tree | scheduler |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **agg-rate** or **scheduler**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### fast-leave *boolean*

| | |
|---|---|
| Synopsis | Enable fast leave |
| Context | **configure** subscriber-mgmt igmp-policy *named-item* fast-leave *boolean* |
| Tree | fast-leave |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### import-policy *reference*

| | |
|---|---|
| Synopsis | Import policy that filters IGMP packets |
| Context | **configure** subscriber-mgmt igmp-policy *named-item* import-policy *reference* |


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| | |
|---|---|
| Tree | import-policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **maximum-number-group-sources** *number*

| | |
|---|---|
| Synopsis | Maximum number of group sources for this interface |
| Context | **configure** subscriber-mgmt igmp-policy *named-item* maximum-number-group-sources *number* |
| Tree | maximum-number-group-sources |
| Description | This command configures the maximum number of group sources for which IGMP or MLD can have local receiver information based on received IGMP or MLD reports on this interface. When this configuration is changed dynamically to a lower value than the currently accepted number of group sources, the group sources that are already accepted are not deleted. Only new group sources are not allowed. |
| Range | 1 to 32000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **maximum-number-groups** *number*

| | |
|---|---|
| Synopsis | Maximum number of groups for this interface |
| Context | **configure** subscriber-mgmt igmp-policy *named-item* maximum-number-groups *number* |
| Tree | maximum-number-groups |
| Range | 1 to 16000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **maximum-number-sources** *number*

| | |
|---|---|
| Synopsis | Maximum number of sources that are allowed per group |
| Context | **configure** subscriber-mgmt igmp-policy *named-item* maximum-number-sources *number* |
| Tree | maximum-number-sources |
| Range | 1 to 1000 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## multicast-reporter

| | |
|---|---|
| Synopsis | Enter the **multicast-reporter** context |
| Context | **configure** subscriber-mgmt igmp-policy *named-item* multicast-reporter |
| Tree | multicast-reporter |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the multicast reporter |
| Context | **configure** subscriber-mgmt igmp-policy *named-item* multicast-reporter admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## destination *reference*

| | |
|---|---|
| Synopsis | Multicast reporter destination |
| Context | **configure** subscriber-mgmt igmp-policy *named-item* multicast-reporter destination *reference* |
| Tree | destination |
| Reference | **configure** multicast-management multicast-reporting-destination *named-item* |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## optional-fields

| | |
|---|---|
| Synopsis | Enter the **optional-fields** context |
| Context | **configure** subscriber-mgmt igmp-policy *named-item* multicast-reporter optional-fields |
| Tree | optional-fields |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **host-mac** *boolean*

| | |
|---|---|
| Synopsis | Include host mac address |
| Context | **configure** subscriber-mgmt igmp-policy *named-item* multicast-reporter optional-fields host-mac *boolean* |
| Tree | host-mac |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **pppoe-session-id** *boolean*

| | |
|---|---|
| Synopsis | Include PPPoE session ID in multicast reporting message |
| Context | **configure** subscriber-mgmt igmp-policy *named-item* multicast-reporter optional-fields pppoe-session-id *boolean* |
| Tree | pppoe-session-id |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sap-id** *boolean*

| | |
|---|---|
| Synopsis | Include sap ID |
| Context | **configure** subscriber-mgmt igmp-policy *named-item* multicast-reporter optional-fields sap-id *boolean* |
| Tree | sap-id |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **svc-id** *boolean*

| | |
|---|---|
| Synopsis | Include service ID |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt igmp-policy *named-item* multicast-reporter optional-fields svc-id *boolean* |
| Tree | svc-id |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **query-interval** *number*

| | |
|---|---|
| Synopsis | Time between two consecutive host-query messages |
| Context | **configure** subscriber-mgmt igmp-policy *named-item* query-interval *number* |
| Tree | query-interval |
| Range | 2 to 1024 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **query-last-member-interval** *number*

| | |
|---|---|
| Synopsis | Time between group-specific query messages |
| Context | **configure** subscriber-mgmt igmp-policy *named-item* query-last-member-interval *number* |
| Tree | query-last-member-interval |
| Range | 1 to 1023 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **query-response-interval** *number*

| | |
|---|---|
| Synopsis | Time to wait for a response to the host-query messages |
| Context | **configure** subscriber-mgmt igmp-policy *named-item* query-response-interval *number* |
| Tree | query-response-interval |
| Range | 1 to 1023 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **redirection-policy** *reference*

| | |
|---|---|
| Synopsis | Multicast redirection action applied to the subscriber |
| Context | **configure** subscriber-mgmt igmp-policy *named-item* redirection-policy *reference* |
| Tree | redirection-policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **replication** *keyword*

| | |
|---|---|
| Synopsis | Multicast replication mode for subscriber multicast |
| Context | **configure** subscriber-mgmt igmp-policy *named-item* replication *keyword* |
| Tree | replication |
| Options | per-sap, per-host, per-spi |
| Default | per-sap |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **router-alert-check** *boolean*

| | |
|---|---|
| Synopsis | Enable router alert checking for IGMP or MLD messages |
| Context | **configure** subscriber-mgmt igmp-policy *named-item* router-alert-check *boolean* |
| Tree | router-alert-check |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **static**

| | |
|---|---|
| Synopsis | Enter the **static** context |
| Context | **configure** subscriber-mgmt igmp-policy *named-item* static |
| Tree | static |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **group** [group-address] *ipv4-multicast-address*

| | |
|---|---|
| Synopsis | Enter the **group** list instance |
| Context | **configure** subscriber-mgmt igmp-policy *named-item* static group *ipv4-multicast-address* |
| Tree | group |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**group-address**] *ipv4-multicast-address*

| | |
|---|---|
| Synopsis | Group address of static IGMP multicast channel |
| Context | **configure** subscriber-mgmt igmp-policy *named-item* static group *ipv4-multicast-address* |
| Tree | group |
| Description | This command configures an address that receives data on an interface. The IP address must be unique for each static group. |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **source** [source-address] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Add a list entry for **source** |
| Context | **configure** subscriber-mgmt igmp-policy *named-item* static group *ipv4-multicast-address* source *ipv4-unicast-address* |
| Tree | source |
| Notes | The following elements are part of a mandatory choice: **source** or **starg**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**source-address**] *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Source IP address of multicast channel sending data |
| Context | **configure** subscriber-mgmt igmp-policy *named-item* static group *ipv4-multicast-address* source *ipv4-unicast-address* |
| Tree | source |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 16.0.R2 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### starg

| | |
|---|---|
| Synopsis | any source address (*,G) |
| Context | **configure** subscriber-mgmt igmp-policy *named-item* static group *ipv4-multicast-address* starg |
| Tree | starg |
| Notes | The following elements are part of a mandatory choice: **source** or **starg**. |
| Introduced | 16.0.R2 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### use-multicast-destination-mac *boolean*

| | |
|---|---|
| Synopsis | Use multicast destination MAC for outgoing traffic |
| Context | **configure** subscriber-mgmt igmp-policy *named-item* use-multicast-destination-mac *boolean* |
| Tree | use-multicast-destination-mac |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### version *keyword*

| | |
|---|---|
| Synopsis | IGMP protocol version |
| Context | **configure** subscriber-mgmt igmp-policy *named-item* version *keyword* |
| Tree | version |
| Options | 1, 2, 3 |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### ipoe-session-policy [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **ipoe-session-policy** list instance |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt ipoe-session-policy *named-item* |
| Tree | ipoe-session-policy |
| Max. instances | 256 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | IPoE session policy name |
| Context | **configure** subscriber-mgmt ipoe-session-policy *named-item* |
| Tree | ipoe-session-policy |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **circuit-id-from-auth** *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Use circuit ID from authentication server to identify session |
| Context | **configure** subscriber-mgmt ipoe-session-policy *named-item* circuit-id-from-auth *boolean* |
| Tree | circuit-id-from-auth |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** subscriber-mgmt ipoe-session-policy *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## session-key

| | |
|---|---|
| Synopsis | Enter the **session-key** context |
| Context | **configure** subscriber-mgmt ipoe-session-policy *named-item* session-key |
| Tree | session-key |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## cid *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Use the Circuit ID as part of the index |
| Context | **configure** subscriber-mgmt ipoe-session-policy *named-item* session-key cid *boolean* |
| Tree | cid |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## mac *boolean*

| | |
|---|---|
| Synopsis | Use the MAC address as part of the index |
| Context | **configure** subscriber-mgmt ipoe-session-policy *named-item* session-key mac *boolean* |
| Tree | mac |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## rid *boolean*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.


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| | |
|---|---|
| Synopsis | Use the remote ID as part of the index |
| Context | **configure** subscriber-mgmt ipoe-session-policy *named-item* session-key rid *boolean* |
| Tree | rid |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sap** *boolean*

| | |
|---|---|
| Synopsis | Use the SAP ID as part of the index |
| Context | **configure** subscriber-mgmt ipoe-session-policy *named-item* session-key sap *boolean* |
| Tree | sap |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **session-timeout** *(number | keyword)*

| | |
|---|---|
| Synopsis | Timeout for IPoE sessions |
| Context | **configure** subscriber-mgmt ipoe-session-policy *named-item* session-timeout *(number | keyword)* |
| Tree | session-timeout |
| Range | 1 to 31104000 |
| Options | unlimited |
| Default | unlimited |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **isa-filter** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **isa-filter** list instance |
| Context | **configure** subscriber-mgmt isa-filter *named-item* |
| Tree | isa-filter |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### [**name**] *named-item*

| | |
|---|---|
| Synopsis | ISA filter name |
| Context | **configure** subscriber-mgmt isa-filter *named-item* |
| Tree | isa-filter |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** subscriber-mgmt isa-filter *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ipv4**

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |
| Context | **configure** subscriber-mgmt isa-filter *named-item* ipv4 |
| Tree | ipv4 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **default-action** *keyword*

| | |
|---|---|
| Synopsis | Action for non-matching entry |
| Context | **configure** subscriber-mgmt isa-filter *named-item* ipv4 default-action *keyword* |
| Tree | default-action |
| Options | drop – Drop packets<br>forward – Forward packets |
| Default | drop |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** subscriber-mgmt isa-filter *named-item* ipv4 entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ISA filter entry ID |
| Context | **configure** subscriber-mgmt isa-filter *named-item* ipv4 entry *number* |
| Tree | entry |
| Range | 1 to 1024 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **action**

| | |
|---|---|
| Synopsis | Enable the **action** context |
| Context | **configure** subscriber-mgmt isa-filter *named-item* ipv4 entry *number* action |
| Tree | action |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **drop**

| | |
|---|---|
| Synopsis | A packet matching the entry will be dropped |
| Context | **configure** subscriber-mgmt isa-filter *named-item* ipv4 entry *number* action drop |
| Tree | drop |
| Notes | The following elements are part of a mandatory choice: **drop**, **forward**, or **http-redirect**. |


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| | |
|---|---|
| Introduced | 16.0.R5 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## forward

| | |
|---|---|
| Synopsis | A packet matching the entry will be forwarded |
| Context | **configure** subscriber-mgmt isa-filter *named-item* ipv4 entry *number* action forward |
| Tree | forward |
| Notes | The following elements are part of a mandatory choice: **drop**, **forward**, or **http-redirect**. |
| Introduced | 16.0.R5 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## http-redirect

| | |
|---|---|
| Synopsis | Enable the **http-redirect** context |
| Context | **configure** subscriber-mgmt isa-filter *named-item* ipv4 entry *number* action http-redirect |
| Tree | http-redirect |
| Description | Commands in this context apply the HTTP redirect functionality to HTTP flows that match the entry. Other packets are dropped. |
| Notes | The following elements are part of a mandatory choice: **drop**, **forward**, or **http-redirect**. |
| Introduced | 20.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **url** *http-redirect-url*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | HTTP URL to which the matching traffic is redirected |
| Context | **configure** subscriber-mgmt isa-filter *named-item* ipv4 entry *number* action http-redirect url *http-redirect-url* |
| Tree | url |
| Description | This command specifies the URL to which HTTP flows matching the entry are redirected. The URL can be overridden by AAA.<br>Only macros $URL, $MAC, $IP are supported. For unsupported macros, the string is not modified. |


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| | |
|---|---|
| String length | 1 to 255 |
| Notes | This element is mandatory. |
| Introduced | 20.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** subscriber-mgmt isa-filter *named-item* ipv4 entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **match**

| | |
|---|---|
| Synopsis | Enter the **match** context |
| Context | **configure** subscriber-mgmt isa-filter *named-item* ipv4 entry *number* match |
| Tree | match |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **dst-ip** *ipv4-prefix*

| | |
|---|---|
| Synopsis | Destination IPv4 prefix |
| Context | **configure** subscriber-mgmt isa-filter *named-item* ipv4 entry *number* match dst-ip *ipv4-prefix* |
| Tree | dst-ip |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **dst-port**

| | |
|---|---|
| Synopsis | Enter the **dst-port** context |
| Context | **configure** subscriber-mgmt isa-filter *named-item* ipv4 entry *number* match dst-port |


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| | |
|---|---|
| Tree | dst-port |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **equals** *number*

| | |
|---|---|
| Synopsis | Exact port number |
| Context | **configure** subscriber-mgmt isa-filter *named-item* ipv4 entry *number* match dst-port equals *number* |
| Tree | equals |
| Range | 0 \| 1 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **protocol** *keyword*

| | |
|---|---|
| Synopsis | Protocol |
| Context | **configure** subscriber-mgmt isa-filter *named-item* ipv4 entry *number* match protocol *keyword* |
| Tree | protocol |
| Options | icmp – Match only ICMP packets<br>tcp – Match only TCP packets<br>udp – Match only UDP packets<br>gre – Match only GRE packets |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ipv6**

| | |
|---|---|
| Synopsis | Enter the **ipv6** context |
| Context | **configure** subscriber-mgmt isa-filter *named-item* ipv6 |
| Tree | ipv6 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **default-action** *keyword*

| | |
|---|---|
| Synopsis | Action for non-matching entry |
| Context | **configure** subscriber-mgmt isa-filter *named-item* ipv6 default-action *keyword* |
| Tree | default-action |
| Options | drop – Drop packets<br>forward – Forward packets |
| Default | drop |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** subscriber-mgmt isa-filter *named-item* ipv6 entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**id**] *number*

| | |
|---|---|
| Synopsis | ISA filter entry ID |
| Context | **configure** subscriber-mgmt isa-filter *named-item* ipv6 entry *number* |
| Tree | entry |
| Range | 1 to 1024 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **action**

| | |
|---|---|
| Synopsis | Enable the **action** context |
| Context | **configure** subscriber-mgmt isa-filter *named-item* ipv6 entry *number* action |
| Tree | action |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## drop

| | |
|---|---|
| Synopsis | A packet matching the entry will be dropped |
| Context | **configure** subscriber-mgmt isa-filter *named-item* ipv6 entry *number* action drop |
| Tree | drop |
| Notes | The following elements are part of a mandatory choice: **drop**, **forward**, or **http-redirect**. |
| Introduced | 16.0.R5 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## forward

| | |
|---|---|
| Synopsis | A packet matching the entry will be forwarded |
| Context | **configure** subscriber-mgmt isa-filter *named-item* ipv6 entry *number* action forward |
| Tree | forward |
| Notes | The following elements are part of a mandatory choice: **drop**, **forward**, or **http-redirect**. |
| Introduced | 16.0.R5 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## http-redirect

| | |
|---|---|
| Synopsis | Enable the **http-redirect** context |
| Context | **configure** subscriber-mgmt isa-filter *named-item* ipv6 entry *number* action http-redirect |
| Tree | http-redirect |
| Description | Commands in this context apply the HTTP redirect functionality to HTTP flows that match the entry. Other packets are dropped. |
| Notes | The following elements are part of a mandatory choice: **drop**, **forward**, or **http-redirect**. |
| Introduced | 20.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **url** *http-redirect-url*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | HTTP URL to which the matching traffic is redirected |
| Context | **configure** subscriber-mgmt isa-filter *named-item* ipv6 entry *number* action http-redirect url *http-redirect-url* |
| Tree | url |
| Description | This command specifies the URL to which HTTP flows matching the entry are redirected. The URL can be overridden by AAA.<br>Only macros $URL, $MAC, $IP are supported. For unsupported macros, the string is not modified. |
| String length | 1 to 255 |
| Notes | This element is mandatory. |
| Introduced | 20.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** subscriber-mgmt isa-filter *named-item* ipv6 entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **match**

| | |
|---|---|
| Synopsis | Enter the **match** context |
| Context | **configure** subscriber-mgmt isa-filter *named-item* ipv6 entry *number* match |
| Tree | match |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **dst-ip** *ipv6-prefix*

| | |
|---|---|
| Synopsis | Destination IPv6 prefix |
| Context | **configure** subscriber-mgmt isa-filter *named-item* ipv6 entry *number* match dst-ip *ipv6-prefix* |
| Tree | dst-ip |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **dst-port**

| | |
|---|---|
| Synopsis | Enter the **dst-port** context |
| Context | **configure** subscriber-mgmt isa-filter *named-item* ipv6 entry *number* match dst-port |
| Tree | dst-port |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **equals** *number*

| | |
|---|---|
| Synopsis | Exact port number |
| Context | **configure** subscriber-mgmt isa-filter *named-item* ipv6 entry *number* match dst-port equals *number* |
| Tree | equals |
| Range | 0 \| 1 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **protocol** *keyword*

| | |
|---|---|
| Synopsis | Protocol |
| Context | **configure** subscriber-mgmt isa-filter *named-item* ipv6 entry *number* match protocol *keyword* |
| Tree | protocol |
| Options | icmp – Match only ICMP packets<br>tcp – Match only TCP packets<br>udp – Match only UDP packets<br>gre – Match only GRE packets |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **type** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Limit what the ISA filter can be used for |
| Context | **configure** subscriber-mgmt isa-filter *named-item* type *keyword* |
| Tree | type |
| Options | dsm – Limited to DSM applications |
| Default | dsm |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **isa-policer** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **isa-policer** list instance |
| Context | **configure** subscriber-mgmt isa-policer *named-item* |
| Tree | isa-policer |
| Max. instances | 128 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | ISA policer name |
| Context | **configure** subscriber-mgmt isa-policer *named-item* |
| Tree | isa-policer |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## **action** *keyword*

| | |
|---|---|
| Synopsis | Action for in-profile and out-of-profile packets |
| Context | **configure** subscriber-mgmt isa-policer *named-item* action *keyword* |
| Tree | action |
| Options | permit-deny – Permit or deny packets based on policer outcome<br>priority-mark – Mark packets as in or out of profile based on policer outcome |
| Default | permit-deny |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **adaptation-rule**

| | |
|---|---|
| Synopsis | Enter the **adaptation-rule** context |
| Context | **configure** subscriber-mgmt isa-policer *named-item* adaptation-rule |
| Tree | adaptation-rule |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **cir** *keyword*

| | |
|---|---|
| Synopsis | Committed information rate |
| Context | **configure** subscriber-mgmt isa-policer *named-item* adaptation-rule cir *keyword* |
| Tree | cir |
| Options | max, min, closest |
| Default | closest |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **pir** *keyword*

| | |
|---|---|
| Synopsis | Peak Information Rate |
| Context | **configure** subscriber-mgmt isa-policer *named-item* adaptation-rule pir *keyword* |
| Tree | pir |
| Options | max, min, closest |


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| | |
|---|---|
| Default | closest |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **cbs** *number*

| | |
|---|---|
| Synopsis | Committed burst size |
| Context | **configure** subscriber-mgmt isa-policer *named-item* cbs *number* |
| Tree | cbs |
| Range | 0 to 131071 |
| Units | kilobytes |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** subscriber-mgmt isa-policer *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **mbs** *number*

| | |
|---|---|
| Synopsis | Maximum Burst Size |
| Context | **configure** subscriber-mgmt isa-policer *named-item* mbs *number* |
| Tree | mbs |
| Range | 0 to 131071 |
| Units | kilobytes |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### rate

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** subscriber-mgmt isa-policer *named-item* rate |
| Tree | rate |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### cir *(number | keyword)*

| | |
|---|---|
| Synopsis | Committed information rate |
| Context | **configure** subscriber-mgmt isa-policer *named-item* rate cir *(number | keyword)* |
| Tree | cir |
| Range | 0 to 100000000 |
| Units | kilobps |
| Options | max |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### pir *(number | keyword)*

| | |
|---|---|
| Synopsis | Peak Information Rate |
| Context | **configure** subscriber-mgmt isa-policer *named-item* rate pir *(number | keyword)* |
| Tree | pir |
| Range | 1 to 100000000 |
| Units | kilobps |
| Options | max |
| Default | max |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **type** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Policing technique |
| Context | **configure** subscriber-mgmt isa-policer *named-item* type *keyword* |
| Tree | type |
| Options | single-bucket-bandwidth – Police traffic using a single bucket<br>dual-bucket-bandwidth – Police traffic using dual buckets |
| Default | single-bucket-bandwidth |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## isa-service-chaining

| | |
|---|---|
| Synopsis | Enter the **isa-service-chaining** context |
| Context | **configure** subscriber-mgmt isa-service-chaining |
| Tree | isa-service-chaining |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **evpn** [id] *service-name*

| | |
|---|---|
| Synopsis | Enter the **evpn** list instance |
| Context | **configure** subscriber-mgmt isa-service-chaining evpn *service-name* |
| Tree | evpn |
| Max. instances | 1024 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**id**] *service-name*

| | |
|---|---|
| Synopsis | EVPN service ID |
| Context | **configure** subscriber-mgmt isa-service-chaining evpn *service-name* |


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| | |
|---|---|
| Tree | evpn |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of EVPN |
| Context | **configure** subscriber-mgmt isa-service-chaining evpn *service-name* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **bgp**

| | |
|---|---|
| Synopsis | Enter the **bgp** context |
| Context | **configure** subscriber-mgmt isa-service-chaining evpn *service-name* bgp |
| Tree | bgp |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **route-distinguisher**

| | |
|---|---|
| Synopsis | Enter the **route-distinguisher** context |
| Context | **configure** subscriber-mgmt isa-service-chaining evpn *service-name* bgp route-distinguisher |
| Tree | route-distinguisher |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **rd** *(keyword | vpn-route-distinguisher)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | RD component for NLRI |
| Context | **configure** subscriber-mgmt isa-service-chaining evpn *service-name* bgp route-distinguisher rd *(keyword \| vpn-route-distinguisher)* |
| Tree | rd |
| Options | auto-rd |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **route-target**

| | |
|---|---|
| Synopsis | Enable the **route-target** context |
| Context | **configure** subscriber-mgmt isa-service-chaining evpn *service-name* bgp route-target |
| Tree | route-target |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **export** *route-target-32*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Extended community name for default export policy |
| Context | **configure** subscriber-mgmt isa-service-chaining evpn *service-name* bgp route-target export *route-target-32* |
| Tree | export |
| String length | 10 to 32 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## **import** *route-target-32*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Extended community name for default import policy |
| Context | **configure** subscriber-mgmt isa-service-chaining evpn *service-name* bgp route-target import *route-target-32* |
| Tree | import |
| String length | 10 to 32 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** subscriber-mgmt isa-service-chaining evpn *service-name* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **export**

| | |
|---|---|
| Synopsis | Enter the **export** context |
| Context | **configure** subscriber-mgmt isa-service-chaining evpn *service-name* export |
| Tree | export |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **advertise-pools**

| | |
|---|---|
| Synopsis | Enter the **advertise-pools** context |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt isa-service-chaining evpn *service-name* export advertise-pools |
| Tree | advertise-pools |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of NAT pool route advertisement |
| Context | **configure** subscriber-mgmt isa-service-chaining evpn *service-name* export advertise-pools admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **pool** router-instance *string* name *named-item*

| | |
|---|---|
| Synopsis | Add a list entry for **pool** |
| Context | **configure** subscriber-mgmt isa-service-chaining evpn *service-name* export advertise-pools pool router-instance *string* name *named-item* |
| Tree | pool |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **router-instance** *string*

| | |
|---|---|
| Synopsis | Router-instance of the NAT pool |
| Context | **configure** subscriber-mgmt isa-service-chaining evpn *service-name* export advertise-pools pool router-instance *string* name *named-item* |
| Tree | pool |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **name** *named-item*

| | |
|---|---|
| Synopsis | NAT pool name |
| Context | **configure** subscriber-mgmt isa-service-chaining evpn *service-name* export advertise-pools pool router-instance *string* name *named-item* |
| Tree | pool |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **gateway-address-range**

| | |
|---|---|
| Synopsis | Enable the **gateway-address-range** context |
| Context | **configure** subscriber-mgmt isa-service-chaining evpn *service-name* export gateway-address-range |
| Tree | gateway-address-range |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **end** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Upper bound of the gateway address range |
| Context | **configure** subscriber-mgmt isa-service-chaining evpn *service-name* export gateway-address-range end *ipv4-unicast-address* |
| Tree | end |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **start** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Lower bound of the gateway address range |
| Context | **configure** subscriber-mgmt isa-service-chaining evpn *service-name* export gateway-address-range start *ipv4-unicast-address* |
| Tree | start |


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| | |
|---|---|
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## vxlan

| | |
|---|---|
| Synopsis | Enter the **vxlan** context |
| Context | **configure** subscriber-mgmt isa-service-chaining evpn *service-name* export vxlan |
| Tree | vxlan |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## vni *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | VNI of the VXLAN created by the EVPN service |
| Context | **configure** subscriber-mgmt isa-service-chaining evpn *service-name* export vxlan vni *number* |
| Tree | vni |
| Range | 1 to 16777215 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## import-mode *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Import mode for the EVPN |
| Context | **configure** subscriber-mgmt isa-service-chaining evpn *service-name* import-mode *keyword* |
| Tree | import-mode |
| Options | none, bridged, routed |


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| | |
|---|---|
| Default | none |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **prefix-route-resolution** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | How prefix routes should be resolved |
| Context | **configure** subscriber-mgmt isa-service-chaining evpn *service-name* prefix-route-resolution *keyword* |
| Tree | prefix-route-resolution |
| Options | recursive, non-recursive |
| Default | recursive |
| Introduced | 16.0.R6 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **mac-prefix** *string*

| | |
|---|---|
| Synopsis | MAC prefix for all NAT groups for Service Chaining |
| Context | **configure** subscriber-mgmt isa-service-chaining mac-prefix *string* |
| Tree | mac-prefix |
| String length | 8 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **vas-filter** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **vas-filter** list instance |
| Context | **configure** subscriber-mgmt isa-service-chaining vas-filter *named-item* |
| Tree | vas-filter |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### [**name**] *named-item*

| | |
|---|---|
| Synopsis | VAS filter name |
| Context | **configure** subscriber-mgmt isa-service-chaining vas-filter *named-item* |
| Tree | vas-filter |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** subscriber-mgmt isa-service-chaining vas-filter *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** subscriber-mgmt isa-service-chaining vas-filter *named-item* entry *number* |
| Tree | entry |
| Max. instances | 64 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**id**] *number*

| | |
|---|---|
| Synopsis | VAS filter entry ID |
| Context | **configure** subscriber-mgmt isa-service-chaining vas-filter *named-item* entry *number* |
| Tree | entry |
| Range | 1 to 65535 |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **action** [direction] *keyword*

| | |
|---|---|
| Synopsis | Enter the **action** list instance |
| Context | **configure** subscriber-mgmt isa-service-chaining vas-filter *named-item* entry *number* action *keyword* |
| Tree | action |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**direction**] *keyword*

| | |
|---|---|
| Synopsis | Direction for the action in a VAS filter entry |
| Context | **configure** subscriber-mgmt isa-service-chaining vas-filter *named-item* entry *number* action *keyword* |
| Tree | action |
| Options | upstream, downstream |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **fail-action** *keyword*

| | |
|---|---|
| Synopsis | Action for unresolved SF-IP or ESI |
| Context | **configure** subscriber-mgmt isa-service-chaining vas-filter *named-item* entry *number* action *keyword* fail-action *keyword* |
| Tree | fail-action |
| Options | drop, accept |
| Default | accept |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### forward

| | |
|---|---|
| Synopsis | Enable the **forward** context |
| Context | **configure** subscriber-mgmt isa-service-chaining vas-filter *named-item* entry *number* action *keyword* forward |
| Tree | forward |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### esi *ethernet-segment-id*

| | |
|---|---|
| Synopsis | ESI for the action in the VAS filter entry |
| Context | **configure** subscriber-mgmt isa-service-chaining vas-filter *named-item* entry *number* action *keyword* forward esi *ethernet-segment-id* |
| Tree | esi |
| Default | 00:00:00:00:00:00:00:00:00:00 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### sf-ip *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Forwarding SF IP address for the action |
| Context | **configure** subscriber-mgmt isa-service-chaining vas-filter *named-item* entry *number* action *keyword* forward sf-ip *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | sf-ip |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### svc *reference*

| | |
|---|---|
| Synopsis | EVPN service used for forwarding packets |
| Context | **configure** subscriber-mgmt isa-service-chaining vas-filter *named-item* entry *number* action *keyword* forward svc *reference* |
| Tree | svc |
| Reference | **configure** subscriber-mgmt isa-service-chaining evpn *service-name* |


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| | |
|---|---|
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## insert-nsh

| | |
|---|---|
| Synopsis | Enter the **insert-nsh** context |
| Context | **configure** subscriber-mgmt isa-service-chaining vas-filter *named-item* entry *number* action *keyword* insert-nsh |
| Tree | insert-nsh |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## meta-data

| | |
|---|---|
| Synopsis | Enter the **meta-data** context |
| Context | **configure** subscriber-mgmt isa-service-chaining vas-filter *named-item* entry *number* action *keyword* insert-nsh meta-data |
| Tree | meta-data |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## insert-subscriber-id

| | |
|---|---|
| Synopsis | Insert the subscriber-id in the NSH |
| Context | **configure** subscriber-mgmt isa-service-chaining vas-filter *named-item* entry *number* action *keyword* insert-nsh meta-data insert-subscriber-id |
| Tree | insert-subscriber-id |
| Notes | The following elements are part of a choice: **insert-subscriber-id** or **opaque-data**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## opaque-data *string*

| | |
|---|---|
| Synopsis | Opaque meta-data for the NSH |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt isa-service-chaining vas-filter *named-item* entry *number* action *keyword* insert-nsh meta-data opaque-data *string* |
| Tree | opaque-data |
| String length | 10\|18\|26\|34 |
| Notes | The following elements are part of a choice: **insert-subscriber-id** or **opaque-data**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## svc-path

| | |
|---|---|
| Synopsis | Enable the **svc-path** context |
| Context | **configure** subscriber-mgmt isa-service-chaining vas-filter *named-item* entry *number* action *keyword* insert-nsh svc-path |
| Tree | svc-path |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## path-id *number*

| | |
|---|---|
| Synopsis | Path ID in the base part of NSH |
| Context | **configure** subscriber-mgmt isa-service-chaining vas-filter *named-item* entry *number* action *keyword* insert-nsh svc-path path-id *number* |
| Tree | path-id |
| Range | 1 to 16777215 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## svc-index *number*

| | |
|---|---|
| Synopsis | Service index inserted in the base part of NSH |
| Context | **configure** subscriber-mgmt isa-service-chaining vas-filter *named-item* entry *number* action *keyword* insert-nsh svc-path svc-index *number* |
| Tree | svc-index |
| Range | 1 to 255 |
| Notes | This element is mandatory. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the VAS filter |
| Context | **configure** subscriber-mgmt isa-service-chaining vas-filter *named-item* entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** subscriber-mgmt isa-service-chaining vas-filter *named-item* entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **match**

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **match** context |
| Context | **configure** subscriber-mgmt isa-service-chaining vas-filter *named-item* entry *number* match |
| Tree | match |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **foreign-ip** *(ipv4-unicast-prefix | ipv4-unicast-address)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Foreign IP address or prefix for match criterion |
| Context | **configure** subscriber-mgmt isa-service-chaining vas-filter *named-item* entry *number* match foreign-ip *(ipv4-unicast-prefix \| ipv4-unicast-address)* |
| Tree | foreign-ip |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **foreign-port** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Foreign TCP or UDP port as the match criterion |
| Context | **configure** subscriber-mgmt isa-service-chaining vas-filter *named-item* entry *number* match foreign-port *number* |
| Tree | foreign-port |
| Range | 1 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **protocol** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IP protocol to match the VAS filter |
| Context | **configure** subscriber-mgmt isa-service-chaining vas-filter *named-item* entry *number* match protocol *keyword* |
| Tree | protocol |
| Options | tcp-udp – TCP and UDP<br>none – Matching disabled by the IP protocol |


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| | |
|---|---|
| | icmp – ICMP<br>tcp – TCP<br>udp – UDP |
| Default | none |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **local-user-db** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **local-user-db** list instance |
| Context | **configure** subscriber-mgmt local-user-db *named-item* |
| Tree | local-user-db |
| Max. instances | 127 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | Local user database name |
| Context | **configure** subscriber-mgmt local-user-db *named-item* |
| Tree | local-user-db |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the local user database |
| Context | **configure** subscriber-mgmt local-user-db *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** subscriber-mgmt local-user-db *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ipoe**

| | |
|---|---|
| Synopsis | Enter the **ipoe** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe |
| Tree | ipoe |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **host** [host-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **host** list instance |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* |
| Tree | host |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**host-name**] *named-item*

| | |
|---|---|
| Synopsis | Host name |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* |
| Tree | host |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the host |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **authentication**

| | |
|---|---|
| Synopsis | Enter the **authentication** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* authentication |
| Tree | authentication |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **auth-domain-name** *named-item*

| | |
|---|---|
| Synopsis | Domain name appended to the username for the host |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* authentication auth-domain-name *named-item* |
| Tree | auth-domain-name |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **gx-policy** *named-item*

| | |
|---|---|
| Synopsis | Diameter application policy |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* authentication gx-policy *named-item* |
| Tree | gx-policy |


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| | |
|---|---|
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **nasreq-auth-policy** *named-item*

| | |
|---|---|
| Synopsis | Diameter NASREQ application policy for authentication |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* authentication nasreq-auth-policy *named-item* |
| Tree | nasreq-auth-policy |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **radius-auth-policy** *named-item*

| | |
|---|---|
| Synopsis | Host authentication policy |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* authentication radius-auth-policy *named-item* |
| Tree | radius-auth-policy |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **gtp-interface**

| | |
|---|---|
| Synopsis | Enable the **gtp-interface** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* gtp-interface |
| Tree | gtp-interface |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **name** *named-item*

| | |
|---|---|
| Synopsis | IP interface name |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* gtp-interface name *named-item* |
| Tree | name |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **service-id** *number*

| | |
|---|---|
| Synopsis | Service ID |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* gtp-interface service-id *number* |
| Tree | service-id |
| Range | 1 to 2147483647 \| 2147483648 \| 2147483649 \| 2147483650 \| 2147483651 to 2147483690 \| 2147483691 to 2148007980 \| 2148007981 to 2148012076 \| 2148012077 to 2148016172 \| 2148016173 to 2148278316 \| 2148278317 \| 2148278318 to 2148278381 \| 2148278382 \| 2148278383 to 2148278386 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **host-identification**

| | |
|---|---|
| Synopsis | Enter the **host-identification** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* host-identification |
| Tree | host-identification |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **circuit-id**

| | |
|---|---|
| Synopsis | Enter the **circuit-id** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* host-identification circuit-id |
| Tree | circuit-id |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ascii-string** *string*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Circuit ID as ASCII string |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* host-identification circuit-id ascii-string *string* |
| Tree | ascii-string |
| String length | 1 to 127 |
| Notes | The following elements are part of a choice: **ascii-string** or **hex-string**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **hex-string** *hex-string*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Circuit ID as hexadecimal string |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* host-identification circuit-id hex-string *hex-string* |
| Tree | hex-string |
| String length | 1 to 256 |
| Notes | The following elements are part of a choice: **ascii-string** or **hex-string**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## **derived-id** *display-string*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Derived ID string |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* host-identification derived-id *display-string* |
| Tree | derived-id |
| String length | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **duid-en**

| | |
|---|---|
| Synopsis | Enter the **duid-en** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* host-identification duid-en |
| Tree | duid-en |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **hex-string** *hex-string*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Client ID of type duid-en as a hexadecimal string |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* host-identification duid-en hex-string *hex-string* |
| Tree | hex-string |
| Description | This command configures the hexadecimal value for use in matching against the concatenation of the enterprise number and identifier fields of the DHCPv6 option CLIENTID (1) with DUID type = 2 (assigned by the vendor based on the enterprise number) in the DHCPv6 client message. |
| String length | 1 to 256 |


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| | |
|---|---|
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **duid-ll-llt** *mac-unicast-address-no-zero*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | MAC address of the Client ID type duid-ll or duid-llt |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* host-identification duid-ll-llt *mac-unicast-address-no-zero* |
| Tree | duid-ll-llt |
| Description | This command configures the value for use in matching against the link-layer address field of the DHCPv6 option CLIENTID (1) with DUID type = 3 (based on the link-layer address) or DUID type = 1 (based on the link-layer address plus time) and hardware type = 1 (Ethernet) in the DHCPv6 client message. For DUID type = 1, the time field is ignored. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **encap-tag-range**

| | |
|---|---|
| Synopsis | Enable the **encap-tag-range** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* host-identification encap-tag-range |
| Tree | encap-tag-range |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **from** *atm-or-vlan-encap*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Start tag |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* host-identification encap-tag-range from *atm-or-vlan-encap* |


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| | |
|---|---|
| Tree | from |
| String length | 1 to 11 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **to** *atm-or-vlan-encap*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | End tag |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* host-identification encap-tag-range to *atm-or-vlan-encap* |
| Tree | to |
| String length | 1 to 11 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## encap-tag-separate-range

| | |
|---|---|
| Synopsis | Enter the **encap-tag-separate-range** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* host-identification encap-tag-separate-range |
| Tree | encap-tag-separate-range |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## inner

| | |
|---|---|
| Synopsis | Enter the **inner** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* host-identification encap-tag-separate-range inner |
| Tree | inner |
| Introduced | 20.5.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **end** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Upper bound of the inner encapsulation tag range |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* host-identification encap-tag-separate-range inner end *number* |
| Tree | end |
| Description | This command configures an inner end tag for the range of encapsulation tags used for host identification. |
| Range | 0 to 4094 |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **start** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Lower bound of the inner encapsulation tag range |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* host-identification encap-tag-separate-range inner start *number* |
| Tree | start |
| Description | This command configures an inner start tag for the range of encapsulation tags used for host identification. |
| Range | 0 to 4094 |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **outer**

| | |
|---|---|
| Synopsis | Enter the **outer** context |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* host-identification encap-tag-separate-range outer |
| Tree | outer |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **end** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Upper bound of the outer encapsulation tag range |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* host-identification encap-tag-separate-range outer end *number* |
| Tree | end |
| Description | This command configures an outer end tag for the range of encapsulation tags used for host identification. |
| Range | 0 to 4094 |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **start** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Lower bound of the outer encapsulation tag range |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* host-identification encap-tag-separate-range outer start *number* |
| Tree | start |
| Description | This command configures an outer start tag for the range of encapsulation tags used for host identification. |
| Range | 0 to 4094 |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **ip-prefix** *(ipv4-prefix-with-host-bits | ipv6-prefix-with-host-bits)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IP interface name |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* host-identification ip-prefix *(ipv4-prefix-with-host-bits \| ipv6-prefix-with-host-bits)* |
| Tree | ip-prefix |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **mac** *mac-unicast-address-no-zero*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | MAC address |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* host-identification mac *mac-unicast-address-no-zero* |
| Tree | mac |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **option60**

| | |
|---|---|
| Synopsis | Enter the **option60** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* host-identification option60 |
| Tree | option60 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **ascii-string** *named-item*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Option 60 as ASCII string |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* host-identification option60 ascii-string *named-item* |
| Tree | ascii-string |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **ascii-string** or **hex-string**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **hex-string** *hex-string*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Option as a hexadecimal string |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* host-identification option60 hex-string *hex-string* |
| Tree | hex-string |
| String length | 1 to 64 |
| Notes | The following elements are part of a choice: **ascii-string** or **hex-string**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **remote-id**

| | |
|---|---|
| Synopsis | Enter the **remote-id** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* host-identification remote-id |
| Tree | remote-id |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ascii-string** *string*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Remote ID as ASCII string |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* host-identification remote-id ascii-string *string* |
| Tree | ascii-string |
| String length | 1 to 255 |
| Notes | The following elements are part of a choice: **ascii-string** or **hex-string**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **hex-string** *hex-string*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Remote ID as hexadecimal string |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* host-identification remote-id hex-string *hex-string* |
| Tree | hex-string |
| String length | 1 to 512 |
| Notes | The following elements are part of a choice: **ascii-string** or **hex-string**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sap-id** *display-string*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.


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| | |
|---|---|
| Synopsis | SAP ID |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* host-identification sap-id *display-string* |
| Tree | sap-id |
| String length | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **service-id** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Service ID |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* host-identification service-id *number* |
| Tree | service-id |
| Range | 1 to 2147483647 \| 2147483648 \| 2147483649 \| 2147483650 \| 2147483651 to 2147483690 \| 2147483691 to 2148007980 \| 2148007981 to 2148012076 \| 2148012077 to 2148016172 \| 2148016173 to 2148278316 \| 2148278317 \| 2148278318 to 2148278381 \| 2148278382 \| 2148278383 to 2148278386 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **string** *display-string*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | VSO string |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* host-identification string *display-string* |
| Tree | string |
| String length | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **system-id** *display-string*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | System ID |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* host-identification system-id *display-string* |
| Tree | system-id |
| String length | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **identification**

| | |
|---|---|
| Synopsis | Enable the **identification** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* identification |
| Tree | identification |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ancp-string** *string*

| | |
|---|---|
| Synopsis | ANCP string |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* identification ancp-string *string* |
| Tree | ancp-string |
| String length | 1 to 63 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **app-profile-string** *string*

| | |
|---|---|
| Synopsis | Application profile string |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* identification app-profile-string *string* |
| Tree | app-profile-string |
| String length | 1 to 16 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **category-map-name** *named-item*

| | |
|---|---|
| Synopsis | Category map name |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* identification category-map-name *named-item* |
| Tree | category-map-name |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **int-dest-id** *int-dest-id*

| | |
|---|---|
| Synopsis | Intermediate destination ID |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* identification int-dest-id *int-dest-id* |
| Tree | int-dest-id |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **option-number** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Identification strings for the subscriber |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* identification option-number *number* |
| Tree | option-number |


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| | |
|---|---|
| Range | 1 to 254 |
| Default | 254 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sla-profile-string** *string*

| | |
|---|---|
| Synopsis | SLA profile string |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* identification sla-profile-string *string* |
| Tree | sla-profile-string |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **spi-sharing-group-id** *number*

| | |
|---|---|
| Synopsis | SPI sharing group ID |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* identification spi-sharing-group-id *number* |
| Tree | spi-sharing-group-id |
| Range | 0 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sub-profile-string** *string*

| | |
|---|---|
| Synopsis | Sub profile string |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* identification sub-profile-string *string* |
| Tree | sub-profile-string |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **subscriber-id** *named-item-64*

| | |
|---|---|
| Synopsis | Subscriber ID |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* identification subscriber-id *named-item-64* |
| Tree | subscriber-id |
| String length | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ipv4**

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* ipv4 |
| Tree | ipv4 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **address**

| | |
|---|---|
| Synopsis | Enter the **address** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* ipv4 address |
| Tree | address |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **gi-address** *keyword*

| | |
|---|---|
| Synopsis | Use gi-address to select a pool with the given scope |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* ipv4 address gi-address *keyword* |
| Tree | gi-address |
| Options | subnet-scope, pool-scope |
| Notes | The following elements are part of a choice: **gi-address**, **ip-address**, **pool**, or **use-pool-from-client**. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **ip-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Fixed IPv4 address of the host |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* ipv4 address ip-address *ipv4-unicast-address* |
| Tree | ip-address |
| Notes | The following elements are part of a choice: **gi-address**, **ip-address**, **pool**, or **use-pool-from-client**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **pool**

| | |
|---|---|
| Synopsis | Enable the **pool** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* ipv4 address pool |
| Tree | pool |
| Notes | The following elements are part of a choice: **gi-address**, **ip-address**, **pool**, or **use-pool-from-client**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **delimiter** *string*

| | |
|---|---|
| Synopsis | Delimiter separating primary and secondary pool names |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* ipv4 address pool delimiter *string* |
| Tree | delimiter |
| String length | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **primary** *named-item*

| | |
|---|---|
| Synopsis | Primary pool name |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* ipv4 address pool primary *named-item* |
| Tree | primary |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **secondary** *named-item*

| | |
|---|---|
| Synopsis | Secondary pool name |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* ipv4 address pool secondary *named-item* |
| Tree | secondary |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **use-pool-from-client**

| | |
|---|---|
| Synopsis | Enable the **use-pool-from-client** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* ipv4 address use-pool-from-client |
| Tree | use-pool-from-client |
| Notes | The following elements are part of a choice: **gi-address**, **ip-address**, **pool**, or **use-pool-from-client**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **delimiter** *string*

| | |
|---|---|
| Synopsis | Delimiter character to combine primary and secondary pool names |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* ipv4 address use-pool-from-client delimiter *string* |
| Tree | delimiter |
| String length | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **gi-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | GI addresses based on the host entry in the LUDB |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* ipv4 gi-address *ipv4-unicast-address* |
| Tree | gi-address |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **option** [number] *(number | keyword)*

| | |
|---|---|
| Synopsis | Enter the **option** list instance |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* ipv4 option *(number | keyword)* |
| Tree | option |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**number**] *(number | keyword)*

| | |
|---|---|
| Synopsis | DHCP option to send identification strings to client |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* ipv4 option *(number | keyword)* |
| Tree | option |
| Range | 1 to 254 |
| Options | subnet-mask, default-router, dns-server, domain-name, netbios-name-server, netbios-node-type, lease-time, lease-renew-time, lease-rebind-time |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ascii-string** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | DHCP option specified as an ASCII string |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* ipv4 option *(number \| keyword)* ascii-string *string-not-all-spaces* |
| Tree | ascii-string |
| String length | 1 to 127 |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **duration**, **empty**, **hex-string**, **ipv4-address**, or **netbios-node-type**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **duration** *number*

| | |
|---|---|
| Synopsis | DHCP option as time duration |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* ipv4 option *(number \| keyword)* duration *number* |
| Tree | duration |
| Range | 10 to 315446399 |
| Units | seconds |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **duration**, **empty**, **hex-string**, **ipv4-address**, or **netbios-node-type**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **empty**

| | |
|---|---|
| Synopsis | Remove DHCP option configuration |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* ipv4 option *(number \| keyword)* empty |
| Tree | empty |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **duration**, **empty**, **hex-string**, **ipv4-address**, or **netbios-node-type**. |
| Introduced | 16.0.R4 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **hex-string** *hex-string*

| | |
|---|---|
| Synopsis | DHCP option specified as hexadecimal string |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* ipv4 option *(number \| keyword)* hex-string *hex-string* |
| Tree | hex-string |
| String length | 1 to 256 |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **duration**, **empty**, **hex-string**, **ipv4-address**, or **netbios-node-type**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ipv4-address** *ipv4-address*

| | |
|---|---|
| Synopsis | DHCP option as a list of IPv4 addresses |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* ipv4 option *(number \| keyword)* ipv4-address *ipv4-address* |
| Tree | ipv4-address |
| Max. instances | 4 |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **duration**, **empty**, **hex-string**, **ipv4-address**, or **netbios-node-type**.<br>This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **netbios-node-type** *keyword*

| | |
|---|---|
| Synopsis | DHCP option as NetBIOS node type |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* ipv4 option *(number \| keyword)* netbios-node-type *keyword* |
| Tree | netbios-node-type |
| Options | b-node, p-node, m-node, h-node |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **duration**, **empty**, **hex-string**, **ipv4-address**, or **netbios-node-type**. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **server** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IPv4 address of the DHCP server |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* ipv4 server *ipv4-unicast-address* |
| Tree | server |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ipv6**

| | |
|---|---|
| Synopsis | Enter the **ipv6** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* ipv6 |
| Tree | ipv6 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **address** *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Fixed IPv6 address of the host |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* ipv6 address *ipv6-unicast-address* |
| Tree | address |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **address-pool** *named-item*

| | |
|---|---|
| Synopsis | IPv6 address pool name |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* ipv6 address-pool *named-item* |
| Tree | address-pool |
| String length | 1 to 32 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **delegated-prefix** *ipv6-unicast-prefix*

| | |
|---|---|
| Synopsis | IPv6 delegated prefix of this host |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* ipv6 delegated-prefix *ipv6-unicast-prefix* |
| Tree | delegated-prefix |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **delegated-prefix-length** *number*

| | |
|---|---|
| Synopsis | Delegated prefix length |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* ipv6 delegated-prefix-length *number* |
| Tree | delegated-prefix-length |
| Range | 48 to 64 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **delegated-prefix-pool** *named-item*

| | |
|---|---|
| Synopsis | Delegated prefix pool |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* ipv6 delegated-prefix-pool *named-item* |
| Tree | delegated-prefix-pool |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **link-address** *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Link address used for prefix selection at DHCP server |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* ipv6 link-address *ipv6-unicast-address* |


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| | |
|---|---|
| Tree | link-address |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **option** [number] *(number | keyword)*

| | |
|---|---|
| Synopsis | Enter the **option** list instance |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* ipv6 option *(number | keyword)* |
| Tree | option |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**number**] *(number | keyword)*

| | |
|---|---|
| Synopsis | DHCPv6 option number or keyword |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* ipv6 option *(number | keyword)* |
| Tree | option |
| Range | 1 to 254 |
| Options | dns-server, boot-file-url, boot-file-param |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ascii-string** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | DHCP option sepcified as ASCII string |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* ipv6 option *(number | keyword)* ascii-string *string-not-all-spaces* |
| Tree | ascii-string |
| String length | 1 to 127 |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **hex-string**, or **ipv6-address**. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **hex-string** *hex-string*

| | |
|---|---|
| Synopsis | DHCP option specified as hexadecimal string |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* ipv6 option *(number \| keyword)* hex-string *hex-string* |
| Tree | hex-string |
| String length | 1 to 256 |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **hex-string**, or **ipv6-address**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ipv6-address** *ipv6-address*

| | |
|---|---|
| Synopsis | DHCP option specified as a list of IPv6 addresses |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* ipv6 option *(number \| keyword)* ipv6-address *ipv6-address* |
| Tree | ipv6-address |
| Max. instances | 4 |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **hex-string**, or **ipv6-address**.<br>This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **router-advertisement-policy** *named-item*

| | |
|---|---|
| Synopsis | IPv6 router advertisement policy |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* ipv6 router-advertisement-policy *named-item* |
| Tree | router-advertisement-policy |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **server** *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | IPv6 address of the DHCP server |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* ipv6 server *ipv6-unicast-address* |
| Tree | server |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **slaac-prefix** *ipv6-unicast-prefix*

| | |
|---|---|
| Synopsis | IPv6 SLAAC prefix of this host |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* ipv6 slaac-prefix *ipv6-unicast-prefix* |
| Tree | slaac-prefix |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **slaac-prefix-pool** *named-item*

| | |
|---|---|
| Synopsis | IPv6 SLAAC prefix pool of this host |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* ipv6 slaac-prefix-pool *named-item* |
| Tree | slaac-prefix-pool |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **timers**

| | |
|---|---|
| Synopsis | Enter the **timers** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* ipv6 timers |
| Tree | timers |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **preferred-lifetime** *(number | keyword)*

| | |
|---|---|
| Synopsis | Time for a lease to remain preferred |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* ipv6 timers preferred-lifetime *(number \| keyword)* |
| Tree | preferred-lifetime |
| Range | 300 to 315446399 |
| Units | seconds |
| Options | infinite |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **rebind** *number*

| | |
|---|---|
| Synopsis | Rebind timer (T2) |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* ipv6 timers rebind *number* |
| Tree | rebind |
| Range | 0 to 1209600 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **renew** *number*

| | |
|---|---|
| Synopsis | Renew timer (T1) |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* ipv6 timers renew *number* |
| Tree | renew |
| Range | 0 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **valid-lifetime** *(number | keyword)*

| | |
|---|---|
| Synopsis | Time for a lease to remain valid |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* ipv6 timers valid-lifetime *(number \| keyword)* |
| Tree | valid-lifetime |
| Range | 300 to 315446399 |
| Units | seconds |
| Options | infinite |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **match-radius-proxy-cache**

| | |
|---|---|
| Synopsis | Enter the **match-radius-proxy-cache** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* match-radius-proxy-cache |
| Tree | match-radius-proxy-cache |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **fail-action** *keyword*

| | |
|---|---|
| Synopsis | Action when no match is found |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* match-radius-proxy-cache fail-action *keyword* |
| Tree | fail-action |
| Options | continue, drop |
| Default | drop |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **mac-format** *mac-specification*

| | |
|---|---|
| Synopsis | MAC address format |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* match-radius-proxy-cache mac-format *mac-specification* |
| Tree | mac-format |
| String length | 2 to 7 |
| Default | aa: |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## match

| | |
|---|---|
| Synopsis | Enter the **match** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* match-radius-proxy-cache match |
| Tree | match |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## circuit-id *boolean*

| | |
|---|---|
| Synopsis | Match circuit ID in DHCP Option 82 |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* match-radius-proxy-cache match circuit-id *boolean* |
| Tree | circuit-id |
| Notes | The following elements are part of a choice: **circuit-id**, (**ipv4-option** and **ipv6-option**), **mac**, or **remote-id**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ipv4-option *number*

| | |
|---|---|
| Synopsis | DHCP option number |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* match-radius-proxy-cache match ipv4-option *number* |
| Tree | ipv4-option |
| Range | 1 to 254 |
| Notes | The following elements are part of a choice: **circuit-id**, (**ipv4-option** and **ipv6-option**), **mac**, or **remote-id**. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ipv6-option** *number*

| | |
|---|---|
| Synopsis | DHCPv6 option number |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* match-radius-proxy-cache match ipv6-option *number* |
| Tree | ipv6-option |
| Range | 1 to 65535 |
| Notes | The following elements are part of a choice: **circuit-id**, (**ipv4-option** and **ipv6-option**), **mac**, or **remote-id**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **mac** *boolean*

| | |
|---|---|
| Synopsis | Match MAC address of DHCP client |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* match-radius-proxy-cache match mac *boolean* |
| Tree | mac |
| Default | true |
| Notes | The following elements are part of a choice: **circuit-id**, (**ipv4-option** and **ipv6-option**), **mac**, or **remote-id**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **remote-id** *boolean*

| | |
|---|---|
| Synopsis | Match remote ID in DHCP Option 82 |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* match-radius-proxy-cache match remote-id *boolean* |
| Tree | remote-id |
| Notes | The following elements are part of a choice: **circuit-id**, (**ipv4-option** and **ipv6-option**), **mac**, or **remote-id**. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### server

| | |
|---|---|
| Synopsis | Enable the **server** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* match-radius-proxy-cache server |
| Tree | server |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### name *named-item*

| | |
|---|---|
| Synopsis | Local user database server name |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* match-radius-proxy-cache server name *named-item* |
| Tree | name |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### service *number*

| | |
|---|---|
| Synopsis | Service ID |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* match-radius-proxy-cache server service *number* |
| Tree | service |
| Range | 1 to 2147483647 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### mld-import [policy-name] *named-item*

| | |
|---|---|
| Synopsis | Add a list entry for **mld-import** |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* mld-import *named-item* |
| Tree | mld-import |
| Max. instances | 14 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## [**policy-name**] *named-item*

| | |
|---|---|
| Synopsis | MLD import policy used to control the multicast group |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* mld-import *named-item* |
| Tree | mld-import |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## msap-defaults

| | |
|---|---|
| Synopsis | Enter the **msap-defaults** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* msap-defaults |
| Tree | msap-defaults |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## group-interface

| | |
|---|---|
| Synopsis | Enable the **group-interface** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* msap-defaults group-interface |
| Tree | group-interface |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **name** *named-item*

| | |
|---|---|
| Synopsis | IP interface name |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* msap-defaults group-interface name *named-item* |
| Tree | name |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **prefix** *keyword*

| | |
|---|---|
| Synopsis | Prefix to the IP interface name |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* msap-defaults group-interface prefix *keyword* |
| Tree | prefix |
| Options | port-id |
| Notes | The following elements are part of a choice: **prefix** or **suffix**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **suffix** *keyword*

| | |
|---|---|
| Synopsis | Suffix for the group interface |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* msap-defaults group-interface suffix *keyword* |
| Tree | suffix |
| Options | port-id |
| Notes | The following elements are part of a choice: **prefix** or **suffix**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **policy** *named-item*

| | |
|---|---|
| Synopsis | MSAP policy |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* msap-defaults policy *named-item* |
| Tree | policy |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **service** *number*

| | |
|---|---|
| Synopsis | Service ID |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* msap-defaults service *number* |
| Tree | service |
| Range | 1 to 2147483647 \| 2147483648 \| 2147483649 \| 2147483650 \| 2147483651 to 2147483690 \| 2147483691 to 2148007980 \| 2148007981 to 2148012076 \| 2148012077 to 2148016172 \| 2148016173 to 2148278316 \| 2148278317 \| 2148278318 to 2148278381 \| 2148278382 \| 2148278383 to 2148278386 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **radius-accounting-policy**

| | |
|---|---|
| Synopsis | Enter the **radius-accounting-policy** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* radius-accounting-policy |
| Tree | radius-accounting-policy |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **duplicate** *named-item*

| | |
|---|---|
| Synopsis | RADIUS accounting policy for generating duplicate accounting information |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* radius-accounting-policy duplicate *named-item* |
| Tree | duplicate |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **name** *named-item*

| | |
|---|---|
| Synopsis | RADIUS accounting policy name |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* radius-accounting-policy name *named-item* |
| Tree | name |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **retail-service-id** *number*

| | |
|---|---|
| Synopsis | Configure the retail service-id |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* retail-service-id *number* |
| Tree | retail-service-id |
| Range | 1 to 2147483647 \| 2147483648 \| 2147483649 \| 2147483650 \| 2147483651 to 2147483690 \| 2147483691 to 2148007980 \| 2148007981 to 2148012076 \| 2148012077 to 2148016172 \| 2148016173 to 2148278316 \| 2148278317 \| 2148278318 to 2148278381 \| 2148278382 \| 2148278383 to 2148278386 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **rip-policy** *named-item*

| | |
|---|---|
| Synopsis | RIP policy |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* rip-policy *named-item* |
| Tree | rip-policy |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### to-client-options

| | |
|---|---|
| Synopsis | Enter the **to-client-options** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* to-client-options |
| Tree | to-client-options |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ipv4-option** [number] *(number | keyword)*

| | |
|---|---|
| Synopsis | Enter the **ipv4-option** list instance |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* to-client-options ipv4-option *(number | keyword)* |
| Tree | ipv4-option |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**number**] *(number | keyword)*

| | |
|---|---|
| Synopsis | DHCP option to send identification strings to client |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* to-client-options ipv4-option *(number | keyword)* |
| Tree | ipv4-option |
| Range | 1 to 254 |
| Options | subnet-mask, default-router, dns-server, domain-name, netbios-name-server, netbios-node-type, lease-time, lease-renew-time, lease-rebind-time |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ascii-string** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | DHCP option specified as an ASCII string |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* to-client-options ipv4-option *(number | keyword)* ascii-string *string-not-all-spaces* |
| Tree | ascii-string |


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| | |
|---|---|
| String length | 1 to 127 |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **duration**, **empty**, **hex-string**, **ipv4-address**, or **netbios-node-type**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **duration** *number*

| | |
|---|---|
| Synopsis | DHCP option as time duration |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* to-client-options ipv4-option *(number \| keyword)* duration *number* |
| Tree | duration |
| Range | 10 to 315446399 |
| Units | seconds |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **duration**, **empty**, **hex-string**, **ipv4-address**, or **netbios-node-type**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **empty**

| | |
|---|---|
| Synopsis | Empty DHCP option |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* to-client-options ipv4-option *(number \| keyword)* empty |
| Tree | empty |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **duration**, **empty**, **hex-string**, **ipv4-address**, or **netbios-node-type**. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **hex-string** *hex-string*

| | |
|---|---|
| Synopsis | DHCP option specified as hexadecimal string |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* to-client-options ipv4-option *(number \| keyword)* hex-string *hex-string* |
| Tree | hex-string |
| String length | 1 to 256 |


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| | |
|---|---|
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **duration**, **empty**, **hex-string**, **ipv4-address**, or **netbios-node-type**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ipv4-address** *ipv4-address*

| | |
|---|---|
| Synopsis | DHCP option as a list of IPv4 addresses |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* to-client-options ipv4-option *(number \| keyword)* ipv4-address *ipv4-address* |
| Tree | ipv4-address |
| Max. instances | 4 |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **duration**, **empty**, **hex-string**, **ipv4-address**, or **netbios-node-type**.<br>This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **netbios-node-type** *keyword*

| | |
|---|---|
| Synopsis | DHCP option as NetBIOS node type |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* to-client-options ipv4-option *(number \| keyword)* netbios-node-type *keyword* |
| Tree | netbios-node-type |
| Options | b-node, p-node, m-node, h-node |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **duration**, **empty**, **hex-string**, **ipv4-address**, or **netbios-node-type**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ipv6-option** [number] *(number | keyword)*

| | |
|---|---|
| Synopsis | Enter the **ipv6-option** list instance |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* to-client-options ipv6-option *(number \| keyword)* |
| Tree | ipv6-option |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**number**] *(number | keyword)*

| | |
|---|---|
| Synopsis | DHCP option to send as identification string |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* to-client-options ipv6-option *(number | keyword)* |
| Tree | ipv6-option |
| Range | 1 to 65535 |
| Options | dns-server, domain-name |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ascii-string** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | DHCP option specified as an ASCII string |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* to-client-options ipv6-option *(number | keyword)* ascii-string *string-not-all-spaces* |
| Tree | ascii-string |
| String length | 1 to 127 |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **domain-string**, **empty**, **hex-string**, or **ipv6-address**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **domain-string** *string*

| | |
|---|---|
| Synopsis | DHCP option specified as a domain name |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* to-client-options ipv6-option *(number | keyword)* domain-string *string* |
| Tree | domain-string |
| String length | 1 to 127 |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **domain-string**, **empty**, **hex-string**, or **ipv6-address**. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## empty

| | |
|---|---|
| Synopsis | Empty DHCP option |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* to-client-options ipv6-option *(number \| keyword)* empty |
| Tree | empty |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **domain-string**, **empty**, **hex-string**, or **ipv6-address**. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## hex-string *hex-string*

| | |
|---|---|
| Synopsis | DHCP option specified as hexadecimal string |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* to-client-options ipv6-option *(number \| keyword)* hex-string *hex-string* |
| Tree | hex-string |
| String length | 1 to 256 |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **domain-string**, **empty**, **hex-string**, or **ipv6-address**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ipv6-address *ipv6-address*

| | |
|---|---|
| Synopsis | DHCP option specified as a list of IPv6 addresses |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* to-client-options ipv6-option *(number \| keyword)* ipv6-address *ipv6-address* |
| Tree | ipv6-address |
| Max. instances | 4 |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **domain-string**, **empty**, **hex-string**, or **ipv6-address**.<br>This element is ordered by the user. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### to-server-options

| | |
|---|---|
| Synopsis | Enter the **to-server-options** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* to-server-options |
| Tree | to-server-options |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ipv6-option** [number] *(number | keyword)*

| | |
|---|---|
| Synopsis | Enter the **ipv6-option** list instance |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* to-server-options ipv6-option *(number | keyword)* |
| Tree | ipv6-option |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**number**] *(number | keyword)*

| | |
|---|---|
| Synopsis | DHCP option to send as identification string |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* to-server-options ipv6-option *(number | keyword)* |
| Tree | ipv6-option |
| Range | 1 to 65535 |
| Options | dns-server, domain-name |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ascii-string** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | DHCP option specified as an ASCII string |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* to-server-options ipv6-option *(number \| keyword)* ascii-string *string-not-all-spaces* |
| Tree | ascii-string |
| String length | 1 to 127 |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **domain-string**, **empty**, **hex-string**, or **ipv6-address**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **domain-string** *string*

| | |
|---|---|
| Synopsis | DHCP option specified as a domain name |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* to-server-options ipv6-option *(number \| keyword)* domain-string *string* |
| Tree | domain-string |
| String length | 1 to 127 |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **domain-string**, **empty**, **hex-string**, or **ipv6-address**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **empty**

| | |
|---|---|
| Synopsis | Empty DHCP option |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* to-server-options ipv6-option *(number \| keyword)* empty |
| Tree | empty |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **domain-string**, **empty**, **hex-string**, or **ipv6-address**. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **hex-string** *hex-string*

| | |
|---|---|
| Synopsis | DHCP option specified as hexadecimal string |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* to-server-options ipv6-option *(number \| keyword)* hex-string *hex-string* |


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| | |
|---|---|
| Tree | hex-string |
| String length | 1 to 256 |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **domain-string**, **empty**, **hex-string**, or **ipv6-address**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **ipv6-address** *ipv6-address*

| | |
|---|---|
| Synopsis | DHCP option specified as a list of IPv6 addresses |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* to-server-options ipv6-option *(number \| keyword)* ipv6-address *ipv6-address* |
| Tree | ipv6-address |
| Max. instances | 4 |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **domain-string**, **empty**, **hex-string**, or **ipv6-address**.<br>This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **wpp**

| | |
|---|---|
| Synopsis | Enter the **wpp** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* wpp |
| Tree | wpp |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **initial**

| | |
|---|---|
| Synopsis | Enter the **initial** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* wpp initial |
| Tree | initial |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **app-profile** *named-item*

| | |
|---|---|
| Synopsis | Initial application profile name |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* wpp initial app-profile *named-item* |
| Tree | app-profile |
| String length | 1 to 32 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **sla-profile** *named-item*

| | |
|---|---|
| Synopsis | Initial SLA profile |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* wpp initial sla-profile *named-item* |
| Tree | sla-profile |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sub-profile** *named-item*

| | |
|---|---|
| Synopsis | Initial subscriber profile |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* wpp initial sub-profile *named-item* |
| Tree | sub-profile |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **portal**

| | |
|---|---|
| Synopsis | Enter the **portal** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* wpp portal |
| Tree | portal |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **name** *named-item*

| | |
|---|---|
| Synopsis | Web portal server name |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* wpp portal name *named-item* |
| Tree | name |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **portal-group** or (**name** and **router-instance**). |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **portal-group** *named-item*

| | |
|---|---|
| Synopsis | WPP portal group for this interface |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* wpp portal portal-group *named-item* |
| Tree | portal-group |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **portal-group** or (**name** and **router-instance**). |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **router-instance** *(keyword | number)*

| | |
|---|---|
| Synopsis | Virtual router instance of the WPP portal for the host |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* wpp portal router-instance *(keyword | number)* |
| Tree | router-instance |
| Range | 1 to 2147483647 |
| Options | base |
| Default | base |
| Notes | The following elements are part of a choice: **portal-group** or (**name** and **router-instance**). |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **restore-to-initial-on-disconnect** *keyword*

| | |
|---|---|
| Synopsis | Restore initial profiles after a host has disconnected |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe host *named-item* wpp restore-to-initial-on-disconnect *keyword* |
| Tree | restore-to-initial-on-disconnect |
| Options | restore, no-restore |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **mask** type *keyword*

| | |
|---|---|
| Synopsis | Enter the **mask** list instance |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe mask type *keyword* |
| Tree | mask |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **type** *keyword*

| | |
|---|---|
| Synopsis | Matching type to identify a host |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe mask type *keyword* |
| Tree | mask |
| Description | This command configures the data type that represents the type of matching performed to identify a DHCP host. |
| Options | circuit-id, remote-id, sap-id, string, system-id, option60, duid-en, duid-ll-llt |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **prefix**

| | |
|---|---|
| Synopsis | Enable the **prefix** context |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe mask type *keyword* prefix |
| Tree | prefix |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **length** *number*

| | |
|---|---|
| Synopsis | PPP mask prefix length |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe mask type *keyword* prefix length *number* |
| Tree | length |
| Range | 1 to 127 |
| Notes | The following elements are part of a mandatory choice: **length** or **string**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **string** *string*

| | |
|---|---|
| Synopsis | Prefix string |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe mask type *keyword* prefix string *string* |
| Tree | string |
| String length | 1 to 127 |
| Notes | The following elements are part of a mandatory choice: **length** or **string**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **suffix**

| | |
|---|---|
| Synopsis | Enable the **suffix** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe mask type *keyword* suffix |
| Tree | suffix |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **length** *number*

| | |
|---|---|
| Synopsis | PPP mask suffix length |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe mask type *keyword* suffix length *number* |
| Tree | length |
| Range | 1 to 127 |
| Notes | The following elements are part of a mandatory choice: **length** or **string**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **string** *string*

| | |
|---|---|
| Synopsis | Suffix substring |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe mask type *keyword* suffix string *string* |
| Tree | string |
| Description | This command specifies a substring that is stripped off the end of the incoming circuit ID before it is matched against the value configured in the circuit ID. |
| String length | 1 to 127 |
| Notes | The following elements are part of a mandatory choice: **length** or **string**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **match-list** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IPoE host match type |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ipoe match-list *keyword* |
| Tree | match-list |
| Description | This command specifies the type of matching done to identify a host. There are different match-types for IPoE hosts. |


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| | |
|---|---|
| Options | circuit-id, mac, remote-id, sap-id, service-id, string, system-id, option60, encap-tag-range, dual-stack-remote-id, derived-id, ip, encap-tag-separate-range, duid-en, duid-ll-llt |
| Max. instances | 4 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ppp

| | |
|---|---|
| Synopsis | Enter the **ppp** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp |
| Tree | ppp |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **host** [host-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **host** list instance |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* |
| Tree | host |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## [**host-name**] *named-item*

| | |
|---|---|
| Synopsis | Host name |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* |
| Tree | host |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## access-loop-encapsulation

| | |
|---|---|
| Synopsis | Enable the **access-loop-encapsulation** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* access-loop-encapsulation |
| Tree | access-loop-encapsulation |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## encap-offset

| | |
|---|---|
| Synopsis | Enter the **encap-offset** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* access-loop-encapsulation encap-offset |
| Tree | encap-offset |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## type *keyword*

| | |
|---|---|
| Synopsis | Egress encapsulation type |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* access-loop-encapsulation encap-offset type *keyword* |
| Tree | type |
| Options | pppoa-llc, pppoa-null, pppoeoa-llc, pppoeoa-llc-fcs, pppoeoa-llc-tagged, pppoeoa-llc-tagged-fcs, pppoeoa-null, pppoeoa-null-fcs, pppoeoa-null-tagged, pppoeoa-null-tagged-fcs, ipoa-llc, ipoa-null, ipoeoa-llc, ipoeoa-llc-fcs, ipoeoa-llc-tagged, ipoeoa-llc-tagged-fcs, ipoeoa-null, ipoeoa-null-fcs, ipoeoa-null-tagged, ipoeoa-null-tagged-fcs, pppoe, pppoe-tagged, ipoe, ipoe-tagged |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## rate-down *number*

| | |
|---|---|
| Synopsis | Last mile link downstream rate in the access loop |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* access-loop-encapsulation rate-down *number* |
| Tree | rate-down |


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| | |
|---|---|
| Range | 1 to 100000 |
| Units | kilobps |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## access-loop-information

| | |
|---|---|
| Synopsis | Enter the **access-loop-information** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* access-loop-information |
| Tree | access-loop-information |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## circuit-id

| | |
|---|---|
| Synopsis | Enable the **circuit-id** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* access-loop-information circuit-id |
| Tree | circuit-id |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ascii-string *string*

| | |
|---|---|
| Synopsis | Circuit ID as an ASCII string |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* access-loop-information circuit-id ascii-string *string* |
| Tree | ascii-string |
| String length | 1 to 63 |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **sap-id**, or **use-sap-id**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### use-sap-id

| | |
|---|---|
| Synopsis | Use SAP ID of the PPPoE session as the circuit ID |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* access-loop-information circuit-id use-sap-id |
| Tree | use-sap-id |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **sap-id**, or **use-sap-id**. |
| Introduced | 20.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### remote-id

| | |
|---|---|
| Synopsis | Enable the **remote-id** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* access-loop-information remote-id |
| Tree | remote-id |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### ascii-string *string*

| | |
|---|---|
| Synopsis | String format for the remote ID |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* access-loop-information remote-id ascii-string *string* |
| Tree | ascii-string |
| String length | 1 to 63 |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **mac**, or **use-mac-address**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### use-mac-address

| | |
|---|---|
| Synopsis | Use MAC address of the PPPoE session as the remote ID |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* access-loop-information remote-id use-mac-address |


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| | |
|---|---|
| Tree | use-mac-address |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **mac**, or **use-mac-address**. |
| Introduced | 20.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the host |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **authentication**

| | |
|---|---|
| Synopsis | Enter the **authentication** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* authentication |
| Tree | authentication |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **gx-policy** *named-item*

| | |
|---|---|
| Synopsis | Diameter application policy |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* authentication gx-policy *named-item* |
| Tree | gx-policy |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **nasreq-auth-policy** *named-item*

| | |
|---|---|
| Synopsis | Diameter NASREQ application policy for authentication |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* authentication nasreq-auth-policy *named-item* |
| Tree | nasreq-auth-policy |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **padi-auth-policy** *named-item*

| | |
|---|---|
| Synopsis | Authentication policy name |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* authentication padi-auth-policy *named-item* |
| Tree | padi-auth-policy |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **pre-auth-policy** *named-item*

| | |
|---|---|
| Synopsis | Pre-authentication policy of this host |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* authentication pre-auth-policy *named-item* |
| Tree | pre-auth-policy |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **radius-auth-policy** *named-item*

| | |
|---|---|
| Synopsis | Host authentication policy |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* authentication radius-auth-policy *named-item* |
| Tree | radius-auth-policy |


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| | |
|---|---|
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **user-db** *named-item*

| | |
|---|---|
| Synopsis | Local user DB to use for PPP PAP/CHAP authentication |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* authentication user-db *named-item* |
| Tree | user-db |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### host-identification

| | |
|---|---|
| Synopsis | Enter the **host-identification** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* host-identification |
| Tree | host-identification |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### circuit-id

| | |
|---|---|
| Synopsis | Enter the **circuit-id** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* host-identification circuit-id |
| Tree | circuit-id |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **ascii-string** *string*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Circuit ID as ASCII string |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* host-identification circuit-id ascii-string *string* |
| Tree | ascii-string |
| String length | 1 to 127 |
| Notes | The following elements are part of a choice: **ascii-string** or **hex-string**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **hex-string** *hex-string*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Circuit ID as hexadecimal string |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* host-identification circuit-id hex-string *hex-string* |
| Tree | hex-string |
| String length | 1 to 256 |
| Notes | The following elements are part of a choice: **ascii-string** or **hex-string**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **derived-id** *display-string*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Derived ID string |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* host-identification derived-id *display-string* |
| Tree | derived-id |
| String length | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## encap-tag-range

| | |
|---|---|
| Synopsis | Enable the **encap-tag-range** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* host-identification encap-tag-range |
| Tree | encap-tag-range |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **from** *atm-or-vlan-encap*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Start tag |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* host-identification encap-tag-range from *atm-or-vlan-encap* |
| Tree | from |
| String length | 1 to 11 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **to** *atm-or-vlan-encap*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | End tag |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* host-identification encap-tag-range to *atm-or-vlan-encap* |
| Tree | to |
| String length | 1 to 11 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## encap-tag-separate-range

| | |
|---|---|
| Synopsis | Enter the **encap-tag-separate-range** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* host-identification encap-tag-separate-range |
| Tree | encap-tag-separate-range |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## inner

| | |
|---|---|
| Synopsis | Enter the **inner** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* host-identification encap-tag-separate-range inner |
| Tree | inner |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **end** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Upper bound of the inner encapsulation tag range |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* host-identification encap-tag-separate-range inner end *number* |
| Tree | end |


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| | |
|---|---|
| Description | This command configures an inner end tag for the range of encapsulation tags used for host identification. |
| Range | 0 to 4094 |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **start** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Lower bound of the inner encapsulation tag range |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* host-identification encap-tag-separate-range inner start *number* |
| Tree | start |
| Description | This command configures an inner start tag for the range of encapsulation tags used for host identification. |
| Range | 0 to 4094 |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **outer**

| | |
|---|---|
| Synopsis | Enter the **outer** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* host-identification encap-tag-separate-range outer |
| Tree | outer |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **end** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Upper bound of the outer encapsulation tag range |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* host-identification encap-tag-separate-range outer end *number* |
| Tree | end |
| Description | This command configures an outer end tag for the range of encapsulation tags used for host identification. |
| Range | 0 to 4094 |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **start** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Lower bound of the outer encapsulation tag range |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* host-identification encap-tag-separate-range outer start *number* |
| Tree | start |
| Description | This command configures an outer start tag for the range of encapsulation tags used for host identification. |
| Range | 0 to 4094 |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **mac** *mac-unicast-address-no-zero*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | MAC address |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* host-identification mac *mac-unicast-address-no-zero* |
| Tree | mac |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## remote-id

| | |
|---|---|
| Synopsis | Enter the **remote-id** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* host-identification remote-id |
| Tree | remote-id |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ascii-string *string*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Remote ID as ASCII string |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* host-identification remote-id ascii-string *string* |
| Tree | ascii-string |
| String length | 1 to 255 |
| Notes | The following elements are part of a choice: **ascii-string** or **hex-string**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## hex-string *hex-string*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Remote ID as hexadecimal string |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* host-identification remote-id hex-string *hex-string* |
| Tree | hex-string |
| String length | 1 to 512 |
| Notes | The following elements are part of a choice: **ascii-string** or **hex-string**. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sap-id** *display-string*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | SAP ID |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* host-identification sap-id *display-string* |
| Tree | sap-id |
| String length | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **service-name** *display-string*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Administrative service name |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* host-identification service-name *display-string* |
| Tree | service-name |
| String length | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **user-name**

| | |
|---|---|
| Synopsis | Enable the **user-name** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* host-identification user-name |
| Tree | user-name |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## **format** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Username format |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* host-identification user-name format *keyword* |
| Tree | format |
| Options | full, no-domain, domain-only |
| Default | full |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **name** *display-string*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Host username |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* host-identification user-name name *display-string* |
| Tree | name |
| String length | 1 to 253 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **identification**

| | |
|---|---|
| Synopsis | Enable the **identification** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* identification |
| Tree | identification |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ancp-string** *string*

| | |
|---|---|
| Synopsis | ANCP string |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* identification ancp-string *string* |
| Tree | ancp-string |
| String length | 1 to 63 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **app-profile-string** *string*

| | |
|---|---|
| Synopsis | Application profile string |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* identification app-profile-string *string* |
| Tree | app-profile-string |
| String length | 1 to 16 |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **category-map-name** *named-item*

| | |
|---|---|
| Synopsis | Category map name |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* identification category-map-name *named-item* |
| Tree | category-map-name |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **int-dest-id** *int-dest-id*

| | |
|---|---|
| Synopsis | Intermediate destination ID |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* identification int-dest-id *int-dest-id* |


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| | |
|---|---|
| Tree | int-dest-id |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **option-number** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Identification strings for the subscriber |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* identification option-number *number* |
| Tree | option-number |
| Range | 1 to 254 |
| Default | 254 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sla-profile-string** *string*

| | |
|---|---|
| Synopsis | SLA profile string |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* identification sla-profile-string *string* |
| Tree | sla-profile-string |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **spi-sharing-group-id** *number*

| | |
|---|---|
| Synopsis | SPI sharing group ID |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* identification spi-sharing-group-id *number* |
| Tree | spi-sharing-group-id |
| Range | 0 to 65535 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sub-profile-string** *string*

| | |
|---|---|
| Synopsis | Sub profile string |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* identification sub-profile-string *string* |
| Tree | sub-profile-string |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **subscriber-id** *named-item-64*

| | |
|---|---|
| Synopsis | Subscriber ID |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* identification subscriber-id *named-item-64* |
| Tree | subscriber-id |
| String length | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ipv4**

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* ipv4 |
| Tree | ipv4 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **address**

| | |
|---|---|
| Synopsis | Enter the **address** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* ipv4 address |


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| | |
|---|---|
| Tree | address |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **gi-address** *keyword*

| | |
|---|---|
| Synopsis | Use gi-address to select a pool with the given scope |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* ipv4 address gi-address *keyword* |
| Tree | gi-address |
| Options | subnet-scope, pool-scope |
| Notes | The following elements are part of a choice: **gi-address**, (**ip-address** and **prefix-length**), **pool**, or **use-pool-from-client**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **ip-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Fixed IPv4 address of the host |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* ipv4 address ip-address *ipv4-unicast-address* |
| Tree | ip-address |
| Notes | The following elements are part of a choice: **gi-address**, (**ip-address** and **prefix-length**), **pool**, or **use-pool-from-client**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **pool**

| | |
|---|---|
| Synopsis | Enable the **pool** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* ipv4 address pool |
| Tree | pool |
| Notes | The following elements are part of a choice: **gi-address**, (**ip-address** and **prefix-length**), **pool**, or **use-pool-from-client**. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **delimiter** *string*

| | |
|---|---|
| Synopsis | Delimiter separating primary and secondary pool names |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* ipv4 address pool delimiter *string* |
| Tree | delimiter |
| String length | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **primary** *named-item*

| | |
|---|---|
| Synopsis | Primary pool name |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* ipv4 address pool primary *named-item* |
| Tree | primary |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **secondary** *named-item*

| | |
|---|---|
| Synopsis | Secondary pool name |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* ipv4 address pool secondary *named-item* |
| Tree | secondary |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **prefix-length** *number*

| | |
|---|---|
| Synopsis | IPv4 host address prefix length |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* ipv4 address prefix-length *number* |
| Tree | prefix-length |
| Range | 1 to 32 |
| Default | 32 |
| Notes | The following elements are part of a choice: **gi-address**, (**ip-address** and **prefix-length**), **pool**, or **use-pool-from-client**. |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## use-pool-from-client

| | |
|---|---|
| Synopsis | Enable the **use-pool-from-client** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* ipv4 address use-pool-from-client |
| Tree | use-pool-from-client |
| Notes | The following elements are part of a choice: **gi-address**, (**ip-address** and **prefix-length**), **pool**, or **use-pool-from-client**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## delimiter *string*

| | |
|---|---|
| Synopsis | Delimiter character to combine primary and secondary pool names |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* ipv4 address use-pool-from-client delimiter *string* |
| Tree | delimiter |
| String length | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ignore-df-bit *boolean*

| | |
|---|---|
| Synopsis | Ignore the DF bit in the IPv4 header when fragmenting |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* ipv4 ignore-df-bit *boolean* |
| Tree | ignore-df-bit |


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| | |
|---|---|
| Description | When configured to **true**, the router ignores the DF bit in the IPv4 header for frames egressing the subscriber interface. The frames are fragmented according the applicable egress MTU. The DF bit is reset for frames that are fragmented.<br>This command applies to PPPoE PTA and L2TP LNS frames only. It is not applicable for L2TP LAC frames.<br>When configured to **false**, the router does not ignore the DF bit in the IPv4 header for frames egressing the subscriber interface. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **option** [number] *(number | keyword)*

| | |
|---|---|
| Synopsis | Enter the **option** list instance |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* ipv4 option *(number | keyword)* |
| Tree | option |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**number**] *(number | keyword)*

| | |
|---|---|
| Synopsis | DHCP option to send identification strings to client |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* ipv4 option *(number | keyword)* |
| Tree | option |
| Range | 1 to 254 |
| Options | subnet-mask, default-router, dns-server, domain-name, netbios-name-server, netbios-node-type, lease-time, lease-renew-time, lease-rebind-time |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ascii-string** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | DHCP option specified as an ASCII string |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* ipv4 option *(number \| keyword)* ascii-string *string-not-all-spaces* |
| Tree | ascii-string |
| String length | 1 to 127 |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **duration**, **empty**, **hex-string**, **ipv4-address**, or **netbios-node-type**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **duration** *number*

| | |
|---|---|
| Synopsis | DHCP option as time duration |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* ipv4 option *(number \| keyword)* duration *number* |
| Tree | duration |
| Range | 10 to 315446399 |
| Units | seconds |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **duration**, **empty**, **hex-string**, **ipv4-address**, or **netbios-node-type**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **empty**

| | |
|---|---|
| Synopsis | Remove DHCP option configuration |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* ipv4 option *(number \| keyword)* empty |
| Tree | empty |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **duration**, **empty**, **hex-string**, **ipv4-address**, or **netbios-node-type**. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **hex-string** *hex-string*

| | |
|---|---|
| Synopsis | DHCP option specified as hexadecimal string |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* ipv4 option *(number \| keyword)* hex-string *hex-string* |
| Tree | hex-string |
| String length | 1 to 256 |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **duration**, **empty**, **hex-string**, **ipv4-address**, or **netbios-node-type**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ipv4-address** *ipv4-address*

| | |
|---|---|
| Synopsis | DHCP option as a list of IPv4 addresses |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* ipv4 option *(number \| keyword)* ipv4-address *ipv4-address* |
| Tree | ipv4-address |
| Max. instances | 4 |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **duration**, **empty**, **hex-string**, **ipv4-address**, or **netbios-node-type**.<br>This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **netbios-node-type** *keyword*

| | |
|---|---|
| Synopsis | DHCP option as NetBIOS node type |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* ipv4 option *(number \| keyword)* netbios-node-type *keyword* |
| Tree | netbios-node-type |
| Options | b-node, p-node, m-node, h-node |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **duration**, **empty**, **hex-string**, **ipv4-address**, or **netbios-node-type**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## ipv6

| | |
|---|---|
| Synopsis | Enter the **ipv6** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* ipv6 |
| Tree | ipv6 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## address *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Fixed IPv6 address of the host |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* ipv6 address *ipv6-unicast-address* |
| Tree | address |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## address-pool *named-item*

| | |
|---|---|
| Synopsis | IPv6 address pool name |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* ipv6 address-pool *named-item* |
| Tree | address-pool |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## delegated-prefix *ipv6-unicast-prefix*

| | |
|---|---|
| Synopsis | IPv6 delegated prefix of this host |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* ipv6 delegated-prefix *ipv6-unicast-prefix* |
| Tree | delegated-prefix |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **delegated-prefix-length** *number*

| | |
|---|---|
| Synopsis | Delegated prefix length |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* ipv6 delegated-prefix-length *number* |
| Tree | delegated-prefix-length |
| Range | 48 to 64 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **delegated-prefix-pool** *named-item*

| | |
|---|---|
| Synopsis | Delegated prefix pool |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* ipv6 delegated-prefix-pool *named-item* |
| Tree | delegated-prefix-pool |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **force-ipv6cp** *boolean*

| | |
|---|---|
| Synopsis | Force IPv6 control protocol |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* ipv6 force-ipv6cp *boolean* |
| Tree | force-ipv6cp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **option** [number] *(number | keyword)*

| | |
|---|---|
| Synopsis | Enter the **option** list instance |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* ipv6 option *(number | keyword)* |
| Tree | option |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**number**] *(number | keyword)*

| | |
|---|---|
| Synopsis | DHCPv6 option |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* ipv6 option *(number | keyword)* |
| Tree | option |
| Range | 23 |
| Options | dns-server |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **hex-string** *hex-string*

| | |
|---|---|
| Synopsis | DHCP option specified as hexadecimal string |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* ipv6 option *(number | keyword)* hex-string *hex-string* |
| Tree | hex-string |
| String length | 1 to 256 |
| Notes | The following elements are part of a mandatory choice: **hex-string** or **ipv6-address**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ipv6-address** *ipv6-address*

| | |
|---|---|
| Synopsis | DHCP option specified as a list of IPv6 addresses |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* ipv6 option *(number | keyword)* ipv6-address *ipv6-address* |
| Tree | ipv6-address |
| Max. instances | 4 |
| Notes | The following elements are part of a mandatory choice: **hex-string** or **ipv6-address**.<br>This element is ordered by the user. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **router-advertisement-policy** *named-item*

| | |
|---|---|
| Synopsis | IPv6 router advertisement policy |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* ipv6 router-advertisement-policy *named-item* |
| Tree | router-advertisement-policy |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **slaac-prefix** *ipv6-unicast-prefix*

| | |
|---|---|
| Synopsis | IPv6 SLAAC prefix of this host |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* ipv6 slaac-prefix *ipv6-unicast-prefix* |
| Tree | slaac-prefix |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **slaac-prefix-pool** *named-item*

| | |
|---|---|
| Synopsis | IPv6 SLAAC prefix pool of this host |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* ipv6 slaac-prefix-pool *named-item* |
| Tree | slaac-prefix-pool |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **timers**

| | |
|---|---|
| Synopsis | Enter the **timers** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* ipv6 timers |


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| | |
|---|---|
| Tree | timers |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **preferred-lifetime** *(number | keyword)*

| | |
|---|---|
| Synopsis | Time for a lease to remain preferred |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* ipv6 timers preferred-lifetime *(number \| keyword)* |
| Tree | preferred-lifetime |
| Range | 300 to 315446399 |
| Units | seconds |
| Options | infinite |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **rebind** *number*

| | |
|---|---|
| Synopsis | Rebind timer (T2) |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* ipv6 timers rebind *number* |
| Tree | rebind |
| Range | 0 to 1209600 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **renew** *number*

| | |
|---|---|
| Synopsis | Renew timer (T1) |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* ipv6 timers renew *number* |
| Tree | renew |
| Range | 0 to 604800 |
| Units | seconds |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **valid-lifetime** *(number | keyword)*

| | |
|---|---|
| Synopsis | Time for a lease to remain valid |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* ipv6 timers valid-lifetime *(number | keyword)* |
| Tree | valid-lifetime |
| Range | 300 to 315446399 |
| Units | seconds |
| Options | infinite |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **l2tp**

| | |
|---|---|
| Synopsis | Enter the **l2tp** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* l2tp |
| Tree | l2tp |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **group**

| | |
|---|---|
| Synopsis | Enable the **group** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* l2tp group |
| Tree | group |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **name** *string*

| | |
|---|---|
| Synopsis | L2TP tunnel group name |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* l2tp group name *string* |
| Tree | name |


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| | |
|---|---|
| String length | 1 to 63 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **service-id** *number*

| | |
|---|---|
| Synopsis | Service ID for the L2TP tunnel group |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* l2tp group service-id *number* |
| Tree | service-id |
| Range | 1 to 2147483647 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **lns-interface**

| | |
|---|---|
| Synopsis | Enable the **lns-interface** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* lns-interface |
| Tree | lns-interface |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **name** *named-item*

| | |
|---|---|
| Synopsis | IP interface name |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* lns-interface name *named-item* |
| Tree | name |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **service-id** *number*

| | |
|---|---|
| Synopsis | Service ID |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* lns-interface service-id *number* |
| Tree | service-id |
| Range | 1 to 2147483647 \| 2147483648 \| 2147483649 \| 2147483650 \| 2147483651 to 2147483690 \| 2147483691 to 2148007980 \| 2148007981 to 2148012076 \| 2148012077 to 2148016172 \| 2148016173 to 2148278316 \| 2148278317 \| 2148278318 to 2148278381 \| 2148278382 \| 2148278383 to 2148278386 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **mld-import** [policy-name] *named-item*

| | |
|---|---|
| Synopsis | Add a list entry for **mld-import** |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* mld-import *named-item* |
| Tree | mld-import |
| Max. instances | 14 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**policy-name**] *named-item*

| | |
|---|---|
| Synopsis | MLD import policy used to control the multicast group |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* mld-import *named-item* |
| Tree | mld-import |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## msap-defaults

| | |
|---|---|
| Synopsis | Enter the **msap-defaults** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* msap-defaults |
| Tree | msap-defaults |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## group-interface

| | |
|---|---|
| Synopsis | Enable the **group-interface** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* msap-defaults group-interface |
| Tree | group-interface |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## name *named-item*

| | |
|---|---|
| Synopsis | IP interface name |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* msap-defaults group-interface name *named-item* |
| Tree | name |
| String length | 1 to 32 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## prefix *keyword*

| | |
|---|---|
| Synopsis | Prefix to the IP interface name |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* msap-defaults group-interface prefix *keyword* |
| Tree | prefix |
| Options | port-id |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **prefix** or **suffix**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **suffix** *keyword*

| | |
|---|---|
| Synopsis | Suffix for the group interface |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* msap-defaults group-interface suffix *keyword* |
| Tree | suffix |
| Options | port-id |
| Notes | The following elements are part of a choice: **prefix** or **suffix**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **policy** *named-item*

| | |
|---|---|
| Synopsis | MSAP policy |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* msap-defaults policy *named-item* |
| Tree | policy |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **service** *number*

| | |
|---|---|
| Synopsis | Service ID |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* msap-defaults service *number* |
| Tree | service |
| Range | 1 to 2147483647 \| 2147483648 \| 2147483649 \| 2147483650 \| 2147483651 to 2147483690 \| 2147483691 to 2148007980 \| 2148007981 to 2148012076 \| 2148012077 to 2148016172 \| 2148016173 to 2148278316 \| 2148278317 \| 2148278318 to 2148278381 \| 2148278382 \| 2148278383 to 2148278386 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **pado-delay** *number*

| | |
|---|---|
| Synopsis | Delay timeout before sending a PADO |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* pado-delay *number* |
| Tree | pado-delay |
| Range | 1 to 30 |
| Units | deciseconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **password**

| | |
|---|---|
| Synopsis | Enter the **password** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* password |
| Tree | password |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **chap** *encrypted-leaf*

| | |
|---|---|
| Synopsis | CHAP protocol |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* password chap *encrypted-leaf* |
| Tree | chap |
| String length | 1 to 115 |
| Notes | The following elements are part of a choice: **chap**, **ignore**, or **pap**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ignore**

| | |
|---|---|
| Synopsis | Ignore the PAP and CHAP passwords |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* password ignore |
| Tree | ignore |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **chap**, **ignore**, or **pap**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **pap** *encrypted-leaf*

| | |
|---|---|
| Synopsis | PAP for the password |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* password pap *encrypted-leaf* |
| Tree | pap |
| String length | 1 to 115 |
| Notes | The following elements are part of a choice: **chap**, **ignore**, or **pap**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### ppp-policy-parameters

| | |
|---|---|
| Synopsis | Enter the **ppp-policy-parameters** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* ppp-policy-parameters |
| Tree | ppp-policy-parameters |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### keepalive

| | |
|---|---|
| Synopsis | Enable the **keepalive** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* ppp-policy-parameters keepalive |
| Tree | keepalive |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **hold-up-multiplier** *number*

| | |
|---|---|
| Synopsis | PPP LCP keepalive hold up multiplier override |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* ppp-policy-parameters keepalive hold-up-multiplier *number* |
| Tree | hold-up-multiplier |
| Description | This command configures the number of LCP echo replies that can be missed before the PPP session is brought down and overrides the value configured in the **configure subscriber-mgmt ppp-policy** context for PPPoE PTA sessions or in the **configure l2tp group** context for L2TP LNS sessions. |
| Range | 1 to 5 |
| Default | 3 |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **interval** *number*

| | |
|---|---|
| Synopsis | PPP LCP keepalive interval override |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* ppp-policy-parameters keepalive interval *number* |
| Tree | interval |
| Description | This command configures the time interval in seconds at which LCP echo requests are transmitted for the PPP session and overrides the value configured in the **configure subscriber-mgmt ppp-policy** context for PPPoE PTA sessions or the **configure l2tp group** context for L2TP LNS sessions. |
| Range | 4 to 300 |
| Units | seconds |
| Default | 30 |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **max-sessions-per-mac** *number*

| | |
|---|---|
| Synopsis | Maximum number of sessions per MAC address |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* ppp-policy-parameters max-sessions-per-mac *number* |
| Tree | max-sessions-per-mac |
| Description | This command sets the maximum PPP sessions that can be opened for a specified MAC address. |
| Range | 1 to 8191 |
| Introduced | 22.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## radius-accounting-policy

| | |
|---|---|
| Synopsis | Enter the **radius-accounting-policy** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* radius-accounting-policy |
| Tree | radius-accounting-policy |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## duplicate *named-item*

| | |
|---|---|
| Synopsis | RADIUS accounting policy for generating duplicate accounting information |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* radius-accounting-policy duplicate *named-item* |
| Tree | duplicate |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## name *named-item*

| | |
|---|---|
| Synopsis | RADIUS accounting policy name |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* radius-accounting-policy name *named-item* |
| Tree | name |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## retail-service-id *number*

| | |
|---|---|
| Synopsis | Configure the retail service-id |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* retail-service-id *number* |
| Tree | retail-service-id |


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| | |
|---|---|
| Range | 1 to 2147483647 \| 2147483648 \| 2147483649 \| 2147483650 \| 2147483651 to 2147483690 \| 2147483691 to 2148007980 \| 2148007981 to 2148012076 \| 2148012077 to 2148016172 \| 2148016173 to 2148278316 \| 2148278317 \| 2148278318 to 2148278381 \| 2148278382 \| 2148278383 to 2148278386 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **rip-policy** *named-item*

| | |
|---|---|
| Synopsis | RIP policy |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* rip-policy *named-item* |
| Tree | rip-policy |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **steering-profile** *named-item*

| | |
|---|---|
| Synopsis | Steering profile |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* steering-profile *named-item* |
| Tree | steering-profile |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **to-client-options**

| | |
|---|---|
| Synopsis | Enter the **to-client-options** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* to-client-options |
| Tree | to-client-options |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **ipv6-option** [number] *(number | keyword)*

| | |
|---|---|
| Synopsis | Enter the **ipv6-option** list instance |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* to-client-options ipv6-option *(number | keyword)* |
| Tree | ipv6-option |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**number**] *(number | keyword)*

| | |
|---|---|
| Synopsis | DHCP option to send as identification string |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* to-client-options ipv6-option *(number | keyword)* |
| Tree | ipv6-option |
| Range | 1 to 65535 |
| Options | dns-server, domain-name |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ascii-string** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | DHCP option specified as an ASCII string |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* to-client-options ipv6-option *(number | keyword)* ascii-string *string-not-all-spaces* |
| Tree | ascii-string |
| String length | 1 to 127 |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **domain-string**, **empty**, **hex-string**, or **ipv6-address**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **domain-string** *string*

| | |
|---|---|
| Synopsis | DHCP option specified as a domain name |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* to-client-options ipv6-option *(number \| keyword)* domain-string *string* |
| Tree | domain-string |
| String length | 1 to 127 |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **domain-string**, **empty**, **hex-string**, or **ipv6-address**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## empty

| | |
|---|---|
| Synopsis | Empty DHCP option |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* to-client-options ipv6-option *(number \| keyword)* empty |
| Tree | empty |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **domain-string**, **empty**, **hex-string**, or **ipv6-address**. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## hex-string *hex-string*

| | |
|---|---|
| Synopsis | DHCP option specified as hexadecimal string |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* to-client-options ipv6-option *(number \| keyword)* hex-string *hex-string* |
| Tree | hex-string |
| String length | 1 to 256 |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **domain-string**, **empty**, **hex-string**, or **ipv6-address**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ipv6-address *ipv6-address*

| | |
|---|---|
| Synopsis | DHCP option specified as a list of IPv6 addresses |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp host *named-item* to-client-options ipv6-option *(number \| keyword)* ipv6-address *ipv6-address* |


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| | |
|---|---|
| Tree | ipv6-address |
| Max. instances | 4 |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **domain-string**, **empty**, **hex-string**, or **ipv6-address**.<br>This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **mask** type *keyword*

| | |
|---|---|
| Synopsis | Enter the **mask** list instance |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp mask type *keyword* |
| Tree | mask |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **type** *keyword*

| | |
|---|---|
| Synopsis | Matching type to identify a host |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp mask type *keyword* |
| Tree | mask |
| Options | circuit-id, mac, remote-id, user-name, service-name, sap-id |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **prefix**

| | |
|---|---|
| Synopsis | Enable the **prefix** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp mask type *keyword* prefix |
| Tree | prefix |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **length** *number*

| | |
|---|---|
| Synopsis | PPP mask prefix length |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp mask type *keyword* prefix length *number* |
| Tree | length |
| Range | 1 to 127 |
| Notes | The following elements are part of a mandatory choice: **length** or **string**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **string** *string*

| | |
|---|---|
| Synopsis | Prefix string |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp mask type *keyword* prefix string *string* |
| Tree | string |
| String length | 1 to 127 |
| Notes | The following elements are part of a mandatory choice: **length** or **string**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **suffix**

| | |
|---|---|
| Synopsis | Enable the **suffix** context |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp mask type *keyword* suffix |
| Tree | suffix |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **length** *number*

| | |
|---|---|
| Synopsis | PPP mask suffix length |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp mask type *keyword* suffix length *number* |
| Tree | length |


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| | |
|---|---|
| Range | 1 to 127 |
| Notes | The following elements are part of a mandatory choice: **length** or **string**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **string** *string*

| | |
|---|---|
| Synopsis | Suffix substring |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp mask type *keyword* suffix string *string* |
| Tree | string |
| Description | This command specifies a substring that is stripped off the end of the incoming circuit ID before it is matched against the value configured in the circuit ID. |
| String length | 1 to 127 |
| Notes | The following elements are part of a mandatory choice: **length** or **string**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **match-list** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | PPP host match type |
| Context | **configure** subscriber-mgmt local-user-db *named-item* ppp match-list *keyword* |
| Tree | match-list |
| Options | circuit-id, mac, remote-id, user-name, service-name, sap-id, encap-tag-range, derived-id, encap-tag-separate-range |
| Max. instances | 3 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **mld-policy** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **mld-policy** list instance |
| Context | **configure** subscriber-mgmt mld-policy *named-item* |
| Tree | mld-policy |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | Policy name |
| Context | **configure** subscriber-mgmt mld-policy *named-item* |
| Tree | mld-policy |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** subscriber-mgmt mld-policy *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **egress-rate-modify**

| | |
|---|---|
| Synopsis | Enter the **egress-rate-modify** context |
| Context | **configure** subscriber-mgmt mld-policy *named-item* egress-rate-modify |
| Tree | egress-rate-modify |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### agg-rate

| | |
|---|---|
| Synopsis | Maximum total rate for all subscriber egress queues |
| Context | **configure** subscriber-mgmt mld-policy *named-item* egress-rate-modify agg-rate |
| Tree | agg-rate |
| Description | This command specifies the maximum total rate for all subscriber egress queues for each subscriber associated with the policy. |
| Notes | The following elements are part of a choice: **agg-rate** or **scheduler**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### scheduler *named-item*

| | |
|---|---|
| Synopsis | Scheduler to be applied for rate modification |
| Context | **configure** subscriber-mgmt mld-policy *named-item* egress-rate-modify scheduler *named-item* |
| Tree | scheduler |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **agg-rate** or **scheduler**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### fast-leave *boolean*

| | |
|---|---|
| Synopsis | Enable fast leave |
| Context | **configure** subscriber-mgmt mld-policy *named-item* fast-leave *boolean* |
| Tree | fast-leave |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### import-policy *reference*

| | |
|---|---|
| Synopsis | Import policy to filter MLD packets |
| Context | **configure** subscriber-mgmt mld-policy *named-item* import-policy *reference* |


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| | |
|---|---|
| Tree | import-policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **maximum-number-group-sources** *number*

| | |
|---|---|
| Synopsis | Maximum number of group sources for this interface |
| Context | **configure** subscriber-mgmt mld-policy *named-item* maximum-number-group-sources *number* |
| Tree | maximum-number-group-sources |
| Description | This command configures the maximum number of group sources for which IGMP or MLD can have local receiver information based on received IGMP or MLD reports on this interface. When this configuration is changed dynamically to a lower value than the currently accepted number of group sources, the group sources that are already accepted are not deleted. Only new group sources are not allowed. |
| Range | 1 to 32000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **maximum-number-groups** *number*

| | |
|---|---|
| Synopsis | Maximum number of groups for this interface |
| Context | **configure** subscriber-mgmt mld-policy *named-item* maximum-number-groups *number* |
| Tree | maximum-number-groups |
| Range | 1 to 16000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **maximum-number-sources** *number*

| | |
|---|---|
| Synopsis | Maximum number of sources that are allowed per group |
| Context | **configure** subscriber-mgmt mld-policy *named-item* maximum-number-sources *number* |
| Tree | maximum-number-sources |
| Range | 1 to 1000 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **query-interval** *number*

| | |
|---|---|
| Synopsis | Time between two consecutive host-query messages |
| Context | **configure** subscriber-mgmt mld-policy *named-item* query-interval *number* |
| Tree | query-interval |
| Range | 2 to 1024 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **query-last-member-interval** *number*

| | |
|---|---|
| Synopsis | Time between group-specific query messages |
| Context | **configure** subscriber-mgmt mld-policy *named-item* query-last-member-interval *number* |
| Tree | query-last-member-interval |
| Range | 1 to 1023 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **query-response-interval** *number*

| | |
|---|---|
| Synopsis | Time to wait for a response to the host-query messages |
| Context | **configure** subscriber-mgmt mld-policy *named-item* query-response-interval *number* |
| Tree | query-response-interval |
| Range | 1 to 1023 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **redirection-policy** *reference*

| | |
|---|---|
| Synopsis | Multicast redirection action applied to the subscriber |
| Context | **configure** subscriber-mgmt mld-policy *named-item* redirection-policy *reference* |
| Tree | redirection-policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **replication** *keyword*

| | |
|---|---|
| Synopsis | Multicast replication mode for subscriber multicast |
| Context | **configure** subscriber-mgmt mld-policy *named-item* replication *keyword* |
| Tree | replication |
| Options | per-sap, per-host, per-spi |
| Default | per-sap |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **router-alert-check** *boolean*

| | |
|---|---|
| Synopsis | Enable router alert checking for IGMP or MLD messages |
| Context | **configure** subscriber-mgmt mld-policy *named-item* router-alert-check *boolean* |
| Tree | router-alert-check |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **static**

| | |
|---|---|
| Synopsis | Enter the **static** context |
| Context | **configure** subscriber-mgmt mld-policy *named-item* static |
| Tree | static |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **group** [group-address] *ipv6-multicast-address*

| | |
|---|---|
| Synopsis | Enter the **group** list instance |
| Context | **configure** subscriber-mgmt mld-policy *named-item* static group *ipv6-multicast-address* |
| Tree | group |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**group-address**] *ipv6-multicast-address*

| | |
|---|---|
| Synopsis | Group address of multicast channel |
| Context | **configure** subscriber-mgmt mld-policy *named-item* static group *ipv6-multicast-address* |
| Tree | group |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **source** [source-address] *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Add a list entry for **source** |
| Context | **configure** subscriber-mgmt mld-policy *named-item* static group *ipv6-multicast-address* source *ipv6-unicast-address* |
| Tree | source |
| Notes | The following elements are part of a mandatory choice: **source** or **starg**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**source-address**] *ipv6-unicast-address*

| | |
|---|---|
| Synopsis | Source IP address |
| Context | **configure** subscriber-mgmt mld-policy *named-item* static group *ipv6-multicast-address* source *ipv6-unicast-address* |
| Tree | source |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R2 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **starg**

| | |
|---|---|
| Synopsis | Any source address (*,G) |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt mld-policy *named-item* static group *ipv6-multicast-address* starg |
| Tree | starg |
| Notes | The following elements are part of a mandatory choice: **source** or **starg**. |
| Introduced | 16.0.R2 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **use-multicast-destination-mac** *boolean*

| | |
|---|---|
| Synopsis | Use multicast destination MAC for outgoing traffic |
| Context | **configure** subscriber-mgmt mld-policy *named-item* use-multicast-destination-mac *boolean* |
| Tree | use-multicast-destination-mac |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **version** *keyword*

| | |
|---|---|
| Synopsis | MLD protocol version |
| Context | **configure** subscriber-mgmt mld-policy *named-item* version *keyword* |
| Tree | version |
| Options | 1, 2 |
| Default | 2 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **msap-policy** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **msap-policy** list instance |
| Context | **configure** subscriber-mgmt msap-policy *named-item* |
| Tree | msap-policy |
| Max. instances | 256 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### [**name**] *named-item*

| | |
|---|---|
| Synopsis | Managed SAP policy name |
| Context | **configure** subscriber-mgmt msap-policy *named-item* |
| Tree | msap-policy |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### cpu-protection

| | |
|---|---|
| Synopsis | Enter the **cpu-protection** context |
| Context | **configure** subscriber-mgmt msap-policy *named-item* cpu-protection |
| Tree | cpu-protection |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s |

### ip-src-monitoring

| | |
|---|---|
| Synopsis | Apply the IP source monitoring |
| Context | **configure** subscriber-mgmt msap-policy *named-item* cpu-protection ip-src-monitoring |
| Tree | ip-src-monitoring |
| Notes | The following elements are part of a choice: **ip-src-monitoring** or **mac-monitoring**. |
| Introduced | 16.0.R2 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s |

### mac-monitoring

| | |
|---|---|
| Synopsis | Apply the per-source rate limit |
| Context | **configure** subscriber-mgmt msap-policy *named-item* cpu-protection mac-monitoring |
| Tree | mac-monitoring |
| Notes | The following elements are part of a choice: **ip-src-monitoring** or **mac-monitoring**. |
| Introduced | 16.0.R2 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s |


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### **policy-id** *reference*

| | |
|---|---|
| Synopsis | CPM protection policy |
| Context | **configure** subscriber-mgmt msap-policy *named-item* cpu-protection policy-id *reference* |
| Tree | policy-id |
| Reference | **configure** system security cpu-protection policy *number* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** subscriber-mgmt msap-policy *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **dist-cpu-protection** *named-item*

| | |
|---|---|
| Synopsis | Distributed CPU protection policy |
| Context | **configure** subscriber-mgmt msap-policy *named-item* dist-cpu-protection *named-item* |
| Tree | dist-cpu-protection |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ies-vprn-only-sap-parameters**

| | |
|---|---|
| Synopsis | Enter the **ies-vprn-only-sap-parameters** context |
| Context | **configure** subscriber-mgmt msap-policy *named-item* ies-vprn-only-sap-parameters |
| Tree | ies-vprn-only-sap-parameters |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **anti-spoof** *keyword*

| | |
|---|---|
| Synopsis | Anti-spoof filtering for the MSAP |
| Context | **configure** subscriber-mgmt msap-policy *named-item* ies-vprn-only-sap-parameters anti-spoof *keyword* |
| Tree | anti-spoof |
| Options | source-ip-and-mac-addr, next-hop-ip-and-mac-addr |
| Default | source-ip-and-mac-addr |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **egress**

| | |
|---|---|
| Synopsis | Enter the **egress** context |
| Context | **configure** subscriber-mgmt msap-policy *named-item* ies-vprn-only-sap-parameters egress |
| Tree | egress |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **qos**

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** subscriber-mgmt msap-policy *named-item* ies-vprn-only-sap-parameters egress qos |
| Tree | qos |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **policy-name** *reference*

| | |
|---|---|
| Synopsis | QoS policy ID or name to associate with the MSAPs |
| Context | **configure** subscriber-mgmt msap-policy *named-item* ies-vprn-only-sap-parameters egress qos policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos sap-egress *qos-policy-name* |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ingress

| | |
|---|---|
| Synopsis | Enter the **ingress** context |
| Context | **configure** subscriber-mgmt msap-policy *named-item* ies-vprn-only-sap-parameters ingress |
| Tree | ingress |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## qos

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** subscriber-mgmt msap-policy *named-item* ies-vprn-only-sap-parameters ingress qos |
| Tree | qos |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## policy-name *reference*

| | |
|---|---|
| Synopsis | QoS policy ID or name to associate with the MSAPs |
| Context | **configure** subscriber-mgmt msap-policy *named-item* ies-vprn-only-sap-parameters ingress qos policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos sap-ingress *qos-policy-name* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## queuing-type *keyword*

| | |
|---|---|
| Synopsis | Queuing type |
| Context | **configure** subscriber-mgmt msap-policy *named-item* ies-vprn-only-sap-parameters ingress qos queuing-type *keyword* |


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| | |
|---|---|
| Tree | queuing-type |
| Options | shared, service |
| Default | shared |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## igmp-host-tracking

| | |
|---|---|
| Synopsis | Enter the **igmp-host-tracking** context |
| Context | **configure** subscriber-mgmt msap-policy *named-item* igmp-host-tracking |
| Tree | igmp-host-tracking |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## expiry-time *number*

| | |
|---|---|
| Synopsis | Time that the system continues to track inactive hosts |
| Context | **configure** subscriber-mgmt msap-policy *named-item* igmp-host-tracking expiry-time *number* |
| Tree | expiry-time |
| Range | 1 to 65535 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## import-policy *reference*

| | |
|---|---|
| Synopsis | Import policy that filters IGMP packets |
| Context | **configure** subscriber-mgmt msap-policy *named-item* igmp-host-tracking import-policy *reference* |
| Tree | import-policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **maximum-number-group-sources** *number*

| | |
|---|---|
| Synopsis | Maximum number of multicast groups to track per group |
| Context | **configure** subscriber-mgmt msap-policy *named-item* igmp-host-tracking maximum-number-group-sources *number* |
| Tree | maximum-number-group-sources |
| Range | 1 to 32000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **maximum-number-groups** *number*

| | |
|---|---|
| Synopsis | Maximum number of multicast groups to be tracked |
| Context | **configure** subscriber-mgmt msap-policy *named-item* igmp-host-tracking maximum-number-groups *number* |
| Tree | maximum-number-groups |
| Range | 1 to 16000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **maximum-number-sources** *number*

| | |
|---|---|
| Synopsis | Maximum number of multicast sources to be tracked |
| Context | **configure** subscriber-mgmt msap-policy *named-item* igmp-host-tracking maximum-number-sources *number* |
| Tree | maximum-number-sources |
| Range | 1 to 1000 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **lag-link-map-profile** *number*

| | |
|---|---|
| Synopsis | Map profile for LAG link |
| Context | **configure** subscriber-mgmt msap-policy *named-item* lag-link-map-profile *number* |
| Tree | lag-link-map-profile |
| Range | 1 to 64 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **sticky-msaps** *boolean*

| | |
|---|---|
| Synopsis | Prevent MSAPs from being deleted |
| Context | **configure** subscriber-mgmt msap-policy *named-item* sticky-msaps *boolean* |
| Tree | sticky-msaps |
| Description | When configured to **true**, MSAPs associated with the specified MSAP policy are not removed unless a manual **clear** command is issued.<br>This feature is useful if historical statistics records on MSAPs need to be retained. It can also reduce host creation time because the MSAP is already created.<br>When configured to **false**, MSAPs can be automatically removed when a host creation fails or when a subscriber is no longer associated with the MSAP, for example, when a subscriber ends the session. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **sticky-msaps-idle-timeout** *number*

| | |
|---|---|
| Synopsis | Timeout used for sticky MSAPs |
| Context | **configure** subscriber-mgmt msap-policy *named-item* sticky-msaps-idle-timeout *number* |
| Tree | sticky-msaps-idle-timeout |
| Description | This command configures the timeout interval which determines when idle sticky MSAPs can be removed.<br>By default, MSAPs are deleted shortly after the subscriber session ends. The system is prevented from automatically deleting sticky MSAPs after the session ends, allowing for a faster subsequent subscriber connection without MSAP creation; however, sticky MSAPs require SAP resources. The configuration of this command allows for the removal of sticky MSAPs that are idle for the specified time period.<br>When unconfigured, no timeout interval is applied. |
| Range | 5 to 604800 |
| Units | seconds |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## sub-sla-mgmt

| | |
|---|---|
| Synopsis | Enter the **sub-sla-mgmt** context |
| Context | **configure** subscriber-mgmt msap-policy *named-item* sub-sla-mgmt |
| Tree | sub-sla-mgmt |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## defaults

| | |
|---|---|
| Synopsis | Enter the **defaults** context |
| Context | **configure** subscriber-mgmt msap-policy *named-item* sub-sla-mgmt defaults |
| Tree | defaults |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## app-profile *reference*

| | |
|---|---|
| Synopsis | Application profile name |
| Context | **configure** subscriber-mgmt msap-policy *named-item* sub-sla-mgmt defaults app-profile *reference* |
| Tree | app-profile |
| Reference | **configure** application-assurance group *number* partition *number* policy app-profile *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## int-dest-id

| | |
|---|---|
| Synopsis | Enter the **int-dest-id** context |
| Context | **configure** subscriber-mgmt msap-policy *named-item* sub-sla-mgmt defaults int-dest-id |
| Tree | int-dest-id |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **string** *int-dest-id*

| | |
|---|---|
| Synopsis | String to be used as the int-dest-id |
| Context | **configure** subscriber-mgmt msap-policy *named-item* sub-sla-mgmt defaults int-dest-id string *int-dest-id* |
| Tree | string |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **string** or **top-q-tag**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **top-q-tag**

| | |
|---|---|
| Synopsis | Derive string from top most delineating Dot1Q tag |
| Context | **configure** subscriber-mgmt msap-policy *named-item* sub-sla-mgmt defaults int-dest-id top-q-tag |
| Tree | top-q-tag |
| Notes | The following elements are part of a choice: **string** or **top-q-tag**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sla-profile** *reference*

| | |
|---|---|
| Synopsis | Default SLA profile |
| Context | **configure** subscriber-mgmt msap-policy *named-item* sub-sla-mgmt defaults sla-profile *reference* |
| Tree | sla-profile |
| Reference | **configure** subscriber-mgmt sla-profile *external-named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sub-profile** *reference*

| | |
|---|---|
| Synopsis | Subscriber profile |
| Context | **configure** subscriber-mgmt msap-policy *named-item* sub-sla-mgmt defaults sub-profile *reference* |


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| | |
|---|---|
| Tree | sub-profile |
| Reference | **configure** subscriber-mgmt sub-profile *external-named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## subscriber-id

| | |
|---|---|
| Synopsis | Enter the **subscriber-id** context |
| Context | **configure** subscriber-mgmt msap-policy *named-item* sub-sla-mgmt defaults subscriber-id |
| Tree | subscriber-id |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## auto-id

| | |
|---|---|
| Synopsis | Autogenerated sub-id as default sub-id |
| Context | **configure** subscriber-mgmt msap-policy *named-item* sub-sla-mgmt defaults subscriber-id auto-id |
| Tree | auto-id |
| Notes | The following elements are part of a choice: **auto-id**, **sap-id**, or **string**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## sap-id

| | |
|---|---|
| Synopsis | SAP-id as default sub-id |
| Context | **configure** subscriber-mgmt msap-policy *named-item* sub-sla-mgmt defaults subscriber-id sap-id |
| Tree | sap-id |
| Notes | The following elements are part of a choice: **auto-id**, **sap-id**, or **string**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **string** *subscriber-id*

| | |
|---|---|
| Synopsis | String to be used as default sub-id |
| Context | **configure** subscriber-mgmt msap-policy *named-item* sub-sla-mgmt defaults subscriber-id string *subscriber-id* |
| Tree | string |
| String length | 1 to 64 |
| Notes | The following elements are part of a choice: **auto-id**, **sap-id**, or **string**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **single-sub-parameters**

| | |
|---|---|
| Synopsis | Enter the **single-sub-parameters** context |
| Context | **configure** subscriber-mgmt msap-policy *named-item* sub-sla-mgmt single-sub-parameters |
| Tree | single-sub-parameters |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **non-sub-traffic-profiles**

| | |
|---|---|
| Synopsis | Enable the **non-sub-traffic-profiles** context |
| Context | **configure** subscriber-mgmt msap-policy *named-item* sub-sla-mgmt single-sub-parameters non-sub-traffic-profiles |
| Tree | non-sub-traffic-profiles |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **app-profile** *reference*

| | |
|---|---|
| Synopsis | Application profile name |
| Context | **configure** subscriber-mgmt msap-policy *named-item* sub-sla-mgmt single-sub-parameters non-sub-traffic-profiles app-profile *reference* |
| Tree | app-profile |


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| | |
|---|---|
| Reference | **configure** application-assurance group *number* partition *number* policy app-profile *named-item* |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **sla-profile** *reference*

| | |
|---|---|
| Synopsis | SLA profile name |
| Context | **configure** subscriber-mgmt msap-policy *named-item* sub-sla-mgmt single-sub-parameters non-sub-traffic-profiles sla-profile *reference* |
| Tree | sla-profile |
| Reference | **configure** subscriber-mgmt sla-profile *external-named-item* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **sub-profile** *reference*

| | |
|---|---|
| Synopsis | Subscriber profile |
| Context | **configure** subscriber-mgmt msap-policy *named-item* sub-sla-mgmt single-sub-parameters non-sub-traffic-profiles sub-profile *reference* |
| Tree | sub-profile |
| Reference | **configure** subscriber-mgmt sub-profile *external-named-item* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **subscriber-id** *subscriber-id*

| | |
|---|---|
| Synopsis | Subscriber identification string |
| Context | **configure** subscriber-mgmt msap-policy *named-item* sub-sla-mgmt single-sub-parameters non-sub-traffic-profiles subscriber-id *subscriber-id* |
| Tree | subscriber-id |
| String length | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **profiled-traffic-only** *boolean*

| | |
|---|---|
| Synopsis | Apply only profiled traffic for an MSAP |
| Context | **configure** subscriber-mgmt msap-policy *named-item* sub-sla-mgmt single-sub-parameters profiled-traffic-only *boolean* |
| Tree | profiled-traffic-only |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sub-ident-policy** *reference*

| | |
|---|---|
| Synopsis | Configure subscriber identification policy |
| Context | **configure** subscriber-mgmt msap-policy *named-item* sub-sla-mgmt sub-ident-policy *reference* |
| Tree | sub-ident-policy |
| Reference | **configure** subscriber-mgmt sub-ident-policy *external-named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **subscriber-limit** *(keyword | number)*

| | |
|---|---|
| Synopsis | Maximum subscribers on this SAP |
| Context | **configure** subscriber-mgmt msap-policy *named-item* sub-sla-mgmt subscriber-limit *(keyword \| number)* |
| Tree | subscriber-limit |
| Range | 1 to 131071 |
| Options | no-limit |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **vpls-only-sap-parameters**

| | |
|---|---|
| Synopsis | Enter the **vpls-only-sap-parameters** context |
| Context | **configure** subscriber-mgmt msap-policy *named-item* vpls-only-sap-parameters |


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| | |
|---|---|
| Tree | vpls-only-sap-parameters |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## arp-host

| | |
|---|---|
| Synopsis | Enter the **arp-host** context |
| Context | **configure** subscriber-mgmt msap-policy *named-item* vpls-only-sap-parameters arp-host |
| Tree | arp-host |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## host-limit *number*

| | |
|---|---|
| Synopsis | Maximum number of ARP hosts |
| Context | **configure** subscriber-mgmt msap-policy *named-item* vpls-only-sap-parameters arp-host host-limit *number* |
| Tree | host-limit |
| Range | 1 to 131071 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## min-auth-interval *number*

| | |
|---|---|
| Synopsis | Minimum authentication interval |
| Context | **configure** subscriber-mgmt msap-policy *named-item* vpls-only-sap-parameters arp-host min-auth-interval *number* |
| Tree | min-auth-interval |
| Range | 1 to 6000 |
| Units | minutes |
| Default | 15 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **arp-reply-agent** *keyword*

| | |
|---|---|
| Synopsis | Enable arp-reply-agent function |
| Context | **configure** subscriber-mgmt msap-policy *named-item* vpls-only-sap-parameters arp-reply-agent *keyword* |
| Tree | arp-reply-agent |
| Options | true, with-subscr-ident |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **dhcp**

| | |
|---|---|
| Synopsis | Enter the **dhcp** context |
| Context | **configure** subscriber-mgmt msap-policy *named-item* vpls-only-sap-parameters dhcp |
| Tree | dhcp |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **lease-populate** *number*

| | |
|---|---|
| Synopsis | Maximum number of DHCPv4 leases per managed SAP |
| Context | **configure** subscriber-mgmt msap-policy *named-item* vpls-only-sap-parameters dhcp lease-populate *number* |
| Tree | lease-populate |
| Range | 1 to 131071 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **option-82**

| | |
|---|---|
| Synopsis | Enter the **option-82** context |
| Context | **configure** subscriber-mgmt msap-policy *named-item* vpls-only-sap-parameters dhcp option-82 |
| Tree | option-82 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **action** *keyword*

| | |
|---|---|
| Synopsis | DHCP relay forwarding policy action |
| Context | **configure** subscriber-mgmt msap-policy *named-item* vpls-only-sap-parameters dhcp option-82 action *keyword* |
| Tree | action |
| Options | replace, drop, keep |
| Default | keep |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **circuit-id** *keyword*

| | |
|---|---|
| Synopsis | Circuit ID suboption of the IPOE relay |
| Context | **configure** subscriber-mgmt msap-policy *named-item* vpls-only-sap-parameters dhcp option-82 circuit-id *keyword* |
| Tree | circuit-id |
| Options | none, ascii-tuple, vlan-ascii-tuple |
| Default | ascii-tuple |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **remote-id**

| | |
|---|---|
| Synopsis | Enter the **remote-id** context |
| Context | **configure** subscriber-mgmt msap-policy *named-item* vpls-only-sap-parameters dhcp option-82 remote-id |
| Tree | remote-id |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **mac**

| | |
|---|---|
| Synopsis | MAC address of the remote end encoded in the sub-option |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt msap-policy *named-item* vpls-only-sap-parameters dhcp option-82 remote-id mac |
| Tree | mac |
| Notes | The following elements are part of a choice: **mac** or **string**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **string** *named-item*

| | |
|---|---|
| Synopsis | String to encode in the suboption |
| Context | **configure** subscriber-mgmt msap-policy *named-item* vpls-only-sap-parameters dhcp option-82 remote-id string *named-item* |
| Tree | string |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **mac** or **string**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **vendor-specific-option**

| | |
|---|---|
| Synopsis | Enter the **vendor-specific-option** context |
| Context | **configure** subscriber-mgmt msap-policy *named-item* vpls-only-sap-parameters dhcp option-82 vendor-specific-option |
| Tree | vendor-specific-option |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **client-mac-address** *boolean*

| | |
|---|---|
| Synopsis | Send MAC address in Nokia vendor-specific sub-option |
| Context | **configure** subscriber-mgmt msap-policy *named-item* vpls-only-sap-parameters dhcp option-82 vendor-specific-option client-mac-address *boolean* |
| Tree | client-mac-address |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **sap-id** *boolean*

| | |
|---|---|
| Synopsis | Send SAP ID in the Nokia vendor-specific sub-option |
| Context | **configure** subscriber-mgmt msap-policy *named-item* vpls-only-sap-parameters dhcp option-82 vendor-specific-option sap-id *boolean* |
| Tree | sap-id |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **service-id** *boolean*

| | |
|---|---|
| Synopsis | Send service ID in the Nokia vendor-specific sub-option |
| Context | **configure** subscriber-mgmt msap-policy *named-item* vpls-only-sap-parameters dhcp option-82 vendor-specific-option service-id *boolean* |
| Tree | service-id |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **string** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | String in the sub-option of the DHCP relay packet |
| Context | **configure** subscriber-mgmt msap-policy *named-item* vpls-only-sap-parameters dhcp option-82 vendor-specific-option string *string-not-all-spaces* |
| Tree | string |
| Description | This command specifies the string in the Nokia vendor-specific sub-option of the DHCP relay packet. |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **system-id** *boolean*

| | |
|---|---|
| Synopsis | Send system ID in the Nokia vendor-specific sub-option |
| Context | **configure** subscriber-mgmt msap-policy *named-item* vpls-only-sap-parameters dhcp option-82 vendor-specific-option system-id *boolean* |


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| | |
|---|---|
| Tree | system-id |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## proxy-server

| | |
|---|---|
| Synopsis | Enter the **proxy-server** context |
| Context | **configure** subscriber-mgmt msap-policy *named-item* vpls-only-sap-parameters dhcp proxy-server |
| Tree | proxy-server |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the DHCP proxy server |
| Context | **configure** subscriber-mgmt msap-policy *named-item* vpls-only-sap-parameters dhcp proxy-server admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## emulated-server *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IP address used as DHCP server address in SAP context |
| Context | **configure** subscriber-mgmt msap-policy *named-item* vpls-only-sap-parameters dhcp proxy-server emulated-server *ipv4-unicast-address* |
| Tree | emulated-server |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### lease-time

| | |
|---|---|
| Synopsis | Enter the **lease-time** context |
| Context | **configure** subscriber-mgmt msap-policy *named-item* vpls-only-sap-parameters dhcp proxy-server lease-time |
| Tree | lease-time |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### radius-override *boolean*

| | |
|---|---|
| Synopsis | Use lease time information provided by RADIUS server |
| Context | **configure** subscriber-mgmt msap-policy *named-item* vpls-only-sap-parameters dhcp proxy-server lease-time radius-override *boolean* |
| Tree | radius-override |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### value *number*

| | |
|---|---|
| Synopsis | DHCP lease time |
| Context | **configure** subscriber-mgmt msap-policy *named-item* vpls-only-sap-parameters dhcp proxy-server lease-time value *number* |
| Tree | value |
| Range | 300 to 315446399 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### egress

| | |
|---|---|
| Synopsis | Enter the **egress** context |
| Context | **configure** subscriber-mgmt msap-policy *named-item* vpls-only-sap-parameters egress |
| Tree | egress |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## qos

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** subscriber-mgmt msap-policy *named-item* vpls-only-sap-parameters egress qos |
| Tree | qos |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## policy-name *reference*

| | |
|---|---|
| Synopsis | QoS policy ID or name to associate with the MSAPs |
| Context | **configure** subscriber-mgmt msap-policy *named-item* vpls-only-sap-parameters egress qos policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos sap-egress *qos-policy-name* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## igmp-snooping

| | |
|---|---|
| Synopsis | Enter the **igmp-snooping** context |
| Context | **configure** subscriber-mgmt msap-policy *named-item* vpls-only-sap-parameters igmp-snooping |
| Tree | igmp-snooping |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## fast-leave *boolean*

| | |
|---|---|
| Synopsis | Allow IGMP fast leave processing |
| Context | **configure** subscriber-mgmt msap-policy *named-item* vpls-only-sap-parameters igmp-snooping fast-leave *boolean* |
| Tree | fast-leave |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **import-policy** *reference*

| | |
|---|---|
| Synopsis | Import policy that filters IGMP packets |
| Context | **configure** subscriber-mgmt msap-policy *named-item* vpls-only-sap-parameters igmp-snooping import-policy *reference* |
| Tree | import-policy |
| Reference | **configure** policy-options policy-statement *named-item-64* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **maximum-number-groups** *(keyword | number)*

| | |
|---|---|
| Synopsis | Maximum number of multicast groups |
| Context | **configure** subscriber-mgmt msap-policy *named-item* vpls-only-sap-parameters igmp-snooping maximum-number-groups *(keyword | number)* |
| Tree | maximum-number-groups |
| Range | 1 to 16000 |
| Options | unlimited |
| Default | unlimited |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **mcac**

| | |
|---|---|
| Synopsis | Enter the **mcac** context |
| Context | **configure** subscriber-mgmt msap-policy *named-item* vpls-only-sap-parameters igmp-snooping mcac |
| Tree | mcac |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### bandwidth

| | |
|---|---|
| Synopsis | Enter the **bandwidth** context |
| Context | **configure** subscriber-mgmt msap-policy *named-item* vpls-only-sap-parameters igmp-snooping mcac bandwidth |
| Tree | bandwidth |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### mandatory *(number | keyword)*

| | |
|---|---|
| Synopsis | Pre-reserved bandwidth for all mandatory channels |
| Context | **configure** subscriber-mgmt msap-policy *named-item* vpls-only-sap-parameters igmp-snooping mcac bandwidth mandatory *(number \| keyword)* |
| Tree | mandatory |
| Range | 0 to 2147483647 |
| Options | unlimited |
| Default | unlimited |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### total *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum allowed bandwidth |
| Context | **configure** subscriber-mgmt msap-policy *named-item* vpls-only-sap-parameters igmp-snooping mcac bandwidth total *(number \| keyword)* |
| Tree | total |
| Range | 0 to 2147483647 |
| Options | unlimited |
| Default | unlimited |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### interface-policy *reference*

| | |
|---|---|
| Synopsis | MCAC interface policy name |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt msap-policy *named-item* vpls-only-sap-parameters igmp-snooping mcac interface-policy *reference* |
| Tree | interface-policy |
| Reference | **configure** mcac interface-policy *string* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## mc-constraints

| | |
|---|---|
| Synopsis | Enter the **mc-constraints** context |
| Context | **configure** subscriber-mgmt msap-policy *named-item* vpls-only-sap-parameters igmp-snooping mcac mc-constraints |
| Tree | mc-constraints |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **level** [level-id] *number*

| | |
|---|---|
| Synopsis | Enter the **level** list instance |
| Context | **configure** subscriber-mgmt msap-policy *named-item* vpls-only-sap-parameters igmp-snooping mcac mc-constraints level *number* |
| Tree | level |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## [**level-id**] *number*

| | |
|---|---|
| Synopsis | Bandwidth level ID for an MCAC constraint |
| Context | **configure** subscriber-mgmt msap-policy *named-item* vpls-only-sap-parameters igmp-snooping mcac mc-constraints level *number* |
| Tree | level |
| Range | 1 to 8 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **bandwidth** *number*

| | |
|---|---|
| Synopsis | Bandwidth available for this level |
| Context | **configure** subscriber-mgmt msap-policy *named-item* vpls-only-sap-parameters igmp-snooping mcac mc-constraints level *number* bandwidth *number* |
| Tree | bandwidth |
| Max. range | 0 to 4294967295 |
| Units | kilobps |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **number-down** [number-lag-port-down] *number*

| | |
|---|---|
| Synopsis | Enter the **number-down** list instance |
| Context | **configure** subscriber-mgmt msap-policy *named-item* vpls-only-sap-parameters igmp-snooping mcac mc-constraints number-down *number* |
| Tree | number-down |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**number-lag-port-down**] *number*

| | |
|---|---|
| Synopsis | Number of lag ports down |
| Context | **configure** subscriber-mgmt msap-policy *named-item* vpls-only-sap-parameters igmp-snooping mcac mc-constraints number-down *number* |
| Tree | number-down |
| Range | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **level** *number*

| | |
|---|---|
| Synopsis | Level to be associated with this number of lag ports that are down |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt msap-policy *named-item* vpls-only-sap-parameters igmp-snooping mcac mc-constraints number-down *number* level *number* |
| Tree | level |
| Range | 1 to 8 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **use-lag-port-weight** *boolean*

| | |
|---|---|
| Synopsis | Use LAG port weight to calculate MCAC constraints |
| Context | **configure** subscriber-mgmt msap-policy *named-item* vpls-only-sap-parameters igmp-snooping mcac mc-constraints use-lag-port-weight *boolean* |
| Tree | use-lag-port-weight |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **policy** *reference*

| | |
|---|---|
| Synopsis | Multicast CAC policy name |
| Context | **configure** subscriber-mgmt msap-policy *named-item* vpls-only-sap-parameters igmp-snooping mcac policy *reference* |
| Tree | policy |
| Reference | **configure** mcac policy *string* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **mvr**

| | |
|---|---|
| Synopsis | Enter the **mvr** context |
| Context | **configure** subscriber-mgmt msap-policy *named-item* vpls-only-sap-parameters igmp-snooping mvr |
| Tree | mvr |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **from-vpls** *reference*

| | |
|---|---|
| Synopsis | MVR VPLS from which the multicast channels are taken |
| Context | **configure** subscriber-mgmt msap-policy *named-item* vpls-only-sap-parameters igmp-snooping mvr from-vpls *reference* |
| Tree | from-vpls |
| Reference | **configure** service vpls *service-name* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **query-interval** *number*

| | |
|---|---|
| Synopsis | Time between two consecutive host-query messages |
| Context | **configure** subscriber-mgmt msap-policy *named-item* vpls-only-sap-parameters igmp-snooping query-interval *number* |
| Tree | query-interval |
| Range | 2 to 1024 |
| Units | seconds |
| Default | 125 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **query-last-member-interval** *number*

| | |
|---|---|
| Synopsis | Time between group-specific query messages |
| Context | **configure** subscriber-mgmt msap-policy *named-item* vpls-only-sap-parameters igmp-snooping query-last-member-interval *number* |
| Tree | query-last-member-interval |
| Range | 1 to 50 |
| Units | deciseconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **query-response-interval** *number*

| | |
|---|---|
| Synopsis | Time to wait for a response to the host-query messages |
| Context | **configure** subscriber-mgmt msap-policy *named-item* vpls-only-sap-parameters igmp-snooping query-response-interval *number* |
| Tree | query-response-interval |
| Range | 1 to 1023 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **robust-count** *number*

| | |
|---|---|
| Synopsis | Number of retries after expected message loss |
| Context | **configure** subscriber-mgmt msap-policy *named-item* vpls-only-sap-parameters igmp-snooping robust-count *number* |
| Tree | robust-count |
| Range | 2 to 7 |
| Default | 2 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **send-queries** *boolean*

| | |
|---|---|
| Synopsis | Generate IGMP general queries |
| Context | **configure** subscriber-mgmt msap-policy *named-item* vpls-only-sap-parameters igmp-snooping send-queries *boolean* |
| Tree | send-queries |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **version** *keyword*

| | |
|---|---|
| Synopsis | IGMP version |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt msap-policy *named-item* vpls-only-sap-parameters igmp-snooping version *keyword* |
| Tree | version |
| Options | 1, 2, 3 |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ingress

| | |
|---|---|
| Synopsis | Enter the **ingress** context |
| Context | **configure** subscriber-mgmt msap-policy *named-item* vpls-only-sap-parameters ingress |
| Tree | ingress |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## qos

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** subscriber-mgmt msap-policy *named-item* vpls-only-sap-parameters ingress qos |
| Tree | qos |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## policy-name *reference*

| | |
|---|---|
| Synopsis | QoS policy ID or name to associate with the MSAPs |
| Context | **configure** subscriber-mgmt msap-policy *named-item* vpls-only-sap-parameters ingress qos policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos sap-ingress *qos-policy-name* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **queuing-type** *keyword*

| | |
|---|---|
| Synopsis | Queuing type |
| Context | **configure** subscriber-mgmt msap-policy *named-item* vpls-only-sap-parameters ingress qos queuing-type *keyword* |
| Tree | queuing-type |
| Options | multipoint-shared, service |
| Default | multipoint-shared |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **mac-da-hashing** *boolean*

| | |
|---|---|
| Synopsis | Include hashing on MAC DA ISO subscriber ID |
| Context | **configure** subscriber-mgmt msap-policy *named-item* vpls-only-sap-parameters mac-da-hashing *boolean* |
| Tree | mac-da-hashing |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **split-horizon-group** *named-item*

| | |
|---|---|
| Synopsis | Name of the split horizon group for the MSAP |
| Context | **configure** subscriber-mgmt msap-policy *named-item* vpls-only-sap-parameters split-horizon-group *named-item* |
| Tree | split-horizon-group |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **pfcp**

| | |
|---|---|
| Synopsis | Enter the **pfcp** context |
| Context | **configure** subscriber-mgmt pfcp |
| Tree | pfcp |


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| | |
|---|---|
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **association** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **association** list instance |
| Context | **configure** subscriber-mgmt pfcp association *named-item* |
| Tree | association |
| Description | Commands in this context configure a PFCP association towards a BNG CUPS CPF. |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | PFCP association name |
| Context | **configure** subscriber-mgmt pfcp association *named-item* |
| Tree | association |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the PFCP association |
| Context | **configure** subscriber-mgmt pfcp association *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **association-release-timeout** *(keyword | number)*

| | |
|---|---|
| Synopsis | Time to wait for a response to a release request |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt pfcp association *named-item* association-release-timeout *(keyword \| number)* |
| Tree | association-release-timeout |
| Description | This command configures the time to wait to clean up the PFCP association after it has been disabled. After administratively disabling a PFCP association, the system requests a shutdown to the BNG CPF. If the BNG CPF does not gracefully remove the association before expiry of the timer, the full association and all related sessions are forcefully removed.<br>The PFCP protocol encoding does not allow the full range of configured values. The system automatically rounds up the configured value to the nearest value allowed by the protocol. For more information about the protocol encoding, see 3GPP TS 29.244 8.2.78.1. |
| Range | 30 to 3600 |
| Units | seconds |
| Options | none |
| Default | 3600 |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **bfd-expedited-path-down** *boolean*

| | |
|---|---|
| Synopsis | Track BFD sessions to expedite PFCP path down detection |
| Context | **configure** subscriber-mgmt pfcp association *named-item* bfd-expedited-path-down *boolean* |
| Tree | bfd-expedited-path-down |
| Description | When configured to **true**, the system tracks BFD sessions to expedite PFCP path down detection on BFD down events. This requires the configuration of **path-restoration-time**. |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **default-calltrace-profile** *reference*

| | |
|---|---|
| Synopsis | Default profile when the CP-provided profile is unknown |
| Context | **configure** subscriber-mgmt pfcp association *named-item* default-calltrace-profile *reference* |
| Tree | default-calltrace-profile |


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| | |
|---|---|
| Description | This command configures the default call-trace profile that the BNG-UP uses if the CP enables call trace for a session, but the signaled profile is not known on the BNG-UP. If no default is configured and the CP enables call trace with an unknown profile, no trace is started. |
| Reference | **configure** call-trace trace-profile *named-item* |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** subscriber-mgmt pfcp association *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **heartbeat**

| | |
|---|---|
| Synopsis | Enter the **heartbeat** context |
| Context | **configure** subscriber-mgmt pfcp association *named-item* heartbeat |
| Tree | heartbeat |
| Description | Commands in this context configure the parameters for transmitting PFCP Heartbeat Request messages to a PFCP peer. |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **interval** *number*

| | |
|---|---|
| Synopsis | Time between two successful heartbeat request messages |
| Context | **configure** subscriber-mgmt pfcp association *named-item* heartbeat interval *number* |
| Tree | interval |
| Range | 5 to 180 |
| Units | seconds |
| Default | 60 |
| Introduced | 20.5.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **retries** *number*

| | |
|---|---|
| Synopsis | Number of retries after the heartbeat timeout expires |
| Context | **configure** subscriber-mgmt pfcp association *named-item* heartbeat retries *number* |
| Tree | retries |
| Description | This command configures the number of times the same Heartbeat Request is sent before the PFCP path to the peer is considered down. |
| Range | 0 to 30 |
| Default | 4 |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **timeout** *number*

| | |
|---|---|
| Synopsis | Time the system waits for a heartbeat response message |
| Context | **configure** subscriber-mgmt pfcp association *named-item* heartbeat timeout *number* |
| Tree | timeout |
| Description | This command configures the timeout after which a Heartbeat Request is considered unanswered. |
| Range | 1 to 20 |
| Units | seconds |
| Default | 5 |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **interface**

| | |
|---|---|
| Synopsis | Enter the **interface** context |
| Context | **configure** subscriber-mgmt pfcp association *named-item* interface |
| Tree | interface |
| Description | Commands in this context configure the interface from which PFCP messages will be sent and on which PFCP messages will be received. |
| Introduced | 20.5.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **name** *interface-name*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Name of the interface to use for the association |
| Context | **configure** subscriber-mgmt pfcp association *named-item* interface name *interface-name* |
| Tree | name |
| String length | 1 to 32 |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **router-instance** *string*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Router context for the PFCP association |
| Context | **configure** subscriber-mgmt pfcp association *named-item* interface router-instance *string* |
| Tree | router-instance |
| Description | This command configures the name of the interface, along with its routing instance, used as binding interface for PFCP. |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **nat**

| | |
|---|---|
| Synopsis | Enter the **nat** context |
| Context | **configure** subscriber-mgmt pfcp association *named-item* nat |
| Tree | nat |
| Description | Commands in this context configure NAT or WLAN-GW groups for BNG CUPS PFCP association. |
| Introduced | 20.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **nat-group** *reference*

| | |
|---|---|
| Synopsis | NAT group used for CUPS NAT functionality |
| Context | **configure** subscriber-mgmt pfcp association *named-item* nat nat-group *reference* |
| Tree | nat-group |
| Reference | **configure** isa nat-group *number* |
| Notes | The following elements are part of a choice: **nat-group** or **wlan-gw-group**. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **wlan-gw-group** *reference*

| | |
|---|---|
| Synopsis | WLAN gateway group used for CUPS NAT functionality |
| Context | **configure** subscriber-mgmt pfcp association *named-item* nat wlan-gw-group *reference* |
| Tree | wlan-gw-group |
| Reference | **configure** isa wlan-gw-group *number* |
| Notes | The following elements are part of a choice: **nat-group** or **wlan-gw-group**. |
| Introduced | 20.10.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **node-id**

| | |
|---|---|
| Synopsis | Enter the **node-id** context |
| Context | **configure** subscriber-mgmt pfcp association *named-item* node-id |
| Tree | node-id |
| Description | Commands in this context configure the UPF Node Identifier as sent in PFCP. It can either be configured to use the linked interface source IP or a preconfigured FQDN. |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## **fqdn** *fully-qualified-domain-name*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | FQDN that identifies the local system for PFCP |
| Context | **configure** subscriber-mgmt pfcp association *named-item* node-id fqdn *fully-qualified-domain-name* |
| Tree | fqdn |
| String length | 1 to 255 |
| Notes | The following elements are part of a choice: **fqdn** or **use-ip-address**. |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **use-ip-address**

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Use the IP address of interface for the association |
| Context | **configure** subscriber-mgmt pfcp association *named-item* node-id use-ip-address |
| Tree | use-ip-address |
| Description | When configured, the binding interface address is used as identification of the local system for PFCP. |
| Notes | The following elements are part of a choice: **fqdn** or **use-ip-address**. |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **path-restoration-time** *number*

| | |
|---|---|
| Synopsis | Time to wait before declaring the path down |
| Context | **configure** subscriber-mgmt pfcp association *named-item* path-restoration-time *number* |
| Tree | path-restoration-time |


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| | |
|---|---|
| Description | This command configures the time for which sessions are kept after a PFCP path failure is detected. If the path recovers without a restart before this time expires, the sessions are kept. Otherwise, they are removed. |
| Range | 1 to 11520 |
| Units | minutes |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## peer

| | |
|---|---|
| Synopsis | Enter the **peer** context |
| Context | **configure** subscriber-mgmt pfcp association *named-item* peer |
| Tree | peer |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ip-address *(ipv4-address-no-zone | ipv6-address-no-zone)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | PFCP peer IP address |
| Context | **configure** subscriber-mgmt pfcp association *named-item* peer ip-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | ip-address |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## node-id

| | |
|---|---|
| Synopsis | Enter the **node-id** context |
| Context | **configure** subscriber-mgmt pfcp association *named-item* peer node-id |
| Tree | node-id |
| Description | Commands in this context configure the method used to identify the peer Node ID used to match incoming PFCP messages to the configured PFCP association. |
| Introduced | 24.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **fully-qualified-domain-name** *fully-qualified-domain-name*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | FQDN used to identify the Node ID |
| Context | **configure** subscriber-mgmt pfcp association *named-item* peer node-id fully-qualified-domain-name *fully-qualified-domain-name* |
| Tree | fully-qualified-domain-name |
| Description | This command configures the FQDN that identifies the peer Node ID used to match incoming PFCP messages to the PFCP association. |
| String length | 1 to 255 |
| Notes | The following elements are part of a choice: **fully-qualified-domain-name** or **use-ip-address**. |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **use-ip-address**

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Use the configured peer IP address to match the Node ID |
| Context | **configure** subscriber-mgmt pfcp association *named-item* peer node-id use-ip-address |
| Tree | use-ip-address |
| Description | When this command is specified, the system uses the configured peer IP address to identify the peer Node ID used to match incoming PFCP messages to the PFCP association. This configuration is ignored if only one association is configured. |
| Notes | The following elements are part of a choice: **fully-qualified-domain-name** or **use-ip-address**. |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **python-policy** *reference*

| | |
|---|---|
| Synopsis | Python policy to process PFCP messages |
| Context | **configure** subscriber-mgmt pfcp association *named-item* python-policy *reference* |
| Tree | python-policy |
| Reference | **configure** python python-policy *named-item* |
| Introduced | 22.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **tx**

| | |
|---|---|
| Synopsis | Enter the **tx** context |
| Context | **configure** subscriber-mgmt pfcp association *named-item* tx |
| Tree | tx |
| Description | Commands in this context configure how PFCP messages are sent. |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **retries** *number*

| | |
|---|---|
| Synopsis | Number of retries |
| Context | **configure** subscriber-mgmt pfcp association *named-item* tx retries *number* |
| Tree | retries |
| Description | This command configures the number of times a message is retried before it is considered lost, also known as N1. |
| Range | 0 to 7 |
| Default | 3 |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **timeout** *number*

| | |
|---|---|
| Synopsis | Retransmission timer |
| Context | **configure** subscriber-mgmt pfcp association *named-item* tx timeout *number* |
| Tree | timeout |


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| | |
|---|---|
| Description | This command configures the time after which a message is considered unanswered, also known as T1. |
| Range | 1 to 30 |
| Units | seconds |
| Default | 1 |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ttl** *number*

| | |
|---|---|
| Synopsis | TTL value in the IP header of egress PFCP packets |
| Context | **configure** subscriber-mgmt pfcp association *named-item* tx ttl *number* |
| Tree | ttl |
| Range | 1 to 255 |
| Default | 255 |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **pim-policy** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **pim-policy** list instance |
| Context | **configure** subscriber-mgmt pim-policy *named-item* |
| Tree | pim-policy |
| Max. instances | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | Policy name |
| Context | **configure** subscriber-mgmt pim-policy *named-item* |
| Tree | pim-policy |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** subscriber-mgmt pim-policy *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ppp-policy** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **ppp-policy** list instance |
| Context | **configure** subscriber-mgmt ppp-policy *named-item* |
| Tree | ppp-policy |
| Max. instances | 256 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | PPP policy name |
| Context | **configure** subscriber-mgmt ppp-policy *named-item* |
| Tree | ppp-policy |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **allow-same-circuit-id-for-dhcp** *boolean*

| | |
|---|---|
| Synopsis | Enable support for IPv4 address allocation on a SAP |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt ppp-policy *named-item* allow-same-circuit-id-for-dhcp *boolean* |
| Tree | allow-same-circuit-id-for-dhcp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **cookies** *boolean*

| | |
|---|---|
| Synopsis | Enable use of cookies |
| Context | **configure** subscriber-mgmt ppp-policy *named-item* cookies *boolean* |
| Tree | cookies |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **default-pap-password** *encrypted-leaf*

| | |
|---|---|
| Synopsis | Default PAP password when no password from PPP client |
| Context | **configure** subscriber-mgmt ppp-policy *named-item* default-pap-password *encrypted-leaf* |
| Tree | default-pap-password |
| String length | 1 to 115 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **default-user-name** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | Default username used for authentication |
| Context | **configure** subscriber-mgmt ppp-policy *named-item* default-user-name *string-not-all-spaces* |
| Tree | default-user-name |
| Description | This command configures the default username for authentication when not provided in PAP/CHAP authentication (no Name field in CHAP Response message or Peer0Id-Length=0 in PAP Authenticate-Request).<br>The PPP session terminates when no username is provided in the PAP/CHAP authentication and no default username is configured. |


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| | |
|---|---|
| String length | 1 to 253 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** subscriber-mgmt ppp-policy *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **force-ppp-mtu-gt-1492** *boolean*

| | |
|---|---|
| Synopsis | Enable PPPoE MRU negotiations greater than 1492 bytes |
| Context | **configure** subscriber-mgmt ppp-policy *named-item* force-ppp-mtu-gt-1492 *boolean* |
| Tree | force-ppp-mtu-gt-1492 |
| Description | When configured to **true**, this command enables PPPoE MRU negotiations greater than 1492 bytes without the need to receive a “PPP-Max-Payload” tag in PADI/PADR from the client as defined in RFC 4638, *Accommodating a Maximum Transit Unit/ Maximum Receive Unit (MTU/MRU) Greater Than 1492 in the Point-to-Point Protocol over Ethernet (PPPoE)*.<br>When configured to **false**, this command disables PPPoE MRU negotiations greater than 1492 bytes. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ipcp-subnet-negotiation** *boolean*

| | |
|---|---|
| Synopsis | Allow IPCP subnet negotiation for PPPoE hosts |
| Context | **configure** subscriber-mgmt ppp-policy *named-item* ipcp-subnet-negotiation *boolean* |
| Tree | ipcp-subnet-negotiation |
| Default | false |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## keepalive

| | |
|---|---|
| Synopsis | Enter the **keepalive** context |
| Context | **configure** subscriber-mgmt ppp-policy *named-item* keepalive |
| Tree | keepalive |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## hold-up-multiplier *number*

| | |
|---|---|
| Synopsis | PPP keepalive multiplier |
| Context | **configure** subscriber-mgmt ppp-policy *named-item* keepalive hold-up-multiplier *number* |
| Tree | hold-up-multiplier |
| Range | 1 to 5 |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## interval *number*

| | |
|---|---|
| Synopsis | PPP keepalive interval |
| Context | **configure** subscriber-mgmt ppp-policy *named-item* keepalive interval *number* |
| Tree | interval |
| Range | 4 to 300 |
| Units | seconds |
| Default | 30 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## lcp-ignore-identifier *boolean*

| | |
|---|---|
| Synopsis | Ignore identifier values in the LCP Echo Reply |
| Context | **configure** subscriber-mgmt ppp-policy *named-item* lcp-ignore-identifier *boolean* |


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| | |
|---|---|
| Tree | lcp-ignore-identifier |
| Description | When configured to **true**, BNG ignores the Identifier field of the Echo-Reply message and keeps the PPP session up.<br>When configured to **false**, BNG does not ignore the identifier value, discards any incorrect messages, and the PPP session terminates because of the echo timeout. |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## lcp-ignore-magic-numbers *boolean*

| | |
|---|---|
| Synopsis | Ignore LCP peer magic number mismatch |
| Context | **configure** subscriber-mgmt ppp-policy *named-item* lcp-ignore-magic-numbers *boolean* |
| Tree | lcp-ignore-magic-numbers |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## max-sessions-per-cid

| | |
|---|---|
| Synopsis | Enable the **max-sessions-per-cid** context |
| Context | **configure** subscriber-mgmt ppp-policy *named-item* max-sessions-per-cid |
| Tree | max-sessions-per-cid |
| Description | Commands in this context specify the configuration settings for PPPoE sessions based on the Agent Circuit ID.<br>When this context is configured, the limit for PPPoE sessions per Agent Circuit ID must be configured. The limit does not apply to sessions without an Agent Circuit ID; however, sessions without an Agent Circuit ID can only be established when the **allow-sessions-without-cid** command is configured to **true**.<br>When this context is unconfigured, no limit is placed on the number of PPPoE sessions with the same Agent Circuit ID on the same SAP or MSAP and PPPoE sessions with or without an Agent Circuit ID can be established. |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## allow-sessions-without-cid *boolean*

| | |
|---|---|
| Synopsis | Allow PPPoE sessions without an Agent Circuit ID |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt ppp-policy *named-item* max-sessions-per-cid allow-sessions-without-cid *boolean* |
| Tree | allow-sessions-without-cid |
| Description | When configured to **true**, PPPoE sessions without an Agent Circuit ID can be established on a SAP. The limit configured for the maximum number of sessions allowed per Agent Circuit ID does not apply to these sessions.<br>When configured to **false**, PPPoE sessions without an Agent Circuit ID are denied.<br>The command is valid only when a limit is configured for the maximum sessions per Agent Circuit ID on a SAP. |
| Default | false |
| Introduced | 20.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **limit** *number*

| | |
|---|---|
| Synopsis | Maximum sessions per Agent Circuit ID and per SAP |
| Context | **configure** subscriber-mgmt ppp-policy *named-item* max-sessions-per-cid limit *number* |
| Tree | limit |
| Description | This command configures the maximum number of PPPoE sessions that can be active with the same Agent Circuit ID on the same SAP or MSAP. This limit is enforced in the discovery phase, prior to PAP or CHAP authentication, based on the Agent Circuit ID sub-option present in the vendor-specific PPPoE access loop identification tag added in PADI and PADR messages by a PPPoE intermediate agent.<br>PPPoE sessions without an Agent Circuit ID are not subject to the configured limit; however, sessions without an Agent Circuit ID can only be established when the **allow-sessions-without-cid** command is configured to **true**. |
| Range | 1 to 8190 |
| Notes | This element is mandatory. |
| Introduced | 20.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **max-sessions-per-mac** *number*

| | |
|---|---|
| Synopsis | Maximum number of sessions per MAC address |
| Context | **configure** subscriber-mgmt ppp-policy *named-item* max-sessions-per-mac *number* |
| Tree | max-sessions-per-mac |
| Description | This command sets the maximum PPP sessions that can be opened for a specified MAC address. |


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To enable IPv4 address allocation using the internal DHCPv4 client for multiple PPPoE sessions on a single SAP and having the same MAC address and circuit-ID, the optional CLI parameter **allow-same-circuit-id-for-dhcp** should be added. The SR OS local DHCP server detects the additional vendor-specific options inserted by the internal DHCPv4 client and use an extended unique key for lease allocation.

| | |
|---|---|
| Range | 1 to 8191 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## mlppp

| | |
|---|---|
| Synopsis | Enter the **mlppp** context |
| Context | **configure** subscriber-mgmt ppp-policy *named-item* mlppp |
| Tree | mlppp |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## accept-mrru *boolean*

| | |
|---|---|
| Synopsis | Accept multilink MRRU LCP option |
| Context | **configure** subscriber-mgmt ppp-policy *named-item* mlppp accept-mrru *boolean* |
| Tree | accept-mrru |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

## endpoint

| | |
|---|---|
| Synopsis | Enter the **endpoint** context |
| Context | **configure** subscriber-mgmt ppp-policy *named-item* mlppp endpoint |
| Tree | endpoint |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |


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### **ip** *(ipv4-address | keyword)*

| | |
|---|---|
| Synopsis | Endpoint ID as an IP address |
| Context | **configure** subscriber-mgmt ppp-policy *named-item* mlppp endpoint ip *(ipv4-address \| keyword)* |
| Tree | ip |
| Options | system |
| Notes | The following elements are part of a choice: **ip** or **mac**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

### **mac** *(mac-address | keyword)*

| | |
|---|---|
| Synopsis | Endpoint ID as a MAC address |
| Context | **configure** subscriber-mgmt ppp-policy *named-item* mlppp endpoint mac *(mac-address \| keyword)* |
| Tree | mac |
| Options | system |
| Notes | The following elements are part of a choice: **ip** or **mac**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

### **short-sequence-numbers** *boolean*

| | |
|---|---|
| Synopsis | Request a peer to send short sequence numbers |
| Context | **configure** subscriber-mgmt ppp-policy *named-item* mlppp short-sequence-numbers *boolean* |
| Tree | short-sequence-numbers |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

### **ncp-renegotiation** *keyword*

| | |
|---|---|
| Synopsis | Behavior for subsequent NCP renegotiation messages |
| Context | **configure** subscriber-mgmt ppp-policy *named-item* ncp-renegotiation *keyword* |


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| | |
|---|---|
| Tree | ncp-renegotiation |
| Options | ignore, terminate-session |
| Default | terminate-session |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **pado-ac-name** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | Access Concentrator name used in PPPoE PADO message |
| Context | **configure** subscriber-mgmt ppp-policy *named-item* pado-ac-name *string-not-all-spaces* |
| Tree | pado-ac-name |
| String length | 1 to 128 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **pado-delay** *number*

| | |
|---|---|
| Synopsis | Delay timeout before sending a PADO |
| Context | **configure** subscriber-mgmt ppp-policy *named-item* pado-delay *number* |
| Tree | pado-delay |
| Range | 1 to 30 |
| Units | deciseconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ppp-authentication** *keyword*

| | |
|---|---|
| Synopsis | PPP authentication protocol to negotiate |
| Context | **configure** subscriber-mgmt ppp-policy *named-item* ppp-authentication *keyword* |
| Tree | ppp-authentication |
| Options | pap, chap, pref-chap, pref-pap |
| Default | pref-chap |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## ppp-chap-challenge-length

| | |
|---|---|
| Synopsis | Enter the **ppp-chap-challenge-length** context |
| Context | **configure** subscriber-mgmt ppp-policy *named-item* ppp-chap-challenge-length |
| Tree | ppp-chap-challenge-length |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## max *number*

| | |
|---|---|
| Synopsis | Maximum length for the PPP CHAP challenge |
| Context | **configure** subscriber-mgmt ppp-policy *named-item* ppp-chap-challenge-length max *number* |
| Tree | max |
| Range | 8 to 64 |
| Default | 64 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## min *number*

| | |
|---|---|
| Synopsis | Minimum length for the PPP CHAP challenge |
| Context | **configure** subscriber-mgmt ppp-policy *named-item* ppp-chap-challenge-length min *number* |
| Tree | min |
| Range | 8 to 64 |
| Default | 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ppp-initial-delay *boolean*

| | |
|---|---|
| Synopsis | Select delay timeout before starting the PPP stack |
| Context | **configure** subscriber-mgmt ppp-policy *named-item* ppp-initial-delay *boolean* |
| Tree | ppp-initial-delay |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ppp-mtu** *number*

| | |
|---|---|
| Synopsis | Maximum PPP MTU size |
| Context | **configure** subscriber-mgmt ppp-policy *named-item* ppp-mtu *number* |
| Tree | ppp-mtu |
| Range | 512 to 9212 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ppp-options**

| | |
|---|---|
| Synopsis | Enter the **ppp-options** context |
| Context | **configure** subscriber-mgmt ppp-policy *named-item* ppp-options |
| Tree | ppp-options |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **custom-option** protocol *keyword* option-number *number*

| | |
|---|---|
| Synopsis | Enter the **custom-option** list instance |
| Context | **configure** subscriber-mgmt ppp-policy *named-item* ppp-options custom-option protocol *keyword* option-number *number* |
| Tree | custom-option |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **protocol** *keyword*

| | |
|---|---|
| Synopsis | Protocol for the custom PPP option |
| Context | **configure** subscriber-mgmt ppp-policy *named-item* ppp-options custom-option protocol *keyword* option-number *number* |
| Tree | custom-option |
| Options | lcp, ipcp, ipv6cp |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **option-number** *number*

| | |
|---|---|
| Synopsis | PPP option number |
| Context | **configure** subscriber-mgmt ppp-policy *named-item* ppp-options custom-option protocol *keyword* option-number *number* |
| Tree | custom-option |
| Range | 0 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **address** *ipv4-address*

| | |
|---|---|
| Synopsis | IP address of the custom PPP option |
| Context | **configure** subscriber-mgmt ppp-policy *named-item* ppp-options custom-option protocol *keyword* option-number *number* address *ipv4-address* |
| Tree | address |
| Notes | The following elements are part of a mandatory choice: **address**, **ascii-string**, **empty**, or **hex-string**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ascii-string** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | ASCII string for the customer PPP option |
| Context | **configure** subscriber-mgmt ppp-policy *named-item* ppp-options custom-option protocol *keyword* option-number *number* ascii-string *string-not-all-spaces* |
| Tree | ascii-string |
| String length | 1 to 127 |
| Notes | The following elements are part of a mandatory choice: **address**, **ascii-string**, **empty**, or **hex-string**. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## empty

| | |
|---|---|
| Synopsis | Remove PPP option configuration |
| Context | **configure** subscriber-mgmt ppp-policy *named-item* ppp-options custom-option protocol *keyword* option-number *number* empty |
| Tree | empty |
| Notes | The following elements are part of a mandatory choice: **address**, **ascii-string**, **empty**, or **hex-string**. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## hex-string *hex-string*

| | |
|---|---|
| Synopsis | Hexadecimal string for the custom PPP option |
| Context | **configure** subscriber-mgmt ppp-policy *named-item* ppp-options custom-option protocol *keyword* option-number *number* hex-string *hex-string* |
| Tree | hex-string |
| String length | 1 to 256 |
| Notes | The following elements are part of a mandatory choice: **address**, **ascii-string**, **empty**, or **hex-string**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## re-establish-session *boolean*

| | |
|---|---|
| Synopsis | Reconnect and override an existing session |
| Context | **configure** subscriber-mgmt ppp-policy *named-item* re-establish-session *boolean* |
| Tree | re-establish-session |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **reject-unconfigured-ncp** *boolean*

| | |
|---|---|
| Synopsis | Force reject for unconfigured NCP |
| Context | **configure** subscriber-mgmt ppp-policy *named-item* reject-unconfigured-ncp *boolean* |
| Tree | reject-unconfigured-ncp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **reply-on-padt** *boolean*

| | |
|---|---|
| Synopsis | Enable reply to PADT packets |
| Context | **configure** subscriber-mgmt ppp-policy *named-item* reply-on-padt *boolean* |
| Tree | reply-on-padt |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **session-timeout** *number*

| | |
|---|---|
| Synopsis | Session timeout interval |
| Context | **configure** subscriber-mgmt ppp-policy *named-item* session-timeout *number* |
| Tree | session-timeout |
| Range | 1 to 31104000 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sid-allocation** *keyword*

| | |
|---|---|
| Synopsis | PPPoE session ID allocation method |
| Context | **configure** subscriber-mgmt ppp-policy *named-item* sid-allocation *keyword* |
| Tree | sid-allocation |
| Description | This command determines the allocation of session IDs for a PPPoE session with a given MAC address that is active on a given SAP. |


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| | |
|---|---|
| Options | sequential, random |
| Default | sequential |
| Introduced | 20.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **unique-sid** *keyword*

| | |
|---|---|
| Synopsis | Mode in which a unique session ID is allocated |
| Context | **configure** subscriber-mgmt ppp-policy *named-item* unique-sid *keyword* |
| Tree | unique-sid |
| Description | This command specifies how unique session IDs are assigned to PPPoE sessions that are active on a single SAP.<br>This command is used with the **sid-allocation** command to determine the assignment of session IDs to subsequent PPPoE sessions. |
| Options | per-sap, per-sap-mac, per-msap |
| Default | per-sap-mac |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **pppoe-client-policy** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **pppoe-client-policy** list instance |
| Context | **configure** subscriber-mgmt pppoe-client-policy *named-item* |
| Tree | pppoe-client-policy |
| Max. instances | 256 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | PPPoE client policy name |
| Context | **configure** subscriber-mgmt pppoe-client-policy *named-item* |
| Tree | pppoe-client-policy |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** subscriber-mgmt pppoe-client-policy *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **keepalive**

| | |
|---|---|
| Synopsis | Enter the **keepalive** context |
| Context | **configure** subscriber-mgmt pppoe-client-policy *named-item* keepalive |
| Tree | keepalive |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **hold-up-multiplier** *number*

| | |
|---|---|
| Synopsis | PPPoE keepalive multiplier |
| Context | **configure** subscriber-mgmt pppoe-client-policy *named-item* keepalive hold-up-multiplier *number* |
| Tree | hold-up-multiplier |
| Range | 1 to 5 |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **interval** *number*

| | |
|---|---|
| Synopsis | PPPoE keepalive interval |
| Context | **configure** subscriber-mgmt pppoe-client-policy *named-item* keepalive interval *number* |
| Tree | interval |


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| | |
|---|---|
| Range | 10 to 300 |
| Units | seconds |
| Default | 30 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **mru** *number*

| | |
|---|---|
| Synopsis | PPPoE MRU |
| Context | **configure** subscriber-mgmt pppoe-client-policy *named-item* mru *number* |
| Tree | mru |
| Range | 512 to 9154 |
| Default | 1492 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **mtu** *number*

| | |
|---|---|
| Synopsis | PPPoE MTU |
| Context | **configure** subscriber-mgmt pppoe-client-policy *named-item* mtu *number* |
| Tree | mtu |
| Range | 512 to 9154 |
| Default | 1492 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **python-policy** *reference*

| | |
|---|---|
| Synopsis | Python policy for all messages to and from PPPoE client |
| Context | **configure** subscriber-mgmt pppoe-client-policy *named-item* python-policy *reference* |
| Tree | python-policy |
| Reference | **configure** python python-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### restart-backoff

| | |
|---|---|
| Synopsis | Enter the **restart-backoff** context |
| Context | **configure** subscriber-mgmt pppoe-client-policy *named-item* restart-backoff |
| Tree | restart-backoff |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### initial-time *number*

| | |
|---|---|
| Synopsis | Initial backoff time |
| Context | **configure** subscriber-mgmt pppoe-client-policy *named-item* restart-backoff initial-time *number* |
| Tree | initial-time |
| Range | 10 to 3600 |
| Units | seconds |
| Default | 30 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### max-time *number*

| | |
|---|---|
| Synopsis | Maximum backoff time |
| Context | **configure** subscriber-mgmt pppoe-client-policy *named-item* restart-backoff max-time *number* |
| Tree | max-time |
| Range | 10 to 3600 |
| Units | seconds |
| Default | 600 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### stack

| | |
|---|---|
| Synopsis | Enter the **stack** context |
| Context | **configure** subscriber-mgmt pppoe-client-policy *named-item* stack |


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| | |
|---|---|
| Tree | stack |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ipv4** *boolean*

| | |
|---|---|
| Synopsis | Start IPCP to retrieve an IPv4 address |
| Context | **configure** subscriber-mgmt pppoe-client-policy *named-item* stack ipv4 *boolean* |
| Tree | ipv4 |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ipv6-slaac** *boolean*

| | |
|---|---|
| Synopsis | Start IPv6CP and use SLAAC to retrieve an IPv6 prefix |
| Context | **configure** subscriber-mgmt pppoe-client-policy *named-item* stack ipv6-slaac *boolean* |
| Tree | ipv6-slaac |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **radius-accounting-policy** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **radius-accounting-policy** list instance |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* |
| Tree | radius-accounting-policy |
| Max. instances | 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | RADIUS-based accounting policy name |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* |


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| | |
|---|---|
| Tree | radius-accounting-policy |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **acct-tunnel-connection-fmt** *ascii-specification*

| | |
|---|---|
| Synopsis | String sent in the accounting message |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* acct-tunnel-connection-fmt *ascii-specification* |
| Tree | acct-tunnel-connection-fmt |
| String length | 1 to 253 |
| Default | %n |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **custom-record**

| | |
|---|---|
| Synopsis | Enter the **custom-record** context |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* custom-record |
| Tree | custom-record |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **queue** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **queue** list instance |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* custom-record queue *number* |
| Tree | queue |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### [**id**] *number*

| | |
|---|---|
| Synopsis | Queue ID for which counters are collected in the record |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* custom-record queue *number* |
| Tree | queue |
| Range | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### e-counters

| | |
|---|---|
| Synopsis | Enter the **e-counters** context |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* custom-record queue *number* e-counters |
| Tree | e-counters |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### in-profile-octets-discarded-count *boolean*

| | |
|---|---|
| Synopsis | Include the in-profile octets discarded count |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* custom-record queue *number* e-counters in-profile-octets-discarded-count *boolean* |
| Tree | in-profile-octets-discarded-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### in-profile-octets-forwarded-count *boolean*

| | |
|---|---|
| Synopsis | Include the in-profile octets forwarded count |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* custom-record queue *number* e-counters in-profile-octets-forwarded-count *boolean* |
| Tree | in-profile-octets-forwarded-count |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **in-profile-packets-discarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the in-profile packets discarded count |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* custom-record queue *number* e-counters in-profile-packets-discarded-count *boolean* |
| Tree | in-profile-packets-discarded-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **in-profile-packets-forwarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the in-profile packets forwarded count |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* custom-record queue *number* e-counters in-profile-packets-forwarded-count *boolean* |
| Tree | in-profile-packets-forwarded-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **out-profile-octets-discarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the out-profile octets discarded count |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* custom-record queue *number* e-counters out-profile-octets-discarded-count *boolean* |
| Tree | out-profile-octets-discarded-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **out-profile-octets-forwarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the out-of-profile octets forwarded count |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* custom-record queue *number* e-counters out-profile-octets-forwarded-count *boolean* |
| Tree | out-profile-octets-forwarded-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **out-profile-packets-discarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the out-profile packets discarded count |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* custom-record queue *number* e-counters out-profile-packets-discarded-count *boolean* |
| Tree | out-profile-packets-discarded-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **out-profile-packets-forwarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the out-of-profile packets forwarded count |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* custom-record queue *number* e-counters out-profile-packets-forwarded-count *boolean* |
| Tree | out-profile-packets-forwarded-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **i-counters**

| | |
|---|---|
| Synopsis | Enter the **i-counters** context |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* custom-record queue *number* i-counters |
| Tree | i-counters |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **all-octets-offered-count** *boolean*

| | |
|---|---|
| Synopsis | Include the all octets offered count |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* custom-record queue *number* i-counters all-octets-offered-count *boolean* |
| Tree | all-octets-offered-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **all-packets-offered-count** *boolean*

| | |
|---|---|
| Synopsis | Include all packets offered count |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* custom-record queue *number* i-counters all-packets-offered-count *boolean* |
| Tree | all-packets-offered-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **high-octets-discarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the high octets discarded count |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* custom-record queue *number* i-counters high-octets-discarded-count *boolean* |
| Tree | high-octets-discarded-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **high-octets-offered-count** *boolean*

| | |
|---|---|
| Synopsis | Include the high octets offered count |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* custom-record queue *number* i-counters high-octets-offered-count *boolean* |
| Tree | high-octets-offered-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **high-packets-discarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the high packets discarded count |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* custom-record queue *number* i-counters high-packets-discarded-count *boolean* |
| Tree | high-packets-discarded-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **high-packets-offered-count** *boolean*

| | |
|---|---|
| Synopsis | Include the high packets offered count |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* custom-record queue *number* i-counters high-packets-offered-count *boolean* |
| Tree | high-packets-offered-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **in-profile-octets-forwarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the in-profile octets forwarded count |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* custom-record queue *number* i-counters in-profile-octets-forwarded-count *boolean* |
| Tree | in-profile-octets-forwarded-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **in-profile-packets-forwarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the in-profile packets forwarded count |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* custom-record queue *number* i-counters in-profile-packets-forwarded-count *boolean* |
| Tree | in-profile-packets-forwarded-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **low-octets-discarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the low octets discarded count |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* custom-record queue *number* i-counters low-octets-discarded-count *boolean* |
| Tree | low-octets-discarded-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **low-octets-offered-count** *boolean*

| | |
|---|---|
| Synopsis | Include the low octets offered count |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* custom-record queue *number* i-counters low-octets-offered-count *boolean* |
| Tree | low-octets-offered-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **low-packets-discarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the low packets discarded count |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* custom-record queue *number* i-counters low-packets-discarded-count *boolean* |
| Tree | low-packets-discarded-count |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **low-packets-offered-count** *boolean*

| | |
|---|---|
| Synopsis | Include the low packets offered count |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* custom-record queue *number* i-counters low-packets-offered-count *boolean* |
| Tree | low-packets-offered-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **out-profile-octets-forwarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the out-of-profile octets forwarded count |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* custom-record queue *number* i-counters out-profile-octets-forwarded-count *boolean* |
| Tree | out-profile-octets-forwarded-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **out-profile-packets-forwarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the out-of-profile packets forwarded count |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* custom-record queue *number* i-counters out-profile-packets-forwarded-count *boolean* |
| Tree | out-profile-packets-forwarded-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **uncoloured-octets-offered-count** *boolean*

| | |
|---|---|
| Synopsis | Include the uncolored octets offered count |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* custom-record queue *number* i-counters uncoloured-octets-offered-count *boolean* |
| Tree | uncoloured-octets-offered-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **uncoloured-packets-offered-count** *boolean*

| | |
|---|---|
| Synopsis | Include the uncolored packets offered count |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* custom-record queue *number* i-counters uncoloured-packets-offered-count *boolean* |
| Tree | uncoloured-packets-offered-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ref-queue**

| | |
|---|---|
| Synopsis | Enter the **ref-queue** context |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* custom-record ref-queue |
| Tree | ref-queue |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **all**

| | |
|---|---|
| Synopsis | Apply significant change to counters for all queues |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* custom-record ref-queue all |
| Tree | all |
| Notes | The following elements are part of a choice: **all** or **id**. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## e-counters

| | |
|---|---|
| Synopsis | Enter the **e-counters** context |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* custom-record ref-queue e-counters |
| Tree | e-counters |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## in-profile-octets-discarded-count *boolean*

| | |
|---|---|
| Synopsis | Include the in-profile octets discarded count |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* custom-record ref-queue e-counters in-profile-octets-discarded-count *boolean* |
| Tree | in-profile-octets-discarded-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## in-profile-octets-forwarded-count *boolean*

| | |
|---|---|
| Synopsis | Include the in-profile octets forwarded count |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* custom-record ref-queue e-counters in-profile-octets-forwarded-count *boolean* |
| Tree | in-profile-octets-forwarded-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## in-profile-packets-discarded-count *boolean*

| | |
|---|---|
| Synopsis | Include the in-profile packets discarded count |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* custom-record ref-queue e-counters in-profile-packets-discarded-count *boolean* |


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| | |
|---|---|
| Tree | in-profile-packets-discarded-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **in-profile-packets-forwarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the in-profile packets forwarded count |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* custom-record ref-queue e-counters in-profile-packets-forwarded-count *boolean* |
| Tree | in-profile-packets-forwarded-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **out-profile-octets-discarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the out-profile octets discarded count |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* custom-record ref-queue e-counters out-profile-octets-discarded-count *boolean* |
| Tree | out-profile-octets-discarded-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **out-profile-octets-forwarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the out-of-profile octets forwarded count |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* custom-record ref-queue e-counters out-profile-octets-forwarded-count *boolean* |
| Tree | out-profile-octets-forwarded-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **out-profile-packets-discarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the out-profile packets discarded count |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* custom-record ref-queue e-counters out-profile-packets-discarded-count *boolean* |
| Tree | out-profile-packets-discarded-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **out-profile-packets-forwarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the out-of-profile packets forwarded count |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* custom-record ref-queue e-counters out-profile-packets-forwarded-count *boolean* |
| Tree | out-profile-packets-forwarded-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **i-counters**

| | |
|---|---|
| Synopsis | Enter the **i-counters** context |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* custom-record ref-queue i-counters |
| Tree | i-counters |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **all-octets-offered-count** *boolean*

| | |
|---|---|
| Synopsis | Include the all octets offered count |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* custom-record ref-queue i-counters all-octets-offered-count *boolean* |
| Tree | all-octets-offered-count |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **all-packets-offered-count** *boolean*

| | |
|---|---|
| Synopsis | Include all packets offered count |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* custom-record ref-queue i-counters all-packets-offered-count *boolean* |
| Tree | all-packets-offered-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **high-octets-discarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the high octets discarded count |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* custom-record ref-queue i-counters high-octets-discarded-count *boolean* |
| Tree | high-octets-discarded-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **high-octets-offered-count** *boolean*

| | |
|---|---|
| Synopsis | Include the high octets offered count |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* custom-record ref-queue i-counters high-octets-offered-count *boolean* |
| Tree | high-octets-offered-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **high-packets-discarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the high packets discarded count |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* custom-record ref-queue i-counters high-packets-discarded-count *boolean* |
| Tree | high-packets-discarded-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **high-packets-offered-count** *boolean*

| | |
|---|---|
| Synopsis | Include the high packets offered count |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* custom-record ref-queue i-counters high-packets-offered-count *boolean* |
| Tree | high-packets-offered-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **in-profile-octets-forwarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the in-profile octets forwarded count |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* custom-record ref-queue i-counters in-profile-octets-forwarded-count *boolean* |
| Tree | in-profile-octets-forwarded-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **in-profile-packets-forwarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the in-profile packets forwarded count |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* custom-record ref-queue i-counters in-profile-packets-forwarded-count *boolean* |
| Tree | in-profile-packets-forwarded-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **low-octets-discarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the low octets discarded count |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* custom-record ref-queue i-counters low-octets-discarded-count *boolean* |
| Tree | low-octets-discarded-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **low-octets-offered-count** *boolean*

| | |
|---|---|
| Synopsis | Include the low octets offered count |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* custom-record ref-queue i-counters low-octets-offered-count *boolean* |
| Tree | low-octets-offered-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **low-packets-discarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the low packets discarded count |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* custom-record ref-queue i-counters low-packets-discarded-count *boolean* |
| Tree | low-packets-discarded-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **low-packets-offered-count** *boolean*

| | |
|---|---|
| Synopsis | Include the low packets offered count |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* custom-record ref-queue i-counters low-packets-offered-count *boolean* |
| Tree | low-packets-offered-count |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **out-profile-octets-forwarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the out-of-profile octets forwarded count |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* custom-record ref-queue i-counters out-profile-octets-forwarded-count *boolean* |
| Tree | out-profile-octets-forwarded-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **out-profile-packets-forwarded-count** *boolean*

| | |
|---|---|
| Synopsis | Include the out-of-profile packets forwarded count |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* custom-record ref-queue i-counters out-profile-packets-forwarded-count *boolean* |
| Tree | out-profile-packets-forwarded-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **uncoloured-octets-offered-count** *boolean*

| | |
|---|---|
| Synopsis | Include the uncolored octets offered count |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* custom-record ref-queue i-counters uncoloured-octets-offered-count *boolean* |
| Tree | uncoloured-octets-offered-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **uncoloured-packets-offered-count** *boolean*

| | |
|---|---|
| Synopsis | Include the uncolored packets offered count |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* custom-record ref-queue i-counters uncoloured-packets-offered-count *boolean* |
| Tree | uncoloured-packets-offered-count |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **id** *reference*

| | |
|---|---|
| Synopsis | Queue ID |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* custom-record ref-queue id *reference* |
| Tree | id |
| Reference | **configure** subscriber-mgmt radius-accounting-policy *named-item* custom-record queue *number* |
| Notes | The following elements are part of a choice: **all** or **id**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **significant-change** *number*

| | |
|---|---|
| Synopsis | Significant change required to generate the record |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* custom-record significant-change *number* |
| Tree | significant-change |
| Range | 0 to 4294967295 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **delay-start-time** *number*

| | |
|---|---|
| Synopsis | Accounting start delay |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* delay-start-time *number* |
| Tree | delay-start-time |
| Range | 1 to 10 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **host-accounting**

| | |
|---|---|
| Synopsis | Enter the **host-accounting** context |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* host-accounting |
| Tree | host-accounting |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of per-host accounting |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* host-accounting admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **interim-update** *boolean*

| | |
|---|---|
| Synopsis | Allow interim-update accounting messages to be sent |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* host-accounting interim-update *boolean* |
| Tree | interim-update |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **include-radius-attribute**

| | |
|---|---|
| Synopsis | Enter the **include-radius-attribute** context |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* include-radius-attribute |
| Tree | include-radius-attribute |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **access-loop-options** *boolean*

| | |
|---|---|
| Synopsis | Include access loop information |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* include-radius-attribute access-loop-options *boolean* |
| Tree | access-loop-options |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **acct-authentic** *boolean*

| | |
|---|---|
| Synopsis | Enable generation of the acct-authentic RADIUS attribute |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* include-radius-attribute acct-authentic *boolean* |
| Tree | acct-authentic |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **acct-delay-time** *boolean*

| | |
|---|---|
| Synopsis | Include the acct-delay-time RADIUS attribute |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* include-radius-attribute acct-delay-time *boolean* |
| Tree | acct-delay-time |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **acct-triggered-reason** *boolean*

| | |
|---|---|
| Synopsis | Include Alc-Acct-Triggered-Reason attribute |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* include-radius-attribute acct-triggered-reason *boolean* |
| Tree | acct-triggered-reason |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **all-authorized-session-addresses** *boolean*

| | |
|---|---|
| Synopsis | Include all address/prefix attributes |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* include-radius-attribute all-authorized-session-addresses *boolean* |
| Tree | all-authorized-session-addresses |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **apn** *boolean*

| | |
|---|---|
| Synopsis | Enable inclusion of the APN attribute |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* include-radius-attribute apn *boolean* |
| Tree | apn |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **bearer-fteid** *boolean*

| | |
|---|---|
| Synopsis | Include bearer-fteid attribute |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* include-radius-attribute bearer-fteid *boolean* |
| Tree | bearer-fteid |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **bonding-active-connections** *boolean*

| | |
|---|---|
| Synopsis | Include the RADIUS Alc-Bonding-Active-Connection VSA |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* include-radius-attribute bonding-active-connections *boolean* |
| Tree | bonding-active-connections |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **bonding-id** *boolean*

| | |
|---|---|
| Synopsis | Include the Alc-Bonding-Id VSA |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* include-radius-attribute bonding-id *boolean* |
| Tree | bonding-id |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **brg-num-active-sessions** *boolean*

| | |
|---|---|
| Synopsis | Include the RADIUS Alc-BRG-Num-Active-Sessions VSA |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* include-radius-attribute brg-num-active-sessions *boolean* |
| Tree | brg-num-active-sessions |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **called-station-id** *boolean*

| | |
|---|---|
| Synopsis | Include called-station-id attribute |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* include-radius-attribute called-station-id *boolean* |
| Tree | called-station-id |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **calling-station-id**

| | |
|---|---|
| Synopsis | Enable the **calling-station-id** context |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* include-radius-attribute calling-station-id |
| Tree | calling-station-id |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **type** *keyword*

| | |
|---|---|
| Synopsis | Format of the Calling-Station-ID attribute |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* include-radius-attribute calling-station-id type *keyword* |
| Tree | type |
| Options | sap-string, mac, sap-id, remote-id, llid |


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| | |
|---|---|
| Default | sap-string |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **circuit-id** *boolean*

| | |
|---|---|
| Synopsis | Include circuit-id attribute |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* include-radius-attribute circuit-id *boolean* |
| Tree | circuit-id |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **delegated-ipv6-prefix** *boolean*

| | |
|---|---|
| Synopsis | Include delegated-ipv6-prefix attribute |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* include-radius-attribute delegated-ipv6-prefix *boolean* |
| Tree | delegated-ipv6-prefix |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **detailed-acct-attributes** *boolean*

| | |
|---|---|
| Synopsis | Include more detailed accounting attributes |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* include-radius-attribute detailed-acct-attributes *boolean* |
| Tree | detailed-acct-attributes |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **dhcp-vendor-class-id** *boolean*

| | |
|---|---|
| Synopsis | Include the RADIUS Alc-DHCP-Vendor-Class-Id VSA |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* include-radius-attribute dhcp-vendor-class-id *boolean* |
| Tree | dhcp-vendor-class-id |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **error-code** *boolean*

| | |
|---|---|
| Synopsis | Include detailed error codes |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* include-radius-attribute error-code *boolean* |
| Tree | error-code |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **firewall-info** *boolean*

| | |
|---|---|
| Synopsis | Include the Firewall Information VSA in AAA protocols |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* include-radius-attribute firewall-info *boolean* |
| Tree | firewall-info |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **framed-interface-id** *boolean*

| | |
|---|---|
| Synopsis | Include framed-interface-id attribute |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* include-radius-attribute framed-interface-id *boolean* |
| Tree | framed-interface-id |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **framed-ip-address** *boolean*

| | |
|---|---|
| Synopsis | Include framed-ip-address attribute |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* include-radius-attribute framed-ip-address *boolean* |
| Tree | framed-ip-address |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **framed-ip-netmask** *boolean*

| | |
|---|---|
| Synopsis | Include framed-ip-netmask attribute |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* include-radius-attribute framed-ip-netmask *boolean* |
| Tree | framed-ip-netmask |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **framed-ipv6-prefix** *boolean*

| | |
|---|---|
| Synopsis | Include framed-ipv6-prefix attribute |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* include-radius-attribute framed-ipv6-prefix *boolean* |
| Tree | framed-ipv6-prefix |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **framed-ipv6-route** *boolean*

| | |
|---|---|
| Synopsis | Include framed-ipv6-route attribute |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* include-radius-attribute framed-ipv6-route *boolean* |
| Tree | framed-ipv6-route |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **framed-route** *boolean*

| | |
|---|---|
| Synopsis | Include framed-route attribute |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* include-radius-attribute framed-route *boolean* |
| Tree | framed-route |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **imei** *boolean*

| | |
|---|---|
| Synopsis | Enable inclusion of the IMEI attribute |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* include-radius-attribute imei *boolean* |
| Tree | imei |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **imsi** *boolean*

| | |
|---|---|
| Synopsis | Include the IMSI attribute for FWA sessions |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* include-radius-attribute imsi *boolean* |
| Tree | imsi |


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| | |
|---|---|
| Default | false |
| Introduced | 22.2.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ipv6-address** *boolean*

| | |
|---|---|
| Synopsis | Include the IPv6 address attribute |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* include-radius-attribute ipv6-address *boolean* |
| Tree | ipv6-address |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **lanext-bridge-id** *boolean*

| | |
|---|---|
| Synopsis | Include Alc-Bridge-Id in RADIUS accounting packets |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* include-radius-attribute lanext-bridge-id *boolean* |
| Tree | lanext-bridge-id |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **lanext-device-type** *boolean*

| | |
|---|---|
| Synopsis | Include Alc-HLE-Device-type in accounting packets |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* include-radius-attribute lanext-device-type *boolean* |
| Tree | lanext-device-type |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **lanext-route-distinguisher** *boolean*

| | |
|---|---|
| Synopsis | Include route distinguisher (Alc-RD) in RADIUS packets |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* include-radius-attribute lanext-route-distinguisher *boolean* |
| Tree | lanext-route-distinguisher |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **lanext-route-target** *boolean*

| | |
|---|---|
| Synopsis | Include route target (Alc-RT) in RADIUS packets |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* include-radius-attribute lanext-route-target *boolean* |
| Tree | lanext-route-target |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **lanext-vni** *boolean*

| | |
|---|---|
| Synopsis | Enable inclusion of the lanext-vni attribute |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* include-radius-attribute lanext-vni *boolean* |
| Tree | lanext-vni |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **mac-address** *boolean*

| | |
|---|---|
| Synopsis | Include the client MAC address in the RADIUS message |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* include-radius-attribute mac-address *boolean* |
| Tree | mac-address |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **msisdn** *boolean*

| | |
|---|---|
| Synopsis | Enable inclusion of the MSISDN in AAA protocols |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* include-radius-attribute msisdn *boolean* |
| Tree | msisdn |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **nas-identifier** *boolean*

| | |
|---|---|
| Synopsis | Enable inclusion of the NAS-Identifier attribute |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* include-radius-attribute nas-identifier *boolean* |
| Tree | nas-identifier |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **nas-port**

| | |
|---|---|
| Synopsis | Enable the **nas-port** context |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* include-radius-attribute nas-port |
| Tree | nas-port |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **bit-spec** *binary-specification*

| | |
|---|---|
| Synopsis | RADIUS NAS-Port attribute |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* include-radius-attribute nas-port bit-spec *binary-specification* |
| Tree | bit-spec |
| String length | 1 to 255 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## nas-port-id

| | |
|---|---|
| Synopsis | Enable the **nas-port-id** context |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* include-radius-attribute nas-port-id |
| Tree | nas-port-id |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## prefix-string *string*

| | |
|---|---|
| Synopsis | String to be prefixed to the NAS-Port-Id attribute |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* include-radius-attribute nas-port-id prefix-string *string* |
| Tree | prefix-string |
| String length | 1 to 8 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## suffix *keyword*

| | |
|---|---|
| Synopsis | String to be suffixed to the NAS-Port-Id attribute |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* include-radius-attribute nas-port-id suffix *keyword* |
| Tree | suffix |
| Options | circuit-id, remote-id |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### nas-port-type

| | |
|---|---|
| Synopsis | Enable the **nas-port-type** context |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* include-radius-attribute nas-port-type |
| Tree | nas-port-type |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### type *(keyword | number)*

| | |
|---|---|
| Synopsis | Value for RADIUS NAS-Port-Type attribute |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* include-radius-attribute nas-port-type type *(keyword \| number)* |
| Tree | type |
| Range | 0 to 255 |
| Options | rfc-aligned |
| Default | rfc-aligned |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### nat-port-range *boolean*

| | |
|---|---|
| Synopsis | Include NAT port range attribute |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* include-radius-attribute nat-port-range *boolean* |
| Tree | nat-port-range |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### remote-id *boolean*

| | |
|---|---|
| Synopsis | Include remote-id attribute |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* include-radius-attribute remote-id *boolean* |


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| | |
|---|---|
| Tree | remote-id |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sla-profile** *boolean*

| | |
|---|---|
| Synopsis | Include sla-profile attribute |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* include-radius-attribute sla-profile *boolean* |
| Tree | sla-profile |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **spi-sharing-id** *boolean*

| | |
|---|---|
| Synopsis | Include spi-sharing-id attribute |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* include-radius-attribute spi-sharing-id *boolean* |
| Tree | spi-sharing-id |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **std-acct-attributes** *boolean*

| | |
|---|---|
| Synopsis | Include standard accounting attributes |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* include-radius-attribute std-acct-attributes *boolean* |
| Tree | std-acct-attributes |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **steering-profile** *boolean*

| | |
|---|---|
| Synopsis | Include the RADIUS Alc-Steering-Profile VSA |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* include-radius-attribute steering-profile *boolean* |
| Tree | steering-profile |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sub-profile** *boolean*

| | |
|---|---|
| Synopsis | Include sub-profile attribute |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* include-radius-attribute sub-profile *boolean* |
| Tree | sub-profile |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **subscriber-id** *boolean*

| | |
|---|---|
| Synopsis | Include subscriber-id attribute |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* include-radius-attribute subscriber-id *boolean* |
| Tree | subscriber-id |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **tunnel-client-attrs** *boolean*

| | |
|---|---|
| Synopsis | Enable inclusion of tunnel-client attributes |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* include-radius-attribute tunnel-client-attrs *boolean* |
| Tree | tunnel-client-attrs |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **tunnel-server-attrs** *boolean*

| | |
|---|---|
| Synopsis | Enable inclusion of tunnel-server attributes |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* include-radius-attribute tunnel-server-attrs *boolean* |
| Tree | tunnel-server-attrs |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **uli** *boolean*

| | |
|---|---|
| Synopsis | Generate the ULI RADIUS attribute |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* include-radius-attribute uli *boolean* |
| Tree | uli |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **user-name** *boolean*

| | |
|---|---|
| Synopsis | Include the user-name attribute |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* include-radius-attribute user-name *boolean* |
| Tree | user-name |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **v6-aggregate-stats** *boolean*

| | |
|---|---|
| Synopsis | Report IPv6 aggregated forwarded octet and packet counters |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* include-radius-attribute v6-aggregate-stats *boolean* |
| Tree | v6-aggregate-stats |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **wifi-num-attached-ues** *boolean*

| | |
|---|---|
| Synopsis | Include the RADIUS Alc-Num-Attached-UEs VSA |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* include-radius-attribute wifi-num-attached-ues *boolean* |
| Tree | wifi-num-attached-ues |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **wifi-rssi** *boolean*

| | |
|---|---|
| Synopsis | Include 802.11 received signal strength indicator |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* include-radius-attribute wifi-rssi *boolean* |
| Tree | wifi-rssi |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **wifi-ssid-vlan** *boolean*

| | |
|---|---|
| Synopsis | Include per-SSID VLAN ID in the Alc-Wlan-SSID-VLAN VSA |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* include-radius-attribute wifi-ssid-vlan *boolean* |
| Tree | wifi-ssid-vlan |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **xconnect-tunnel-home-address** *boolean*

| | |
|---|---|
| Synopsis | Include the Alc-Xconnect-Tunnel-Home-Ipv6 attribute |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* include-radius-attribute xconnect-tunnel-home-address *boolean* |
| Tree | xconnect-tunnel-home-address |
| Default | false |
| Introduced | 16.0.R3 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **mcs-interval**

| | |
|---|---|
| Synopsis | Enter the **mcs-interval** context |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* mcs-interval |
| Tree | mcs-interval |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **interval** *(keyword | number)*

| | |
|---|---|
| Synopsis | MCS synchronization interval of usage counters |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* mcs-interval interval *(keyword \| number)* |
| Tree | interval |
| Description | This command specifies the interval at which the active BNG in a dual-homed deployment synchronizes subscriber accounting data using MCS to the standby BNG. The MCS interval is a statically configured value or equal to the configured RADIUS accounting update-interval. |
| Range | 5 to 60 |
| Units | minutes |
| Options | none, use-update-interval |
| Introduced | 19.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## queue-instance-accounting

| | |
|---|---|
| Synopsis | Enter the **queue-instance-accounting** context |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* queue-instance-accounting |
| Tree | queue-instance-accounting |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of per-queue instance accounting |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* queue-instance-accounting admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## interim-update *boolean*

| | |
|---|---|
| Synopsis | Send accounting messages for the queue instance |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* queue-instance-accounting interim-update *boolean* |
| Tree | interim-update |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## radius-server-policy *reference*

| | |
|---|---|
| Synopsis | Referenced RADIUS server policy |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* radius-server-policy *reference* |


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| | |
|---|---|
| Tree | radius-server-policy |
| Reference | **configure** aaa radius server-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## session-accounting

| | |
|---|---|
| Synopsis | Enter the **session-accounting** context |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* session-accounting |
| Tree | session-accounting |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of per-session accounting |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* session-accounting admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## host-update *boolean*

| | |
|---|---|
| Synopsis | Allow host updates |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* session-accounting host-update *boolean* |
| Tree | host-update |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **interim-update** *boolean*

| | |
|---|---|
| Synopsis | Allow interim-update accounting messages to be sent |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* session-accounting interim-update *boolean* |
| Tree | interim-update |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **session-id-format** *keyword*

| | |
|---|---|
| Synopsis | Format used in accounting session ID attributes |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* session-id-format *keyword* |
| Tree | session-id-format |
| Options | description, number |
| Default | description |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **triggered-updates**

| | |
|---|---|
| Synopsis | Enter the **triggered-updates** context |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* triggered-updates |
| Tree | triggered-updates |
| Description | Commands in this context configure non-periodic accounting updates that are triggered by specific events. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **gtp-change**

| | |
|---|---|
| Synopsis | Enter the **gtp-change** context |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* triggered-updates gtp-change |


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| | |
|---|---|
| Tree | gtp-change |
| Description | Commands in this context configure which GTP-related changes trigger an interim accounting update.<br>This command is mutually exclusive with the legacy **gtp-mobility** command, which triggers interim accounting updates for all changes. |
| Notes | The following elements are part of a choice: **gtp-change** or **gtp-mobility**. |
| Introduced | 23.3.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **s1-release** *boolean*

| | |
|---|---|
| Synopsis | Send an IU for S1 release (idle) procedure |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* triggered-updates gtp-change s1-release *boolean* |
| Tree | s1-release |
| Default | false |
| Introduced | 23.3.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **service-request** *boolean*

| | |
|---|---|
| Synopsis | Send an IU for service request (reactivation) procedure |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* triggered-updates gtp-change service-request *boolean* |
| Tree | service-request |
| Default | false |
| Introduced | 23.3.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **teidc-change** *boolean*

| | |
|---|---|
| Synopsis | Send an IU when GTP-C TEIDs are changed |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* triggered-updates gtp-change teidc-change *boolean* |
| Tree | teidc-change |
| Description | When configured to **true**, the router sends an interim accounting update when GTP-C TEIDs are changed. Changes to GTP-C TEIDs typically indicate an MME change. |


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| | |
|---|---|
| Default | false |
| Introduced | 23.3.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **teidu-change** *boolean*

| | |
|---|---|
| Synopsis | Send an IU when GTP-U TEIDs are changed |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* triggered-updates gtp-change teidu-change *boolean* |
| Tree | teidu-change |
| Description | When configured to **true**, the router sends an interim accounting update when GTP-U TEIDs are changed. This update typically happens during mobility, idling, or service request procedures |
| Default | false |
| Introduced | 23.3.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **uli-change** *boolean*

| | |
|---|---|
| Synopsis | Send an IU when a user location change is detected |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* triggered-updates gtp-change uli-change *boolean* |
| Tree | uli-change |
| Default | false |
| Introduced | 23.3.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **gtp-mobility** *boolean*

**WARNING:**
This element is deprecated and will be removed in a future release.

| | |
|---|---|
| Synopsis | Send updates for mobility events |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* triggered-updates gtp-mobility *boolean* |
| Tree | gtp-mobility |
| Default | false |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **gtp-change** or **gtp-mobility**. |
| Introduced | 16.0.R5 |
| Deprecated | 23.3.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## update-interval

| | |
|---|---|
| Synopsis | Enter the **update-interval** context |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* update-interval |
| Tree | update-interval |
| Description | Commands in this context configure the attributes of the intermediate update interval. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## interval *number*

| | |
|---|---|
| Synopsis | Intermediate update interval |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* update-interval interval *number* |
| Tree | interval |
| Description | This command specifies the interval at which accounting data of subscriber hosts is updated in a RADIUS Accounting Interim-Update message. When specifying the accounting mode in the RADIUS accounting policy, the interim-update command for subscriber hosts must be set to true in one of the following context:<br>• **configure subscriber-mgmt radius-accounting-policy host-accounting**<br>• **configure subscriber-mgmt radius-accounting-policy queue-instance-accounting**<br>• **configure subscriber-mgmt radiuis-accounting-policy session-accounting**<br>A RADIUS-specified interim interval (attribute [85] Acct-Interim-Interval) overrides the CLI configured value. |
| Range | 5 to 259200 |
| Units | minutes |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **jitter** *(keyword | number)*

| | |
|---|---|
| Synopsis | Maximum random delay for intermediate update interval |
| Context | **configure** subscriber-mgmt radius-accounting-policy *named-item* update-interval jitter *(keyword \| number)* |
| Tree | jitter |
| Description | This command specifies the absolute maximum random delay introduced on the update interval between two accounting interim update messages. The effective maximum random delay value is the minimum of the configured absolute jitter value and 10% of the configured update-interval.<br>A value of zero sends the accounting interim update message without introducing an additional random delay. |
| Range | 0 to 3600 |
| Units | seconds |
| Options | auto |
| Default | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **radius-authentication-policy** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **radius-authentication-policy** list instance |
| Context | **configure** subscriber-mgmt radius-authentication-policy *named-item* |
| Tree | radius-authentication-policy |
| Max. instances | 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | RADIUS authentication policy name |
| Context | **configure** subscriber-mgmt radius-authentication-policy *named-item* |
| Tree | radius-authentication-policy |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** subscriber-mgmt radius-authentication-policy *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **fallback**

| | |
|---|---|
| Synopsis | Enter the **fallback** context |
| Context | **configure** subscriber-mgmt radius-authentication-policy *named-item* fallback |
| Tree | fallback |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **action**

| | |
|---|---|
| Synopsis | Enter the **action** context |
| Context | **configure** subscriber-mgmt radius-authentication-policy *named-item* fallback action |
| Tree | action |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **accept**

| | |
|---|---|
| Synopsis | Automatically accept all authentication requests |
| Context | **configure** subscriber-mgmt radius-authentication-policy *named-item* fallback action accept |
| Tree | accept |
| Notes | The following elements are part of a choice: **accept** or **user-db**. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **user-db** *named-item*

| | |
|---|---|
| Synopsis | Local user database used to authenticate to the server |
| Context | **configure** subscriber-mgmt radius-authentication-policy *named-item* fallback action user-db *named-item* |
| Tree | user-db |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **accept** or **user-db**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **force-probing** *boolean*

| | |
|---|---|
| Synopsis | Enable force probing |
| Context | **configure** subscriber-mgmt radius-authentication-policy *named-item* fallback force-probing *boolean* |
| Tree | force-probing |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **include-radius-attribute**

| | |
|---|---|
| Synopsis | Enter the **include-radius-attribute** context |
| Context | **configure** subscriber-mgmt radius-authentication-policy *named-item* include-radius-attribute |
| Tree | include-radius-attribute |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **access-loop-options** *boolean*

| | |
|---|---|
| Synopsis | Include access loop information |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt radius-authentication-policy *named-item* include-radius-attribute access-loop-options *boolean* |
| Tree | access-loop-options |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## acct-session-id

| | |
|---|---|
| Synopsis | Enable the **acct-session-id** context |
| Context | **configure** subscriber-mgmt radius-authentication-policy *named-item* include-radius-attribute acct-session-id |
| Tree | acct-session-id |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **type** *keyword*

| | |
|---|---|
| Synopsis | Format of the accounting session ID attribute |
| Context | **configure** subscriber-mgmt radius-authentication-policy *named-item* include-radius-attribute acct-session-id type *keyword* |
| Tree | type |
| Options | host, session |
| Default | host |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **apn** *boolean*

| | |
|---|---|
| Synopsis | Enable inclusion of the APN attribute |
| Context | **configure** subscriber-mgmt radius-authentication-policy *named-item* include-radius-attribute apn *boolean* |
| Tree | apn |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **called-station-id** *boolean*

| | |
|---|---|
| Synopsis | Include called-station-id attribute |
| Context | **configure** subscriber-mgmt radius-authentication-policy *named-item* include-radius-attribute called-station-id *boolean* |
| Tree | called-station-id |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **calling-station-id**

| | |
|---|---|
| Synopsis | Enable the **calling-station-id** context |
| Context | **configure** subscriber-mgmt radius-authentication-policy *named-item* include-radius-attribute calling-station-id |
| Tree | calling-station-id |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **type** *keyword*

| | |
|---|---|
| Synopsis | Format of the Calling-Station-ID attribute |
| Context | **configure** subscriber-mgmt radius-authentication-policy *named-item* include-radius-attribute calling-station-id type *keyword* |
| Tree | type |
| Options | sap-string, mac, sap-id, remote-id, llid |
| Default | sap-string |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **circuit-id** *boolean*

| | |
|---|---|
| Synopsis | Include circuit-id attribute |
| Context | **configure** subscriber-mgmt radius-authentication-policy *named-item* include-radius-attribute circuit-id *boolean* |
| Tree | circuit-id |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **dhcp-options** *boolean*

| | |
|---|---|
| Synopsis | Generate the DHCP options RADIUS attribute |
| Context | **configure** subscriber-mgmt radius-authentication-policy *named-item* include-radius-attribute dhcp-options *boolean* |
| Tree | dhcp-options |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **dhcp-vendor-class-id** *boolean*

| | |
|---|---|
| Synopsis | Include the RADIUS Alc-DHCP-Vendor-Class-Id VSA |
| Context | **configure** subscriber-mgmt radius-authentication-policy *named-item* include-radius-attribute dhcp-vendor-class-id *boolean* |
| Tree | dhcp-vendor-class-id |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **dhcp6-options** *boolean*

| | |
|---|---|
| Synopsis | Generate the DHCPv6 options RADIUS attribute |
| Context | **configure** subscriber-mgmt radius-authentication-policy *named-item* include-radius-attribute dhcp6-options *boolean* |
| Tree | dhcp6-options |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **gprs-negotiated-qos-profile** *boolean*

| | |
|---|---|
| Synopsis | Generate GPRS negotiated QoS profile RADIUS attribute |
| Context | **configure** subscriber-mgmt radius-authentication-policy *named-item* include-radius-attribute gprs-negotiated-qos-profile *boolean* |
| Tree | gprs-negotiated-qos-profile |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **imei** *boolean*

| | |
|---|---|
| Synopsis | Enable inclusion of the IMEI attribute |
| Context | **configure** subscriber-mgmt radius-authentication-policy *named-item* include-radius-attribute imei *boolean* |
| Tree | imei |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **imsi** *boolean*

| | |
|---|---|
| Synopsis | Include the IMSI attribute for FWA sessions |
| Context | **configure** subscriber-mgmt radius-authentication-policy *named-item* include-radius-attribute imsi *boolean* |
| Tree | imsi |
| Default | false |
| Introduced | 22.2.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **mac-address** *boolean*

| | |
|---|---|
| Synopsis | Include the client MAC address in the RADIUS message |
| Context | **configure** subscriber-mgmt radius-authentication-policy *named-item* include-radius-attribute mac-address *boolean* |
| Tree | mac-address |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **msisdn** *boolean*

| | |
|---|---|
| Synopsis | Enable inclusion of the MSISDN in AAA protocols |
| Context | **configure** subscriber-mgmt radius-authentication-policy *named-item* include-radius-attribute msisdn *boolean* |
| Tree | msisdn |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **nas-identifier** *boolean*

| | |
|---|---|
| Synopsis | Enable inclusion of the NAS-Identifier attribute |
| Context | **configure** subscriber-mgmt radius-authentication-policy *named-item* include-radius-attribute nas-identifier *boolean* |
| Tree | nas-identifier |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **nas-port**

| | |
|---|---|
| Synopsis | Enable the **nas-port** context |
| Context | **configure** subscriber-mgmt radius-authentication-policy *named-item* include-radius-attribute nas-port |
| Tree | nas-port |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **bit-spec** *binary-specification*

| | |
|---|---|
| Synopsis | RADIUS NAS-Port attribute |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt radius-authentication-policy *named-item* include-radius-attribute nas-port bit-spec *binary-specification* |
| Tree | bit-spec |
| String length | 1 to 255 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## nas-port-id

| | |
|---|---|
| Synopsis | Enable the **nas-port-id** context |
| Context | **configure** subscriber-mgmt radius-authentication-policy *named-item* include-radius-attribute nas-port-id |
| Tree | nas-port-id |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## prefix-string *string*

| | |
|---|---|
| Synopsis | String to be prefixed to the NAS-Port-Id attribute |
| Context | **configure** subscriber-mgmt radius-authentication-policy *named-item* include-radius-attribute nas-port-id prefix-string *string* |
| Tree | prefix-string |
| String length | 1 to 8 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## suffix *keyword*

| | |
|---|---|
| Synopsis | String to be suffixed to the NAS-Port-Id attribute |
| Context | **configure** subscriber-mgmt radius-authentication-policy *named-item* include-radius-attribute nas-port-id suffix *keyword* |
| Tree | suffix |
| Options | circuit-id, remote-id |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### nas-port-type

| | |
|---|---|
| Synopsis | Enable the **nas-port-type** context |
| Context | **configure** subscriber-mgmt radius-authentication-policy *named-item* include-radius-attribute nas-port-type |
| Tree | nas-port-type |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### type *(keyword | number)*

| | |
|---|---|
| Synopsis | Value for RADIUS NAS-Port-Type attribute |
| Context | **configure** subscriber-mgmt radius-authentication-policy *named-item* include-radius-attribute nas-port-type type *(keyword | number)* |
| Tree | type |
| Range | 0 to 255 |
| Options | rfc-aligned |
| Default | rfc-aligned |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### pppoe-service-name *boolean*

| | |
|---|---|
| Synopsis | Generate the pppoe-service-name RADIUS attribute |
| Context | **configure** subscriber-mgmt radius-authentication-policy *named-item* include-radius-attribute pppoe-service-name *boolean* |
| Tree | pppoe-service-name |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### rat-type *boolean*

| | |
|---|---|
| Synopsis | Generate the RAT type RADIUS attribute |
| Context | **configure** subscriber-mgmt radius-authentication-policy *named-item* include-radius-attribute rat-type *boolean* |


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| | |
|---|---|
| Tree | rat-type |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **remote-id** *boolean*

| | |
|---|---|
| Synopsis | Include remote-id attribute |
| Context | **configure** subscriber-mgmt radius-authentication-policy *named-item* include-radius-attribute remote-id *boolean* |
| Tree | remote-id |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sap-session-index** *boolean*

| | |
|---|---|
| Synopsis | Generate the per-SAP unique session index |
| Context | **configure** subscriber-mgmt radius-authentication-policy *named-item* include-radius-attribute sap-session-index *boolean* |
| Tree | sap-session-index |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **tunnel-server-attrs** *boolean*

| | |
|---|---|
| Synopsis | Enable inclusion of tunnel-server attributes |
| Context | **configure** subscriber-mgmt radius-authentication-policy *named-item* include-radius-attribute tunnel-server-attrs *boolean* |
| Tree | tunnel-server-attrs |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **uli** *boolean*

| | |
|---|---|
| Synopsis | Generate the ULI RADIUS attribute |
| Context | **configure** subscriber-mgmt radius-authentication-policy *named-item* include-radius-attribute uli *boolean* |
| Tree | uli |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **wifi-num-attached-ues** *boolean*

| | |
|---|---|
| Synopsis | Include the RADIUS Alc-Num-Attached-UEs VSA |
| Context | **configure** subscriber-mgmt radius-authentication-policy *named-item* include-radius-attribute wifi-num-attached-ues *boolean* |
| Tree | wifi-num-attached-ues |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **wifi-ssid-vlan** *boolean*

| | |
|---|---|
| Synopsis | Include per-SSID VLAN ID in the Alc-Wlan-SSID-VLAN VSA |
| Context | **configure** subscriber-mgmt radius-authentication-policy *named-item* include-radius-attribute wifi-ssid-vlan *boolean* |
| Tree | wifi-ssid-vlan |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **xconnect-tunnel-home-address** *boolean*

| | |
|---|---|
| Synopsis | Include the Alc-Xconnect-Tunnel-Home-Ipv6 attribute |
| Context | **configure** subscriber-mgmt radius-authentication-policy *named-item* include-radius-attribute xconnect-tunnel-home-address *boolean* |
| Tree | xconnect-tunnel-home-address |


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| | |
|---|---|
| Default | false |
| Introduced | 16.0.R5 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **password** *encrypted-leaf*

| | |
|---|---|
| Synopsis | RADIUS request password |
| Context | **configure** subscriber-mgmt radius-authentication-policy *named-item* password *encrypted-leaf* |
| Tree | password |
| String length | 1 to 115 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ppp-user-name**

| | |
|---|---|
| Synopsis | Enter the **ppp-user-name** context |
| Context | **configure** subscriber-mgmt radius-authentication-policy *named-item* ppp-user-name |
| Tree | ppp-user-name |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **domain-name** *string*

| | |
|---|---|
| Synopsis | Domain name |
| Context | **configure** subscriber-mgmt radius-authentication-policy *named-item* ppp-user-name domain-name *string* |
| Tree | domain-name |
| String length | 1 to 128 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **domain-operation** *keyword*

| | |
|---|---|
| Synopsis | Operation to perform on the PAP or CHAP username |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt radius-authentication-policy *named-item* ppp-user-name domain-operation *keyword* |
| Tree | domain-operation |
| Description | This command specifies the operation to perform on the PAP or CHAP username.<br>When unconfigured, there is no operation and the PAP or CHAP username is not changed. |
| Options | append, strip, replace, default |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **pppoe-access-method** *keyword*

| | |
|---|---|
| Synopsis | PPPoE access method |
| Context | **configure** subscriber-mgmt radius-authentication-policy *named-item* pppoe-access-method *keyword* |
| Tree | pppoe-access-method |
| Options | none, padi, pap-chap |
| Default | padi |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **radius-server-policy** *reference*

| | |
|---|---|
| Synopsis | Referenced RADIUS server policy |
| Context | **configure** subscriber-mgmt radius-authentication-policy *named-item* radius-server-policy *reference* |
| Tree | radius-server-policy |
| Reference | **configure** aaa radius server-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **re-authentication** *boolean*

| | |
|---|---|
| Synopsis | Enable re-authentication on IPOE renewal |
| Context | **configure** subscriber-mgmt radius-authentication-policy *named-item* re-authentication *boolean* |


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| | |
|---|---|
| Tree | re-authentication |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## send-acct-stop-on-fail

| | |
|---|---|
| Synopsis | Enter the **send-acct-stop-on-fail** context |
| Context | **configure** subscriber-mgmt radius-authentication-policy *named-item* send-acct-stop-on-fail |
| Tree | send-acct-stop-on-fail |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## on-accept-failure *boolean*

| | |
|---|---|
| Synopsis | Send an accounting stop message when a failure occurs |
| Context | **configure** subscriber-mgmt radius-authentication-policy *named-item* send-acct-stop-on-fail on-accept-failure *boolean* |
| Tree | on-accept-failure |
| Description | When configured to **true**, the system sends an accounting stop message when a failure occurs after the reception of a RADIUS Access-Accept message (such as a duplicate IP address). |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## on-reject *boolean*

| | |
|---|---|
| Synopsis | Send an accounting stop message for Access-Reject |
| Context | **configure** subscriber-mgmt radius-authentication-policy *named-item* send-acct-stop-on-fail on-reject *boolean* |
| Tree | on-reject |
| Description | When configured to **true**, the system sends an accounting stop message when an Access-Reject message is received. |
| Default | false |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **on-request-failure** *boolean*

| | |
|---|---|
| Synopsis | Send an accounting stop message for failures |
| Context | **configure** subscriber-mgmt radius-authentication-policy *named-item* send-acct-stop-on-fail on-request-failure *boolean* |
| Tree | on-request-failure |
| Description | When configured to **true**, the system sends an accounting stop message when a RADIUS Access-Request message cannot be sent (for example, there is no server configured, or timeout). |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **user-name**

| | |
|---|---|
| Synopsis | Enter the **user-name** context |
| Context | **configure** subscriber-mgmt radius-authentication-policy *named-item* user-name |
| Tree | user-name |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **domain-name** *string*

| | |
|---|---|
| Synopsis | Domain name |
| Context | **configure** subscriber-mgmt radius-authentication-policy *named-item* user-name domain-name *string* |
| Tree | domain-name |
| String length | 1 to 128 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **domain-operation** *keyword*

| | |
|---|---|
| Synopsis | Operation to perform on the username |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt radius-authentication-policy *named-item* user-name domain-operation *keyword* |
| Tree | domain-operation |
| Description | This command specifies the operation to perform on the username.<br>When unconfigured, there is no operation and the username is not changed. |
| Options | append, strip, replace, default |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **format** *keyword*

| | |
|---|---|
| Synopsis | User name format in the RADIUS message |
| Context | **configure** subscriber-mgmt radius-authentication-policy *named-item* user-name format *keyword* |
| Tree | format |
| Options | mac, circuit-id, tuple, ascii-converted-circuit-id, ascii-converted-tuple, dhcp-client-vendor-opts, mac-giaddr, ppp-user-name |
| Default | mac |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **gtp-format** *keyword*

| | |
|---|---|
| Synopsis | Username format used for FWA sessions |
| Context | **configure** subscriber-mgmt radius-authentication-policy *named-item* user-name gtp-format *keyword* |
| Tree | gtp-format |
| Description | This command specifies the username format to use for FWA sessions. If a PAP message is present in the PCO IE of the Create Session request, the system uses that for authentication instead of the format specified for this command. If you specify a format that includes APN, the separator is an @ character; for example, msisdn@apn. |
| Options | imsi, imsi-apn, msisdn, msisdn-apn |
| Default | imsi |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **mac-format** *mac-specification*

| | |
|---|---|
| Synopsis | MAC address format when contacting a RADIUS server |
| Context | **configure** subscriber-mgmt radius-authentication-policy *named-item* user-name mac-format *mac-specification* |
| Tree | mac-format |
| String length | 2 to 7 |
| Default | aa: |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **rip-policy** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **rip-policy** list instance |
| Context | **configure** subscriber-mgmt rip-policy *named-item* |
| Tree | rip-policy |
| Max. instances | 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | RIP policy name |
| Context | **configure** subscriber-mgmt rip-policy *named-item* |
| Tree | rip-policy |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **authentication-key** *encrypted-leaf*

| | |
|---|---|
| Synopsis | Authentication key |
| Context | **configure** subscriber-mgmt rip-policy *named-item* authentication-key *encrypted-leaf* |
| Tree | authentication-key |


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| | |
|---|---|
| String length | 1 to 51 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **authentication-type** *keyword*

| | |
|---|---|
| Synopsis | Authentication type used between RIP neighbors |
| Context | **configure** subscriber-mgmt rip-policy *named-item* authentication-type *keyword* |
| Tree | authentication-type |
| Options | password, message-digest, message-digest-20 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** subscriber-mgmt rip-policy *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **router-advertisement-policy** [name] *external-named-item*

| | |
|---|---|
| Synopsis | Enter the **router-advertisement-policy** list instance |
| Context | **configure** subscriber-mgmt router-advertisement-policy *external-named-item* |
| Tree | router-advertisement-policy |
| Max. instances | 16 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *external-named-item*

| | |
|---|---|
| Synopsis | Router advertisement policy name |
| Context | **configure** subscriber-mgmt router-advertisement-policy *external-named-item* |


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| | |
|---|---|
| Tree | router-advertisement-policy |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **force-mcast** *keyword*

| | |
|---|---|
| Synopsis | Protocol with forced multicast |
| Context | **configure** subscriber-mgmt router-advertisement-policy *external-named-item* force-mcast *keyword* |
| Tree | force-mcast |
| Options | ip, ip-mac |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **max-advertisement-interval** *number*

| | |
|---|---|
| Synopsis | Maximum advertisement interval |
| Context | **configure** subscriber-mgmt router-advertisement-policy *external-named-item* max-advertisement-interval *number* |
| Tree | max-advertisement-interval |
| Range | 900 to 1800 |
| Units | seconds |
| Default | 1800 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **min-advertisement-interval** *number*

| | |
|---|---|
| Synopsis | Minimum advertisement interval |
| Context | **configure** subscriber-mgmt router-advertisement-policy *external-named-item* min-advertisement-interval *number* |
| Tree | min-advertisement-interval |
| Range | 900 to 1350 |
| Units | seconds |


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| | |
|---|---|
| Default | 900 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## options

| | |
|---|---|
| Synopsis | Enter the **options** context |
| Context | **configure** subscriber-mgmt router-advertisement-policy *external-named-item* options |
| Tree | options |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## current-hop-limit *number*

| | |
|---|---|
| Synopsis | Hop limit to be advertised |
| Context | **configure** subscriber-mgmt router-advertisement-policy *external-named-item* options current-hop-limit *number* |
| Tree | current-hop-limit |
| Range | 0 to 255 |
| Default | 64 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## dns

| | |
|---|---|
| Synopsis | Enter the **dns** context |
| Context | **configure** subscriber-mgmt router-advertisement-policy *external-named-item* options dns |
| Tree | dns |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## include-rdnss *boolean*

| | |
|---|---|
| Synopsis | Include the RDNSS server option 25 |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt router-advertisement-policy *external-named-item* options dns include-rdnss *boolean* |
| Tree | include-rdnss |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **rdnss-lifetime** *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum time for the RDNSS address to remain valid |
| Context | **configure** subscriber-mgmt router-advertisement-policy *external-named-item* options dns rdnss-lifetime *(number | keyword)* |
| Tree | rdnss-lifetime |
| Range | 900 to 3600 |
| Units | seconds |
| Options | infinite |
| Default | 3600 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **managed-configuration** *boolean*

| | |
|---|---|
| Synopsis | Managed address configuration flag |
| Context | **configure** subscriber-mgmt router-advertisement-policy *external-named-item* options managed-configuration *boolean* |
| Tree | managed-configuration |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **mtu** *(number | keyword)*

| | |
|---|---|
| Synopsis | Advertised MTU value |
| Context | **configure** subscriber-mgmt router-advertisement-policy *external-named-item* options mtu *(number | keyword)* |
| Tree | mtu |


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| | |
|---|---|
| Range | 1280 to 9212 |
| Units | bytes |
| Options | not-included |
| Default | not-included |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **other-stateful-configuration** *boolean*

| | |
|---|---|
| Synopsis | Other stateful configuration flag |
| Context | **configure** subscriber-mgmt router-advertisement-policy *external-named-item* options other-stateful-configuration *boolean* |
| Tree | other-stateful-configuration |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **reachable-time** *number*

| | |
|---|---|
| Synopsis | Reachable time for advertisements |
| Context | **configure** subscriber-mgmt router-advertisement-policy *external-named-item* options reachable-time *number* |
| Tree | reachable-time |
| Range | 0 to 3600000 |
| Units | milliseconds |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **retransmit-timer** *number*

| | |
|---|---|
| Synopsis | Retransmit time in router advertisements from interface |
| Context | **configure** subscriber-mgmt router-advertisement-policy *external-named-item* options retransmit-timer *number* |
| Tree | retransmit-timer |
| Range | 0 to 1800000 |


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| | |
|---|---|
| Units | seconds |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **router-lifetime** *(number | keyword)*

| | |
|---|---|
| Synopsis | Router lifetime |
| Context | **configure** subscriber-mgmt router-advertisement-policy *external-named-item* options router-lifetime *(number | keyword)* |
| Tree | router-lifetime |
| Range | 2700 to 9000 |
| Units | seconds |
| Options | no-default-router |
| Default | 4500 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **prefix-options**

| | |
|---|---|
| Synopsis | Enter the **prefix-options** context |
| Context | **configure** subscriber-mgmt router-advertisement-policy *external-named-item* prefix-options |
| Tree | prefix-options |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **stateful**

| | |
|---|---|
| Synopsis | Enter the **stateful** context |
| Context | **configure** subscriber-mgmt router-advertisement-policy *external-named-item* prefix-options stateful |
| Tree | stateful |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **auto-lifetimes** *boolean*

| | |
|---|---|
| Synopsis | Use automatic lifetimes for stateful prefixes |
| Context | **configure** subscriber-mgmt router-advertisement-policy *external-named-item* prefix-options stateful auto-lifetimes *boolean* |
| Tree | auto-lifetimes |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **on-link** *boolean*

| | |
|---|---|
| Synopsis | Assign the prefix to an interface on the specified link |
| Context | **configure** subscriber-mgmt router-advertisement-policy *external-named-item* prefix-options stateful on-link *boolean* |
| Tree | on-link |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **preferred-lifetime** *(number | keyword)*

| | |
|---|---|
| Synopsis | Time for a prefix to remain preferred |
| Context | **configure** subscriber-mgmt router-advertisement-policy *external-named-item* prefix-options stateful preferred-lifetime *(number | keyword)* |
| Tree | preferred-lifetime |
| Range | 0 to 4294967294 |
| Units | seconds |
| Options | infinite |
| Default | 3600 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **valid-lifetime** *(number | keyword)*

| | |
|---|---|
| Synopsis | Time for a prefix to remain valid |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt router-advertisement-policy *external-named-item* prefix-options stateful valid-lifetime *(number \| keyword)* |
| Tree | valid-lifetime |
| Range | 0 to 4294967294 |
| Units | seconds |
| Options | infinite |
| Default | 86400 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## stateless

| | |
|---|---|
| Synopsis | Enter the **stateless** context |
| Context | **configure** subscriber-mgmt router-advertisement-policy *external-named-item* prefix-options stateless |
| Tree | stateless |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## on-link *boolean*

| | |
|---|---|
| Synopsis | Assign the prefix to an interface on the specified link |
| Context | **configure** subscriber-mgmt router-advertisement-policy *external-named-item* prefix-options stateless on-link *boolean* |
| Tree | on-link |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## preferred-lifetime *(number | keyword)*

| | |
|---|---|
| Synopsis | Time for a prefix to remain preferred |
| Context | **configure** subscriber-mgmt router-advertisement-policy *external-named-item* prefix-options stateless preferred-lifetime *(number \| keyword)* |
| Tree | preferred-lifetime |
| Range | 0 to 4294967294 |


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| | |
|---|---|
| Units | seconds |
| Options | infinite |
| Default | 3600 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **valid-lifetime** *(number | keyword)*

| | |
|---|---|
| Synopsis | Time for a prefix to remain valid |
| Context | **configure** subscriber-mgmt router-advertisement-policy *external-named-item* prefix-options stateless valid-lifetime *(number | keyword)* |
| Tree | valid-lifetime |
| Range | 0 to 4294967294 |
| Units | seconds |
| Options | infinite |
| Default | 86400 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sap-template** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **sap-template** list instance |
| Context | **configure** subscriber-mgmt sap-template *named-item* |
| Tree | sap-template |
| Description | Commands in this context configure a template for automatically-generated subscriber SAPs that is used when creating CUPS sessions. A template with name "default" is used when no other instance is created, however, the "default" template must be explicitly provisioned. |
| Max. instances | 256 |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | SAP template name |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt sap-template *named-item* |
| Tree | sap-template |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## cpu-protection

| | |
|---|---|
| Synopsis | Enter the **cpu-protection** context |
| Context | **configure** subscriber-mgmt sap-template *named-item* cpu-protection |
| Tree | cpu-protection |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s |

## ip-src-monitoring

| | |
|---|---|
| Synopsis | Apply CPU protection policy on IP sources |
| Context | **configure** subscriber-mgmt sap-template *named-item* cpu-protection ip-src-monitoring |
| Tree | ip-src-monitoring |
| Notes | The following elements are part of a choice: **ip-src-monitoring** or **mac-monitoring**. |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s |

## mac-monitoring

| | |
|---|---|
| Synopsis | Apply CPU protection policy on MAC sources |
| Context | **configure** subscriber-mgmt sap-template *named-item* cpu-protection mac-monitoring |
| Tree | mac-monitoring |
| Notes | The following elements are part of a choice: **ip-src-monitoring** or **mac-monitoring**. |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s |


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### **policy-id** *reference*

| | |
|---|---|
| Synopsis | CPU protection policy ID |
| Context | **configure** subscriber-mgmt sap-template *named-item* cpu-protection policy-id *reference* |
| Tree | policy-id |
| Reference | **configure** system security cpu-protection policy *number* |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** subscriber-mgmt sap-template *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **dist-cpu-protection** *reference*

| | |
|---|---|
| Synopsis | Distributed CPU protection policy name |
| Context | **configure** subscriber-mgmt sap-template *named-item* dist-cpu-protection *reference* |
| Tree | dist-cpu-protection |
| Reference | **configure** system security dist-cpu-protection policy *named-item* |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **hold-time** *(number | keyword)*

| | |
|---|---|
| Synopsis | Time to hold a SAP after last PFCP session is removed |
| Context | **configure** subscriber-mgmt sap-template *named-item* hold-time *(number | keyword)* |
| Tree | hold-time |
| Description | This command configures the time for which an SAP will be kept after the last session has been removed. Idle SAPs can be forcefully removed by the command **clear subscriber-mgmt sap-template template-name idle-saps**. |


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| | |
|---|---|
| Range | 0 \| 30 to 2592000 |
| Units | seconds |
| Options | infinite |
| Default | 30 |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **shcv-policy** [name] *external-named-item*

| | |
|---|---|
| Synopsis | Enter the **shcv-policy** list instance |
| Context | **configure** subscriber-mgmt shcv-policy *external-named-item* |
| Tree | shcv-policy |
| Max. instances | 64 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *external-named-item*

| | |
|---|---|
| Synopsis | SHCV policy name |
| Context | **configure** subscriber-mgmt shcv-policy *external-named-item* |
| Tree | shcv-policy |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** subscriber-mgmt shcv-policy *external-named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## layer-3

| | |
|---|---|
| Synopsis | Enter the **layer-3** context |
| Context | **configure** subscriber-mgmt shcv-policy *external-named-item* layer-3 |
| Tree | layer-3 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## source-ip-origin *keyword*

| | |
|---|---|
| Synopsis | Source IP address to be used for SHCV messages |
| Context | **configure** subscriber-mgmt shcv-policy *external-named-item* layer-3 source-ip-origin *keyword* |
| Tree | source-ip-origin |
| Options | interface – IP address of the interface<br>vrrp – Primary IP address of the VRRP |
| Default | interface |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## unnumbered-source-ip *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Source IPv4 address for unnumbered subscriber hosts |
| Context | **configure** subscriber-mgmt shcv-policy *external-named-item* layer-3 unnumbered-source-ip *ipv4-unicast-address* |
| Tree | unnumbered-source-ip |
| Description | This command configures the source IPv4 address (also known as the sender IP address) used in SHCV ARP requests for unnumbered hosts. When unconfigured, 0.0.0.0 is used as the source IPv4 address in SHCV ARP requests. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## periodic

| | |
|---|---|
| Synopsis | Enter the **periodic** context |
| Context | **configure** subscriber-mgmt shcv-policy *external-named-item* periodic |
| Tree | periodic |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **action** *keyword*

| | |
|---|---|
| Synopsis | Action when periodic connectivity verification fails |
| Context | **configure** subscriber-mgmt shcv-policy *external-named-item* periodic action *keyword* |
| Tree | action |
| Options | alarm, remove |
| Default | alarm |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of periodic connectivity check |
| Context | **configure** subscriber-mgmt shcv-policy *external-named-item* periodic admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **interval** *number*

| | |
|---|---|
| Synopsis | Time interval which all known sources are verified |
| Context | **configure** subscriber-mgmt shcv-policy *external-named-item* periodic interval *number* |
| Tree | interval |
| Description | This command specifies the time interval which all known sources are verified. The actual rate is dependent on the number of known hosts and intervals. |
| Range | 1 to 6000 |
| Units | minutes |
| Default | 30 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **retry-count** *number*

| | |
|---|---|
| Synopsis | Number of retransmissions in connectivity verification |
| Context | **configure** subscriber-mgmt shcv-policy *external-named-item* periodic retry-count *number* |
| Tree | retry-count |
| Range | 1 to 29 |
| Default | 2 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **timeout** *number*

| | |
|---|---|
| Synopsis | Timeout before connectivity verification retransmitted |
| Context | **configure** subscriber-mgmt shcv-policy *external-named-item* periodic timeout *number* |
| Tree | timeout |
| Range | 1 to 60 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **trigger**

| | |
|---|---|
| Synopsis | Enter the **trigger** context |
| Context | **configure** subscriber-mgmt shcv-policy *external-named-item* trigger |
| Tree | trigger |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **host-limit-exceeded**

| | |
|---|---|
| Synopsis | Enter the **host-limit-exceeded** context |
| Context | **configure** subscriber-mgmt shcv-policy *external-named-item* trigger host-limit-exceeded |


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| | |
|---|---|
| Tree | host-limit-exceeded |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of trigger for host-limit exceeded |
| Context | **configure** subscriber-mgmt shcv-policy *external-named-item* trigger host-limit-exceeded admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **retry-count** *number*

| | |
|---|---|
| Synopsis | Number of retransmissions in periodic connectivity test |
| Context | **configure** subscriber-mgmt shcv-policy *external-named-item* trigger host-limit-exceeded retry-count *number* |
| Tree | retry-count |
| Range | 1 to 29 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **timeout** *number*

| | |
|---|---|
| Synopsis | Timeout before a retransmission |
| Context | **configure** subscriber-mgmt shcv-policy *external-named-item* trigger host-limit-exceeded timeout *number* |
| Tree | timeout |
| Range | 1 to 60 |
| Units | seconds |
| Default | 1 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## inactivity

| | |
|---|---|
| Synopsis | Enter the **inactivity** context |
| Context | **configure** subscriber-mgmt shcv-policy *external-named-item* trigger inactivity |
| Tree | inactivity |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the trigger for inactive hosts |
| Context | **configure** subscriber-mgmt shcv-policy *external-named-item* trigger inactivity admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## retry-count *number*

| | |
|---|---|
| Synopsis | Number of retransmissions in periodic connectivity test |
| Context | **configure** subscriber-mgmt shcv-policy *external-named-item* trigger inactivity retry-count *number* |
| Tree | retry-count |
| Range | 1 to 29 |
| Default | 2 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## timeout *number*

| | |
|---|---|
| Synopsis | Timeout before a retransmission |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt shcv-policy *external-named-item* trigger inactivity timeout *number* |
| Tree | timeout |
| Range | 1 to 60 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ip-conflict

| | |
|---|---|
| Synopsis | Enter the **ip-conflict** context |
| Context | **configure** subscriber-mgmt shcv-policy *external-named-item* trigger ip-conflict |
| Tree | ip-conflict |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the trigger for IP conflict |
| Context | **configure** subscriber-mgmt shcv-policy *external-named-item* trigger ip-conflict admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## retry-count *number*

| | |
|---|---|
| Synopsis | Number of retransmissions in periodic connectivity test |
| Context | **configure** subscriber-mgmt shcv-policy *external-named-item* trigger ip-conflict retry-count *number* |
| Tree | retry-count |
| Range | 1 to 29 |
| Default | 1 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **timeout** *number*

| | |
|---|---|
| Synopsis | Timeout before a retransmission |
| Context | **configure** subscriber-mgmt shcv-policy *external-named-item* trigger ip-conflict timeout *number* |
| Tree | timeout |
| Range | 1 to 60 |
| Units | seconds |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **mac-learning**

| | |
|---|---|
| Synopsis | Enter the **mac-learning** context |
| Context | **configure** subscriber-mgmt shcv-policy *external-named-item* trigger mac-learning |
| Tree | mac-learning |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of trigger for MAC learning |
| Context | **configure** subscriber-mgmt shcv-policy *external-named-item* trigger mac-learning admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **retry-count** *number*

| | |
|---|---|
| Synopsis | Number of retransmissions in periodic connectivity test |
| Context | **configure** subscriber-mgmt shcv-policy *external-named-item* trigger mac-learning retry-count *number* |
| Tree | retry-count |
| Range | 1 to 29 |
| Default | 2 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **timeout** *number*

| | |
|---|---|
| Synopsis | Timeout before a retransmission |
| Context | **configure** subscriber-mgmt shcv-policy *external-named-item* trigger mac-learning timeout *number* |
| Tree | timeout |
| Range | 1 to 60 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **mobility**

| | |
|---|---|
| Synopsis | Enter the **mobility** context |
| Context | **configure** subscriber-mgmt shcv-policy *external-named-item* trigger mobility |
| Tree | mobility |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of trigger for SAP IP/MAC conflict |
| Context | **configure** subscriber-mgmt shcv-policy *external-named-item* trigger mobility admin-state *keyword* |


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| | |
|---|---|
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **retry-count** *number*

| | |
|---|---|
| Synopsis | Number of retransmissions in periodic connectivity test |
| Context | **configure** subscriber-mgmt shcv-policy *external-named-item* trigger mobility retry-count *number* |
| Tree | retry-count |
| Range | 1 to 29 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **timeout** *number*

| | |
|---|---|
| Synopsis | Timeout before a retransmission |
| Context | **configure** subscriber-mgmt shcv-policy *external-named-item* trigger mobility timeout *number* |
| Tree | timeout |
| Range | 1 to 60 |
| Units | seconds |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **vpls**

| | |
|---|---|
| Synopsis | Enter the **vpls** context |
| Context | **configure** subscriber-mgmt shcv-policy *external-named-item* vpls |
| Tree | vpls |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **source-ip** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Source IPv4 address for connectivity verification |
| Context | **configure** subscriber-mgmt shcv-policy *external-named-item* vpls source-ip *ipv4-unicast-address* |
| Tree | source-ip |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **source-mac** *mac-address*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Source MAC address for connectivity verification |
| Context | **configure** subscriber-mgmt shcv-policy *external-named-item* vpls source-mac *mac-address* |
| Tree | source-mac |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sla-profile** [name] *external-named-item*

| | |
|---|---|
| Synopsis | Enter the **sla-profile** list instance |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* |
| Tree | sla-profile |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *external-named-item*

| | |
|---|---|
| Synopsis | SLA profile name |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* |
| Tree | sla-profile |


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| | |
|---|---|
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## aggregate-qos-statistics

| | |
|---|---|
| Synopsis | Enter the **aggregate-qos-statistics** context |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* aggregate-qos-statistics |
| Tree | aggregate-qos-statistics |
| Description | Commands in this context configure how aggregate QoS statistics are calculated. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## egress

| | |
|---|---|
| Synopsis | Enter the **egress** context |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* aggregate-qos-statistics egress |
| Tree | egress |
| Description | Commands in this context configure which types of egress QoS object statistics are used to calculate the total egress aggregate statistics. This can include static queues and policers that are configured in a QoS SAP-egress policy, and dynamic queues and policers that are created on demand, according to the session needs. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## policers

| | |
|---|---|
| Synopsis | Enter the **policers** context |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* aggregate-qos-statistics egress policers |
| Tree | policers |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## all

| | |
|---|---|
| Synopsis | Select all dynamic and static policers |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* aggregate-qos-statistics egress policers all |
| Tree | all |
| Notes | The following elements are part of a choice: **all**, **all-dynamic**, **all-static**, **none**, or **policer**. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## all-dynamic

| | |
|---|---|
| Synopsis | Select all dynamic policers |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* aggregate-qos-statistics egress policers all-dynamic |
| Tree | all-dynamic |
| Notes | The following elements are part of a choice: **all**, **all-dynamic**, **all-static**, **none**, or **policer**. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## all-static

| | |
|---|---|
| Synopsis | Select all static policers |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* aggregate-qos-statistics egress policers all-static |
| Tree | all-static |
| Notes | The following elements are part of a choice: **all**, **all-dynamic**, **all-static**, **none**, or **policer**. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## none

| | |
|---|---|
| Synopsis | Ignore all dynamic and static policers |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* aggregate-qos-statistics egress policers none |
| Tree | none |
| Notes | The following elements are part of a choice: **all**, **all-dynamic**, **all-static**, **none**, or **policer**. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **policer** *reference*

| | |
|---|---|
| Synopsis | Static policers |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* aggregate-qos-statistics egress policers policer *reference* |
| Tree | policer |
| Reference | **configure** qos sap-egress *qos-policy-name* policer *number* |
| Max. instances | 63 |
| Notes | The following elements are part of a choice: **all**, **all-dynamic**, **all-static**, **none**, or **policer**. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## queues

| | |
|---|---|
| Synopsis | Enter the **queues** context |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* aggregate-qos-statistics egress queues |
| Tree | queues |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## all

| | |
|---|---|
| Synopsis | Select all dynamic and static queues |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* aggregate-qos-statistics egress queues all |
| Tree | all |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **all**, **all-dynamic**, **all-static**, **none**, or **queue**. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## all-dynamic

| | |
|---|---|
| Synopsis | Select all dynamic queues |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* aggregate-qos-statistics egress queues all-dynamic |
| Tree | all-dynamic |
| Notes | The following elements are part of a choice: **all**, **all-dynamic**, **all-static**, **none**, or **queue**. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## all-static

| | |
|---|---|
| Synopsis | Select all static queues |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* aggregate-qos-statistics egress queues all-static |
| Tree | all-static |
| Notes | The following elements are part of a choice: **all**, **all-dynamic**, **all-static**, **none**, or **queue**. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## none

| | |
|---|---|
| Synopsis | Ignore all static and dynamic queues |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* aggregate-qos-statistics egress queues none |
| Tree | none |
| Notes | The following elements are part of a choice: **all**, **all-dynamic**, **all-static**, **none**, or **queue**. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## **queue** *reference*

| | |
|---|---|
| Synopsis | Static queues |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* aggregate-qos-statistics egress queues queue *reference* |
| Tree | queue |
| Reference | **configure** qos sap-egress *qos-policy-name* queue *number* |
| Max. instances | 8 |
| Notes | The following elements are part of a choice: **all**, **all-dynamic**, **all-static**, **none**, or **queue**. |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **alternate-sla-profile** *reference*

| | |
|---|---|
| Synopsis | Alternate SLA profile to use if threshold is hit |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* alternate-sla-profile *reference* |
| Tree | alternate-sla-profile |
| Description | This command configures the alternate SLA profile to use if the system meets any of the thresholds configured using the **configure subscriber-management alternate-profile-threshold** command. In this case, the alternate profile is used instead of the current profile. |
| Reference | **configure** subscriber-mgmt sla-profile *external-named-item* |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **control**

| | |
|---|---|
| Synopsis | Enter the **control** context |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* control |
| Tree | control |
| Description | Commands in this context determine which sessions can use the SLA profile.<br>By default, only sessions set up by the local system can use the SLA profile, but the SLA profile can also be enabled for sessions set up by a BNG CUPS Control Plane Function (CPF). |


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| | |
|---|---|
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **cups** *boolean*

| | |
|---|---|
| Synopsis | Allow the CUPS control plane to use the profile |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* control cups *boolean* |
| Tree | cups |
| Description | When configured to **true**, the profile can be used by sessions set up by a BNG CUPS Control Plane Function (CPF). |
| Default | false |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **local** *boolean*

| | |
|---|---|
| Synopsis | Allow the local control plane to use the profile |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* control local *boolean* |
| Tree | local |
| Description | When configured to **true**, the profile can be used by sessions set up by the local system. |
| Default | true |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **credit-control-policy** *reference*

| | |
|---|---|
| Synopsis | Credit policy for this SLA profile |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* credit-control-policy *reference* |
| Tree | credit-control-policy |
| Reference | **configure** subscriber-mgmt credit-control-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## **custom-statistics-group** [group-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **custom-statistics-group** list instance |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* custom-statistics-group *named-item* |
| Tree | custom-statistics-group |
| Description | Commands in this context configure a custom statistics group that is used to report custom aggregate statistics of QoS objects, in addition to the session aggregates. |
| Max. instances | 1 |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## [**group-name**] *named-item*

| | |
|---|---|
| Synopsis | Name of the custom statistics group |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* custom-statistics-group *named-item* |
| Tree | custom-statistics-group |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **egress**

| | |
|---|---|
| Synopsis | Enter the **egress** context |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* custom-statistics-group *named-item* egress |
| Tree | egress |
| Description | Commands in this context configure which types of egress QoS object statistics are used to calculate the custom statistics. This can include static queues and policers that are configured in a QoS SAP egress policy, and dynamic queues and policers that are created on demand, according to the needs of the session. |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## policers

| | |
|---|---|
| Synopsis | Enter the **policers** context |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* custom-statistics-group *named-item* egress policers |
| Tree | policers |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## none

| | |
|---|---|
| Synopsis | Ignore all dynamic and static policers for this group |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* custom-statistics-group *named-item* egress policers none |
| Tree | none |
| Notes | The following elements are part of a choice: **none** or **policer**. |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## policer *reference*

| | |
|---|---|
| Synopsis | Static policer ID to include for custom statistics |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* custom-statistics-group *named-item* egress policers policer *reference* |
| Tree | policer |
| Reference | **configure** qos sap-egress *qos-policy-name* policer *number* |
| Max. instances | 63 |
| Notes | The following elements are part of a choice: **none** or **policer**. |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## def-instance-sharing *keyword*

| | |
|---|---|
| Synopsis | Default SPI sharing method for IPoE or PPPoE sessions |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* def-instance-sharing *keyword* |
| Tree | def-instance-sharing |
| Options | per-sap, per-session |
| Default | per-sap |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **egress**

| | |
|---|---|
| Synopsis | Enter the **egress** context |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* egress |
| Tree | egress |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **bonding-selection**

| | |
|---|---|
| Synopsis | Enter the **bonding-selection** context |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* egress bonding-selection |
| Tree | bonding-selection |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **rate-thresholds**

| | |
|---|---|
| Synopsis | Enter the **rate-thresholds** context |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* egress bonding-selection rate-thresholds |
| Tree | rate-thresholds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **high** *number*

| | |
|---|---|
| Synopsis | High threshold rate percentage |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* egress bonding-selection rate-thresholds high *number* |
| Tree | high |
| Range | 56 to 99 |
| Units | percent |
| Default | 90 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **low** *number*

| | |
|---|---|
| Synopsis | Low threshold rate percentage |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* egress bonding-selection rate-thresholds low *number* |
| Tree | low |
| Range | 55 to 98 |
| Units | percent |
| Default | 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **weight**

| | |
|---|---|
| Synopsis | Enter the **weight** context |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* egress bonding-selection weight |
| Tree | weight |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **change** *number*

| | |
|---|---|
| Synopsis | Weight change of the preferred connection |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* egress bonding-selection weight change *number* |
| Tree | change |
| Range | 0 to 10 |
| Units | percent |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **initial** *number*

| | |
|---|---|
| Synopsis | Initial weight of the preferred connection |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* egress bonding-selection weight initial *number* |
| Tree | initial |
| Range | 1 to 100 |
| Units | percent |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ip-filter** *reference*

| | |
|---|---|
| Synopsis | IPv4 filter policy name |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* egress ip-filter *reference* |
| Tree | ip-filter |
| Reference | **configure** filter ip-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **ipv6-filter** *reference*

| | |
|---|---|
| Synopsis | IPv6 filter policy name |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* egress ipv6-filter *reference* |
| Tree | ipv6-filter |
| Reference | **configure** filter ipv6-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **qos**

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* egress qos |
| Tree | qos |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **hs-agg-rate** *number*

| | |
|---|---|
| Synopsis | Maximum rate for expanded egress HS queues |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* egress qos hs-agg-rate *number* |
| Tree | hs-agg-rate |
| Range | 1 to 100000000 |
| Units | kilobps |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **qos-marking-from-sap** *boolean*

| | |
|---|---|
| Synopsis | Set policy where egress QoS marking rules are applied |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* egress qos qos-marking-from-sap *boolean* |
| Tree | qos-marking-from-sap |
| Default | true |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## sap-egress

| | |
|---|---|
| Synopsis | Enter the **sap-egress** context |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* egress qos sap-egress |
| Tree | sap-egress |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## overrides

| | |
|---|---|
| Synopsis | Enter the **overrides** context |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* egress qos sap-egress overrides |
| Tree | overrides |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## hs-queue-stat-mode *keyword*

| | |
|---|---|
| Synopsis | Egress HS queue stats mode |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* egress qos sap-egress overrides hs-queue-stat-mode *keyword* |
| Tree | hs-queue-stat-mode |
| Options | v4-v6 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

## hs-wrr-group [id] *reference*

| | |
|---|---|
| Synopsis | Enter the **hs-wrr-group** list instance |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* egress qos sap-egress overrides hs-wrr-group *reference* |
| Tree | hs-wrr-group |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7750 SR-7/12/12e |

### [**id**] *reference*

| | |
|---|---|
| Synopsis | HS WRR group ID to override in the QoS policy table |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* egress qos sap-egress overrides hs-wrr-group *reference* |
| Tree | hs-wrr-group |
| Reference | **configure** qos sap-egress *qos-policy-name* hs-wrr-group *number* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **hs-class-weight** *number*

| | |
|---|---|
| Synopsis | Class weight override for WRR group |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* egress qos sap-egress overrides hs-wrr-group *reference* hs-class-weight *number* |
| Tree | hs-class-weight |
| Range | 1 \| 2 \| 4 \| 8 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **rate** *(number | keyword)*

| | |
|---|---|
| Synopsis | PIR rate override for WRR group |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* egress qos sap-egress overrides hs-wrr-group *reference* rate *(number \| keyword)* |
| Tree | rate |
| Range | 1 to 2000000000 |
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |


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### **policer** [id] *reference*

| | |
|---|---|
| Synopsis | Enter the **policer** list instance |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* egress qos sap-egress overrides policer *reference* |
| Tree | policer |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**id**] *reference*

| | |
|---|---|
| Synopsis | Policer ID |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* egress qos sap-egress overrides policer *reference* |
| Tree | policer |
| Reference | **configure** qos sap-egress *qos-policy-name* policer *number* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **cbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | CBS |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* egress qos sap-egress overrides policer *reference* cbs *(number | keyword)* |
| Tree | cbs |
| Range | 0 to 268435456 |
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **mbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | MBS |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* egress qos sap-egress overrides policer *reference* mbs *(number \| keyword)* |
| Tree | mbs |
| Range | 0 to 268435456 |
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **packet-byte-offset** *number*

| | |
|---|---|
| Synopsis | Packet byte offset |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* egress qos sap-egress overrides policer *reference* packet-byte-offset *number* |
| Tree | packet-byte-offset |
| Range | -64 to 31 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **rate**

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* egress qos sap-egress overrides policer *reference* rate |
| Tree | rate |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **cir** *(number | keyword)*

| | |
|---|---|
| Synopsis | CIR override for the packet byte offset |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* egress qos sap-egress overrides policer *reference* rate cir *(number \| keyword)* |
| Tree | cir |
| Range | 0 to 2000000000 |
| Units | kilobps |


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| | |
|---|---|
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | PIR override for the packet bye offset |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* egress qos sap-egress overrides policer *reference* rate pir *(number | keyword)* |
| Tree | pir |
| Range | 1 to 2000000000 |
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **stat-mode** *keyword*

| | |
|---|---|
| Synopsis | Stat mode for the policer |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* egress qos sap-egress overrides policer *reference* stat-mode *keyword* |
| Tree | stat-mode |
| Options | no-stats, minimal, offered-profile-no-cir, offered-total-cir, offered-profile-cir, offered-limited-capped-cir, offered-profile-capped-cir, v4-v6, offered-total-cir-exceed, offered-four-profile-no-cir, offered-total-cir-four-profile |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **queue** [id] *reference*

| | |
|---|---|
| Synopsis | Enter the **queue** list instance |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* egress qos sap-egress overrides queue *reference* |
| Tree | queue |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### [**id**] *reference*

| | |
|---|---|
| Synopsis | Queue ID |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* egress qos sap-egress overrides queue *reference* |
| Tree | queue |
| Reference | **configure** qos sap-egress *qos-policy-name* queue *number* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **avg-frame-overhead** *decimal-number*

| | |
|---|---|
| Synopsis | Average packet-to-frame encapsulation overhead |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* egress qos sap-egress overrides queue *reference* avg-frame-overhead *decimal-number* |
| Tree | avg-frame-overhead |
| Description | This command configures overrides for the average frame overhead. The overrides supersede the average frame overhead configuration under the queue.<br>For a full description of this command, see the **configure qos network-queue queue avg-frame-overhead** and **configure qos sap-egress queue avg-frame-overhead** contexts. |
| Range | 0.00 to 100.00 |
| Units | percent |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **cbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | CBS |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* egress qos sap-egress overrides queue *reference* cbs *(number | keyword)* |
| Tree | cbs |
| Range | 0 to 1048576 |
| Units | kilobytes |
| Options | auto |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **high-prio-only** *(number | keyword)*

| | |
|---|---|
| Synopsis | High priority burst size |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* egress qos sap-egress overrides queue *reference* high-prio-only *(number | keyword)* |
| Tree | high-prio-only |
| Range | 0 to 100 |
| Units | percent |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **hs-class-weight** *number*

| | |
|---|---|
| Synopsis | Class-weight override for expanded egress HS queues |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* egress qos sap-egress overrides queue *reference* hs-class-weight *number* |
| Tree | hs-class-weight |
| Range | 1 \| 2 \| 4 \| 8 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **hs-wred-queue**

| | |
|---|---|
| Synopsis | Enter the **hs-wred-queue** context |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* egress qos sap-egress overrides queue *reference* hs-wred-queue |
| Tree | hs-wred-queue |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR-7/12/12e |


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### **policy** *reference*

| | |
|---|---|
| Synopsis | Name of the slope-policy override applied to HS queue |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* egress qos sap-egress overrides queue *reference* hs-wred-queue policy *reference* |
| Tree | policy |
| Reference | **configure** qos slope-policy *named-item* |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR-7/12/12e |

### **hs-wrr-weight** *number*

| | |
|---|---|
| Synopsis | Maximum rate for expanded egress HS queues |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* egress qos sap-egress overrides queue *reference* hs-wrr-weight *number* |
| Tree | hs-wrr-weight |
| Range | 1 to 127 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **mbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | MBS |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* egress qos sap-egress overrides queue *reference* mbs *(number \| keyword)* |
| Tree | mbs |
| Range | 0 to 1073741824 |
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **rate**

| | |
|---|---|
| Synopsis | Enter the **rate** context |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* egress qos sap-egress overrides queue *reference* rate |
| Tree | rate |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **cir** *(number | keyword)*

| | |
|---|---|
| Synopsis | CIR for the queue |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* egress qos sap-egress overrides queue *reference* rate cir *(number | keyword)* |
| Tree | cir |
| Range | 0 to 2000000000 |
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | PIR for the queue |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* egress qos sap-egress overrides queue *reference* rate pir *(number | keyword)* |
| Tree | pir |
| Range | 1 to 2000000000 |
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **stat-mode** *keyword*

| | |
|---|---|
| Synopsis | Stat mode for the policer |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* egress qos sap-egress overrides queue *reference* stat-mode *keyword* |
| Tree | stat-mode |


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| | |
|---|---|
| Options | v4-v6 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **policy-name** *reference*

| | |
|---|---|
| Synopsis | SAP-egress QoS policy |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* egress qos sap-egress policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos sap-egress *qos-policy-name* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **port-parent-location** *keyword*

| | |
|---|---|
| Synopsis | Scheduling type for queued traffic |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* egress qos sap-egress port-parent-location *keyword* |
| Tree | port-parent-location |
| Options | port, vport |
| Default | port |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **scheduler-policy**

| | |
|---|---|
| Synopsis | Enter the **scheduler-policy** context |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* egress qos scheduler-policy |
| Tree | scheduler-policy |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **overrides**

| | |
|---|---|
| Synopsis | Enter the **overrides** context |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* egress qos scheduler-policy overrides |
| Tree | overrides |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **scheduler** [scheduler-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **scheduler** list instance |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* egress qos scheduler-policy overrides scheduler *reference* |
| Tree | scheduler |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## [**scheduler-name**] *reference*

| | |
|---|---|
| Synopsis | Scheduler policy name |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* egress qos scheduler-policy overrides scheduler *reference* |
| Tree | scheduler |
| Reference | **configure** qos scheduler-policy *named-item* tier *number* scheduler *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **rate**

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* egress qos scheduler-policy overrides scheduler *reference* rate |
| Tree | rate |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **cir** *(number | keyword)*

| | |
|---|---|
| Synopsis | Administrative CIR |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* egress qos scheduler-policy overrides scheduler *reference* rate cir *(number | keyword)* |
| Tree | cir |
| Range | 0 to 3200000000 |
| Units | kilobps |
| Options | sum, max |
| Default | sum |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | Administrative PIR |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* egress qos scheduler-policy overrides scheduler *reference* rate pir *(number | keyword)* |
| Tree | pir |
| Range | 1 to 3200000000 |
| Units | kilobps |
| Options | max |
| Default | max |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **policy-name** *reference*

| | |
|---|---|
| Synopsis | Scheduler policy name |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* egress qos scheduler-policy policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos scheduler-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **use-ingress-l2tp-dscp** *boolean*

| | |
|---|---|
| Synopsis | Use outer L2TP header for LAC sessions |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* egress qos use-ingress-l2tp-dscp *boolean* |
| Tree | use-ingress-l2tp-dscp |
| Description | When configured to **true**, egress classification is based on the outer L2TP header DSCP instead of the inner IP header for LAC sessions.<br>This command is ignored for non-LAC sessions. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **report-rate**

| | |
|---|---|
| Synopsis | Enter the **report-rate** context |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* egress report-rate |
| Tree | report-rate |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **agg-rate**

| | |
|---|---|
| Synopsis | Report the aggregate rate |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* egress report-rate agg-rate |
| Tree | agg-rate |
| Notes | The following elements are part of a choice: **agg-rate**, **policer**, **pppoe-actual-rate**, **rfc5515-actual-rate**, or **scheduler**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **policer** *number*

| | |
|---|---|
| Synopsis | Report the rate of the specified policer |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* egress report-rate policer *number* |


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| | |
|---|---|
| Tree | policer |
| Range | 1 to 63 |
| Notes | The following elements are part of a choice: **agg-rate**, **policer**, **pppoe-actual-rate**, **rfc5515-actual-rate**, or **scheduler**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## pppoe-actual-rate

| | |
|---|---|
| Synopsis | Report rate from the DSL characteristics PPPoE tags |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* egress report-rate pppoe-actual-rate |
| Tree | pppoe-actual-rate |
| Notes | The following elements are part of a choice: **agg-rate**, **policer**, **pppoe-actual-rate**, **rfc5515-actual-rate**, or **scheduler**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## rfc5515-actual-rate

| | |
|---|---|
| Synopsis | Report the rate as specified in RFC 5515 |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* egress report-rate rfc5515-actual-rate |
| Tree | rfc5515-actual-rate |
| Notes | The following elements are part of a choice: **agg-rate**, **policer**, **pppoe-actual-rate**, **rfc5515-actual-rate**, or **scheduler**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## scheduler *named-item*

| | |
|---|---|
| Synopsis | Report the rate of the specified scheduler |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* egress report-rate scheduler *named-item* |
| Tree | scheduler |
| String length | 1 to 32 |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **agg-rate**, **policer**, **pppoe-actual-rate**, **rfc5515-actual-rate**, or **scheduler**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## host-limits

| | |
|---|---|
| Synopsis | Enter the **host-limits** context |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* host-limits |
| Tree | host-limits |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ipv4

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* host-limits ipv4 |
| Tree | ipv4 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## arp *number*

| | |
|---|---|
| Synopsis | Maximum number of IPv4 ARP hosts |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* host-limits ipv4 arp *number* |
| Tree | arp |
| Description | This command configures the maximum number of IPv4 ARP hosts per SLA profile instance.<br>The operational maximum value may be smaller due to equipped hardware dependencies. |
| Range | 0 to 131071 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **dhcp** *number*

| | |
|---|---|
| Synopsis | Maximum number of IPv4 DHCP hosts |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* host-limits ipv4 dhcp *number* |
| Tree | dhcp |
| Description | This command configures the maximum number of IPv4 DHCP hosts per SLA profile instance.<br>The operational maximum value may be smaller due to equipped hardware dependencies. |
| Range | 0 to 131071 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **overall** *number*

| | |
|---|---|
| Synopsis | Maximum number of IPv4 hosts |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* host-limits ipv4 overall *number* |
| Tree | overall |
| Description | This command configures the maximum number of IPv4 hosts per SLA profile instance.<br>The operational maximum value may be smaller due to equipped hardware dependencies. |
| Range | 0 to 131071 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ppp** *number*

| | |
|---|---|
| Synopsis | Maximum number of IPv4 PPP hosts |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* host-limits ipv4 ppp *number* |
| Tree | ppp |
| Description | This command configures the maximum number of IPv4 PPP hosts per SLA profile instance.<br>The operational maximum value may be smaller due to equipped hardware dependencies. |
| Range | 0 to 131071 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ipv6

| | |
|---|---|
| Synopsis | Enter the **ipv6** context |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* host-limits ipv6 |
| Tree | ipv6 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## overall *number*

| | |
|---|---|
| Synopsis | Maximum number of IPv6 hosts |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* host-limits ipv6 overall *number* |
| Tree | overall |
| Description | This command configures the maximum number of IPv6 hosts per SLA profile instance.<br>The operational maximum value may be smaller due to equipped hardware dependencies. |
| Range | 0 to 131071 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## pd-ipoe-dhcp *number*

| | |
|---|---|
| Synopsis | Maximum number of IPv6 IPoE DHCP PD hosts |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* host-limits ipv6 pd-ipoe-dhcp *number* |
| Tree | pd-ipoe-dhcp |
| Description | This command configures the maximum number of IPv6 IPoE DHCP Prefix Delegation hosts (IA-PD) per SLA profile instance.<br>The operational maximum value may be smaller due to equipped hardware dependencies. |
| Range | 0 to 131071 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **pd-overall** *number*

| | |
|---|---|
| Synopsis | Maximum number of IPv6 DHCP PD hosts |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* host-limits ipv6 pd-overall *number* |
| Tree | pd-overall |
| Description | The command configures the maximum number of IPv6 DHCP Prefix Delegation hosts (IA-PD) per SLA profile instance.<br>The operational maximum value may be smaller due to equipped hardware dependencies. |
| Range | 0 to 131071 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **pd-ppp-dhcp** *number*

| | |
|---|---|
| Synopsis | Maximum number of IPv6 PPPoE DHCP PD hosts |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* host-limits ipv6 pd-ppp-dhcp *number* |
| Tree | pd-ppp-dhcp |
| Description | This command configures the maximum number of IPv6 PPPoE DHCP Prefix Delegation hosts (IA-PD) per SLA profile instance.<br>The operational maximum value may be smaller due to equipped hardware dependencies. |
| Range | 0 to 131071 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **wan-ipoe-dhcp** *number*

| | |
|---|---|
| Synopsis | Maximum number of IPv6 IPoE DHCP WAN hosts |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* host-limits ipv6 wan-ipoe-dhcp *number* |
| Tree | wan-ipoe-dhcp |
| Description | This command configures the maximum number of IPv6 IPoE DHCP WAN hosts (IA-NA) per SLA profile instance. |


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The operational maximum value may be smaller due to equipped hardware dependencies.

Range 0 to 131071

Introduced 16.0.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR

### **wan-ipoe-slaac** *number*

Synopsis Maximum number of IPv6 IPoE SLAAC WAN hosts

Context **configure** subscriber-mgmt sla-profile *external-named-item* host-limits ipv6 wan-ipoe-slaac *number*

Tree wan-ipoe-slaac

Description This command configures the maximum number of IPv6 IPoE SLAAC WAN hosts per SLA profile instance.

The operational maximum value may be smaller due to equipped hardware dependencies.

Range 0 to 131071

Introduced 16.0.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR

### **wan-overall** *number*

Synopsis Maximum number of IPv6 WAN hosts

Context **configure** subscriber-mgmt sla-profile *external-named-item* host-limits ipv6 wan-overall *number*

Tree wan-overall

Description This command configures the maximum number of IPv6 WAN hosts per SLA profile instance.

The operational maximum value may be smaller due to equipped hardware dependencies.

Range 0 to 131071

Introduced 16.0.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR

### **wan-ppp-dhcp** *number*

Synopsis Maximum number IPv6 PPPoE DHCP WAN hosts


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| | |
|---|---|
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* host-limits ipv6 wan-ppp-dhcp *number* |
| Tree | wan-ppp-dhcp |
| Description | This command configures the maximum number of IPv6 PPPoE DHCP WAN hosts (IA-NA) per SLA profile instance.<br>The operational maximum value may be smaller due to equipped hardware dependencies. |
| Range | 0 to 131071 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **wan-ppp-slaac** *number*

| | |
|---|---|
| Synopsis | Maximum number of IPv6 PPPoE SLAAC WAN hosts |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* host-limits ipv6 wan-ppp-slaac *number* |
| Tree | wan-ppp-slaac |
| Description | This command configures the maximum number of IPv6 PPPoE DHCP WAN hosts per SLA profile instance.<br>The operational maximum value may be smaller due to equipped hardware dependencies. |
| Range | 0 to 131071 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **lac-overall** *number*

| | |
|---|---|
| Synopsis | Maximum number of L2TP LAC hosts |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* host-limits lac-overall *number* |
| Tree | lac-overall |
| Description | This command configures the maximum number of L2TP LAC hosts per SLA profile instance.<br>The operational maximum value may be smaller due to equipped hardware dependencies. |
| Range | 0 to 131071 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **overall** *number*

| | |
|---|---|
| Synopsis | Maximum number of subscriber hosts |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* host-limits overall *number* |
| Tree | overall |
| Description | This command configures the maximum number of subscriber hosts per SLA profile instance.<br>The operational maximum value may be smaller due to equipped hardware dependencies. |
| Range | 1 to 131071 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **remove-oldest** *boolean*

| | |
|---|---|
| Synopsis | Remove oldest |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* host-limits remove-oldest *boolean* |
| Tree | remove-oldest |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **idle-timeout**

| | |
|---|---|
| Synopsis | Enable the **idle-timeout** context |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* idle-timeout |
| Tree | idle-timeout |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **category** [category-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **category** list instance |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* idle-timeout category *reference* |
| Tree | category |
| Max. instances | 16 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## [**category-name**] *reference*

| | |
|---|---|
| Synopsis | Category name |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* idle-timeout category *reference* |
| Tree | category |
| Description | This command specifies the category name where the queues and policers are defined for the idle-timeout monitoring for subscriber hosts. |
| Reference | **configure** subscriber-mgmt category-map *named-item* category *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **action** *keyword*

| | |
|---|---|
| Synopsis | Action when the idle-timeout is reached |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* idle-timeout category *reference* action *keyword* |
| Tree | action |
| Description | This command specifies the action to be executed when the idle-timeout is reached. The action is performed for all hosts associated with the SLA profile instance. |
| Options | terminate, shcv |
| Default | terminate |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **timeout** *number*

| | |
|---|---|
| Synopsis | Time the category can stay below its activity threshold |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* idle-timeout category *reference* timeout *number* |
| Tree | timeout |
| Range | 60 to 15552000 |
| Units | seconds |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **category-map-name** *reference*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Category map name |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* idle-timeout category-map-name *reference* |
| Tree | category-map-name |
| Reference | **configure** subscriber-mgmt category-map *named-item* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ingress**

| | |
|---|---|
| Synopsis | Enter the **ingress** context |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* ingress |
| Tree | ingress |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **ip-filter** *reference*

| | |
|---|---|
| Synopsis | IPv4 filter policy name |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* ingress ip-filter *reference* |
| Tree | ip-filter |
| Reference | **configure** filter ip-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ipv6-filter** *reference*

| | |
|---|---|
| Synopsis | IPv6 filter policy name |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* ingress ipv6-filter *reference* |
| Tree | ipv6-filter |
| Reference | **configure** filter ipv6-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **qos**

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* ingress qos |
| Tree | qos |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sap-ingress**

| | |
|---|---|
| Synopsis | Enter the **sap-ingress** context |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* ingress qos sap-ingress |
| Tree | sap-ingress |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### overrides

| | |
|---|---|
| Synopsis | Enter the **overrides** context |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* ingress qos sap-ingress overrides |
| Tree | overrides |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **policer** [id] *reference*

| | |
|---|---|
| Synopsis | Enter the **policer** list instance |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* ingress qos sap-ingress overrides policer *reference* |
| Tree | policer |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**id**] *reference*

| | |
|---|---|
| Synopsis | Policer ID |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* ingress qos sap-ingress overrides policer *reference* |
| Tree | policer |
| Reference | **configure** qos sap-ingress *qos-policy-name* policer *number* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **cbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | CBS |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* ingress qos sap-ingress overrides policer *reference* cbs *(number | keyword)* |
| Tree | cbs |
| Range | 0 to 268435456 |


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| | |
|---|---|
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **mbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | MBS |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* ingress qos sap-ingress overrides policer *reference* mbs *(number \| keyword)* |
| Tree | mbs |
| Range | 0 to 268435456 |
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **packet-byte-offset** *number*

| | |
|---|---|
| Synopsis | Packet byte offset |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* ingress qos sap-ingress overrides policer *reference* packet-byte-offset *number* |
| Tree | packet-byte-offset |
| Range | -32 to 31 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **rate**

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* ingress qos sap-ingress overrides policer *reference* rate |
| Tree | rate |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **cir** *(number | keyword)*

| | |
|---|---|
| Synopsis | CIR override for the packet byte offset |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* ingress qos sap-ingress overrides policer *reference* rate cir *(number | keyword)* |
| Tree | cir |
| Range | 0 to 2000000000 |
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | PIR override for the packet bye offset |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* ingress qos sap-ingress overrides policer *reference* rate pir *(number | keyword)* |
| Tree | pir |
| Range | 1 to 2000000000 |
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **stat-mode** *keyword*

| | |
|---|---|
| Synopsis | Stat mode for the policer |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* ingress qos sap-ingress overrides policer *reference* stat-mode *keyword* |
| Tree | stat-mode |
| Options | no-stats, minimal, offered-profile-no-cir, offered-total-cir, offered-priority-no-cir, offered-profile-cir, offered-priority-cir, offered-limited-profile-cir, offered-profile-capped-cir, offered-limited-capped-cir, v4-v6 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **queue** [id] *reference*

| | |
|---|---|
| Synopsis | Enter the **queue** list instance |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* ingress qos sap-ingress overrides queue *reference* |
| Tree | queue |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**id**] *reference*

| | |
|---|---|
| Synopsis | Queue ID |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* ingress qos sap-ingress overrides queue *reference* |
| Tree | queue |
| Reference | **configure** qos sap-ingress *qos-policy-name* queue *number* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **cbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | CBS |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* ingress qos sap-ingress overrides queue *reference* cbs *(number | keyword)* |
| Tree | cbs |
| Range | 0 to 1048576 |
| Units | kilobytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **high-prio-only** *(number | keyword)*

| | |
|---|---|
| Synopsis | High priority burst size |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* ingress qos sap-ingress overrides queue *reference* high-prio-only *(number \| keyword)* |
| Tree | high-prio-only |
| Range | 0 to 100 |
| Units | percent |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **mbs** *(number | keyword)*

| | |
|---|---|
| Synopsis | MBS |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* ingress qos sap-ingress overrides queue *reference* mbs *(number \| keyword)* |
| Tree | mbs |
| Range | 0 to 1073741824 |
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **rate**

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* ingress qos sap-ingress overrides queue *reference* rate |
| Tree | rate |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **cir** *(number | keyword)*

| | |
|---|---|
| Synopsis | CIR for the queue |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* ingress qos sap-ingress overrides queue *reference* rate cir *(number \| keyword)* |
| Tree | cir |


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| | |
|---|---|
| Range | 0 to 2000000000 |
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | PIR for the queue |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* ingress qos sap-ingress overrides queue *reference* rate pir *(number | keyword)* |
| Tree | pir |
| Range | 1 to 2000000000 |
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **stat-mode** *keyword*

| | |
|---|---|
| Synopsis | Stat mode for the policer |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* ingress qos sap-ingress overrides queue *reference* stat-mode *keyword* |
| Tree | stat-mode |
| Options | v4-v6 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **policy-name** *reference*

| | |
|---|---|
| Synopsis | SAP-ingress QoS policy |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* ingress qos sap-ingress policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos sap-ingress *qos-policy-name* |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **queuing-type** *keyword*

| | |
|---|---|
| Synopsis | Queuing type |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* ingress qos sap-ingress queuing-type *keyword* |
| Tree | queuing-type |
| Options | service, shared, multipoint-shared |
| Default | service |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **report-rate**

| | |
|---|---|
| Synopsis | Enter the **report-rate** context |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* ingress report-rate |
| Tree | report-rate |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **agg-rate**

| | |
|---|---|
| Synopsis | Report the aggregate rate |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* ingress report-rate agg-rate |
| Tree | agg-rate |
| Notes | The following elements are part of a choice: **agg-rate**, **policer**, **pppoe-actual-rate**, **rfc5515-actual-rate**, or **scheduler**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **policer** *number*

| | |
|---|---|
| Synopsis | Report the rate of the specified policer |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* ingress report-rate policer *number* |


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| | |
|---|---|
| Tree | policer |
| Range | 1 to 63 |
| Notes | The following elements are part of a choice: **agg-rate**, **policer**, **pppoe-actual-rate**, **rfc5515-actual-rate**, or **scheduler**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## pppoe-actual-rate

| | |
|---|---|
| Synopsis | Report rate from the DSL characteristics PPPoE tags |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* ingress report-rate pppoe-actual-rate |
| Tree | pppoe-actual-rate |
| Notes | The following elements are part of a choice: **agg-rate**, **policer**, **pppoe-actual-rate**, **rfc5515-actual-rate**, or **scheduler**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## rfc5515-actual-rate

| | |
|---|---|
| Synopsis | Report the rate as specified in RFC 5515 |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* ingress report-rate rfc5515-actual-rate |
| Tree | rfc5515-actual-rate |
| Notes | The following elements are part of a choice: **agg-rate**, **policer**, **pppoe-actual-rate**, **rfc5515-actual-rate**, or **scheduler**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## scheduler *named-item*

| | |
|---|---|
| Synopsis | Report the rate of the specified scheduler |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* ingress report-rate scheduler *named-item* |
| Tree | scheduler |
| String length | 1 to 32 |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **agg-rate**, **policer**, **pppoe-actual-rate**, **rfc5515-actual-rate**, or **scheduler**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## one-time-http-redirection

| | |
|---|---|
| Synopsis | Enter the **one-time-http-redirection** context |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* one-time-http-redirection |
| Tree | one-time-http-redirection |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ip-filter *reference*

| | |
|---|---|
| Synopsis | IPv4 filter policy name |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* one-time-http-redirection ip-filter *reference* |
| Tree | ip-filter |
| Reference | **configure** filter ip-filter *filter-name* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## pfcp-mappings

| | |
|---|---|
| Synopsis | Enter the **pfcp-mappings** context |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* pfcp-mappings |
| Tree | pfcp-mappings |
| Description | Commands in this context configure the mapping of packet forwarding control protocol (PFCP) QoS IEs (such as QoS enforcement rule (QER) GBR/MBR IEs), to local QoS overrides (such as queue and policer rates). |
| Introduced | 21.10.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## session-qer

| | |
|---|---|
| Synopsis | Enter the **session-qer** context |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* pfcp-mappings session-qer |
| Tree | session-qer |
| Description | Commands in this context configure the mapping of the PFCP session QER rate to the local QoS rate.<br>If a signaled PFCP QER rate applies to all data-plane rules, it is interpreted as the session QER rate and is mapped to the QoS overrides in the configuration. Examples of such QER rates are APN-AMBR for 4G FWA sessions and session-AMBR for 5G FWA sessions.<br>A QER that contains a QER correlation ID does not use the QER mapping because it is assumed not to be a per-session construct. |
| Introduced | 21.10.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## downlink

| | |
|---|---|
| Synopsis | Enter the **downlink** context |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* pfcp-mappings session-qer downlink |
| Tree | downlink |
| Description | Commands in this context configure the downlink MBR/GBR to QoS override mapping. |
| Introduced | 21.10.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## aggregate-rate

| | |
|---|---|
| Synopsis | Map MBR/GBR to a rate override for the aggregate rate |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* pfcp-mappings session-qer downlink aggregate-rate |
| Tree | aggregate-rate |
| Notes | The following elements are part of a choice: **aggregate-rate**, **arbiter**, **policer**, **queue**, or **scheduler**. |
| Introduced | 21.10.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **arbiter** *named-item*

| | |
|---|---|
| Synopsis | Arbiter target of MBR/GBR override |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* pfcp-mappings session-qer downlink arbiter *named-item* |
| Tree | arbiter |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **aggregate-rate**, **arbiter**, **policer**, **queue**, or **scheduler**. |
| Introduced | 21.10.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **policer** *number*

| | |
|---|---|
| Synopsis | Policer target of MBR/GBR override |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* pfcp-mappings session-qer downlink policer *number* |
| Tree | policer |
| Range | 1 to 8 |
| Notes | The following elements are part of a choice: **aggregate-rate**, **arbiter**, **policer**, **queue**, or **scheduler**. |
| Introduced | 21.10.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **queue** *number*

| | |
|---|---|
| Synopsis | Queue target of MBR/GBR override |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* pfcp-mappings session-qer downlink queue *number* |
| Tree | queue |
| Range | 1 to 8 |
| Notes | The following elements are part of a choice: **aggregate-rate**, **arbiter**, **policer**, **queue**, or **scheduler**. |
| Introduced | 21.10.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **scheduler** *named-item*

| | |
|---|---|
| Synopsis | Scheduler target of MBR/GBR override |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* pfcp-mappings session-qer downlink scheduler *named-item* |
| Tree | scheduler |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **aggregate-rate**, **arbiter**, **policer**, **queue**, or **scheduler**. |
| Introduced | 21.10.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **uplink**

| | |
|---|---|
| Synopsis | Enter the **uplink** context |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* pfcp-mappings session-qer uplink |
| Tree | uplink |
| Description | Commands in this context configure the uplink MBR/GBR to QoS override mapping. |
| Introduced | 21.10.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **arbiter** *named-item*

| | |
|---|---|
| Synopsis | Arbiter target of MBR/GBR override |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* pfcp-mappings session-qer uplink arbiter *named-item* |
| Tree | arbiter |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **arbiter**, **policer**, **queue**, or **scheduler**. |
| Introduced | 21.10.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **policer** *number*

| | |
|---|---|
| Synopsis | Policer target of MBR/GBR override |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* pfcp-mappings session-qer uplink policer *number* |
| Tree | policer |
| Range | 1 to 63 |
| Notes | The following elements are part of a choice: **arbiter**, **policer**, **queue**, or **scheduler**. |
| Introduced | 21.10.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **queue** *number*

| | |
|---|---|
| Synopsis | Queue target of MBR/GBR override |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* pfcp-mappings session-qer uplink queue *number* |
| Tree | queue |
| Range | 1 to 32 |
| Notes | The following elements are part of a choice: **arbiter**, **policer**, **queue**, or **scheduler**. |
| Introduced | 21.10.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **scheduler** *named-item*

| | |
|---|---|
| Synopsis | Scheduler target of MBR/GBR override |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* pfcp-mappings session-qer uplink scheduler *named-item* |
| Tree | scheduler |
| String length | 1 to 32 |
| Notes | The following elements are part of a choice: **arbiter**, **policer**, **queue**, or **scheduler**. |
| Introduced | 21.10.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **session-limits**

| | |
|---|---|
| Synopsis | Enter the **session-limits** context |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* session-limits |
| Tree | session-limits |
| Introduced | 20.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ipoe** *number*

| | |
|---|---|
| Synopsis | Maximum number of IPoE sessions |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* session-limits ipoe *number* |
| Tree | ipoe |
| Description | This command configures the maximum number of IPoE sessions per SLA profile instance. |
| Range | 0 to 131071 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **l2tp**

| | |
|---|---|
| Synopsis | Enter the **l2tp** context |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* session-limits l2tp |
| Tree | l2tp |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **lns** *number*

| | |
|---|---|
| Synopsis | Maximum number of L2TP LNS sessions |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* session-limits l2tp lns *number* |
| Tree | lns |
| Description | This command configures the maximum number of L2TP LNS sessions per SLA profile instance. |
| Range | 0 to 131071 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **lts** *number*

| | |
|---|---|
| Synopsis | Maximum number of L2TP LTS sessions |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* session-limits l2tp lts *number* |
| Tree | lts |
| Description | This command configures the maximum number of L2TP LTS sessions per SLA profile instance. |
| Range | 0 to 131071 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **overall** *number*

| | |
|---|---|
| Synopsis | Maximum number of L2TP sessions |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* session-limits l2tp overall *number* |
| Tree | overall |
| Description | This command configures the maximum number of L2TP sessions per SLA profile instance. |
| Range | 0 to 131071 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **overall** *number*

| | |
|---|---|
| Synopsis | Maximum number of subscriber sessions |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* session-limits overall *number* |
| Tree | overall |
| Range | 0 to 131071 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **pppoe**

| | |
|---|---|
| Synopsis | Enter the **pppoe** context |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* session-limits pppoe |
| Tree | pppoe |


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| | |
|---|---|
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **lac** *number*

| | |
|---|---|
| Synopsis | Maximum number of PPPoE L2TP LAC sessions |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* session-limits pppoe lac *number* |
| Tree | lac |
| Description | This command configures the maximum number of PPPoE L2TP LAC sessions per SLA profile instance. |
| Range | 0 to 131071 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **local** *number*

| | |
|---|---|
| Synopsis | Maximum number of PPPoE local terminated sessions |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* session-limits pppoe local *number* |
| Tree | local |
| Description | This command configures the maximum number of PPPoE local terminated sessions (PTA) per SLA profile instance. |
| Range | 0 to 131071 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **overall** *number*

| | |
|---|---|
| Synopsis | Maximum number of PPPoE sessions |
| Context | **configure** subscriber-mgmt sla-profile *external-named-item* session-limits pppoe overall *number* |
| Tree | overall |
| Description | This command configures the maximum number of PPPoE sessions per SLA profile instance. |
| Range | 0 to 131071 |
| Introduced | 20.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **steering-profile** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **steering-profile** list instance |
| Context | **configure** subscriber-mgmt steering-profile *named-item* |
| Tree | steering-profile |
| Max. instances | 32 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | Steering profile name |
| Context | **configure** subscriber-mgmt steering-profile *named-item* |
| Tree | steering-profile |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **access**

| | |
|---|---|
| Synopsis | Enter the **access** context |
| Context | **configure** subscriber-mgmt steering-profile *named-item* access |
| Tree | access |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **router-instance** *string*

| | |
|---|---|
| Synopsis | Router instance to be used as an access VAS router |
| Context | **configure** subscriber-mgmt steering-profile *named-item* access router-instance *string* |
| Tree | router-instance |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** subscriber-mgmt steering-profile *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **network**

| | |
|---|---|
| Synopsis | Enter the **network** context |
| Context | **configure** subscriber-mgmt steering-profile *named-item* network |
| Tree | network |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **next-hop** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Next-hop IP address used for network next-hop |
| Context | **configure** subscriber-mgmt steering-profile *named-item* network next-hop *ipv4-unicast-address* |
| Tree | next-hop |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **router-instance** *string*

| | |
|---|---|
| Synopsis | Router instance to be used as an access VAS router |
| Context | **configure** subscriber-mgmt steering-profile *named-item* network router-instance *string* |
| Tree | router-instance |
| Introduced | 16.0.R4 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sub-ident-policy** [name] *external-named-item*

| | |
|---|---|
| Synopsis | Enter the **sub-ident-policy** list instance |
| Context | **configure** subscriber-mgmt sub-ident-policy *external-named-item* |
| Tree | sub-ident-policy |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *external-named-item*

| | |
|---|---|
| Synopsis | Subscriber identification policy name |
| Context | **configure** subscriber-mgmt sub-ident-policy *external-named-item* |
| Tree | sub-ident-policy |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **app-profile-map**

| | |
|---|---|
| Synopsis | Enter the **app-profile-map** context |
| Context | **configure** subscriber-mgmt sub-ident-policy *external-named-item* app-profile-map |
| Tree | app-profile-map |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **entry** [app-profile-string] *string*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** subscriber-mgmt sub-ident-policy *external-named-item* app-profile-map entry *string* |
| Tree | entry |
| Introduced | 21.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**app-profile-string**] *string*

| | |
|---|---|
| Synopsis | Application profile string |
| Context | **configure** subscriber-mgmt sub-ident-policy *external-named-item* app-profile-map entry *string* |
| Tree | entry |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **app-profile** *reference*

| | |
|---|---|
| Synopsis | Application profile name |
| Context | **configure** subscriber-mgmt sub-ident-policy *external-named-item* app-profile-map entry *string* app-profile *reference* |
| Tree | app-profile |
| Reference | **configure** application-assurance group *number* partition *number* policy app-profile *named-item* |
| Notes | This element is mandatory. |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **use-direct-map-as-default** *boolean*

| | |
|---|---|
| Synopsis | Enable direct mapping of application profile as default |
| Context | **configure** subscriber-mgmt sub-ident-policy *external-named-item* app-profile-map use-direct-map-as-default *boolean* |
| Tree | use-direct-map-as-default |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** subscriber-mgmt sub-ident-policy *external-named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **primary**

| | |
|---|---|
| Synopsis | Enter the **primary** context |
| Context | **configure** subscriber-mgmt sub-ident-policy *external-named-item* primary |
| Tree | primary |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of script execution |
| Context | **configure** subscriber-mgmt sub-ident-policy *external-named-item* primary admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **script-url** *url*

| | |
|---|---|
| Synopsis | Identification script URL |
| Context | **configure** subscriber-mgmt sub-ident-policy *external-named-item* primary script-url *url* |
| Tree | script-url |
| String length | 1 to 180 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## secondary

| | |
|---|---|
| Synopsis | Enter the **secondary** context |
| Context | **configure** subscriber-mgmt sub-ident-policy *external-named-item* secondary |
| Tree | secondary |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of script execution |
| Context | **configure** subscriber-mgmt sub-ident-policy *external-named-item* secondary admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## script-url *url*

| | |
|---|---|
| Synopsis | Identification script URL |
| Context | **configure** subscriber-mgmt sub-ident-policy *external-named-item* secondary script-url *url* |
| Tree | script-url |
| String length | 1 to 180 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## sla-profile-map

| | |
|---|---|
| Synopsis | Enter the **sla-profile-map** context |
| Context | **configure** subscriber-mgmt sub-ident-policy *external-named-item* sla-profile-map |
| Tree | sla-profile-map |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **entry** [sla-profile-string] *string*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** subscriber-mgmt sub-ident-policy *external-named-item* sla-profile-map entry *string* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**sla-profile-string**] *string*

| | |
|---|---|
| Synopsis | SLA profile string |
| Context | **configure** subscriber-mgmt sub-ident-policy *external-named-item* sla-profile-map entry *string* |
| Tree | entry |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sla-profile** *reference*

| | |
|---|---|
| Synopsis | SLA profile |
| Context | **configure** subscriber-mgmt sub-ident-policy *external-named-item* sla-profile-map entry *string* sla-profile *reference* |
| Tree | sla-profile |
| Reference | **configure** subscriber-mgmt sla-profile *external-named-item* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **use-direct-map-as-default** *boolean*

| | |
|---|---|
| Synopsis | Allow direct mapping of SLA profile as default |
| Context | **configure** subscriber-mgmt sub-ident-policy *external-named-item* sla-profile-map use-direct-map-as-default *boolean* |
| Tree | use-direct-map-as-default |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **strings-from-option** *number*

| | |
|---|---|
| Synopsis | IPOE option to get the identification strings |
| Context | **configure** subscriber-mgmt sub-ident-policy *external-named-item* strings-from-option *number* |
| Tree | strings-from-option |
| Range | 1 to 254 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sub-profile-map**

| | |
|---|---|
| Synopsis | Enter the **sub-profile-map** context |
| Context | **configure** subscriber-mgmt sub-ident-policy *external-named-item* sub-profile-map |
| Tree | sub-profile-map |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **entry** [sub-profile-string] *string*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** subscriber-mgmt sub-ident-policy *external-named-item* sub-profile-map entry *string* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### [**sub-profile-string**] *string*

| | |
|---|---|
| Synopsis | Subscriber identification string |
| Context | **configure** subscriber-mgmt sub-ident-policy *external-named-item* sub-profile-map entry *string* |
| Tree | entry |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sub-profile** *reference*

| | |
|---|---|
| Synopsis | Subscriber profile |
| Context | **configure** subscriber-mgmt sub-ident-policy *external-named-item* sub-profile-map entry *string* sub-profile *reference* |
| Tree | sub-profile |
| Reference | **configure** subscriber-mgmt sub-profile *external-named-item* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **use-direct-map-as-default** *boolean*

| | |
|---|---|
| Synopsis | Allow direct mapping of subscriber profile as default |
| Context | **configure** subscriber-mgmt sub-ident-policy *external-named-item* sub-profile-map use-direct-map-as-default *boolean* |
| Tree | use-direct-map-as-default |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **tertiary**

| | |
|---|---|
| Synopsis | Enter the **tertiary** context |
| Context | **configure** subscriber-mgmt sub-ident-policy *external-named-item* tertiary |


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| | |
|---|---|
| Tree | tertiary |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of script execution |
| Context | **configure** subscriber-mgmt sub-ident-policy *external-named-item* tertiary admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **script-url** *url*

| | |
|---|---|
| Synopsis | Identification script URL |
| Context | **configure** subscriber-mgmt sub-ident-policy *external-named-item* tertiary script-url *url* |
| Tree | script-url |
| String length | 1 to 180 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sub-mcac-policy** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **sub-mcac-policy** list instance |
| Context | **configure** subscriber-mgmt sub-mcac-policy *named-item* |
| Tree | sub-mcac-policy |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | Policy name |
| Context | **configure** subscriber-mgmt sub-mcac-policy *named-item* |


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| | |
|---|---|
| Tree | sub-mcac-policy |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the subscriber MCAC policy |
| Context | **configure** subscriber-mgmt sub-mcac-policy *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

### **bandwidth**

| | |
|---|---|
| Synopsis | Enter the **bandwidth** context |
| Context | **configure** subscriber-mgmt sub-mcac-policy *named-item* bandwidth |
| Tree | bandwidth |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

### **mandatory** *(number | keyword)*

| | |
|---|---|
| Synopsis | Pre-reserved bandwidth for all mandatory channels |
| Context | **configure** subscriber-mgmt sub-mcac-policy *named-item* bandwidth mandatory *(number \| keyword)* |
| Tree | mandatory |
| Range | 0 to 2147483647 |
| Options | unlimited |
| Default | unlimited |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |


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### **total** *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum allowed bandwidth |
| Context | **configure** subscriber-mgmt sub-mcac-policy *named-item* bandwidth total *(number \| keyword)* |
| Tree | total |
| Range | 0 to 2147483647 |
| Options | unlimited |
| Default | unlimited |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** subscriber-mgmt sub-mcac-policy *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

### **sub-profile** [name] *external-named-item*

| | |
|---|---|
| Synopsis | Enter the **sub-profile** list instance |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* |
| Tree | sub-profile |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**name**] *external-named-item*

| | |
|---|---|
| Synopsis | Subscriber profile name |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* |
| Tree | sub-profile |
| String length | 1 to 32 |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **accounting-policy** *reference*

| | |
|---|---|
| Synopsis | Accounting policy |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* accounting-policy *reference* |
| Tree | accounting-policy |
| Reference | **configure** log accounting-policy *number* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **accu-stats-policy** *reference*

| | |
|---|---|
| Synopsis | Accumulated statistics policy |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* accu-stats-policy *reference* |
| Tree | accu-stats-policy |
| Reference | **configure** subscriber-mgmt accu-stats-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **alternate-sub-profile** *reference*

| | |
|---|---|
| Synopsis | Alternate subscriber profile to use if threshold is hit |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* alternate-sub-profile *reference* |
| Tree | alternate-sub-profile |
| Description | This command configures the alternate subscriber profile to use if the system meets any of the thresholds configured using the **configure subscriber-management alternate-profile-threshold** command. In this case, the alternate subscriber profile is used instead of the current profile.<br>When unconfigured, the current profile is used even if threshold conditions apply. |
| Reference | **configure** subscriber-mgmt sub-profile *external-named-item* |
| Introduced | 24.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ancp

| | |
|---|---|
| Synopsis | Enter the **ancp** context |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* ancp |
| Tree | ancp |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ancp-policy *reference*

| | |
|---|---|
| Synopsis | ANCP policy for this subscriber profile |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* ancp ancp-policy *reference* |
| Tree | ancp-policy |
| Reference | **configure** subscriber-mgmt ancp ancp-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## collect-stats *boolean*

| | |
|---|---|
| Synopsis | Collect statistics |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* collect-stats *boolean* |
| Tree | collect-stats |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## control

| | |
|---|---|
| Synopsis | Enter the **control** context |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* control |
| Tree | control |
| Description | Commands in this context determine which sessions can use the subscriber profile. |


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By default, only sessions set up by the local system can use the profile, however, the profile can also be enabled for sessions set up by a BNG CUPS CPF.

| | |
|---|---|
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **cups** *boolean*

| | |
|---|---|
| Synopsis | Allow the CUPS control plane to use the profile |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* control cups *boolean* |
| Tree | cups |
| Description | When configured to **true**, the profile can be used by sessions set up by a BNG CUPS Control Plane Function (CPF). |
| Default | false |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **local** *boolean*

| | |
|---|---|
| Synopsis | Allow the local control plane to use the profile |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* control local *boolean* |
| Tree | local |
| Description | When configured to **true**, the profile can be used by sessions set up by the local system. |
| Default | true |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### egress

| | |
|---|---|
| Synopsis | Enter the **egress** context |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* egress |
| Tree | egress |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### lag-per-link-hash

| | |
|---|---|
| Synopsis | Enter the **lag-per-link-hash** context |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* egress lag-per-link-hash |
| Tree | lag-per-link-hash |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### class *number*

| | |
|---|---|
| Synopsis | Class used to select a LAG link |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* egress lag-per-link-hash class *number* |
| Tree | class |
| Range | 1 to 3 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### weight *number*

| | |
|---|---|
| Synopsis | Weight associated with SAP when selecting a LAG link |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* egress lag-per-link-hash weight *number* |
| Tree | weight |
| Range | 1 to 1024 |
| Default | 1 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## qos

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* egress qos |
| Tree | qos |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## agg-rate

| | |
|---|---|
| Synopsis | Enter the **agg-rate** context |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* egress qos agg-rate |
| Tree | agg-rate |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## adaptation-rule *keyword*

| | |
|---|---|
| Synopsis | Adaptation rule for operational PIR value of subscriber |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* egress qos agg-rate adaptation-rule *keyword* |
| Tree | adaptation-rule |
| Description | This command configures the adaptation rule for the PIR value of the subscriber aggregate rate. This rule determines which configured value is adapted to **oper-agg-rate** based on hardware capabilities. |
| Options | max, min, closest |
| Default | closest |
| Introduced | 21.7.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

## burst-limit *(number | keyword)*

| | |
|---|---|
| Synopsis | Burst limit of the subscriber aggregate rate |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* egress qos agg-rate burst-limit *(number \| keyword)* |
| Tree | burst-limit |
| Range | 1 to 14000000 |
| Units | bytes |
| Options | auto |
| Default | auto |
| Introduced | 21.7.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s |

### **min-resv-bw** *number*

| | |
|---|---|
| Synopsis | Reserved minimum total rate of all egress queues |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* egress qos agg-rate min-resv-bw *number* |
| Tree | min-resv-bw |
| Range | 0 to 800000000 |
| Units | kilobps |
| Default | 1 |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **queue-frame-based-accounting** *boolean*

| | |
|---|---|
| Synopsis | Use frame-based accounting to evaluate rate limit |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* egress qos agg-rate queue-frame-based-accounting *boolean* |
| Tree | queue-frame-based-accounting |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **rate** *number*

| | |
|---|---|
| Synopsis | Maximum total rate of all egress queues |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* egress qos agg-rate rate *number* |
| Tree | rate |
| Range | 1 to 800000000 |
| Units | kilobps |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## encap-offset

| | |
|---|---|
| Synopsis | Enable the **encap-offset** context |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* egress qos encap-offset |
| Tree | encap-offset |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## type *keyword*

| | |
|---|---|
| Synopsis | Offset type |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* egress qos encap-offset type *keyword* |
| Tree | type |
| Options | pppoa-llc, pppoa-null, pppoeoa-llc, pppoeoa-llc-fcs, pppoeoa-llc-tagged, pppoeoa-llc-tagged-fcs, pppoeoa-null, pppoeoa-null-fcs, pppoeoa-null-tagged, pppoeoa-null-tagged-fcs, ipoa-llc, ipoa-null, ipoeoa-llc, ipoeoa-llc-fcs, ipoeoa-llc-tagged, ipoeoa-llc-tagged-fcs, ipoeoa-null, ipoeoa-null-fcs, ipoeoa-null-tagged, ipoeoa-null-tagged-fcs, pppoe, pppoe-tagged, ipoe, ipoe-tagged |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## hs-agg-rate *number*

| | |
|---|---|
| Synopsis | Maximum rate for single egress HS queues |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* egress qos hs-agg-rate *number* |
| Tree | hs-agg-rate |
| Range | 1 to 100000000 |


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| | |
|---|---|
| Units | kilobps |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |

### **hs-low-burst-max-class** *number*

| | |
|---|---|
| Synopsis | Scheduling classes to map the low burst limit threshold |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* egress qos hs-low-burst-max-class *number* |
| Tree | hs-low-burst-max-class |
| Range | 1 to 6 |
| Default | 6 |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR-7/12/12e |

### **hs-min-resv-bw** *number*

| | |
|---|---|
| Synopsis | Reserved minimum total rate of all egress queues |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* egress qos hs-min-resv-bw *number* |
| Tree | hs-min-resv-bw |
| Range | 0 to 100000000 |
| Units | kilobps |
| Default | 1 |
| Introduced | 19.10.R1 |
| Platforms | 7750 SR-7/12/12e |

### **policer-control-policy**

| | |
|---|---|
| Synopsis | Enter the **policer-control-policy** context |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* egress qos policer-control-policy |
| Tree | policer-control-policy |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## overrides

| | |
|---|---|
| Synopsis | Enter the **overrides** context |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* egress qos policer-control-policy overrides |
| Tree | overrides |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## root

| | |
|---|---|
| Synopsis | Enable the **root** context |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* egress qos policer-control-policy overrides root |
| Tree | root |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## max-rate *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum rate |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* egress qos policer-control-policy overrides root max-rate *(number \| keyword)* |
| Tree | max-rate |
| Range | 1 to 2000000000 |
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## priority-mbs-thresholds

| | |
|---|---|
| Synopsis | Enter the **priority-mbs-thresholds** context |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* egress qos policer-control-policy overrides root priority-mbs-thresholds |
| Tree | priority-mbs-thresholds |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **min-thresh-separation** *(number | keyword)*

| | |
|---|---|
| Synopsis | Minimum threshold separation |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* egress qos policer-control-policy overrides root priority-mbs-thresholds min-thresh-separation *(number | keyword)* |
| Tree | min-thresh-separation |
| Range | 0 to 16777216 |
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **priority** [level] *number*

| | |
|---|---|
| Synopsis | Enter the **priority** list instance |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* egress qos policer-control-policy overrides root priority-mbs-thresholds priority *number* |
| Tree | priority |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**level**] *number*

| | |
|---|---|
| Synopsis | Strict priority level |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* egress qos policer-control-policy overrides root priority-mbs-thresholds priority *number* |
| Tree | priority |
| Range | 1 to 8 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **mbs-contribution** *(number | keyword)*

| | |
|---|---|
| Synopsis | MBS size |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* egress qos policer-control-policy overrides root priority-mbs-thresholds priority *number* mbs-contribution *(number \| keyword)* |
| Tree | mbs-contribution |
| Range | 0 to 16777216 |
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **policy-name** *reference*

| | |
|---|---|
| Synopsis | Policer control policy name |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* egress qos policer-control-policy policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos policer-control-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **scheduler-policy**

| | |
|---|---|
| Synopsis | Enter the **scheduler-policy** context |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* egress qos scheduler-policy |
| Tree | scheduler-policy |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **overrides**

| | |
|---|---|
| Synopsis | Enter the **overrides** context |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* egress qos scheduler-policy overrides |


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| | |
|---|---|
| Tree | overrides |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **scheduler** [scheduler-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **scheduler** list instance |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* egress qos scheduler-policy overrides scheduler *reference* |
| Tree | scheduler |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**scheduler-name**] *reference*

| | |
|---|---|
| Synopsis | Scheduler policy name |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* egress qos scheduler-policy overrides scheduler *reference* |
| Tree | scheduler |
| Reference | **configure** qos scheduler-policy *named-item* tier *number* scheduler *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **rate**

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* egress qos scheduler-policy overrides scheduler *reference* rate |
| Tree | rate |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **cir** *(number | keyword)*

| | |
|---|---|
| Synopsis | CIR to override administrative CIR used by scheduler |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* egress qos scheduler-policy overrides scheduler *reference* rate cir *(number \| keyword)* |
| Tree | cir |
| Range | 0 to 3200000000 |
| Units | kilobps |
| Options | sum, max |
| Default | sum |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | PIR to override administrative PIR used by scheduler |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* egress qos scheduler-policy overrides scheduler *reference* rate pir *(number \| keyword)* |
| Tree | pir |
| Range | 1 to 3200000000 |
| Units | kilobps |
| Options | max |
| Default | max |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **policy-name** *reference*

| | |
|---|---|
| Synopsis | Scheduler policy name |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* egress qos scheduler-policy policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos scheduler-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **firewall-policy** *reference*

| | |
|---|---|
| Synopsis | Firewall policy |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* firewall-policy *reference* |
| Tree | firewall-policy |
| Reference | **configure** service nat firewall-policy *external-named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## host-limits

| | |
|---|---|
| Synopsis | Enter the **host-limits** context |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* host-limits |
| Tree | host-limits |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ipv4

| | |
|---|---|
| Synopsis | Enter the **ipv4** context |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* host-limits ipv4 |
| Tree | ipv4 |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## arp *number*

| | |
|---|---|
| Synopsis | Maximum number of IPv4 ARP hosts |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* host-limits ipv4 arp *number* |
| Tree | arp |
| Description | This command configures the maximum number of IPv4 ARP hosts per subscriber instance.<br>The operational maximum value may be smaller due to equipped hardware dependencies. |
| Range | 0 to 131071 |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **dhcp** *number*

| | |
|---|---|
| Synopsis | Maximum number of IPv4 DHCP hosts |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* host-limits ipv4 dhcp *number* |
| Tree | dhcp |
| Description | This command configures the maximum number of IPv4 DHCP hosts per subscriber instance.<br>The operational maximum value may be smaller due to equipped hardware dependencies. |
| Range | 0 to 131071 |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **overall** *number*

| | |
|---|---|
| Synopsis | Maximum number of IPv4 hosts |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* host-limits ipv4 overall *number* |
| Tree | overall |
| Description | This command configures the maximum number of IPv4 hosts per subscriber instance.<br>The operational maximum value may be smaller due to equipped hardware dependencies. |
| Range | 0 to 131071 |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ppp** *number*

| | |
|---|---|
| Synopsis | Maximum number of IPv4 PPP hosts |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* host-limits ipv4 ppp *number* |
| Tree | ppp |
| Description | This command configures the maximum number of IPv4 PPP hosts per subscriber instance.<br>The operational maximum value may be smaller due to equipped hardware dependencies. |


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| | |
|---|---|
| Range | 0 to 131071 |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## ipv6

| | |
|---|---|
| Synopsis | Enter the **ipv6** context |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* host-limits ipv6 |
| Tree | ipv6 |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## overall *number*

| | |
|---|---|
| Synopsis | Maximum number of IPv6 hosts |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* host-limits ipv6 overall *number* |
| Tree | overall |
| Description | This command configures the maximum number of IPv6 hosts per subscriber instance.<br>The operational maximum value may be smaller due to equipped hardware dependencies. |
| Range | 0 to 131071 |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## pd-ipoe-dhcp *number*

| | |
|---|---|
| Synopsis | Maximum number of IPv6 IPoE DHCP PD hosts |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* host-limits ipv6 pd-ipoe-dhcp *number* |
| Tree | pd-ipoe-dhcp |
| Description | This command configures the maximum number of IPv6 IPoE DHCP Prefix Delegation hosts (IA-PD) per subscriber instance.<br>The operational maximum value may be smaller due to equipped hardware dependencies. |
| Range | 0 to 131071 |


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| | |
|---|---|
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **pd-overall** *number*

| | |
|---|---|
| Synopsis | Maximum number of IPv6 DHCP PD hosts |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* host-limits ipv6 pd-overall *number* |
| Tree | pd-overall |
| Description | The command configures the maximum number of IPv6 DHCP Prefix Delegation hosts (IA-PD) per subscriber instance.<br>The operational maximum value may be smaller due to equipped hardware dependencies. |
| Range | 0 to 131071 |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **pd-ppp-dhcp** *number*

| | |
|---|---|
| Synopsis | Maximum number of IPv6 PPPoE DHCP PD hosts |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* host-limits ipv6 pd-ppp-dhcp *number* |
| Tree | pd-ppp-dhcp |
| Description | This command configures the maximum number of IPv6 PPPoE DHCP Prefix Delegation hosts (IA-PD) per subscriber instance.<br>The operational maximum value may be smaller due to equipped hardware dependencies. |
| Range | 0 to 131071 |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **wan-ipoe-dhcp** *number*

| | |
|---|---|
| Synopsis | Maximum number of IPv6 IPoE DHCP WAN hosts |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* host-limits ipv6 wan-ipoe-dhcp *number* |
| Tree | wan-ipoe-dhcp |


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| | |
|---|---|
| Description | This command configures the maximum number of IPv6 IPoE DHCP WAN hosts (IA-NA) per subscriber instance.<br>The operational maximum value may be smaller due to equipped hardware dependencies. |
| Range | 0 to 131071 |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **wan-ipoe-slaac** *number*

| | |
|---|---|
| Synopsis | Maximum number of IPv6 IPoE SLAAC WAN hosts |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* host-limits ipv6 wan-ipoe-slaac *number* |
| Tree | wan-ipoe-slaac |
| Description | This command configures the maximum number of IPv6 IPoE SLAAC WAN hosts per subscriber instance.<br>The operational maximum value may be smaller due to equipped hardware dependencies. |
| Range | 0 to 131071 |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **wan-overall** *number*

| | |
|---|---|
| Synopsis | Maximum number of IPv6 WAN hosts |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* host-limits ipv6 wan-overall *number* |
| Tree | wan-overall |
| Description | This command configures the maximum number of IPv6 WAN hosts per subscriber instance.<br>The operational maximum value may be smaller due to equipped hardware dependencies. |
| Range | 0 to 131071 |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **wan-ppp-dhcp** *number*

| | |
|---|---|
| Synopsis | Maximum number of IPv6 PPPoE DHCP WAN hosts |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* host-limits ipv6 wan-ppp-dhcp *number* |
| Tree | wan-ppp-dhcp |
| Description | This command configures the maximum number of IPv6 PPPoE DHCP WAN hosts per subscriber instance.<br>The operational maximum value may be smaller due to equipped hardware dependencies. |
| Range | 0 to 131071 |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **wan-ppp-slaac** *number*

| | |
|---|---|
| Synopsis | Maximum number of IPv6 PPPoE SLAAC WAN hosts |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* host-limits ipv6 wan-ppp-slaac *number* |
| Tree | wan-ppp-slaac |
| Description | This command configures the maximum number of IPv6 PPPoE SLAAC WAN hosts per subscriber instance.<br>The operational maximum value may be smaller due to equipped hardware dependencies. |
| Range | 0 to 131071 |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **lac-overall** *number*

| | |
|---|---|
| Synopsis | Maximum number of L2TP LAC hosts |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* host-limits lac-overall *number* |
| Tree | lac-overall |
| Description | This command configures the maximum number of L2TP LAC hosts per subscriber instance.<br>The operational maximum value may be smaller due to equipped hardware dependencies. |


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| | |
|---|---|
| Range | 0 to 131071 |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **overall** *number*

| | |
|---|---|
| Synopsis | Maximum number of subscriber hosts |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* host-limits overall *number* |
| Tree | overall |
| Description | This command configures the maximum number of subscriber hosts per subscriber instance.<br>The operational maximum value may be smaller due to equipped hardware dependencies. |
| Range | 1 to 131071 |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **host-tracking-policy** *reference*

| | |
|---|---|
| Synopsis | Host tracking policy |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* host-tracking-policy *reference* |
| Tree | host-tracking-policy |
| Reference | **configure** subscriber-mgmt host-tracking-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **hs-sla-mode** *keyword*

| | |
|---|---|
| Synopsis | HS board subscriber SLA mode |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* hs-sla-mode *keyword* |
| Tree | hs-sla-mode |
| Options | expanded, single |
| Default | expanded |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-7/12/12e |


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## **igmp-policy** *reference*

| | |
|---|---|
| Synopsis | IGMP policy |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* igmp-policy *reference* |
| Tree | igmp-policy |
| Reference | **configure** subscriber-mgmt igmp-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **ingress**

| | |
|---|---|
| Synopsis | Enter the **ingress** context |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* ingress |
| Tree | ingress |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **qos**

| | |
|---|---|
| Synopsis | Enter the **qos** context |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* ingress qos |
| Tree | qos |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **policer-control-policy**

| | |
|---|---|
| Synopsis | Enter the **policer-control-policy** context |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* ingress qos policer-control-policy |
| Tree | policer-control-policy |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## overrides

| | |
|---|---|
| Synopsis | Enter the **overrides** context |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* ingress qos policer-control-policy overrides |
| Tree | overrides |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## root

| | |
|---|---|
| Synopsis | Enable the **root** context |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* ingress qos policer-control-policy overrides root |
| Tree | root |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## max-rate *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum rate |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* ingress qos policer-control-policy overrides root max-rate *(number \| keyword)* |
| Tree | max-rate |
| Range | 1 to 2000000000 |
| Units | kilobps |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## priority-mbs-thresholds

| | |
|---|---|
| Synopsis | Enter the **priority-mbs-thresholds** context |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* ingress qos policer-control-policy overrides root priority-mbs-thresholds |
| Tree | priority-mbs-thresholds |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **min-thresh-separation** *(number | keyword)*

| | |
|---|---|
| Synopsis | Minimum threshold separation |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* ingress qos policer-control-policy overrides root priority-mbs-thresholds min-thresh-separation *(number | keyword)* |
| Tree | min-thresh-separation |
| Range | 0 to 16777216 |
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **priority** [level] *number*

| | |
|---|---|
| Synopsis | Enter the **priority** list instance |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* ingress qos policer-control-policy overrides root priority-mbs-thresholds priority *number* |
| Tree | priority |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**level**] *number*

| | |
|---|---|
| Synopsis | Strict priority level |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* ingress qos policer-control-policy overrides root priority-mbs-thresholds priority *number* |
| Tree | priority |
| Range | 1 to 8 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **mbs-contribution** *(number | keyword)*

| | |
|---|---|
| Synopsis | MBS size |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* ingress qos policer-control-policy overrides root priority-mbs-thresholds priority *number* mbs-contribution *(number \| keyword)* |
| Tree | mbs-contribution |
| Range | 0 to 16777216 |
| Units | bytes |
| Options | auto |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **policy-name** *reference*

| | |
|---|---|
| Synopsis | Policer control policy name |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* ingress qos policer-control-policy policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos policer-control-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **scheduler-policy**

| | |
|---|---|
| Synopsis | Enter the **scheduler-policy** context |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* ingress qos scheduler-policy |
| Tree | scheduler-policy |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **overrides**

| | |
|---|---|
| Synopsis | Enter the **overrides** context |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* ingress qos scheduler-policy overrides |


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| | |
|---|---|
| Tree | overrides |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **scheduler** [scheduler-name] *reference*

| | |
|---|---|
| Synopsis | Enter the **scheduler** list instance |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* ingress qos scheduler-policy overrides scheduler *reference* |
| Tree | scheduler |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**scheduler-name**] *reference*

| | |
|---|---|
| Synopsis | Scheduler policy name |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* ingress qos scheduler-policy overrides scheduler *reference* |
| Tree | scheduler |
| Reference | **configure** qos scheduler-policy *named-item* tier *number* scheduler *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **rate**

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* ingress qos scheduler-policy overrides scheduler *reference* rate |
| Tree | rate |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **cir** *(number | keyword)*

| | |
|---|---|
| Synopsis | CIR to override administrative CIR used by scheduler |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* ingress qos scheduler-policy overrides scheduler *reference* rate cir *(number \| keyword)* |
| Tree | cir |
| Range | 0 to 3200000000 |
| Units | kilobps |
| Options | sum, max |
| Default | sum |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | PIR to override administrative PIR used by scheduler |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* ingress qos scheduler-policy overrides scheduler *reference* rate pir *(number \| keyword)* |
| Tree | pir |
| Range | 1 to 3200000000 |
| Units | kilobps |
| Options | max |
| Default | max |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **policy-name** *reference*

| | |
|---|---|
| Synopsis | Scheduler policy name |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* ingress qos scheduler-policy policy-name *reference* |
| Tree | policy-name |
| Reference | **configure** qos scheduler-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **mld-policy** *reference*

| | |
|---|---|
| Synopsis | MLD policy |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* mld-policy *reference* |
| Tree | mld-policy |
| Reference | **configure** subscriber-mgmt mld-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## nat

| | |
|---|---|
| Synopsis | Enter the **nat** context |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* nat |
| Tree | nat |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## access-mode *keyword*

| | |
|---|---|
| Synopsis | The subscriber NAT access mode |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* nat access-mode *keyword* |
| Tree | access-mode |
| Options | auto – Automatically derived from the access SAP's anti-spoof type<br>bridged – Force to bridged mode |
| Default | auto |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## allow-bypass *boolean*

| | |
|---|---|
| Synopsis | Allow traffic to bypass NAT |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* nat allow-bypass *boolean* |
| Tree | allow-bypass |
| Description | When configured to **true**, the system enables L2-Aware NAT subscribers for NAT bypass. When enabled, the IP filter configuration applied in the subscriber profile determines whether the traffic is bypassed.<br>When configured to **false**, traffic is subject to L2-Aware NAT operation. |
| Default | false |
| Introduced | 20.5.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **policy** *reference*

| | |
|---|---|
| Synopsis | NAT policy associated with the subscriber profile |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* nat policy *reference* |
| Tree | policy |
| Reference | **configure** service nat nat-policy *external-named-item* |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **prefix-list** *reference*

| | |
|---|---|
| Synopsis | NAT prefix list name |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* nat prefix-list *reference* |
| Tree | prefix-list |
| Reference | **configure** service nat prefix-list *named-item* |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **pim-policy** *reference*

| | |
|---|---|
| Synopsis | Protocol Independent Multicast (PIM) policy |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* pim-policy *reference* |
| Tree | pim-policy |
| Reference | **configure** subscriber-mgmt pim-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **preference** *number*

| | |
|---|---|
| Synopsis | Relative preference value for the subscriber profile |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* preference *number* |
| Tree | preference |
| Range | 1 to 10 |


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| | |
|---|---|
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## radius-accounting

| | |
|---|---|
| Synopsis | Enter the **radius-accounting** context |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* radius-accounting |
| Tree | radius-accounting |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## policy *reference*

| | |
|---|---|
| Synopsis | RADIUS accounting policies |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* radius-accounting policy *reference* |
| Tree | policy |
| Reference | **configure** subscriber-mgmt radius-accounting-policy *named-item* |
| Max. instances | 5 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## session-optimized-stop *boolean*

| | |
|---|---|
| Synopsis | Optimize PPPoE session accounting stop behavior |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* radius-accounting session-optimized-stop *boolean* |
| Tree | session-optimized-stop |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **secondary-shaper-hashing** *boolean*

| | |
|---|---|
| Synopsis | Include LAG hashing on secondary shaper |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* secondary-shaper-hashing *boolean* |
| Tree | secondary-shaper-hashing |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **session-limits**

| | |
|---|---|
| Synopsis | Enter the **session-limits** context |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* session-limits |
| Tree | session-limits |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ipoe** *number*

| | |
|---|---|
| Synopsis | Maximum number of IPoE sessions |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* session-limits ipoe *number* |
| Tree | ipoe |
| Description | This command configures the maximum number of IPoE sessions per subscriber instance. |
| Range | 0 to 131071 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **l2tp**

| | |
|---|---|
| Synopsis | Enter the **l2tp** context |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* session-limits l2tp |
| Tree | l2tp |
| Introduced | 20.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **lns** *number*

| | |
|---|---|
| Synopsis | Maximum number of L2TP LNS sessions |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* session-limits l2tp lns *number* |
| Tree | lns |
| Description | This command configures the maximum number of L2TP LNS sessions per subscriber instance. |
| Range | 0 to 131071 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **lts** *number*

| | |
|---|---|
| Synopsis | Maximum number of L2TP LTS sessions |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* session-limits l2tp lts *number* |
| Tree | lts |
| Description | This command configures the maximum number of L2TP LTS sessions per subscriber instance. |
| Range | 0 to 131071 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **overall** *number*

| | |
|---|---|
| Synopsis | Maximum number of L2TP sessions |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* session-limits l2tp overall *number* |
| Tree | overall |
| Description | This command configures the maximum number of L2TP sessions per subscriber instance. |
| Range | 0 to 131071 |
| Introduced | 20.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **overall** *number*

| | |
|---|---|
| Synopsis | Maximum number of subscriber sessions |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* session-limits overall *number* |
| Tree | overall |
| Description | This command configures the maximum number of subscriber sessions per subscriber instance. |
| Range | 0 to 131071 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **pppoe**

| | |
|---|---|
| Synopsis | Enter the **pppoe** context |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* session-limits pppoe |
| Tree | pppoe |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **lac** *number*

| | |
|---|---|
| Synopsis | Maximum number of PPPoE L2TP LAC sessions |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* session-limits pppoe lac *number* |
| Tree | lac |
| Description | This command configures the maximum number of PPPoE L2TP LAC sessions per subscriber instance. |
| Range | 0 to 131071 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **local** *number*

| | |
|---|---|
| Synopsis | Maximum number of PPPoE local-terminated sessions |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* session-limits pppoe local *number* |
| Tree | local |
| Description | This command configures the maximum number of PPPoE local-terminated sessions (PTA) per subscriber instance. |
| Range | 0 to 131071 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **overall** *number*

| | |
|---|---|
| Synopsis | Maximum number of PPPoE sessions |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* session-limits pppoe overall *number* |
| Tree | overall |
| Description | This command configures the maximum number of PPPoE sessions per subscriber instance. |
| Range | 0 to 131071 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sla-profile-map**

| | |
|---|---|
| Synopsis | Enter the **sla-profile-map** context |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* sla-profile-map |
| Tree | sla-profile-map |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **entry** [sla-profile-string] *string*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* sla-profile-map entry *string* |


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| | |
|---|---|
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**sla-profile-string**] *string*

| | |
|---|---|
| Synopsis | SLA profile string |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* sla-profile-map entry *string* |
| Tree | entry |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sla-profile** *reference*

| | |
|---|---|
| Synopsis | SLA profile |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* sla-profile-map entry *string* sla-profile *reference* |
| Tree | sla-profile |
| Reference | **configure** subscriber-mgmt sla-profile *external-named-item* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **use-direct-map-as-default** *boolean*

| | |
|---|---|
| Synopsis | Allow direct mapping of SLA profile as default |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* sla-profile-map use-direct-map-as-default *boolean* |
| Tree | use-direct-map-as-default |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **sub-mcac-policy** *reference*

| | |
|---|---|
| Synopsis | Subscriber MCAC policy |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* sub-mcac-policy *reference* |
| Tree | sub-mcac-policy |
| Reference | **configure** subscriber-mgmt sub-mcac-policy *named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s |

### **upnp-policy** *reference*

| | |
|---|---|
| Synopsis | UPnP policy for the subscriber profile |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* upnp-policy *reference* |
| Tree | upnp-policy |
| Description | This command specifies the Universal Plug 'n Play policy (UPnP) IGD service for the subscriber profile. All ESM hosts of the subscriber can use the UPnP protocol to create port mapping. This feature only supports L2-Aware NAT hosts. The UPnP parameters are defined in the referenced UPnP policy configured in the **configure service upnp** context. |
| Reference | **configure** service upnp policy *external-named-item* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **volume-stats-type** *keyword*

| | |
|---|---|
| Synopsis | Include non-IP headers in the accounting statistics |
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* volume-stats-type *keyword* |
| Tree | volume-stats-type |
| Options | l2, ip |
| Default | l2 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **vport-hashing** *boolean*

| | |
|---|---|
| Synopsis | Include LAG hashing on Vport |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt sub-profile *external-named-item* vport-hashing *boolean* |
| Tree | vport-hashing |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## subscriber-interface-statistics

| | |
|---|---|
| Synopsis | Enter the **subscriber-interface-statistics** context |
| Context | **configure** subscriber-mgmt subscriber-interface-statistics |
| Tree | subscriber-interface-statistics |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state for statistics collection |
| Context | **configure** subscriber-mgmt subscriber-interface-statistics admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## svlan-statistics

| | |
|---|---|
| Synopsis | Enter the **svlan-statistics** context |
| Context | **configure** subscriber-mgmt svlan-statistics |
| Tree | svlan-statistics |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of statistics collection |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt svlan-statistics admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## system-behavior

| | |
|---|---|
| Synopsis | Enter the **system-behavior** context |
| Context | **configure** subscriber-mgmt system-behavior |
| Tree | system-behavior |
| Description | Commands in this context configure the attributes of system-wide subscriber management behavior. |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## legacy-dns-nbns *boolean*

| | |
|---|---|
| Synopsis | Restrict authentication origins for name servers |
| Context | **configure** subscriber-mgmt system-behavior legacy-dns-nbns *boolean* |
| Tree | legacy-dns-nbns |
| Description | When configured to **true**, this command enables legacy DNS NBNS behavior, which restricts the supported default extended authentication origins for DNS and NBNS name servers. The main differences include:<br>• only support DHCP server as origin for DHCP relay: IPoE DHCPv4/DHCPv6 and PPPoE DHCPv6<br>• Local Address Assignment (LAA) is highest priority origin: IPoE and PPPoE SLAAC DNSv6 and PPPoE DNSv4<br>• no default DNS for IPoE DHCPv4 proxy<br>When configured to **false**, this command reverts to the recommended default extended DNS and NBNS name server origin priorities. |
| Default | false |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## up-resiliency

| | |
|---|---|
| Synopsis | Enter the **up-resiliency** context |
| Context | **configure** subscriber-mgmt up-resiliency |
| Tree | up-resiliency |
| Description | Commands in this context configure the inter-UPF resiliency in a CUPS system. |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## fate-sharing-group-template [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **fate-sharing-group-template** list instance |
| Context | **configure** subscriber-mgmt up-resiliency fate-sharing-group-template *named-item* |
| Tree | fate-sharing-group-template |
| Description | Commands in this context configure resiliency parameters per FSG. |
| Max. instances | 256 |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## [**name**] *named-item*

| | |
|---|---|
| Synopsis | FSG template ID |
| Context | **configure** subscriber-mgmt up-resiliency fate-sharing-group-template *named-item* |
| Tree | fate-sharing-group-template |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** subscriber-mgmt up-resiliency fate-sharing-group-template *named-item* description *description* |


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| | |
|---|---|
| Tree | description |
| String length | 1 to 80 |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **gratuitous-arp** *keyword*

| | |
|---|---|
| Synopsis | Granularity for sending GARP packets on switchover |
| Context | **configure** subscriber-mgmt up-resiliency fate-sharing-group-template *named-item* gratuitous-arp *keyword* |
| Tree | gratuitous-arp |
| Options | one-per-outer-tag – Send a single Gratuitous ARP for all q-in-q SAPs sharing the same outer tag on any one of those SAP<br>one-per-sap – Send a single Gratuitous ARP per SAP |
| Default | one-per-sap |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## **path-restoration-state** *keyword*

| | |
|---|---|
| Synopsis | Method for managing FSGs during headless mode |
| Context | **configure** subscriber-mgmt up-resiliency fate-sharing-group-template *named-item* path-restoration-state *keyword* |
| Tree | path-restoration-state |
| Description | This command configures how the BNG-UP manages the state of active FSGs, if the BNG-UP becomes headless (PFCP path is in restoration/headless). The BNG-UP can always move all active FSGs to standby, or decide whether to move them to standby based on a series of heuristic tests. If any test indicates that the BNG-UP cannot forward traffic for the FSG, or if another BNG-UP becomes active, the BNG-UP moves the FSG to standby.<br>This only applies to active FSGs; the BNG-UP never makes a standby FSG active without CPF intervention. |
| Options | standby – Always change FSG state to standby<br>auto – Change FSG state based on a series of heuristic tests |
| Default | auto |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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## redundant-interface

| | |
|---|---|
| Synopsis | Enter the **redundant-interface** context |
| Context | **configure** subscriber-mgmt up-resiliency fate-sharing-group-template *named-item* redundant-interface |
| Tree | redundant-interface |
| Description | Commands in this context configure downstream traffic shunting from a standby BNG-UP to an active BNG-UP. Downstream traffic that is received for standby sessions is sent over the redundant interface to the active BNG-UP. This requires the configuration of the **multi-chassis-shunt-id** in the service that receives the session traffic. |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## name *interface-name*

| | |
|---|---|
| Synopsis | Redundant interface name |
| Context | **configure** subscriber-mgmt up-resiliency fate-sharing-group-template *named-item* redundant-interface name *interface-name* |
| Tree | name |
| Description | This command configures the name of the redundant interface. It must exist in the service that contains the redundant interface. |
| String length | 1 to 32 |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## service *service-name*

| | |
|---|---|
| Synopsis | Service that contains the redundant interface |
| Context | **configure** subscriber-mgmt up-resiliency fate-sharing-group-template *named-item* redundant-interface service *service-name* |
| Tree | service |
| Description | This command configures the service that contains the redundant interface. It can be different from the service where the session traffic is terminated. |
| String length | 1 to 64 |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **uplink-forwarding-while-standby** *boolean*

| | |
|---|---|
| Synopsis | Allows a standby BNG-UP to forward packets |
| Context | **configure** subscriber-mgmt up-resiliency fate-sharing-group-template *named-item* uplink-forwarding-while-standby *boolean* |
| Tree | uplink-forwarding-while-standby |
| Description | This command allows a standby BNG-UP to forward uplink traffic. To prevent the possibility of packet replication towards the network, this command should only be enabled if the access network is provisioned not to replicate unicast packets to the BNG-UP. |
| Default | false |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **vrgw**

| | |
|---|---|
| Synopsis | Enter the **vrgw** context |
| Context | **configure** subscriber-mgmt vrgw |
| Tree | vrgw |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **brg-profile** [brg-profile-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **brg-profile** list instance |
| Context | **configure** subscriber-mgmt vrgw brg-profile *named-item* |
| Tree | brg-profile |
| Max. instances | 16 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**brg-profile-name**] *named-item*

| | |
|---|---|
| Synopsis | BRG profile name |
| Context | **configure** subscriber-mgmt vrgw brg-profile *named-item* |
| Tree | brg-profile |


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| | |
|---|---|
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## connectivity-verification

| | |
|---|---|
| Synopsis | Enter the **connectivity-verification** context |
| Context | **configure** subscriber-mgmt vrgw brg-profile *named-item* connectivity-verification |
| Tree | connectivity-verification |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of BRG connectivity verification |
| Context | **configure** subscriber-mgmt vrgw brg-profile *named-item* connectivity-verification admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## count *number*

| | |
|---|---|
| Synopsis | Connection attempts before BRG is considered down |
| Context | **configure** subscriber-mgmt vrgw brg-profile *named-item* connectivity-verification count *number* |
| Tree | count |
| Range | 1 to 5 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **retry-time** *number*

| | |
|---|---|
| Synopsis | Wait time before a new connectivity verification cycle |
| Context | **configure** subscriber-mgmt vrgw brg-profile *named-item* connectivity-verification retry-time *number* |
| Tree | retry-time |
| Range | 300 to 3600 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **timeout** *number*

| | |
|---|---|
| Synopsis | Timeout after which a message is considered unanswered |
| Context | **configure** subscriber-mgmt vrgw brg-profile *named-item* connectivity-verification timeout *number* |
| Tree | timeout |
| Range | 5 to 60 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** subscriber-mgmt vrgw brg-profile *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **hold-time** *number*

| | |
|---|---|
| Synopsis | The time to hold on to a BRG after it went down |
| Context | **configure** subscriber-mgmt vrgw brg-profile *named-item* hold-time *number* |
| Tree | hold-time |
| Range | 0 \| 30 to 2592000 |
| Units | seconds |


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| | |
|---|---|
| Default | 0 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### home-pool

| | |
|---|---|
| Synopsis | Enter the **home-pool** context |
| Context | **configure** subscriber-mgmt vrgw brg-profile *named-item* home-pool |
| Tree | home-pool |
| Introduced | 16.0.R7 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### lease-time *number*

| | |
|---|---|
| Synopsis | Lease time used when allocating addresses from the pool |
| Context | **configure** subscriber-mgmt vrgw brg-profile *named-item* home-pool lease-time *number* |
| Tree | lease-time |
| Range | 300 to 315446399 |
| Units | seconds |
| Default | 21600 |
| Introduced | 16.0.R7 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### option [number] *(number | keyword)*

| | |
|---|---|
| Synopsis | Enter the **option** list instance |
| Context | **configure** subscriber-mgmt vrgw brg-profile *named-item* home-pool option *(number | keyword)* |
| Tree | option |
| Introduced | 16.0.R7 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**number**] *(number | keyword)*

| | |
|---|---|
| Synopsis | DHCP option to send identification strings to client |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt vrgw brg-profile *named-item* home-pool option *(number \| keyword)* |
| Tree | option |
| Range | 1 to 254 |
| Options | subnet-mask, default-router, dns-server, domain-name, netbios-name-server, netbios-node-type, lease-time, lease-renew-time, lease-rebind-time |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R7 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **ascii-string** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | ASCII string of the DHCP option |
| Context | **configure** subscriber-mgmt vrgw brg-profile *named-item* home-pool option *(number \| keyword)* ascii-string *string-not-all-spaces* |
| Tree | ascii-string |
| String length | 1 to 127 |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **duration**, **empty**, **hex-string**, **ipv4-address**, or **netbios-node-type**. |
| Introduced | 16.0.R7 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **duration** *number*

| | |
|---|---|
| Synopsis | DHCP option as time duration |
| Context | **configure** subscriber-mgmt vrgw brg-profile *named-item* home-pool option *(number \| keyword)* duration *number* |
| Tree | duration |
| Range | 10 to 315446399 |
| Units | seconds |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **duration**, **empty**, **hex-string**, **ipv4-address**, or **netbios-node-type**. |
| Introduced | 16.0.R7 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### empty

| | |
|---|---|
| Synopsis | Remove DHCP option configuration |
| Context | **configure** subscriber-mgmt vrgw brg-profile *named-item* home-pool option *(number \| keyword)* empty |
| Tree | empty |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **duration**, **empty**, **hex-string**, **ipv4-address**, or **netbios-node-type**. |
| Introduced | 16.0.R7 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### hex-string *hex-string*

| | |
|---|---|
| Synopsis | DHCP option as a hexadecimal string |
| Context | **configure** subscriber-mgmt vrgw brg-profile *named-item* home-pool option *(number \| keyword)* hex-string *hex-string* |
| Tree | hex-string |
| String length | 1 to 256 |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **duration**, **empty**, **hex-string**, **ipv4-address**, or **netbios-node-type**. |
| Introduced | 16.0.R7 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### ipv4-address *ipv4-address*

| | |
|---|---|
| Synopsis | DHCP option as a list of IPv4 addresses |
| Context | **configure** subscriber-mgmt vrgw brg-profile *named-item* home-pool option *(number \| keyword)* ipv4-address *ipv4-address* |
| Tree | ipv4-address |
| Max. instances | 4 |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **duration**, **empty**, **hex-string**, **ipv4-address**, or **netbios-node-type**.<br>This element is ordered by the user. |
| Introduced | 16.0.R7 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **netbios-node-type** *keyword*

| | |
|---|---|
| Synopsis | DHCP option as NetBIOS node type |
| Context | **configure** subscriber-mgmt vrgw brg-profile *named-item* home-pool option *(number \| keyword)* netbios-node-type *keyword* |
| Tree | netbios-node-type |
| Options | b-node, p-node, m-node, h-node |
| Notes | The following elements are part of a mandatory choice: **ascii-string**, **duration**, **empty**, **hex-string**, **ipv4-address**, or **netbios-node-type**. |
| Introduced | 16.0.R7 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **standby-ip-lifetime** *number*

| | |
|---|---|
| Synopsis | The lifetime of the standby IP addresses |
| Context | **configure** subscriber-mgmt vrgw brg-profile *named-item* home-pool standby-ip-lifetime *number* |
| Tree | standby-ip-lifetime |
| Range | 300 to 315446399 |
| Units | seconds |
| Default | 21600 |
| Introduced | 16.0.R7 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **subnet**

| | |
|---|---|
| Synopsis | Enter the **subnet** context |
| Context | **configure** subscriber-mgmt vrgw brg-profile *named-item* home-pool subnet |
| Tree | subnet |
| Introduced | 16.0.R7 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **end** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Upper bound of the IP address range |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt vrgw brg-profile *named-item* home-pool subnet end *ipv4-unicast-address* |
| Tree | end |
| Default | 192.168.0.254 |
| Introduced | 16.0.R7 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **prefix** *ipv4-prefix-with-host-bits*

| | |
|---|---|
| Synopsis | Prefix and default-gateway to be used inside the home |
| Context | **configure** subscriber-mgmt vrgw brg-profile *named-item* home-pool subnet prefix *ipv4-prefix-with-host-bits* |
| Tree | prefix |
| Default | 192.168.0.1/24 |
| Introduced | 16.0.R7 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **start** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Lower bound of the IP address range |
| Context | **configure** subscriber-mgmt vrgw brg-profile *named-item* home-pool subnet start *ipv4-unicast-address* |
| Tree | start |
| Default | 192.168.0.2 |
| Introduced | 16.0.R7 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **initial-hold-time** *number*

| | |
|---|---|
| Synopsis | Hold time for BRG instances created without any hosts |
| Context | **configure** subscriber-mgmt vrgw brg-profile *named-item* initial-hold-time *number* |
| Tree | initial-hold-time |
| Range | 0 to 900 |
| Units | seconds |
| Default | 300 |
| Introduced | 16.0.R4 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## radius-authentication

| | |
|---|---|
| Synopsis | Enter the **radius-authentication** context |
| Context | **configure** subscriber-mgmt vrgw brg-profile *named-item* radius-authentication |
| Tree | radius-authentication |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## password *encrypted-leaf*

| | |
|---|---|
| Synopsis | Password used for authentication |
| Context | **configure** subscriber-mgmt vrgw brg-profile *named-item* radius-authentication password *encrypted-leaf* |
| Tree | password |
| String length | 1 to 115 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## server-policy *reference*

| | |
|---|---|
| Synopsis | Radius servers to be used for authentication |
| Context | **configure** subscriber-mgmt vrgw brg-profile *named-item* radius-authentication server-policy *reference* |
| Tree | server-policy |
| Reference | **configure** aaa radius server-policy *named-item* |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## radius-proxy-server [router-instance] *string* name *named-item*

| | |
|---|---|
| Synopsis | Add a list entry for **radius-proxy-server** |
| Context | **configure** subscriber-mgmt vrgw brg-profile *named-item* radius-proxy-server *string* name *named-item* |
| Tree | radius-proxy-server |


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| | |
|---|---|
| Max. instances | 4 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### [**router-instance**] *string*

| | |
|---|---|
| Synopsis | router-instance |
| Context | **configure** subscriber-mgmt vrgw brg-profile *named-item* radius-proxy-server *string* name *named-item* |
| Tree | radius-proxy-server |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **name** *named-item*

| | |
|---|---|
| Synopsis | RADIUS proxy server name |
| Context | **configure** subscriber-mgmt vrgw brg-profile *named-item* radius-proxy-server *string* name *named-item* |
| Tree | radius-proxy-server |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **sla-profile-string** *named-item-or-empty*

| | |
|---|---|
| Synopsis | Default for SLA-profile lookup |
| Context | **configure** subscriber-mgmt vrgw brg-profile *named-item* sla-profile-string *named-item-or-empty* |
| Tree | sla-profile-string |
| String length | 0 to 32 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |


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### **sub-profile-string** *named-item-or-empty*

| | |
|---|---|
| Synopsis | Default for subscriber-profile lookup |
| Context | **configure** subscriber-mgmt vrgw brg-profile *named-item* sub-profile-string *named-item-or-empty* |
| Tree | sub-profile-string |
| String length | 0 to 32 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **uplink-initial-wait** *number*

| | |
|---|---|
| Synopsis | Wait time for non-routed uplink to become operational |
| Context | **configure** subscriber-mgmt vrgw brg-profile *named-item* uplink-initial-wait *number* |
| Tree | uplink-initial-wait |
| Range | 10 to 300 |
| Units | seconds |
| Default | 30 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **lanext**

| | |
|---|---|
| Synopsis | Enter the **lanext** context |
| Context | **configure** subscriber-mgmt vrgw lanext |
| Tree | lanext |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **router-target-as-number** *number*

| | |
|---|---|
| Synopsis | AS number to derive RT and RD for the HLE service |
| Context | **configure** subscriber-mgmt vrgw lanext router-target-as-number *number* |
| Tree | router-target-as-number |
| Range | 1 to 65535 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## wlan-gw

| | |
|---|---|
| Synopsis | Enter the **wlan-gw** context |
| Context | **configure** subscriber-mgmt wlan-gw |
| Tree | wlan-gw |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## queries

| | |
|---|---|
| Synopsis | Enter the **queries** context |
| Context | **configure** subscriber-mgmt wlan-gw queries |
| Tree | queries |
| Introduced | 19.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **tunnel** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **tunnel** list instance |
| Context | **configure** subscriber-mgmt wlan-gw queries tunnel *named-item* |
| Tree | tunnel |
| Max. instances | 1024 |
| Introduced | 19.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## [**name**] *named-item*

| | |
|---|---|
| Synopsis | Tunnel query name |
| Context | **configure** subscriber-mgmt wlan-gw queries tunnel *named-item* |
| Tree | tunnel |
| String length | 1 to 32 |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 19.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **access-point-mac-address-learning-status** *keyword*

| | |
|---|---|
| Synopsis | Matching criteria of tunnels based on learning status |
| Context | **configure** subscriber-mgmt wlan-gw queries tunnel *named-item* access-point-mac-address-learning-status *keyword* |
| Tree | access-point-mac-address-learning-status |
| Options | failed, succeeded |
| Introduced | 19.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **calculate-counts** *boolean*

| | |
|---|---|
| Synopsis | Count the number of tunnels matching the criteria |
| Context | **configure** subscriber-mgmt wlan-gw queries tunnel *named-item* calculate-counts *boolean* |
| Tree | calculate-counts |
| Default | false |
| Introduced | 19.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **encapsulation**

| | |
|---|---|
| Synopsis | Enable the **encapsulation** context |
| Context | **configure** subscriber-mgmt wlan-gw queries tunnel *named-item* encapsulation |
| Tree | encapsulation |
| Introduced | 19.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **gre** *boolean*

| | |
|---|---|
| Synopsis | Controls whether the query returns Soft GRE tunnels |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt wlan-gw queries tunnel *named-item* encapsulation gre *boolean* |
| Tree | gre |
| Default | true |
| Introduced | 19.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **l2** *boolean*

| | |
|---|---|
| Synopsis | Enable matching on Layer 2 tunnels |
| Context | **configure** subscriber-mgmt wlan-gw queries tunnel *named-item* encapsulation l2 *boolean* |
| Tree | l2 |
| Default | true |
| Introduced | 19.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **l2tp** *boolean*

| | |
|---|---|
| Synopsis | Controls whether the query returns Soft L2TPv3 tunnels |
| Context | **configure** subscriber-mgmt wlan-gw queries tunnel *named-item* encapsulation l2tp *boolean* |
| Tree | l2tp |
| Default | true |
| Introduced | 19.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **vxlan** *boolean*

| | |
|---|---|
| Synopsis | Controls whether the query returns VXLAN tunnels |
| Context | **configure** subscriber-mgmt wlan-gw queries tunnel *named-item* encapsulation vxlan *boolean* |
| Tree | vxlan |
| Default | true |
| Introduced | 19.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### l2

| | |
|---|---|
| Synopsis | Enter the **l2** context |
| Context | **configure** subscriber-mgmt wlan-gw queries tunnel *named-item* l2 |
| Tree | l2 |
| Introduced | 19.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### inner-vlan *number*

| | |
|---|---|
| Synopsis | Value to match the Layer 2 access point of the tunnel |
| Context | **configure** subscriber-mgmt wlan-gw queries tunnel *named-item* l2 inner-vlan *number* |
| Tree | inner-vlan |
| Range | 0 to 4095 |
| Introduced | 19.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### outer-vlan *number*

| | |
|---|---|
| Synopsis | Layer 2 access point matching with a specified S-VLAN |
| Context | **configure** subscriber-mgmt wlan-gw queries tunnel *named-item* l2 outer-vlan *number* |
| Tree | outer-vlan |
| Range | 0 to 4095 |
| Introduced | 19.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### sap *sap*

| | |
|---|---|
| Synopsis | Value to match the L2-AP Access Point of the tunnel |
| Context | **configure** subscriber-mgmt wlan-gw queries tunnel *named-item* l2 sap *sap* |
| Tree | sap |
| String length | 1 to 45 |
| Introduced | 19.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### l3

| | |
|---|---|
| Synopsis | Enter the **l3** context |
| Context | **configure** subscriber-mgmt wlan-gw queries tunnel *named-item* l3 |
| Tree | l3 |
| Introduced | 19.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### address-type *keyword*

| | |
|---|---|
| Synopsis | Address type to match |
| Context | **configure** subscriber-mgmt wlan-gw queries tunnel *named-item* l3 address-type *keyword* |
| Tree | address-type |
| Options | ipv4, ipv6 |
| Introduced | 19.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### local-address *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address as local endpoint to match |
| Context | **configure** subscriber-mgmt wlan-gw queries tunnel *named-item* l3 local-address *(ipv4-address-no-zone | ipv6-address-no-zone)* |
| Tree | local-address |
| Introduced | 19.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### remote-address *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address as remote endpoint to match |
| Context | **configure** subscriber-mgmt wlan-gw queries tunnel *named-item* l3 remote-address *(ipv4-address-no-zone | ipv6-address-no-zone)* |
| Tree | remote-address |
| Introduced | 19.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **router-instance** *string*

| | |
|---|---|
| Synopsis | Router instance to match |
| Context | **configure** subscriber-mgmt wlan-gw queries tunnel *named-item* l3 router-instance *string* |
| Tree | router-instance |
| Introduced | 19.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ues**

| | |
|---|---|
| Synopsis | Enter the **ues** context |
| Context | **configure** subscriber-mgmt wlan-gw queries tunnel *named-item* ues |
| Tree | ues |
| Description | Commands in this context filter tunnels based on the properties of UEs that are currently active on the tunnel. |
| Introduced | 19.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **custom-user-group** *named-item-or-empty*

| | |
|---|---|
| Synopsis | Name of the custom user group |
| Context | **configure** subscriber-mgmt wlan-gw queries tunnel *named-item* ues custom-user-group *named-item-or-empty* |
| Tree | custom-user-group |
| Description | This command specifies to use a custom user group as a filter. A user equipment (UE) can be assigned up to four custom user groups during RADIUS authentication using the Alc-Wlan-Custom-User-Group attribute. |
| String length | 0 to 32 |
| Introduced | 24.3.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **maximum** *number*

| | |
|---|---|
| Synopsis | Maximum number of UEs |
| Context | **configure** subscriber-mgmt wlan-gw queries tunnel *named-item* ues maximum *number* |
| Tree | maximum |


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| | |
|---|---|
| Max. range | 0 to 4294967295 |
| Introduced | 19.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **minimum** *number*

| | |
|---|---|
| Synopsis | Minimum number of UEs |
| Context | **configure** subscriber-mgmt wlan-gw queries tunnel *named-item* ues minimum *number* |
| Tree | minimum |
| Max. range | 0 to 4294967295 |
| Default | 1 |
| Introduced | 19.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **state**

| | |
|---|---|
| Synopsis | Enable the **state** context |
| Context | **configure** subscriber-mgmt wlan-gw queries tunnel *named-item* ues state |
| Tree | state |
| Introduced | 19.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **cross-connect** *boolean*

| | |
|---|---|
| Synopsis | Match on tunnels with cross-connect UEs |
| Context | **configure** subscriber-mgmt wlan-gw queries tunnel *named-item* ues state cross-connect *boolean* |
| Tree | cross-connect |
| Default | true |
| Introduced | 19.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **dsm** *boolean*

| | |
|---|---|
| Synopsis | Match on DSM UEs |
| Context | **configure** subscriber-mgmt wlan-gw queries tunnel *named-item* ues state dsm *boolean* |


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| | |
|---|---|
| Tree | dsm |
| Default | true |
| Introduced | 19.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **esm** *boolean*

| | |
|---|---|
| Synopsis | Match on ESM UEs |
| Context | **configure** subscriber-mgmt wlan-gw queries tunnel *named-item* ues state esm *boolean* |
| Tree | esm |
| Default | true |
| Introduced | 19.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **l2** *boolean*

| | |
|---|---|
| Synopsis | Match on tunnels with L2W UEs |
| Context | **configure** subscriber-mgmt wlan-gw queries tunnel *named-item* ues state l2 *boolean* |
| Tree | l2 |
| Default | true |
| Introduced | 19.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **migrant** *boolean*

| | |
|---|---|
| Synopsis | Match on tunnels with migrant UEs |
| Context | **configure** subscriber-mgmt wlan-gw queries tunnel *named-item* ues state migrant *boolean* |
| Tree | migrant |
| Default | true |
| Introduced | 19.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ue** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **ue** list instance |


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| | |
|---|---|
| Context | **configure** subscriber-mgmt wlan-gw queries ue *named-item* |
| Tree | ue |
| Description | Commands in this context query for WLAN Gateway UEs where the filter criteria over WLAN-GW UEs are defined. The query can be used to retrieve the state of the UEs matching the configured criteria. |
| Max. instances | 1024 |
| Introduced | 19.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## [**name**] *named-item*

| | |
|---|---|
| Synopsis | UE query name |
| Context | **configure** subscriber-mgmt wlan-gw queries ue *named-item* |
| Tree | ue |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 19.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **address**

| | |
|---|---|
| Synopsis | Enter the **address** context |
| Context | **configure** subscriber-mgmt wlan-gw queries ue *named-item* address |
| Tree | address |
| Introduced | 19.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## **dhcp6-na** *ipv6-unicast-without-local-address*

| | |
|---|---|
| Synopsis | DHCPv6 IA-NA address to match for UEs |
| Context | **configure** subscriber-mgmt wlan-gw queries ue *named-item* address dhcp6-na *ipv6-unicast-without-local-address* |
| Tree | dhcp6-na |
| Introduced | 19.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **ipv4** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IPv4 address to match for UEs |
| Context | **configure** subscriber-mgmt wlan-gw queries ue *named-item* address ipv4 *ipv4-unicast-address* |
| Tree | ipv4 |
| Introduced | 19.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **slaac** *ipv6-unicast-without-local-address*

| | |
|---|---|
| Synopsis | SLAAC prefix to match for UEs |
| Context | **configure** subscriber-mgmt wlan-gw queries ue *named-item* address slaac *ipv6-unicast-without-local-address* |
| Tree | slaac |
| Introduced | 19.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **type** *keyword*

| | |
|---|---|
| Synopsis | Address type to match for UEs |
| Context | **configure** subscriber-mgmt wlan-gw queries ue *named-item* address type *keyword* |
| Tree | type |
| Options | ipv4 – Any IPv4 address<br>ipv6 – Any IPv6 address<br>ipv4-only – IPv4 address only<br>ipv6-only – IPv6 address only<br>ipv4v6 – IPv4 and IPv6 address |
| Introduced | 19.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **bridge-domain** *number*

| | |
|---|---|
| Synopsis | Bridge Domain to match for UEs |
| Context | **configure** subscriber-mgmt wlan-gw queries ue *named-item* bridge-domain *number* |
| Tree | bridge-domain |
| Range | 0 to 4294967294 |


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| | |
|---|---|
| Introduced | 19.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### connection-state

| | |
|---|---|
| Synopsis | Enable the **connection-state** context |
| Context | **configure** subscriber-mgmt wlan-gw queries ue *named-item* connection-state |
| Tree | connection-state |
| Introduced | 19.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### already-signed-in *boolean*

| | |
|---|---|
| Synopsis | Enable matching on UEs that are already signed in |
| Context | **configure** subscriber-mgmt wlan-gw queries ue *named-item* connection-state already-signed-in *boolean* |
| Tree | already-signed-in |
| Default | true |
| Introduced | 19.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### authorized-only *boolean*

| | |
|---|---|
| Synopsis | Enable matching on UEs in an authorized state |
| Context | **configure** subscriber-mgmt wlan-gw queries ue *named-item* connection-state authorized-only *boolean* |
| Tree | authorized-only |
| Default | true |
| Introduced | 19.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### cross-connect *boolean*

| | |
|---|---|
| Synopsis | Enable matching on cross-connected UEs |
| Context | **configure** subscriber-mgmt wlan-gw queries ue *named-item* connection-state cross-connect *boolean* |


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| | |
|---|---|
| Tree | cross-connect |
| Default | true |
| Introduced | 19.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **data-triggered** *boolean*

| | |
|---|---|
| Synopsis | Enable matching on UEs in a data-triggered state |
| Context | **configure** subscriber-mgmt wlan-gw queries ue *named-item* connection-state data-triggered *boolean* |
| Tree | data-triggered |
| Default | true |
| Introduced | 19.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **delete-pending** *boolean*

| | |
|---|---|
| Synopsis | Enable matching on UEs in a delete-pending state |
| Context | **configure** subscriber-mgmt wlan-gw queries ue *named-item* connection-state delete-pending *boolean* |
| Tree | delete-pending |
| Default | true |
| Introduced | 19.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **dhcp-triggered** *boolean*

| | |
|---|---|
| Synopsis | Enable matching on UEs in DHCP-triggered state |
| Context | **configure** subscriber-mgmt wlan-gw queries ue *named-item* connection-state dhcp-triggered *boolean* |
| Tree | dhcp-triggered |
| Default | true |
| Introduced | 19.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **dsm** *boolean*

| | |
|---|---|
| Synopsis | Controls whether the query returns UEs in DSM state |
| Context | **configure** subscriber-mgmt wlan-gw queries ue *named-item* connection-state dsm *boolean* |
| Tree | dsm |
| Default | true |
| Introduced | 19.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **esm** *boolean*

| | |
|---|---|
| Synopsis | Controls whether the query returns UEs in ESM state |
| Context | **configure** subscriber-mgmt wlan-gw queries ue *named-item* connection-state esm *boolean* |
| Tree | esm |
| Default | true |
| Introduced | 19.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **gtp-authorized** *boolean*

| | |
|---|---|
| Synopsis | Enable matching on UEs in GTP-authorized state |
| Context | **configure** subscriber-mgmt wlan-gw queries ue *named-item* connection-state gtp-authorized *boolean* |
| Tree | gtp-authorized |
| Default | true |
| Introduced | 19.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ip-assigned** *boolean*

| | |
|---|---|
| Synopsis | Match on UEs in an IP-assigned state |
| Context | **configure** subscriber-mgmt wlan-gw queries ue *named-item* connection-state ip-assigned *boolean* |
| Tree | ip-assigned |


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| | |
|---|---|
| Default | true |
| Introduced | 19.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **ip-assigned-authorized** *boolean*

| | |
|---|---|
| Synopsis | Match on UEs in an IP-assigned and authorized state |
| Context | **configure** subscriber-mgmt wlan-gw queries ue *named-item* connection-state ip-assigned-authorized *boolean* |
| Tree | ip-assigned-authorized |
| Default | true |
| Introduced | 19.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **l2** *boolean*

| | |
|---|---|
| Synopsis | Match on Layer-2 wholesale state for UEs |
| Context | **configure** subscriber-mgmt wlan-gw queries ue *named-item* connection-state l2 *boolean* |
| Tree | l2 |
| Default | true |
| Introduced | 19.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **portal** *boolean*

| | |
|---|---|
| Synopsis | Controls whether the query returns UEs in portal state |
| Context | **configure** subscriber-mgmt wlan-gw queries ue *named-item* connection-state portal *boolean* |
| Tree | portal |
| Default | true |
| Introduced | 19.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **custom-user-group** *named-item-or-empty*

| | |
|---|---|
| Synopsis | Name of the custom user group |
| Context | **configure** subscriber-mgmt wlan-gw queries ue *named-item* custom-user-group *named-item-or-empty* |
| Tree | custom-user-group |
| Description | This command specifies to use a custom user group as a filter. A user equipment (UE) can be assigned up to four custom user groups during RADIUS authentication using the Alc-Wlan-Custom-User-Group attribute. |
| String length | 0 to 32 |
| Introduced | 24.3.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **mac-address** *mac-address*

| | |
|---|---|
| Synopsis | MAC address to use for matching on UEs |
| Context | **configure** subscriber-mgmt wlan-gw queries ue *named-item* mac-address *mac-address* |
| Tree | mac-address |
| Introduced | 19.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **soft-quota-exhausted** *boolean*

| | |
|---|---|
| Synopsis | Send interim update message when the quota is reached |
| Context | **configure** subscriber-mgmt wlan-gw queries ue *named-item* soft-quota-exhausted *boolean* |
| Tree | soft-quota-exhausted |
| Default | false |
| Introduced | 21.7.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **tunnel**

| | |
|---|---|
| Synopsis | Enter the **tunnel** context |
| Context | **configure** subscriber-mgmt wlan-gw queries ue *named-item* tunnel |
| Tree | tunnel |


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| | |
|---|---|
| Introduced | 19.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **encapsulation** *keyword*

| | |
|---|---|
| Synopsis | Tunnel type to match for active UEs |
| Context | **configure** subscriber-mgmt wlan-gw queries ue *named-item* tunnel encapsulation *keyword* |
| Tree | encapsulation |
| Options | gre, l2tp, l2, vxlan |
| Introduced | 19.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **local-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address as local tunnel endpoint to match for UEs |
| Context | **configure** subscriber-mgmt wlan-gw queries ue *named-item* tunnel local-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | local-address |
| Introduced | 19.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **remote-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address as remote tunnel endpoint to match for UEs |
| Context | **configure** subscriber-mgmt wlan-gw queries ue *named-item* tunnel remote-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | remote-address |
| Introduced | 19.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **router-instance** *string*

| | |
|---|---|
| Synopsis | Router instance of tunnels to match for UEs |
| Context | **configure** subscriber-mgmt wlan-gw queries ue *named-item* tunnel router-instance *string* |
| Tree | router-instance |


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| | |
|---|---|
| Introduced | 19.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **vlan** *number*

| | |
|---|---|
| Synopsis | VLAN tag within the tunnel to match for UEs |
| Context | **configure** subscriber-mgmt wlan-gw queries ue *named-item* vlan *number* |
| Tree | vlan |
| Range | 0 to 4095 |
| Introduced | 19.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **wlan-gw-group**

| | |
|---|---|
| Synopsis | Enable the **wlan-gw-group** context |
| Context | **configure** subscriber-mgmt wlan-gw queries ue *named-item* wlan-gw-group |
| Tree | wlan-gw-group |
| Introduced | 19.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **id** *number*

| | |
|---|---|
| Synopsis | WLAN-GW ISA group ID |
| Context | **configure** subscriber-mgmt wlan-gw queries ue *named-item* wlan-gw-group id *number* |
| Tree | id |
| Range | 1 to 4 |
| Notes | This element is mandatory. |
| Introduced | 19.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **member** *number*

| | |
|---|---|
| Synopsis | The member of the WLAN-GW ISA group |
| Context | **configure** subscriber-mgmt wlan-gw queries ue *named-item* wlan-gw-group member *number* |


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| | |
|---|---|
| Tree | member |
| Range | 1 to 1024 |
| Introduced | 19.5.R1 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **virtual-chassis-identifier** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | WLAN Gateway virtual chassis ID or dual homing key |
| Context | **configure** subscriber-mgmt wlan-gw virtual-chassis-identifier *string-not-all-spaces* |
| Tree | virtual-chassis-identifier |
| String length | 1 to 16 |
| Introduced | 16.0.R4 |
| Platforms | 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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## 4.46 system commands

```
configure
   –  system
      –  alarm-contact-in-power boolean
      –  alarm-contact-input number
         –  admin-state keyword
         –  apply-groups reference
         –  apply-groups-exclude reference
         –  clear-message description
         –  description long-description
         –  normal-state keyword
         –  trigger-message description
      –  alarms
         –  admin-state keyword
         –  apply-groups reference
         –  apply-groups-exclude reference
         –  max-cleared number
      –  allow-boot-license-violations boolean
      –  apply-groups reference
      –  apply-groups-exclude reference
      –  bluetooth
         –  admin-state keyword
         –  advertising-timeout number
         –  apply-groups reference
         –  apply-groups-exclude reference
         –  device mac-address
            –  apply-groups reference
            –  apply-groups-exclude reference
            –  description description
         –  module cpm-card-slot
            –  apply-groups reference
            –  apply-groups-exclude reference
            –  provisioned-identifier display-string
         –  pairing-button boolean
         –  passkey string
         –  power-mode keyword
      –  boot-bad-exec url
      –  boot-good-exec url
      –  central-frequency-clock
         –  apply-groups reference
         –  apply-groups-exclude reference
         –  bits
            –  input
               –  admin-state keyword
            –  interface-type keyword
            –  output
               –  admin-state keyword
               –  line-length keyword
               –  ql-minimum keyword
               –  source keyword
               –  squelch boolean
            –  ql-override keyword
            –  ssm-bit number
         –  gnss
            –  admin-state keyword
            –  ql-override keyword
         –  ptp
            –  admin-state keyword
            –  ql-override keyword
         –  ql-minimum keyword
```


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configure system central-frequency-clock ql-selection

```
        - ql-selection boolean
        - ref-order
          - fifth keyword
          - first keyword
          - fourth keyword
          - second keyword
          - sixth keyword
          - third keyword
        - ref1
          - admin-state keyword
          - ql-override keyword
          - source-port port
        - ref2
          - admin-state keyword
          - ql-override keyword
          - source-port port
        - revert boolean
        - synce
          - admin-state keyword
          - ql-override keyword
        - wait-to-restore number
    - clli-code clli-description
    - congestion-management boolean
    - contact description
    - coordinates description
    - cpm-http-redirect
        - apply-groups reference
        - apply-groups-exclude reference
        - optimized-mode boolean
    - cron
        - apply-groups reference
        - apply-groups-exclude reference
        - schedule named-item owner named-item
          - admin-state keyword
          - apply-groups reference
          - apply-groups-exclude reference
          - count number
          - day-of-month number
          - description description
          - end-time
            - date-and-time date-and-time
            - day keyword
            - time hours-minutes-twenty-four
          - hour number
          - interval number
          - minute number
          - month (keyword | number)
          - script-policy
            - name named-item
            - owner named-item
          - type keyword
          - weekday (keyword | number)
    - dhcp6
        - adv-noaddrs-global keyword
        - apply-groups reference
        - apply-groups-exclude reference
    - dns
        - address-pref keyword
        - apply-groups reference
        - apply-groups-exclude reference
        - dnssec
          - ad-validation keyword
    - efm-oam
        - apply-groups reference
```


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configure system efm-oam apply-groups-exclude

```
        - apply-groups-exclude reference
        - dying-gasp-tx-on-reset boolean
        - grace-tx boolean
    - eth-cfm
        - apply-groups reference
        - apply-groups-exclude reference
        - grace boolean
        - md-auto-id
            - ma-index-range
                - apply-groups reference
                - apply-groups-exclude reference
                - end number
                - start number
            - md-index-range
                - apply-groups reference
                - apply-groups-exclude reference
                - end number
                - start number
        - named-display boolean
        - redundancy
            - apply-groups reference
            - apply-groups-exclude reference
            - mc-lag
                - propagate-hold-time (number | keyword)
                - standby-mep boolean
        - sender-id
            - local-name string
            - type keyword
        - slm
            - apply-groups reference
            - apply-groups-exclude reference
            - inactivity-timer number
    - fan-control
        - apply-groups reference
        - apply-groups-exclude reference
        - cooling-profile keyword
    - grpc
        - admin-state keyword
        - allow-unsecure-connection
        - apply-groups reference
        - apply-groups-exclude reference
        - delay-on-boot number
        - gnmi
            - admin-state keyword
            - auto-config-save boolean
            - proto-version keyword
        - gnoi
            - cert-mgmt
                - admin-state keyword
            - file
                - admin-state keyword
            - system
                - admin-state keyword
        - listening-port number
        - max-msg-size number
        - md-cli
            - admin-state keyword
        - rib-api
            - admin-state keyword
            - purge-timeout number
        - tcp-keepalive
            - admin-state keyword
            - idle-time number
            - interval number
```


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configure system grpc tcp-keepalive retries

```
            - retries number
         - tls-server-profile reference
      - grpc-tunnel
         - apply-groups reference
         - apply-groups-exclude reference
         - delay-on-boot number
         - destination-group named-item
            - allow-unsecure-connection
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - destination (ipv4-address-no-zone | ipv6-address-no-zone | fully-qualified-
domain-name) port number
               - apply-groups reference
               - apply-groups-exclude reference
               - local-source-address (ipv4-address-no-zone | ipv6-address-no-zone)
               - originated-qos-marking keyword
               - router-instance string
            - tcp-keepalive
               - admin-state keyword
               - idle-time number
               - interval number
               - retries number
            - tls-client-profile reference
         - tunnel named-item
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - destination-group reference
            - handler named-item
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - port number
               - target-type
                  - custom-type string
                  - grpc-server
                  - ssh-server
            - target-name
               - custom-string named-item-64
               - node-name
               - user-agent
      - icmp-vse boolean
      - ip
         - allow-qinq-network-interface boolean
         - apply-groups reference
         - apply-groups-exclude reference
         - buffer-unresolved-packets boolean
         - enforce-unique-if-index boolean
         - forward-6in4 boolean
         - forward-ip-over-gre boolean
         - ipv6-eh keyword
         - mpls
            - label-stack-statistics-count number
      - l2tp
         - apply-groups reference
         - apply-groups-exclude reference
         - non-multi-chassis-tunnel-id-range
            - end number
            - start number
      - lacp
         - apply-groups reference
         - apply-groups-exclude reference
```


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```
        - system-priority number
    - lldp
        - admin-state keyword
        - apply-groups reference
        - apply-groups-exclude reference
        - message-fast-tx number
        - message-fast-tx-init number
        - notification-interval number
        - reinit-delay number
        - tx-credit-max number
        - tx-hold-multiplier number
        - tx-interval number
    - load-balancing
        - apply-groups reference
        - apply-groups-exclude reference
        - eler-enh-load-balancing boolean
        - l2tp-load-balancing boolean
        - l4-load-balancing boolean
        - lsr-load-balancing keyword
        - mc-enh-load-balancing boolean
        - service-id-lag-hashing boolean
        - system-ip-load-balancing boolean
    - location description
    - login-control
        - apply-groups reference
        - apply-groups-exclude reference
        - exponential-backoff boolean
        - ftp
            - inbound-max-sessions number
        - idle-timeout (keyword | number)
        - login-banner boolean
        - login-scripts
            - global-script string-not-all-spaces
            - per-user-script
                - file-name filename
                - user-directory string-not-all-spaces
        - motd
            - text string-not-all-spaces
            - url string-not-all-spaces
        - pre-login-message
            - message string-not-all-spaces
            - name boolean
        - ssh
            - graceful-shutdown boolean
            - inbound-max-sessions number
            - max-channels-per-connection number
            - outbound-max-sessions number
            - ttl-security number
        - telnet
            - graceful-shutdown boolean
            - inbound-max-sessions number
            - outbound-max-sessions number
            - ttl-security number
    - management-interface
        - apply-groups reference
        - apply-groups-exclude reference
        - cli
            - apply-groups reference
            - apply-groups-exclude reference
            - classic-cli
                - allow-immediate boolean
                - rollback
                    - apply-groups reference
                    - apply-groups-exclude reference
```


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configure system management-interface cli classic-cli rollback local-checkpoints

```
                - local-checkpoints number
                - location url
                - remote-checkpoints number
                - rescue
                  - location url
          - cli-engine keyword
          - md-cli
            - apply-groups reference
            - apply-groups-exclude reference
            - auto-config-save boolean
            - environment
              - command-alias
                - alias string
                  - admin-state keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - cli-command string
                  - description string-not-all-spaces
                  - mount-point (keyword | string)
                  - python-script reference
              - command-completion
                - enter boolean
                - space boolean
                - tab boolean
              - commit-options
                - comment boolean
                - confirm boolean
              - console
                - length number
                - width number
              - history
                - recall boolean
                - size number
              - info-output
                - always-display
                  - admin-state boolean
              - message-severity-level
                - cli keyword
              - more boolean
              - progress-indicator
                - admin-state keyword
                - delay number
                - type keyword
              - prompt
                - context boolean
                - newline boolean
                - timestamp boolean
                - uncommitted-changes-indicator boolean
              - python
                - memory-reservation number
                - minimum-available-memory number
                - timeout number
              - time-display keyword
              - time-format keyword
        - commit-history number
        - configuration-mode keyword
        - configuration-save
          - apply-groups reference
          - apply-groups-exclude reference
          - configuration-backups number
          - incremental-saves boolean
        - netconf
          - apply-groups reference
          - apply-groups-exclude reference
```


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configure system management-interface netconf auto-config-save

```
            - auto-config-save boolean
            - capabilities
               - candidate boolean
            - listen
               - admin-state keyword
               - delay-on-boot number
               - port number
         - operations
            - apply-groups reference
            - apply-groups-exclude reference
            - global-timeouts
               - asynchronous-execution (number | keyword)
               - asynchronous-retention (number | keyword)
               - synchronous-execution (number | keyword)
         - remote-management
            - admin-state keyword
            - allow-unsecure-connection
            - apply-groups reference
            - apply-groups-exclude reference
            - client-tls-profile reference
            - connection-timeout number
            - delay-on-boot number
            - device-label named-item-64
            - device-name named-item-64
            - hello-interval number
            - manager named-item-64
               - admin-state keyword
               - allow-unsecure-connection
               - apply-groups reference
               - apply-groups-exclude reference
               - client-tls-profile reference
               - connection-timeout number
               - description description
               - device-label named-item-64
               - device-name named-item-64
               - manager-address (ipv4-address-no-zone | ipv6-address-no-zone | fully-
qualified-domain-name)
               - manager-port number
               - router-instance string
               - source-address (ipv4-address-no-zone | ipv6-address-no-zone)
               - source-port (number | keyword)
            - router-instance string
            - source-address (ipv4-address-no-zone | ipv6-address-no-zone)
            - source-port (number | keyword)
         - schema-path url
         - snmp
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - engine-id engine-id-as-string
            - general-port number
            - max-bulk-duration number
            - packet-size number
            - streaming
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
            - transport keyword
         - yang-modules
            - apply-groups reference
            - apply-groups-exclude reference
            - nmda
               - nmda-support boolean
            - nokia-combined-modules boolean
```


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configure system management-interface yang-modules nokia-submodules

```
            - nokia-submodules boolean
            - openconfig-modules boolean
            - shared-model-management boolean
      - name named-item-64
      - network-element-discovery
         - apply-groups reference
         - apply-groups-exclude reference
         - generate-traps boolean
         - profile named-item
            - apply-groups reference
            - apply-groups-exclude reference
            - neid string
            - neip
               - apply-groups reference
               - apply-groups-exclude reference
               - auto-generate
                  - ipv4
                     - vendor-id-value number
                  - ipv6
                     - vendor-id-value number
               - ipv4 ipv4-unicast-address
               - ipv6 ipv6-address
            - platform-type named-item-255
            - system-mac mac-unicast-address-no-zero
            - vendor-id named-item-255
      - ospf-dynamic-hostnames boolean
      - persistence
         - ancp
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - location keyword
         - application-assurance
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - location keyword
         - apply-groups reference
         - apply-groups-exclude reference
         - dhcp-server
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - location keyword
         - nat-port-forwarding
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - location keyword
         - options
            - apply-groups reference
            - apply-groups-exclude reference
            - dhcp-leasetime-threshold number
         - python-policy-cache
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - location keyword
         - subscriber-mgmt
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - location keyword
      - power-management power-zone number
```


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configure system power-management apply-groups

```
        - apply-groups reference
        - apply-groups-exclude reference
        - mode keyword
        - power-safety-alert number
        - power-safety-level number
    - ptp
        - admin-state keyword
        - alternate-profile named-item-64
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - domain number
            - log-announce-interval number
            - profile keyword
        - announce-receipt-timeout number
        - apply-groups reference
        - apply-groups-exclude reference
        - clock-type keyword
        - domain number
        - local-priority number
        - log-announce-interval number
        - network-type keyword
        - port reference
            - address mac-address
            - admin-state keyword
            - alternate-profile reference
            - apply-groups reference
            - apply-groups-exclude reference
            - local-priority number
            - log-delay-interval number
            - log-sync-interval number
            - master-only boolean
            - monitor-receiver boolean
            - monitor-sender boolean
        - priority1 number
        - priority2 number
        - profile keyword
        - ptsf
            - monitor-ptsf-unusable
                - admin-state keyword
        - router string
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - peer (ipv4-address-no-zone | ipv6-address-no-zone)
                - admin-state keyword
                - apply-groups reference
                - apply-groups-exclude reference
                - local-priority number
                - log-sync-interval number
                - monitor-receiver boolean
            - peer-limit number
        - tx-while-sync-uncertain boolean
    - script-control
        - apply-groups reference
        - apply-groups-exclude reference
        - script named-item owner named-item
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - location string-not-all-spaces
        - script-policy named-item owner named-item
            - admin-state keyword
```


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configure system script-control script-policy apply-groups

```
            - apply-groups reference
            - apply-groups-exclude reference
            - expire-time (number | keyword)
            - lifetime (number | keyword)
            - lock-override boolean
            - max-completed number
            - python-lifetime number
            - python-script
              - name reference
            - results string-not-all-spaces
            - script
              - name named-item
              - owner named-item
      - security
        - aaa
            - apply-groups reference
            - apply-groups-exclude reference
            - cli-session-group named-item
              - apply-groups reference
              - apply-groups-exclude reference
              - combined-max-sessions number
              - description description
              - ssh-max-sessions number
              - telnet-max-sessions number
            - health-check (number | keyword)
            - local-profiles
              - apply-groups reference
              - apply-groups-exclude reference
              - profile named-item
                - apply-groups reference
                - apply-groups-exclude reference
                - cli-session-group reference
                - combined-max-sessions number
                - default-action keyword
                - entry number
                  - action keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - description description
                  - match display-string
                - grpc
                  - rpc-authorization
                    - gnmi-capabilities keyword
                    - gnmi-get keyword
                    - gnmi-set keyword
                    - gnmi-subscribe keyword
                    - gnoi-cert-mgmt-cangenerate keyword
                    - gnoi-cert-mgmt-getcert keyword
                    - gnoi-cert-mgmt-install keyword
                    - gnoi-cert-mgmt-revoke keyword
                    - gnoi-cert-mgmt-rotate keyword
                    - gnoi-file-get keyword
                    - gnoi-file-put keyword
                    - gnoi-file-remove keyword
                    - gnoi-file-stat keyword
                    - gnoi-file-transfertoremote keyword
                    - gnoi-system-cancelreboot keyword
                    - gnoi-system-ping keyword
                    - gnoi-system-reboot keyword
                    - gnoi-system-rebootstatus keyword
                    - gnoi-system-setpackage keyword
                    - gnoi-system-switchcontrolprocessor keyword
                    - gnoi-system-time keyword
                    - gnoi-system-traceroute keyword
```


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configure system security aaa local-profiles profile grpc rpc-authorization md-cli-session

```
                    - md-cli-session keyword
                    - rib-api-getversion keyword
                    - rib-api-modify keyword
                - li boolean
                - netconf
                    - base-op-authorization
                        - action boolean
                        - cancel-commit boolean
                        - close-session boolean
                        - commit boolean
                        - copy-config boolean
                        - create-subscription boolean
                        - delete-config boolean
                        - discard-changes boolean
                        - edit-config boolean
                        - get boolean
                        - get-config boolean
                        - get-data boolean
                        - get-schema boolean
                        - kill-session boolean
                        - lock boolean
                        - validate boolean
                - ssh-max-sessions number
                - telnet-max-sessions number
        - management-interface
            - apply-groups reference
            - apply-groups-exclude reference
            - md-cli
                - command-accounting-during-load boolean
            - output-authorization
                - md-interfaces boolean
                - telemetry-data boolean
        - remote-servers
            - apply-groups reference
            - apply-groups-exclude reference
            - ldap
                - admin-state keyword
                - apply-groups reference
                - apply-groups-exclude reference
                - public-key-authentication boolean
                - route-preference keyword
                - server number
                    - address (ipv4-address-no-zone | ipv6-address-no-zone)
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - port number
                    - admin-state keyword
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - bind-authentication
                        - password encrypted-leaf
                        - root-dn string-not-all-spaces
                    - search
                        - base-dn string-not-all-spaces
                    - server-name named-item
                    - tls-profile reference
                - server-retry number
                - server-timeout number
                - use-default-template boolean
            - radius
                - access-algorithm keyword
                - accounting boolean
                - accounting-port number
                - admin-state keyword
```


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configure system security aaa remote-servers radius apply-groups

```
                - apply-groups reference
                - apply-groups-exclude reference
                - authorization boolean
                - interactive-authentication boolean
                - port number
                - route-preference keyword
                - server number
                  - address (ipv4-address-no-zone | ipv6-address-no-zone)
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - authenticator keyword
                  - secret encrypted-leaf
                  - tls-client-profile reference
                - server-retry number
                - server-timeout number
                - use-default-template boolean
            - tacplus
                - accounting
                  - record-type keyword
                - admin-control
                  - tacplus-map-to-priv-lvl number
                - admin-state keyword
                - apply-groups reference
                - apply-groups-exclude reference
                - authorization
                  - request-format
                    - access-operation-cmd keyword
                  - use-priv-lvl boolean
                - interactive-authentication boolean
                - priv-lvl-map
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - priv-lvl number
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - user-profile-name reference
                - route-preference keyword
                - server number
                  - address (ipv4-address-no-zone | ipv6-address-no-zone)
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - port number
                  - secret encrypted-leaf
                - server-timeout number
                - service-request
                  - nokia-grpc-rpc-authorization boolean
                  - nokia-netconf-base-op-authorization boolean
                  - nokia-user boolean
                - use-default-template boolean
            - vprn-server
                - apply-groups reference
                - apply-groups-exclude reference
                - inband reference
                - outband reference
                - vprn reference
        - user-template keyword
            - access
                - bluetooth boolean
                - console boolean
                - console-port-cli boolean
                - ftp boolean
                - grpc boolean
                - li boolean
                - netconf boolean
```


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```
                  - scp-sftp boolean
                  - ssh-cli boolean
                  - telnet-cli boolean
               - apply-groups reference
               - apply-groups-exclude reference
               - console
                  - login-exec string-not-all-spaces
               - home-directory cflash-without-slot-url
               - profile named-item
               - restricted-to-home boolean
               - save-when-restricted boolean
         - apply-groups reference
         - apply-groups-exclude reference
         - cli-script
            - apply-groups reference
            - apply-groups-exclude reference
            - authorization
               - cron
                  - cli-user reference
               - event-handler
                  - cli-user reference
         - cpm-filter
            - apply-groups reference
            - apply-groups-exclude reference
            - default-action keyword
            - ip-filter
               - admin-state keyword
               - entry number
                  - action
                     - accept
                     - default
                     - drop
                     - queue reference
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - description description
                  - log reference
                  - match
                     - dscp keyword
                     - dst-ip
                        - address (ipv4-prefix-with-host-bits | ipv4-address)
                        - ip-prefix-list reference
                        - mask ipv4-address
                     - dst-port
                        - eq number
                        - mask number
                        - port-list reference
                        - range
                           - end number
                           - start number
                     - fragment keyword
                     - icmp
                        - code number
                        - type number
                     - ip-option
                        - mask number
                        - type number
                     - multiple-option boolean
                     - option-present boolean
                     - port
                        - eq number
                        - mask number
                        - port-list reference
                        - range
```


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configure system security cpm-filter ip-filter entry match port range end

```
                        – end number
                        – start number
                  – protocol (number | keyword)
                  – router-instance named-item-64
                  – src-ip
                     – address (ipv4-prefix-with-host-bits | ipv4-address)
                     – ip-prefix-list reference
                     – mask ipv4-address
                  – src-port
                     – eq number
                     – mask number
                     – port-list reference
                     – range
                        – end number
                        – start number
                  – tcp-flags
                     – ack boolean
                     – syn boolean
         – ipv6-filter
            – admin-state keyword
            – entry number
               – action
                  – accept
                  – default
                  – drop
                  – queue reference
               – apply-groups reference
               – apply-groups-exclude reference
               – description description
               – log reference
               – match
                  – dscp keyword
                  – dst-ip
                     – address (ipv6-prefix-with-host-bits | ipv6-address)
                     – ipv6-prefix-list reference
                     – mask ipv6-address
                  – dst-port
                     – eq number
                     – mask number
                     – port-list reference
                     – range
                        – end number
                        – start number
                  – extension-header
                     – hop-by-hop boolean
                  – flow-label number
                  – fragment keyword
                  – icmp
                     – code number
                     – type number
                  – next-header (number | keyword)
                  – port
                     – eq number
                     – mask number
                     – port-list reference
                     – range
                        – end number
                        – start number
                  – router-instance named-item-64
                  – src-ip
                     – address (ipv6-prefix-with-host-bits | ipv6-address)
                     – ipv6-prefix-list reference
                     – mask ipv6-address
                  – src-port
```


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configure system security cpm-filter ipv6-filter entry match src-port eq

```
                    - eq number
                    - mask number
                    - port-list reference
                    - range
                       - end number
                       - start number
                 - tcp-flags
                    - ack boolean
                    - syn boolean
         - mac-filter
            - admin-state keyword
            - entry number
               - action
                  - accept
                  - default
                  - drop
                  - queue reference
               - apply-groups reference
               - apply-groups-exclude reference
               - description description
               - log reference
               - match
                  - cfm-opcode
                     - eq number
                     - gt number
                     - lt number
                     - range
                        - end number
                        - start number
                  - dst-mac
                     - address mac-address
                     - mask mac-address
                  - etype etype-value
                  - frame-type keyword
                  - llc-dsap
                     - dsap number
                     - mask number
                  - llc-ssap
                     - mask number
                     - ssap number
                  - service reference
                  - src-mac
                     - address mac-address
                     - mask mac-address
      - cpm-queue
         - apply-groups reference
         - apply-groups-exclude reference
         - queue number
            - apply-groups reference
            - apply-groups-exclude reference
            - cbs number
            - mbs number
            - rate
               - cir (number | keyword)
               - pir (number | keyword)
      - cpu-protection
         - apply-groups reference
         - apply-groups-exclude reference
         - ip-src-monitoring
            - included-protocols
               - dhcp boolean
               - gtp boolean
               - icmp boolean
               - igmp boolean
```


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```
            – link-specific-rate (number | keyword)
            – policy number
               – alarm boolean
               – apply-groups reference
               – apply-groups-exclude reference
               – description description
               – eth-cfm
                  – entry number
                     – apply-groups reference
                     – apply-groups-exclude reference
                     – level start number end number
                     – opcode start number end number
                     – pir (number | keyword)
               – out-profile-rate
                  – log-events boolean
                  – pir (number | keyword)
               – overall-rate (number | keyword)
               – per-source-parameters
                  – ip-src-monitoring
                     – limit-dhcp-ci-addr-zero boolean
               – per-source-rate (number | keyword)
            – port-overall-rate
               – action-low-priority boolean
               – pir (number | keyword)
            – protocol-protection
               – allow-sham-links boolean
               – block-pim-tunneled boolean
         – dist-cpu-protection
            – apply-groups reference
            – apply-groups-exclude reference
            – policy named-item
               – apply-groups reference
               – apply-groups-exclude reference
               – description description
               – local-monitoring-policer named-item
                  – apply-groups reference
                  – apply-groups-exclude reference
                  – description description
                  – exceed-action keyword
                  – log-events keyword
                  – rate
                     – kbps
                        – limit (keyword | number)
                        – mbs number
                     – packets
                        – initial-delay number
                        – limit (keyword | number)
                        – within number
               – protocol keyword
                  – apply-groups reference
                  – apply-groups-exclude reference
                  – dynamic-parameters
                     – detection-time number
                     – exceed-action
                        – action keyword
                        – hold-down (keyword | number)
                     – log-events keyword
                     – rate
                        – kbps
                           – limit (keyword | number)
                           – mbs number
                        – packets
                           – initial-delay number
                           – limit (keyword | number)
```


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configure system security dist-cpu-protection policy protocol dynamic-parameters rate packets within

```
                        – within number
                – enforcement
                  – dynamic
                    – mon-policer-name reference
                  – dynamic-local-mon-bypass
                  – static
                    – policer-name reference
            – static-policer named-item
              – apply-groups reference
              – apply-groups-exclude reference
              – description description
              – detection-time number
              – exceed-action
                – action keyword
                – hold-down (keyword | number)
              – log-events keyword
              – rate
                – kbps
                  – limit (keyword | number)
                  – mbps number
                – packets
                  – initial-delay number
                  – limit (keyword | number)
                  – within number
            – type keyword
        – dot1x
          – admin-state keyword
          – apply-groups reference
          – apply-groups-exclude reference
          – radius-policy named-item
            – admin-state keyword
            – apply-groups reference
            – apply-groups-exclude reference
            – retry number
            – server number
              – accounting-port number
              – address ipv4-unicast-address
              – apply-groups reference
              – apply-groups-exclude reference
              – authentication-port number
              – secret encrypted-leaf
              – type keyword
            – source-address ipv4-unicast-address
            – timeout number
        – ftp-server boolean
        – hash-control
          – apply-groups reference
          – apply-groups-exclude reference
          – management-interface
            – classic-cli
              – read-algorithm keyword
              – write-algorithm keyword
            – grpc
              – hash-algorithm keyword
            – md-cli
              – hash-algorithm keyword
            – netconf
              – hash-algorithm keyword
        – keychains
          – keychain named-item
            – admin-state keyword
            – apply-groups reference
            – apply-groups-exclude reference
            – bidirectional
```


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configure system security keychains keychain bidirectional entry

```
                - entry number
                  - admin-state keyword
                  - algorithm keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - authentication-key encrypted-leaf
                  - begin-time date-and-time
                  - option keyword
                  - tolerance (number | keyword)
            - description description
            - receive
                - entry number
                  - admin-state keyword
                  - algorithm keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - authentication-key encrypted-leaf
                  - begin-time date-and-time
                  - end-time date-and-time
                  - tolerance (number | keyword)
            - send
                - entry number
                  - admin-state keyword
                  - algorithm keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - authentication-key encrypted-leaf
                  - begin-time date-and-time
            - tcp-option-number
                - receive keyword
                - send keyword
        - management
            - allow-ftp boolean
            - allow-grpc boolean
            - allow-netconf boolean
            - allow-ssh boolean
            - allow-telnet boolean
            - allow-telnet6 boolean
            - apply-groups reference
            - apply-groups-exclude reference
        - management-access-filter
            - apply-groups reference
            - apply-groups-exclude reference
            - ip-filter
                - admin-state keyword
                - apply-groups reference
                - apply-groups-exclude reference
                - default-action keyword
                - entry number
                  - action keyword
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - description description
                  - log-events boolean
                  - match
                    - dst-port
                      - mask number
                      - port number
                    - mgmt-port
                      - cpm
                      - lag lag-interface
                      - port-id port
                    - protocol (number | keyword)
                    - router-instance string
```


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configure system security management-access-filter ip-filter entry match src-ip

```
                    - src-ip
                      - address (ipv4-prefix | ipv4-address)
                      - ip-prefix-list reference
                      - mask ipv4-address
                    - src-port
                      - mask number
                      - port number
          - ipv6-filter
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - default-action keyword
            - entry number
              - action keyword
              - apply-groups reference
              - apply-groups-exclude reference
              - description description
              - log-events boolean
              - match
                - dst-port
                  - mask number
                  - port number
                - flow-label number
                - mgmt-port
                  - cpm
                  - lag lag-interface
                  - port-id port
                - next-header (number | keyword)
                - router-instance string
                - src-ip
                  - address (ipv6-prefix | ipv6-address)
                  - ipv6-prefix-list reference
                  - mask ipv6-address
                - src-port
                  - mask number
                  - port number
          - mac-filter
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - default-action keyword
            - entry number
              - action keyword
              - apply-groups reference
              - apply-groups-exclude reference
              - description description
              - log-events boolean
              - match
                - cfm-opcode
                  - eq number
                  - gt number
                  - lt number
                  - range
                    - end number
                    - start number
                - dot1p
                  - mask number
                  - priority number
                - dst-mac
                  - address mac-address
                  - mask mac-address
                - etype etype-value
                - frame-type keyword
                - llc-dsap
```


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configure system security management-access-filter mac-filter entry match llc-dsap dsap

```
                        – dsap number
                        – mask number
                     – llc-ssap
                        – mask number
                        – ssap number
                     – service service-name
                     – snap-oui keyword
                     – snap-pid number
                     – src-mac
                        – address mac-address
                        – mask mac-address
         – per-peer-queuing boolean
         – pki
            – apply-groups reference
            – apply-groups-exclude reference
            – ca-profile named-item
               – admin-state keyword
               – apply-groups reference
               – apply-groups-exclude reference
               – auto-crl-update
                  – admin-state keyword
                  – apply-groups reference
                  – apply-groups-exclude reference
                  – crl-urls
                     – url-entry number
                        – apply-groups reference
                        – apply-groups-exclude reference
                        – transmission-profile reference
                        – url http-url-path-loose
                  – periodic-update-interval number
                  – pre-update-time number
                  – retry-interval number
                  – schedule-type keyword
               – cert-file pki-file-name
               – cmpv2
                  – accept-unprotected-message
                     – error-message boolean
                     – pkiconf-message boolean
                  – always-set-sender-for-ir boolean
                  – http
                     – response-timeout number
                     – version keyword
                  – key-list
                     – key display-string
                        – apply-groups reference
                        – apply-groups-exclude reference
                        – password encrypted-leaf
                  – recipient-subject string
                  – response-signing-cert pki-file-name
                  – response-signing-use-extracert
                  – same-recipient-nonce-for-poll-request boolean
                  – signing-cert-subject string
                  – url
                     – service-name service-name
                     – transmission-profile reference
                     – url-string http-optional-url-loose
                  – use-ca-subject
               – crl-file pki-file-name
               – description description
               – ocsp
                  – responder-url http-optional-url-loose
                  – service-name service-name
                  – transmission-profile reference
               – revocation-check keyword
```


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configure system security pki certificate-auto-update

```
        - certificate-auto-update pki-file-name
          - apply-groups reference
          - apply-groups-exclude reference
          - key-file-name pki-file-name
          - profile reference
        - certificate-display-format keyword
        - certificate-expiration-warning
          - hours number
          - repeat-hours number
        - certificate-update-profile named-item
          - after-issue number
          - apply-groups reference
          - apply-groups-exclude reference
          - before-expiry number
          - cmpv2
            - ca-profile reference
          - dsa
            - key-size number
          - ecdsa
            - curve keyword
          - est
            - est-profile reference
          - hash-algorithm keyword
          - retry-interval number
          - rsa
            - key-size number
          - same-as-existing-key
        - common-name-list named-item
          - apply-groups reference
          - apply-groups-exclude reference
          - common-name number
            - apply-groups reference
            - apply-groups-exclude reference
            - cn-type keyword
            - cn-value regular-expression-not-all-spaces
        - crl-expiration-warning
          - hours number
          - repeat-hours number
        - est-profile named-item
          - apply-groups reference
          - apply-groups-exclude reference
          - check-id-kp-cmcra-only boolean
          - client-tls-profile named-item
          - http-authentication
            - password encrypted-leaf
            - username string
          - server
            - fqdn fully-qualified-domain-name
            - ipv4 ipv4-unicast-address
            - ipv6 (ipv4-address-no-zone | ipv6-address-no-zone)
            - port number
          - transmission-profile named-item
        - imported-format keyword
        - maximum-cert-chain-depth number
      - python-script
        - apply-groups reference
        - apply-groups-exclude reference
        - authorization
          - cron
            - cli-user reference
          - event-handler
            - cli-user reference
      - snmp
```


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configure system security snmp access

```
            - access named-item context named-item-or-empty security-model keyword security-
level keyword
              - apply-groups reference
              - apply-groups-exclude reference
              - notify named-item
              - prefix-match keyword
              - read named-item
              - write named-item
            - apply-groups reference
            - apply-groups-exclude reference
            - attempts
              - apply-groups reference
              - apply-groups-exclude reference
              - count number
              - lockout number
              - time number
            - community encrypted-leaf
              - access-permissions keyword
              - apply-groups reference
              - apply-groups-exclude reference
              - source-access-list reference
              - version keyword
            - source-access-list string-not-all-spaces
              - apply-groups reference
              - apply-groups-exclude reference
              - source-host named-item
                - address (ipv4-address-no-zone | ipv6-address-no-zone)
                - apply-groups reference
                - apply-groups-exclude reference
            - usm-community encrypted-leaf
              - apply-groups reference
              - apply-groups-exclude reference
              - group named-item
              - source-access-list reference
            - view named-item subtree string
              - apply-groups reference
              - apply-groups-exclude reference
              - mask string
              - type keyword
        - source-address
            - ipv4 keyword
              - address ipv4-address
              - apply-groups reference
              - apply-groups-exclude reference
              - interface-name interface-name
            - ipv6 keyword
              - address ipv6-address
              - apply-groups reference
              - apply-groups-exclude reference
        - ssh
            - apply-groups reference
            - apply-groups-exclude reference
            - authentication-method
              - client
                - public-key-only boolean
              - server
                - public-key-only boolean
            - client-cipher-list-v2
              - apply-groups reference
              - apply-groups-exclude reference
              - cipher number
                - apply-groups reference
                - apply-groups-exclude reference
                - name keyword
```


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configure system security ssh client-host-key-list-v2

```
            – client-host-key-list-v2
              – host-key number
                – apply-groups reference
                – apply-groups-exclude reference
                – name keyword
            – client-kex-list-v2
              – kex number
                – apply-groups reference
                – apply-groups-exclude reference
                – name keyword
            – client-mac-list-v2
              – mac number
                – apply-groups reference
                – apply-groups-exclude reference
                – name keyword
            – key-re-exchange
              – client
                – admin-state keyword
                – apply-groups reference
                – apply-groups-exclude reference
                – mbytes (number | keyword)
                – minutes (number | keyword)
              – server
                – admin-state keyword
                – apply-groups reference
                – apply-groups-exclude reference
                – mbytes (number | keyword)
                – minutes (number | keyword)
            – listening-port number
            – permit-empty-passwords boolean
            – preserve-key boolean
            – server-admin-state keyword
            – server-cipher-list-v2
              – apply-groups reference
              – apply-groups-exclude reference
              – cipher number
                – apply-groups reference
                – apply-groups-exclude reference
                – name keyword
            – server-host-key-list-v2
              – host-key number
                – apply-groups reference
                – apply-groups-exclude reference
                – name keyword
            – server-kex-list-v2
              – kex number
                – apply-groups reference
                – apply-groups-exclude reference
                – name keyword
            – server-mac-list-v2
              – mac number
                – apply-groups reference
                – apply-groups-exclude reference
                – name keyword
        – system-passwords
            – admin-password hashed-leaf
            – apply-groups reference
            – apply-groups-exclude reference
        – tech-support
            – apply-groups reference
            – apply-groups-exclude reference
            – ts-location (ts-sat-url | cflash-url | string)
        – telnet
            – apply-groups reference
```


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configure system security telnet apply-groups-exclude

```
            - apply-groups-exclude reference
            - listening-port number
         - telnet-server boolean
         - telnet6-server boolean
         - tls
            - apply-groups reference
            - apply-groups-exclude reference
            - cert-profile named-item
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - entry number
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - certificate-file string-not-all-spaces
                  - key-file string-not-all-spaces
                  - send-chain
                     - ca-profile reference
            - client-cipher-list named-item
               - apply-groups reference
               - apply-groups-exclude reference
               - tls12-cipher number
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - name keyword
               - tls13-cipher number
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - name keyword
            - client-group-list named-item
               - apply-groups reference
               - apply-groups-exclude reference
               - tls13-group number
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - name keyword
            - client-signature-list named-item
               - apply-groups reference
               - apply-groups-exclude reference
               - tls13-signature number
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - name keyword
            - client-tls-profile named-item
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - cert-profile reference
               - cipher-list reference
               - group-list reference
               - protocol-version keyword
               - signature-list reference
               - status-verify
                  - default-result keyword
                  - ee-revocation
                     - primary keyword
                     - secondary keyword
               - trust-anchor-profile reference
            - server-cipher-list named-item
               - apply-groups reference
               - apply-groups-exclude reference
               - tls12-cipher number
                  - apply-groups reference
                  - apply-groups-exclude reference
```


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configure system security tls server-cipher-list tls12-cipher name

```
                - name keyword
            - tls13-cipher number
                - apply-groups reference
                - apply-groups-exclude reference
                - name keyword
        - server-group-list named-item
            - apply-groups reference
            - apply-groups-exclude reference
            - tls13-group number
                - apply-groups reference
                - apply-groups-exclude reference
                - name keyword
        - server-signature-list named-item
            - apply-groups reference
            - apply-groups-exclude reference
            - tls13-signature number
                - apply-groups reference
                - apply-groups-exclude reference
                - name keyword
        - server-tls-profile named-item
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - authenticate-client
                - common-name-list reference
                - trust-anchor-profile reference
            - cert-profile reference
            - cipher-list reference
            - group-list reference
            - protocol-version keyword
            - signature-list reference
            - status-verify
                - default-result keyword
                - ee-revocation
                    - primary keyword
                    - secondary keyword
            - tls-re-negotiate-timer number
        - trust-anchor-profile named-item
            - apply-groups reference
            - apply-groups-exclude reference
            - trust-anchor reference
    - user-params
        - apply-groups reference
        - apply-groups-exclude reference
        - attempts
            - count number
            - lockout number
            - time number
        - authentication-order
            - exit-on-reject boolean
            - order keyword
        - local-user
            - password
                - aging number
                - apply-groups reference
                - apply-groups-exclude reference
                - complexity-rules
                    - allow-user-name boolean
                    - credits
                        - lowercase number
                        - numeric number
                        - special-character number
                        - uppercase number
                    - disallow-sequence-keys number
```


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configure system security user-params local-user password complexity-rules minimum-classes

```
                    - minimum-classes number
                    - minimum-length number
                    - repeated-characters number
                    - required
                      - lowercase number
                      - numeric number
                      - special-character number
                      - uppercase number
                  - hashing keyword
                  - history-size number
                  - minimum-age number
                  - minimum-change number
              - user named-item
                  - access
                    - bluetooth boolean
                    - console boolean
                    - console-port-cli boolean
                    - ftp boolean
                    - grpc boolean
                    - li boolean
                    - netconf boolean
                    - scp-sftp boolean
                    - snmp boolean
                    - ssh-cli boolean
                    - telnet-cli boolean
                  - apply-groups reference
                  - apply-groups-exclude reference
                  - cli-engine keyword
                  - console
                    - cannot-change-password boolean
                    - login-exec (sat-url | cflash-url | ftp-tftp-url | filename)
                    - member reference
                    - new-password-at-login boolean
                  - home-directory cflash-without-slot-url
                  - password hashed-leaf
                  - public-keys
                    - ecdsa
                      - ecdsa-key number
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - description description
                        - key-value string-not-all-spaces
                    - rsa
                      - rsa-key number
                        - apply-groups reference
                        - apply-groups-exclude reference
                        - description description
                        - key-value string-not-all-spaces
                  - restricted-to-home boolean
                  - save-when-restricted boolean
                  - snmp
                    - apply-groups reference
                    - apply-groups-exclude reference
                    - authentication
                      - authentication-key encrypted-leaf-hex-without-prefix
                      - authentication-protocol keyword
                      - privacy
                        - privacy-key encrypted-leaf-hex-without-prefix
                        - privacy-protocol keyword
                    - group named-item
                  - ssh-authentication-method
                    - client
                      - public-key-only keyword
                    - server
```


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configure system security user-params local-user user ssh-authentication-method server public-key-only

```
                        – public-key-only keyword
         – vprn-network-exceptions
            – count number
            – window number
      – selective-fib boolean
      – software-repository named-item
         – apply-groups reference
         – apply-groups-exclude reference
         – description description
         – primary-location string
         – secondary-location string
         – tertiary-location string
      – switch-fabric
         – apply-groups reference
         – apply-groups-exclude reference
         – failure-recovery
            – admin-state keyword
         – sfm-loss-threshold number
      – telemetry
         – apply-groups reference
         – apply-groups-exclude reference
         – destination-group named-item
            – allow-unsecure-connection
            – apply-groups reference
            – apply-groups-exclude reference
            – description description
            – destination (ipv4-address-no-zone | ipv6-address-no-zone | fully-qualified-
domain-name) port number
               – apply-groups reference
               – apply-groups-exclude reference
               – router-instance string
            – tcp-keepalive
               – admin-state keyword
               – idle-time number
               – interval number
               – retries number
            – tls-client-profile reference
         – notification-bundling
            – admin-state keyword
            – apply-groups reference
            – apply-groups-exclude reference
            – max-msg-count number
            – max-time-granularity number
         – persistent-subscriptions
            – delay-on-boot number
            – subscription named-item
               – admin-state keyword
               – apply-groups reference
               – apply-groups-exclude reference
               – description description
               – destination-group reference
               – encoding keyword
               – local-source-address (ipv4-address-no-zone | ipv6-address-no-zone)
               – mode keyword
               – originated-qos-marking keyword
               – sample-interval number
               – sensor-group reference
         – sensor-groups
            – sensor-group named-item
               – apply-groups reference
               – apply-groups-exclude reference
               – description description
               – path string
      – thresholds
```


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```
        - cflash-cap-alarm-percent thresholds-cflash-url
          - apply-groups reference
          - apply-groups-exclude reference
          - falling-threshold number
          - interval number
          - rising-threshold number
          - rmon-event-type keyword
          - startup-alarm keyword
        - cflash-cap-warn-percent thresholds-cflash-url
          - apply-groups reference
          - apply-groups-exclude reference
          - falling-threshold number
          - interval number
          - rising-threshold number
          - rmon-event-type keyword
          - startup-alarm keyword
        - kb-memory-use-alarm
          - apply-groups reference
          - apply-groups-exclude reference
          - falling-threshold number
          - interval number
          - rising-threshold number
          - rmon-event-type keyword
          - startup-alarm keyword
        - kb-memory-use-warn
          - apply-groups reference
          - apply-groups-exclude reference
          - falling-threshold number
          - interval number
          - rising-threshold number
          - rmon-event-type keyword
          - startup-alarm keyword
        - rmon
          - alarm number
            - apply-groups reference
            - apply-groups-exclude reference
            - falling-event number
            - falling-threshold number
            - interval number
            - owner string
            - rising-event number
            - rising-threshold number
            - sample-type keyword
            - startup-alarm keyword
            - variable-oid string
          - event number
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - event-type keyword
            - owner string
    - time
        - apply-groups reference
        - apply-groups-exclude reference
        - daylight-saving-time-zone
          - apply-groups reference
          - apply-groups-exclude reference
          - non-standard
            - end
              - day keyword
              - hours-minutes hours-minutes-twenty-four
              - month keyword
              - week keyword
            - name string
```


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configure system time daylight-saving-time-zone non-standard offset

```
                - offset number
                - start
                  - day keyword
                  - hours-minutes hours-minutes-twenty-four
                  - month keyword
                  - week keyword
            - standard
                - name keyword
        - ntp
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - authentication-check boolean
            - authentication-key number
                - apply-groups reference
                - apply-groups-exclude reference
                - key encrypted-leaf
                - type keyword
            - authentication-keychain reference
            - broadcast reference interface-name interface-name
                - apply-groups reference
                - apply-groups-exclude reference
                - authentication-keychain reference
                - key-id reference
                - ttl number
                - version number
            - broadcast-client string interface-name interface-name
                - apply-groups reference
                - apply-groups-exclude reference
                - authenticate boolean
            - multicast
                - apply-groups reference
                - apply-groups-exclude reference
                - authentication-keychain reference
                - key-id reference
                - version number
            - multicast-client
                - apply-groups reference
                - apply-groups-exclude reference
                - authenticate boolean
            - ntp-server
                - authenticate boolean
            - peer (ipv4-address-no-zone | ipv6-address-no-zone) router-instance string
                - apply-groups reference
                - apply-groups-exclude reference
                - authentication-keychain reference
                - key-id reference
                - prefer boolean
                - version number
            - server (ipv4-address-no-zone | ipv6-address-no-zone | keyword) router-
instance string
                - apply-groups reference
                - apply-groups-exclude reference
                - authentication-keychain reference
                - key-id reference
                - prefer boolean
                - version number
        - prefer-local-time boolean
        - sntp
            - admin-state keyword
            - apply-groups reference
            - apply-groups-exclude reference
            - server (ipv4-address-no-zone | ipv6-address-no-zone)
                - apply-groups reference
```


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configure system time sntp server apply-groups-exclude

```
                - apply-groups-exclude reference
                - interval number
                - prefer boolean
                - version number
            - sntp-state keyword
        - zone
            - non-standard
                - name string
                - offset hours-minutes-with-range
            - standard
                - name keyword
    - transmission-profile named-item
        - apply-groups reference
        - apply-groups-exclude reference
        - http-version keyword
        - ipv4-source-address ipv4-unicast-address
        - ipv6-source-address ipv6-address
        - redirection number
        - retry number
        - router-instance router-instance-base-management-vprn-loose
        - timeout number
    - usb keyword
        - admin-state keyword
        - apply-groups reference
        - apply-groups-exclude reference
```


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## 4.46.1 system command descriptions

### system

| | |
|---|---|
| Synopsis | Enter the **system** context |
| Context | **configure** system |
| Tree | system |
| Description | Commands in this context enable configuring of general system level functions and router management protocols. |
| Introduced | 16.0.R1 |
| Platforms | All |

### alarm-contact-in-power *boolean*

| | |
|---|---|
| Synopsis | Power the output pin on the CPM alarm interface port |
| Context | **configure** system alarm-contact-in-power *boolean* |
| Tree | alarm-contact-in-power |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-a |

### alarm-contact-input [input-pin-number] *number*

| | |
|---|---|
| Synopsis | Enter the **alarm-contact-input** list instance |
| Context | **configure** system alarm-contact-input *number* |
| Tree | alarm-contact-input |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-a |

### [**input-pin-number**] *number*

| | |
|---|---|
| Synopsis | Alarm contact input pin |
| Context | **configure** system alarm-contact-input *number* |
| Tree | alarm-contact-input |
| Range | 1 to 4 |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-a |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the alarm contact input |
| Context | **configure** system alarm-contact-input *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-a |

### **clear-message** *description*

| | |
|---|---|
| Synopsis | Text message sent in the log event when an alarm clears |
| Context | **configure** system alarm-contact-input *number* clear-message *description* |
| Tree | clear-message |
| Description | This command configures a text message to be included in the log event that is sent when the system clears an alarm.<br>The system generates the default "Alarm Input Cleared" message if no message is configured. The **clear-message** string is included in the log event when the pin changes to the normal state. |
| String length | 1 to 80 |
| Default | Alarm Input Cleared |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-a |

### **description** *long-description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** system alarm-contact-input *number* description *long-description* |
| Tree | description |
| String length | 1 to 160 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7750 SR-a |

## **normal-state** *keyword*

| | |
|---|---|
| Synopsis | Normal state associated with the alarm contact input |
| Context | **configure** system alarm-contact-input *number* normal-state *keyword* |
| Tree | normal-state |
| Options | open, closed |
| Default | open |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-a |

## **trigger-message** *description*

| | |
|---|---|
| Synopsis | Text message sent in the log event when input changes |
| Context | **configure** system alarm-contact-input *number* trigger-message *description* |
| Tree | trigger-message |
| Description | This command configures a text message to be included in the log event that is sent when the system generates an alarm.<br>The system generates the default message "Alarm Input Triggered" if no message is configured. This command's message string is included in the log event when the pin changes from the normal state. |
| String length | 1 to 80 |
| Default | Alarm Input Triggered |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-a |

## **alarms**

| | |
|---|---|
| Synopsis | Enter the **alarms** context |
| Context | **configure** system alarms |
| Tree | alarms |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the system alarm |
| Context | **configure** system alarms admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R4 |
| Platforms | All |

### **max-cleared** *number*

| | |
|---|---|
| Synopsis | Maximum number of cleared alarms |
| Context | **configure** system alarms max-cleared *number* |
| Tree | max-cleared |
| Range | 0 to 500 |
| Default | 500 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **allow-boot-license-violations** *boolean*

| | |
|---|---|
| Synopsis | Allow boot license violations in boot-up configuration |
| Context | **configure** system allow-boot-license-violations *boolean* |
| Tree | allow-boot-license-violations |
| Default | true |
| Introduced | 16.0.R4 |
| Platforms | All |

### **bluetooth**

| | |
|---|---|
| Synopsis | Enter the **bluetooth** context |
| Context | **configure** system bluetooth |
| Tree | bluetooth |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s, 7950 XRS-20e |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the Bluetooth module |
| Context | **configure** system bluetooth admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 20.2.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s, 7950 XRS-20e |

### **advertising-timeout** *number*

| | |
|---|---|
| Synopsis | Bluetooth advertising timeout |
| Context | **configure** system bluetooth advertising-timeout *number* |
| Tree | advertising-timeout |
| Range | 30 to 3600 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s, 7950 XRS-20e |

### **device** [mac-address] *mac-address*

| | |
|---|---|
| Synopsis | Enter the **device** list instance |
| Context | **configure** system bluetooth device *mac-address* |
| Tree | device |
| Max. instances | 5 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s, 7950 XRS-20e |

### [**mac-address**] *mac-address*

| | |
|---|---|
| Synopsis | Bluetooth client device MAC address |
| Context | **configure** system bluetooth device *mac-address* |


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| | |
|---|---|
| Tree | device |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s, 7950 XRS-20e |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** system bluetooth device *mac-address* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s, 7950 XRS-20e |

### **module** [cpm-slot] *cpm-card-slot*

| | |
|---|---|
| Synopsis | Enter the **module** list instance |
| Context | **configure** system bluetooth module *cpm-card-slot* |
| Tree | module |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s, 7950 XRS-20e |

### [**cpm-slot**] *cpm-card-slot*

| | |
|---|---|
| Synopsis | CPM slot on which the module resides |
| Context | **configure** system bluetooth module *cpm-card-slot* |
| Tree | module |
| String length | 1 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s, 7950 XRS-20e |

### **provisioned-identifier** *display-string*

| | |
|---|---|
| Synopsis | Bluetooth module ID |


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| | |
|---|---|
| Context | **configure** system bluetooth module *cpm-card-slot* provisioned-identifier *display-string* |
| Tree | provisioned-identifier |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s, 7950 XRS-20e |

### **pairing-button** *boolean*

| | |
|---|---|
| Synopsis | Enable the pairing button |
| Context | **configure** system bluetooth pairing-button *boolean* |
| Tree | pairing-button |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s, 7950 XRS-20e |

### **passkey** *string*

| | |
|---|---|
| Synopsis | Bluetooth passkey |
| Context | **configure** system bluetooth passkey *string* |
| Tree | passkey |
| String length | 6 |
| Default | 123456 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s, 7950 XRS-20e |

### **power-mode** *keyword*

| | |
|---|---|
| Synopsis | Bluetooth module power mode |
| Context | **configure** system bluetooth power-mode *keyword* |
| Tree | power-mode |
| Options | manual, automatic |
| Default | automatic |
| Introduced | 20.2.R1 |
| Platforms | 7750 SR-1, 7750 SR-1 (FP5), 7750 SR-s, 7950 XRS-20e |


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### **boot-bad-exec** *url*

| | |
|---|---|
| Synopsis | CLI script file to execute following a failed boot-up |
| Context | **configure** system boot-bad-exec *url* |
| Tree | boot-bad-exec |
| Description | This command configures the name of the CLI script file to be run following the failure of a boot-up configuration.<br>**Note**: This command has no effect in model-driven mode. |
| String length | 1 to 180 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **boot-good-exec** *url*

| | |
|---|---|
| Synopsis | CLI script file to execute following successful boot-up |
| Context | **configure** system boot-good-exec *url* |
| Tree | boot-good-exec |
| String length | 1 to 180 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **central-frequency-clock**

| | |
|---|---|
| Synopsis | Enter the **central-frequency-clock** context |
| Context | **configure** system central-frequency-clock |
| Tree | central-frequency-clock |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **bits**

| | |
|---|---|
| Synopsis | Enter the **bits** context |
| Context | **configure** system central-frequency-clock bits |
| Tree | bits |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## input

| | |
|---|---|
| Synopsis | Enter the **input** context |
| Context | **configure** system central-frequency-clock bits input |
| Tree | input |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the BITS input timing reference |
| Context | **configure** system central-frequency-clock bits input admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## interface-type *keyword*

| | |
|---|---|
| Synopsis | Interface type of the BITS timing reference |
| Context | **configure** system central-frequency-clock bits interface-type *keyword* |
| Tree | interface-type |
| Options | ds1-esf, ds1-sf, e1-pcm30crc, e1-pcm31crc, g703-2048khz |
| Default | ds1-esf |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## output

| | |
|---|---|
| Synopsis | Enter the **output** context |
| Context | **configure** system central-frequency-clock bits output |
| Tree | output |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of BITS output timing reference |
| Context | **configure** system central-frequency-clock bits output admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **line-length** *keyword*

| | |
|---|---|
| Synopsis | Line length for the BITS output timing reference |
| Context | **configure** system central-frequency-clock bits output line-length *keyword* |
| Tree | line-length |
| Options | length-not-applicable, 110, 220, 330, 440, 550, 660 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ql-minimum** *keyword*

| | |
|---|---|
| Synopsis | Minimum signal quality level for BITSout port |
| Context | **configure** system central-frequency-clock bits output ql-minimum *keyword* |
| Tree | ql-minimum |
| Options | unused, prs, stu, st2, tnc, st3e, st3, prc, ssua, ssub, sec, eec1, eec2 |
| Default | unused |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **source** *keyword*

| | |
|---|---|
| Synopsis | Source of the BITS output timing reference |
| Context | **configure** system central-frequency-clock bits output source *keyword* |


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| | |
|---|---|
| Tree | source |
| Options | line-ref, internal-clock |
| Default | line-ref |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **squelch** *boolean*

| | |
|---|---|
| Synopsis | Squelch the signal of the BITS output timing reference |
| Context | **configure** system central-frequency-clock bits output squelch *boolean* |
| Tree | squelch |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ql-override** *keyword*

| | |
|---|---|
| Synopsis | Override for the quality level of the timing reference |
| Context | **configure** system central-frequency-clock bits ql-override *keyword* |
| Tree | ql-override |
| Options | unused, prs, stu, st2, tnc, st3e, st3, prc, ssua, ssub, sec |
| Default | unused |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ssm-bit** *number*

| | |
|---|---|
| Synopsis | Sa bit to convey SSM information |
| Context | **configure** system central-frequency-clock bits ssm-bit *number* |
| Tree | ssm-bit |
| Range | 4 to 8 |
| Default | 8 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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## gnss

| | |
|---|---|
| Synopsis | Enter the **gnss** context |
| Context | **configure** system central-frequency-clock gnss |
| Tree | gnss |
| Introduced | 22.10.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se, 7750 SR-2se |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the gnss timing reference |
| Context | **configure** system central-frequency-clock gnss admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 22.10.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se, 7750 SR-2se |

## ql-override *keyword*

| | |
|---|---|
| Synopsis | Quality level override for a timing reference |
| Context | **configure** system central-frequency-clock gnss ql-override *keyword* |
| Tree | ql-override |
| Options | unused, prs, stu, st2, tnc, st3e, st3 |
| Default | unused |
| Introduced | 22.10.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se, 7750 SR-2se |

## ptp

| | |
|---|---|
| Synopsis | Enter the **ptp** context |
| Context | **configure** system central-frequency-clock ptp |
| Tree | ptp |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the PTP timing reference |
| Context | **configure** system central-frequency-clock ptp admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ql-override** *keyword*

| | |
|---|---|
| Synopsis | Quality level of a timing reference that overrides any value provided by the reference's SSM process |
| Context | **configure** system central-frequency-clock ptp ql-override *keyword* |
| Tree | ql-override |
| Options | unused, prs, stu, st2, tnc, st3e, st3, prc, ssua, ssub, sec |
| Default | unused |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ql-minimum** *keyword*

| | |
|---|---|
| Synopsis | Minimum signal quality level for system timing module |
| Context | **configure** system central-frequency-clock ql-minimum *keyword* |
| Tree | ql-minimum |
| Options | unused, prs, stu, st2, tnc, st3e, st3, prc, ssua, ssub, sec, eec1, eec2 |
| Default | unused |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ql-selection** *boolean*

| | |
|---|---|
| Synopsis | Consider quality level in system and BITS output timing |
| Context | **configure** system central-frequency-clock ql-selection *boolean* |


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| | |
|---|---|
| Tree | ql-selection |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## ref-order

| | |
|---|---|
| Synopsis | Enter the **ref-order** context |
| Context | **configure** system central-frequency-clock ref-order |
| Tree | ref-order |
| Description | Commands in this context specify the priority order of the synchronous equipment timing subsystem**.**<br>If a reference source is disabled, this command defines the next reference source for the clock. If all reference sources are disabled, clocking is derived from a local oscillator.<br>If a timing reference is linked to a source port that is operationally down, the port is no longer a qualified, valid reference. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## fifth *keyword*

| | |
|---|---|
| Synopsis | Fifth preferred timing reference source |
| Context | **configure** system central-frequency-clock ref-order fifth *keyword* |
| Tree | fifth |
| Options | ref1, ref2, bits, ptp, none, synce, gnss |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## first *keyword*

| | |
|---|---|
| Synopsis | First preferred timing reference source |
| Context | **configure** system central-frequency-clock ref-order first *keyword* |
| Tree | first |
| Options | ref1, ref2, bits, ptp, none, synce, gnss |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **fourth** *keyword*

| | |
|---|---|
| Synopsis | Fourth preferred timing reference source |
| Context | **configure** system central-frequency-clock ref-order fourth *keyword* |
| Tree | fourth |
| Options | ref1, ref2, bits, ptp, none, synce, gnss |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **second** *keyword*

| | |
|---|---|
| Synopsis | Second preferred timing reference source |
| Context | **configure** system central-frequency-clock ref-order second *keyword* |
| Tree | second |
| Options | ref1, ref2, bits, ptp, none, synce, gnss |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **sixth** *keyword*

| | |
|---|---|
| Synopsis | Sixth preferred timing reference source |
| Context | **configure** system central-frequency-clock ref-order sixth *keyword* |
| Tree | sixth |
| Options | ref1, ref2, bits, ptp, none, synce, gnss |
| Introduced | 22.10.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se, 7750 SR-2se |

### **third** *keyword*

| | |
|---|---|
| Synopsis | Third preferred timing reference source |
| Context | **configure** system central-frequency-clock ref-order third *keyword* |
| Tree | third |
| Options | ref1, ref2, bits, ptp, none, synce, gnss |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### ref1

| | |
|---|---|
| Synopsis | Enter the **ref1** context |
| Context | **configure** system central-frequency-clock ref1 |
| Tree | ref1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the first timing reference |
| Context | **configure** system central-frequency-clock ref1 admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### ql-override *keyword*

| | |
|---|---|
| Synopsis | Quality level override of a timing reference |
| Context | **configure** system central-frequency-clock ref1 ql-override *keyword* |
| Tree | ql-override |
| Options | unused, prs, stu, st2, tnc, st3e, st3, prc, ssua, ssub, sec, eec1, eec2 |
| Default | unused |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### source-port *port*

| | |
|---|---|
| Synopsis | Source port for the first timing reference |
| Context | **configure** system central-frequency-clock ref1 source-port *port* |
| Tree | source-port |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### ref2

| | |
|---|---|
| Synopsis | Enter the **ref2** context |
| Context | **configure** system central-frequency-clock ref2 |
| Tree | ref2 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the second timing reference |
| Context | **configure** system central-frequency-clock ref2 admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### ql-override *keyword*

| | |
|---|---|
| Synopsis | Quality level override of a timing reference |
| Context | **configure** system central-frequency-clock ref2 ql-override *keyword* |
| Tree | ql-override |
| Options | unused, prs, stu, st2, tnc, st3e, st3, prc, ssua, ssub, sec, eec1, eec2 |
| Default | unused |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### source-port *port*

| | |
|---|---|
| Synopsis | Source port for the second timing reference |
| Context | **configure** system central-frequency-clock ref2 source-port *port* |
| Tree | source-port |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **revert** *boolean*

| | |
|---|---|
| Synopsis | Revert to higher-priority reference source |
| Context | **configure** system central-frequency-clock revert *boolean* |
| Tree | revert |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **synce**

| | |
|---|---|
| Synopsis | Enter the **synce** context |
| Context | **configure** system central-frequency-clock synce |
| Tree | synce |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the SyncE timing reference |
| Context | **configure** system central-frequency-clock synce admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 19.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ql-override** *keyword*

| | |
|---|---|
| Synopsis | Override the quality level of a timing reference |
| Context | **configure** system central-frequency-clock synce ql-override *keyword* |
| Tree | ql-override |
| Options | unused, prs, stu, st2, tnc, st3e, st3, prc, ssua, ssub, sec, eec1, eec2 |
| Default | unused |
| Introduced | 19.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **wait-to-restore** *number*

| | |
|---|---|
| Synopsis | Time to re-validate a previously failed input reference |
| Context | **configure** system central-frequency-clock wait-to-restore *number* |
| Tree | wait-to-restore |
| Range | 1 to 12 |
| Units | minutes |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **clli-code** *clli-description*

| | |
|---|---|
| Synopsis | CLLI code value for the system |
| Context | **configure** system clli-code *clli-description* |
| Tree | clli-code |
| String length | 11 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **congestion-management** *boolean*

| | |
|---|---|
| Synopsis | Enable Virtual Service Router congestion management |
| Context | **configure** system congestion-management *boolean* |
| Tree | congestion-management |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | VSR |

### **contact** *description*

| | |
|---|---|
| Synopsis | Contact information for the managed node |
| Context | **configure** system contact *description* |
| Tree | contact |


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| | |
|---|---|
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **coordinates** *description*

| | |
|---|---|
| Synopsis | GPS coordinates for the system location |
| Context | **configure** system coordinates *description* |
| Tree | coordinates |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cpm-http-redirect**

| | |
|---|---|
| Synopsis | Enter the **cpm-http-redirect** context |
| Context | **configure** system cpm-http-redirect |
| Tree | cpm-http-redirect |
| Introduced | 16.0.R4 |
| Platforms | All |

### **optimized-mode** *boolean*

| | |
|---|---|
| Synopsis | Enable optimized mode for CPM HTTP redirect messages |
| Context | **configure** system cpm-http-redirect optimized-mode *boolean* |
| Tree | optimized-mode |
| Default | true |
| Introduced | 16.0.R4 |
| Platforms | All |

### **cron**

| | |
|---|---|
| Synopsis | Enter the **cron** context |
| Context | **configure** system cron |
| Tree | cron |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **schedule** [schedule-name] *named-item* owner *named-item*

| | |
|---|---|
| Synopsis | Enter the **schedule** list instance |
| Context | **configure** system cron schedule *named-item* owner *named-item* |
| Tree | schedule |
| Max. instances | 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**schedule-name**] *named-item*

| | |
|---|---|
| Synopsis | Schedule name |
| Context | **configure** system cron schedule *named-item* owner *named-item* |
| Tree | schedule |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **owner** *named-item*

| | |
|---|---|
| Synopsis | Schedule owner |
| Context | **configure** system cron schedule *named-item* owner *named-item* |
| Tree | schedule |
| String length | 1 to 32 |
| MD-CLI default | TiMOS CLI |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the CRON schedule |
| Context | **configure** system cron schedule *named-item* owner *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **count** *number*

| | |
|---|---|
| Synopsis | Number of times to repeat a periodic schedule run |
| Context | **configure** system cron schedule *named-item* owner *named-item* count *number* |
| Tree | count |
| Range | 1 to 65535 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **day-of-month** *number*

| | |
|---|---|
| Synopsis | Days in a month when a schedule runs |
| Context | **configure** system cron schedule *named-item* owner *named-item* day-of-month *number* |
| Tree | day-of-month |
| Range | -31 to -1 \| 1 to 31 |
| Max. instances | 62 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** system cron schedule *named-item* owner *named-item* description *description* |
| Tree | description |


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| | |
|---|---|
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### end-time

| | |
|---|---|
| Synopsis | Enter the **end-time** context |
| Context | **configure** system cron schedule *named-item* owner *named-item* end-time |
| Tree | end-time |
| Introduced | 16.0.R1 |
| Platforms | All |

### date-and-time *date-and-time*

| | |
|---|---|
| Synopsis | Date and time to stop triggering the schedule |
| Context | **configure** system cron schedule *named-item* owner *named-item* end-time date-and-time *date-and-time* |
| Tree | date-and-time |
| Notes | The following elements are part of a choice: **date-and-time** or (**day** and **time**). |
| Introduced | 16.0.R1 |
| Platforms | All |

### day *keyword*

| | |
|---|---|
| Synopsis | Day to stop triggering the schedule |
| Context | **configure** system cron schedule *named-item* owner *named-item* end-time day *keyword* |
| Tree | day |
| Options | sunday, monday, tuesday, wednesday, thursday, friday, saturday |
| Notes | The following elements are part of a choice: **date-and-time** or (**day** and **time**). |
| Introduced | 16.0.R1 |
| Platforms | All |

### time *hours-minutes-twenty-four*

| | |
|---|---|
| Synopsis | Time to stop triggering the schedule |


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| | |
|---|---|
| Context | **configure** system cron schedule *named-item* owner *named-item* end-time time *hours-minutes-twenty-four* |
| Tree | time |
| String length | 5 |
| Notes | The following elements are part of a choice: **date-and-time** or (**day** and **time**). |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hour** *number*

| | |
|---|---|
| Synopsis | Hours within a day when the schedule runs |
| Context | **configure** system cron schedule *named-item* owner *named-item* hour *number* |
| Tree | hour |
| Range | 0 to 23 |
| Max. instances | 24 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **interval** *number*

| | |
|---|---|
| Synopsis | Time between each periodic schedule run |
| Context | **configure** system cron schedule *named-item* owner *named-item* interval *number* |
| Tree | interval |
| Range | 30 to 42949672 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **minute** *number*

| | |
|---|---|
| Synopsis | Minutes in an hour when the schedule runs |
| Context | **configure** system cron schedule *named-item* owner *named-item* minute *number* |
| Tree | minute |
| Range | 0 to 59 |


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| | |
|---|---|
| Max. instances | 60 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **month** *(keyword | number)*

| | |
|---|---|
| Synopsis | Months when the schedule runs |
| Context | **configure** system cron schedule *named-item* owner *named-item* month *(keyword | number)* |
| Tree | month |
| Range | 1 to 12 |
| Options | january, february, march, april, may, june, july, august, september, october, november, december |
| Max. instances | 12 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **script-policy**

| | |
|---|---|
| Synopsis | Enter the **script-policy** context |
| Context | **configure** system cron schedule *named-item* owner *named-item* script-policy |
| Tree | script-policy |
| Introduced | 16.0.R1 |
| Platforms | All |

### **name** *named-item*

| | |
|---|---|
| Synopsis | CLI script policy name |
| Context | **configure** system cron schedule *named-item* owner *named-item* script-policy name *named-item* |
| Tree | name |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **owner** *named-item*

| | |
|---|---|
| Synopsis | Script policy owner |
| Context | **configure** system cron schedule *named-item* owner *named-item* script-policy owner *named-item* |
| Tree | owner |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **type** *keyword*

| | |
|---|---|
| Synopsis | Schedule type |
| Context | **configure** system cron schedule *named-item* owner *named-item* type *keyword* |
| Tree | type |
| Options | periodic, calendar, oneshot |
| Default | periodic |
| Introduced | 16.0.R1 |
| Platforms | All |

### **weekday** *(keyword | number)*

| | |
|---|---|
| Synopsis | Weekdays when the schedule runs |
| Context | **configure** system cron schedule *named-item* owner *named-item* weekday *(keyword | number)* |
| Tree | weekday |
| Range | 1 to 7 |
| Options | sunday, monday, tuesday, wednesday, thursday, friday, saturday |
| Max. instances | 7 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **dhcp6**

| | |
|---|---|
| Synopsis | Enter the **dhcp6** context |


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| | |
|---|---|
| Context | **configure** system dhcp6 |
| Tree | dhcp6 |
| Introduced | 16.0.R4 |
| Platforms | All |

## **adv-noaddrs-global** *keyword*

| | |
|---|---|
| Synopsis | Applications to send NoAddrsAvail in Advertise messages |
| Context | **configure** system dhcp6 adv-noaddrs-global *keyword* |
| Tree | adv-noaddrs-global |
| Options | esm-relay, server |
| Max. instances | 2 |
| Introduced | 16.0.R4 |
| Platforms | All |

## **dns**

| | |
|---|---|
| Synopsis | Enter the **dns** context |
| Context | **configure** system dns |
| Tree | dns |
| Introduced | 16.0.R1 |
| Platforms | All |

## **address-pref** *keyword*

| | |
|---|---|
| Synopsis | Preference in DNS address resolving order |
| Context | **configure** system dns address-pref *keyword* |
| Tree | address-pref |
| Options | ipv4-only, ipv6-first |
| Introduced | 16.0.R1 |
| Platforms | All |

## **dnssec**

| | |
|---|---|
| Synopsis | Enter the **dnssec** context |


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| | |
|---|---|
| Context | **configure** system dns dnssec |
| Tree | dnssec |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ad-validation** *keyword*

| | |
|---|---|
| Synopsis | Validation of AD-bit presence in DNS server responses |
| Context | **configure** system dns dnssec ad-validation *keyword* |
| Tree | ad-validation |
| Options | fall-through – Allow non-DNSSEC responses to fall-through to permit resolution in case of validation failure<br>drop – Drop non-DNSSEC responses in case of validation failure |
| Introduced | 16.0.R1 |
| Platforms | All |

### **efm-oam**

| | |
|---|---|
| Synopsis | Enter the **efm-oam** context |
| Context | **configure** system efm-oam |
| Tree | efm-oam |
| Introduced | 16.0.R1 |
| Platforms | All |

### **dying-gasp-tx-on-reset** *boolean*

| | |
|---|---|
| Synopsis | Generate Information OAM PDU on soft reset notification |
| Context | **configure** system efm-oam dying-gasp-tx-on-reset *boolean* |
| Tree | dying-gasp-tx-on-reset |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **grace-tx** *boolean*

| | |
|---|---|
| Synopsis | Send Grace TLVs for soft reset graceful recovery events |


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| | |
|---|---|
| Context | **configure** system efm-oam grace-tx *boolean* |
| Tree | grace-tx |
| Description | When configured to **true**, the system sends the Nokia Vendor specific Grace TLV in the information PDU after an ISSU or a soft reset. The Grace TLV informs a remote peer to ignore the negotiated interval and multiplier and instead use the new timeout interval.<br>By default, the command is disabled at the system level and enabled at the port level. Both the system and port level must be enabled to support grace on a specific port. When configured to **true**, the EFM-OAM protocol does not enter a non-operational state when both nodes acknowledge the grace function. This feature minimizes service interruption by giving the restarting router time to become operationally and administratively up within the grace period.<br>The peer receiving the Grace TLV must be able to parse and process the vendor-specific messaging. Do not configure grace if the Nokia Vendor Specific Grace TLV is not supported on the remote peer.<br>When configured to **false**, the Nokia Vendor Specific Grace TLV is not sent. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## eth-cfm

| | |
|---|---|
| Synopsis | Enter the **eth-cfm** context |
| Context | **configure** system eth-cfm |
| Tree | eth-cfm |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **grace** *boolean*

| | |
|---|---|
| Synopsis | Allow system level capability of grace messaging |
| Context | **configure** system eth-cfm grace *boolean* |
| Tree | grace |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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## md-auto-id

| | |
|---|---|
| Synopsis | Enter the **md-auto-id** context |
| Context | **configure** system eth-cfm md-auto-id |
| Tree | md-auto-id |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## ma-index-range

| | |
|---|---|
| Synopsis | Enable the **ma-index-range** context |
| Context | **configure** system eth-cfm md-auto-id ma-index-range |
| Tree | ma-index-range |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **end** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Upper bound of the range |
| Context | **configure** system eth-cfm md-auto-id ma-index-range end *number* |
| Tree | end |
| Range | 1 to 4294967295 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **start** *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Lower bound of the range |


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| | |
|---|---|
| Context | **configure** system eth-cfm md-auto-id ma-index-range start *number* |
| Tree | start |
| Range | 1 to 4294967295 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## md-index-range

| | |
|---|---|
| Synopsis | Enable the **md-index-range** context |
| Context | **configure** system eth-cfm md-auto-id md-index-range |
| Tree | md-index-range |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## end *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Upper bound of the range |
| Context | **configure** system eth-cfm md-auto-id md-index-range end *number* |
| Tree | end |
| Range | 1 to 4294967295 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## start *number*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Lower bound of the range |


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| | |
|---|---|
| Context | **configure** system eth-cfm md-auto-id md-index-range start *number* |
| Tree | start |
| Range | 1 to 4294967295 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **named-display** *boolean*

| | |
|---|---|
| Synopsis | Enable administrative name display in CLI show outputs |
| Context | **configure** system eth-cfm named-display *boolean* |
| Tree | named-display |
| Description | When configured to **true**, the system displays the administrative names for domains, associations, and bridge-identifiers in **show eth-cfm** command outputs in addition to the numerical maintenance domain (MD) index, maintenance association (MA) index, and bridge ID values. The administrative names are displayed underneath the numerical values, each on a separate row.<br>When configured to **false**, the system only displays the numerical MD index, MA index, and bridge ID values in **show eth-cfm** command outputs. |
| Default | false |
| Introduced | 23.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **redundancy**

| | |
|---|---|
| Synopsis | Enter the **redundancy** context |
| Context | **configure** system eth-cfm redundancy |
| Tree | redundancy |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **mc-lag**

| | |
|---|---|
| Synopsis | Enter the **mc-lag** context |
| Context | **configure** system eth-cfm redundancy mc-lag |
| Tree | mc-lag |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **propagate-hold-time** *(number | keyword)*

| | |
|---|---|
| Synopsis | Delay timer value for the fault propagation |
| Context | **configure** system eth-cfm redundancy mc-lag propagate-hold-time *(number | keyword)* |
| Tree | propagate-hold-time |
| Range | 1 to 60 |
| Units | seconds |
| Options | none |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **standby-mep** *boolean*

| | |
|---|---|
| Synopsis | Allow standby MC-LAG MEPs to act administratively down |
| Context | **configure** system eth-cfm redundancy mc-lag standby-mep *boolean* |
| Tree | standby-mep |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **sender-id**

| | |
|---|---|
| Synopsis | Enter the **sender-id** context |
| Context | **configure** system eth-cfm sender-id |
| Tree | sender-id |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **local-name** *string*

| | |
|---|---|
| Synopsis | Local name used in CFM PDUs |


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| | |
|---|---|
| Context | **configure** system eth-cfm sender-id local-name *string* |
| Tree | local-name |
| String length | 1 to 45 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **type** *keyword*

| | |
|---|---|
| Synopsis | ETH-CFM sender ID to be used in CFM PDUs |
| Context | **configure** system eth-cfm sender-id type *keyword* |
| Tree | type |
| Options | system, local |
| Default | system |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **slm**

| | |
|---|---|
| Synopsis | Enter the **slm** context |
| Context | **configure** system eth-cfm slm |
| Tree | slm |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **inactivity-timer** *number*

| | |
|---|---|
| Synopsis | SLR inactivity timer to maintain the stale test data |
| Context | **configure** system eth-cfm slm inactivity-timer *number* |
| Tree | inactivity-timer |
| Range | 10 to 100 |
| Units | seconds |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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## fan-control

| | |
|---|---|
| Synopsis | Enter the **fan-control** context |
| Context | **configure** system fan-control |
| Tree | fan-control |
| Description | Commands in this context configure the speed of the router fans.<br>**Caution**: Only use commands in this context with authorized direction from Nokia technical support. |
| Introduced | 23.7.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se |

## cooling-profile *keyword*

| | |
|---|---|
| Synopsis | Cooling profile used to determine fan speeds |
| Context | **configure** system fan-control cooling-profile *keyword* |
| Tree | cooling-profile |
| Description | This command configures the cooling profile used to determine the fan speed.<br>Nokia recommends that the default setting be used unless aggressive cooling is explicitly required. |
| Options | default, aggressive |
| Default | default |
| Introduced | 23.7.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se |

## grpc

| | |
|---|---|
| Synopsis | Enter the **grpc** context |
| Context | **configure** system grpc |
| Tree | grpc |
| Introduced | 16.0.R1 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the gRPC server |
| Context | **configure** system grpc admin-state *keyword* |


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| | |
|---|---|
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

## allow-unsecure-connection

| | |
|---|---|
| Synopsis | Allow connection without secured transport protocol |
| Context | **configure** system grpc allow-unsecure-connection |
| Tree | allow-unsecure-connection |
| Description | When configured, the system allows an unsecured connection to remote managers; TCP connections are not encrypted, including username and password information. |
| Notes | The following elements are part of a choice: **allow-unsecure-connection** or **tls-server-profile**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## delay-on-boot *number*

| | |
|---|---|
| Synopsis | Delay for gRPC connections after system boot |
| Context | **configure** system grpc delay-on-boot *number* |
| Tree | delay-on-boot |
| Description | This command configures the delay timer for gRPC connections. When the timer expires, gRPC becomes operational and connections are accepted. This delay prevents automation from managing the system while it is still converging.<br>When no delay is configured, connections are accepted after the system boots and gRPC becomes operational. |
| Range | 1 to 3600 |
| Units | seconds |
| Introduced | 23.10.R1 |
| Platforms | All |

## gnmi

| | |
|---|---|
| Synopsis | Enter the **gnmi** context |


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| | |
|---|---|
| Context | **configure** system grpc gnmi |
| Tree | gnmi |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the gNMI service |
| Context | **configure** system grpc gnmi admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **auto-config-save** *boolean*

| | |
|---|---|
| Synopsis | Automatically save configuration as part of commit |
| Context | **configure** system grpc gnmi auto-config-save *boolean* |
| Tree | auto-config-save |
| Description | When configured to **true**, the system automatically writes the running configuration to the saved configuration file as part of a successful commit operation. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **proto-version** *keyword*

| | |
|---|---|
| Synopsis | gnmi.proto version |
| Context | **configure** system grpc gnmi proto-version *keyword* |
| Tree | proto-version |
| Description | This command sets the gnmi.proto version that the gRPC server should use for all gNMI RPCs. Only use options other than **latest** for backward compatibility with legacy collectors. |
| Options | latest – Latest supported version<br>v070 – gNMI version 0.7.0 |


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| | |
|---|---|
| Default | latest |
| Introduced | 23.3.R1 |
| Platforms | All |

## gnoi

| | |
|---|---|
| Synopsis | Enter the **gnoi** context |
| Context | **configure** system grpc gnoi |
| Tree | gnoi |
| Introduced | 19.10.R1 |
| Platforms | All |

## cert-mgmt

| | |
|---|---|
| Synopsis | Enter the **cert-mgmt** context |
| Context | **configure** system grpc gnoi cert-mgmt |
| Tree | cert-mgmt |
| Introduced | 19.10.R1 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of gNOI CertificateManagement |
| Context | **configure** system grpc gnoi cert-mgmt admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 19.10.R1 |
| Platforms | All |

## file

| | |
|---|---|
| Synopsis | Enter the **file** context |
| Context | **configure** system grpc gnoi file |
| Tree | file |


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| | |
|---|---|
| Introduced | 21.2.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the gNOI File service |
| Context | **configure** system grpc gnoi file admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.2.R1 |
| Platforms | All |

### **system**

| | |
|---|---|
| Synopsis | Enter the **system** context |
| Context | **configure** system grpc gnoi system |
| Tree | system |
| Introduced | 20.5.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the gNOI System service |
| Context | **configure** system grpc gnoi system admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 20.5.R1 |
| Platforms | All |

### **listening-port** *number*

| | |
|---|---|
| Synopsis | Listening port for the gRPC server |
| Context | **configure** system grpc listening-port *number* |


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| | |
|---|---|
| Tree | listening-port |
| Range | 1024 to 49151 \| 57400 |
| Default | 57400 |
| Introduced | 23.7.R1 |
| Platforms | All |

### **max-msg-size** *number*

| | |
|---|---|
| Synopsis | Maximum size of received message |
| Context | **configure** system grpc max-msg-size *number* |
| Tree | max-msg-size |
| Range | 1 to 1024 |
| Units | megabytes |
| Default | 512 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **md-cli**

| | |
|---|---|
| Synopsis | Enter the **md-cli** context |
| Context | **configure** system grpc md-cli |
| Tree | md-cli |
| Introduced | 20.5.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the MD-CLI service |
| Context | **configure** system grpc md-cli admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 20.5.R1 |
| Platforms | All |


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### rib-api

| | |
|---|---|
| Synopsis | Enter the **rib-api** context |
| Context | **configure** system grpc rib-api |
| Tree | rib-api |
| Introduced | 16.0.R4 |
| Platforms | All |

### admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the RIB API service |
| Context | **configure** system grpc rib-api admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R4 |
| Platforms | All |

### purge-timeout *number*

| | |
|---|---|
| Synopsis | Time until stale entries are purged |
| Context | **configure** system grpc rib-api purge-timeout *number* |
| Tree | purge-timeout |
| Range | 1 to 100000 |
| Units | seconds |
| Introduced | 16.0.R4 |
| Platforms | All |

### tcp-keepalive

| | |
|---|---|
| Synopsis | Enter the **tcp-keepalive** context |
| Context | **configure** system grpc tcp-keepalive |
| Tree | tcp-keepalive |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the TCP keepalive algorithm |
| Context | **configure** system grpc tcp-keepalive admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R4 |
| Platforms | All |

### **idle-time** *number*

| | |
|---|---|
| Synopsis | Time until the first TCP keepalive probe is sent |
| Context | **configure** system grpc tcp-keepalive idle-time *number* |
| Tree | idle-time |
| Description | This command configures the amount of time the connection must be idle before TCP keepalives are sent. |
| Range | 1 to 100000 |
| Units | seconds |
| Default | 600 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **interval** *number*

| | |
|---|---|
| Synopsis | Time between TCP keep-alive probes |
| Context | **configure** system grpc tcp-keepalive interval *number* |
| Tree | interval |
| Range | 1 to 100000 |
| Units | seconds |
| Default | 15 |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **retries** *number*

| | |
|---|---|
| Synopsis | Number of probe retries before closing the connection |
| Context | **configure** system grpc tcp-keepalive retries *number* |
| Tree | retries |
| Description | This command configures the number of missed TCP keepalive probes before closing the TCP connection and attempting to reach the other destinations within the same destination group. |
| Range | 3 to 100 |
| Default | 4 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **tls-server-profile** *reference*

| | |
|---|---|
| Synopsis | Preferred TLS server profile |
| Context | **configure** system grpc tls-server-profile *reference* |
| Tree | tls-server-profile |
| Reference | **configure** system security tls server-tls-profile *named-item* |
| Notes | The following elements are part of a choice: **allow-unsecure-connection** or **tls-server-profile**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **grpc-tunnel**

| | |
|---|---|
| Synopsis | Enter the **grpc-tunnel** context |
| Context | **configure** system grpc-tunnel |
| Tree | grpc-tunnel |
| Introduced | 22.2.R1 |
| Platforms | All |

### **delay-on-boot** *number*

| | |
|---|---|
| Synopsis | Delay for gRPC tunnels after system boot |
| Context | **configure** system grpc-tunnel delay-on-boot *number* |


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| | |
|---|---|
| Tree | delay-on-boot |
| Description | This command configures the delay timer for gRPC tunnels. When the timer expires, gRPC tunnels become operational and connections are accepted. This delay prevents the system from trying to initiate gRPC tunnels while it is still converging.<br>When no delay is configured, gRPC tunnels are initiated after the system boots and gRPC becomes operational. |
| Range | 1 to 3600 |
| Units | seconds |
| Introduced | 23.10.R1 |
| Platforms | All |

## **destination-group** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **destination-group** list instance |
| Context | **configure** system grpc-tunnel destination-group *named-item* |
| Tree | destination-group |
| Description | Commands in this context configure parameters for destination groups. |
| Max. instances | 4 |
| Introduced | 22.2.R1 |
| Platforms | All |

## [**name**] *named-item*

| | |
|---|---|
| Synopsis | Destination group name |
| Context | **configure** system grpc-tunnel destination-group *named-item* |
| Tree | destination-group |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 22.2.R1 |
| Platforms | All |

## **allow-unsecure-connection**

| | |
|---|---|
| Synopsis | Allow unsecured operation of gRPC connections |
| Context | **configure** system grpc-tunnel destination-group *named-item* allow-unsecure-connection |


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| | |
|---|---|
| Tree | allow-unsecure-connection |
| Description | This command allows a gRPC tunnel to run without a secured transport protocol. Data is transferred in unencrypted form. |
| Notes | The following elements are part of a choice: **allow-unsecure-connection** or **tls-client-profile**. |
| Introduced | 22.2.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** system grpc-tunnel destination-group *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 22.2.R1 |
| Platforms | All |

### **destination** [address] *(ipv4-address-no-zone | ipv6-address-no-zone | fully-qualified-domain-name)* port *number*

| | |
|---|---|
| Synopsis | Enter the **destination** list instance |
| Context | **configure** system grpc-tunnel destination-group *named-item* destination *(ipv4-address-no-zone \| ipv6-address-no-zone \| fully-qualified-domain-name)* port *number* |
| Tree | destination |
| Max. instances | 4 |
| Notes | This element is ordered by the user. |
| Introduced | 22.2.R1 |
| Platforms | All |

### [**address**] *(ipv4-address-no-zone | ipv6-address-no-zone | fully-qualified-domain-name)*

| | |
|---|---|
| Synopsis | Address of the destination within the destination group |
| Context | **configure** system grpc-tunnel destination-group *named-item* destination *(ipv4-address-no-zone \| ipv6-address-no-zone \| fully-qualified-domain-name)* port *number* |
| Tree | destination |


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| | |
|---|---|
| String length | 1 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 22.2.R1 |
| Platforms | All |

### **port** *number*

| | |
|---|---|
| Synopsis | TCP port number for the destination |
| Context | **configure** system grpc-tunnel destination-group *named-item* destination *(ipv4-address-no-zone \| ipv6-address-no-zone \| fully-qualified-domain-name)* port *number* |
| Tree | destination |
| Range | 1 to 65535 |
| Notes | This element is part of a list key. |
| Introduced | 22.2.R1 |
| Platforms | All |

### **local-source-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Local IP address of packets sent from the source |
| Context | **configure** system grpc-tunnel destination-group *named-item* destination *(ipv4-address-no-zone \| ipv6-address-no-zone \| fully-qualified-domain-name)* port *number* local-source-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | local-source-address |
| Introduced | 22.2.R1 |
| Platforms | All |

### **originated-qos-marking** *keyword*

| | |
|---|---|
| Synopsis | QoS marking used for gRPC tunnel packets |
| Context | **configure** system grpc-tunnel destination-group *named-item* destination *(ipv4-address-no-zone \| ipv6-address-no-zone \| fully-qualified-domain-name)* port *number* originated-qos-marking *keyword* |
| Tree | originated-qos-marking |
| Options | be, cp1, cp2, cp3, cp4, cp5, cp6, cp7, cs1, cp9, af11, cp11, af12, cp13, af13, cp15, cs2, cp17, af21, cp19, af22, cp21, af23, cp23, cs3, cp25, af31, cp27, af32, cp29, af33, cp31, cs4, cp33, af41, cp35, af42, cp37, af43, cp39, cs5, cp41, cp42, cp43, cp44, cp45, ef, cp47, nc1, cp49, cp50, cp51, cp52, cp53, cp54, cp55, nc2, cp57, cp58, cp59, cp60, cp61, cp62, cp63 |


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| | |
|---|---|
| Introduced | 22.2.R1 |
| Platforms | All |

### **router-instance** *string*

| | |
|---|---|
| Synopsis | Router instance for the destination group |
| Context | **configure** system grpc-tunnel destination-group *named-item* destination *(ipv4-address-no-zone \| ipv6-address-no-zone \| fully-qualified-domain-name)* port *number* router-instance *string* |
| Tree | router-instance |
| Introduced | 22.2.R1 |
| Platforms | All |

### **tcp-keepalive**

| | |
|---|---|
| Synopsis | Enter the **tcp-keepalive** context |
| Context | **configure** system grpc-tunnel destination-group *named-item* tcp-keepalive |
| Tree | tcp-keepalive |
| Introduced | 22.2.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the TCP keepalive algorithm |
| Context | **configure** system grpc-tunnel destination-group *named-item* tcp-keepalive admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 22.2.R1 |
| Platforms | All |

### **idle-time** *number*

| | |
|---|---|
| Synopsis | Time until the first TCP keepalive probe is sent |
| Context | **configure** system grpc-tunnel destination-group *named-item* tcp-keepalive idle-time *number* |


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| | |
|---|---|
| Tree | idle-time |
| Description | This command configures the amount of time the connection must be idle before TCP keepalives are sent. |
| Range | 1 to 100000 |
| Units | seconds |
| Default | 600 |
| Introduced | 22.2.R1 |
| Platforms | All |

### **interval** *number*

| | |
|---|---|
| Synopsis | Time between TCP keep-alive probes |
| Context | **configure** system grpc-tunnel destination-group *named-item* tcp-keepalive interval *number* |
| Tree | interval |
| Range | 1 to 100000 |
| Units | seconds |
| Default | 15 |
| Introduced | 22.2.R1 |
| Platforms | All |

### **retries** *number*

| | |
|---|---|
| Synopsis | Number of probe retries before closing the connection |
| Context | **configure** system grpc-tunnel destination-group *named-item* tcp-keepalive retries *number* |
| Tree | retries |
| Description | This command configures the number of missed TCP keepalive probes before closing the TCP connection and attempting to reach the other destinations within the same destination group. |
| Range | 3 to 100 |
| Default | 4 |
| Introduced | 22.2.R1 |
| Platforms | All |


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### **tls-client-profile** *reference*

| | |
|---|---|
| Synopsis | TLS client profile assigned to the destination group |
| Context | **configure** system grpc-tunnel destination-group *named-item* tls-client-profile *reference* |
| Tree | tls-client-profile |
| Reference | **configure** system security tls client-tls-profile *named-item* |
| Notes | The following elements are part of a choice: **allow-unsecure-connection** or **tls-client-profile**. |
| Introduced | 22.2.R1 |
| Platforms | All |

### **tunnel** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **tunnel** list instance |
| Context | **configure** system grpc-tunnel tunnel *named-item* |
| Tree | tunnel |
| Description | Commands in this context configure gRPC-tunnel-related parameters. |
| Max. instances | 4 |
| Introduced | 22.2.R1 |
| Platforms | All |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | Tunnel name |
| Context | **configure** system grpc-tunnel tunnel *named-item* |
| Tree | tunnel |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 22.2.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the tunnel |


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| | |
|---|---|
| Context | **configure** system grpc-tunnel tunnel *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 22.2.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** system grpc-tunnel tunnel *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 22.2.R1 |
| Platforms | All |

### **destination-group** *reference*

| | |
|---|---|
| Synopsis | Destination group used in the tunnel |
| Context | **configure** system grpc-tunnel tunnel *named-item* destination-group *reference* |
| Tree | destination-group |
| Reference | **configure** system grpc-tunnel destination-group *named-item* |
| Introduced | 22.2.R1 |
| Platforms | All |

### **handler** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **handler** list instance |
| Context | **configure** system grpc-tunnel tunnel *named-item* handler *named-item* |
| Tree | handler |
| Description | Commands in this context configure handler parameters for this instance. Multiple handlers can be created for any tunnel. |
| Max. instances | 8 |
| Introduced | 22.2.R1 |


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| | |
|---|---|
| Platforms | All |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | Handler name |
| Context | **configure** system grpc-tunnel tunnel *named-item* handler *named-item* |
| Tree | handler |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 22.2.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the handler |
| Context | **configure** system grpc-tunnel tunnel *named-item* handler *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 22.2.R1 |
| Platforms | All |

### **port** *number*

| | |
|---|---|
| Synopsis | TCP port number the handler listens to internally |
| Context | **configure** system grpc-tunnel tunnel *named-item* handler *named-item* port *number* |
| Tree | port |
| Range | 1 to 65535 |
| Introduced | 22.2.R1 |
| Platforms | All |

### **target-type**

| | |
|---|---|
| Synopsis | Enter the **target-type** context |


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| | |
|---|---|
| Context | **configure** system grpc-tunnel tunnel *named-item* handler *named-item* target-type |
| Tree | target-type |
| Introduced | 22.2.R1 |
| Platforms | All |

## **custom-type** *string*

| | |
|---|---|
| Synopsis | Custom string for target type |
| Context | **configure** system grpc-tunnel tunnel *named-item* handler *named-item* target-type custom-type *string* |
| Tree | custom-type |
| Description | This command configures a custom string for the target type. This string can correspond to specific values used by the gRPC tunnel protocol, such as GNMI_GNOI or SSH. If a custom string is defined, the gRPC tunnel client must specify the string to request a session for that handler. The string must be unique within a tunnel. |
| String length | 1 to 64 |
| Notes | The following elements are part of a choice: **custom-type**, **grpc-server**, or **ssh-server**. |
| Introduced | 22.2.R1 |
| Platforms | All |

## **grpc-server**

| | |
|---|---|
| Synopsis | Target type set to GNMI_GNOI |
| Context | **configure** system grpc-tunnel tunnel *named-item* handler *named-item* target-type grpc-server |
| Tree | grpc-server |
| Description | When configured, this command assigns the gRPC server as a handler for all tunnels sessions. At the gRPC tunnel protocol level, this corresponds to a value of GNMI_GNOI. |
| Notes | The following elements are part of a choice: **custom-type**, **grpc-server**, or **ssh-server**. |
| Introduced | 22.2.R1 |
| Platforms | All |

## **ssh-server**

| | |
|---|---|
| Synopsis | Target type is SSH |
| Context | **configure** system grpc-tunnel tunnel *named-item* handler *named-item* target-type ssh-server |


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| | |
|---|---|
| Tree | ssh-server |
| Description | When configured, this command assigns the SSH server as a handler for all tunnels sessions. At the gRPC tunnel protocol level, this corresponds to a value of SSH. |
| Notes | The following elements are part of a choice: **custom-type**, **grpc-server**, or **ssh-server**. |
| Introduced | 22.2.R1 |
| Platforms | All |

## target-name

| | |
|---|---|
| Synopsis | Enter the **target-name** context |
| Context | **configure** system grpc-tunnel tunnel *named-item* target-name |
| Tree | target-name |
| Introduced | 22.2.R1 |
| Platforms | All |

## custom-string *named-item-64*

| | |
|---|---|
| Synopsis | Custom target name |
| Context | **configure** system grpc-tunnel tunnel *named-item* target-name custom-string *named-item-64* |
| Tree | custom-string |
| String length | 1 to 64 |
| Notes | The following elements are part of a choice: **custom-string**, **node-name**, or **user-agent**. |
| Introduced | 22.2.R1 |
| Platforms | All |

## node-name

| | |
|---|---|
| Synopsis | Set the node name as target name |
| Context | **configure** system grpc-tunnel tunnel *named-item* target-name node-name |
| Tree | node-name |
| Description | When configured, this command uses the node name as the target name. The node name is configured by the **configure system name** command. |
| Notes | The following elements are part of a choice: **custom-string**, **node-name**, or **user-agent**. |


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| | |
|---|---|
| Introduced | 22.2.R1 |
| Platforms | All |

### user-agent

| | |
|---|---|
| Synopsis | Set the user agent as the target name |
| Context | **configure** system grpc-tunnel tunnel *named-item* target-name user-agent |
| Tree | user-agent |
| Description | When configured, this command uses the user agent as the target name. The agent is a string consisting of *node-name*:*vendor*:*model*:*software-version*. |
| Notes | The following elements are part of a choice: **custom-string**, **node-name**, or **user-agent**. |
| Introduced | 22.2.R1 |
| Platforms | All |

### icmp-vse *boolean*

| | |
|---|---|
| Synopsis | Enable vendor-specific extensions to ICMP |
| Context | **configure** system icmp-vse *boolean* |
| Tree | icmp-vse |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### ip

| | |
|---|---|
| Synopsis | Enter the **ip** context |
| Context | **configure** system ip |
| Tree | ip |
| Description | Commands in this context configure system-wide IP router options. |
| Introduced | 16.0.R1 |
| Platforms | All |

### allow-qinq-network-interface *boolean*

| | |
|---|---|
| Synopsis | Allow QinQ encapsulation for network interfaces |


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| | |
|---|---|
| Context | **configure** system ip allow-qinq-network-interface *boolean* |
| Tree | allow-qinq-network-interface |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **buffer-unresolved-packets** *boolean*

| | |
|---|---|
| Synopsis | Buffer unresolved packets during ARP |
| Context | **configure** system ip buffer-unresolved-packets *boolean* |
| Tree | buffer-unresolved-packets |
| Description | When configured to **true**, the system buffers IPv4 and IPv6 packets waiting for the address resolution process (ARP) or neighbor discovery (ND) reply.<br>When configured to **false**, the system discards packets during the address resolution process. The system discards IPv4 and IPv6 traffic needing a destination resolution that is buffered while waiting for a response to avoid any potential of out-of-order delivery of packets to the resolved destination. As a result, after the ARP or ND entry is populated, the system delivers only newly received packets in order. |
| Default | true |
| Introduced | 24.10.R1 |
| Platforms | All |

### **enforce-unique-if-index** *boolean*

| | |
|---|---|
| Synopsis | Force creation of globally unique IP interface indexes |
| Context | **configure** system ip enforce-unique-if-index *boolean* |
| Tree | enforce-unique-if-index |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **forward-6in4** *boolean*

| | |
|---|---|
| Synopsis | Allow forwarding of IPv6 over IPv4 to system IP address |
| Context | **configure** system ip forward-6in4 *boolean* |
| Tree | forward-6in4 |
| Default | false |


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| | |
|---|---|
| Introduced | 19.10.R1 |
| Platforms | All |

### **forward-ip-over-gre** *boolean*

| | |
|---|---|
| Synopsis | Allow forwarding of IP over GRE to system IP address |
| Context | **configure** system ip forward-ip-over-gre *boolean* |
| Tree | forward-ip-over-gre |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **ipv6-eh** *keyword*

| | |
|---|---|
| Synopsis | Number of IPv6 extension headers parsed in line cards |
| Context | **configure** system ip ipv6-eh *keyword* |
| Tree | ipv6-eh |
| Options | max, limited |
| Default | max |
| Introduced | 20.5.R1 |
| Platforms | All |

### **mpls**

| | |
|---|---|
| Synopsis | Enter the **mpls** context |
| Context | **configure** system ip mpls |
| Tree | mpls |
| Introduced | 19.10.R3 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **label-stack-statistics-count** *number*

| | |
|---|---|
| Synopsis | Collect traffic statistics on labels of the MPLS stack |
| Context | **configure** system ip mpls label-stack-statistics-count *number* |
| Tree | label-stack-statistics-count |


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| | |
|---|---|
| Range | 1 to 2 |
| Default | 1 |
| Introduced | 19.10.R3 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### l2tp

| | |
|---|---|
| Synopsis | Enter the **l2tp** context |
| Context | **configure** system l2tp |
| Tree | l2tp |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### non-multi-chassis-tunnel-id-range

| | |
|---|---|
| Synopsis | Enter the **non-multi-chassis-tunnel-id-range** context |
| Context | **configure** system l2tp non-multi-chassis-tunnel-id-range |
| Tree | non-multi-chassis-tunnel-id-range |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the range |
| Context | **configure** system l2tp non-multi-chassis-tunnel-id-range end *number* |
| Tree | end |
| Range | 0 to 16383 |
| Default | 16383 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of the range |
| Context | **configure** system l2tp non-multi-chassis-tunnel-id-range start *number* |


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| | |
|---|---|
| Tree | start |
| Range | 0 to 16383 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### lacp

| | |
|---|---|
| Synopsis | Enter the **lacp** context |
| Context | **configure** system lacp |
| Tree | lacp |
| Introduced | 16.0.R1 |
| Platforms | All |

### system-priority *number*

| | |
|---|---|
| Synopsis | LACP system priority on aggregated Ethernet interfaces |
| Context | **configure** system lacp system-priority *number* |
| Tree | system-priority |
| Range | 1 to 65535 |
| Default | 32768 |
| Introduced | 16.0.R1 |
| Platforms | All |

### lldp

| | |
|---|---|
| Synopsis | Enter the **lldp** context |
| Context | **configure** system lldp |
| Tree | lldp |
| Introduced | 16.0.R1 |
| Platforms | All |

### admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of LLDP |


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| | |
|---|---|
| Context | **configure** system lldp admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **message-fast-tx** *number*

| | |
|---|---|
| Synopsis | Interval at which LLDP frames are transmitted |
| Context | **configure** system lldp message-fast-tx *number* |
| Tree | message-fast-tx |
| Description | This command configures the interval at which LLDP frames are transmitted on behalf of the LLDP during a fast transmission period. |
| Range | 1 to 3600 |
| Units | seconds |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **message-fast-tx-init** *number*

| | |
|---|---|
| Synopsis | PDUs to transmit during the fast transmission period |
| Context | **configure** system lldp message-fast-tx-init *number* |
| Tree | message-fast-tx-init |
| Range | 1 to 8 |
| Default | 4 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **notification-interval** *number*

| | |
|---|---|
| Synopsis | Minimum interval between change notifications |
| Context | **configure** system lldp notification-interval *number* |
| Tree | notification-interval |


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| | |
|---|---|
| Range | 5 to 3600 |
| Units | seconds |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **reinit-delay** *number*

| | |
|---|---|
| Synopsis | Time required before re-initializing LLDP on a port |
| Context | **configure** system lldp reinit-delay *number* |
| Tree | reinit-delay |
| Range | 1 to 10 |
| Units | seconds |
| Default | 2 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **tx-credit-max** *number*

| | |
|---|---|
| Synopsis | Maximum consecutive LLDPDUs that can be transmitted |
| Context | **configure** system lldp tx-credit-max *number* |
| Tree | tx-credit-max |
| Range | 1 to 100 |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **tx-hold-multiplier** *number*

| | |
|---|---|
| Synopsis | Transmit interval multiplier |
| Context | **configure** system lldp tx-hold-multiplier *number* |
| Tree | tx-hold-multiplier |
| Range | 2 to 10 |
| Default | 4 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **tx-interval** *number*

| | |
|---|---|
| Synopsis | LLDP transmit interval |
| Context | **configure** system lldp tx-interval *number* |
| Tree | tx-interval |
| Range | 5 to 32768 |
| Units | seconds |
| Default | 30 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **load-balancing**

| | |
|---|---|
| Synopsis | Enter the **load-balancing** context |
| Context | **configure** system load-balancing |
| Tree | load-balancing |
| Description | Commands in this context configure the interface per-flow load-balancing options that apply to traffic entering this interface and egressing over a LAG or ECMP on system egress. This setting is per interface.<br>Load-balancing options configured at the interface level overwrite load-balancing options configured at the system level. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **eler-enh-load-balancing** *boolean*

| | |
|---|---|
| Synopsis | Use eLER load balancing based on outer MPLS label stack |
| Context | **configure** system load-balancing eler-enh-load-balancing *boolean* |
| Tree | eler-enh-load-balancing |
| Description | When configured to **true**, the system acting as the eLER load-balances non-IP traffic ingressing at the network interface based on the outer MPLS label stack. The eLER load-balances the incoming traffic using one of the following options:<br>• the entropy label if EL/ELI is present<br>• the hash label (BoS) if the hash label is present in the MPLS label stack |


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If both the hash label and EL/ELI are present, the eLER load-balances the incoming traffic using the hash label in the MPLS label stack.

Enhanced load balancing is operational only in cards using FP4 or higher. For cards with FP3 or lower, this command is available in the CLI but has no effect when configured.

When configured to **false**, the system acting as the eLER does not load-balance based on the outer MPLS label stack.

The 7450 ESS, 7750 SR, 7950 XRS, and VSR do not support use of the entropy label and hash label at the same time. Consequently, both these labels may only be present in the same packet at the same time if the packet is received from a third-party device in the network.

| | |
|---|---|
| Default | false |
| Introduced | 24.7.R1 |
| Platforms | All |

## **l2tp-load-balancing** *boolean*

| | |
|---|---|
| Synopsis | Include L2TP header information for load balancing |
| Context | **configure** system load-balancing l2tp-load-balancing *boolean* |
| Tree | l2tp-load-balancing |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

## **l4-load-balancing** *boolean*

| | |
|---|---|
| Synopsis | Use load balancing based on Layer 4 fields |
| Context | **configure** system load-balancing l4-load-balancing *boolean* |
| Tree | l4-load-balancing |
| Introduced | 16.0.R1 |
| Platforms | All |

## **lsr-load-balancing** *keyword*

| | |
|---|---|
| Synopsis | Algorithm for system-wide LSR load balancing |
| Context | **configure** system load-balancing lsr-load-balancing *keyword* |
| Tree | lsr-load-balancing |


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Description This command configures system-wide LSR load balancing. Hashing can be enabled on the label stack, IP header, or both. The hashing can be at an LSR for spraying labeled IP packets over multiple equal-cost paths, or over multiple links of a LAG group.

The LSR hash routine operates on the label stack and the IP header, if a packet is IPv4. An LSR considers a packet to be IPv4 if the first nibble following the bottom of the label stack is 4. The hash on the label stack and IPv4 and IPv6 headers can be enabled or disabled at the system level or incoming network IP interface level.

**lbl-ip-l4-teid** - Specifies that the hashing applies as follows for Layer 2 and Layer 3 encapsulated traffic:

- If an IPv4 or IPv6 header is found immediately after the MPLS label stack, the hashing includes label stack, source and destination IP addresses, TCP/UDP port numbers, and, if present, TEID values.
- If an IPv4 or IPv6 header is not found immediately after the MPLS label stack, the data plane searches for a valid Ethertype value for the IPv4 and IPv6 payload. If a valid Ethertype value is found and an IP header follows the Ethernet header, hashing includes the source and destination IP addresses, TCP/UDP port numbers, and, if present, TEID values.

**eth-encap-ip** - Specifies that the hash algorithm parses down the label stack and after it reaches the bottom, the stack assumes the Ethernet II non-tagged, dot1q, or QinQ header follows. At the expected Ethertype offset location, the algorithm checks whether the value present is IPv4/IPv6 (0x0800/0x86DD). If the check passes, the hash algorithm checks the first nibble at the expected IP header location for IPv4/IPv6 (0x0100/0x0110). If the secondary check passes, the algorithm performs the hash using the IP SA/DA fields in the expected IP header. If any of the checks fail, the label-stack hash is performed.

Options lbl-only, lbl-ip, ip-only, eth-encap-ip, lbl-ip-l4-teid, lbl-eth-ip-l4-teid, lbl-ip-or-teid

Introduced 16.0.R1

Platforms All

## mc-enh-load-balancing *boolean*

Synopsis Enable enhanced egress multicast load balancing

Context **configure** system load-balancing mc-enh-load-balancing *boolean*

Tree mc-enh-load-balancing

Default false

Introduced 16.0.R1

Platforms All

## service-id-lag-hashing *boolean*

Synopsis Enable enhanced VLL LAG service ID hashing


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| | |
|---|---|
| Context | **configure** system load-balancing service-id-lag-hashing *boolean* |
| Tree | service-id-lag-hashing |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **system-ip-load-balancing** *boolean*

| | |
|---|---|
| Synopsis | Use system IP address for ECMP and LAG load balancing |
| Context | **configure** system load-balancing system-ip-load-balancing *boolean* |
| Tree | system-ip-load-balancing |
| Introduced | 16.0.R1 |
| Platforms | All |

### **location** *description*

| | |
|---|---|
| Synopsis | Site location of the system |
| Context | **configure** system location *description* |
| Tree | location |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **login-control**

| | |
|---|---|
| Synopsis | Enter the **login-control** context |
| Context | **configure** system login-control |
| Tree | login-control |
| Introduced | 16.0.R1 |
| Platforms | All |

### **exponential-backoff** *boolean*

| | |
|---|---|
| Synopsis | Enable exponential-backoff of the login prompt |
| Context | **configure** system login-control exponential-backoff *boolean* |


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| | |
|---|---|
| Tree | exponential-backoff |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### ftp

| | |
|---|---|
| Synopsis | Enter the **ftp** context |
| Context | **configure** system login-control ftp |
| Tree | ftp |
| Introduced | 16.0.R1 |
| Platforms | All |

### inbound-max-sessions *number*

| | |
|---|---|
| Synopsis | Maximum number of concurrent inbound FTP sessions |
| Context | **configure** system login-control ftp inbound-max-sessions *number* |
| Tree | inbound-max-sessions |
| Range | 0 to 5 |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | All |

### idle-timeout *(keyword | number)*

| | |
|---|---|
| Synopsis | Idle timeout for console, FTP, Telnet, and SSH sessions |
| Context | **configure** system login-control idle-timeout *(keyword | number)* |
| Tree | idle-timeout |
| Range | 1 to 1440 |
| Units | minutes |
| Options | none |
| Default | 30 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **login-banner** *boolean*

| | |
|---|---|
| Synopsis | Display login banner |
| Context | **configure** system login-control login-banner *boolean* |
| Tree | login-banner |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **login-scripts**

| | |
|---|---|
| Synopsis | Enter the **login-scripts** context |
| Context | **configure** system login-control login-scripts |
| Tree | login-scripts |
| Introduced | 16.0.R1 |
| Platforms | All |

### **global-script** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | URL of the global CLI login script |
| Context | **configure** system login-control login-scripts global-script *string-not-all-spaces* |
| Tree | global-script |
| String length | 1 to 180 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **per-user-script**

| | |
|---|---|
| Synopsis | Enter the **per-user-script** context |
| Context | **configure** system login-control login-scripts per-user-script |
| Tree | per-user-script |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **file-name** *filename*

| | |
|---|---|
| Synopsis | File name of the per-user login script |
| Context | **configure** system login-control login-scripts per-user-script file-name *filename* |
| Tree | file-name |
| String length | 1 to 180 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **user-directory** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | Directory name of user-defined login script |
| Context | **configure** system login-control login-scripts per-user-script user-directory *string-not-all-spaces* |
| Tree | user-directory |
| String length | 1 to 180 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **motd**

| | |
|---|---|
| Synopsis | Enter the **motd** context |
| Context | **configure** system login-control motd |
| Tree | motd |
| Introduced | 16.0.R1 |
| Platforms | All |

### **text** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | Message of the day displayed after console login |
| Context | **configure** system login-control motd text *string-not-all-spaces* |
| Tree | text |
| String length | 1 to 900 |
| Notes | The following elements are part of a choice: **text** or **url**. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **url** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | URL of the location of message of the day |
| Context | **configure** system login-control motd url *string-not-all-spaces* |
| Tree | url |
| String length | 1 to 180 |
| Notes | The following elements are part of a choice: **text** or **url**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **pre-login-message**

| | |
|---|---|
| Synopsis | Enter the **pre-login-message** context |
| Context | **configure** system login-control pre-login-message |
| Tree | pre-login-message |
| Description | Commands in this context configure a message to display before logging in to the router using Telnet, SSH, or the console port.<br>Only one message can be configured. If a new pre-login message is configured, the new message overwrites the previous message.<br>**Note:** The pre-login message is displayed on both active and standby systems. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **message** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | Message displayed before the login prompt |
| Context | **configure** system login-control pre-login-message message *string-not-all-spaces* |
| Tree | message |
| Description | This command configures the pre-login message.<br>Any printable, 7-bit ASCII characters can be used. If the string contains special characters (#, $, spaces, and so on), the entire string must be enclosed within double quotes. Some special characters can be used to format the message text. Use the newline (\n) character to create multiline messages. A newline (\n) character in the message moves to the beginning of the next line by sending ASCII/UTF-8 characters |


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| | |
|---|---|
| | 0xA (LF) and 0xD (CR) to the client terminal. A carriage return (\r) character in the message sends the ASCII/UTF-8 character 0xD (CR) to the client terminal. |
| String length | 1 to 900 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **name** *boolean*

| | |
|---|---|
| Synopsis | Display the system name before the pre-login message |
| Context | **configure** system login-control pre-login-message name *boolean* |
| Tree | name |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ssh**

| | |
|---|---|
| Synopsis | Enter the **ssh** context |
| Context | **configure** system login-control ssh |
| Tree | ssh |
| Introduced | 16.0.R1 |
| Platforms | All |

### **graceful-shutdown** *boolean*

| | |
|---|---|
| Synopsis | Allow graceful shutdown of SSH sessions |
| Context | **configure** system login-control ssh graceful-shutdown *boolean* |
| Tree | graceful-shutdown |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **inbound-max-sessions** *number*

| | |
|---|---|
| Synopsis | Maximum number of concurrent inbound sessions |
| Context | **configure** system login-control ssh inbound-max-sessions *number* |


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| | |
|---|---|
| Tree | inbound-max-sessions |
| Range | 0 to 50 |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **max-channels-per-connection** *number*

| | |
|---|---|
| Synopsis | Maximum number of channels per SSH connection |
| Context | **configure** system login-control ssh max-channels-per-connection *number* |
| Tree | max-channels-per-connection |
| Range | 1 to 50 |
| Default | 5 |
| Introduced | 24.7.R1 |
| Platforms | All |

### **outbound-max-sessions** *number*

| | |
|---|---|
| Synopsis | Maximum number of concurrent outbound sessions |
| Context | **configure** system login-control ssh outbound-max-sessions *number* |
| Tree | outbound-max-sessions |
| Range | 0 to 15 |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ttl-security** *number*

| | |
|---|---|
| Synopsis | Minimum TTL value for incoming packets |
| Context | **configure** system login-control ssh ttl-security *number* |
| Tree | ttl-security |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |


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## telnet

| | |
|---|---|
| Synopsis | Enter the **telnet** context |
| Context | **configure** system login-control telnet |
| Tree | telnet |
| Introduced | 16.0.R1 |
| Platforms | All |

## graceful-shutdown *boolean*

| | |
|---|---|
| Synopsis | Allow graceful shutdown of Telnet sessions |
| Context | **configure** system login-control telnet graceful-shutdown *boolean* |
| Tree | graceful-shutdown |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## inbound-max-sessions *number*

| | |
|---|---|
| Synopsis | Maximum number of concurrent inbound sessions |
| Context | **configure** system login-control telnet inbound-max-sessions *number* |
| Tree | inbound-max-sessions |
| Range | 0 to 50 |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | All |

## outbound-max-sessions *number*

| | |
|---|---|
| Synopsis | Maximum number of concurrent outbound sessions |
| Context | **configure** system login-control telnet outbound-max-sessions *number* |
| Tree | outbound-max-sessions |
| Range | 0 to 15 |
| Default | 5 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **ttl-security** *number*

| | |
|---|---|
| Synopsis | Minimum TTL value for incoming packets |
| Context | **configure** system login-control telnet ttl-security *number* |
| Tree | ttl-security |
| Range | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **management-interface**

| | |
|---|---|
| Synopsis | Enter the **management-interface** context |
| Context | **configure** system management-interface |
| Tree | management-interface |
| Description | Commands in this context configure the capabilities of router management interfaces such as CLI and NETCONF. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cli**

| | |
|---|---|
| Synopsis | Enter the **cli** context |
| Context | **configure** system management-interface cli |
| Tree | cli |
| Description | Commands in this context configure the CLI management interfaces. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **classic-cli**

| | |
|---|---|
| Synopsis | Enter the **classic-cli** context |
| Context | **configure** system management-interface cli classic-cli |
| Tree | classic-cli |


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| | |
|---|---|
| Description | Commands in this context configure the classic CLI management interface. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **allow-immediate** *boolean*

| | |
|---|---|
| Synopsis | Allow writable access in classic CLI configure branch |
| Context | **configure** system management-interface cli classic-cli allow-immediate *boolean* |
| Tree | allow-immediate |
| Description | When configured to **true**, this command enables write access in the classic CLI configuration branch without having to use the classic CLI **candidate edit** functionality.<br>When configured to **false**, this command blocks write access and configuration changes in the classic CLI configuration branch, and the classic CLI configuration branch is read-only. This enforces using the classic CLI **candidate edit** functionality, including **candidate commit**, to modify the router configuration, instead of allowing immediate line-by-line configuration changes. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

## **rollback**

| | |
|---|---|
| Synopsis | Enter the **rollback** context |
| Context | **configure** system management-interface cli classic-cli rollback |
| Tree | rollback |
| Description | Commands in this context control classic CLI configuration rollback functionality, such as the maximum number of rollback checkpoints the system maintains. Configuration rollback allows the operator to revert to previous router configuration states while minimizing impacts to services. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **local-checkpoints** *number*

| | |
|---|---|
| Synopsis | Maximum number of rollback files on local storage |
| Context | **configure** system management-interface cli classic-cli rollback local-checkpoints *number* |
| Tree | local-checkpoints |


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| | |
|---|---|
| Range | 1 to 50 |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **location** *url*

| | |
|---|---|
| Synopsis | Path and filename prefix for rollback checkpoint files |
| Context | **configure** system management-interface cli classic-cli rollback location *url* |
| Tree | location |
| Description | This command configures the local (for example, compact flash) or remote location and name of the classic CLI rollback checkpoint files. The filename must not contain a suffix. The suffixes for rollback checkpoint files are, for example, .rb, .rb.1, .rb.2, and so on. The suffixes are automatically appended to rollback checkpoint files. |
| String length | 1 to 180 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **remote-checkpoints** *number*

| | |
|---|---|
| Synopsis | Maximum rollback files saved at a remote location |
| Context | **configure** system management-interface cli classic-cli rollback remote-checkpoints *number* |
| Tree | remote-checkpoints |
| Range | 1 to 200 |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **rescue**

| | |
|---|---|
| Synopsis | Enter the **rescue** context |
| Context | **configure** system management-interface cli classic-cli rollback rescue |
| Tree | rescue |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **location** *url*

| | |
|---|---|
| Synopsis | Location of the rescue configuration file |
| Context | **configure** system management-interface cli classic-cli rollback rescue location *url* |
| Tree | location |
| Description | This command configures the local or remote location and filename of the classic CLI rescue configuration file. The suffix (.rc) is automatically appended to the filename when a rescue configuration file is saved. Trivial FTP (TFTP) is not supported for remote locations. |
| String length | 1 to 180 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **cli-engine** *keyword*

| | |
|---|---|
| Synopsis | System-wide CLI engine access |
| Context | **configure** system management-interface cli cli-engine *keyword* |
| Tree | cli-engine |
| Description | This command configures the system-wide CLI engine. The operator can configure one or both engines. For the configuration to take effect, exit the running CLI session and start a new session after committing the new value. |
| Options | classic-cli, md-cli |
| Max. instances | 2 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **md-cli**

| | |
|---|---|
| Synopsis | Enter the **md-cli** context |
| Context | **configure** system management-interface cli md-cli |
| Tree | md-cli |
| Description | Commands in this context configure the MD-CLI management interface. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **auto-config-save** *boolean*

| | |
|---|---|
| Synopsis | Automatically save configuration as part of commit |
| Context | **configure** system management-interface cli md-cli auto-config-save *boolean* |
| Tree | auto-config-save |
| Description | When configured to **true**, the system automatically writes the running configuration to the saved configuration file as part of a successful commit operation. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **environment**

| | |
|---|---|
| Synopsis | Enter the **environment** context |
| Context | **configure** system management-interface cli md-cli environment |
| Tree | environment |
| Introduced | 16.0.R1 |
| Platforms | All |

### **command-alias**

| | |
|---|---|
| Synopsis | Enter the **command-alias** context |
| Context | **configure** system management-interface cli md-cli environment command-alias |
| Tree | command-alias |
| Introduced | 21.7.R1 |
| Platforms | All |

### **alias** [alias-name] *string*

| | |
|---|---|
| Synopsis | Enter the **alias** list instance |
| Context | **configure** system management-interface cli md-cli environment command-alias alias *string* |
| Tree | alias |
| Description | Commands in this context create aliases to existing MD-CLI commands or to Python applications. |


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| | |
|---|---|
| | Aliases may be mounted for use globally or for selected context paths. Arguments and output modifiers may be provided to aliases at configuration or run time. |
| Introduced | 21.7.R1 |
| Platforms | All |

### [**alias-name**] *string*

| | |
|---|---|
| Synopsis | Alias name |
| Context | **configure** system management-interface cli md-cli environment command-alias alias *string* |
| Tree | alias |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 21.7.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the alias |
| Context | **configure** system management-interface cli md-cli environment command-alias alias *string* admin-state *keyword* |
| Tree | admin-state |
| Description | This command controls the administrative state of the MD-CLI alias.<br>MD-CLI aliases that are administratively disabled cannot be executed, are not displayed in command completion, and do not appear in **?** help. |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.10.R1 |
| Platforms | All |

### **cli-command** *string*

| | |
|---|---|
| Synopsis | CLI command to run when executing the alias |
| Context | **configure** system management-interface cli md-cli environment command-alias alias *string* cli-command *string* |
| Tree | cli-command |


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| | |
|---|---|
| String length | 1 to 255 |
| Notes | The following elements are part of a mandatory choice: **cli-command** or **python-script**. |
| Introduced | 21.7.R1 |
| Platforms | All |

### **description** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | Alias description |
| Context | **configure** system management-interface cli md-cli environment command-alias alias *string* description *string-not-all-spaces* |
| Tree | description |
| String length | 1 to 110 |
| Introduced | 21.7.R1 |
| Platforms | All |

### **mount-point** [path] *(keyword | string)*

| | |
|---|---|
| Synopsis | Add a list entry for **mount-point** |
| Context | **configure** system management-interface cli md-cli environment command-alias alias *string* mount-point *(keyword | string)* |
| Tree | mount-point |
| Min. instances | 1 |
| Introduced | 21.7.R1 |
| Platforms | All |

### [**path**] *(keyword | string)*

| | |
|---|---|
| Synopsis | Mount point where the alias is available |
| Context | **configure** system management-interface cli md-cli environment command-alias alias *string* mount-point *(keyword | string)* |
| Tree | mount-point |
| String length | 1 to 255 |
| Options | global |
| Notes | This element is part of a list key. |
| Introduced | 21.7.R1 |


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| | |
|---|---|
| Platforms | All |

### **python-script** *reference*

| | |
|---|---|
| Synopsis | Python script to run when executing the alias |
| Context | **configure** system management-interface cli md-cli environment command-alias alias *string* python-script *reference* |
| Tree | python-script |
| Reference | **configure** python python-script *named-item* |
| Notes | The following elements are part of a mandatory choice: **cli-command** or **python-script**. |
| Introduced | 21.7.R1 |
| Platforms | All |

### **command-completion**

| | |
|---|---|
| Synopsis | Enter the **command-completion** context |
| Context | **configure** system management-interface cli md-cli environment command-completion |
| Tree | command-completion |
| Introduced | 16.0.R1 |
| Platforms | All |

### **enter** *boolean*

| | |
|---|---|
| Synopsis | Complete the command when the Enter key is pressed |
| Context | **configure** system management-interface cli md-cli environment command-completion enter *boolean* |
| Tree | enter |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **space** *boolean*

| | |
|---|---|
| Synopsis | Complete the command when the Space key is pressed |
| Context | **configure** system management-interface cli md-cli environment command-completion space *boolean* |


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| | |
|---|---|
| Tree | space |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **tab** *boolean*

| | |
|---|---|
| Synopsis | Complete the command when the Tab key is pressed |
| Context | **configure** system management-interface cli md-cli environment command-completion tab *boolean* |
| Tree | tab |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **commit-options**

| | |
|---|---|
| Synopsis | Enter the **commit-options** context |
| Context | **configure** system management-interface cli md-cli environment commit-options |
| Tree | commit-options |
| Introduced | 24.10.R1 |
| Platforms | All |

### **comment** *boolean*

| | |
|---|---|
| Synopsis | Require a commit comment when committing configuration |
| Context | **configure** system management-interface cli md-cli environment commit-options comment *boolean* |
| Tree | comment |
| Default | false |
| Introduced | 24.10.R1 |
| Platforms | All |

### **confirm** *boolean*

| | |
|---|---|
| Synopsis | Require confirmed commit when committing configuration |


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| | |
|---|---|
| Context | **configure** system management-interface cli md-cli environment commit-options confirm *boolean* |
| Tree | confirm |
| Default | false |
| Introduced | 24.10.R1 |
| Platforms | All |

## console

| | |
|---|---|
| Synopsis | Enter the **console** context |
| Context | **configure** system management-interface cli md-cli environment console |
| Tree | console |
| Introduced | 16.0.R1 |
| Platforms | All |

## length *number*

| | |
|---|---|
| Synopsis | Number of lines displayed on the console |
| Context | **configure** system management-interface cli md-cli environment console length *number* |
| Tree | length |
| Range | 24 to 512 |
| Default | 24 |
| Introduced | 16.0.R1 |
| Platforms | All |

## width *number*

| | |
|---|---|
| Synopsis | Number of columns displayed on the console |
| Context | **configure** system management-interface cli md-cli environment console width *number* |
| Tree | width |
| Range | 80 to 512 |
| Default | 80 |
| Introduced | 16.0.R1 |
| Platforms | All |


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## history

| | |
|---|---|
| Synopsis | Enter the **history** context |
| Context | **configure** system management-interface cli md-cli environment history |
| Tree | history |
| Introduced | 24.7.R1 |
| Platforms | All |

## recall *boolean*

| | |
|---|---|
| Synopsis | Allow command history recall and search execution |
| Context | **configure** system management-interface cli md-cli environment history recall *boolean* |
| Tree | recall |
| Description | When configured to **true**, the command history recall (**!**), substitution (**!$**), display (**:p**, **Esc+.**), and backward search (**Ctrl-R**) are enabled.<br>When configured to **false**, the command history can be displayed using the **history** command, but commands in the history cannot be executed. |
| Default | true |
| Introduced | 24.7.R1 |
| Platforms | All |

## size *number*

| | |
|---|---|
| Synopsis | Command history size |
| Context | **configure** system management-interface cli md-cli environment history size *number* |
| Tree | size |
| Description | This command specifies the maximum size of the command history. A value of 0 disables the command history. |
| Range | 0 to 1000 |
| Default | 50 |
| Introduced | 24.7.R1 |
| Platforms | All |

## info-output

| | |
|---|---|
| Synopsis | Enter the **info-output** context |


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| | |
|---|---|
| Context | **configure** system management-interface cli md-cli environment info-output |
| Tree | info-output |
| Introduced | 22.2.R1 |
| Platforms | All |

## always-display

| | |
|---|---|
| Synopsis | Enter the **always-display** context |
| Context | **configure** system management-interface cli md-cli environment info-output always-display |
| Tree | always-display |
| Description | Commands in this context specify elements that are always displayed in the **info** output, regardless of whether the **detail** option is used. |
| Introduced | 22.2.R1 |
| Platforms | All |

## admin-state *boolean*

| | |
|---|---|
| Synopsis | Always display admin-state elements |
| Context | **configure** system management-interface cli md-cli environment info-output always-display admin-state *boolean* |
| Tree | admin-state |
| Description | When configured to **true**, the values of the **admin-state** elements in **info** output (without the **detail** option) are always displayed, even if they are the default values. |
| Default | false |
| Introduced | 22.2.R1 |
| Platforms | All |

## message-severity-level

| | |
|---|---|
| Synopsis | Enter the **message-severity-level** context |
| Context | **configure** system management-interface cli md-cli environment message-severity-level |
| Tree | message-severity-level |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **cli** *keyword*

| | |
|---|---|
| Synopsis | Message severity threshold for CLI messages |
| Context | **configure** system management-interface cli md-cli environment message-severity-level cli *keyword* |
| Tree | cli |
| Options | warning, info |
| Default | info |
| Introduced | 16.0.R1 |
| Platforms | All |

### **more** *boolean*

| | |
|---|---|
| Synopsis | Activate the pager when output is longer than a screen |
| Context | **configure** system management-interface cli md-cli environment more *boolean* |
| Tree | more |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **progress-indicator**

| | |
|---|---|
| Synopsis | Enter the **progress-indicator** context |
| Context | **configure** system management-interface cli md-cli environment progress-indicator |
| Tree | progress-indicator |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the progress indicator |
| Context | **configure** system management-interface cli md-cli environment progress-indicator admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **delay** *number*

| | |
|---|---|
| Synopsis | Delay before the progress indicator is displayed |
| Context | **configure** system management-interface cli md-cli environment progress-indicator delay *number* |
| Tree | delay |
| Range | 0 to 10000 |
| Units | milliseconds |
| Default | 1000 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **type** *keyword*

| | |
|---|---|
| Synopsis | Progress indicator output style |
| Context | **configure** system management-interface cli md-cli environment progress-indicator type *keyword* |
| Tree | type |
| Options | dots |
| Default | dots |
| Introduced | 16.0.R1 |
| Platforms | All |

### **prompt**

| | |
|---|---|
| Synopsis | Enter the **prompt** context |
| Context | **configure** system management-interface cli md-cli environment prompt |
| Tree | prompt |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **context** *boolean*

| | |
|---|---|
| Synopsis | Show the current command context in the prompt |
| Context | **configure** system management-interface cli md-cli environment prompt context *boolean* |
| Tree | context |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **newline** *boolean*

| | |
|---|---|
| Synopsis | Add a new line before every prompt line |
| Context | **configure** system management-interface cli md-cli environment prompt newline *boolean* |
| Tree | newline |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **timestamp** *boolean*

| | |
|---|---|
| Synopsis | Show the timestamp before the first prompt line |
| Context | **configure** system management-interface cli md-cli environment prompt timestamp *boolean* |
| Tree | timestamp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **uncommitted-changes-indicator** *boolean*

| | |
|---|---|
| Synopsis | Show an asterisk (*) when uncommitted changes exist |
| Context | **configure** system management-interface cli md-cli environment prompt uncommitted-changes-indicator *boolean* |
| Tree | uncommitted-changes-indicator |
| Default | true |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## python

| | |
|---|---|
| Synopsis | Enter the **python** context |
| Context | **configure** system management-interface cli md-cli environment python |
| Tree | python |
| Description | Commands in this context customize Python settings used with the Python 3 interpreter in MD-CLI applications such as pyexec, command aliases, EHS, and CRON. |
| Introduced | 21.10.R1 |
| Platforms | All |

## memory-reservation *number*

| | |
|---|---|
| Synopsis | Memory reserved per Python interpreter |
| Context | **configure** system management-interface cli md-cli environment python memory-reservation *number* |
| Tree | memory-reservation |
| Range | 1 to 500 |
| Units | megabytes |
| Introduced | 21.10.R1 |
| Platforms | All |

## minimum-available-memory *number*

| | |
|---|---|
| Synopsis | Minimum memory requirement to run a Python interpreter |
| Context | **configure** system management-interface cli md-cli environment python minimum-available-memory *number* |
| Tree | minimum-available-memory |
| Range | 5 to 50 |
| Units | percent |
| Introduced | 21.10.R1 |
| Platforms | All |


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### **timeout** *number*

| | |
|---|---|
| Synopsis | Maximum run time before a Python application is stopped |
| Context | **configure** system management-interface cli md-cli environment python timeout *number* |
| Tree | timeout |
| Range | 30 to 86400 |
| Units | seconds |
| Default | 3600 |
| Introduced | 21.10.R1 |
| Platforms | All |

### **time-display** *keyword*

| | |
|---|---|
| Synopsis | Time zone to display time |
| Context | **configure** system management-interface cli md-cli environment time-display *keyword* |
| Tree | time-display |
| Description | This command configures the time zone for a timestamp displayed in outputs, such as event logs and **show** commands for the current CLI session.<br>In event logs, the selected time is used to control the timestamps in the CLI output of **show log log-id** and in YANG state in the /state/log/log-id branch (for logs such as session, cli, memory, SNMP, and NETCONF).<br>Also see the **configure log log-id time-format** command. |
| Options | local, utc |
| Default | local |
| Introduced | 16.0.R1 |
| Platforms | All |

### **time-format** *keyword*

| | |
|---|---|
| Synopsis | Format to display the date and time |
| Context | **configure** system management-interface cli md-cli environment time-format *keyword* |
| Tree | time-format |
| Description | This command specifies the format of the time display in the prompt, configuration, state, and certain **show** command output in the current CLI session. |
| Options | iso-8601, rfc-1123, rfc-3339 |
| Default | rfc-3339 |


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| | |
|---|---|
| Introduced | 20.5.R1 |
| Platforms | All |

### **commit-history** *number*

| | |
|---|---|
| Synopsis | Number of commit history IDs to store |
| Context | **configure** system management-interface commit-history *number* |
| Tree | commit-history |
| Description | This command sets the number of IDs to store in the commit history.<br>Setting the value to 0 disables the commit history. |
| Range | 0 to 200 |
| Default | 50 |
| Introduced | 21.10.R1 |
| Platforms | All |

### **configuration-mode** *keyword*

| | |
|---|---|
| Synopsis | Management interfaces allowed to edit the configuration |
| Context | **configure** system management-interface configuration-mode *keyword* |
| Tree | configuration-mode |
| Description | This command controls which of the classic or model-driven management interfaces can modify the configuration of the router.<br>Any management interface can be used in any configuration mode (to gather state information or perform operations, for example), but only specific management interfaces (CLI, NETCONF, and so on) are allowed to edit the configuration of the router in different modes. For example, only classic CLI and SNMP can be used to edit the configuration when in classic mode. |
| Options | classic, model-driven, mixed |
| Introduced | 16.0.R1 |
| Platforms | All |

### **configuration-save**

| | |
|---|---|
| Synopsis | Enter the **configuration-save** context |
| Context | **configure** system management-interface configuration-save |
| Tree | configuration-save |


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| | |
|---|---|
| Description | Commands in this context configure the attributes for saved configuration files. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **configuration-backups** *number*

| | |
|---|---|
| Synopsis | Maximum number of configuration versions maintained |
| Context | **configure** system management-interface configuration-save configuration-backups *number* |
| Tree | configuration-backups |
| Description | This command configures the maximum number of saved configuration file versions the router maintains.<br>When the configuration is saved, configuration file names are appended with a numeric extension. Each subsequent configuration save creates a new configuration file version with an incremented numeric extension until the maximum count is reached, after which the next configuration save overwrites the oldest file version.<br>Each persistent index file is updated at the same time as the associated configuration file. The system synchronizes the active and standby CPM for all configurations and their associated persistent index files. |
| Range | 1 to 200 |
| Default | 50 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **incremental-saves** *boolean*

| | |
|---|---|
| Synopsis | Use incremental saved configuration files |
| Context | **configure** system management-interface configuration-save incremental-saves *boolean* |
| Tree | incremental-saves |
| Description | When configured to **true**, the system saves each commit to the **configure** configuration region in a separate incremental saved configuration file, which allows for faster commits, instead of saving a complete saved configuration file each time. |
| Default | true |
| Introduced | 22.7.R1 |
| Platforms | All |


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## netconf

| | |
|---|---|
| Synopsis | Enter the **netconf** context |
| Context | **configure** system management-interface netconf |
| Tree | netconf |
| Introduced | 16.0.R1 |
| Platforms | All |

## auto-config-save *boolean*

| | |
|---|---|
| Synopsis | Automatically save configuration as part of commit |
| Context | **configure** system management-interface netconf auto-config-save *boolean* |
| Tree | auto-config-save |
| Description | When configured to **true**, the system automatically writes the running configuration to the saved configuration file as part of a successful commit operation. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

## capabilities

| | |
|---|---|
| Synopsis | Enter the **capabilities** context |
| Context | **configure** system management-interface netconf capabilities |
| Tree | capabilities |
| Description | Commands in this context configure explicit capabilities for the NETCONF server. |
| Introduced | 16.0.R1 |
| Platforms | All |

## candidate *boolean*

| | |
|---|---|
| Synopsis | Allow the NETCONF server to access candidate datastore |
| Context | **configure** system management-interface netconf capabilities candidate *boolean* |
| Tree | candidate |
| Description | When configured to **true**, this command allows the SR OS NETCONF server to access the candidate configuration datastore. Configuring this command to **true** also enables using **commit** and **discard-changes**. |


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When **configure system management-interface configuration-mode** is set to **classic**, the candidate capability is disabled, even if this command is configured to **true**.

When configured to **false**, this command disables the SR OS NETCONF server from accessing the candidate datastore. If the candidate is disabled, requests that reference the candidate datastore return an error, and when a NETCONF client establishes a new session, the candidate capability is not advertised in the SR OS NETCONF Hello message.

| | |
|---|---|
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

## listen

| | |
|---|---|
| Synopsis | Enter the **listen** context |
| Context | **configure** system management-interface netconf listen |
| Tree | listen |
| Introduced | 24.3.R1 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of NETCONF server in listen mode |
| Context | **configure** system management-interface netconf listen admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 24.3.R1 |
| Platforms | All |

## delay-on-boot *number*

| | |
|---|---|
| Synopsis | Delay before NETCONF server is operational after boot |
| Context | **configure** system management-interface netconf listen delay-on-boot *number* |
| Tree | delay-on-boot |
| Description | This command configures the delay timer for NETCONF connections. When the timer expires, NETCONF becomes operational and connections are accepted. This delay prevents automation from managing the system while it is still converging. |


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When no delay is configured, connections are accepted after the system boots and NETCONF becomes operational.

| | |
|---|---|
| Range | 1 to 3600 |
| Units | seconds |
| Introduced | 24.3.R1 |
| Platforms | All |

## **port** *number*

| | |
|---|---|
| Synopsis | Port on which NETCONF server listens for connections |
| Context | **configure** system management-interface netconf listen port *number* |
| Tree | port |
| Description | This command specifies the port on which the SR OS NETCONF server listens for new connections. One port can be configured for NETCONF management.<br>The configured port applies to both non-VPRN and VPRN management. New NETCONF connections are able to use the configured port.<br>For NETCONF connections not using VPRN management, active NETCONF connections are not disconnected if the connection port changes. For NETCONF connections are not disconnected if the connection port changes. For NETCONF connections using VPRN management, active NETCONF connections are disconnected if the connection port changes. |
| Range | 22 \| 830 |
| Default | 830 |
| Introduced | 24.3.R1 |
| Platforms | All |

## **operations**

| | |
|---|---|
| Synopsis | Enter the **operations** context |
| Context | **configure** system management-interface operations |
| Tree | operations |
| Description | Commands in this context configure parameters associated with operational commands in model-driven interfaces. |
| Introduced | 21.5.R1 |
| Platforms | All |


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## global-timeouts

| | |
|---|---|
| Synopsis | Enter the **global-timeouts** context |
| Context | **configure** system management-interface operations global-timeouts |
| Tree | global-timeouts |
| Description | Commands in this context configure system timeout parameters for operational commands.<br><br>Timeout parameters provide default system-level control for various types of operational commands in model-driven interfaces. The timeout values are used when specific execution and retention timeouts are not requested for a specific operation. |
| Introduced | 21.5.R1 |
| Platforms | All |

## asynchronous-execution *(number | keyword)*

| | |
|---|---|
| Synopsis | Timeout for asynchronous operation execution |
| Context | **configure** system management-interface operations global-timeouts asynchronous-execution *(number \| keyword)* |
| Tree | asynchronous-execution |
| Description | This command configures the period of time that operations launched as “asynchronous” are allowed to execute before being automatically stopped by the SR OS.<br><br>An asynchronous operation is not deleted from the system when it is stopped. See the **asynchronous-retention** command.<br><br>If a specific execution timeout is not included in the request for a particular asynchronous operation, this system-level timeout applies.<br><br>**Note**: This execution timeout is part of the general global operations infrastructure and is separate and independent from any operation-specific timeouts (for example, the **ping** operation also has its own timeout parameter). |
| Range | 1 to 604800 |
| Units | seconds |
| Options | never |
| Default | 3600 |
| Introduced | 21.5.R1 |
| Platforms | All |


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### **asynchronous-retention** *(number | keyword)*

| | |
|---|---|
| Synopsis | Timeout for asynchronous operation data retention |
| Context | **configure** system management-interface operations global-timeouts asynchronous-retention *(number \| keyword)* |
| Tree | asynchronous-retention |
| Description | This command configures the period of time that data related to operations launched as “asynchronous” is retained in the system. After the retention timeout expires, all information related to the operation is deleted, including any status information and result data.<br><br>If a specific retention timeout is not included in the request for a particular asynchronous operation, this system-level timeout applies. |
| Range | 1 to 604800 |
| Units | seconds |
| Options | never |
| Default | 86400 |
| Introduced | 21.5.R1 |
| Platforms | All |

### **synchronous-execution** *(number | keyword)*

| | |
|---|---|
| Synopsis | Timeout for synchronous operation execution |
| Context | **configure** system management-interface operations global-timeouts synchronous-execution *(number \| keyword)* |
| Tree | synchronous-execution |
| Description | This command configures the period of time that operations launched as “'synchronous” (the default method for all operations) are allowed to execute before they are automatically stopped, and their associated data is deleted.<br><br>If a specific execution timeout is not included in the request for a particular synchronous operation, this system-level timeout applies.<br><br>**Note**: This execution timeout is part of the general global operations infrastructure and is separate and independent from any operation-specific timeouts (for example, the **ping** operation also has its own timeout parameter).<br><br>**Caution**: If this command is set with a specific time value, MD-CLI operations are subject to the timeout and are interrupted if they execute longer than the time value. This situation can arise because the timeout also applies to operations requested in the MD-CLI interface (for example, **ping**, **file dir**, and so on). |
| Range | 1 to 604800 |
| Units | seconds |


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| | |
|---|---|
| Options | never |
| Default | never |
| Introduced | 21.5.R1 |
| Platforms | All |

## remote-management

| | |
|---|---|
| Synopsis | Enter the **remote-management** context |
| Context | **configure** system management-interface remote-management |
| Tree | remote-management |
| Description | Commands in this context configure the SR OS node to use the remote management service. Configuring remote management enables the SR OS node to report itself to a remote manager service running on a remote server, so that it is included in the dynamic list of available nodes. The manager service streamlines the management of multiple SR OS nodes running different SR OS versions using the same client application providing a similar shell to the MD-CLI. |
| Introduced | 20.5.R1 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of remote management registration |
| Context | **configure** system management-interface remote-management admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 20.5.R1 |
| Platforms | All |

## allow-unsecure-connection

| | |
|---|---|
| Synopsis | Allow connection without secured transport protocol |
| Context | **configure** system management-interface remote-management allow-unsecure-connection |
| Tree | allow-unsecure-connection |
| Description | When configured, this command allows an unsecured connection to remote managers; TCP connections are not encrypted, including username and password information. |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **allow-unsecure-connection** or **client-tls-profile**. |
| Introduced | 20.5.R1 |
| Platforms | All |

## **client-tls-profile** *reference*

| | |
|---|---|
| Synopsis | TLS client profile name |
| Context | **configure** system management-interface remote-management client-tls-profile *reference* |
| Tree | client-tls-profile |
| Description | This command specifies the client TLS profile to all remote managers. |
| Reference | **configure** system security tls client-tls-profile *named-item* |
| Notes | The following elements are part of a choice: **allow-unsecure-connection** or **client-tls-profile**. |
| Introduced | 20.5.R1 |
| Platforms | All |

## **connection-timeout** *number*

| | |
|---|---|
| Synopsis | Time without a response before manager declared down |
| Context | **configure** system management-interface remote-management connection-timeout *number* |
| Tree | connection-timeout |
| Range | 1 to 3600 |
| Units | seconds |
| Default | 60 |
| Introduced | 20.5.R1 |
| Platforms | All |

## **delay-on-boot** *number*

| | |
|---|---|
| Synopsis | Delay for remote management after system boot |
| Context | **configure** system management-interface remote-management delay-on-boot *number* |
| Tree | delay-on-boot |


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| | |
|---|---|
| Description | This command configures the delay timer for remote management connections over gRPC. When the timer expires, remote management becomes operational and connections are accepted. This delay prevents automation from managing the system while it is still converging.<br>When no delay is configured, remote management connections are accepted after the system boots and gRPC becomes operational. |
| Range | 1 to 3600 |
| Units | seconds |
| Introduced | 23.10.R1 |
| Platforms | All |

### **device-label** *named-item-64*

| | |
|---|---|
| Synopsis | Device label supplied to the remote manager |
| Context | **configure** system management-interface remote-management device-label *named-item-64* |
| Tree | device-label |
| Description | This command specifies a metadata label that is supplied to the manager. This label is used to group devices or network nodes with a common purpose or goal. |
| String length | 1 to 64 |
| Introduced | 20.5.R1 |
| Platforms | All |

### **device-name** *named-item-64*

| | |
|---|---|
| Synopsis | Device name supplied to the remote manager |
| Context | **configure** system management-interface remote-management device-name *named-item-64* |
| Tree | device-name |
| Description | This command specifies a device name that is supplied to the manager. The name identifies a specific SR OS node in the network.<br>When unconfigured, the default system name is used. |
| String length | 1 to 64 |
| Introduced | 20.5.R1 |
| Platforms | All |


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### **hello-interval** *number*

| | |
|---|---|
| Synopsis | Time between hello messages from SR OS node to manager |
| Context | **configure** system management-interface remote-management hello-interval *number* |
| Tree | hello-interval |
| Range | 10 to 216000 |
| Units | seconds |
| Default | 600 |
| Introduced | 20.5.R1 |
| Platforms | All |

### **manager** [manager-name] *named-item-64*

| | |
|---|---|
| Synopsis | Enter the **manager** list instance |
| Context | **configure** system management-interface remote-management manager *named-item-64* |
| Tree | manager |
| Description | Commands in this context configure options for a specific manager.<br>Commands configured in this context take precedence over command values specified directly in the **configure management-interface remote-management** context.<br>If a command is not configured in this context, the command setting is inherited from the higher level context. |
| Max. instances | 2 |
| Introduced | 20.5.R1 |
| Platforms | All |

### [**manager-name**] *named-item-64*

| | |
|---|---|
| Synopsis | Remote management manager name |
| Context | **configure** system management-interface remote-management manager *named-item-64* |
| Tree | manager |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 20.5.R1 |
| Platforms | All |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of remote management registration |
| Context | **configure** system management-interface remote-management manager *named-item-64* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 20.5.R1 |
| Platforms | All |

### **allow-unsecure-connection**

| | |
|---|---|
| Synopsis | Allow connection without secured transport protocol |
| Context | **configure** system management-interface remote-management manager *named-item-64* allow-unsecure-connection |
| Tree | allow-unsecure-connection |
| Description | When configured, the system allows an unsecured connection to the remote managers; the TCP connection is not encrypted. This includes username and password information. |
| Notes | The following elements are part of a choice: **allow-unsecure-connection** or **client-tls-profile**. |
| Introduced | 20.5.R1 |
| Platforms | All |

### **client-tls-profile** *reference*

| | |
|---|---|
| Synopsis | TLS client profile name assigned to the remote manager |
| Context | **configure** system management-interface remote-management manager *named-item-64* client-tls-profile *reference* |
| Tree | client-tls-profile |
| Reference | **configure** system security tls client-tls-profile *named-item* |
| Notes | The following elements are part of a choice: **allow-unsecure-connection** or **client-tls-profile**. |
| Introduced | 20.5.R1 |
| Platforms | All |


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### **connection-timeout** *number*

| | |
|---|---|
| Synopsis | Time without response before manager is declared down |
| Context | **configure** system management-interface remote-management manager *named-item-64* connection-timeout *number* |
| Tree | connection-timeout |
| Range | 1 to 3600 |
| Units | seconds |
| Introduced | 20.5.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** system management-interface remote-management manager *named-item-64* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 20.5.R1 |
| Platforms | All |

### **device-label** *named-item-64*

| | |
|---|---|
| Synopsis | Device label supplied to the remote manager |
| Context | **configure** system management-interface remote-management manager *named-item-64* device-label *named-item-64* |
| Tree | device-label |
| Description | This command specifies a metadata label that is supplied to the manager. This label is used to group devices or network nodes with a common purpose or goal. |
| String length | 1 to 64 |
| Introduced | 20.5.R1 |
| Platforms | All |

### **device-name** *named-item-64*

| | |
|---|---|
| Synopsis | Device name supplied to the remote manager |


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| | |
|---|---|
| Context | **configure** system management-interface remote-management manager *named-item-64* device-name *named-item-64* |
| Tree | device-name |
| Description | This command specifies a device name that is supplied to the manager. The name identifies a specific SR OS node in the network.<br>When unconfigured, the default system name is used. |
| String length | 1 to 64 |
| Introduced | 20.5.R1 |
| Platforms | All |

### **manager-address** *(ipv4-address-no-zone | ipv6-address-no-zone | fully-qualified-domain-name)*

| | |
|---|---|
| Synopsis | Destination IP address of the manager |
| Context | **configure** system management-interface remote-management manager *named-item-64* manager-address *(ipv4-address-no-zone \| ipv6-address-no-zone \| fully-qualified-domain-name)* |
| Tree | manager-address |
| String length | 1 to 255 |
| Introduced | 20.5.R1 |
| Platforms | All |

### **manager-port** *number*

| | |
|---|---|
| Synopsis | Destination TCP port for gRPC connections to manager |
| Context | **configure** system management-interface remote-management manager *named-item-64* manager-port *number* |
| Tree | manager-port |
| Range | 1 to 65535 |
| Default | 57400 |
| Introduced | 20.5.R1 |
| Platforms | All |

### **router-instance** *string*

| | |
|---|---|
| Synopsis | Reference to a router or VPRN service name |


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| | |
|---|---|
| Context | **configure** system management-interface remote-management manager *named-item-64* router-instance *string* |
| Tree | router-instance |
| Introduced | 20.5.R1 |
| Platforms | All |

### **source-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source IP address for connection to the manager |
| Context | **configure** system management-interface remote-management manager *named-item-64* source-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | source-address |
| Introduced | 20.5.R1 |
| Platforms | All |

### **source-port** *(number | keyword)*

| | |
|---|---|
| Synopsis | Source TCP destination port number |
| Context | **configure** system management-interface remote-management manager *named-item-64* source-port *(number \| keyword)* |
| Tree | source-port |
| Range | 1 to 65535 |
| Options | grpc-default |
| Introduced | 20.5.R1 |
| Platforms | All |

### **router-instance** *string*

| | |
|---|---|
| Synopsis | Router name or VPRN service name |
| Context | **configure** system management-interface remote-management router-instance *string* |
| Tree | router-instance |
| Default | management |
| Introduced | 20.5.R1 |
| Platforms | All |


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### **source-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source IP address for connection to the manager |
| Context | **configure** system management-interface remote-management source-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | source-address |
| Introduced | 20.5.R1 |
| Platforms | All |

### **source-port** *(number | keyword)*

| | |
|---|---|
| Synopsis | Source TCP port number to connection to the manager |
| Context | **configure** system management-interface remote-management source-port *(number \| keyword)* |
| Tree | source-port |
| Range | 1 to 65535 |
| Options | grpc-default |
| Default | grpc-default |
| Introduced | 20.5.R1 |
| Platforms | All |

### **schema-path** *url*

| | |
|---|---|
| Synopsis | Schema path URL |
| Context | **configure** system management-interface schema-path *url* |
| Tree | schema-path |
| Description | This command specifies the schema path where the SR OS YANG modules can be placed by the user before using a <get-schema> request. Nokia recommends that the URL string not exceed 135 characters for the <get-schema> request to work correctly with all schema files.<br><br>If this command is not configured, the software upgrade process manages the YANG schema files to ensure the schema files are synchronized with the software image on both the primary and standby CPM. |
| String length | 1 to 180 |
| Introduced | 16.0.R4 |
| Platforms | All |


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## snmp

| | |
|---|---|
| Synopsis | Enter the **snmp** context |
| Context | **configure** system management-interface snmp |
| Tree | snmp |
| Introduced | 16.0.R1 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the SNMP agent |
| Context | **configure** system management-interface snmp admin-state *keyword* |
| Tree | admin-state |
| Description | This command administratively enables or disables SNMP agent operations. Disabling SNMP does not prevent the agent from sending SNMP notifications to configured SNMP trap destinations.<br>In classic and mixed configuration mode, the agent is administratively disabled in the event of a reboot when the processing of the configuration file fails to complete or when an SNMP persistent index file fails while the **bof system persistent-indices** command is set to **true**. This prevents an SNMP-based management system from accessing and possibly synchronizing with a partially booted or incomplete network element. This auto-disable behavior is not applicable to model-driven configuration mode. |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

## engine-id *engine-id-as-string*

| | |
|---|---|
| Synopsis | SNMP engine ID that identifies the SNMPv3 node |
| Context | **configure** system management-interface snmp engine-id *engine-id-as-string* |
| Tree | engine-id |
| Description | This command sets the SNMP engine ID that uniquely identifies the SNMPv3 node.<br>If unconfigured, the system uses an engine ID based on the information from the system backplane.<br>If the SNMP engine ID is changed, the current configuration must be saved and a reboot must be executed. Otherwise, the previously configured SNMP communities and logger trap-target notify communities will not be valid for the new engine ID. |


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**Note:** Changing the SNMP engine ID invalidates all SNMPv3 MD5 and SHA security digest keys, which may render the node unmanageable.

When replacing a chassis, configure the new router to use the same engine ID as the previous router. This preserves SNMPv3 security keys and allows management stations to use their existing authentication keys for the new router.

Ensure that the engine ID of each router is unique. A management domain can only maintain one instance of a specific engine ID.

| | |
|---|---|
| String length | 10 to 64 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **general-port** *number*

| | |
|---|---|
| Synopsis | Port number used to send general SNMP messages |
| Context | **configure** system management-interface snmp general-port *number* |
| Tree | general-port |
| Description | This command configures the port number used to receive SNMP request messages and send replies.<br>For the port used for SNMP notifications, configure the **configure log snmp-trap-group trap-target port** command. |
| Range | 0 \| 1 to 65535 |
| Default | 161 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **max-bulk-duration** *number*

| | |
|---|---|
| Synopsis | Maximum process duration before responses are returned |
| Context | **configure** system management-interface snmp max-bulk-duration *number* |
| Tree | max-bulk-duration |
| Description | This command sets the maximum duration to process an SNMP request before bulk responses are returned to avoid a timeout on the management system when a lot of information is returned in the response. |
| Range | 100 to 5000 |
| Units | milliseconds |
| Introduced | 23.3.R1 |
| Platforms | All |


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### **packet-size** *number*

| | |
|---|---|
| Synopsis | Maximum SNMP packet size generated by the node |
| Context | **configure** system management-interface snmp packet-size *number* |
| Tree | packet-size |
| Range | 484 to 9216 |
| Default | 1500 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **streaming**

| | |
|---|---|
| Synopsis | Enter the **streaming** context |
| Context | **configure** system management-interface snmp streaming |
| Tree | streaming |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of SNMP streaming |
| Context | **configure** system management-interface snmp streaming admin-state *keyword* |
| Tree | admin-state |
| Description | This command enables or disables the proprietary SNMP request and response bundling as well as the TCP-based transport mechanism for optimizing network management of the router nodes. In higher latency networks, synchronizing router MIBs from network management using streaming takes less time than synchronizing using classic SNMP UDP requests. Streaming operates on TCP port 1491 and runs over IPv4 or IPv6. |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **transport** *keyword*

| | |
|---|---|
| Synopsis | Transport protocol used by the SNMP agent |


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| | |
|---|---|
| Context | **configure** system management-interface snmp transport *keyword* |
| Tree | transport |
| Options | udp – UDP only<br>tcp – TCP only<br>both – TCP and UDP |
| Default | udp |
| Introduced | 24.10.R1 |
| Platforms | All |

## yang-modules

| | |
|---|---|
| Synopsis | Enter the **yang-modules** context |
| Context | **configure** system management-interface yang-modules |
| Tree | yang-modules |
| Description | Commands in this context determine the system support of the Nokia YANG models.<br>The settings affect the data sent in a NETCONF <hello>, data populated in the RFC 6022 /netconf-state/schemas list, data returned in a <get-schema> request, and data populated in the RFC 8525 /yang-library.<br>See "NETCONF monitoring" and "YANG library" in the *7450 ESS, 7750 SR, 7950 XRS, and VSR System Management Guide* for more information. |
| Introduced | 16.0.R1 |
| Platforms | All |

## nmda

| | |
|---|---|
| Synopsis | Enter the **nmda** context |
| Context | **configure** system management-interface yang-modules nmda |
| Tree | nmda |
| Description | Commands in this context configure the attributes for the Network Management Datastores Architecture (NMDA). |
| Introduced | 21.7.R1 |
| Platforms | All |

## nmda-support *boolean*

| | |
|---|---|
| Synopsis | Advertise NMDA support over NETCONF |
| Context | **configure** system management-interface yang-modules nmda nmda-support *boolean* |


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| | |
|---|---|
| Tree | nmda-support |
| Description | When configured to **true**, this command enables the advertisement of NMDA support over NETCONF through the use of YANG library 1.1.<br>When configured to **false**, this command disables NMDA advertisement over NETCONF and YANG library 1.0 is used. |
| Default | false |
| Introduced | 21.7.R1 |
| Platforms | All |

## **nokia-combined-modules** *boolean*

| | |
|---|---|
| Synopsis | Support access to combined Nokia YANG models |
| Context | **configure** system management-interface yang-modules nokia-combined-modules *boolean* |
| Tree | nokia-combined-modules |
| Description | When configured to **true**, the system supports the combined Nokia YANG files for both configuration and state data in the NETCONF server.<br>When the system is operating in classic configuration mode, attempts to access (read or write) the configuration using the Nokia configuration modules or namespace via NETCONF result in errors, even if this command is set to **true**.<br>When configured to **false**, access to the combined Nokia YANG files is not supported.<br>This command and the **nokia-submodules** command cannot both be set to **true** at the same time. |
| Introduced | 16.0.R4 |
| Platforms | All |

## **nokia-submodules** *boolean*

| | |
|---|---|
| Synopsis | Support submodule-based packaging of Nokia YANG models |
| Context | **configure** system management-interface yang-modules nokia-submodules *boolean* |
| Tree | nokia-submodules |
| Description | When configured to **true**, the system supports the alternative submodule-based packaging of the Nokia YANG files for both configuration and state data in the NETCONF server.<br>When the system is operating in classic configuration mode, attempts to access (read or write) the configuration using the Nokia configuration modules or namespace via NETCONF result in errors, even if this command is set to **true**.<br>When configured to **false**, access to the submodule-based packaging of the Nokia YANG files is not supported. |


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This command and the **nokia-combined-module**s command cannot both be set to **true** at the same time.

Introduced 21.2.R1

Platforms All

### **openconfig-modules** *boolean*

Synopsis Support access to OpenConfig YANG models

Context **configure** system management-interface yang-modules openconfig-modules *boolean*

Tree openconfig-modules

Description When configured to **true**, this command allows access to OpenConfig YANG models in all model-driven interfaces.

Default false

Introduced 16.0.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS

### **shared-model-management** *boolean*

Synopsis Allow multiple models to configure the same elements

Context **configure** system management-interface yang-modules shared-model-management *boolean*

Tree shared-model-management

Description When configured to **true**, the router allows Nokia and third-party models to configure the same elements in model-driven interfaces.

When configured to **false**, only one model can be used to configure the same element.

Default true

Introduced 23.7.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS

### **name** *named-item-64*

Synopsis Administrative name assigned to the system

Context **configure** system name *named-item-64*

Tree name

String length 1 to 64

Introduced 16.0.R1


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| | |
|---|---|
| Platforms | All |

## network-element-discovery

| | |
|---|---|
| Synopsis | Enter the **network-element-discovery** context |
| Context | **configure** system network-element-discovery |
| Tree | network-element-discovery |
| Introduced | 19.5.R1 |
| Platforms | All |

## generate-traps *boolean*

| | |
|---|---|
| Synopsis | Generate NE discovery traps |
| Context | **configure** system network-element-discovery generate-traps *boolean* |
| Tree | generate-traps |
| Default | false |
| Introduced | 19.5.R1 |
| Platforms | All |

## profile [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **profile** list instance |
| Context | **configure** system network-element-discovery profile *named-item* |
| Tree | profile |
| Max. instances | 1 |
| Introduced | 19.5.R1 |
| Platforms | All |

## [name] *named-item*

| | |
|---|---|
| Synopsis | Profile name |
| Context | **configure** system network-element-discovery profile *named-item* |
| Tree | profile |
| String length | 1 to 32 |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 19.5.R1 |
| Platforms | All |

## **neid** *string*

| | |
|---|---|
| Synopsis | Network element ID of the advertised node |
| Context | **configure** system network-element-discovery profile *named-item* neid *string* |
| Tree | neid |
| String length | 7 to 8 |
| Introduced | 19.5.R1 |
| Platforms | All |

## **neip**

| | |
|---|---|
| Synopsis | Enter the **neip** context |
| Context | **configure** system network-element-discovery profile *named-item* neip |
| Tree | neip |
| Introduced | 19.5.R1 |
| Platforms | All |

## **auto-generate**

| | |
|---|---|
| Synopsis | Enter the **auto-generate** context |
| Context | **configure** system network-element-discovery profile *named-item* neip auto-generate |
| Tree | auto-generate |
| Introduced | 21.2.R1 |
| Platforms | All |

## **ipv4**

| | |
|---|---|
| Synopsis | Enable the **ipv4** context |
| Context | **configure** system network-element-discovery profile *named-item* neip auto-generate ipv4 |
| Tree | ipv4 |


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| | |
|---|---|
| Introduced | 21.2.R1 |
| Platforms | All |

### **vendor-id-value** *number*

| | |
|---|---|
| Synopsis | Most significant byte if the NE IPv4 address |
| Context | **configure** system network-element-discovery profile *named-item* neip auto-generate ipv4 vendor-id-value *number* |
| Tree | vendor-id-value |
| Range | 1 to 255 |
| Default | 140 |
| Introduced | 21.2.R1 |
| Platforms | All |

### **ipv6**

| | |
|---|---|
| Synopsis | Enable the **ipv6** context |
| Context | **configure** system network-element-discovery profile *named-item* neip auto-generate ipv6 |
| Tree | ipv6 |
| Introduced | 21.2.R1 |
| Platforms | All |

### **vendor-id-value** *number*

| | |
|---|---|
| Synopsis | Most significant byte of the NE IPv6 address |
| Context | **configure** system network-element-discovery profile *named-item* neip auto-generate ipv6 vendor-id-value *number* |
| Tree | vendor-id-value |
| Range | 1 to 255 |
| Default | 140 |
| Introduced | 21.2.R1 |
| Platforms | All |


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### **ipv4** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | NEIP IPv4 address |
| Context | **configure** system network-element-discovery profile *named-item* neip ipv4 *ipv4-unicast-address* |
| Tree | ipv4 |
| Introduced | 19.5.R1 |
| Platforms | All |

### **ipv6** *ipv6-address*

| | |
|---|---|
| Synopsis | NEIP IPv6 address |
| Context | **configure** system network-element-discovery profile *named-item* neip ipv6 *ipv6-address* |
| Tree | ipv6 |
| Introduced | 19.5.R1 |
| Platforms | All |

### **platform-type** *named-item-255*

| | |
|---|---|
| Synopsis | Platform name and chassis type to be advertised |
| Context | **configure** system network-element-discovery profile *named-item* platform-type *named-item-255* |
| Tree | platform-type |
| String length | 1 to 255 |
| Introduced | 19.5.R1 |
| Platforms | All |

### **system-mac** *mac-unicast-address-no-zero*

| | |
|---|---|
| Synopsis | MAC address of the advertised node |
| Context | **configure** system network-element-discovery profile *named-item* system-mac *mac-unicast-address-no-zero* |
| Tree | system-mac |
| Introduced | 19.5.R1 |
| Platforms | All |


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### **vendor-id** *named-item-255*

| | |
|---|---|
| Synopsis | Vendor ID to be advertised |
| Context | **configure** system network-element-discovery profile *named-item* vendor-id *named-item-255* |
| Tree | vendor-id |
| String length | 1 to 255 |
| Default | Nokia |
| Introduced | 19.5.R1 |
| Platforms | All |

### **ospf-dynamic-hostnames** *boolean*

| | |
|---|---|
| Synopsis | Process received OSPF dynamic hostname information |
| Context | **configure** system ospf-dynamic-hostnames *boolean* |
| Tree | ospf-dynamic-hostnames |
| Description | When configured to **true**, OSPF dynamic hostnames are enabled. The router receiving the new dynamic hostname within the OSPF Router Information (RI) LSA is instructed to process the received dynamic hostname information.<br>When configured to **false**, dynamic hostname information is not processed. |
| Default | false |
| Introduced | 20.2.R1 |
| Platforms | All |

### **persistence**

| | |
|---|---|
| Synopsis | Enter the **persistence** context |
| Context | **configure** system persistence |
| Tree | persistence |
| Description | Commands in this context configure persistence on the system.<br>The persistence feature enables the system to retain state information learned through DHCP snooping across reboots. This information includes data such as the IP address and MAC binding information, lease-length information, and ingress SAP information (required for VPLS snooping to identify the ingress interface).<br>If persistence is enabled when there are no DHCP relay or snooping commands enabled, the system creates an empty file. |
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| | |
|---|---|
| Platforms | All |

## ancp

| | |
|---|---|
| Synopsis | Enter the **ancp** context |
| Context | **configure** system persistence ancp |
| Tree | ancp |
| Introduced | 16.0.R1 |
| Platforms | All |

## description *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** system persistence ancp description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

## location *keyword*

| | |
|---|---|
| Synopsis | CPM flash card where the information is stored |
| Context | **configure** system persistence ancp location *keyword* |
| Tree | location |
| Options | cf1, cf2, cf3 |
| Introduced | 16.0.R1 |
| Platforms | All |

## application-assurance

| | |
|---|---|
| Synopsis | Enter the **application-assurance** context |
| Context | **configure** system persistence application-assurance |
| Tree | application-assurance |
| Description | Commands in this context configure AA persistence on the system. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** system persistence application-assurance description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **location** *keyword*

| | |
|---|---|
| Synopsis | CPM flash card where the information is stored |
| Context | **configure** system persistence application-assurance location *keyword* |
| Tree | location |
| Options | cf1, cf2, cf3 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **dhcp-server**

| | |
|---|---|
| Synopsis | Enter the **dhcp-server** context |
| Context | **configure** system persistence dhcp-server |
| Tree | dhcp-server |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** system persistence dhcp-server description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **location** *keyword*

| | |
|---|---|
| Synopsis | CPM flash card where the information is stored |
| Context | **configure** system persistence dhcp-server location *keyword* |
| Tree | location |
| Options | cf1, cf2, cf3 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **nat-port-forwarding**

| | |
|---|---|
| Synopsis | Enter the **nat-port-forwarding** context |
| Context | **configure** system persistence nat-port-forwarding |
| Tree | nat-port-forwarding |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** system persistence nat-port-forwarding description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **location** *keyword*

| | |
|---|---|
| Synopsis | CPM flash card where the information is stored |
| Context | **configure** system persistence nat-port-forwarding location *keyword* |
| Tree | location |
| Options | cf1, cf2, cf3 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

## options

| | |
|---|---|
| Synopsis | Enter the **options** context |
| Context | **configure** system persistence options |
| Tree | options |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## dhcp-leasetime-threshold *number*

| | |
|---|---|
| Synopsis | DHCP lease time limit to be eligible for persistence |
| Context | **configure** system persistence options dhcp-leasetime-threshold *number* |
| Tree | dhcp-leasetime-threshold |
| Range | 1 to 631152000 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

## python-policy-cache

| | |
|---|---|
| Synopsis | Enter the **python-policy-cache** context |
| Context | **configure** system persistence python-policy-cache |
| Tree | python-policy-cache |
| Introduced | 16.0.R1 |
| Platforms | All |

## description *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** system persistence python-policy-cache description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **location** *keyword*

| | |
|---|---|
| Synopsis | CPM flash card where the information is stored |
| Context | **configure** system persistence python-policy-cache location *keyword* |
| Tree | location |
| Options | cf1, cf2, cf3 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **subscriber-mgmt**

| | |
|---|---|
| Synopsis | Enter the **subscriber-mgmt** context |
| Context | **configure** system persistence subscriber-mgmt |
| Tree | subscriber-mgmt |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** system persistence subscriber-mgmt description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **location** *keyword*

| | |
|---|---|
| Synopsis | CPM flash card where the information is stored |
| Context | **configure** system persistence subscriber-mgmt location *keyword* |
| Tree | location |
| Options | cf1, cf2, cf3 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, VSR |

### **power-management** power-zone *number*

| | |
|---|---|
| Synopsis | Enter the **power-management** list instance |
| Context | **configure** system power-management power-zone *number* |
| Tree | power-management |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-1s, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

### **power-zone** *number*

| | |
|---|---|
| Synopsis | Power zone |
| Context | **configure** system power-management power-zone *number* |
| Tree | power-management |
| Range | 1 to 2 |
| MD-CLI default | 1 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-1s, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

### **mode** *keyword*

| | |
|---|---|
| Synopsis | Power capacity mode algorithm |
| Context | **configure** system power-management power-zone *number* mode *keyword* |
| Tree | mode |
| Options | none, basic, advanced |
| Default | basic |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-1s, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

### **power-safety-alert** *number*

| | |
|---|---|
| Synopsis | Power capacity to trigger a safety alert event |


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| | |
|---|---|
| Context | **configure** system power-management power-zone *number* power-safety-alert *number* |
| Tree | power-safety-alert |
| Range | 0 to 120000 |
| Units | watts |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-1s, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

### **power-safety-level** *number*

| | |
|---|---|
| Synopsis | Minimum threshold to power off devices |
| Context | **configure** system power-management power-zone *number* power-safety-level *number* |
| Tree | power-safety-level |
| Range | 0 to 100 |
| Units | percent |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | 7750 SR-1s, 7750 SR-2s, 7750 SR-2se, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

## ptp

| | |
|---|---|
| Synopsis | Enter the **ptp** context |
| Context | **configure** system ptp |
| Tree | ptp |
| Description | Commands in this context configure Precision Time Control (PTP) parameters based on *IEEE 1588-2008, Precision Time Protocol*.<br>The context is only supported on control assemblies that support 1588. |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of PTP |
| Context | **configure** system ptp admin-state *keyword* |
| Tree | admin-state |


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| | |
|---|---|
| Options | enable, disable |
| Default | disable |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **alternate-profile** [name] *named-item-64*

| | |
|---|---|
| Synopsis | Enter the **alternate-profile** list instance |
| Context | **configure** system ptp alternate-profile *named-item-64* |
| Tree | alternate-profile |
| Description | Commands in this context create an alternate profile configuration for use in PTP messaging.<br>The alternate profile can be used at the edge of a network to provide PTP time or frequency distribution outward to external PTP clocks.<br>The alternate profile cannot be deleted if it is configured as the profile under a PTP port. |
| Max. instances | 6 |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### [**name**] *named-item-64*

| | |
|---|---|
| Synopsis | Alternate profile name |
| Context | **configure** system ptp alternate-profile *named-item-64* |
| Tree | alternate-profile |
| Description | This command configures an alternate profile name.<br>The strings "Primary" and "primary" cannot be used for the alternate-profile name. |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the alternate PTP profile |
| Context | **configure** system ptp alternate-profile *named-item-64* admin-state *keyword* |


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| | |
|---|---|
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **domain** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Alternate profile PTP domain number |
| Context | **configure** system ptp alternate-profile *named-item-64* domain *number* |
| Tree | domain |
| Range | 0 to 255 |
| Default | 24 |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **log-announce-interval** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | PTP announce message interval in log form |
| Context | **configure** system ptp alternate-profile *named-item-64* log-announce-interval *number* |
| Tree | log-announce-interval |
| Description | This command configures the announce message interval used for multicast messages within the alternate profile.<br>For multicast messages used on PTP Ethernet ports, this command configures the message interval used for announce messages transmitted by the local node.<br>This value has no impact on the interval used for the BTCA, which is controlled by the value defined for the primary profile. |
| Range | -3 to 4 |
| Default | -3 |


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| | |
|---|---|
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **profile** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Standard based profile used within an alternate profile |
| Context | **configure** system ptp alternate-profile *named-item-64* profile *keyword* |
| Tree | profile |
| Description | This command specifies the standard based profile that is used as the basis for the alternate profile.<br>This setting controls the contents of PTP messages sent on ports and peers using this alternate profile. |
| Options | g8265dot1-2010, ieee1588-2008, g8275dot1-2014, g8275dot2-2016 |
| Default | g8275dot1-2014 |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **announce-receipt-timeout** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Expired intervals count before timeout event declared |
| Context | **configure** system ptp announce-receipt-timeout *number* |
| Tree | announce-receipt-timeout |
| Description | This command configures the number of Announce message intervals that must expire with no received Announce messages before declaring an ANNOUNCE_RECEIPT_TIMEOUT event. |
| Range | 2 to 10 |
| Default | 3 |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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## **clock-type** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Clock type |
| Context | **configure** system ptp clock-type *keyword* |
| Tree | clock-type |
| Options | slave-only, master-only, boundary |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **domain** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | PTP domain |
| Context | **configure** system ptp domain *number* |
| Tree | domain |
| Description | This command configures the PTP domain. The default and valid range of the domain depend on the configured PTP profile.<br>• IEEE 1588-2008 - domain range of 0 to 255 (default 0)<br>• G.8265.1 - domain range of 0 to 255 (default 4)<br>• G.8275.1 - domain range of 24 to 43 (default 24)<br>• G.8275.2 - domain range of 0 to 255 (default 44) |
| Range | 0 to 255 |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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## **local-priority** *number*

| | |
|---|---|
| Synopsis | PTP clock local priority |
| Context | **configure** system ptp local-priority *number* |
| Tree | local-priority |
| Description | This command configures the local priority used to choose between PTP time Transmitters in the best timeTransmitter clock algorithm (BTCA). This setting applies when the PTP profile is either configured for G.8275.1 or G.8275.2 and is ignored for any other profile.<br><br>For G.8275.1 or G.8275.2, this command configures the localPriority command option associated with the local clock (**ptp** context). See the ITU-T G.8275.1 or G.8275.2 standard for detailed information. |
| Range | 1 to 255 |
| Default | 128 |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **log-announce-interval** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Announce message interval in log form |
| Context | **configure** system ptp log-announce-interval *number* |
| Tree | log-announce-interval |
| Description | This command configures the Announce message interval used for both unicast and multicast messages.<br><br>For unicast messages, the Announce message interval is requested during unicast negotiation to any peer. This controls the Announce message rate sent from remote peers to the local node. It does not affect the announce message rate that may be sent from the local node to remote peers. Remote peers may request an Announce message rate within the acceptable grant range.<br><br>For multicast messages used on PTP Ethernet ports, this command specifies the message interval used for Announce messages transmitted by the local node.<br><br>This value also defines the interval between executions of the BTCA within the node.<br><br>To minimize BTCA-driven reconfigurations, IEEE recommends that the Announce interval should be consistent across the entire 1588 network. |
| Range | -3 to 4 |


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| | |
|---|---|
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **network-type** *keyword*

| | |
|---|---|
| Synopsis | PTP network type |
| Context | **configure** system ptp network-type *keyword* |
| Tree | network-type |
| Description | This command configures the codeset to be used for the encoding of QL values into PTP clockClass values and vice versa when the profile is configured for G.8265.1 or G.8275.2.<br>This setting only applies to the range of values observed in the clockClass values transmitted out of the node in Announce messages. The router supports the reception of any valid value in Table 1/G.8265.1 and Table2/G.8275.2. |
| Options | sonet, sdh |
| Default | sdh |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **port** [port-id] *reference*

| | |
|---|---|
| Synopsis | Enter the **port** list instance |
| Context | **configure** system ptp port *reference* |
| Tree | port |
| Description | Commands in this context configure PTP over Ethernet on the physical port. The PTP process transmits and receives PTP messages through the port using Ethernet encapsulation (as opposed to UDP/IPv4 encapsulation).<br>Frames are transmitted with no VLAN tags, even if the port is configured for dot1q or qinq modes for encap-type. The received frames from the external PTP clock must also be untagged.<br>Two reserved multicast addresses are allocated for PTP messages (see Annex F IEEE Std 1588-2008). Either address can be configured for the PTP messages sent through the port.<br>A PTP port cannot be created if the PTP profile is configured for G.8265.1.<br>If the port supports 1588 port-based timestamping, Synchronous Ethernet must be enabled on the MDA when PTP over Ethernet is enabled.<br>De-provisioning of the card or MDA containing the specified port is not permitted while the port is configured within PTP. |


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Changing the encapsulation or the port type of the Ethernet port is not permitted when PTP Ethernet Multicast operation is configured on the port.

To allocate an Ethernet satellite client port as a PTP port, the Ethernet satellite must first be enabled for the transparent clock function. For more information, see the **configure satellite ethernet-satellite ptp-tc** command.

The SyncE/1588 ports of the CPM and CCMs can be specified as PTP ports. These use the 'A/3' and 'B/3' designation and both must be specified as two PTP ports if both are used. The active CPM sends and receives messages on both ports if they are specified and enabled.

Introduced 21.7.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS

## [**port-id**] *reference*

Synopsis Ethernet PTP port ID

Context **configure** system ptp port *reference*

Tree port

Reference **configure** port *port*

Notes This element is part of a list key.

Introduced 21.7.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS

## **address** *mac-address*

Synopsis Destination MAC address of the transmitted PTP messages

Context **configure** system ptp port *reference* address *mac-address*

Tree address

Description This command specifies the destination MAC address of the transmitted PTP messages. IEEE Std 1588-2008 Annex F defines two reserved addresses for 1588 messages, which include:

- **01-1B-19-00-00-00** — all except the peer delay mechanism messages
- **01-80-C2-00-00-0E** — peer delay mechanism messages

Both addresses are supported for reception, independent of the address configured by this command.

Default 01:1B:19:00:00:00

Introduced 21.7.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the PTP port |
| Context | **configure** system ptp port *reference* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **alternate-profile** *reference*

| | |
|---|---|
| Synopsis | Alternate profile for the PTP port |
| Context | **configure** system ptp port *reference* alternate-profile *reference* |
| Tree | alternate-profile |
| Description | This command creates the alternate profile that is used in communications with the port or peer. If no alternate profile is specified, the primary profile is used. |
| Reference | **configure** system ptp alternate-profile *named-item-64* |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **local-priority** *number*

| | |
|---|---|
| Synopsis | PTP port local priority |
| Context | **configure** system ptp port *reference* local-priority *number* |
| Tree | local-priority |
| Description | This command configures the local priority used to choose between PTP time Transmitters in the best timeTransmitter clock algorithm (BTCA). This setting applies when the PTP profile is either configured for G.8275.1 or G.8275.2 and is ignored for any other profile.<br><br>For G.8275.1 or G.8275.2, this command configures the localPriority parameter associated with the Announce messages received from the external clocks (**ptp port** context). See G.8275.1 or G.8275.2 for detailed information. |
| Range | 1 to 255 |
| Default | 128 |
| Introduced | 21.7.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **log-delay-interval** *number*

| | |
|---|---|
| Synopsis | Minimum interval for Delay_Req messages in log form |
| Context | **configure** system ptp port *reference* log-delay-interval *number* |
| Tree | log-delay-interval |
| Description | This command configures the minimum interval used for multicast Delay_Req messages for the port. For ports in a slave state, the interval is used, unless the parent port indicates a longer interval. For a port in master state, the interval is advertised to external slave ports as the minimum acceptable interval for Delay_Req messages from the slave ports.<br>The router supports the 1588 standard requirement for a port in slave state to check the logMessageInterval field of received multicast Delay_Resp messages. If the value of the logMessageInterval field of the messages is greater than the value configured locally for the generation of Delay_Req messages, the slave must use the longer interval for the generation of Delay_Req messages.<br>The interval value is specified as the logarithm to the base 2. |
| Range | -6 to 0 |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **log-sync-interval** *number*

| | |
|---|---|
| Synopsis | Interval for transmission of Sync messages in log form |
| Context | **configure** system ptp port *reference* log-sync-interval *number* |
| Tree | log-sync-interval |
| Description | This command configures the interval used for Sync messages transmitted by the local node when the port is in master state.<br>The interval value is specified as the logarithm to the base 2. |
| Range | -6 to 0 |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **master-only** *boolean*

| | |
|---|---|
| Synopsis | Restrict the local port to master state |
| Context | **configure** system ptp port *reference* master-only *boolean* |


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| | |
|---|---|
| Tree | master-only |
| Description | When configured to **true**, the local port is restricted to master state only, ensuring that the system does not obtain synchronization from attached external devices.<br>This command is supported only when the PTP profile is set for G.8275.1 or G.8275.2. |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **monitor-receiver** *boolean*

| | |
|---|---|
| Synopsis | Enable the PTP port as a monitor-receiver |
| Context | **configure** system ptp port *reference* monitor-receiver *boolean* |
| Tree | monitor-receiver |
| Description | When configured to **true**, the router enables the PTP port as a monitorReceiver for PTP. When not in TimeReceiver mode, the PTP port runs a time-recovery engine for PTP monitoring. This object is supported only when the PTP profile is set to G.8275.1 or G.8275.2.<br>When configured to **false**, monitoring is disabled. |
| Default | false |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **monitor-sender** *boolean*

| | |
|---|---|
| Synopsis | Enable the PTP port as a monitor-sender |
| Context | **configure** system ptp port *reference* monitor-sender *boolean* |
| Tree | monitor-sender |
| Description | When configured to **true**, the router enables the PTP port as a monitorSender for PTP. When not in TimeTransmitter mode, the PTP port sends Announce, Sync, and Delay_Resp messages with the alternateMasterFlag set to TRUE for PTP monitoring at the remote clock. This object is supported only when the PTP profile is set to G.8275.1 or G.8275.2.<br>When configured to **false**, monitoring is disabled. |
| Default | false |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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## **priority1** *number*

| | |
|---|---|
| Synopsis | Priority1 of the local clock |
| Context | **configure** system ptp priority1 *number* |
| Tree | priority1 |
| Description | This command configures the priority1 parameter of the local clock. The setting is used when the profile is configured for IEEE 1588-2008.<br>This value is used by the Best Master Clock Algorithm to determine which clock should provide timing for the network and is advertised in Announce messages. |
| Range | 0 to 255 |
| Default | 128 |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **priority2** *number*

| | |
|---|---|
| Synopsis | Priority2 of the local clock |
| Context | **configure** system ptp priority2 *number* |
| Tree | priority2 |
| Description | This command configures the priority2 parameter of the local clock. The setting is used when the profile is configured for IEEE 1588-2008, G.8275.1, or G.8275.2.<br>This value is used by the Best Master Clock algorithm to determine which clock should provide timing for the network and is advertised in Announce messages. |
| Range | 0 to 255 |
| Default | 128 |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **profile** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.


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| | |
|---|---|
| Synopsis | PTP profile |
| Context | **configure** system ptp profile *keyword* |
| Tree | profile |
| Description | This command configures the profile to be used for the internal PTP clock. It defines the Best timeTransmitter Clock Algorithm (BTCA) behavior.<br>Profile changes may affect the settings of other configuration elements, such as the clock type and default settings for the delay interval, announce interval, and the Sync interval.<br>The following clock types are supported for the indicated profiles:<br>• G.8265.1: slave only, master only<br>• IEEE 1588 2008: slave only, master only, boundary<br>• G.8275.1: slave only, boundary, master only (master only, only if the platform includes an embedded GNSS receiver)<br>• G.8275.2: slave only, boundary, master only (master only, only if the platform includes an embedded GNSS receiver) |
| Options | g8265dot1-2010, ieee1588-2008, g8275dot1-2014, g8275dot2-2016 |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## ptsf

| | |
|---|---|
| Synopsis | Enter the **ptsf** context |
| Context | **configure** system ptp ptsf |
| Tree | ptsf |
| Description | Commands in this context configure the attributes of Packet Timing Signal Fail (PTSF). |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## monitor-ptsf-unusable

| | |
|---|---|
| Synopsis | Enter the **monitor-ptsf-unusable** context |
| Context | **configure** system ptp ptsf monitor-ptsf-unusable |
| Tree | monitor-ptsf-unusable |
| Description | Commands in this context configure monitoring of neighbor clocks for the PTSF-unusable state (condition) when the profile is set to g8275dot1-2014.<br>When administratively enabled, the local clock monitors the noise level of PTP event messages between external neighbor PTP ports and the local clock. If it detects a high variation in the network path between the external neighbor port and the local port, |


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it considers the neighbor port unusable. Announce messages from the neighbor are discarded and excluded from the BTCA and the port cannot be selected as the parent clock. The unusable condition must be manually cleared.

When administratively disabled, the monitor PTSF function of the PTP clock clears PTSF-unusable states from all neighbor PTP ports. If no PTP messages are received from a neighbor for 15 minutes, the neighbor information is purged and the PTSF-unusable state is cleared.

| | |
|---|---|
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of PTSF unusable monitoring |
| Context | **configure** system ptp ptsf monitor-ptsf-unusable admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **router** [router-instance] *string*

| | |
|---|---|
| Synopsis | Enter the **router** list instance |
| Context | **configure** system ptp router *string* |
| Tree | router |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### [**router-instance**] *string*

| | |
|---|---|
| Synopsis | Router name or VPRN service name |
| Context | **configure** system ptp router *string* |
| Tree | router |
| MD-CLI default | Base |
| Notes | This element is part of a list key. |
| Introduced | 21.7.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of PTP on the router instance |
| Context | **configure** system ptp router *string* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **peer** [ip-address] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Enter the **peer** list instance |
| Context | **configure** system ptp router *string* peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | peer |
| Description | Commands in this context configure a remote PTP peer. |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### [**ip-address**] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the remote PTP peer |
| Context | **configure** system ptp router *string* peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | peer |
| Description | This command specifies the IP address of the remote PTP peer. |
| Notes | This element is part of a list key. |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the PTP peer |


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| | |
|---|---|
| Context | **configure** system ptp router *string* peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **local-priority** *number*

| | |
|---|---|
| Synopsis | PTP peer local priority |
| Context | **configure** system ptp router *string* peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* local-priority *number* |
| Tree | local-priority |
| Description | This command configures the local priority for the peer, which is used to choose between PTP timeTransmitters in the best timeTransmitter clock algorithm (BTCA). This setting applies when the PTP profile is configured for G.8265.1, G.8275.1, or G.8275.2 and is ignored for any other profile.<br>For G.8265.1, this command configures the priority used to choose between time Transmitter clocks with the same quality (see G.8265.1 for more details).<br>For G.8275.1 or G.8275.2, this command configures the localPriority parameter associated with the Announce messages received from the external clocks (**ptp router peer** context). See G.8275.1 or G.8275.2 for detailed information. |
| Range | 1 to 255 |
| Default | 128 |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **log-sync-interval** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | PTP peer interval for Sync messages in log form |
| Context | **configure** system ptp router *string* peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* log-sync-interval *number* |
| Tree | log-sync-interval |


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| | |
|---|---|
| Description | This command configures the message interval used for Sync and Delay_Resp messages that are requested during unicast negotiation to the peer. The setting controls messages sent from remote peers to the local node but the packet rate from the local node to remote peers is not affected. Remote peers may request a packet rate within the acceptable range.<br>The interval value is specified as the logarithm to the base 2. |
| Range | -6 to 0 |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **monitor-receiver** *boolean*

| | |
|---|---|
| Synopsis | Enable the PTP peer as a monitor-receiver |
| Context | **configure** system ptp router *string* peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* monitor-receiver *boolean* |
| Tree | monitor-receiver |
| Description | When configured to **true**, the router enables the PTP peer as a monitorReceiver for PTP. When not in TimeReceiver mode, the PTP port runs a time-recovery engine for PTP monitoring. This object is only supported when the PTP profile is set to G.8275.1 or G.8275.2.<br>When configured to **false**, monitoring is disabled. |
| Default | false |
| Introduced | 24.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **peer-limit** *number*

| | |
|---|---|
| Synopsis | Number of discovered peers allowed for routing instance |
| Context | **configure** system ptp router *string* peer-limit *number* |
| Tree | peer-limit |
| Description | This command specifies the maximum number of discovered peers permitted within the routing instance. This ensures that a routing instance does not consume all the possible discovered peers and prevents the routing instance from blocking discovered peers in other routing instances.<br>The sum of all peer limit values for all routing instances cannot exceed the maximum number of discovered peers supported by the system. |
| Range | 0 to 512 |
| Introduced | 21.7.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **tx-while-sync-uncertain** *boolean*

| | |
|---|---|
| Synopsis | Send Announce messages while clock is unsynchronized |
| Context | **configure** system ptp tx-while-sync-uncertain *boolean* |
| Tree | tx-while-sync-uncertain |
| Description | When configured to **true**, the local PTP clock transmits Announce messages to downstream clocks to indicate it has not yet stabilized on the recovered synchronization source (upstream clocks or GM clock). While the PTP clock is unsynchronized, the Sync Uncertain state is true.<br>When configured to **false**, the local PTP clock does not send Announce messages to downstream clocks to indicate it is not synchronized to a valid timing source. If the Sync Uncertain state of the clock is true while this command is configured to **false**, unicast negotiation grant requests are not granted and current grants are canceled. |
| Default | true |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **script-control**

| | |
|---|---|
| Synopsis | Enter the **script-control** context |
| Context | **configure** system script-control |
| Tree | script-control |
| Introduced | 16.0.R1 |
| Platforms | All |

### **script** [script-name] *named-item* owner *named-item*

| | |
|---|---|
| Synopsis | Enter the **script** list instance |
| Context | **configure** system script-control script *named-item* owner *named-item* |
| Tree | script |
| Max. instances | 1500 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**script-name**] *named-item*

| | |
|---|---|
| Synopsis | Script name |
| Context | **configure** system script-control script *named-item* owner *named-item* |
| Tree | script |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **owner** *named-item*

| | |
|---|---|
| Synopsis | Script owner |
| Context | **configure** system script-control script *named-item* owner *named-item* |
| Tree | script |
| Description | This command configures the owner to be associated with the script. The owner is optional and "TiMOS CLI" is used if an owner is not specified.<br>The owner is an arbitrary name and not necessarily a user name. Commands in the scripts are not authorized against the owner. The **configure system security cli-script authorization** x **cli-user** command determines the user context against which commands in the scripts are authorized. |
| String length | 1 to 32 |
| MD-CLI default | TiMOS CLI |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the script |
| Context | **configure** system script-control script *named-item* owner *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** system script-control script *named-item* owner *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **location** *string-not-all-spaces*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Script location |
| Context | **configure** system script-control script *named-item* owner *named-item* location *string-not-all-spaces* |
| Tree | location |
| String length | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **script-policy** [policy-name] *named-item* owner *named-item*

| | |
|---|---|
| Synopsis | Enter the **script-policy** list instance |
| Context | **configure** system script-control script-policy *named-item* owner *named-item* |
| Tree | script-policy |
| Max. instances | 1500 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**policy-name**] *named-item*

| | |
|---|---|
| Synopsis | Script policy name |
| Context | **configure** system script-control script-policy *named-item* owner *named-item* |
| Tree | script-policy |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **owner** *named-item*

| | |
|---|---|
| Synopsis | Script policy owner |
| Context | **configure** system script-control script-policy *named-item* owner *named-item* |
| Tree | script-policy |
| Description | This command configures the owner to be associated with the script policy. The owner is optional and "TiMOS CLI" is used if an owner is not specified.<br>The owner is an arbitrary name and not necessarily a user name. Commands in the scripts are not authorized against the owner. The **configure system security cli-script authorization** x **cli-user** command determines the user context against which commands in the scripts are authorized. |
| String length | 1 to 32 |
| MD-CLI default | TiMOS CLI |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the script policy |
| Context | **configure** system script-control script-policy *named-item* owner *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **expire-time** *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum amount of time to keep a run history status |
| Context | **configure** system script-control script-policy *named-item* owner *named-item* expire-time *(number \| keyword)* |
| Tree | expire-time |
| Range | 0 to 21474836 |
| Units | seconds |
| Options | forever |
| Default | 3600 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lifetime** *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum amount of time the script may run |
| Context | **configure** system script-control script-policy *named-item* owner *named-item* lifetime *(number \| keyword)* |
| Tree | lifetime |
| Range | 0 to 21474836 |
| Units | seconds |
| Options | forever |
| Default | 3600 |
| Notes | The following elements are part of a choice: (**lifetime** and **script**) or (**python-lifetime** and **python-script**). |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lock-override** *boolean*

| | |
|---|---|
| Synopsis | Allow EHS/CRON script to break database explicit lock |
| Context | **configure** system script-control script-policy *named-item* owner *named-item* lock-override *boolean* |


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| | |
|---|---|
| Tree | lock-override |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

## **max-completed** *number*

| | |
|---|---|
| Synopsis | Maximum number of script history status entries kept |
| Context | **configure** system script-control script-policy *named-item* owner *named-item* max-completed *number* |
| Tree | max-completed |
| Range | 1 to 1500 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **python-lifetime** *number*

| | |
|---|---|
| Synopsis | Maximum time the Python application can run |
| Context | **configure** system script-control script-policy *named-item* owner *named-item* python-lifetime *number* |
| Tree | python-lifetime |
| Range | 30 to 86400 |
| Units | seconds |
| Notes | The following elements are part of a choice: (**lifetime** and **script**) or (**python-lifetime** and **python-script**). |
| Introduced | 21.10.R1 |
| Platforms | All |

## **python-script**

| | |
|---|---|
| Synopsis | Enter the **python-script** context |
| Context | **configure** system script-control script-policy *named-item* owner *named-item* python-script |
| Tree | python-script |


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| | |
|---|---|
| Notes | The following elements are part of a choice: (**lifetime** and **script**) or (**python-lifetime** and **python-script**). |
| Introduced | 21.10.R1 |
| Platforms | All |

## **name** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Python application name |
| Context | **configure** system script-control script-policy *named-item* owner *named-item* python-script name *reference* |
| Tree | name |
| Reference | **configure** python python-script *named-item* |
| Introduced | 21.10.R1 |
| Platforms | All |

## **results** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | Location to receive CLI output of a script run |
| Context | **configure** system script-control script-policy *named-item* owner *named-item* results *string-not-all-spaces* |
| Tree | results |
| String length | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **script**

| | |
|---|---|
| Synopsis | Enter the **script** context |
| Context | **configure** system script-control script-policy *named-item* owner *named-item* script |
| Tree | script |
| Notes | The following elements are part of a choice: (**lifetime** and **script**) or (**python-lifetime** and **python-script**). |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## **name** *named-item*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Script name |
| Context | **configure** system script-control script-policy *named-item* owner *named-item* script name *named-item* |
| Tree | name |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **owner** *named-item*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Script owner |
| Context | **configure** system script-control script-policy *named-item* owner *named-item* script owner *named-item* |
| Tree | owner |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **security**

| | |
|---|---|
| Synopsis | Enter the **security** context |
| Context | **configure** system security |
| Tree | security |
| Description | Commands in this context configure central security settings such as DDoS protection, users, authorization profiles, and certificates. |


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| | |
|---|---|
| | Access to these commands should be restricted to highly trusted users and device administrators. |
| Introduced | 16.0.R1 |
| Platforms | All |

### aaa

| | |
|---|---|
| Synopsis | Enter the **aaa** context |
| Context | **configure** system security aaa |
| Tree | aaa |
| Introduced | 16.0.R1 |
| Platforms | All |

### cli-session-group [cli-session-group-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **cli-session-group** list instance |
| Context | **configure** system security aaa cli-session-group *named-item* |
| Tree | cli-session-group |
| Max. instances | 16 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [cli-session-group-name] *named-item*

| | |
|---|---|
| Synopsis | CLI session group name |
| Context | **configure** system security aaa cli-session-group *named-item* |
| Tree | cli-session-group |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R2 |
| Platforms | All |

### combined-max-sessions *number*

| | |
|---|---|
| Synopsis | Maximum number of concurrent SSH and Telnet sessions |


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| | |
|---|---|
| Context | **configure** system security aaa cli-session-group *named-item* combined-max-sessions *number* |
| Tree | combined-max-sessions |
| Range | 0 to 50 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** system security aaa cli-session-group *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ssh-max-sessions** *number*

| | |
|---|---|
| Synopsis | Maximum number of concurrent SSH sessions |
| Context | **configure** system security aaa cli-session-group *named-item* ssh-max-sessions *number* |
| Tree | ssh-max-sessions |
| Range | 0 to 50 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **telnet-max-sessions** *number*

| | |
|---|---|
| Synopsis | Maximum number of concurrent Telnet sessions |
| Context | **configure** system security aaa cli-session-group *named-item* telnet-max-sessions *number* |
| Tree | telnet-max-sessions |
| Range | 0 to 50 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **health-check** *(number | keyword)*

| | |
|---|---|
| Synopsis | Polling interval of RADIUS, TACACS+, and LDAP servers |
| Context | **configure** system security aaa health-check *(number | keyword)* |
| Tree | health-check |
| Range | 6 to 1500 |
| Units | seconds |
| Options | none |
| Default | 30 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **local-profiles**

| | |
|---|---|
| Synopsis | Enter the **local-profiles** context |
| Context | **configure** system security aaa local-profiles |
| Tree | local-profiles |
| Introduced | 16.0.R1 |
| Platforms | All |

### **profile** [user-profile-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **profile** list instance |
| Context | **configure** system security aaa local-profiles profile *named-item* |
| Tree | profile |
| Max. instances | 128 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**user-profile-name**] *named-item*

| | |
|---|---|
| Synopsis | User profile name |
| Context | **configure** system security aaa local-profiles profile *named-item* |
| Tree | profile |


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| | |
|---|---|
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cli-session-group** *reference*

| | |
|---|---|
| Synopsis | CLI session group to which the profile belongs |
| Context | **configure** system security aaa local-profiles profile *named-item* cli-session-group *reference* |
| Tree | cli-session-group |
| Reference | **configure** system security aaa cli-session-group *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **combined-max-sessions** *number*

| | |
|---|---|
| Synopsis | Maximum number of concurrent SSH and Telnet sessions |
| Context | **configure** system security aaa local-profiles profile *named-item* combined-max-sessions *number* |
| Tree | combined-max-sessions |
| Range | 0 to 50 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **default-action** *keyword*

| | |
|---|---|
| Synopsis | Action for non-matching entry |
| Context | **configure** system security aaa local-profiles profile *named-item* default-action *keyword* |
| Tree | default-action |
| Description | This command specifies the default action to be applied when no match conditions are met in the list of **profile entry match** commands. It does not apply in any way to other ports of the profile such as **grpc rpc-authorization** or **netconf base-op-authorization**. |
| Options | deny-all, permit-all, none, read-only-all |
| Default | none |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **entry** [entry-id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** system security aaa local-profiles profile *named-item* entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**entry-id**] *number*

| | |
|---|---|
| Synopsis | User profile entry ID |
| Context | **configure** system security aaa local-profiles profile *named-item* entry *number* |
| Tree | entry |
| Range | 1 to 9999 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **action** *keyword*

| | |
|---|---|
| Synopsis | Action when a user command matches the entry |
| Context | **configure** system security aaa local-profiles profile *named-item* entry *number* action *keyword* |
| Tree | action |
| Options | deny, permit, none, read-only |
| Default | none |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** system security aaa local-profiles profile *named-item* entry *number* description *description* |


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| | |
|---|---|
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **match** *display-string*

| | |
|---|---|
| Synopsis | Command to match the entry |
| Context | **configure** system security aaa local-profiles profile *named-item* entry *number* match *display-string* |
| Tree | match |
| String length | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **grpc**

| | |
|---|---|
| Synopsis | Enter the **grpc** context |
| Context | **configure** system security aaa local-profiles profile *named-item* grpc |
| Tree | grpc |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rpc-authorization**

| | |
|---|---|
| Synopsis | Enter the **rpc-authorization** context |
| Context | **configure** system security aaa local-profiles profile *named-item* grpc rpc-authorization |
| Tree | rpc-authorization |
| Description | Commands in this context control the authorization of each RPC in gRPC interfaces. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **gnmi-capabilities** *keyword*

| | |
|---|---|
| Synopsis | gNMI Capabilities RPC authorization |


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| | |
|---|---|
| Context | **configure** system security aaa local-profiles profile *named-item* grpc rpc-authorization gnmi-capabilities *keyword* |
| Tree | gnmi-capabilities |
| Options | permit, deny |
| Default | permit |
| Introduced | 16.0.R1 |
| Platforms | All |

## **gnmi-get** *keyword*

| | |
|---|---|
| Synopsis | gNMI Get RPC authorization |
| Context | **configure** system security aaa local-profiles profile *named-item* grpc rpc-authorization gnmi-get *keyword* |
| Tree | gnmi-get |
| Options | permit, deny |
| Default | permit |
| Introduced | 16.0.R1 |
| Platforms | All |

## **gnmi-set** *keyword*

| | |
|---|---|
| Synopsis | gNMI Set RPC authorization |
| Context | **configure** system security aaa local-profiles profile *named-item* grpc rpc-authorization gnmi-set *keyword* |
| Tree | gnmi-set |
| Options | permit, deny |
| Default | permit |
| Introduced | 16.0.R1 |
| Platforms | All |

## **gnmi-subscribe** *keyword*

| | |
|---|---|
| Synopsis | gNMI Subscribe RPC authorization |
| Context | **configure** system security aaa local-profiles profile *named-item* grpc rpc-authorization gnmi-subscribe *keyword* |
| Tree | gnmi-subscribe |


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| | |
|---|---|
| Options | permit, deny |
| Default | permit |
| Introduced | 16.0.R1 |
| Platforms | All |

### **gnoi-cert-mgmt-cangenerate** *keyword*

| | |
|---|---|
| Synopsis | gNOI CanGenerateCSR RPC authorization |
| Context | **configure** system security aaa local-profiles profile *named-item* grpc rpc-authorization gnoi-cert-mgmt-cangenerate *keyword* |
| Tree | gnoi-cert-mgmt-cangenerate |
| Options | permit, deny |
| Default | deny |
| Introduced | 19.10.R1 |
| Platforms | All |

### **gnoi-cert-mgmt-getcert** *keyword*

| | |
|---|---|
| Synopsis | gNOI GetCertificates RPC authorization |
| Context | **configure** system security aaa local-profiles profile *named-item* grpc rpc-authorization gnoi-cert-mgmt-getcert *keyword* |
| Tree | gnoi-cert-mgmt-getcert |
| Options | permit, deny |
| Default | deny |
| Introduced | 19.10.R1 |
| Platforms | All |

### **gnoi-cert-mgmt-install** *keyword*

| | |
|---|---|
| Synopsis | gNOI Install RPC authorization |
| Context | **configure** system security aaa local-profiles profile *named-item* grpc rpc-authorization gnoi-cert-mgmt-install *keyword* |
| Tree | gnoi-cert-mgmt-install |
| Options | permit, deny |
| Default | deny |
| Introduced | 19.10.R1 |


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| | |
|---|---|
| Platforms | All |

## **gnoi-cert-mgmt-revoke** *keyword*

| | |
|---|---|
| Synopsis | gNOI RevokeCertificates RPC authorization |
| Context | **configure** system security aaa local-profiles profile *named-item* grpc rpc-authorization gnoi-cert-mgmt-revoke *keyword* |
| Tree | gnoi-cert-mgmt-revoke |
| Options | permit, deny |
| Default | deny |
| Introduced | 20.2.R1 |
| Platforms | All |

## **gnoi-cert-mgmt-rotate** *keyword*

| | |
|---|---|
| Synopsis | gNOI Rotate RPC authorization |
| Context | **configure** system security aaa local-profiles profile *named-item* grpc rpc-authorization gnoi-cert-mgmt-rotate *keyword* |
| Tree | gnoi-cert-mgmt-rotate |
| Options | permit, deny |
| Default | deny |
| Introduced | 19.10.R1 |
| Platforms | All |

## **gnoi-file-get** *keyword*

| | |
|---|---|
| Synopsis | gNOI File Get RPC authorization |
| Context | **configure** system security aaa local-profiles profile *named-item* grpc rpc-authorization gnoi-file-get *keyword* |
| Tree | gnoi-file-get |
| Options | permit, deny |
| Default | permit |
| Introduced | 21.2.R1 |
| Platforms | All |


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### **gnoi-file-put** *keyword*

| | |
|---|---|
| Synopsis | gNOI File Put RPC authorization |
| Context | **configure** system security aaa local-profiles profile *named-item* grpc rpc-authorization gnoi-file-put *keyword* |
| Tree | gnoi-file-put |
| Options | permit, deny |
| Default | permit |
| Introduced | 21.2.R1 |
| Platforms | All |

### **gnoi-file-remove** *keyword*

| | |
|---|---|
| Synopsis | gNOI File Remove RPC authorization |
| Context | **configure** system security aaa local-profiles profile *named-item* grpc rpc-authorization gnoi-file-remove *keyword* |
| Tree | gnoi-file-remove |
| Options | permit, deny |
| Default | permit |
| Introduced | 21.2.R1 |
| Platforms | All |

### **gnoi-file-stat** *keyword*

| | |
|---|---|
| Synopsis | gNOI File Stat RPC authorization |
| Context | **configure** system security aaa local-profiles profile *named-item* grpc rpc-authorization gnoi-file-stat *keyword* |
| Tree | gnoi-file-stat |
| Options | permit, deny |
| Default | permit |
| Introduced | 21.2.R1 |
| Platforms | All |

### **gnoi-file-transfertoremote** *keyword*

| | |
|---|---|
| Synopsis | gNOI File TransferToRemote RPC authorization |


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| | |
|---|---|
| Context | **configure** system security aaa local-profiles profile *named-item* grpc rpc-authorization gnoi-file-transfertoremote *keyword* |
| Tree | gnoi-file-transfertoremote |
| Options | permit, deny |
| Default | permit |
| Introduced | 21.7.R1 |
| Platforms | All |

### **gnoi-system-cancelreboot** *keyword*

| | |
|---|---|
| Synopsis | gNOI System CancelReboot RPC authorization |
| Context | **configure** system security aaa local-profiles profile *named-item* grpc rpc-authorization gnoi-system-cancelreboot *keyword* |
| Tree | gnoi-system-cancelreboot |
| Options | permit, deny |
| Default | deny |
| Introduced | 20.5.R1 |
| Platforms | All |

### **gnoi-system-ping** *keyword*

| | |
|---|---|
| Synopsis | gNOI System Ping RPC authorization |
| Context | **configure** system security aaa local-profiles profile *named-item* grpc rpc-authorization gnoi-system-ping *keyword* |
| Tree | gnoi-system-ping |
| Options | permit, deny |
| Default | permit |
| Introduced | 21.7.R1 |
| Platforms | All |

### **gnoi-system-reboot** *keyword*

| | |
|---|---|
| Synopsis | gNOI System Reboot RPC authorization |
| Context | **configure** system security aaa local-profiles profile *named-item* grpc rpc-authorization gnoi-system-reboot *keyword* |
| Tree | gnoi-system-reboot |


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| | |
|---|---|
| Options | permit, deny |
| Default | deny |
| Introduced | 20.5.R1 |
| Platforms | All |

### **gnoi-system-rebootstatus** *keyword*

| | |
|---|---|
| Synopsis | gNOI System RebootStatus RPC authorization |
| Context | **configure** system security aaa local-profiles profile *named-item* grpc rpc-authorization gnoi-system-rebootstatus *keyword* |
| Tree | gnoi-system-rebootstatus |
| Options | permit, deny |
| Default | deny |
| Introduced | 20.5.R1 |
| Platforms | All |

### **gnoi-system-setpackage** *keyword*

| | |
|---|---|
| Synopsis | gNOI System SetPackage RPC authorization |
| Context | **configure** system security aaa local-profiles profile *named-item* grpc rpc-authorization gnoi-system-setpackage *keyword* |
| Tree | gnoi-system-setpackage |
| Options | permit, deny |
| Default | deny |
| Introduced | 20.5.R1 |
| Platforms | All |

### **gnoi-system-switchcontrolprocessor** *keyword*

| | |
|---|---|
| Synopsis | gNOI System SwitchControlProcessor RPC authorization |
| Context | **configure** system security aaa local-profiles profile *named-item* grpc rpc-authorization gnoi-system-switchcontrolprocessor *keyword* |
| Tree | gnoi-system-switchcontrolprocessor |
| Options | permit, deny |
| Default | deny |
| Introduced | 20.5.R1 |


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| | |
|---|---|
| Platforms | All |

## **gnoi-system-time** *keyword*

| | |
|---|---|
| Synopsis | gNOI System Time RPC authorization |
| Context | **configure** system security aaa local-profiles profile *named-item* grpc rpc-authorization gnoi-system-time *keyword* |
| Tree | gnoi-system-time |
| Options | permit, deny |
| Default | permit |
| Introduced | 21.7.R1 |
| Platforms | All |

## **gnoi-system-traceroute** *keyword*

| | |
|---|---|
| Synopsis | gNOI System Traceroute RPC authorization |
| Context | **configure** system security aaa local-profiles profile *named-item* grpc rpc-authorization gnoi-system-traceroute *keyword* |
| Tree | gnoi-system-traceroute |
| Options | permit, deny |
| Default | permit |
| Introduced | 21.7.R1 |
| Platforms | All |

## **md-cli-session** *keyword*

| | |
|---|---|
| Synopsis | gNOI MdCli Session RPC authorization |
| Context | **configure** system security aaa local-profiles profile *named-item* grpc rpc-authorization md-cli-session *keyword* |
| Tree | md-cli-session |
| Options | permit, deny |
| Default | permit |
| Introduced | 20.5.R1 |
| Platforms | All |


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### **rib-api-getversion** *keyword*

| | |
|---|---|
| Synopsis | RibApi GetVersion RPC authorization |
| Context | **configure** system security aaa local-profiles profile *named-item* grpc rpc-authorization rib-api-getversion *keyword* |
| Tree | rib-api-getversion |
| Options | permit, deny |
| Default | permit |
| Introduced | 16.0.R4 |
| Platforms | All |

### **rib-api-modify** *keyword*

| | |
|---|---|
| Synopsis | RibApi Modify RPC authorization |
| Context | **configure** system security aaa local-profiles profile *named-item* grpc rpc-authorization rib-api-modify *keyword* |
| Tree | rib-api-modify |
| Options | permit, deny |
| Default | permit |
| Introduced | 16.0.R4 |
| Platforms | All |

### **li** *boolean*

| | |
|---|---|
| Synopsis | Allow lawful intercept profile ID |
| Context | **configure** system security aaa local-profiles profile *named-item* li *boolean* |
| Tree | li |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **netconf**

| | |
|---|---|
| Synopsis | Enter the **netconf** context |
| Context | **configure** system security aaa local-profiles profile *named-item* netconf |
| Tree | netconf |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## base-op-authorization

| | |
|---|---|
| Synopsis | Enter the **base-op-authorization** context |
| Context | **configure** system security aaa local-profiles profile *named-item* netconf base-op-authorization |
| Tree | base-op-authorization |
| Description | Commands in this context configure the permission to use NETCONF operations at the base operation level for the specified profile.<br>The NETCONF operations are authorized by default in the built-in system-generated administrative profile. |
| Introduced | 16.0.R1 |
| Platforms | All |

## action *boolean*

| | |
|---|---|
| Synopsis | Allow the NETCONF <action> RPC |
| Context | **configure** system security aaa local-profiles profile *named-item* netconf base-op-authorization action *boolean* |
| Tree | action |
| Default | false |
| Introduced | 21.7.R1 |
| Platforms | All |

## cancel-commit *boolean*

| | |
|---|---|
| Synopsis | Allow the NETCONF <cancel-commit> RPC |
| Context | **configure** system security aaa local-profiles profile *named-item* netconf base-op-authorization cancel-commit *boolean* |
| Tree | cancel-commit |
| Default | false |
| Introduced | 21.7.R1 |
| Platforms | All |


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### **close-session** *boolean*

| | |
|---|---|
| Synopsis | Allow the NETCONF <close-session> RPC |
| Context | **configure** system security aaa local-profiles profile *named-item* netconf base-op-authorization close-session *boolean* |
| Tree | close-session |
| Default | false |
| Introduced | 21.7.R1 |
| Platforms | All |

### **commit** *boolean*

| | |
|---|---|
| Synopsis | Allow the NETCONF <commit> RPC |
| Context | **configure** system security aaa local-profiles profile *named-item* netconf base-op-authorization commit *boolean* |
| Tree | commit |
| Default | false |
| Introduced | 21.7.R1 |
| Platforms | All |

### **copy-config** *boolean*

| | |
|---|---|
| Synopsis | Allow the NETCONF <copy-config> RPC |
| Context | **configure** system security aaa local-profiles profile *named-item* netconf base-op-authorization copy-config *boolean* |
| Tree | copy-config |
| Default | false |
| Introduced | 21.7.R1 |
| Platforms | All |

### **create-subscription** *boolean*

| | |
|---|---|
| Synopsis | Allow the NETCONF <create-subscription> RPC |
| Context | **configure** system security aaa local-profiles profile *named-item* netconf base-op-authorization create-subscription *boolean* |
| Tree | create-subscription |


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| | |
|---|---|
| Description | When configured to **true**, this command enables the NETCONF create-subscription operation in the default profile.<br>The **base-op-authorization create-subscription** configuration is not pre-emptive, which means that it is checked only at the time of the initial subscription. Configuration changes to **base-op-authorization** do not cancel any in-progress subscriptions and users who successfully subscribed continue to receive messages.<br>When configured to **false**, this command disables the NETCONF create-subscription operation in the default profile.<br>The operation is enabled by default in the built-in system-generated administrative profile. |
| Default | false |
| Introduced | 21.7.R1 |
| Platforms | All |

## **delete-config** *boolean*

| | |
|---|---|
| Synopsis | Allow the NETCONF <delete-config> RPC |
| Context | **configure** system security aaa local-profiles profile *named-item* netconf base-op-authorization delete-config *boolean* |
| Tree | delete-config |
| Default | false |
| Introduced | 21.7.R1 |
| Platforms | All |

## **discard-changes** *boolean*

| | |
|---|---|
| Synopsis | Allow the NETCONF <discard-changes> RPC |
| Context | **configure** system security aaa local-profiles profile *named-item* netconf base-op-authorization discard-changes *boolean* |
| Tree | discard-changes |
| Default | false |
| Introduced | 21.7.R1 |
| Platforms | All |

## **edit-config** *boolean*

| | |
|---|---|
| Synopsis | Allow the NETCONF <edit-config> RPC |


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| | |
|---|---|
| Context | **configure** system security aaa local-profiles profile *named-item* netconf base-op-authorization edit-config *boolean* |
| Tree | edit-config |
| Default | false |
| Introduced | 21.7.R1 |
| Platforms | All |

### **get** *boolean*

| | |
|---|---|
| Synopsis | Allow the NETCONF <get> RPC |
| Context | **configure** system security aaa local-profiles profile *named-item* netconf base-op-authorization get *boolean* |
| Tree | get |
| Default | false |
| Introduced | 21.7.R1 |
| Platforms | All |

### **get-config** *boolean*

| | |
|---|---|
| Synopsis | Allow the NETCONF <get-config> RPC |
| Context | **configure** system security aaa local-profiles profile *named-item* netconf base-op-authorization get-config *boolean* |
| Tree | get-config |
| Default | false |
| Introduced | 21.7.R1 |
| Platforms | All |

### **get-data** *boolean*

| | |
|---|---|
| Synopsis | Allow the NETCONF <get-data> RPC |
| Context | **configure** system security aaa local-profiles profile *named-item* netconf base-op-authorization get-data *boolean* |
| Tree | get-data |
| Default | false |
| Introduced | 21.7.R1 |
| Platforms | All |


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### **get-schema** *boolean*

| | |
|---|---|
| Synopsis | Allow the NETCONF <get-schema> RPC |
| Context | **configure** system security aaa local-profiles profile *named-item* netconf base-op-authorization get-schema *boolean* |
| Tree | get-schema |
| Default | false |
| Introduced | 21.7.R1 |
| Platforms | All |

### **kill-session** *boolean*

| | |
|---|---|
| Synopsis | Allow the NETCONF <kill-session> RPC |
| Context | **configure** system security aaa local-profiles profile *named-item* netconf base-op-authorization kill-session *boolean* |
| Tree | kill-session |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lock** *boolean*

| | |
|---|---|
| Synopsis | Allow the NETCONF <lock> and <unlock> RPCs |
| Context | **configure** system security aaa local-profiles profile *named-item* netconf base-op-authorization lock *boolean* |
| Tree | lock |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **validate** *boolean*

| | |
|---|---|
| Synopsis | Allow the NETCONF <validate> RPC |
| Context | **configure** system security aaa local-profiles profile *named-item* netconf base-op-authorization validate *boolean* |
| Tree | validate |


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| | |
|---|---|
| Default | false |
| Introduced | 21.7.R1 |
| Platforms | All |

### **ssh-max-sessions** *number*

| | |
|---|---|
| Synopsis | Maximum number of concurrent SSH sessions |
| Context | **configure** system security aaa local-profiles profile *named-item* ssh-max-sessions *number* |
| Tree | ssh-max-sessions |
| Range | 0 to 50 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **telnet-max-sessions** *number*

| | |
|---|---|
| Synopsis | Maximum number of concurrent Telnet sessions |
| Context | **configure** system security aaa local-profiles profile *named-item* telnet-max-sessions *number* |
| Tree | telnet-max-sessions |
| Range | 0 to 50 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **management-interface**

| | |
|---|---|
| Synopsis | Enter the **management-interface** context |
| Context | **configure** system security aaa management-interface |
| Tree | management-interface |
| Introduced | 20.10.R1 |
| Platforms | All |

### **md-cli**

| | |
|---|---|
| Synopsis | Enter the **md-cli** context |
| Context | **configure** system security aaa management-interface md-cli |


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| | |
|---|---|
| Tree | md-cli |
| Introduced | 20.10.R1 |
| Platforms | All |

## **command-accounting-during-load** *boolean*

| | |
|---|---|
| Synopsis | Perform file command accounting for load or rollback |
| Context | **configure** system security aaa management-interface md-cli command-accounting-during-load *boolean* |
| Tree | command-accounting-during-load |
| Default | true |
| Introduced | 20.10.R1 |
| Platforms | All |

## **output-authorization**

| | |
|---|---|
| Synopsis | Enter the **output-authorization** context |
| Context | **configure** system security aaa management-interface output-authorization |
| Tree | output-authorization |
| Description | Commands in this context configure output authorization for model-driven interfaces and telemetry.<br>When output authorization is performed, commands that display configuration or state output must authorize every element in the output. If a remote AAA server is configured, there may be delays in displaying output while the output is authorized. The remote AAA server may receive a large volume of authorization requests when substantial output displays are needed, such as for system configuration details.<br>Input to edit the configuration is always authorized, and is not affected by commands in this context. |
| Introduced | 20.10.R1 |
| Platforms | All |

## **md-interfaces** *boolean*

| | |
|---|---|
| Synopsis | Authorize output in model-driven interfaces |
| Context | **configure** system security aaa management-interface output-authorization md-interfaces *boolean* |
| Tree | md-interfaces |


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| | |
|---|---|
| Description | When configured to **true**, output is authorized for the following:<br>• MD-CLI **info** and **compare** commands<br>• MD-CLI command completion of list key values<br>• NETCONF <get> and <get-config> RPC<br>• gRPC/gNMI Get RPCs |
| Default | true |
| Introduced | 20.10.R1 |
| Platforms | All |

### **telemetry-data** *boolean*

| | |
|---|---|
| Synopsis | Authorize telemetry data in gNMI Subscribe RPC response |
| Context | **configure** system security aaa management-interface output-authorization telemetry-data *boolean* |
| Tree | telemetry-data |
| Default | false |
| Introduced | 20.10.R1 |
| Platforms | All |

### **remote-servers**

| | |
|---|---|
| Synopsis | Enter the **remote-servers** context |
| Context | **configure** system security aaa remote-servers |
| Tree | remote-servers |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ldap**

| | |
|---|---|
| Synopsis | Enter the **ldap** context |
| Context | **configure** system security aaa remote-servers ldap |
| Tree | ldap |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the LDAP operation protocol |
| Context | **configure** system security aaa remote-servers ldap admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **public-key-authentication** *boolean*

| | |
|---|---|
| Synopsis | Allow SSH public key authentication from LDAP server |
| Context | **configure** system security aaa remote-servers ldap public-key-authentication *boolean* |
| Tree | public-key-authentication |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **route-preference** *keyword*

| | |
|---|---|
| Synopsis | Route preference to reach the AAA server |
| Context | **configure** system security aaa remote-servers ldap route-preference *keyword* |
| Tree | route-preference |
| Description | This command specifies the routing preference to reach the AAA server. If the configured option is to use both in-band and out-of-band routes, the out-of-band routes in the Base routing instance are used to reach the server before the in-band routes in the management routing instance. |
| Options | both, inband, outband |
| Default | both |
| Introduced | 21.5.R1 |
| Platforms | All |

### **server** [index] *number*

| | |
|---|---|
| Synopsis | Enter the **server** list instance |


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| | |
|---|---|
| Context | **configure** system security aaa remote-servers ldap server *number* |
| Tree | server |
| Max. instances | 5 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**index**] *number*

| | |
|---|---|
| Synopsis | LDAP server ID |
| Context | **configure** system security aaa remote-servers ldap server *number* |
| Tree | server |
| Range | 1 to 5 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **address** [ip-address] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Enter the **address** list instance |
| Context | **configure** system security aaa remote-servers ldap server *number* address *(ipv4-address-no-zone | ipv6-address-no-zone)* |
| Tree | address |
| Max. instances | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ip-address**] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | LDAP server address |
| Context | **configure** system security aaa remote-servers ldap server *number* address *(ipv4-address-no-zone | ipv6-address-no-zone)* |
| Tree | address |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## **port** *number*

| | |
|---|---|
| Synopsis | Port number on which to contact the LDAP server |
| Context | **configure** system security aaa remote-servers ldap server *number* address *(ipv4-address-no-zone \| ipv6-address-no-zone)* port *number* |
| Tree | port |
| Range | 1 to 65535 |
| Default | 389 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the LDAP server |
| Context | **configure** system security aaa remote-servers ldap server *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

## **bind-authentication**

| | |
|---|---|
| Synopsis | Enter the **bind-authentication** context |
| Context | **configure** system security aaa remote-servers ldap server *number* bind-authentication |
| Tree | bind-authentication |
| Introduced | 16.0.R1 |
| Platforms | All |

## **password** *encrypted-leaf*

| | |
|---|---|
| Synopsis | Password used for authentication with the LDAP server |
| Context | **configure** system security aaa remote-servers ldap server *number* bind-authentication password *encrypted-leaf* |


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| | |
|---|---|
| Tree | password |
| String length | 1 to 199 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **root-dn** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | Root domain used for authentication with LDAP server |
| Context | **configure** system security aaa remote-servers ldap server *number* bind-authentication root-dn *string-not-all-spaces* |
| Tree | root-dn |
| String length | 1 to 512 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **search**

| | |
|---|---|
| Synopsis | Enter the **search** context |
| Context | **configure** system security aaa remote-servers ldap server *number* search |
| Tree | search |
| Introduced | 16.0.R1 |
| Platforms | All |

### **base-dn** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | LDAP server search base domain name |
| Context | **configure** system security aaa remote-servers ldap server *number* search base-dn *string-not-all-spaces* |
| Tree | base-dn |
| String length | 1 to 512 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **server-name** *named-item*

| | |
|---|---|
| Synopsis | LDAP server name |


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| | |
|---|---|
| Context | **configure** system security aaa remote-servers ldap server *number* server-name *named-item* |
| Tree | server-name |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **tls-profile** *reference*

| | |
|---|---|
| Synopsis | TLS client profile used to encrypt the LDAP connection |
| Context | **configure** system security aaa remote-servers ldap server *number* tls-profile *reference* |
| Tree | tls-profile |
| Reference | **configure** system security tls client-tls-profile *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **server-retry** *number*

| | |
|---|---|
| Synopsis | Number of attempts to retry contacting the LDAP server |
| Context | **configure** system security aaa remote-servers ldap server-retry *number* |
| Tree | server-retry |
| Range | 1 to 10 |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **server-timeout** *number*

| | |
|---|---|
| Synopsis | Timeout for a response from the LDAP server |
| Context | **configure** system security aaa remote-servers ldap server-timeout *number* |
| Tree | server-timeout |
| Range | 1 to 90 |
| Units | seconds |
| Default | 3 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **use-default-template** *boolean*

| | |
|---|---|
| Synopsis | Apply the default template to LDAP |
| Context | **configure** system security aaa remote-servers ldap use-default-template *boolean* |
| Tree | use-default-template |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **radius**

| | |
|---|---|
| Synopsis | Enter the **radius** context |
| Context | **configure** system security aaa remote-servers radius |
| Tree | radius |
| Introduced | 16.0.R1 |
| Platforms | All |

### **access-algorithm** *keyword*

| | |
|---|---|
| Synopsis | Algorithm used to access the set of RADIUS servers |
| Context | **configure** system security aaa remote-servers radius access-algorithm *keyword* |
| Tree | access-algorithm |
| Options | direct, round-robin |
| Default | direct |
| Introduced | 16.0.R1 |
| Platforms | All |

### **accounting** *boolean*

| | |
|---|---|
| Synopsis | Enable RADIUS command accounting |
| Context | **configure** system security aaa remote-servers radius accounting *boolean* |
| Tree | accounting |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **accounting-port** *number*

| | |
|---|---|
| Synopsis | Port number on RADIUS server for accounting requests |
| Context | **configure** system security aaa remote-servers radius accounting-port *number* |
| Tree | accounting-port |
| Range | 1 to 65535 |
| Default | 1813 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the authentication server |
| Context | **configure** system security aaa remote-servers radius admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **authorization** *boolean*

| | |
|---|---|
| Synopsis | Enable RADIUS authorization |
| Context | **configure** system security aaa remote-servers radius authorization *boolean* |
| Tree | authorization |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **interactive-authentication** *boolean*

| | |
|---|---|
| Synopsis | Enable RADIUS interactive authentication |


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| | |
|---|---|
| Context | **configure** system security aaa remote-servers radius interactive-authentication *boolean* |
| Tree | interactive-authentication |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **port** *number*

| | |
|---|---|
| Synopsis | UDP port number on which to contact RADIUS server |
| Context | **configure** system security aaa remote-servers radius port *number* |
| Tree | port |
| Range | 1 to 65535 |
| Default | 1812 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **route-preference** *keyword*

| | |
|---|---|
| Synopsis | Route preference to reach the AAA server |
| Context | **configure** system security aaa remote-servers radius route-preference *keyword* |
| Tree | route-preference |
| Description | This command specifies the routing preference to reach the AAA server. If the configured option is to use both in-band and out-of-band routes, the out-of-band routes in the Base routing instance are used to reach the server before the in-band routes in the management routing instance. |
| Options | both, inband, outband |
| Default | both |
| Introduced | 21.5.R1 |
| Platforms | All |

### **server** [index] *number*

| | |
|---|---|
| Synopsis | Enter the **server** list instance |
| Context | **configure** system security aaa remote-servers radius server *number* |
| Tree | server |


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| | |
|---|---|
| Max. instances | 5 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**index**] *number*

| | |
|---|---|
| Synopsis | RADIUS server ID |
| Context | **configure** system security aaa remote-servers radius server *number* |
| Tree | server |
| Range | 1 to 5 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the RADIUS server |
| Context | **configure** system security aaa remote-servers radius server *number* address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | address |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **authenticator** *keyword*

| | |
|---|---|
| Synopsis | Authenticator hash algorithm for the RADIUS server |
| Context | **configure** system security aaa remote-servers radius server *number* authenticator *keyword* |
| Tree | authenticator |
| Description | This command specifies the hash algorithm used to authenticate RADIUS Access-Request, Access-Accept, Access-Reject, Access-Challenge, Accounting-Request, and Accounting-Response packets. |
| Options | md5, sm3 |
| Default | md5 |


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| | |
|---|---|
| Introduced | 22.10.R1 |
| Platforms | All |

### **secret** *encrypted-leaf*

| | |
|---|---|
| Synopsis | Secret key to access the RADIUS server |
| Context | **configure** system security aaa remote-servers radius server *number* secret *encrypted-leaf* |
| Tree | secret |
| String length | 1 to 115 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **tls-client-profile** *reference*

| | |
|---|---|
| Synopsis | TLS client profile for the RADIUS server |
| Context | **configure** system security aaa remote-servers radius server *number* tls-client-profile *reference* |
| Tree | tls-client-profile |
| Description | This command specifies the TLS client profile used to encrypt RADIUS communication. When configured, RADIUS messages are sent using TLS. |
| Reference | **configure** system security tls client-tls-profile *named-item* |
| Introduced | 21.10.R1 |
| Platforms | All |

### **server-retry** *number*

| | |
|---|---|
| Synopsis | Number of attempts to retry contacting RADIUS server |
| Context | **configure** system security aaa remote-servers radius server-retry *number* |
| Tree | server-retry |
| Range | 1 to 10 |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **server-timeout** *number*

| | |
|---|---|
| Synopsis | Time to wait for a response from the RADIUS server |
| Context | **configure** system security aaa remote-servers radius server-timeout *number* |
| Tree | server-timeout |
| Range | 1 to 90 |
| Units | seconds |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **use-default-template** *boolean*

| | |
|---|---|
| Synopsis | Apply the RADIUS default user template to RADIUS user |
| Context | **configure** system security aaa remote-servers radius use-default-template *boolean* |
| Tree | use-default-template |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **tacplus**

| | |
|---|---|
| Synopsis | Enter the **tacplus** context |
| Context | **configure** system security aaa remote-servers tacplus |
| Tree | tacplus |
| Introduced | 16.0.R1 |
| Platforms | All |

### **accounting**

| | |
|---|---|
| Synopsis | Enable the **accounting** context |
| Context | **configure** system security aaa remote-servers tacplus accounting |
| Tree | accounting |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **record-type** *keyword*

| | |
|---|---|
| Synopsis | Type of accounting record packet sent to TACACS+ server |
| Context | **configure** system security aaa remote-servers tacplus accounting record-type *keyword* |
| Tree | record-type |
| Options | start-stop, stop-only |
| Default | stop-only |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-control**

| | |
|---|---|
| Synopsis | Enter the **admin-control** context |
| Context | **configure** system security aaa remote-servers tacplus admin-control |
| Tree | admin-control |
| Introduced | 16.0.R1 |
| Platforms | All |

### **tacplus-map-to-priv-lvl** *number*

| | |
|---|---|
| Synopsis | Interactive authentication from node to TACACS+ server |
| Context | **configure** system security aaa remote-servers tacplus admin-control tacplus-map-to-priv-lvl *number* |
| Tree | tacplus-map-to-priv-lvl |
| Range | 0 to 15 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the TACACS+ protocol |
| Context | **configure** system security aaa remote-servers tacplus admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## authorization

| | |
|---|---|
| Synopsis | Enable the **authorization** context |
| Context | **configure** system security aaa remote-servers tacplus authorization |
| Tree | authorization |
| Introduced | 16.0.R1 |
| Platforms | All |

## request-format

| | |
|---|---|
| Synopsis | Enter the **request-format** context |
| Context | **configure** system security aaa remote-servers tacplus authorization request-format |
| Tree | request-format |
| Description | Commands in this context configure access operations that are sent to the TACACS+ server during authorization. |
| Introduced | 21.10.R3 |
| Platforms | All |

## access-operation-cmd *keyword*

| | |
|---|---|
| Synopsis | Access operations sent in authorization requests |
| Context | **configure** system security aaa remote-servers tacplus authorization request-format access-operation-cmd *keyword* |
| Tree | access-operation-cmd |
| Description | This command sends an operation argument in authorization requests.<br>In model-driven interfaces, this command configures the system to send the operation in the cmd argument, and the path in the cmd-args argument, in TACACS+ authorization requests. This command does not apply to authorization requests in classic interfaces. |
| Options | delete |
| Max. instances | 1 |
| Introduced | 21.10.R3 |
| Platforms | All |


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## **use-priv-lvl** *boolean*

| | |
|---|---|
| Synopsis | Allow privilege level mapping |
| Context | **configure** system security aaa remote-servers tacplus authorization use-priv-lvl *boolean* |
| Tree | use-priv-lvl |
| Description | When configured to **true**, this command automatically performs a single authorization request to the TACACS+ server for cmd* (all commands) immediately after login, and then uses the local profile associated (via the **priv-lvl-map**) with the priv-lvl returned by the TACACS+ server for all subsequent authorization (except **enable-admin**). After the initial authorization for cmd*, no further authorization requests are sent to the TACACS+ server (except **enable-admin**).<br><br>When configured to **false**, each command is sent to the TACACS+ server for authorization (this is true regardless of whether the **tacplus use-default-template** setting is enabled). |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **interactive-authentication** *boolean*

| | |
|---|---|
| Synopsis | Allows TACACS+ interactive authentication |
| Context | **configure** system security aaa remote-servers tacplus interactive-authentication *boolean* |
| Tree | interactive-authentication |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **priv-lvl-map**

| | |
|---|---|
| Synopsis | Enter the **priv-lvl-map** context |
| Context | **configure** system security aaa remote-servers tacplus priv-lvl-map |
| Tree | priv-lvl-map |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **priv-lvl** [level] *number*

| | |
|---|---|
| Synopsis | Enter the **priv-lvl** list instance |
| Context | **configure** system security aaa remote-servers tacplus priv-lvl-map priv-lvl *number* |
| Tree | priv-lvl |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**level**] *number*

| | |
|---|---|
| Synopsis | Privilege level for the mapping |
| Context | **configure** system security aaa remote-servers tacplus priv-lvl-map priv-lvl *number* |
| Tree | priv-lvl |
| Range | 0 to 15 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **user-profile-name** *reference*

| | |
|---|---|
| Synopsis | User profile for the mapping |
| Context | **configure** system security aaa remote-servers tacplus priv-lvl-map priv-lvl *number* user-profile-name *reference* |
| Tree | user-profile-name |
| Reference | **configure** system security aaa local-profiles profile *named-item* |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **route-preference** *keyword*

| | |
|---|---|
| Synopsis | Route preference to reach the AAA server |
| Context | **configure** system security aaa remote-servers tacplus route-preference *keyword* |
| Tree | route-preference |


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| | |
|---|---|
| Description | This command specifies the routing preference to reach the AAA server. If the configured option is to use both in-band and out-of-band routes, the out-of-band routes in the Base routing instance are used to reach the server before the in-band routes in the management routing instance. |
| Options | both, inband, outband |
| Default | both |
| Introduced | 21.5.R1 |
| Platforms | All |

### **server** [index] *number*

| | |
|---|---|
| Synopsis | Enter the **server** list instance |
| Context | **configure** system security aaa remote-servers tacplus server *number* |
| Tree | server |
| Max. instances | 5 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**index**] *number*

| | |
|---|---|
| Synopsis | TACACS+ server ID |
| Context | **configure** system security aaa remote-servers tacplus server *number* |
| Tree | server |
| Range | 1 to 5 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the TACACS+ server |
| Context | **configure** system security aaa remote-servers tacplus server *number* address *(ipv4-address-no-zone | ipv6-address-no-zone)* |
| Tree | address |
| Notes | This element is mandatory. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **port** *number*

| | |
|---|---|
| Synopsis | TCP port ID on which to contact TACACS+ server |
| Context | **configure** system security aaa remote-servers tacplus server *number* port *number* |
| Tree | port |
| Range | 0 \| 1 to 65535 |
| Default | 49 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **secret** *encrypted-leaf*

| | |
|---|---|
| Synopsis | Secret key to access the TACACS+ server |
| Context | **configure** system security aaa remote-servers tacplus server *number* secret *encrypted-leaf* |
| Tree | secret |
| String length | 1 to 199 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **server-timeout** *number*

| | |
|---|---|
| Synopsis | Time to wait for a response from the TACACS+ server |
| Context | **configure** system security aaa remote-servers tacplus server-timeout *number* |
| Tree | server-timeout |
| Range | 1 to 90 |
| Units | seconds |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | All |


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## service-request

| | |
|---|---|
| Synopsis | Enter the **service-request** context |
| Context | **configure** system security aaa remote-servers tacplus service-request |
| Tree | service-request |
| Description | Commands in this context enable Nokia services to be requested from the TACACS+ server. |
| Introduced | 24.10.R1 |
| Platforms | All |

## nokia-grpc-rpc-authorization *boolean*

| | |
|---|---|
| Synopsis | Request nokia-user service VSAs |
| Context | **configure** system security aaa remote-servers tacplus service-request nokia-grpc-rpc-authorization *boolean* |
| Tree | nokia-grpc-rpc-authorization |
| Description | When configured to **true**, the nokia-grpc-rpc-authorization service is requested from the TACACS+ server after successful authentication. |
| Default | false |
| Introduced | 24.10.R1 |
| Platforms | All |

## nokia-netconf-base-op-authorization *boolean*

| | |
|---|---|
| Synopsis | Request nokia-netconf-base-op-authorization service VSAs |
| Context | **configure** system security aaa remote-servers tacplus service-request nokia-netconf-base-op-authorization *boolean* |
| Tree | nokia-netconf-base-op-authorization |
| Description | When configured to **true**, the nokia-user service is requested from the TACACS+ server after successful authentication. |
| Default | false |
| Introduced | 24.10.R1 |
| Platforms | All |


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### **nokia-user** *boolean*

| | |
|---|---|
| Synopsis | Request nokia-user service VSAs |
| Context | **configure** system security aaa remote-servers tacplus service-request nokia-user *boolean* |
| Tree | nokia-user |
| Description | When configured to **true**, the nokia-netconf-base-op-authorization service is requested from the TACACS+ server after successful authentication. |
| Default | false |
| Introduced | 24.10.R1 |
| Platforms | All |

### **use-default-template** *boolean*

| | |
|---|---|
| Synopsis | Apply TACACS+ default user-template to TACACS+ user |
| Context | **configure** system security aaa remote-servers tacplus use-default-template *boolean* |
| Tree | use-default-template |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **vprn-server**

| | |
|---|---|
| Synopsis | Enter the **vprn-server** context |
| Context | **configure** system security aaa remote-servers vprn-server |
| Tree | vprn-server |
| Introduced | 22.2.R1 |
| Platforms | All |

### **inband** *reference*

| | |
|---|---|
| Synopsis | VPRN service used for AAA by in-band sessions |
| Context | **configure** system security aaa remote-servers vprn-server inband *reference* |
| Tree | inband |
| Description | This command configures TACACS+ or RADIUS servers in a VPRN to be used for AAA by that VPRN and by sessions in the Base routing instance. |


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| | |
|---|---|
| Reference | **configure** service vprn *service-name* |
| Introduced | 22.2.R1 |
| Platforms | All |

### **outband** *reference*

| | |
|---|---|
| Synopsis | VPRN service used for AAA by out-of-band sessions |
| Context | **configure** system security aaa remote-servers vprn-server outband *reference* |
| Tree | outband |
| Description | This command configures TACACS+ and RADIUS servers in a VPRN to be used for AAA by that VPRN and by sessions on the console or out-of-band (OOB) Ethernet ports. |
| Reference | **configure** service vprn *service-name* |
| Introduced | 22.2.R1 |
| Platforms | All |

### **vprn** *reference*

| | |
|---|---|
| Synopsis | VPRN used for AAA in VPRNs without a AAA server |
| Context | **configure** system security aaa remote-servers vprn-server vprn *reference* |
| Tree | vprn |
| Description | This command configures TACACS+ or RADIUS servers in a VPRN to be used for AAA by that VPRN and by sessions in VPRNs without a AAA server configured. |
| Reference | **configure** service vprn *service-name* |
| Introduced | 22.2.R1 |
| Platforms | All |

### **user-template** [user-template-name] *keyword*

| | |
|---|---|
| Synopsis | Enter the **user-template** list instance |
| Context | **configure** system security aaa user-template *keyword* |
| Tree | user-template |
| Description | Commands in this context configure templates for remote users. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**user-template-name**] *keyword*

| | |
|---|---|
| Synopsis | Default user template applied to the remote user |
| Context | **configure** system security aaa user-template *keyword* |
| Tree | user-template |
| Options | ldap-default – Default LDAP user template<br>radius-default – Default RADIUS user template<br>tacplus-default – Default TACACS+ user template |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **access**

| | |
|---|---|
| Synopsis | Enter the **access** context |
| Context | **configure** system security aaa user-template *keyword* access |
| Tree | access |
| Description | Commands in this context grant a user access to the router management access methods. If a user requires access to more than one method, multiple methods can be specified. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bluetooth** *boolean*

| | |
|---|---|
| Synopsis | Allow Bluetooth access |
| Context | **configure** system security aaa user-template *keyword* access bluetooth *boolean* |
| Tree | bluetooth |
| Default | false |
| Introduced | 24.7.R1 |
| Platforms | All |

### **console** *boolean*

| | |
|---|---|
| Synopsis | Allow Bluetooth, console port CLI, SCP/SFTP, SSH CLI, and Telnet CLI access |
| Context | **configure** system security aaa user-template *keyword* access console *boolean* |


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| | |
|---|---|
| Tree | console |
| Description | When configured to **true**, the system allows this access method to take precedence over other access methods in all cases. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **console-port-cli** *boolean*

| | |
|---|---|
| Synopsis | Allow console port CLI access |
| Context | **configure** system security aaa user-template *keyword* access console-port-cli *boolean* |
| Tree | console-port-cli |
| Default | false |
| Introduced | 24.7.R1 |
| Platforms | All |

### **ftp** *boolean*

| | |
|---|---|
| Synopsis | Allow FTP access |
| Context | **configure** system security aaa user-template *keyword* access ftp *boolean* |
| Tree | ftp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **grpc** *boolean*

| | |
|---|---|
| Synopsis | Allow gRPC access |
| Context | **configure** system security aaa user-template *keyword* access grpc *boolean* |
| Tree | grpc |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **li** *boolean*

| | |
|---|---|
| Synopsis | Allow access to Lawful Intercept (LI) commands |
| Context | **configure** system security aaa user-template *keyword* access li *boolean* |
| Tree | li |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |

### **netconf** *boolean*

| | |
|---|---|
| Synopsis | Allow NETCONF access |
| Context | **configure** system security aaa user-template *keyword* access netconf *boolean* |
| Tree | netconf |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **scp-sftp** *boolean*

| | |
|---|---|
| Synopsis | Allow SCP/SFTP access |
| Context | **configure** system security aaa user-template *keyword* access scp-sftp *boolean* |
| Tree | scp-sftp |
| Default | false |
| Introduced | 24.7.R1 |
| Platforms | All |

### **ssh-cli** *boolean*

| | |
|---|---|
| Synopsis | Allow SSH CLI access |
| Context | **configure** system security aaa user-template *keyword* access ssh-cli *boolean* |
| Tree | ssh-cli |
| Default | false |
| Introduced | 24.7.R1 |
| Platforms | All |


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### **telnet-cli** *boolean*

| | |
|---|---|
| Synopsis | Allow Telnet CLI access |
| Context | **configure** system security aaa user-template *keyword* access telnet-cli *boolean* |
| Tree | telnet-cli |
| Default | false |
| Introduced | 24.7.R1 |
| Platforms | All |

### **console**

| | |
|---|---|
| Synopsis | Enter the **console** context |
| Context | **configure** system security aaa user-template *keyword* console |
| Tree | console |
| Introduced | 16.0.R1 |
| Platforms | All |

### **login-exec** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | File to execute for a successful user login via console |
| Context | **configure** system security aaa user-template *keyword* console login-exec *string-not-all-spaces* |
| Tree | login-exec |
| String length | 1 to 200 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **home-directory** *cflash-without-slot-url*

| | |
|---|---|
| Synopsis | User local home directory based on the template |
| Context | **configure** system security aaa user-template *keyword* home-directory *cflash-without-slot-url* |
| Tree | home-directory |
| Description | This command configures the home directory of the user for file access. Files can be accessed locally by CLI **file** commands and output modifiers such as **>** (file redirect), or remotely via FTP and SCP. If the home directory does not exist, a warning message is displayed when the user logs in. |


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When **restricted-to-home** is configured, file access is denied unless the **home-directory** is configured and the directory is created by an administrator.

| | |
|---|---|
| String length | 1 to 200 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **profile** *named-item*

| | |
|---|---|
| Synopsis | User profile based on the template |
| Context | **configure** system security aaa user-template *keyword* profile *named-item* |
| Tree | profile |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **restricted-to-home** *boolean*

| | |
|---|---|
| Synopsis | Restrict file access to the home directory of the user |
| Context | **configure** system security aaa user-template *keyword* restricted-to-home *boolean* |
| Tree | restricted-to-home |
| Description | When configured to **true**, the router denies the user from accessing files outside of their home directory. Files can be accessed locally by CLI file commands and output modifiers such as **>** (file redirect), or remotely via FTP and SCP. The system denies all configuration save operations (such as **admin save**) via any management interface (such as CLI and NETCONF) unless **save-when-restricted** is enabled.<br>File access is denied unless a home directory is configured and the directory is created by an administrator.<br>When configured to **false**, the router permits the user to access all files on the system. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **save-when-restricted** *boolean*

| | |
|---|---|
| Synopsis | Save configurations when the user is restricted to home |
| Context | **configure** system security aaa user-template *keyword* save-when-restricted *boolean* |
| Tree | save-when-restricted |


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| | |
|---|---|
| Description | When configured to **true**, the system permits configuration save operations for all configuration regions (such as bof and configure) via any management interface (such as CLI and NETCONF) even if **restricted-to-home** is enabled.<br>The configuration for each region can be saved with **admin save** CLI commands or when committed over NETCONF and gRPC.<br>When configured to **false**, the system denies saving the configuration when **restricted-to-home** is enabled, unless the home directory of the user includes the location of the saved configuration file. |
| Default | true |
| Introduced | 22.10.R1 |
| Platforms | All |

## cli-script

| | |
|---|---|
| Synopsis | Enter the **cli-script** context |
| Context | **configure** system security cli-script |
| Tree | cli-script |
| Introduced | 16.0.R1 |
| Platforms | All |

## authorization

| | |
|---|---|
| Synopsis | Enter the **authorization** context |
| Context | **configure** system security cli-script authorization |
| Tree | authorization |
| Introduced | 16.0.R1 |
| Platforms | All |

## cron

| | |
|---|---|
| Synopsis | Enter the **cron** context |
| Context | **configure** system security cli-script authorization cron |
| Tree | cron |
| Description | Commands in this context configure authorization for the cron job scheduler. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **cli-user** *reference*

| | |
|---|---|
| Synopsis | User profile name for CLI command script authorization |
| Context | **configure** system security cli-script authorization cron cli-user *reference* |
| Tree | cli-user |
| Reference | **configure** system security user-params local-user user *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event-handler**

| | |
|---|---|
| Synopsis | Enter the **event-handler** context |
| Context | **configure** system security cli-script authorization event-handler |
| Tree | event-handler |
| Description | Commands in this context configure authorization for the Event Handling System (EHS). EHS allows user-controlled programmatic exception handling by allowing a CLI script to be executed upon the detection of a log event. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cli-user** *reference*

| | |
|---|---|
| Synopsis | User profile name for CLI command script authorization |
| Context | **configure** system security cli-script authorization event-handler cli-user *reference* |
| Tree | cli-user |
| Reference | **configure** system security user-params local-user user *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cpm-filter**

| | |
|---|---|
| Synopsis | Enter the **cpm-filter** context |
| Context | **configure** system security cpm-filter |
| Tree | cpm-filter |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **default-action** *keyword*

| | |
|---|---|
| Synopsis | Action for packets that do not match any filter entries |
| Context | **configure** system security cpm-filter default-action *keyword* |
| Tree | default-action |
| Options | drop, accept |
| Default | accept |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ip-filter**

| | |
|---|---|
| Synopsis | Enter the **ip-filter** context |
| Context | **configure** system security cpm-filter ip-filter |
| Tree | ip-filter |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the CPM filter |
| Context | **configure** system security cpm-filter ip-filter admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **entry** [entry-id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** system security cpm-filter ip-filter entry *number* |
| Tree | entry |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### [**entry-id**] *number*

| | |
|---|---|
| Synopsis | Filter entry ID |
| Context | **configure** system security cpm-filter ip-filter entry *number* |
| Tree | entry |
| Range | 1 to 131072 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### action

| | |
|---|---|
| Synopsis | Enter the **action** context |
| Context | **configure** system security cpm-filter ip-filter entry *number* action |
| Tree | action |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### accept

| | |
|---|---|
| Synopsis | Forward matching packets |
| Context | **configure** system security cpm-filter ip-filter entry *number* action accept |
| Tree | accept |
| Notes | The following elements are part of a choice: **accept**, **default**, **drop**, or **queue**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### default

| | |
|---|---|
| Synopsis | Use default action for matching packets |
| Context | **configure** system security cpm-filter ip-filter entry *number* action default |
| Tree | default |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **accept**, **default**, **drop**, or **queue**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### drop

| | |
|---|---|
| Synopsis | Drop matching packets |
| Context | **configure** system security cpm-filter ip-filter entry *number* action drop |
| Tree | drop |
| Notes | The following elements are part of a choice: **accept**, **default**, **drop**, or **queue**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### queue *reference*

| | |
|---|---|
| Synopsis | Forward matching packets to the CPM hardware queue |
| Context | **configure** system security cpm-filter ip-filter entry *number* action queue *reference* |
| Tree | queue |
| Reference | **configure** system security cpm-queue queue *number* |
| Notes | The following elements are part of a choice: **accept**, **default**, **drop**, or **queue**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### description *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** system security cpm-filter ip-filter entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### log *reference*

| | |
|---|---|
| Synopsis | Log ID where matching packets are entered |


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| | |
|---|---|
| Context | **configure** system security cpm-filter ip-filter entry *number* log *reference* |
| Tree | log |
| Reference | **configure** filter log *number* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## match

| | |
|---|---|
| Synopsis | Enter the **match** context |
| Context | **configure** system security cpm-filter ip-filter entry *number* match |
| Tree | match |
| Description | Commands in this context specify match criteria for the entry. When the match criteria have been satisfied, the action associated with the entry is executed.<br>If more than one match criterion is configured, all criteria must be met before the action associated with the entry is executed. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## dscp *keyword*

| | |
|---|---|
| Synopsis | DSCP used as the match criterion on the packet |
| Context | **configure** system security cpm-filter ip-filter entry *number* match dscp *keyword* |
| Tree | dscp |
| Options | be, cp1, cp2, cp3, cp4, cp5, cp6, cp7, cs1, cp9, af11, cp11, af12, cp13, af13, cp15, cs2, cp17, af21, cp19, af22, cp21, af23, cp23, cs3, cp25, af31, cp27, af32, cp29, af33, cp31, cs4, cp33, af41, cp35, af42, cp37, af43, cp39, cs5, cp41, cp42, cp43, cp44, cp45, ef, cp47, nc1, cp49, cp50, cp51, cp52, cp53, cp54, cp55, nc2, cp57, cp58, cp59, cp60, cp61, cp62, cp63 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## dst-ip

| | |
|---|---|
| Synopsis | Enter the **dst-ip** context |
| Context | **configure** system security cpm-filter ip-filter entry *number* match dst-ip |
| Tree | dst-ip |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **address** *(ipv4-prefix-with-host-bits | ipv4-address)*

| | |
|---|---|
| Synopsis | IPv4 address used as the match criterion |
| Context | **configure** system security cpm-filter ip-filter entry *number* match dst-ip address *(ipv4-prefix-with-host-bits \| ipv4-address)* |
| Tree | address |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ip-prefix-list**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ip-prefix-list** *reference*

| | |
|---|---|
| Synopsis | IPv4 address prefix list used as match criterion |
| Context | **configure** system security cpm-filter ip-filter entry *number* match dst-ip ip-prefix-list *reference* |
| Tree | ip-prefix-list |
| Reference | **configure** filter match-list ip-prefix-list *named-item* |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ip-prefix-list**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **mask** *ipv4-address*

| | |
|---|---|
| Synopsis | IPv4 address mask used as the match criterion |
| Context | **configure** system security cpm-filter ip-filter entry *number* match dst-ip mask *ipv4-address* |
| Tree | mask |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ip-prefix-list**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **dst-port**

| | |
|---|---|
| Synopsis | Enter the **dst-port** context |


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| | |
|---|---|
| Context | **configure** system security cpm-filter ip-filter entry *number* match dst-port |
| Tree | dst-port |
| Notes | The following elements are part of a choice: **port** or (**dst-port** and **src-port**). |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **eq** *number*

| | |
|---|---|
| Synopsis | Port number as the match criterion |
| Context | **configure** system security cpm-filter ip-filter entry *number* match dst-port eq *number* |
| Tree | eq |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: (**eq** and **mask**), **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **mask** *number*

| | |
|---|---|
| Synopsis | Port mask as the match criterion |
| Context | **configure** system security cpm-filter ip-filter entry *number* match dst-port mask *number* |
| Tree | mask |
| Range | 1 to 65535 |
| Default | 65535 |
| Notes | The following elements are part of a choice: (**eq** and **mask**), **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **port-list** *reference*

| | |
|---|---|
| Synopsis | Port list as the match criterion |
| Context | **configure** system security cpm-filter ip-filter entry *number* match dst-port port-list *reference* |
| Tree | port-list |
| Reference | **configure** filter match-list port-list *named-item* |
| Notes | The following elements are part of a choice: (**eq** and **mask**), **port-list**, or **range**. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## range

| | |
|---|---|
| Synopsis | Enable the **range** context |
| Context | **configure** system security cpm-filter ip-filter entry *number* match dst-port range |
| Tree | range |
| Notes | The following elements are part of a choice: (**eq** and **mask**), **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## end *number*

| | |
|---|---|
| Synopsis | Upper bound of the port number to match |
| Context | **configure** system security cpm-filter ip-filter entry *number* match dst-port range end *number* |
| Tree | end |
| Range | 0 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## start *number*

| | |
|---|---|
| Synopsis | Lower bound of the port number to match |
| Context | **configure** system security cpm-filter ip-filter entry *number* match dst-port range start *number* |
| Tree | start |
| Range | 0 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **fragment** *keyword*

| | |
|---|---|
| Synopsis | Match criterion based on presence of fragmented packets |
| Context | **configure** system security cpm-filter ip-filter entry *number* match fragment *keyword* |
| Tree | fragment |
| Description | This command specifies the match criterion based on the existence or absence of fragmented IP packets.<br>Matching on fragmented IPv4 packets occurs when all packets have either the MF (more fragment) bit set or have the Fragment Offset field of the IP header set to a non-zero value. For IPv6, the existence of the IPv6 Fragmentation Extension Header results in a fragmented packet match.<br>Matching on non-fragmented IPv4 packets occurs when all packets have the MF bit set to zero and the Fragment Offset field is also set to zero. For IPv6, the absence of an IPv6 Fragmentation Extension Header results in a non-fragmented packet match. |
| Options | false, true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **icmp**

| | |
|---|---|
| Synopsis | Enter the **icmp** context |
| Context | **configure** system security cpm-filter ip-filter entry *number* match icmp |
| Tree | icmp |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **code** *number*

| | |
|---|---|
| Synopsis | ICMP code to match |
| Context | **configure** system security cpm-filter ip-filter entry *number* match icmp code *number* |
| Tree | code |
| Range | 0 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **type** *number*

| | |
|---|---|
| Synopsis | ICMP type to match |
| Context | **configure** system security cpm-filter ip-filter entry *number* match icmp type *number* |
| Tree | type |
| Range | 0 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ip-option**

| | |
|---|---|
| Synopsis | Enable the **ip-option** context |
| Context | **configure** system security cpm-filter ip-filter entry *number* match ip-option |
| Tree | ip-option |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **mask** *number*

| | |
|---|---|
| Synopsis | Range of option numbers for the mask match criterion |
| Context | **configure** system security cpm-filter ip-filter entry *number* match ip-option mask *number* |
| Tree | mask |
| Range | 1 to 255 |
| Default | 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **type** *number*

| | |
|---|---|
| Synopsis | Specific IP option to match |
| Context | **configure** system security cpm-filter ip-filter entry *number* match ip-option type *number* |
| Tree | type |
| Range | 0 to 255 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **multiple-option** *boolean*

| | |
|---|---|
| Synopsis | Match on packets containing multiple option fields |
| Context | **configure** system security cpm-filter ip-filter entry *number* match multiple-option *boolean* |
| Tree | multiple-option |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **option-present** *boolean*

| | |
|---|---|
| Synopsis | Match on packets with option field present |
| Context | **configure** system security cpm-filter ip-filter entry *number* match option-present *boolean* |
| Tree | option-present |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **port**

| | |
|---|---|
| Synopsis | Enter the **port** context |
| Context | **configure** system security cpm-filter ip-filter entry *number* match port |
| Tree | port |
| Notes | The following elements are part of a choice: **port** or (**dst-port** and **src-port**). |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **eq** *number*

| | |
|---|---|
| Synopsis | Port number as the match criterion |
| Context | **configure** system security cpm-filter ip-filter entry *number* match port eq *number* |
| Tree | eq |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: (**eq** and **mask**), **port-list**, or **range**. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **mask** *number*

| | |
|---|---|
| Synopsis | Port mask as the match criterion |
| Context | **configure** system security cpm-filter ip-filter entry *number* match port mask *number* |
| Tree | mask |
| Range | 1 to 65535 |
| Default | 65535 |
| Notes | The following elements are part of a choice: (**eq** and **mask**), **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **port-list** *reference*

| | |
|---|---|
| Synopsis | Port list as the match criterion |
| Context | **configure** system security cpm-filter ip-filter entry *number* match port port-list *reference* |
| Tree | port-list |
| Reference | **configure** filter match-list port-list *named-item* |
| Notes | The following elements are part of a choice: (**eq** and **mask**), **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **range**

| | |
|---|---|
| Synopsis | Enable the **range** context |
| Context | **configure** system security cpm-filter ip-filter entry *number* match port range |
| Tree | range |
| Notes | The following elements are part of a choice: (**eq** and **mask**), **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the port number to match |
| Context | **configure** system security cpm-filter ip-filter entry *number* match port range end *number* |
| Tree | end |
| Range | 0 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of the port number to match |
| Context | **configure** system security cpm-filter ip-filter entry *number* match port range start *number* |
| Tree | start |
| Range | 0 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **protocol** *(number | keyword)*

| | |
|---|---|
| Synopsis | IP protocol as the match criterion |
| Context | **configure** system security cpm-filter ip-filter entry *number* match protocol *(number | keyword)* |
| Tree | protocol |
| Range | 0 to 255 |
| Options | tcp-udp, icmp, igmp, ip, tcp, egp, igp, udp, rdp, ipv6, ipv6-route, ipv6-frag, idrp, rsvp, gre, ipv6-icmp, ipv6-no-nxt, ipv6-opts, iso-ip, eigrp, ospf-igp, ether-ip, encap, pnni, pim, vrrp, l2tp, stp, ptp, isis, crtp, crudp, sctp |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **router-instance** *named-item-64*

| | |
|---|---|
| Synopsis | Router instance as the match criteria |
| Context | **configure** system security cpm-filter ip-filter entry *number* match router-instance *named-item-64* |
| Tree | router-instance |
| String length | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **src-ip**

| | |
|---|---|
| Synopsis | Enter the **src-ip** context |
| Context | **configure** system security cpm-filter ip-filter entry *number* match src-ip |
| Tree | src-ip |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **address** *(ipv4-prefix-with-host-bits | ipv4-address)*

| | |
|---|---|
| Synopsis | IPv4 address used as the match criterion |
| Context | **configure** system security cpm-filter ip-filter entry *number* match src-ip address *(ipv4-prefix-with-host-bits | ipv4-address)* |
| Tree | address |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ip-prefix-list**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ip-prefix-list** *reference*

| | |
|---|---|
| Synopsis | IPv4 address prefix list used as match criterion |
| Context | **configure** system security cpm-filter ip-filter entry *number* match src-ip ip-prefix-list *reference* |
| Tree | ip-prefix-list |
| Reference | **configure** filter match-list ip-prefix-list *named-item* |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ip-prefix-list**. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **mask** *ipv4-address*

| | |
|---|---|
| Synopsis | IPv4 address mask used as the match criterion |
| Context | **configure** system security cpm-filter ip-filter entry *number* match src-ip mask *ipv4-address* |
| Tree | mask |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ip-prefix-list**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **src-port**

| | |
|---|---|
| Synopsis | Enter the **src-port** context |
| Context | **configure** system security cpm-filter ip-filter entry *number* match src-port |
| Tree | src-port |
| Notes | The following elements are part of a choice: **port** or (**dst-port** and **src-port**). |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **eq** *number*

| | |
|---|---|
| Synopsis | Port number as the match criterion |
| Context | **configure** system security cpm-filter ip-filter entry *number* match src-port eq *number* |
| Tree | eq |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: (**eq** and **mask**), **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **mask** *number*

| | |
|---|---|
| Synopsis | Port mask as the match criterion |


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| | |
|---|---|
| Context | **configure** system security cpm-filter ip-filter entry *number* match src-port mask *number* |
| Tree | mask |
| Range | 1 to 65535 |
| Default | 65535 |
| Notes | The following elements are part of a choice: (**eq** and **mask**), **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **port-list** *reference*

| | |
|---|---|
| Synopsis | Port list as the match criterion |
| Context | **configure** system security cpm-filter ip-filter entry *number* match src-port port-list *reference* |
| Tree | port-list |
| Reference | **configure** filter match-list port-list *named-item* |
| Notes | The following elements are part of a choice: (**eq** and **mask**), **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **range**

| | |
|---|---|
| Synopsis | Enable the **range** context |
| Context | **configure** system security cpm-filter ip-filter entry *number* match src-port range |
| Tree | range |
| Notes | The following elements are part of a choice: (**eq** and **mask**), **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the port number to match |
| Context | **configure** system security cpm-filter ip-filter entry *number* match src-port range end *number* |
| Tree | end |
| Range | 0 to 65535 |


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| | |
|---|---|
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of the port number to match |
| Context | **configure** system security cpm-filter ip-filter entry *number* match src-port range start *number* |
| Tree | start |
| Range | 0 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **tcp-flags**

| | |
|---|---|
| Synopsis | Enter the **tcp-flags** context |
| Context | **configure** system security cpm-filter ip-filter entry *number* match tcp-flags |
| Tree | tcp-flags |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ack** *boolean*

| | |
|---|---|
| Synopsis | ACK bit in TCP header control bits as match criterion |
| Context | **configure** system security cpm-filter ip-filter entry *number* match tcp-flags ack *boolean* |
| Tree | ack |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **syn** *boolean*

| | |
|---|---|
| Synopsis | SYN bit in TCP header control bits as match criterion |
| Context | **configure** system security cpm-filter ip-filter entry *number* match tcp-flags syn *boolean* |


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| | |
|---|---|
| Tree | syn |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### ipv6-filter

| | |
|---|---|
| Synopsis | Enter the **ipv6-filter** context |
| Context | **configure** system security cpm-filter ipv6-filter |
| Tree | ipv6-filter |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the CPM filter |
| Context | **configure** system security cpm-filter ipv6-filter admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **entry** [entry-id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** system security cpm-filter ipv6-filter entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### [**entry-id**] *number*

| | |
|---|---|
| Synopsis | Filter entry ID |
| Context | **configure** system security cpm-filter ipv6-filter entry *number* |
| Tree | entry |


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| | |
|---|---|
| Range | 1 to 131072 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## action

| | |
|---|---|
| Synopsis | Enter the **action** context |
| Context | **configure** system security cpm-filter ipv6-filter entry *number* action |
| Tree | action |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## accept

| | |
|---|---|
| Synopsis | Forward matching packets |
| Context | **configure** system security cpm-filter ipv6-filter entry *number* action accept |
| Tree | accept |
| Notes | The following elements are part of a choice: **accept**, **default**, **drop**, or **queue**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## default

| | |
|---|---|
| Synopsis | Use default action for matching packets |
| Context | **configure** system security cpm-filter ipv6-filter entry *number* action default |
| Tree | default |
| Notes | The following elements are part of a choice: **accept**, **default**, **drop**, or **queue**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## drop

| | |
|---|---|
| Synopsis | Drop matching packets |
| Context | **configure** system security cpm-filter ipv6-filter entry *number* action drop |


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| | |
|---|---|
| Tree | drop |
| Notes | The following elements are part of a choice: **accept**, **default**, **drop**, or **queue**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **queue** *reference*

| | |
|---|---|
| Synopsis | Forward matching packets to the CPM hardware queue |
| Context | **configure** system security cpm-filter ipv6-filter entry *number* action queue *reference* |
| Tree | queue |
| Reference | **configure** system security cpm-queue queue *number* |
| Notes | The following elements are part of a choice: **accept**, **default**, **drop**, or **queue**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** system security cpm-filter ipv6-filter entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **log** *reference*

| | |
|---|---|
| Synopsis | Log ID where matching packets are entered |
| Context | **configure** system security cpm-filter ipv6-filter entry *number* log *reference* |
| Tree | log |
| Reference | **configure** filter log *number* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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## match

| | |
|---|---|
| Synopsis | Enter the **match** context |
| Context | **configure** system security cpm-filter ipv6-filter entry *number* match |
| Tree | match |
| Description | Commands in this context specify match criteria for the entry. When the match criteria have been satisfied, the action associated with the entry is executed.<br>If more than one match criterion is configured, all criteria must be met before the action associated with the entry is executed. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## dscp *keyword*

| | |
|---|---|
| Synopsis | DSCP used as the match criterion on the packet |
| Context | **configure** system security cpm-filter ipv6-filter entry *number* match dscp *keyword* |
| Tree | dscp |
| Options | be, cp1, cp2, cp3, cp4, cp5, cp6, cp7, cs1, cp9, af11, cp11, af12, cp13, af13, cp15, cs2, cp17, af21, cp19, af22, cp21, af23, cp23, cs3, cp25, af31, cp27, af32, cp29, af33, cp31, cs4, cp33, af41, cp35, af42, cp37, af43, cp39, cs5, cp41, cp42, cp43, cp44, cp45, ef, cp47, nc1, cp49, cp50, cp51, cp52, cp53, cp54, cp55, nc2, cp57, cp58, cp59, cp60, cp61, cp62, cp63 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## dst-ip

| | |
|---|---|
| Synopsis | Enter the **dst-ip** context |
| Context | **configure** system security cpm-filter ipv6-filter entry *number* match dst-ip |
| Tree | dst-ip |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## address *(ipv6-prefix-with-host-bits | ipv6-address)*

| | |
|---|---|
| Synopsis | IPv6 address used as the match criterion |


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| | |
|---|---|
| Context | **configure** system security cpm-filter ipv6-filter entry *number* match dst-ip address *(ipv6-prefix-with-host-bits \| ipv6-address)* |
| Tree | address |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ipv6-prefix-list**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **ipv6-prefix-list** *reference*

| | |
|---|---|
| Synopsis | IPv6 address prefix list used as match criterion |
| Context | **configure** system security cpm-filter ipv6-filter entry *number* match dst-ip ipv6-prefix-list *reference* |
| Tree | ipv6-prefix-list |
| Reference | **configure** filter match-list ipv6-prefix-list *named-item* |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ipv6-prefix-list**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **mask** *ipv6-address*

| | |
|---|---|
| Synopsis | IPv6 address mask used as the match criterion |
| Context | **configure** system security cpm-filter ipv6-filter entry *number* match dst-ip mask *ipv6-address* |
| Tree | mask |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ipv6-prefix-list**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **dst-port**

| | |
|---|---|
| Synopsis | Enter the **dst-port** context |
| Context | **configure** system security cpm-filter ipv6-filter entry *number* match dst-port |
| Tree | dst-port |
| Notes | The following elements are part of a choice: **port** or (**dst-port** and **src-port**). |
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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **eq** *number*

| | |
|---|---|
| Synopsis | Port number as the match criterion |
| Context | **configure** system security cpm-filter ipv6-filter entry *number* match dst-port eq *number* |
| Tree | eq |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: (**eq** and **mask**), **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **mask** *number*

| | |
|---|---|
| Synopsis | Port mask as the match criterion |
| Context | **configure** system security cpm-filter ipv6-filter entry *number* match dst-port mask *number* |
| Tree | mask |
| Range | 1 to 65535 |
| Default | 65535 |
| Notes | The following elements are part of a choice: (**eq** and **mask**), **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **port-list** *reference*

| | |
|---|---|
| Synopsis | Port list as the match criterion |
| Context | **configure** system security cpm-filter ipv6-filter entry *number* match dst-port port-list *reference* |
| Tree | port-list |
| Reference | **configure** filter match-list port-list *named-item* |
| Notes | The following elements are part of a choice: (**eq** and **mask**), **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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## range

| | |
|---|---|
| Synopsis | Enable the **range** context |
| Context | **configure** system security cpm-filter ipv6-filter entry *number* match dst-port range |
| Tree | range |
| Notes | The following elements are part of a choice: (**eq** and **mask**), **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## end *number*

| | |
|---|---|
| Synopsis | Upper bound of the port number to match |
| Context | **configure** system security cpm-filter ipv6-filter entry *number* match dst-port range end *number* |
| Tree | end |
| Range | 0 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## start *number*

| | |
|---|---|
| Synopsis | Lower bound of the port number to match |
| Context | **configure** system security cpm-filter ipv6-filter entry *number* match dst-port range start *number* |
| Tree | start |
| Range | 0 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## extension-header

| | |
|---|---|
| Synopsis | Enter the **extension-header** context |
| Context | **configure** system security cpm-filter ipv6-filter entry *number* match extension-header |


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| | |
|---|---|
| Tree | extension-header |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **hop-by-hop** *boolean*

| | |
|---|---|
| Synopsis | Match on existence of Hop-By-Hop Options Header |
| Context | **configure** system security cpm-filter ipv6-filter entry *number* match extension-header hop-by-hop *boolean* |
| Tree | hop-by-hop |
| Description | When configured to **true**, a match occurs when the Hop-by-Hop Options Extension Header is present.<br>When configured to **false**, a match occurs when the Hop-by-Hop Options Extension Header is not present. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **flow-label** *number*

| | |
|---|---|
| Synopsis | Flow label in the IPv6 header as the match criterion |
| Context | **configure** system security cpm-filter ipv6-filter entry *number* match flow-label *number* |
| Tree | flow-label |
| Range | 0 to 1048575 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **fragment** *keyword*

| | |
|---|---|
| Synopsis | Match criterion based on presence of fragmented packets |
| Context | **configure** system security cpm-filter ipv6-filter entry *number* match fragment *keyword* |
| Tree | fragment |
| Description | This command specifies the match criterion based on the existence or absence of fragmented IP packets.<br>Matching on fragmented IPv4 packets occurs when all packets have either the MF (more fragment) bit set or have the Fragment Offset field of the IP header set to a non-zero value. For IPv6, the existence of the IPv6 Fragmentation Extension Header results in a fragmented packet match. |


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Matching on non-fragmented IPv4 packets occurs when all packets have the MF bit set to zero and the Fragment Offset field is also set to zero. For IPv6, the absence of an IPv6 Fragmentation Extension Header results in a non-fragmented packet match.

| | |
|---|---|
| Options | false, true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## icmp

| | |
|---|---|
| Synopsis | Enter the **icmp** context |
| Context | **configure** system security cpm-filter ipv6-filter entry *number* match icmp |
| Tree | icmp |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## code *number*

| | |
|---|---|
| Synopsis | ICMP code as the match criterion |
| Context | **configure** system security cpm-filter ipv6-filter entry *number* match icmp code *number* |
| Tree | code |
| Range | 0 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## type *number*

| | |
|---|---|
| Synopsis | ICMP type as the match criterion |
| Context | **configure** system security cpm-filter ipv6-filter entry *number* match icmp type *number* |
| Tree | type |
| Range | 0 to 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## next-header *(number | keyword)*

| | |
|---|---|
| Synopsis | IP protocol to match |


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| | |
|---|---|
| Context | **configure** system security cpm-filter ipv6-filter entry *number* match next-header *(number \| keyword)* |
| Tree | next-header |
| Range | 0 to 255 |
| Options | tcp-udp, icmp, igmp, ip, tcp, egp, igp, udp, rdp, ipv6, ipv6-route, ipv6-frag, idrp, rsvp, gre, ipv6-icmp, ipv6-no-nxt, ipv6-opts, iso-ip, eigrp, ospf-igp, ether-ip, encap, pnni, pim, vrrp, l2tp, stp, ptp, isis, crtp, crudp, sctp |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## port

| | |
|---|---|
| Synopsis | Enter the **port** context |
| Context | **configure** system security cpm-filter ipv6-filter entry *number* match port |
| Tree | port |
| Notes | The following elements are part of a choice: **port** or (**dst-port** and **src-port**). |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## eq *number*

| | |
|---|---|
| Synopsis | Port number as the match criterion |
| Context | **configure** system security cpm-filter ipv6-filter entry *number* match port eq *number* |
| Tree | eq |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: (**eq** and **mask**), **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## mask *number*

| | |
|---|---|
| Synopsis | Port mask as the match criterion |
| Context | **configure** system security cpm-filter ipv6-filter entry *number* match port mask *number* |
| Tree | mask |
| Range | 1 to 65535 |
| Default | 65535 |


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| | |
|---|---|
| Notes | The following elements are part of a choice: (**eq** and **mask**), **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **port-list** *reference*

| | |
|---|---|
| Synopsis | Port list as the match criterion |
| Context | **configure** system security cpm-filter ipv6-filter entry *number* match port port-list *reference* |
| Tree | port-list |
| Reference | **configure** filter match-list port-list *named-item* |
| Notes | The following elements are part of a choice: (**eq** and **mask**), **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **range**

| | |
|---|---|
| Synopsis | Enable the **range** context |
| Context | **configure** system security cpm-filter ipv6-filter entry *number* match port range |
| Tree | range |
| Notes | The following elements are part of a choice: (**eq** and **mask**), **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the port number to match |
| Context | **configure** system security cpm-filter ipv6-filter entry *number* match port range end *number* |
| Tree | end |
| Range | 0 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of the port number to match |
| Context | **configure** system security cpm-filter ipv6-filter entry *number* match port range start *number* |
| Tree | start |
| Range | 0 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **router-instance** *named-item-64*

| | |
|---|---|
| Synopsis | Router instance as the match criteria |
| Context | **configure** system security cpm-filter ipv6-filter entry *number* match router-instance *named-item-64* |
| Tree | router-instance |
| String length | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **src-ip**

| | |
|---|---|
| Synopsis | Enter the **src-ip** context |
| Context | **configure** system security cpm-filter ipv6-filter entry *number* match src-ip |
| Tree | src-ip |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **address** *(ipv6-prefix-with-host-bits | ipv6-address)*

| | |
|---|---|
| Synopsis | IPv6 address used as the match criterion |
| Context | **configure** system security cpm-filter ipv6-filter entry *number* match src-ip address *(ipv6-prefix-with-host-bits \| ipv6-address)* |
| Tree | address |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ipv6-prefix-list**. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **ipv6-prefix-list** *reference*

| | |
|---|---|
| Synopsis | IPv6 address prefix list used as match criterion |
| Context | **configure** system security cpm-filter ipv6-filter entry *number* match src-ip ipv6-prefix-list *reference* |
| Tree | ipv6-prefix-list |
| Reference | **configure** filter match-list ipv6-prefix-list *named-item* |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ipv6-prefix-list**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **mask** *ipv6-address*

| | |
|---|---|
| Synopsis | IPv6 address mask used as the match criterion |
| Context | **configure** system security cpm-filter ipv6-filter entry *number* match src-ip mask *ipv6-address* |
| Tree | mask |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ipv6-prefix-list**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **src-port**

| | |
|---|---|
| Synopsis | Enter the **src-port** context |
| Context | **configure** system security cpm-filter ipv6-filter entry *number* match src-port |
| Tree | src-port |
| Notes | The following elements are part of a choice: **port** or (**dst-port** and **src-port**). |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **eq** *number*

| | |
|---|---|
| Synopsis | Port number as the match criterion |
| Context | **configure** system security cpm-filter ipv6-filter entry *number* match src-port eq *number* |
| Tree | eq |
| Range | 0 to 65535 |
| Notes | The following elements are part of a choice: (**eq** and **mask**), **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **mask** *number*

| | |
|---|---|
| Synopsis | Port mask as the match criterion |
| Context | **configure** system security cpm-filter ipv6-filter entry *number* match src-port mask *number* |
| Tree | mask |
| Range | 1 to 65535 |
| Default | 65535 |
| Notes | The following elements are part of a choice: (**eq** and **mask**), **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **port-list** *reference*

| | |
|---|---|
| Synopsis | Port list as the match criterion |
| Context | **configure** system security cpm-filter ipv6-filter entry *number* match src-port port-list *reference* |
| Tree | port-list |
| Reference | **configure** filter match-list port-list *named-item* |
| Notes | The following elements are part of a choice: (**eq** and **mask**), **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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## range

| | |
|---|---|
| Synopsis | Enable the **range** context |
| Context | **configure** system security cpm-filter ipv6-filter entry *number* match src-port range |
| Tree | range |
| Notes | The following elements are part of a choice: (**eq** and **mask**), **port-list**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## end *number*

| | |
|---|---|
| Synopsis | Upper bound of the port number to match |
| Context | **configure** system security cpm-filter ipv6-filter entry *number* match src-port range end *number* |
| Tree | end |
| Range | 0 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## start *number*

| | |
|---|---|
| Synopsis | Lower bound of the port number to match |
| Context | **configure** system security cpm-filter ipv6-filter entry *number* match src-port range start *number* |
| Tree | start |
| Range | 0 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## tcp-flags

| | |
|---|---|
| Synopsis | Enter the **tcp-flags** context |
| Context | **configure** system security cpm-filter ipv6-filter entry *number* match tcp-flags |


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| | |
|---|---|
| Tree | tcp-flags |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ack** *boolean*

| | |
|---|---|
| Synopsis | ACK bit in TCP header control bits as match criterion |
| Context | **configure** system security cpm-filter ipv6-filter entry *number* match tcp-flags ack *boolean* |
| Tree | ack |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **syn** *boolean*

| | |
|---|---|
| Synopsis | SYN bit in TCP header control bits as match criterion |
| Context | **configure** system security cpm-filter ipv6-filter entry *number* match tcp-flags syn *boolean* |
| Tree | syn |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **mac-filter**

| | |
|---|---|
| Synopsis | Enter the **mac-filter** context |
| Context | **configure** system security cpm-filter mac-filter |
| Tree | mac-filter |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the CPM filter |
| Context | **configure** system security cpm-filter mac-filter admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |


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| | |
|---|---|
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **entry** [entry-id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** system security cpm-filter mac-filter entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### [**entry-id**] *number*

| | |
|---|---|
| Synopsis | Filter entry ID |
| Context | **configure** system security cpm-filter mac-filter entry *number* |
| Tree | entry |
| Range | 1 to 131072 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **action**

| | |
|---|---|
| Synopsis | Enter the **action** context |
| Context | **configure** system security cpm-filter mac-filter entry *number* action |
| Tree | action |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **accept**

| | |
|---|---|
| Synopsis | Forward matching packets |
| Context | **configure** system security cpm-filter mac-filter entry *number* action accept |
| Tree | accept |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **accept**, **default**, **drop**, or **queue**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### default

| | |
|---|---|
| Synopsis | Use default action for matching packets |
| Context | **configure** system security cpm-filter mac-filter entry *number* action default |
| Tree | default |
| Notes | The following elements are part of a choice: **accept**, **default**, **drop**, or **queue**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### drop

| | |
|---|---|
| Synopsis | Drop matching packets |
| Context | **configure** system security cpm-filter mac-filter entry *number* action drop |
| Tree | drop |
| Notes | The following elements are part of a choice: **accept**, **default**, **drop**, or **queue**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### queue *reference*

| | |
|---|---|
| Synopsis | Forward matching packets to the CPM hardware queue |
| Context | **configure** system security cpm-filter mac-filter entry *number* action queue *reference* |
| Tree | queue |
| Reference | **configure** system security cpm-queue queue *number* |
| Notes | The following elements are part of a choice: **accept**, **default**, **drop**, or **queue**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### description *description*

| | |
|---|---|
| Synopsis | Text description |


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| | |
|---|---|
| Context | **configure** system security cpm-filter mac-filter entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **log** *reference*

| | |
|---|---|
| Synopsis | Log ID where matching packets are entered |
| Context | **configure** system security cpm-filter mac-filter entry *number* log *reference* |
| Tree | log |
| Reference | **configure** filter log *number* |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **match**

| | |
|---|---|
| Synopsis | Enter the **match** context |
| Context | **configure** system security cpm-filter mac-filter entry *number* match |
| Tree | match |
| Description | Commands in this context specify match criteria for the entry. When the match criteria have been satisfied, the action associated with the entry is executed.<br>If more than one match criterion is configured, all criteria must be met before the action associated with the entry is executed. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **cfm-opcode**

| | |
|---|---|
| Synopsis | Enter the **cfm-opcode** context |
| Context | **configure** system security cpm-filter mac-filter entry *number* match cfm-opcode |
| Tree | cfm-opcode |
| Description | Commands in this context specify match criteria based on the CFM opcode. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **eq** *number*

| | |
|---|---|
| Synopsis | Equal to comparison operator for the CFM opcode |
| Context | **configure** system security cpm-filter mac-filter entry *number* match cfm-opcode eq *number* |
| Tree | eq |
| Range | 0 to 255 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **gt** *number*

| | |
|---|---|
| Synopsis | Greater than comparison operator for the CFM opcode |
| Context | **configure** system security cpm-filter mac-filter entry *number* match cfm-opcode gt *number* |
| Tree | gt |
| Range | 0 to 254 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **lt** *number*

| | |
|---|---|
| Synopsis | Less than comparison operator for the CFM opcode |
| Context | **configure** system security cpm-filter mac-filter entry *number* match cfm-opcode lt *number* |
| Tree | lt |
| Range | 1 to 255 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **range**

| | |
|---|---|
| Synopsis | Enable the **range** context |


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| | |
|---|---|
| Context | **configure** system security cpm-filter mac-filter entry *number* match cfm-opcode range |
| Tree | range |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the Opcode range to match |
| Context | **configure** system security cpm-filter mac-filter entry *number* match cfm-opcode range end *number* |
| Tree | end |
| Range | 1 to 255 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of the OpCode range to match |
| Context | **configure** system security cpm-filter mac-filter entry *number* match cfm-opcode range start *number* |
| Tree | start |
| Range | 0 to 254 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **dst-mac**

| | |
|---|---|
| Synopsis | Enable the **dst-mac** context |
| Context | **configure** system security cpm-filter mac-filter entry *number* match dst-mac |
| Tree | dst-mac |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **address** *mac-address*

| | |
|---|---|
| Synopsis | MAC address used as the match criterion |
| Context | **configure** system security cpm-filter mac-filter entry *number* match dst-mac address *mac-address* |
| Tree | address |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **mask** *mac-address*

| | |
|---|---|
| Synopsis | MAC address mask as the match criterion |
| Context | **configure** system security cpm-filter mac-filter entry *number* match dst-mac mask *mac-address* |
| Tree | mask |
| Default | ff:ff:ff:ff:ff:ff |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **etype** *etype-value*

| | |
|---|---|
| Synopsis | Ethernet type as the match criterion |
| Context | **configure** system security cpm-filter mac-filter entry *number* match etype *etype-value* |
| Tree | etype |
| Description | This command specifies an Ethernet type II Ethertype value to be used as a MAC filter match criterion.<br>The Ethernet type field is used by the Ethernet version-II frames and does not apply to IEEE 802.3 Ethernet frames. |
| String length | 5 to 6 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **frame-type** *keyword*

| | |
|---|---|
| Synopsis | MAC frame type as the match criterion |


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| | |
|---|---|
| Context | **configure** system security cpm-filter mac-filter entry *number* match frame-type *keyword* |
| Tree | frame-type |
| Options | 802dot2-llc, ethernet-ii |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## llc-dsap

| | |
|---|---|
| Synopsis | Enable the **llc-dsap** context |
| Context | **configure** system security cpm-filter mac-filter entry *number* match llc-dsap |
| Tree | llc-dsap |
| Description | Commands in this context specify match criteria based on the Destination Service Access Point (DSAP). |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## dsap *number*

| | |
|---|---|
| Synopsis | 8-bit DSAP as the match criterion |
| Context | **configure** system security cpm-filter mac-filter entry *number* match llc-dsap dsap *number* |
| Tree | dsap |
| Range | 0 to 255 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## mask *number*

| | |
|---|---|
| Synopsis | Mask for DSAP value as the match criterion |
| Context | **configure** system security cpm-filter mac-filter entry *number* match llc-dsap mask *number* |
| Tree | mask |
| Range | 1 to 255 |
| Default | 255 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## llc-ssap

| | |
|---|---|
| Synopsis | Enable the **llc-ssap** context |
| Context | **configure** system security cpm-filter mac-filter entry *number* match llc-ssap |
| Tree | llc-ssap |
| Description | Commands in this context specify match criteria based on the Source Service Access Point (SSAP). |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **mask** *number*

| | |
|---|---|
| Synopsis | Mask for SSAP value as the match criterion |
| Context | **configure** system security cpm-filter mac-filter entry *number* match llc-ssap mask *number* |
| Tree | mask |
| Range | 1 to 255 |
| Default | 255 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **ssap** *number*

| | |
|---|---|
| Synopsis | 8-bit SSAP as the match criterion |
| Context | **configure** system security cpm-filter mac-filter entry *number* match llc-ssap ssap *number* |
| Tree | ssap |
| Range | 0 to 255 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **service** *reference*

| | |
|---|---|
| Synopsis | Service ID used as the match condition |
| Context | **configure** system security cpm-filter mac-filter entry *number* match service *reference* |
| Tree | service |
| Reference | **configure** service vpls *service-name* |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **src-mac**

| | |
|---|---|
| Synopsis | Enable the **src-mac** context |
| Context | **configure** system security cpm-filter mac-filter entry *number* match src-mac |
| Tree | src-mac |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **address** *mac-address*

| | |
|---|---|
| Synopsis | MAC address used as the match criterion |
| Context | **configure** system security cpm-filter mac-filter entry *number* match src-mac address *mac-address* |
| Tree | address |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **mask** *mac-address*

| | |
|---|---|
| Synopsis | MAC address mask as the match criterion |
| Context | **configure** system security cpm-filter mac-filter entry *number* match src-mac mask *mac-address* |
| Tree | mask |
| Default | ff:ff:ff:ff:ff:ff |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### cpm-queue

| | |
|---|---|
| Synopsis | Enter the **cpm-queue** context |
| Context | **configure** system security cpm-queue |
| Tree | cpm-queue |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **queue** [queue-id] *number*

| | |
|---|---|
| Synopsis | Enter the **queue** list instance |
| Context | **configure** system security cpm-queue queue *number* |
| Tree | queue |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### [**queue-id**] *number*

| | |
|---|---|
| Synopsis | CPM queue ID |
| Context | **configure** system security cpm-queue queue *number* |
| Tree | queue |
| Range | 33 to 2000 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **cbs** *number*

| | |
|---|---|
| Synopsis | Buffer size that can be drawn from queue buffer pool |
| Context | **configure** system security cpm-queue queue *number* cbs *number* |
| Tree | cbs |
| Description | This command specifies the amount of buffer that can be drawn from the reserved buffer portion of the buffer pool of the queue. |


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| | |
|---|---|
| Range | 0 to 131072 |
| Units | kilobps |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **mbs** *number*

| | |
|---|---|
| Synopsis | Maximum queue depth to which the queue can grow |
| Context | **configure** system security cpm-queue queue *number* mbs *number* |
| Tree | mbs |
| Range | 0 to 131072 |
| Units | kilobps |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **rate**

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** system security cpm-queue queue *number* rate |
| Tree | rate |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **cir** *(number | keyword)*

| | |
|---|---|
| Synopsis | Amount of bandwidth committed to the queue |
| Context | **configure** system security cpm-queue queue *number* rate cir *(number | keyword)* |
| Tree | cir |
| Range | 0 to 100000000 |
| Units | kilobps |
| Options | max |
| Default | max |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | Peak Information Rate for the queue |
| Context | **configure** system security cpm-queue queue *number* rate pir *(number \| keyword)* |
| Tree | pir |
| Range | 1 to 100000000 |
| Units | kilobps |
| Options | max |
| Default | max |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### cpu-protection

| | |
|---|---|
| Synopsis | Enter the **cpu-protection** context |
| Context | **configure** system security cpu-protection |
| Tree | cpu-protection |
| Description | Commands in this context configure CPU protection policies. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

### ip-src-monitoring

| | |
|---|---|
| Synopsis | Enter the **ip-src-monitoring** context |
| Context | **configure** system security cpu-protection ip-src-monitoring |
| Tree | ip-src-monitoring |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

### included-protocols

| | |
|---|---|
| Synopsis | Enter the **included-protocols** context |
| Context | **configure** system security cpu-protection ip-src-monitoring included-protocols |
| Tree | included-protocols |


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| | |
|---|---|
| Description | Commands in this context specify the protocols included in IP source monitoring. The protocol packets will be subject to the per-source-rate of CPU protection policies.<br>This configuration applies system wide and applies to CPU protection globally. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

## **dhcp** *boolean*

| | |
|---|---|
| Synopsis | Include extracted DHCP packets for IP source monitoring |
| Context | **configure** system security cpu-protection ip-src-monitoring included-protocols dhcp *boolean* |
| Tree | dhcp |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

## **gtp** *boolean*

| | |
|---|---|
| Synopsis | Include extracted GTP packets for IP source monitoring |
| Context | **configure** system security cpu-protection ip-src-monitoring included-protocols gtp *boolean* |
| Tree | gtp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

## **icmp** *boolean*

| | |
|---|---|
| Synopsis | Include extracted ICMP packets for IP source monitoring |
| Context | **configure** system security cpu-protection ip-src-monitoring included-protocols icmp *boolean* |
| Tree | icmp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |


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### **igmp** *boolean*

| | |
|---|---|
| Synopsis | Include extracted IGMP packets for IP source monitoring |
| Context | **configure** system security cpu-protection ip-src-monitoring included-protocols igmp *boolean* |
| Tree | igmp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

### **link-specific-rate** *(number | keyword)*

| | |
|---|---|
| Synopsis | Packet arrival rate limit for link level protocols |
| Context | **configure** system security cpu-protection link-specific-rate *(number \| keyword)* |
| Tree | link-specific-rate |
| Description | This command configures a link-specific rate for CPU protection. The limit is applied to all ports within the system. The CPU receives no more than the configured packet rate for all link level protocols, such as LACP, from any one port.<br>The measurement is cleared each second and is based on the ingress port. |
| Range | 1 to 65535 |
| Units | packets per second |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

### **policy** [policy-id] *number*

| | |
|---|---|
| Synopsis | Enter the **policy** list instance |
| Context | **configure** system security cpu-protection policy *number* |
| Tree | policy |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

### [**policy-id**] *number*

| | |
|---|---|
| Synopsis | Policy ID |


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| | |
|---|---|
| Context | **configure** system security cpu-protection policy *number* |
| Tree | policy |
| Range | 1 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

## **alarm** *boolean*

| | |
|---|---|
| Synopsis | Generate an event when the rate is exceeded |
| Context | **configure** system security cpu-protection policy *number* alarm *boolean* |
| Tree | alarm |
| Description | When configured to **true**, an event is generated when the rate is exceeded. The event includes information about the offending source. Only one event is generated per monitor period.<br>When configured to **false**, notifications are disabled. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** system security cpu-protection policy *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

## **eth-cfm**

| | |
|---|---|
| Synopsis | Enter the **eth-cfm** context |
| Context | **configure** system security cpu-protection policy *number* eth-cfm |
| Tree | eth-cfm |


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| | |
|---|---|
| Description | Commands in this context configure CPU policy entries that determine match criteria and overall arrival rate of the Ethernet Connectivity and Fault Management (ETH-CFM) packets at the CPU. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

### **entry** [id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** system security cpu-protection policy *number* eth-cfm entry *number* |
| Tree | entry |
| Max. instances | 10 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

### [**id**] *number*

| | |
|---|---|
| Synopsis | Entry ID |
| Context | **configure** system security cpu-protection policy *number* eth-cfm entry *number* |
| Tree | entry |
| Range | 1 to 100 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

### **level** start *number* end *number*

| | |
|---|---|
| Synopsis | Add a list entry for **level** |
| Context | **configure** system security cpu-protection policy *number* eth-cfm entry *number* level start *number* end *number* |
| Tree | level |
| Description | Commands in this context specify the range of domain levels for the match criterion. |
| Min. instances | 1 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

### **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of the level range |
| Context | **configure** system security cpu-protection policy *number* eth-cfm entry *number* level start *number* end *number* |
| Tree | level |
| Range | 0 to 7 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

### **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the level range |
| Context | **configure** system security cpu-protection policy *number* eth-cfm entry *number* level start *number* end *number* |
| Tree | level |
| Range | 0 to 7 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

### **opcode** start *number* end *number*

| | |
|---|---|
| Synopsis | Add a list entry for **opcode** |
| Context | **configure** system security cpu-protection policy *number* eth-cfm entry *number* opcode start *number* end *number* |
| Tree | opcode |
| Description | Commands in this context specify the range of operational codes (that identify the application) for the match criterion. |
| Min. instances | 1 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |


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### **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of the OpCode range |
| Context | **configure** system security cpu-protection policy *number* eth-cfm entry *number* opcode start *number* end *number* |
| Tree | opcode |
| Range | 0 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

### **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the OpCode range |
| Context | **configure** system security cpu-protection policy *number* eth-cfm entry *number* opcode start *number* end *number* |
| Tree | opcode |
| Range | 0 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

### **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | Packet arrival rate limit |
| Context | **configure** system security cpu-protection policy *number* eth-cfm entry *number* pir *(number | keyword)* |
| Tree | pir |
| Range | 0 to 65534 |
| Units | packets per second |
| Options | max |
| Default | max |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |


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### out-profile-rate

| | |
|---|---|
| Synopsis | Enter the **out-profile-rate** context |
| Context | **configure** system security cpu-protection policy *number* out-profile-rate |
| Tree | out-profile-rate |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

### log-events *boolean*

| | |
|---|---|
| Synopsis | Generate a log event when the packet rate is exceeded |
| Context | **configure** system security cpu-protection policy *number* out-profile-rate log-events *boolean* |
| Tree | log-events |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

### pir *(number | keyword)*

| | |
|---|---|
| Synopsis | Packet arrival rate limit |
| Context | **configure** system security cpu-protection policy *number* out-profile-rate pir *(number | keyword)* |
| Tree | pir |
| Range | 1 to 65534 |
| Units | packets per second |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

### overall-rate *(number | keyword)*

| | |
|---|---|
| Synopsis | Packet arrival rate limit for all packets |
| Context | **configure** system security cpu-protection policy *number* overall-rate *(number | keyword)* |
| Tree | overall-rate |
| Range | 1 to 65534 |


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| | |
|---|---|
| Units | packets per second |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

### per-source-parameters

| | |
|---|---|
| Synopsis | Enter the **per-source-parameters** context |
| Context | **configure** system security cpu-protection policy *number* per-source-parameters |
| Tree | per-source-parameters |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

### ip-src-monitoring

| | |
|---|---|
| Synopsis | Enter the **ip-src-monitoring** context |
| Context | **configure** system security cpu-protection policy *number* per-source-parameters ip-src-monitoring |
| Tree | ip-src-monitoring |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

### limit-dhcp-ci-addr-zero *boolean*

| | |
|---|---|
| Synopsis | Apply rate limiting to packets with client IP address 0 |
| Context | **configure** system security cpu-protection policy *number* per-source-parameters ip-src-monitoring limit-dhcp-ci-addr-zero *boolean* |
| Tree | limit-dhcp-ci-addr-zero |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

### per-source-rate *(number | keyword)*

| | |
|---|---|
| Synopsis | Per-source packet arrival rate limit |


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| | |
|---|---|
| Context | **configure** system security cpu-protection policy *number* per-source-rate *(number \| keyword)* |
| Tree | per-source-rate |
| Description | This command configures the per-source packet arrival rate limit.<br>A source is defined as a unique combination of SAP and MAC source address or SAP and source IP address. The CPU receives no more than the specified packet rate from each source. The measurement is cleared every second.<br>This configuration is applicable only if the policy is assigned to an interface (such as SAPs, subscriber interfaces, and spoke SDPs), and MAC monitoring or IP source monitoring is specified in the CPU protection configuration of the interface. |
| Range | 1 to 65534 |
| Units | packets per second |
| Options | max |
| Default | max |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

## port-overall-rate

| | |
|---|---|
| Synopsis | Enter the **port-overall-rate** context |
| Context | **configure** system security cpu-protection port-overall-rate |
| Tree | port-overall-rate |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

## action-low-priority *boolean*

| | |
|---|---|
| Synopsis | Mark packets that exceed the rate as low-priority |
| Context | **configure** system security cpu-protection port-overall-rate action-low-priority *boolean* |
| Tree | action-low-priority |
| Description | When configured to **true**, packets that exceed the per-port packet arrival rate limit are marked as low priority for preferential discard later (if there is congestion in the control plane) rather than discarded immediately. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |


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### **pir** *(number | keyword)*

| | |
|---|---|
| Synopsis | Per-port packet arrival rate limit |
| Context | **configure** system security cpu-protection port-overall-rate pir *(number \| keyword)* |
| Tree | pir |
| Range | 1 to 65535 |
| Units | packets per second |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

### **protocol-protection**

| | |
|---|---|
| Synopsis | Enable the **protocol-protection** context |
| Context | **configure** system security cpu-protection protocol-protection |
| Tree | protocol-protection |
| Description | When enabled, the network processor on the CPM discards all packets received for protocols that are not configured on the interface. This action helps to mitigate DoS attacks by filtering invalid control traffic before it ingresses the CPU. For example, if IS-IS is not configured on an interface, protocol protection discards any IS-IS packets received on the interface.<br>Commands in this context further define the action when the context is enabled. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

### **allow-sham-links** *boolean*

| | |
|---|---|
| Synopsis | Allow OSPF sham link traffic |
| Context | **configure** system security cpu-protection protocol-protection allow-sham-links *boolean* |
| Tree | allow-sham-links |
| Description | When configured to **true**, tunneled OSPF packets received over the backbone network must be explicitly allowed when OSPF sham links form an adjacency over the MPLS-VPRN backbone network. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |


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### **block-pim-tunneled** *boolean*

| | |
|---|---|
| Synopsis | Block extraction and processing of PIM packets |
| Context | **configure** system security cpu-protection protocol-protection block-pim-tunneled *boolean* |
| Tree | block-pim-tunneled |
| Description | When configured to **true**, PIM packets arriving at the SR OS node inside a tunnel (for example, MPLS or GRE) on a network interface are blocked and not processed. Traffic is not switched from the (*,G) to the (S,G) tree for PIM in an mVPN on the egress DR. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR-7/12/12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

### **dist-cpu-protection**

| | |
|---|---|
| Synopsis | Enter the **dist-cpu-protection** context |
| Context | **configure** system security dist-cpu-protection |
| Tree | dist-cpu-protection |
| Description | Commands in this context configure distributed CPU protection (DCP) attributes. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **policy** [policy-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **policy** list instance |
| Context | **configure** system security dist-cpu-protection policy *named-item* |
| Tree | policy |
| Description | Commands in this context configure the attributes of DCP policies. These policies can be applied to objects such as SAPs, network interfaces or ports |
| Max. instances | 130 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**policy-name**] *named-item*

| | |
|---|---|
| Synopsis | Policy name |
| Context | **configure** system security dist-cpu-protection policy *named-item* |
| Tree | policy |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** system security dist-cpu-protection policy *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **local-monitoring-policer** [policer-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **local-monitoring-policer** list instance |
| Context | **configure** system security dist-cpu-protection policy *named-item* local-monitoring-policer *named-item* |
| Tree | local-monitoring-policer |
| Max. instances | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**policer-name**] *named-item*

| | |
|---|---|
| Synopsis | Local monitoring policer name |
| Context | **configure** system security dist-cpu-protection policy *named-item* local-monitoring-policer *named-item* |
| Tree | local-monitoring-policer |


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| | |
|---|---|
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** system security dist-cpu-protection policy *named-item* local-monitoring-policer *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **exceed-action** *keyword*

| | |
|---|---|
| Synopsis | Action taken when policer rates are exceeded |
| Context | **configure** system security dist-cpu-protection policy *named-item* local-monitoring-policer *named-item* exceed-action *keyword* |
| Tree | exceed-action |
| Description | This command specifies the action taken on the extracted control packets when the configured policer rates are exceeded. |
| Options | discard, low-priority, none |
| Default | none |
| Introduced | 16.0.R1 |
| Platforms | All |

### **log-events** *keyword*

| | |
|---|---|
| Synopsis | Control of log events creation for status and activity |
| Context | **configure** system security dist-cpu-protection policy *named-item* local-monitoring-policer *named-item* log-events *keyword* |
| Tree | log-events |
| Description | This command controls the creation of log events related to the status and activity of the local monitoring policer. |


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| | |
|---|---|
| Options | false, true, verbose |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

## rate

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** system security dist-cpu-protection policy *named-item* local-monitoring-policer *named-item* rate |
| Tree | rate |
| Description | Commands in this context specify the rate and burst tolerance for the policer.<br>The actual hardware may not be able to perfectly rate limit to the exact configured parameters. In this case, the configured parameters will be adapted to the closest supported rate. |
| Introduced | 16.0.R1 |
| Platforms | All |

## kbps

| | |
|---|---|
| Synopsis | Enter the **kbps** context |
| Context | **configure** system security dist-cpu-protection policy *named-item* local-monitoring-policer *named-item* rate kbps |
| Tree | kbps |
| Notes | The following elements are part of a choice: **kbps** or **packets**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **limit** *(keyword | number)*

| | |
|---|---|
| Synopsis | Rate limit |
| Context | **configure** system security dist-cpu-protection policy *named-item* local-monitoring-policer *named-item* rate kbps limit *(keyword | number)* |
| Tree | limit |
| Range | 1 to 20000000 |
| Units | kilobps |


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| | |
|---|---|
| Options | max |
| Default | max |
| Introduced | 16.0.R1 |
| Platforms | All |

## **mbs** *number*

| | |
|---|---|
| Synopsis | Tolerance for the rate |
| Context | **configure** system security dist-cpu-protection policy *named-item* local-monitoring-policer *named-item* rate kbps mbs *number* |
| Tree | mbs |
| Range | 0 to 4194304 |
| Units | bytes |
| Introduced | 16.0.R1 |
| Platforms | All |

## **packets**

| | |
|---|---|
| Synopsis | Enter the **packets** context |
| Context | **configure** system security dist-cpu-protection policy *named-item* local-monitoring-policer *named-item* rate packets |
| Tree | packets |
| Notes | The following elements are part of a choice: **kbps** or **packets**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **initial-delay** *number*

| | |
|---|---|
| Synopsis | Additional packets allowed in an initial burst |
| Context | **configure** system security dist-cpu-protection policy *named-item* local-monitoring-policer *named-item* rate packets initial-delay *number* |
| Tree | initial-delay |
| Description | This command specifies the number of packets allowed in an initial burst (or a burst after the policer bucket has drained to zero) in addition to the packets per interval limit. The typical setting would be a value equal to the number of received packets in several full handshakes or negotiations of the protocol. |
| Range | 0 to 255 |


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| | |
|---|---|
| Units | packets |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **limit** *(keyword | number)*

| | |
|---|---|
| Synopsis | Packets per interval limit |
| Context | **configure** system security dist-cpu-protection policy *named-item* local-monitoring-policer *named-item* rate packets limit *(keyword | number)* |
| Tree | limit |
| Range | 0 to 8000 |
| Units | packets per interval |
| Options | max |
| Default | max |
| Introduced | 16.0.R1 |
| Platforms | All |

### **within** *number*

| | |
|---|---|
| Synopsis | Measurement interval for packets rate |
| Context | **configure** system security dist-cpu-protection policy *named-item* local-monitoring-policer *named-item* rate packets within *number* |
| Tree | within |
| Range | 1 to 32767 |
| Units | seconds |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **protocol** [protocol-name] *keyword*

| | |
|---|---|
| Synopsis | Enter the **protocol** list instance |
| Context | **configure** system security dist-cpu-protection policy *named-item* protocol *keyword* |
| Tree | protocol |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## [**protocol-name**] *keyword*

| | |
|---|---|
| Synopsis | Protocol name |
| Context | **configure** system security dist-cpu-protection policy *named-item* protocol *keyword* |
| Tree | protocol |
| Options | arp, dhcp, http-redirect, icmp, igmp, mld, ndis, pppoe-pppoa, all-unspecified, mpls-ttl, bfd-cpm, bgp, eth-cfm, isis, ldp, ospf, pim, rsvp, icmp-ping-check, lacp, vrrp, multi-chassis, multi-chassis-sync, bfd, ftp, icmp-v4, icmp-v6, l3-to-my-ipv4, l3-to-my-ipv6, lsp-ping, mc-lag, mcast-snooping, radius, rip, sbfd-reflector, snmp, ssh, stp, tacacs, telnet, tftp, twamp |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## dynamic-parameters

| | |
|---|---|
| Synopsis | Enter the **dynamic-parameters** context |
| Context | **configure** system security dist-cpu-protection policy *named-item* protocol *keyword* dynamic-parameters |
| Tree | dynamic-parameters |
| Introduced | 16.0.R1 |
| Platforms | All |

## detection-time *number*

| | |
|---|---|
| Synopsis | Minimum time the dynamic policer remains allocated |
| Context | **configure** system security dist-cpu-protection policy *named-item* protocol *keyword* dynamic-parameters detection-time *number* |
| Tree | detection-time |
| Range | 1 to 128000 |
| Units | seconds |
| Default | 30 |
| Introduced | 16.0.R1 |
| Platforms | All |


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## exceed-action

| | |
|---|---|
| Synopsis | Enter the **exceed-action** context |
| Context | **configure** system security dist-cpu-protection policy *named-item* protocol *keyword* dynamic-parameters exceed-action |
| Tree | exceed-action |
| Description | Commands in this context specify the settings for the scenario when the configured policer rates are exceeded. |
| Introduced | 16.0.R1 |
| Platforms | All |

## action *keyword*

| | |
|---|---|
| Synopsis | Action taken on control packets when rates are exceeded |
| Context | **configure** system security dist-cpu-protection policy *named-item* protocol *keyword* dynamic-parameters exceed-action action *keyword* |
| Tree | action |
| Options | discard, low-priority, none |
| Default | none |
| Introduced | 16.0.R1 |
| Platforms | All |

## hold-down *(keyword | number)*

| | |
|---|---|
| Synopsis | Hold down behavior |
| Context | **configure** system security dist-cpu-protection policy *named-item* protocol *keyword* dynamic-parameters exceed-action hold-down *(keyword \| number)* |
| Tree | hold-down |
| Description | This command specifies the behavior when the system detects that an enforcement policer has marked or discarded one or more packets and there is no action specified for the scenario when the rates are exceeded.<br>The hold time condition is cleared after the specified time has expired. The detection time (the minimum time that the policer remains allocated) begins after the hold down is complete. The hold down behavior is not applicable to a local monitoring policer.<br>An indefinite hold down behavior must be cleared using the **tools perform security dist-cpu-protection release-hold-down** command. |
| Range | 1 to 10080 |
| Units | seconds |


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| | |
|---|---|
| Options | indefinite, none |
| Default | none |
| Introduced | 16.0.R1 |
| Platforms | All |

## **log-events** *keyword*

| | |
|---|---|
| Synopsis | Control of log events creation for status and activity |
| Context | **configure** system security dist-cpu-protection policy *named-item* protocol *keyword* dynamic-parameters log-events *keyword* |
| Tree | log-events |
| Description | This command controls the creation of log events related to the status and activity of the local monitoring policer. |
| Options | false, true, verbose |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

## **rate**

| | |
|---|---|
| Synopsis | Enter the **rate** context |
| Context | **configure** system security dist-cpu-protection policy *named-item* protocol *keyword* dynamic-parameters rate |
| Tree | rate |
| Description | Commands in this context specify the rate and burst tolerance for the policer.<br>The actual hardware may not be able to perfectly rate limit to the exact configured parameters. In this case, the configured parameters will be adapted to the closest supported rate. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **kbps**

| | |
|---|---|
| Synopsis | Enter the **kbps** context |
| Context | **configure** system security dist-cpu-protection policy *named-item* protocol *keyword* dynamic-parameters rate kbps |
| Tree | kbps |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **kbps** or **packets**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **limit** *(keyword | number)*

| | |
|---|---|
| Synopsis | Rate limit |
| Context | **configure** system security dist-cpu-protection policy *named-item* protocol *keyword* dynamic-parameters rate kbps limit *(keyword \| number)* |
| Tree | limit |
| Range | 1 to 20000000 |
| Units | kilobps |
| Options | max |
| Default | max |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mbs** *number*

| | |
|---|---|
| Synopsis | Tolerance for the rate |
| Context | **configure** system security dist-cpu-protection policy *named-item* protocol *keyword* dynamic-parameters rate kbps mbs *number* |
| Tree | mbs |
| Range | 0 to 4194304 |
| Units | bytes |
| Introduced | 16.0.R1 |
| Platforms | All |

### **packets**

| | |
|---|---|
| Synopsis | Enter the **packets** context |
| Context | **configure** system security dist-cpu-protection policy *named-item* protocol *keyword* dynamic-parameters rate packets |
| Tree | packets |
| Notes | The following elements are part of a choice: **kbps** or **packets**. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **initial-delay** *number*

| | |
|---|---|
| Synopsis | Additional packets allowed in an initial burst |
| Context | **configure** system security dist-cpu-protection policy *named-item* protocol *keyword* dynamic-parameters rate packets initial-delay *number* |
| Tree | initial-delay |
| Description | This command specifies the number of packets allowed in an initial burst (or a burst after the policer bucket has drained to zero) in addition to the packets per interval limit. The typical setting would be a value equal to the number of received packets in several full handshakes or negotiations of the protocol. |
| Range | 0 to 255 |
| Units | packets |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **limit** *(keyword | number)*

| | |
|---|---|
| Synopsis | Packets per interval limit |
| Context | **configure** system security dist-cpu-protection policy *named-item* protocol *keyword* dynamic-parameters rate packets limit *(keyword \| number)* |
| Tree | limit |
| Range | 0 to 8000 |
| Units | packets per interval |
| Options | max |
| Default | max |
| Introduced | 16.0.R1 |
| Platforms | All |

### **within** *number*

| | |
|---|---|
| Synopsis | Measurement interval for packets rate |
| Context | **configure** system security dist-cpu-protection policy *named-item* protocol *keyword* dynamic-parameters rate packets within *number* |
| Tree | within |


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| | |
|---|---|
| Range | 1 to 32767 |
| Units | seconds |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

## enforcement

| | |
|---|---|
| Synopsis | Enter the **enforcement** context |
| Context | **configure** system security dist-cpu-protection policy *named-item* protocol *keyword* enforcement |
| Tree | enforcement |
| Introduced | 16.0.R1 |
| Platforms | All |

## dynamic

| | |
|---|---|
| Synopsis | Enter the **dynamic** context |
| Context | **configure** system security dist-cpu-protection policy *named-item* protocol *keyword* enforcement dynamic |
| Tree | dynamic |
| Notes | The following elements are part of a choice: **dynamic**, **dynamic-local-mon-bypass**, **shared**, or **static**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## mon-policer-name *reference*

| | |
|---|---|
| Synopsis | Dynamic enforcement policer for the protocol |
| Context | **configure** system security dist-cpu-protection policy *named-item* protocol *keyword* enforcement dynamic mon-policer-name *reference* |
| Tree | mon-policer-name |
| Description | This command specifies the dynamic enforcement policer that is instantiated when the associated local monitoring policer is determined to be in a nonconforming state (at the end of a minimum monitoring time of 60 seconds to reduce thrashing). |
| Reference | **configure** system security dist-cpu-protection policy *named-item* local-monitoring-policer *named-item* |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## dynamic-local-mon-bypass

| | |
|---|---|
| Synopsis | Do not include packets in the local monitoring function |
| Context | **configure** system security dist-cpu-protection policy *named-item* protocol *keyword* enforcement dynamic-local-mon-bypass |
| Tree | dynamic-local-mon-bypass |
| Description | When configured, packets from the protocol are not included in the local monitoring function and the dynamic enforcement policer is not instantiated for the protocol. |
| Notes | The following elements are part of a choice: **dynamic**, **dynamic-local-mon-bypass**, **shared**, or **static**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## static

| | |
|---|---|
| Synopsis | Enter the **static** context |
| Context | **configure** system security dist-cpu-protection policy *named-item* protocol *keyword* enforcement static |
| Tree | static |
| Notes | The following elements are part of a choice: **dynamic**, **dynamic-local-mon-bypass**, **shared**, or **static**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## policer-name *reference*

| | |
|---|---|
| Synopsis | Static policer enforced by the protocol |
| Context | **configure** system security dist-cpu-protection policy *named-item* protocol *keyword* enforcement static policer-name *reference* |
| Tree | policer-name |
| Reference | **configure** system security dist-cpu-protection policy *named-item* static-policer *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **static-policer** [policer-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **static-policer** list instance |
| Context | **configure** system security dist-cpu-protection policy *named-item* static-policer *named-item* |
| Tree | static-policer |
| Description | Commands in this context configure a static enforcement policer that can be referenced by one or more protocols in the policy. When a policer is referenced by a protocol, the policer is instantiated for each object (for example, a SAP or network interface) that is created and references the policer.<br>If no policer resources are available on the associated card or FP, the object is not created. |
| Max. instances | 26 |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**policer-name**] *named-item*

| | |
|---|---|
| Synopsis | Static policer name |
| Context | **configure** system security dist-cpu-protection policy *named-item* static-policer *named-item* |
| Tree | static-policer |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** system security dist-cpu-protection policy *named-item* static-policer *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **detection-time** *number*

| | |
|---|---|
| Synopsis | Minimum time the dynamic policer remains allocated |
| Context | **configure** system security dist-cpu-protection policy *named-item* static-policer *named-item* detection-time *number* |
| Tree | detection-time |
| Range | 1 to 128000 |
| Units | seconds |
| Default | 30 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **exceed-action**

| | |
|---|---|
| Synopsis | Enter the **exceed-action** context |
| Context | **configure** system security dist-cpu-protection policy *named-item* static-policer *named-item* exceed-action |
| Tree | exceed-action |
| Description | Commands in this context specify the settings for the scenario when the configured policer rates are exceeded. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **action** *keyword*

| | |
|---|---|
| Synopsis | Action taken on control packets when rates are exceeded |
| Context | **configure** system security dist-cpu-protection policy *named-item* static-policer *named-item* exceed-action action *keyword* |
| Tree | action |
| Options | discard, low-priority, none |
| Default | none |
| Introduced | 16.0.R1 |
| Platforms | All |


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## **hold-down** *(keyword | number)*

| | |
|---|---|
| Synopsis | Hold down behavior |
| Context | **configure** system security dist-cpu-protection policy *named-item* static-policer *named-item* exceed-action hold-down *(keyword \| number)* |
| Tree | hold-down |
| Description | This command specifies the behavior when the system detects that an enforcement policer has marked or discarded one or more packets and there is no action specified for the scenario when the rates are exceeded.<br>The hold time condition is cleared after the specified time has expired. The detection time (the minimum time that the policer remains allocated) begins after the hold down is complete. The hold down behavior is not applicable to a local monitoring policer.<br>An indefinite hold down behavior must be cleared using the **tools perform security dist-cpu-protection release-hold-down** command. |
| Range | 1 to 10080 |
| Units | seconds |
| Options | indefinite, none |
| Default | none |
| Introduced | 16.0.R1 |
| Platforms | All |

## **log-events** *keyword*

| | |
|---|---|
| Synopsis | Control of log events creation for status and activity |
| Context | **configure** system security dist-cpu-protection policy *named-item* static-policer *named-item* log-events *keyword* |
| Tree | log-events |
| Description | This command controls the creation of log events related to the status and activity of the local monitoring policer. |
| Options | false, true, verbose |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

## **rate**

| | |
|---|---|
| Synopsis | Enter the **rate** context |


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| | |
|---|---|
| Context | **configure** system security dist-cpu-protection policy *named-item* static-policer *named-item* rate |
| Tree | rate |
| Description | Commands in this context specify the rate and burst tolerance for the policer.<br>The actual hardware may not be able to perfectly rate limit to the exact configured parameters. In this case, the configured parameters will be adapted to the closest supported rate. |
| Introduced | 16.0.R1 |
| Platforms | All |

## kbps

| | |
|---|---|
| Synopsis | Enter the **kbps** context |
| Context | **configure** system security dist-cpu-protection policy *named-item* static-policer *named-item* rate kbps |
| Tree | kbps |
| Notes | The following elements are part of a choice: **kbps** or **packets**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## limit *(keyword | number)*

| | |
|---|---|
| Synopsis | Rate limit |
| Context | **configure** system security dist-cpu-protection policy *named-item* static-policer *named-item* rate kbps limit *(keyword | number)* |
| Tree | limit |
| Range | 1 to 20000000 |
| Units | kilobps |
| Options | max |
| Default | max |
| Introduced | 16.0.R1 |
| Platforms | All |

## mbs *number*

| | |
|---|---|
| Synopsis | Tolerance for the rate |


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| | |
|---|---|
| Context | **configure** system security dist-cpu-protection policy *named-item* static-policer *named-item* rate kbps mbs *number* |
| Tree | mbs |
| Range | 0 to 4194304 |
| Units | bytes |
| Introduced | 16.0.R1 |
| Platforms | All |

## packets

| | |
|---|---|
| Synopsis | Enter the **packets** context |
| Context | **configure** system security dist-cpu-protection policy *named-item* static-policer *named-item* rate packets |
| Tree | packets |
| Notes | The following elements are part of a choice: **kbps** or **packets**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## initial-delay *number*

| | |
|---|---|
| Synopsis | Additional packets allowed in an initial burst |
| Context | **configure** system security dist-cpu-protection policy *named-item* static-policer *named-item* rate packets initial-delay *number* |
| Tree | initial-delay |
| Description | This command specifies the number of packets allowed in an initial burst (or a burst after the policer bucket has drained to zero) in addition to the packets per interval limit. The typical setting would be a value equal to the number of received packets in several full handshakes or negotiations of the protocol. |
| Range | 0 to 255 |
| Units | packets |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

## limit *(keyword | number)*

| | |
|---|---|
| Synopsis | Packets per interval limit |


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| | |
|---|---|
| Context | **configure** system security dist-cpu-protection policy *named-item* static-policer *named-item* rate packets limit *(keyword \| number)* |
| Tree | limit |
| Range | 0 to 8000 |
| Units | packets per interval |
| Options | max |
| Introduced | 16.0.R1 |
| Platforms | All |

### **within** *number*

| | |
|---|---|
| Synopsis | Measurement interval for packets rate |
| Context | **configure** system security dist-cpu-protection policy *named-item* static-policer *named-item* rate packets within *number* |
| Tree | within |
| Range | 1 to 32767 |
| Units | seconds |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **type** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Policy type |
| Context | **configure** system security dist-cpu-protection policy *named-item* type *keyword* |
| Tree | type |
| Options | access-network, port |
| Introduced | 21.5.R1 |
| Platforms | All |


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## dot1x

| | |
|---|---|
| Synopsis | Enter the **dot1x** context |
| Context | **configure** system security dot1x |
| Tree | dot1x |
| Introduced | 16.0.R1 |
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of 802.1x network access control |
| Context | **configure** system security dot1x admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

## **radius-policy** [policy-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **radius-policy** list instance |
| Context | **configure** system security dot1x radius-policy *named-item* |
| Tree | radius-policy |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**policy-name**] *named-item*

| | |
|---|---|
| Synopsis | RADIUS server policy name for 802.1X authentication |
| Context | **configure** system security dot1x radius-policy *named-item* |
| Tree | radius-policy |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the server for authentication |
| Context | **configure** system security dot1x radius-policy *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **retry** *number*

| | |
|---|---|
| Synopsis | Number of RADIUS requests toward the same RADIUS server |
| Context | **configure** system security dot1x radius-policy *named-item* retry *number* |
| Tree | retry |
| Range | 1 to 10 |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **server** [server-index] *number*

| | |
|---|---|
| Synopsis | Enter the **server** list instance |
| Context | **configure** system security dot1x radius-policy *named-item* server *number* |
| Tree | server |
| Max. instances | 5 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**server-index**] *number*

| | |
|---|---|
| Synopsis | RADIUS server index |
| Context | **configure** system security dot1x radius-policy *named-item* server *number* |
| Tree | server |


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| | |
|---|---|
| Range | 1 to 5 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **accounting-port** *number*

| | |
|---|---|
| Synopsis | UDP port to contact the RADIUS server for accounting |
| Context | **configure** system security dot1x radius-policy *named-item* server *number* accounting-port *number* |
| Tree | accounting-port |
| Range | 1 to 65535 |
| Default | 1813 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IP address of the RADIUS dot1x server |
| Context | **configure** system security dot1x radius-policy *named-item* server *number* address *ipv4-unicast-address* |
| Tree | address |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **authentication-port** *number*

| | |
|---|---|
| Synopsis | UDP port to contact RADIUS server for authentication |
| Context | **configure** system security dot1x radius-policy *named-item* server *number* authentication-port *number* |
| Tree | authentication-port |
| Range | 1 to 65535 |
| Default | 1812 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **secret** *encrypted-leaf*

| | |
|---|---|
| Synopsis | Secret key associated with the RADIUS server |
| Context | **configure** system security dot1x radius-policy *named-item* server *number* secret *encrypted-leaf* |
| Tree | secret |
| String length | 1 to 54 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **type** *keyword*

| | |
|---|---|
| Synopsis | RADIUS server type |
| Context | **configure** system security dot1x radius-policy *named-item* server *number* type *keyword* |
| Tree | type |
| Options | authorization, accounting, combined |
| Default | authorization |
| Introduced | 16.0.R1 |
| Platforms | All |

### **source-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | Source address of the RADIUS packet |
| Context | **configure** system security dot1x radius-policy *named-item* source-address *ipv4-unicast-address* |
| Tree | source-address |
| Introduced | 16.0.R1 |
| Platforms | All |

### **timeout** *number*

| | |
|---|---|
| Synopsis | Time to wait for a response from the RADIUS server |
| Context | **configure** system security dot1x radius-policy *named-item* timeout *number* |
| Tree | timeout |
| Range | 1 to 90 |


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| | |
|---|---|
| Units | seconds |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ftp-server** *boolean*

| | |
|---|---|
| Synopsis | Enable FTP servers running on the system |
| Context | **configure** system security ftp-server *boolean* |
| Tree | ftp-server |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### hash-control

| | |
|---|---|
| Synopsis | Enter the **hash-control** context |
| Context | **configure** system security hash-control |
| Tree | hash-control |
| Introduced | 16.0.R4 |
| Platforms | All |

### management-interface

| | |
|---|---|
| Synopsis | Enter the **management-interface** context |
| Context | **configure** system security hash-control management-interface |
| Tree | management-interface |
| Description | Commands in this context configure encryption parameters for different management interfaces. |
| Introduced | 16.0.R4 |
| Platforms | All |

### classic-cli

| | |
|---|---|
| Synopsis | Enter the **classic-cli** context |


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| | |
|---|---|
| Context | **configure** system security hash-control management-interface classic-cli |
| Tree | classic-cli |
| Introduced | 16.0.R4 |
| Platforms | All |

## **read-algorithm** *keyword*

| | |
|---|---|
| Synopsis | Input encryption algorithm for configuration secrets |
| Context | **configure** system security hash-control management-interface classic-cli read-algorithm *keyword* |
| Tree | read-algorithm |
| Description | This command specifies how encrypted configuration secrets are interpreted and which encryption types are accepted when secrets are input into the system or read from a configuration file (for example, at system bootup time). |
| Options | all-hash, hash, hash2, custom |
| Default | all-hash |
| Introduced | 16.0.R4 |
| Platforms | All |

## **write-algorithm** *keyword*

| | |
|---|---|
| Synopsis | Output encryption algorithm for configuration secrets |
| Context | **configure** system security hash-control management-interface classic-cli write-algorithm *keyword* |
| Tree | write-algorithm |
| Description | This command specifies the format of the output for encrypted configuration secrets (for example, in the saved configuration file, or in the output of the **info** or **show** commands). |
| Options | cleartext, hash, hash2, custom |
| Default | hash2 |
| Introduced | 16.0.R4 |
| Platforms | All |

## **grpc**

| | |
|---|---|
| Synopsis | Enter the **grpc** context |
| Context | **configure** system security hash-control management-interface grpc |


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| | |
|---|---|
| Tree | grpc |
| Introduced | 16.0.R4 |
| Platforms | All |

## **hash-algorithm** *keyword*

| | |
|---|---|
| Synopsis | Encryption algorithm for configuration secrets |
| Context | **configure** system security hash-control management-interface grpc hash-algorithm *keyword* |
| Tree | hash-algorithm |
| Description | This command specifies the format of the input and output for encrypted configuration secrets. |
| Options | cleartext, hash, hash2, custom |
| Default | hash2 |
| Introduced | 16.0.R4 |
| Platforms | All |

## **md-cli**

| | |
|---|---|
| Synopsis | Enter the **md-cli** context |
| Context | **configure** system security hash-control management-interface md-cli |
| Tree | md-cli |
| Introduced | 16.0.R4 |
| Platforms | All |

## **hash-algorithm** *keyword*

| | |
|---|---|
| Synopsis | Encryption algorithm for configuration secrets |
| Context | **configure** system security hash-control management-interface md-cli hash-algorithm *keyword* |
| Tree | hash-algorithm |
| Description | This command specifies the format of the input and output for encrypted configuration secrets. |
| Options | cleartext, hash, hash2, custom |
| Default | hash2 |
| Introduced | 16.0.R4 |


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| | |
|---|---|
| Platforms | All |

## netconf

| | |
|---|---|
| Synopsis | Enter the **netconf** context |
| Context | **configure** system security hash-control management-interface netconf |
| Tree | netconf |
| Introduced | 16.0.R4 |
| Platforms | All |

## hash-algorithm *keyword*

| | |
|---|---|
| Synopsis | Encryption algorithm for configuration secrets |
| Context | **configure** system security hash-control management-interface netconf hash-algorithm *keyword* |
| Tree | hash-algorithm |
| Description | This command specifies the format of the input and output for encrypted configuration secrets. |
| Options | cleartext, hash, hash2, custom |
| Default | hash2 |
| Introduced | 16.0.R4 |
| Platforms | All |

## keychains

| | |
|---|---|
| Synopsis | Enter the **keychains** context |
| Context | **configure** system security keychains |
| Tree | keychains |
| Introduced | 16.0.R1 |
| Platforms | All |

## keychain [keychain-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **keychain** list instance |
| Context | **configure** system security keychains keychain *named-item* |
| Tree | keychain |


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| | |
|---|---|
| Max. instances | 256 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**keychain-name**] *named-item*

| | |
|---|---|
| Synopsis | Keychain name |
| Context | **configure** system security keychains keychain *named-item* |
| Tree | keychain |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the keychain |
| Context | **configure** system security keychains keychain *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **bidirectional**

| | |
|---|---|
| Synopsis | Enter the **bidirectional** context |
| Context | **configure** system security keychains keychain *named-item* bidirectional |
| Tree | bidirectional |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **entry** [keychain-entry-index] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** system security keychains keychain *named-item* bidirectional entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**keychain-entry-index**] *number*

| | |
|---|---|
| Synopsis | Keychain identifier |
| Context | **configure** system security keychains keychain *named-item* bidirectional entry *number* |
| Tree | entry |
| Range | 0 to 63 \| 255 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the keychain entry |
| Context | **configure** system security keychains keychain *named-item* bidirectional entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **algorithm** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Encryption algorithm used by the keychain key |


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| | |
|---|---|
| Context | **configure** system security keychains keychain *named-item* bidirectional entry *number* algorithm *keyword* |
| Tree | algorithm |
| Options | aes-128-cmac-96, hmac-sha-1-96, password, message-digest, hmac-md5, hmac-sha-1, hmac-sha-256, aes-128-gcm-16, aes-128-cmac-128 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **authentication-key** *encrypted-leaf*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Authentication key used by the encryption algorithm |
| Context | **configure** system security keychains keychain *named-item* bidirectional entry *number* authentication-key *encrypted-leaf* |
| Tree | authentication-key |
| String length | 1 to 54 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **begin-time** *date-and-time*

| | |
|---|---|
| Synopsis | Calendar date and time to start using the key |
| Context | **configure** system security keychains keychain *named-item* bidirectional entry *number* begin-time *date-and-time* |
| Tree | begin-time |
| Introduced | 16.0.R1 |
| Platforms | All |

## **option** *keyword*

| | |
|---|---|
| Synopsis | Keychain key option |
| Context | **configure** system security keychains keychain *named-item* bidirectional entry *number* option *keyword* |
| Tree | option |


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| | |
|---|---|
| Options | none, basic, isis-enhanced |
| Default | none |
| Introduced | 16.0.R1 |
| Platforms | All |

### **tolerance** *(number | keyword)*

| | |
|---|---|
| Synopsis | Time eligible receive key overlaps with active send key |
| Context | **configure** system security keychains keychain *named-item* bidirectional entry *number* tolerance *(number | keyword)* |
| Tree | tolerance |
| Range | 0 to 4294967294 |
| Units | seconds |
| Options | infinite |
| Default | 300 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** system security keychains keychain *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **receive**

| | |
|---|---|
| Synopsis | Enter the **receive** context |
| Context | **configure** system security keychains keychain *named-item* receive |
| Tree | receive |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **entry** [keychain-entry-index] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** system security keychains keychain *named-item* receive entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**keychain-entry-index**] *number*

| | |
|---|---|
| Synopsis | Keychain identifier |
| Context | **configure** system security keychains keychain *named-item* receive entry *number* |
| Tree | entry |
| Range | 0 to 63 \| 255 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the keychain entry |
| Context | **configure** system security keychains keychain *named-item* receive entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **algorithm** *keyword*

**WARNING:**
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| | |
|---|---|
| Synopsis | Encryption algorithm used by the keychain key |


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| | |
|---|---|
| Context | **configure** system security keychains keychain *named-item* receive entry *number* algorithm *keyword* |
| Tree | algorithm |
| Options | aes-128-cmac-96, hmac-sha-1-96, password, message-digest, hmac-md5, hmac-sha-1, hmac-sha-256, aes-128-gcm-16, aes-128-cmac-128 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **authentication-key** *encrypted-leaf*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Authentication key used by the encryption algorithm |
| Context | **configure** system security keychains keychain *named-item* receive entry *number* authentication-key *encrypted-leaf* |
| Tree | authentication-key |
| String length | 1 to 54 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **begin-time** *date-and-time*

| | |
|---|---|
| Synopsis | Calendar date and time to start using the key |
| Context | **configure** system security keychains keychain *named-item* receive entry *number* begin-time *date-and-time* |
| Tree | begin-time |
| Introduced | 16.0.R1 |
| Platforms | All |

## **end-time** *date-and-time*

| | |
|---|---|
| Synopsis | Calendar date and time when system stops using the key |
| Context | **configure** system security keychains keychain *named-item* receive entry *number* end-time *date-and-time* |
| Tree | end-time |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **tolerance** *(number | keyword)*

| | |
|---|---|
| Synopsis | Time eligible receive key overlaps with active send key |
| Context | **configure** system security keychains keychain *named-item* receive entry *number* tolerance *(number | keyword)* |
| Tree | tolerance |
| Range | 0 to 4294967294 |
| Units | seconds |
| Options | infinite |
| Default | 300 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **send**

| | |
|---|---|
| Synopsis | Enter the **send** context |
| Context | **configure** system security keychains keychain *named-item* send |
| Tree | send |
| Introduced | 16.0.R1 |
| Platforms | All |

### **entry** [keychain-entry-index] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** system security keychains keychain *named-item* send entry *number* |
| Tree | entry |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**keychain-entry-index**] *number*

| | |
|---|---|
| Synopsis | Keychain identifier |
| Context | **configure** system security keychains keychain *named-item* send entry *number* |


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| | |
|---|---|
| Tree | entry |
| Range | 0 to 63 \| 255 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the keychain entry |
| Context | **configure** system security keychains keychain *named-item* send entry *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **algorithm** *keyword*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Encryption algorithm used by the keychain key |
| Context | **configure** system security keychains keychain *named-item* send entry *number* algorithm *keyword* |
| Tree | algorithm |
| Options | aes-128-cmac-96, hmac-sha-1-96, password, message-digest, hmac-md5, hmac-sha-1, hmac-sha-256, aes-128-gcm-16, aes-128-cmac-128 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **authentication-key** *encrypted-leaf*

**WARNING:**
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| | |
|---|---|
| Synopsis | Authentication key used by the encryption algorithm |
| Context | **configure** system security keychains keychain *named-item* send entry *number* authentication-key *encrypted-leaf* |
| Tree | authentication-key |
| String length | 1 to 54 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **begin-time** *date-and-time*

| | |
|---|---|
| Synopsis | Calendar date and time to start using the key |
| Context | **configure** system security keychains keychain *named-item* send entry *number* begin-time *date-and-time* |
| Tree | begin-time |
| Introduced | 16.0.R1 |
| Platforms | All |

### **tcp-option-number**

| | |
|---|---|
| Synopsis | Enter the **tcp-option-number** context |
| Context | **configure** system security keychains keychain *named-item* tcp-option-number |
| Tree | tcp-option-number |
| Introduced | 16.0.R1 |
| Platforms | All |

### **receive** *keyword*

| | |
|---|---|
| Synopsis | TCP option accepted in received TCP packets |
| Context | **configure** system security keychains keychain *named-item* tcp-option-number receive *keyword* |
| Tree | receive |
| Options | option-253, option-254, both, tcp-ao |
| Default | option-254 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **send** *keyword*

| | |
|---|---|
| Synopsis | TCP option accepted in sent TCP packets |
| Context | **configure** system security keychains keychain *named-item* tcp-option-number send *keyword* |
| Tree | send |
| Options | option-253, option-254, tcp-ao |
| Default | option-254 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **management**

| | |
|---|---|
| Synopsis | Enter the **management** context |
| Context | **configure** system security management |
| Tree | management |
| Description | Commands in this context control which management protocols can be used to access the SR OS router via the 'Base' and 'management' router instances. |
| Introduced | 16.0.R5 |
| Platforms | All |

### **allow-ftp** *boolean*

| | |
|---|---|
| Synopsis | Allow access to the FTP server |
| Context | **configure** system security management allow-ftp *boolean* |
| Tree | allow-ftp |
| Description | When configured to **true**, this command allows FTP access to the SR OS router via the 'Base' and 'management' router instances.<br>When configured to **false**, this command disallows access to the SR OS FTP server. |
| Default | true |
| Introduced | 16.0.R6 |
| Platforms | All |

### **allow-grpc** *boolean*

| | |
|---|---|
| Synopsis | Allow access to the gRPC server |


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| | |
|---|---|
| Context | **configure** system security management allow-grpc *boolean* |
| Tree | allow-grpc |
| Description | When configured to **true**, the system allows access to the gRPC server via the 'Base' and 'management' router instances. |
| Default | true |
| Introduced | 19.5.R1 |
| Platforms | All |

### **allow-netconf** *boolean*

| | |
|---|---|
| Synopsis | Allow access to the NETCONF server |
| Context | **configure** system security management allow-netconf *boolean* |
| Tree | allow-netconf |
| Description | When configured to **true**, the system allows NETCONF server access to the SR OS router via the 'Base' and 'management' router instances. |
| Default | true |
| Introduced | 19.5.R1 |
| Platforms | All |

### **allow-ssh** *boolean*

| | |
|---|---|
| Synopsis | Allow access to the SSH server |
| Context | **configure** system security management allow-ssh *boolean* |
| Tree | allow-ssh |
| Description | When configured to **true**, this command allows SSH server access to the SR OS router via the 'Base' and 'management' router instances.<br>When configured to **false**, this command disallows SSH server access. |
| Default | true |
| Introduced | 16.0.R5 |
| Platforms | All |

### **allow-telnet** *boolean*

| | |
|---|---|
| Synopsis | Allow access to the IPv4 Telnet server |
| Context | **configure** system security management allow-telnet *boolean* |
| Tree | allow-telnet |


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| | |
|---|---|
| Description | When configured to **true**, the system allows IPv4 Telnet server access to the SR OS router via the 'Base' and 'management' router instances.<br>When configured to **false**, access to the IPv4 Telnet server is not allowed. |
| Default | true |
| Introduced | 16.0.R5 |
| Platforms | All |

### **allow-telnet6** *boolean*

| | |
|---|---|
| Synopsis | Allow access to the Telnet IPv6 server |
| Context | **configure** system security management allow-telnet6 *boolean* |
| Tree | allow-telnet6 |
| Description | When configured to **true**, the system allows IPv6 Telnet server access to the SR OS router via the 'Base' and 'management' router instances.<br>When configured to **false**, the system prevents access to the IPv6 Telnet server. |
| Default | true |
| Introduced | 16.0.R5 |
| Platforms | All |

### management-access-filter

| | |
|---|---|
| Synopsis | Enter the **management-access-filter** context |
| Context | **configure** system security management-access-filter |
| Tree | management-access-filter |
| Description | Commands in this context configure the attributes for management access filters.<br>Management access filters control all traffic in and out of the CPM. The filters can be used to restrict management of the router by other nodes outside of specific networks (or sub-networks) or through designated ports.<br>Management filters are enforced by the system software. |
| Introduced | 16.0.R4 |
| Platforms | All |

### ip-filter

| | |
|---|---|
| Synopsis | Enter the **ip-filter** context |
| Context | **configure** system security management-access-filter ip-filter |


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| | |
|---|---|
| Tree | ip-filter |
| Introduced | 16.0.R4 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of management-access filters |
| Context | **configure** system security management-access-filter ip-filter admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R4 |
| Platforms | All |

### **default-action** *keyword*

| | |
|---|---|
| Synopsis | Default action for the management access filter |
| Context | **configure** system security management-access-filter ip-filter default-action *keyword* |
| Tree | default-action |
| Description | This command specifies the default action for management access in the absence of a specific management access filter match. |
| Options | ignore-match, accept, drop, reject |
| Default | ignore-match |
| Introduced | 16.0.R4 |
| Platforms | All |

### **entry** [entry-id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** system security management-access-filter ip-filter entry *number* |
| Tree | entry |
| Introduced | 16.0.R4 |
| Platforms | All |


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### [**entry-id**] *number*

| | |
|---|---|
| Synopsis | Entry ID to identify the match criteria and the action |
| Context | **configure** system security management-access-filter ip-filter entry *number* |
| Tree | entry |
| Description | This command specifies the entry ID to identify the match criteria and the corresponding action. It is recommended that entries are numbered in staggered increments. This allows users to insert a new entry in an existing policy without having to renumber the existing entries. |
| Range | 1 to 9999 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **action** *keyword*

| | |
|---|---|
| Synopsis | Action associated with the management access filter |
| Context | **configure** system security management-access-filter ip-filter entry *number* action *keyword* |
| Tree | action |
| Description | This command specifies the action associated with the management access filter match criteria entry.<br>If the packet does not meet any of the match criteria, the configured default action is applied. |
| Options | ignore-match, accept, drop, reject |
| Default | ignore-match |
| Introduced | 16.0.R4 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** system security management-access-filter ip-filter entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R4 |


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| | |
|---|---|
| Platforms | All |

## **log-events** *boolean*

| | |
|---|---|
| Synopsis | Enable match logging |
| Context | **configure** system security management-access-filter ip-filter entry *number* log-events *boolean* |
| Tree | log-events |
| Description | When configured to **true**, this command enables match logging. When enabled, matches on the entry cause the Security event mafEntryMatch to be raised.<br>When configured to **false**, match logging is disabled. |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

## **match**

| | |
|---|---|
| Synopsis | Enter the **match** context |
| Context | **configure** system security management-access-filter ip-filter entry *number* match |
| Tree | match |
| Description | Commands in this context specify match criteria for the entry. |
| Introduced | 16.0.R4 |
| Platforms | All |

## **dst-port**

| | |
|---|---|
| Synopsis | Enable the **dst-port** context |
| Context | **configure** system security management-access-filter ip-filter entry *number* match dst-port |
| Tree | dst-port |
| Introduced | 16.0.R4 |
| Platforms | All |

## **mask** *number*

| | |
|---|---|
| Synopsis | IP address mask as the match criterion |


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| | |
|---|---|
| Context | **configure** system security management-access-filter ip-filter entry *number* match dst-port mask *number* |
| Tree | mask |
| Range | 1 to 65535 |
| Default | 65535 |
| Introduced | 16.0.R4 |
| Platforms | All |

## **port** *number*

| | |
|---|---|
| Synopsis | TCP or UDP port number as the match criterion |
| Context | **configure** system security management-access-filter ip-filter entry *number* match dst-port port *number* |
| Tree | port |
| Range | 1 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

## **mgmt-port**

| | |
|---|---|
| Synopsis | Enter the **mgmt-port** context |
| Context | **configure** system security management-access-filter ip-filter entry *number* match mgmt-port |
| Tree | mgmt-port |
| Description | Commands in this context specify match criteria based on the Ethernet port. |
| Introduced | 16.0.R4 |
| Platforms | All |

## **cpm**

| | |
|---|---|
| Synopsis | Match any traffic received on any Ethernet port |
| Context | **configure** system security management-access-filter ip-filter entry *number* match mgmt-port cpm |
| Tree | cpm |
| Notes | The following elements are part of a choice: **cpm**, (**lag** and **lag-id**), or **port-id**. |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | All |

### **lag** *lag-interface*

| | |
|---|---|
| Synopsis | LAG ID as the match criterion |
| Context | **configure** system security management-access-filter ip-filter entry *number* match mgmt-port lag *lag-interface* |
| Tree | lag |
| String length | 1 to 27 |
| Notes | The following elements are part of a choice: **cpm**, (**lag** and **lag-id**), or **port-id**. |
| Introduced | 21.2.R1 |
| Platforms | All |

### **port-id** *port*

| | |
|---|---|
| Synopsis | Port ID as the match criterion |
| Context | **configure** system security management-access-filter ip-filter entry *number* match mgmt-port port-id *port* |
| Tree | port-id |
| Notes | The following elements are part of a choice: **cpm**, (**lag** and **lag-id**), or **port-id**. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **protocol** *(number | keyword)*

| | |
|---|---|
| Synopsis | IP protocol as the match criterion |
| Context | **configure** system security management-access-filter ip-filter entry *number* match protocol *(number | keyword)* |
| Tree | protocol |
| Range | 0 to 255 |
| Options | tcp-udp, icmp, igmp, ip, tcp, egp, igp, udp, rdp, ipv6, ipv6-route, ipv6-frag, idrp, rsvp, gre, ipv6-icmp, ipv6-no-nxt, ipv6-opts, iso-ip, eigrp, ospf-igp, ether-ip, encap, pnni, pim, vrrp, l2tp, stp, ptp, isis, crtp, crudp, sctp |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **router-instance** *string*

| | |
|---|---|
| Synopsis | Router instance as the match criterion |
| Context | **configure** system security management-access-filter ip-filter entry *number* match router-instance *string* |
| Tree | router-instance |
| Introduced | 16.0.R4 |
| Platforms | All |

### **src-ip**

| | |
|---|---|
| Synopsis | Enter the **src-ip** context |
| Context | **configure** system security management-access-filter ip-filter entry *number* match src-ip |
| Tree | src-ip |
| Description | Commands in this context specify match criteria based on the source IP address. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **address** *(ipv4-prefix | ipv4-address)*

| | |
|---|---|
| Synopsis | IP address or IP prefix as the match criterion |
| Context | **configure** system security management-access-filter ip-filter entry *number* match src-ip address *(ipv4-prefix \| ipv4-address)* |
| Tree | address |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ip-prefix-list**. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **ip-prefix-list** *reference*

| | |
|---|---|
| Synopsis | IP prefix list as the match criterion |
| Context | **configure** system security management-access-filter ip-filter entry *number* match src-ip ip-prefix-list *reference* |
| Tree | ip-prefix-list |
| Reference | **configure** filter match-list ip-prefix-list *named-item* |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ip-prefix-list**. |


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| | |
|---|---|
| Introduced | 20.7.R1 |
| Platforms | All |

### **mask** *ipv4-address*

| | |
|---|---|
| Synopsis | IP address mask as the match criterion |
| Context | **configure** system security management-access-filter ip-filter entry *number* match src-ip mask *ipv4-address* |
| Tree | mask |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ip-prefix-list**. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **src-port**

| | |
|---|---|
| Synopsis | Enable the **src-port** context |
| Context | **configure** system security management-access-filter ip-filter entry *number* match src-port |
| Tree | src-port |
| Introduced | 21.7.R1 |
| Platforms | All |

### **mask** *number*

| | |
|---|---|
| Synopsis | IP address mask as the match criterion |
| Context | **configure** system security management-access-filter ip-filter entry *number* match src-port mask *number* |
| Tree | mask |
| Range | 1 to 65535 |
| Default | 65535 |
| Introduced | 21.7.R1 |
| Platforms | All |

### **port** *number*

| | |
|---|---|
| Synopsis | TCP or UDP port number as the match criterion |


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| | |
|---|---|
| Context | **configure** system security management-access-filter ip-filter entry *number* match src-port port *number* |
| Tree | port |
| Range | 1 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 21.7.R1 |
| Platforms | All |

## ipv6-filter

| | |
|---|---|
| Synopsis | Enter the **ipv6-filter** context |
| Context | **configure** system security management-access-filter ipv6-filter |
| Tree | ipv6-filter |
| Introduced | 16.0.R4 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of management-access filters |
| Context | **configure** system security management-access-filter ipv6-filter admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R4 |
| Platforms | All |

## default-action *keyword*

| | |
|---|---|
| Synopsis | Default action for the management access filter |
| Context | **configure** system security management-access-filter ipv6-filter default-action *keyword* |
| Tree | default-action |
| Description | This command specifies the default action for management access in the absence of a specific management access filter match. |
| Options | ignore-match, accept, drop, reject |
| Default | ignore-match |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | All |

### **entry** [entry-id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** system security management-access-filter ipv6-filter entry *number* |
| Tree | entry |
| Introduced | 16.0.R4 |
| Platforms | All |

### [**entry-id**] *number*

| | |
|---|---|
| Synopsis | Entry ID to identify the match criteria and the action |
| Context | **configure** system security management-access-filter ipv6-filter entry *number* |
| Tree | entry |
| Description | This command specifies the entry ID to identify the match criteria and the corresponding action. It is recommended that entries are numbered in staggered increments. This allows users to insert a new entry in an existing policy without having to renumber the existing entries. |
| Range | 1 to 9999 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **action** *keyword*

| | |
|---|---|
| Synopsis | Action associated with the management access filter |
| Context | **configure** system security management-access-filter ipv6-filter entry *number* action *keyword* |
| Tree | action |
| Description | This command specifies the action associated with the management access filter match criteria entry.<br>If the packet does not meet any of the match criteria, the configured default action is applied. |
| Options | ignore-match, accept, drop, reject |
| Default | ignore-match |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** system security management-access-filter ipv6-filter entry *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **log-events** *boolean*

| | |
|---|---|
| Synopsis | Enable match logging |
| Context | **configure** system security management-access-filter ipv6-filter entry *number* log-events *boolean* |
| Tree | log-events |
| Description | When configured to **true**, this command enables match logging. When enabled, matches on the entry cause the Security event mafEntryMatch to be raised.<br>When configured to **false**, match logging is disabled. |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

### **match**

| | |
|---|---|
| Synopsis | Enter the **match** context |
| Context | **configure** system security management-access-filter ipv6-filter entry *number* match |
| Tree | match |
| Description | Commands in this context specify match criteria for the entry. |
| Introduced | 16.0.R4 |
| Platforms | All |


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## dst-port

| | |
|---|---|
| Synopsis | Enable the **dst-port** context |
| Context | **configure** system security management-access-filter ipv6-filter entry *number* match dst-port |
| Tree | dst-port |
| Description | Commands in this context specify match criteria based on the destination port. |
| Introduced | 16.0.R4 |
| Platforms | All |

## mask *number*

| | |
|---|---|
| Synopsis | IP address mask as the match criterion |
| Context | **configure** system security management-access-filter ipv6-filter entry *number* match dst-port mask *number* |
| Tree | mask |
| Range | 1 to 65535 |
| Default | 65535 |
| Introduced | 16.0.R4 |
| Platforms | All |

## port *number*

| | |
|---|---|
| Synopsis | TCP or UDP port number as the match criterion |
| Context | **configure** system security management-access-filter ipv6-filter entry *number* match dst-port port *number* |
| Tree | port |
| Range | 1 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

## flow-label *number*

| | |
|---|---|
| Synopsis | Flow identifier used to discriminate traffic flows |


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| | |
|---|---|
| Context | **configure** system security management-access-filter ipv6-filter entry *number* match flow-label *number* |
| Tree | flow-label |
| Range | 0 to 1048575 |
| Introduced | 16.0.R4 |
| Platforms | All |

## mgmt-port

| | |
|---|---|
| Synopsis | Enter the **mgmt-port** context |
| Context | **configure** system security management-access-filter ipv6-filter entry *number* match mgmt-port |
| Tree | mgmt-port |
| Description | Commands in this context specify match criteria based on the Ethernet port. |
| Introduced | 16.0.R4 |
| Platforms | All |

## cpm

| | |
|---|---|
| Synopsis | Match any traffic received on any Ethernet port |
| Context | **configure** system security management-access-filter ipv6-filter entry *number* match mgmt-port cpm |
| Tree | cpm |
| Notes | The following elements are part of a choice: **cpm**, (**lag** and **lag-id**), or **port-id**. |
| Introduced | 16.0.R4 |
| Platforms | All |

## lag *lag-interface*

| | |
|---|---|
| Synopsis | LAG ID as the match criterion |
| Context | **configure** system security management-access-filter ipv6-filter entry *number* match mgmt-port lag *lag-interface* |
| Tree | lag |
| String length | 1 to 27 |
| Notes | The following elements are part of a choice: **cpm**, (**lag** and **lag-id**), or **port-id**. |
| Introduced | 21.2.R1 |


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| | |
|---|---|
| Platforms | All |

### **port-id** *port*

| | |
|---|---|
| Synopsis | Port ID as the match criterion |
| Context | **configure** system security management-access-filter ipv6-filter entry *number* match mgmt-port port-id *port* |
| Tree | port-id |
| Notes | The following elements are part of a choice: **cpm**, (**lag** and **lag-id**), or **port-id**. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **next-header** *(number | keyword)*

| | |
|---|---|
| Synopsis | IP protocol to match |
| Context | **configure** system security management-access-filter ipv6-filter entry *number* match next-header *(number \| keyword)* |
| Tree | next-header |
| Range | 0 to 255 |
| Options | tcp-udp, icmp, igmp, ip, tcp, egp, igp, udp, rdp, ipv6, ipv6-route, ipv6-frag, idrp, rsvp, gre, ipv6-icmp, ipv6-no-nxt, ipv6-opts, iso-ip, eigrp, ospf-igp, ether-ip, encap, pnni, pim, vrrp, l2tp, stp, ptp, isis, crtp, crudp, sctp |
| Introduced | 16.0.R4 |
| Platforms | All |

### **router-instance** *string*

| | |
|---|---|
| Synopsis | Router instance as the match criterion |
| Context | **configure** system security management-access-filter ipv6-filter entry *number* match router-instance *string* |
| Tree | router-instance |
| Introduced | 16.0.R4 |
| Platforms | All |

### **src-ip**

| | |
|---|---|
| Synopsis | Enter the **src-ip** context |


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| | |
|---|---|
| Context | **configure** system security management-access-filter ipv6-filter entry *number* match src-ip |
| Tree | src-ip |
| Description | Commands in this context specify match criteria based on the source port. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **address** *(ipv6-prefix | ipv6-address)*

| | |
|---|---|
| Synopsis | IPv6 address or IPv6 prefix to match |
| Context | **configure** system security management-access-filter ipv6-filter entry *number* match src-ip address *(ipv6-prefix \| ipv6-address)* |
| Tree | address |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ipv6-prefix-list**. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **ipv6-prefix-list** *reference*

| | |
|---|---|
| Synopsis | IPv6 prefix list as the match criterion |
| Context | **configure** system security management-access-filter ipv6-filter entry *number* match src-ip ipv6-prefix-list *reference* |
| Tree | ipv6-prefix-list |
| Reference | **configure** filter match-list ipv6-prefix-list *named-item* |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ipv6-prefix-list**. |
| Introduced | 20.7.R1 |
| Platforms | All |

### **mask** *ipv6-address*

| | |
|---|---|
| Synopsis | IP address mask as the match criterion |
| Context | **configure** system security management-access-filter ipv6-filter entry *number* match src-ip mask *ipv6-address* |
| Tree | mask |
| Notes | The following elements are part of a choice: (**address** and **mask**) or **ipv6-prefix-list**. |
| Introduced | 16.0.R4 |


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| | |
|---|---|
| Platforms | All |

## src-port

| | |
|---|---|
| Synopsis | Enable the **src-port** context |
| Context | **configure** system security management-access-filter ipv6-filter entry *number* match src-port |
| Tree | src-port |
| Description | Commands in this context specify match criteria based on the source port. |
| Introduced | 21.7.R1 |
| Platforms | All |

## mask *number*

| | |
|---|---|
| Synopsis | IP address mask as the match criterion |
| Context | **configure** system security management-access-filter ipv6-filter entry *number* match src-port mask *number* |
| Tree | mask |
| Range | 1 to 65535 |
| Default | 65535 |
| Introduced | 21.7.R1 |
| Platforms | All |

## port *number*

| | |
|---|---|
| Synopsis | TCP or UDP port number as the match criterion |
| Context | **configure** system security management-access-filter ipv6-filter entry *number* match src-port port *number* |
| Tree | port |
| Range | 1 to 65535 |
| Notes | This element is mandatory. |
| Introduced | 21.7.R1 |
| Platforms | All |


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## mac-filter

| | |
|---|---|
| Synopsis | Enter the **mac-filter** context |
| Context | **configure** system security management-access-filter mac-filter |
| Tree | mac-filter |
| Introduced | 16.0.R4 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of management access MAC filter |
| Context | **configure** system security management-access-filter mac-filter admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R4 |
| Platforms | All |

## default-action *keyword*

| | |
|---|---|
| Synopsis | Default action for the management access filter |
| Context | **configure** system security management-access-filter mac-filter default-action *keyword* |
| Tree | default-action |
| Description | This command specifies the default action for management access in the absence of a specific management access filter match. |
| Options | ignore-match, accept, drop |
| Default | ignore-match |
| Introduced | 16.0.R4 |
| Platforms | All |

## entry [entry-id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** system security management-access-filter mac-filter entry *number* |
| Tree | entry |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | All |

### [**entry-id**] *number*

| | |
|---|---|
| Synopsis | Entry ID to identify the match criteria and the action |
| Context | **configure** system security management-access-filter mac-filter entry *number* |
| Tree | entry |
| Description | This command specifies the entry ID to identify the match criteria and the corresponding action. It is recommended that entries are numbered in staggered increments. This allows users to insert a new entry in an existing policy without having to renumber the existing entries. |
| Range | 1 to 9999 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **action** *keyword*

| | |
|---|---|
| Synopsis | Action associated with the management access filter |
| Context | **configure** system security management-access-filter mac-filter entry *number* action *keyword* |
| Tree | action |
| Description | This command specifies the action associated with the management access filter match criteria entry.<br>If the packet does not meet any of the match criteria, the configured default action is applied. |
| Options | ignore-match, accept, drop |
| Default | ignore-match |
| Introduced | 16.0.R4 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** system security management-access-filter mac-filter entry *number* description *description* |


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| | |
|---|---|
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R4 |
| Platforms | All |

## **log-events** *boolean*

| | |
|---|---|
| Synopsis | Enable match logging |
| Context | **configure** system security management-access-filter mac-filter entry *number* log-events *boolean* |
| Tree | log-events |
| Description | When configured to **true**, this command enables match logging. When enabled, matches on the entry cause the Security event mafEntryMatch to be raised.<br>When configured to **false**, match logging is disabled. |
| Default | false |
| Introduced | 16.0.R4 |
| Platforms | All |

## **match**

| | |
|---|---|
| Synopsis | Enter the **match** context |
| Context | **configure** system security management-access-filter mac-filter entry *number* match |
| Tree | match |
| Description | Commands in this context specify match criteria for the entry. |
| Introduced | 16.0.R4 |
| Platforms | All |

## **cfm-opcode**

| | |
|---|---|
| Synopsis | Enter the **cfm-opcode** context |
| Context | **configure** system security management-access-filter mac-filter entry *number* match cfm-opcode |
| Tree | cfm-opcode |
| Description | Commands in this context specify match criteria based on the CFM opcode. |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **eq** *number*

| | |
|---|---|
| Synopsis | Equal to comparison operator for the CFM opcode |
| Context | **configure** system security management-access-filter mac-filter entry *number* match cfm-opcode eq *number* |
| Tree | eq |
| Range | 0 to 255 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **gt** *number*

| | |
|---|---|
| Synopsis | Greater than comparison operator for the CFM opcode |
| Context | **configure** system security management-access-filter mac-filter entry *number* match cfm-opcode gt *number* |
| Tree | gt |
| Range | 0 to 254 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **lt** *number*

| | |
|---|---|
| Synopsis | Less than comparison operator for the CFM opcode |
| Context | **configure** system security management-access-filter mac-filter entry *number* match cfm-opcode lt *number* |
| Tree | lt |
| Range | 1 to 255 |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **range**

| | |
|---|---|
| Synopsis | Enable the **range** context |


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| | |
|---|---|
| Context | **configure** system security management-access-filter mac-filter entry *number* match cfm-opcode range |
| Tree | range |
| Notes | The following elements are part of a choice: **eq**, **gt**, **lt**, or **range**. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **end** *number*

| | |
|---|---|
| Synopsis | Upper bound of the range for the OpCode to match |
| Context | **configure** system security management-access-filter mac-filter entry *number* match cfm-opcode range end *number* |
| Tree | end |
| Range | 1 to 255 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **start** *number*

| | |
|---|---|
| Synopsis | Lower bound of the range for the OpCode to match |
| Context | **configure** system security management-access-filter mac-filter entry *number* match cfm-opcode range start *number* |
| Tree | start |
| Range | 0 to 254 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **dot1p**

| | |
|---|---|
| Synopsis | Enable the **dot1p** context |
| Context | **configure** system security management-access-filter mac-filter entry *number* match dot1p |
| Tree | dot1p |
| Description | Commands in this context specify match criteria based on the IEEE 802.1p value. |


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| | |
|---|---|
| Introduced | 16.0.R4 |
| Platforms | All |

### **mask** *number*

| | |
|---|---|
| Synopsis | 3-bit mask as the match criterion |
| Context | **configure** system security management-access-filter mac-filter entry *number* match dot1p mask *number* |
| Tree | mask |
| Range | 1 to 7 |
| Default | 7 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **priority** *number*

| | |
|---|---|
| Synopsis | IEEE 802.1p value as the match criterion |
| Context | **configure** system security management-access-filter mac-filter entry *number* match dot1p priority *number* |
| Tree | priority |
| Range | 0 to 7 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **dst-mac**

| | |
|---|---|
| Synopsis | Enable the **dst-mac** context |
| Context | **configure** system security management-access-filter mac-filter entry *number* match dst-mac |
| Tree | dst-mac |
| Description | Commands in this context specify match criteria based on the destination MAC. |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **address** *mac-address*

| | |
|---|---|
| Synopsis | MAC address used as the match criterion |
| Context | **configure** system security management-access-filter mac-filter entry *number* match dst-mac address *mac-address* |
| Tree | address |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **mask** *mac-address*

| | |
|---|---|
| Synopsis | MAC address mask as the match criterion |
| Context | **configure** system security management-access-filter mac-filter entry *number* match dst-mac mask *mac-address* |
| Tree | mask |
| Default | ff:ff:ff:ff:ff:ff |
| Introduced | 16.0.R4 |
| Platforms | All |

### **etype** *etype-value*

| | |
|---|---|
| Synopsis | Ethernet type II Ethertype value as the match criterion |
| Context | **configure** system security management-access-filter mac-filter entry *number* match etype *etype-value* |
| Tree | etype |
| Description | This command specifies an Ethernet type II Ethertype value to be used as a MAC filter match criterion.<br>The Ethernet type field is used by the Ethernet version-II frames and does not apply to IEEE 802.3 Ethernet frames. |
| String length | 5 to 6 |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **frame-type** *keyword*

| | |
|---|---|
| Synopsis | MAC frame type as the match criterion |
| Context | **configure** system security management-access-filter mac-filter entry *number* match frame-type *keyword* |
| Tree | frame-type |
| Options | 802dot3, 802dot2-llc, 802dot2-snap, ethernet-ii, 802dot1-ag |
| Default | 802dot3 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **llc-dsap**

| | |
|---|---|
| Synopsis | Enable the **llc-dsap** context |
| Context | **configure** system security management-access-filter mac-filter entry *number* match llc-dsap |
| Tree | llc-dsap |
| Description | Commands in this context specify match criteria based on the Destination Service Access Point (DSAP). |
| Introduced | 16.0.R4 |
| Platforms | All |

### **dsap** *number*

| | |
|---|---|
| Synopsis | 8-bit DSAP as the match criterion |
| Context | **configure** system security management-access-filter mac-filter entry *number* match llc-dsap dsap *number* |
| Tree | dsap |
| Range | 0 to 255 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **mask** *number*

| | |
|---|---|
| Synopsis | Mask for DSAP value as the match criterion |


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| | |
|---|---|
| Context | **configure** system security management-access-filter mac-filter entry *number* match llc-dsap mask *number* |
| Tree | mask |
| Range | 1 to 255 |
| Default | 255 |
| Introduced | 16.0.R4 |
| Platforms | All |

## llc-ssap

| | |
|---|---|
| Synopsis | Enable the **llc-ssap** context |
| Context | **configure** system security management-access-filter mac-filter entry *number* match llc-ssap |
| Tree | llc-ssap |
| Description | Commands in this context specify match criteria based on the Source Service Access Point (SSAP). |
| Introduced | 16.0.R4 |
| Platforms | All |

## mask *number*

| | |
|---|---|
| Synopsis | Mask for SSAP value as the match criterion |
| Context | **configure** system security management-access-filter mac-filter entry *number* match llc-ssap mask *number* |
| Tree | mask |
| Range | 1 to 255 |
| Default | 255 |
| Introduced | 16.0.R4 |
| Platforms | All |

## ssap *number*

| | |
|---|---|
| Synopsis | 8-bit SSAP as the match criterion |
| Context | **configure** system security management-access-filter mac-filter entry *number* match llc-ssap ssap *number* |
| Tree | ssap |


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| | |
|---|---|
| Range | 0 to 255 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **service** *service-name*

| | |
|---|---|
| Synopsis | Service ID used as the match condition |
| Context | **configure** system security management-access-filter mac-filter entry *number* match service *service-name* |
| Tree | service |
| String length | 1 to 64 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **snap-oui** *keyword*

| | |
|---|---|
| Synopsis | IEEE 802.3 LLC SNAP Ethernet Frame OUI value for match |
| Context | **configure** system security management-access-filter mac-filter entry *number* match snap-oui *keyword* |
| Tree | snap-oui |
| Description | This command specifies the IEEE 802.3 LLC SNAP Ethernet Frame OUI value as the MAC filter match criterion. |
| Options | zero, non-zero |
| Introduced | 16.0.R4 |
| Platforms | All |

### **snap-pid** *number*

| | |
|---|---|
| Synopsis | IEEE 802.3 LLC SNAP Ethernet Frame PID as the match |
| Context | **configure** system security management-access-filter mac-filter entry *number* match snap-pid *number* |
| Tree | snap-pid |
| Description | This command specifies an IEEE 802.3 LLC SNAP Ethernet Frame PID value used as the MAC filter match criterion. |


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The SNAP PID match criterion is independent of the OUI field within the SNAP header. Two packets with different 3-byte OUI fields but the same PID field match the same filter entry based on a SNAP PID match criterion.

| | |
|---|---|
| Range | 0 to 65535 |
| Introduced | 16.0.R4 |
| Platforms | All |

## src-mac

| | |
|---|---|
| Synopsis | Enable the **src-mac** context |
| Context | **configure** system security management-access-filter mac-filter entry *number* match src-mac |
| Tree | src-mac |
| Description | Commands in this context specify match criteria based on the source MAC. |
| Introduced | 16.0.R4 |
| Platforms | All |

## address *mac-address*

| | |
|---|---|
| Synopsis | MAC address used as the match criterion |
| Context | **configure** system security management-access-filter mac-filter entry *number* match src-mac address *mac-address* |
| Tree | address |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

## mask *mac-address*

| | |
|---|---|
| Synopsis | MAC address mask as the match criterion |
| Context | **configure** system security management-access-filter mac-filter entry *number* match src-mac mask *mac-address* |
| Tree | mask |
| Default | ff:ff:ff:ff:ff:ff |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **per-peer-queuing** *boolean*

| | |
|---|---|
| Synopsis | Allow CPM hardware queuing per peer |
| Context | **configure** system security per-peer-queuing *boolean* |
| Tree | per-peer-queuing |
| Description | When configured to **true**, the router automatically allocates a separate CPM hardware queue for the peer when a peering session is established.<br>When configured to **false**, a separate CPM hardware queue is not allowed. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **pki**

| | |
|---|---|
| Synopsis | Enter the **pki** context |
| Context | **configure** system security pki |
| Tree | pki |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ca-profile** [ca-profile-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **ca-profile** list instance |
| Context | **configure** system security pki ca-profile *named-item* |
| Tree | ca-profile |
| Max. instances | 128 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ca-profile-name**] *named-item*

| | |
|---|---|
| Synopsis | CA profile name |
| Context | **configure** system security pki ca-profile *named-item* |
| Tree | ca-profile |
| String length | 1 to 32 |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the CA profile |
| Context | **configure** system security pki ca-profile *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **auto-crl-update**

| | |
|---|---|
| Synopsis | Enable the **auto-crl-update** context |
| Context | **configure** system security pki ca-profile *named-item* auto-crl-update |
| Tree | auto-crl-update |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the automatic CRL update |
| Context | **configure** system security pki ca-profile *named-item* auto-crl-update admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |


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## crl-urls

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **crl-urls** context |
| Context | **configure** system security pki ca-profile *named-item* auto-crl-update crl-urls |
| Tree | crl-urls |
| Introduced | 16.0.R1 |
| Platforms | All |

## **url-entry** [entry-id] *number*

| | |
|---|---|
| Synopsis | Enter the **url-entry** list instance |
| Context | **configure** system security pki ca-profile *named-item* auto-crl-update crl-urls url-entry *number* |
| Tree | url-entry |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**entry-id**] *number*

| | |
|---|---|
| Synopsis | URL on this system |
| Context | **configure** system security pki ca-profile *named-item* auto-crl-update crl-urls url-entry *number* |
| Tree | url-entry |
| Range | 1 to 8 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **transmission-profile** *reference*

| | |
|---|---|
| Synopsis | File transmission profile to update CRL |
| Context | **configure** system security pki ca-profile *named-item* auto-crl-update crl-urls url-entry *number* transmission-profile *reference* |


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| | |
|---|---|
| Tree | transmission-profile |
| Reference | **configure** system transmission-profile *named-item* |
| Introduced | 16.0.R4 |
| Platforms | All |

### **url** *http-url-path-loose*

| | |
|---|---|
| Synopsis | Location of updated CRL |
| Context | **configure** system security pki ca-profile *named-item* auto-crl-update crl-urls url-entry *number* url *http-url-path-loose* |
| Tree | url |
| String length | 1 to 180 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **periodic-update-interval** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Interval between two consecutive CRL updates |
| Context | **configure** system security pki ca-profile *named-item* auto-crl-update periodic-update-interval *number* |
| Tree | periodic-update-interval |
| Range | 3600 to 31622400 |
| Units | seconds |
| Default | 86400 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **pre-update-time** *number*

**WARNING:**
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| | |
|---|---|
| Synopsis | Time prior to the next update time of the current CRL |
| Context | **configure** system security pki ca-profile *named-item* auto-crl-update pre-update-time *number* |
| Tree | pre-update-time |
| Range | 0 to 31622400 |
| Units | seconds |
| Default | 3600 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **retry-interval** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Interval before retrying to update CRL |
| Context | **configure** system security pki ca-profile *named-item* auto-crl-update retry-interval *number* |
| Tree | retry-interval |
| Range | 0 to 31622400 |
| Units | seconds |
| Default | 3600 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **schedule-type** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Time scheduler type for an automated CRL update |
| Context | **configure** system security pki ca-profile *named-item* auto-crl-update schedule-type *keyword* |
| Tree | schedule-type |
| Options | next-update-based, periodic |


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| | |
|---|---|
| Default | next-update-based |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cert-file** *pki-file-name*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Certificate file name |
| Context | **configure** system security pki ca-profile *named-item* cert-file *pki-file-name* |
| Tree | cert-file |
| String length | 1 to 95 |
| Introduced | 16.0.R1 |
| Platforms | All |

### cmpv2

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **cmpv2** context |
| Context | **configure** system security pki ca-profile *named-item* cmpv2 |
| Tree | cmpv2 |
| Description | Commands in this context configure CMPv2 options. |
| Introduced | 16.0.R1 |
| Platforms | All |

### accept-unprotected-message

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **accept-unprotected-message** context |


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| | |
|---|---|
| Context | **configure** system security pki ca-profile *named-item* cmpv2 accept-unprotected-message |
| Tree | accept-unprotected-message |
| Introduced | 16.0.R1 |
| Platforms | All |

## **error-message** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Accept unprotected error messages |
| Context | **configure** system security pki ca-profile *named-item* cmpv2 accept-unprotected-message error-message *boolean* |
| Tree | error-message |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **pkiconf-message** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Accept unprotected PKI confirmation messages |
| Context | **configure** system security pki ca-profile *named-item* cmpv2 accept-unprotected-message pkiconf-message *boolean* |
| Tree | pkiconf-message |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **always-set-sender-for-ir** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Set subject name in CMPv2 header for all IR messages |
| Context | **configure** system security pki ca-profile *named-item* cmpv2 always-set-sender-for-ir *boolean* |
| Tree | always-set-sender-for-ir |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **http**

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **http** context |
| Context | **configure** system security pki ca-profile *named-item* cmpv2 http |
| Tree | http |
| Introduced | 16.0.R1 |
| Platforms | All |

### **response-timeout** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | HTTP response timeout |
| Context | **configure** system security pki ca-profile *named-item* cmpv2 http response-timeout *number* |
| Tree | response-timeout |
| Range | 1 to 3600 |
| Units | seconds |


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| | |
|---|---|
| Default | 30 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **version** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | HTTP version for CMPv2 messages |
| Context | **configure** system security pki ca-profile *named-item* cmpv2 http version *keyword* |
| Tree | version |
| Options | 1.0, 1.1 |
| Default | 1.1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **key-list**

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **key-list** context |
| Context | **configure** system security pki ca-profile *named-item* cmpv2 key-list |
| Tree | key-list |
| Introduced | 16.0.R1 |
| Platforms | All |

### **key** [reference-number] *display-string*

| | |
|---|---|
| Synopsis | Enter the **key** list instance |
| Context | **configure** system security pki ca-profile *named-item* cmpv2 key-list key *display-string* |
| Tree | key |
| Max. instances | 128 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### [**reference-number**] *display-string*

| | |
|---|---|
| Synopsis | Unique identifier for the CA initial authentication key |
| Context | **configure** system security pki ca-profile *named-item* cmpv2 key-list key *display-string* |
| Tree | key |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **password** *encrypted-leaf*

| | |
|---|---|
| Synopsis | Shared secret for this CA initial authentication key |
| Context | **configure** system security pki ca-profile *named-item* cmpv2 key-list key *display-string* password *encrypted-leaf* |
| Tree | password |
| String length | 1 to 115 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **recipient-subject** *string*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | DN attributes for recipient subject of CMPv2 requests |
| Context | **configure** system security pki ca-profile *named-item* cmpv2 recipient-subject *string* |
| Tree | recipient-subject |
| String length | 1 to 256 |
| Notes | The following elements are part of a choice: **recipient-subject** or **use-ca-subject**. |
| Introduced | 22.10.R1 |
| Platforms | All |


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## response-signing-cert *pki-file-name*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | File name of the certificate to verify CMPv2 responses |
| Context | **configure** system security pki ca-profile *named-item* cmpv2 response-signing-cert *pki-file-name* |
| Tree | response-signing-cert |
| Description | This command specifies an imported certificate used to verify the CMP response message that they are protected by signature.<br>When unconfigured, CA's certificate is used. |
| String length | 1 to 95 |
| Notes | The following elements are part of a choice: **response-signing-cert** or **response-signing-use-extracert**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## response-signing-use-extracert

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Use extraCerts certificate to verify response signature |
| Context | **configure** system security pki ca-profile *named-item* cmpv2 response-signing-use-extracert |
| Tree | response-signing-use-extracert |
| Notes | The following elements are part of a choice: **response-signing-cert** or **response-signing-use-extracert**. |
| Introduced | 22.10.R1 |
| Platforms | All |


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### same-recipient-nonce-for-poll-request *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Use same recipNonce as last CMPv2 response |
| Context | **configure** system security pki ca-profile *named-item* cmpv2 same-recipient-nonce-for-poll-request *boolean* |
| Tree | same-recipient-nonce-for-poll-request |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### signing-cert-subject *string*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Subject DN attributes to identify signing certificate |
| Context | **configure** system security pki ca-profile *named-item* cmpv2 signing-cert-subject *string* |
| Tree | signing-cert-subject |
| String length | 1 to 256 |
| Introduced | 23.3.R1 |
| Platforms | All |

### url

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **url** context |
| Context | **configure** system security pki ca-profile *named-item* cmpv2 url |
| Tree | url |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **service-name** *service-name*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Administrative service name |
| Context | **configure** system security pki ca-profile *named-item* cmpv2 url service-name *service-name* |
| Tree | service-name |
| String length | 1 to 64 |
| Notes | The following elements are part of a choice: **service-name** or **transmission-profile**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **transmission-profile** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Transmission profile for CMPv2 |
| Context | **configure** system security pki ca-profile *named-item* cmpv2 url transmission-profile *reference* |
| Tree | transmission-profile |
| Reference | **configure** system transmission-profile *named-item* |
| Notes | The following elements are part of a choice: **service-name** or **transmission-profile**. |
| Introduced | 23.3.R1 |
| Platforms | All |

### **url-string** *http-optional-url-loose*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | URL for CMPv2 |


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| | |
|---|---|
| Context | **configure** system security pki ca-profile *named-item* cmpv2 url url-string *http-optional-url-loose* |
| Tree | url-string |
| String length | 1 to 180 |
| Introduced | 16.0.R1 |
| Platforms | All |

## use-ca-subject

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Use subject DN in CA certificate as CMPv2 request recipient |
| Context | **configure** system security pki ca-profile *named-item* cmpv2 use-ca-subject |
| Tree | use-ca-subject |
| Notes | The following elements are part of a choice: **recipient-subject** or **use-ca-subject**. |
| Introduced | 22.10.R1 |
| Platforms | All |

## crl-file *pki-file-name*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Certificate Revocation List (CRL) file name |
| Context | **configure** system security pki ca-profile *named-item* crl-file *pki-file-name* |
| Tree | crl-file |
| String length | 1 to 95 |
| Introduced | 16.0.R1 |
| Platforms | All |

## description *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** system security pki ca-profile *named-item* description *description* |


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| | |
|---|---|
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### ocsp

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **ocsp** context |
| Context | **configure** system security pki ca-profile *named-item* ocsp |
| Tree | ocsp |
| Introduced | 16.0.R1 |
| Platforms | All |

### responder-url *http-optional-url-loose*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | HTTP URL of the OCSP responder for the CA |
| Context | **configure** system security pki ca-profile *named-item* ocsp responder-url *http-optional-url-loose* |
| Tree | responder-url |
| String length | 1 to 180 |
| Introduced | 16.0.R1 |
| Platforms | All |

### service-name *service-name*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Administrative service name |


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| | |
|---|---|
| Context | **configure** system security pki ca-profile *named-item* ocsp service-name *service-name* |
| Tree | service-name |
| String length | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **transmission-profile** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Transmission profile for the OCSP |
| Context | **configure** system security pki ca-profile *named-item* ocsp transmission-profile *reference* |
| Tree | transmission-profile |
| Reference | **configure** system transmission-profile *named-item* |
| Introduced | 16.0.R6 |
| Platforms | All |

## **revocation-check** *keyword*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Revocation method to check status of CA certificates |
| Context | **configure** system security pki ca-profile *named-item* revocation-check *keyword* |
| Tree | revocation-check |
| Description | This command specifies the revocation method the system uses to check the revocation status of certificate issued by the CA.<br>**Note:** The **crl-optional** command option makes configuration of a valid CRL in a **ca-profile** optional. However, from a security point of view, it is important to always verify the revocation status of a certificate. |
| Options | crl, crl-optional |
| Default | crl |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **certificate-auto-update** [certificate-file-name] *pki-file-name*

| | |
|---|---|
| Synopsis | Enter the **certificate-auto-update** list instance |
| Context | **configure** system security pki certificate-auto-update *pki-file-name* |
| Tree | certificate-auto-update |
| Description | Commands in this context configure automatic certificate update associations. |
| Max. instances | 256 |
| Introduced | 22.10.R1 |
| Platforms | All |

### [**certificate-file-name**] *pki-file-name*

| | |
|---|---|
| Synopsis | Certificate file name |
| Context | **configure** system security pki certificate-auto-update *pki-file-name* |
| Tree | certificate-auto-update |
| String length | 1 to 95 |
| Notes | This element is part of a list key. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **key-file-name** *pki-file-name*

| | |
|---|---|
| Synopsis | Imported key filename |
| Context | **configure** system security pki certificate-auto-update *pki-file-name* key-file-name *pki-file-name* |
| Tree | key-file-name |
| String length | 1 to 95 |
| Introduced | 22.10.R1 |
| Platforms | All |

### **profile** *reference*

| | |
|---|---|
| Synopsis | Certificate update profile name |
| Context | **configure** system security pki certificate-auto-update *pki-file-name* profile *reference* |


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| | |
|---|---|
| Tree | profile |
| Reference | **configure** system security pki certificate-update-profile *named-item* |
| Introduced | 22.10.R1 |
| Platforms | All |

### **certificate-display-format** *keyword*

| | |
|---|---|
| Synopsis | Display format for Certificates and CRLs |
| Context | **configure** system security pki certificate-display-format *keyword* |
| Tree | certificate-display-format |
| Options | ascii, utf8 |
| Default | ascii |
| Introduced | 16.0.R1 |
| Platforms | All |

### **certificate-expiration-warning**

| | |
|---|---|
| Synopsis | Enter the **certificate-expiration-warning** context |
| Context | **configure** system security pki certificate-expiration-warning |
| Tree | certificate-expiration-warning |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hours** *number*

| | |
|---|---|
| Synopsis | Time before system generates certificate warning trap |
| Context | **configure** system security pki certificate-expiration-warning hours *number* |
| Tree | hours |
| Range | 0 to 8760 |
| Units | hours |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **repeat-hours** *number*

| | |
|---|---|
| Synopsis | Time system repeats certificate expiration warning trap |
| Context | **configure** system security pki certificate-expiration-warning repeat-hours *number* |
| Tree | repeat-hours |
| Range | 0 to 8760 |
| Units | hours |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **certificate-update-profile** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **certificate-update-profile** list instance |
| Context | **configure** system security pki certificate-update-profile *named-item* |
| Tree | certificate-update-profile |
| Description | Commands in this context configure a certificate update profile that specifies the behavior of the automatic update certificate. |
| Max. instances | 256 |
| Introduced | 22.10.R1 |
| Platforms | All |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | Certificate update profile name |
| Context | **configure** system security pki certificate-update-profile *named-item* |
| Tree | certificate-update-profile |
| Description | This command configures the certificate update profile name. |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 22.10.R1 |
| Platforms | All |


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### **after-issue** *number*

| | |
|---|---|
| Synopsis | Time for scheduler updates after certificate issuance |
| Context | **configure** system security pki certificate-update-profile *named-item* after-issue *number* |
| Tree | after-issue |
| Description | This command configures the time for scheduler updates after the certificate issue time. |
| Range | 864000 to 157680000 |
| Units | seconds |
| Notes | The following elements are part of a choice: **after-issue** or **before-expiry**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **before-expiry** *number*

| | |
|---|---|
| Synopsis | Time scheduler updates before certificate expiry |
| Context | **configure** system security pki certificate-update-profile *named-item* before-expiry *number* |
| Tree | before-expiry |
| Description | This command configures the time that the scheduler updates before the certificate expiration time. |
| Range | 3600 to 157680000 |
| Units | seconds |
| Default | 86400 |
| Notes | The following elements are part of a choice: **after-issue** or **before-expiry**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **cmpv2**

| | |
|---|---|
| Synopsis | Enter the **cmpv2** context |
| Context | **configure** system security pki certificate-update-profile *named-item* cmpv2 |
| Tree | cmpv2 |
| Notes | The following elements are part of a choice: **cmpv2** or **est**. |
| Introduced | 22.10.R1 |
| Platforms | All |


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## **ca-profile** *reference*

| | |
|---|---|
| Synopsis | CA profile name |
| Context | **configure** system security pki certificate-update-profile *named-item* cmpv2 ca-profile *reference* |
| Tree | ca-profile |
| Description | This command specifies the use of CMPv2 as the protocol to update the certificate. The CMPv2 configuration is derived from the referenced CA profile. |
| Reference | **configure** system security pki ca-profile *named-item* |
| Introduced | 22.10.R1 |
| Platforms | All |

## **dsa**

| | |
|---|---|
| Synopsis | Enter the **dsa** context |
| Context | **configure** system security pki certificate-update-profile *named-item* dsa |
| Tree | dsa |
| Notes | The following elements are part of a choice: **dsa**, **ecdsa**, **rsa**, or **same-as-existing-key**. |
| Introduced | 22.10.R1 |
| Platforms | All |

## **key-size** *number*

| | |
|---|---|
| Synopsis | Length of the generated DSA key |
| Context | **configure** system security pki certificate-update-profile *named-item* dsa key-size *number* |
| Tree | key-size |
| Description | This command specifies that the newly generated key is an DSA key with the specified key length in bits. |
| Range | 512 to 8192 |
| Default | 2048 |
| Introduced | 22.10.R1 |
| Platforms | All |


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## ecdsa

| | |
|---|---|
| Synopsis | Enter the **ecdsa** context |
| Context | **configure** system security pki certificate-update-profile *named-item* ecdsa |
| Tree | ecdsa |
| Notes | The following elements are part of a choice: **dsa**, **ecdsa**, **rsa**, or **same-as-existing-key**. |
| Introduced | 22.10.R1 |
| Platforms | All |

## curve *keyword*

| | |
|---|---|
| Synopsis | Elliptic curve to be used in ECDSA key generation |
| Context | **configure** system security pki certificate-update-profile *named-item* ecdsa curve *keyword* |
| Tree | curve |
| Description | This command specifies that the newly generated key is an ECDSA key with the specified curve. |
| Options | secp256r1, secp384r1, secp521r1 |
| Default | secp256r1 |
| Introduced | 22.10.R1 |
| Platforms | All |

## est

| | |
|---|---|
| Synopsis | Enter the **est** context |
| Context | **configure** system security pki certificate-update-profile *named-item* est |
| Tree | est |
| Notes | The following elements are part of a choice: **cmpv2** or **est**. |
| Introduced | 22.10.R1 |
| Platforms | All |

## est-profile *reference*

| | |
|---|---|
| Synopsis | EST profile name |
| Context | **configure** system security pki certificate-update-profile *named-item* est est-profile *reference* |


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| | |
|---|---|
| Tree | est-profile |
| Description | This command specifies the use of EST as the protocol to update the certificate. The EST configuration is derived from the referenced EST profile. |
| Reference | **configure** system security pki est-profile *named-item* |
| Introduced | 22.10.R1 |
| Platforms | All |

## **hash-algorithm** *keyword*

| | |
|---|---|
| Synopsis | Hash algorithm for a certificate request |
| Context | **configure** system security pki certificate-update-profile *named-item* hash-algorithm *keyword* |
| Tree | hash-algorithm |
| Description | This command specifies the hash algorithm used to generate a certificate request. |
| Options | md5, sha1, sha224, sha256, sha384, sha512 |
| Default | sha256 |
| Introduced | 22.10.R1 |
| Platforms | All |

## **retry-interval** *number*

| | |
|---|---|
| Synopsis | Retry interval after a failed update |
| Context | **configure** system security pki certificate-update-profile *named-item* retry-interval *number* |
| Tree | retry-interval |
| Description | This command configures the retry interval after the update fails. |
| Range | 60 to 36000 |
| Units | seconds |
| Default | 3600 |
| Introduced | 22.10.R1 |
| Platforms | All |

## **rsa**

| | |
|---|---|
| Synopsis | Enter the **rsa** context |


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| | |
|---|---|
| Context | **configure** system security pki certificate-update-profile *named-item* rsa |
| Tree | rsa |
| Notes | The following elements are part of a choice: **dsa**, **ecdsa**, **rsa**, or **same-as-existing-key**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **key-size** *number*

| | |
|---|---|
| Synopsis | Length of the generated RSA key |
| Context | **configure** system security pki certificate-update-profile *named-item* rsa key-size *number* |
| Tree | key-size |
| Description | This command specifies that the newly generated key is a RSA key with the specified key length in bits. |
| Range | 512 to 8192 |
| Default | 2048 |
| Introduced | 22.10.R1 |
| Platforms | All |

### **same-as-existing-key**

| | |
|---|---|
| Synopsis | Generate the new key to same type and key length |
| Context | **configure** system security pki certificate-update-profile *named-item* same-as-existing-key |
| Tree | same-as-existing-key |
| Description | When configured, this command specifies that the newly generated key is the same type and key length as the existing key. |
| Notes | The following elements are part of a choice: **dsa**, **ecdsa**, **rsa**, or **same-as-existing-key**. |
| Introduced | 22.10.R1 |
| Platforms | All |

### **common-name-list** [cn-list-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **common-name-list** list instance |
| Context | **configure** system security pki common-name-list *named-item* |
| Tree | common-name-list |


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| | |
|---|---|
| Max. instances | 64 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**cn-list-name**] *named-item*

| | |
|---|---|
| Synopsis | CN list name |
| Context | **configure** system security pki common-name-list *named-item* |
| Tree | common-name-list |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **common-name** [cn-index] *number*

| | |
|---|---|
| Synopsis | Enter the **common-name** list instance |
| Context | **configure** system security pki common-name-list *named-item* common-name *number* |
| Tree | common-name |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**cn-index**] *number*

| | |
|---|---|
| Synopsis | Common name index |
| Context | **configure** system security pki common-name-list *named-item* common-name *number* |
| Tree | common-name |
| Range | 1 to 128 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **cn-type** *keyword*

| | |
|---|---|
| Synopsis | Common name type |
| Context | **configure** system security pki common-name-list *named-item* common-name *number* cn-type *keyword* |
| Tree | cn-type |
| Options | ip-address, domain-name |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cn-value** *regular-expression-not-all-spaces*

| | |
|---|---|
| Synopsis | Common name value |
| Context | **configure** system security pki common-name-list *named-item* common-name *number* cn-value *regular-expression-not-all-spaces* |
| Tree | cn-value |
| String length | 1 to 255 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **crl-expiration-warning**

| | |
|---|---|
| Synopsis | Enter the **crl-expiration-warning** context |
| Context | **configure** system security pki crl-expiration-warning |
| Tree | crl-expiration-warning |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hours** *number*

| | |
|---|---|
| Synopsis | Time before system generates CRL expiration warning trap |
| Context | **configure** system security pki crl-expiration-warning hours *number* |
| Tree | hours |


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| | |
|---|---|
| Range | 0 to 8760 |
| Units | hours |
| Introduced | 16.0.R1 |
| Platforms | All |

### **repeat-hours** *number*

| | |
|---|---|
| Synopsis | Time system repeats CRL expiration warning trap |
| Context | **configure** system security pki crl-expiration-warning repeat-hours *number* |
| Tree | repeat-hours |
| Range | 0 to 8760 |
| Units | hours |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **est-profile** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **est-profile** list instance |
| Context | **configure** system security pki est-profile *named-item* |
| Tree | est-profile |
| Description | Commands in this context configure an Enrollment over Secure Transport (EST) profile. |
| Max. instances | 128 |
| Introduced | 21.10.R1 |
| Platforms | All |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | Enrollment over Secured Transport profile name |
| Context | **configure** system security pki est-profile *named-item* |
| Tree | est-profile |
| Description | This command configures the EST profile name. |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 21.10.R1 |
| Platforms | All |

### **check-id-kp-cmcra-only** *boolean*

| | |
|---|---|
| Synopsis | Check id-kp-cmcra in the EST certificate |
| Context | **configure** system security pki est-profile *named-item* check-id-kp-cmcra-only *boolean* |
| Tree | check-id-kp-cmcra-only |
| Default | false |
| Introduced | 21.10.R1 |
| Platforms | All |

### **client-tls-profile** *named-item*

| | |
|---|---|
| Synopsis | TLS client profile assigned to applications |
| Context | **configure** system security pki est-profile *named-item* client-tls-profile *named-item* |
| Tree | client-tls-profile |
| Description | This command specifies the TLS client profile to be assigned to applications for encryption. The profile creates the TLS connection to the EST server. |
| String length | 1 to 32 |
| Introduced | 21.10.R1 |
| Platforms | All |

### **http-authentication**

| | |
|---|---|
| Synopsis | Enter the **http-authentication** context |
| Context | **configure** system security pki est-profile *named-item* http-authentication |
| Tree | http-authentication |
| Introduced | 21.10.R1 |
| Platforms | All |

### **password** *encrypted-leaf*

| | |
|---|---|
| Synopsis | Password for EST authentication |
| Context | **configure** system security pki est-profile *named-item* http-authentication password *encrypted-leaf* |


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| | |
|---|---|
| Tree | password |
| String length | 1 to 115 |
| Introduced | 21.10.R1 |
| Platforms | All |

### **username** *string*

| | |
|---|---|
| Synopsis | Username for the EST authentication |
| Context | **configure** system security pki est-profile *named-item* http-authentication username *string* |
| Tree | username |
| String length | 1 to 32 |
| Introduced | 21.10.R1 |
| Platforms | All |

### **server**

| | |
|---|---|
| Synopsis | Enter the **server** context |
| Context | **configure** system security pki est-profile *named-item* server |
| Tree | server |
| Description | Commands in this context configure EST server parameters. |
| Introduced | 21.10.R1 |
| Platforms | All |

### **fqdn** *fully-qualified-domain-name*

| | |
|---|---|
| Synopsis | Fully Qualified Domain Name (FQDN) of the EST server |
| Context | **configure** system security pki est-profile *named-item* server fqdn *fully-qualified-domain-name* |
| Tree | fqdn |
| Description | This command specifies to use the FQDN of the EST server. |
| String length | 1 to 255 |
| Notes | The following elements are part of a choice: **fqdn**, **ipv4**, or **ipv6**. |
| Introduced | 21.10.R1 |
| Platforms | All |


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### **ipv4** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IPv4 address of the EST server |
| Context | **configure** system security pki est-profile *named-item* server ipv4 *ipv4-unicast-address* |
| Tree | ipv4 |
| Notes | The following elements are part of a choice: **fqdn**, **ipv4**, or **ipv6**. |
| Introduced | 21.10.R1 |
| Platforms | All |

### **ipv6** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IPv6 address of the EST server |
| Context | **configure** system security pki est-profile *named-item* server ipv6 *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | ipv6 |
| Notes | The following elements are part of a choice: **fqdn**, **ipv4**, or **ipv6**. |
| Introduced | 21.10.R1 |
| Platforms | All |

### **port** *number*

| | |
|---|---|
| Synopsis | Port number of the EST server |
| Context | **configure** system security pki est-profile *named-item* server port *number* |
| Tree | port |
| Range | 1 to 65535 |
| Default | 443 |
| Introduced | 21.10.R1 |
| Platforms | All |

### **transmission-profile** *named-item*

| | |
|---|---|
| Synopsis | Transmission profile name for EST |
| Context | **configure** system security pki est-profile *named-item* transmission-profile *named-item* |
| Tree | transmission-profile |
| Description | This command associates a file transmission profile to the EST profile. |


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The transmission profile defines transport parameters for protocol such as HTTP, include routing instance, source address, timeout value, and so on.

| | |
|---|---|
| String length | 1 to 32 |
| Introduced | 21.10.R1 |
| Platforms | All |

## **imported-format** *keyword*

| | |
|---|---|
| Synopsis | The supported encrypted file formats |
| Context | **configure** system security pki imported-format *keyword* |
| Tree | imported-format |
| Options | any, secure |
| Default | any |
| Introduced | 16.0.R6 |
| Platforms | All |

## **maximum-cert-chain-depth** *number*

| | |
|---|---|
| Synopsis | Maximum depth of certificate chain verification |
| Context | **configure** system security pki maximum-cert-chain-depth *number* |
| Tree | maximum-cert-chain-depth |
| Range | 1 to 7 |
| Default | 7 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **python-script**

| | |
|---|---|
| Synopsis | Enter the **python-script** context |
| Context | **configure** system security python-script |
| Tree | python-script |
| Introduced | 21.10.R1 |
| Platforms | All |


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## authorization

| | |
|---|---|
| Synopsis | Enter the **authorization** context |
| Context | **configure** system security python-script authorization |
| Tree | authorization |
| Introduced | 21.10.R1 |
| Platforms | All |

## cron

| | |
|---|---|
| Synopsis | Enter the **cron** context |
| Context | **configure** system security python-script authorization cron |
| Tree | cron |
| Introduced | 21.10.R1 |
| Platforms | All |

## cli-user *reference*

| | |
|---|---|
| Synopsis | User profile name when executing a Python application |
| Context | **configure** system security python-script authorization cron cli-user *reference* |
| Tree | cli-user |
| Reference | **configure** system security user-params local-user user *named-item* |
| Introduced | 21.10.R1 |
| Platforms | All |

## event-handler

| | |
|---|---|
| Synopsis | Enter the **event-handler** context |
| Context | **configure** system security python-script authorization event-handler |
| Tree | event-handler |
| Introduced | 21.10.R1 |
| Platforms | All |


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### **cli-user** *reference*

| | |
|---|---|
| Synopsis | User profile name when executing a Python application |
| Context | **configure** system security python-script authorization event-handler cli-user *reference* |
| Tree | cli-user |
| Reference | **configure** system security user-params local-user user *named-item* |
| Introduced | 21.10.R1 |
| Platforms | All |

### **snmp**

| | |
|---|---|
| Synopsis | Enter the **snmp** context |
| Context | **configure** system security snmp |
| Tree | snmp |
| Introduced | 16.0.R1 |
| Platforms | All |

### **access** [group] *named-item* context *named-item-or-empty* security-model *keyword* security-level *keyword*

| | |
|---|---|
| Synopsis | Enter the **access** list instance |
| Context | **configure** system security snmp access *named-item* context *named-item-or-empty* security-model *keyword* security-level *keyword* |
| Tree | access |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**group**] *named-item*

| | |
|---|---|
| Synopsis | Group name |
| Context | **configure** system security snmp access *named-item* context *named-item-or-empty* security-model *keyword* security-level *keyword* |
| Tree | access |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **context** *named-item-or-empty*

| | |
|---|---|
| Synopsis | String to match context name for access rights |
| Context | **configure** system security snmp access *named-item* context *named-item-or-empty* security-model *keyword* security-level *keyword* |
| Tree | access |
| String length | 0 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **security-model** *keyword*

| | |
|---|---|
| Synopsis | Security model |
| Context | **configure** system security snmp access *named-item* context *named-item-or-empty* security-model *keyword* security-level *keyword* |
| Tree | access |
| Options | snmpv1, snmpv2c, usm |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **security-level** *keyword*

| | |
|---|---|
| Synopsis | Minimum security level required to gain access rights |
| Context | **configure** system security snmp access *named-item* context *named-item-or-empty* security-model *keyword* security-level *keyword* |
| Tree | access |
| Options | no-auth-no-privacy, auth-no-privacy, privacy |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **notify** *named-item*

| | |
|---|---|
| Synopsis | SNMP view for notification access |
| Context | **configure** system security snmp access *named-item* context *named-item-or-empty* security-model *keyword* security-level *keyword* notify *named-item* |
| Tree | notify |
| Description | This command specifies the SNMP view used to control which MIB objects can be accessed for notifications. |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **prefix-match** *keyword*

| | |
|---|---|
| Synopsis | Match type for the context |
| Context | **configure** system security snmp access *named-item* context *named-item-or-empty* security-model *keyword* security-level *keyword* prefix-match *keyword* |
| Tree | prefix-match |
| Options | exact, prefix |
| Introduced | 16.0.R1 |
| Platforms | All |

### **read** *named-item*

| | |
|---|---|
| Synopsis | SNMP view for read access |
| Context | **configure** system security snmp access *named-item* context *named-item-or-empty* security-model *keyword* security-level *keyword* read *named-item* |
| Tree | read |
| Description | This command specifies the SNMP view used to control which MIB objects can be accessed using a read (get) operation. |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **write** *named-item*

| | |
|---|---|
| Synopsis | SNMP view for write access |
| Context | **configure** system security snmp access *named-item* context *named-item-or-empty* security-model *keyword* security-level *keyword* write *named-item* |
| Tree | write |
| Description | This command specifies the SNMP view used to control which MIB objects can be accessed using a write (set) operation. |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **attempts**

| | |
|---|---|
| Synopsis | Enter the **attempts** context |
| Context | **configure** system security snmp attempts |
| Tree | attempts |
| Description | Commands in this context configure settings for SNMPv2 or SNMPv3 connection attempts. The command settings are used to counter Denial of Service (DOS) attacks through SNMP.<br>If the threshold is exceeded, the host is locked out for the lockout time period. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **count** *number*

| | |
|---|---|
| Synopsis | Unsuccessful attempts allowed within time period |
| Context | **configure** system security snmp attempts count *number* |
| Tree | count |
| Range | 1 to 64 |
| Default | 20 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **lockout** *number*

| | |
|---|---|
| Synopsis | Lockout period during which the host cannot log in |
| Context | **configure** system security snmp attempts lockout *number* |
| Tree | lockout |
| Description | This command configures the time period during which the host cannot log in. When the host exceeds the attempted counts setting, the host is locked out from further login attempts for the configured time period. |
| Range | 0 to 1440 |
| Units | minutes |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **time** *number*

| | |
|---|---|
| Synopsis | Time before host lockout after unsuccessful attempts |
| Context | **configure** system security snmp attempts time *number* |
| Tree | time |
| Range | 0 to 60 |
| Units | minutes |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **community** [community-string] *encrypted-leaf*

| | |
|---|---|
| Synopsis | Enter the **community** list instance |
| Context | **configure** system security snmp community *encrypted-leaf* |
| Tree | community |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**community-string**] *encrypted-leaf*

| | |
|---|---|
| Synopsis | SNMPv1 or SNMPv2c community string |


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| | |
|---|---|
| Context | **configure** system security snmp community *encrypted-leaf* |
| Tree | community |
| String length | 1 to 114 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **access-permissions** *keyword*

| | |
|---|---|
| Synopsis | Access permissions for objects in the MIB |
| Context | **configure** system security snmp community *encrypted-leaf* access-permissions *keyword* |
| Tree | access-permissions |
| Options | r, rw, rwa, mgmt, vpls-mgmt |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **source-access-list** *reference*

| | |
|---|---|
| Synopsis | Source access list to validate received SNMP requests |
| Context | **configure** system security snmp community *encrypted-leaf* source-access-list *reference* |
| Tree | source-access-list |
| Reference | **configure** system security snmp source-access-list *string-not-all-spaces* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **version** *keyword*

| | |
|---|---|
| Synopsis | SNMP version |
| Context | **configure** system security snmp community *encrypted-leaf* version *keyword* |
| Tree | version |
| Options | v1, v2c, both |
| Default | both |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **source-access-list** [list-name] *string-not-all-spaces*

| | |
|---|---|
| Synopsis | Enter the **source-access-list** list instance |
| Context | **configure** system security snmp source-access-list *string-not-all-spaces* |
| Tree | source-access-list |
| Description | Commands in this context configure SNMP source access lists.<br>SNMP source access lists are used to validate the source IP address of received SNMP requests. Multiple community (VPRN or Base router) and USM community instances can reference the same SNMP source access list. |
| Max. instances | 16 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**list-name**] *string-not-all-spaces*

| | |
|---|---|
| Synopsis | Source access list name |
| Context | **configure** system security snmp source-access-list *string-not-all-spaces* |
| Tree | source-access-list |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **source-host** [host-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **source-host** list instance |
| Context | **configure** system security snmp source-access-list *string-not-all-spaces* source-host *named-item* |
| Tree | source-host |
| Max. instances | 16 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**host-name**] *named-item*

| | |
|---|---|
| Synopsis | Source host entry name |
| Context | **configure** system security snmp source-access-list *string-not-all-spaces* source-host *named-item* |
| Tree | source-host |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **address** *(ipv4-address-no-zone* | *ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Source IP address entry used to validate SNMP requests |
| Context | **configure** system security snmp source-access-list *string-not-all-spaces* source-host *named-item* address *(ipv4-address-no-zone* \| *ipv6-address-no-zone)* |
| Tree | address |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **usm-community** [community-string] *encrypted-leaf*

| | |
|---|---|
| Synopsis | Enter the **usm-community** list instance |
| Context | **configure** system security snmp usm-community *encrypted-leaf* |
| Tree | usm-community |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**community-string**] *encrypted-leaf*

| | |
|---|---|
| Synopsis | Community string associated with SNMPv3 access group |
| Context | **configure** system security snmp usm-community *encrypted-leaf* |
| Tree | usm-community |
| String length | 1 to 114 |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **group** *named-item*

| | |
|---|---|
| Synopsis | Group to manage access rights of the community string |
| Context | **configure** system security snmp usm-community *encrypted-leaf* group *named-item* |
| Tree | group |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **source-access-list** *reference*

| | |
|---|---|
| Synopsis | Source access list to validate received SNMP requests |
| Context | **configure** system security snmp usm-community *encrypted-leaf* source-access-list *reference* |
| Tree | source-access-list |
| Reference | **configure** system security snmp source-access-list *string-not-all-spaces* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **view** [view-name] *named-item* subtree *string*

| | |
|---|---|
| Synopsis | Enter the **view** list instance |
| Context | **configure** system security snmp view *named-item* subtree *string* |
| Tree | view |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**view-name**] *named-item*

| | |
|---|---|
| Synopsis | View name |
| Context | **configure** system security snmp view *named-item* subtree *string* |


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| | |
|---|---|
| Tree | view |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **subtree** *string*

| | |
|---|---|
| Synopsis | Object Identifier (OID) value |
| Context | **configure** system security snmp view *named-item* subtree *string* |
| Tree | view |
| String length | 1 to 256 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mask** *string*

| | |
|---|---|
| Synopsis | Mask value as binary value, or hex value |
| Context | **configure** system security snmp view *named-item* subtree *string* mask *string* |
| Tree | mask |
| String length | 1 to 16 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **type** *keyword*

| | |
|---|---|
| Synopsis | Type of SNMP security view mask |
| Context | **configure** system security snmp view *named-item* subtree *string* type *keyword* |
| Tree | type |
| Options | included, excluded |
| Introduced | 16.0.R1 |
| Platforms | All |


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## source-address

| | |
|---|---|
| Synopsis | Enter the **source-address** context |
| Context | **configure** system security source-address |
| Tree | source-address |
| Description | Commands in this context configure the IP source address that is used in all unsolicited packets sent by the specified applications.<br>This configuration applies to packets transmitted in-band (for example, a network port on an IOM) and does not apply to packets transmitted out-of-band on the management interface on the CPM Ethernet port. Packets transmitted using the CPM Ethernet port use the address of the CPM Ethernet port as the IP source address in the packet.<br>When a source address is specified for the PTP application, the port-based 1588 hardware timestamping assist function is applied to PTP packets matching the IPv4 address of the router interface used to ingress the SR/ESS or IP address specified in this command. If the IP address is removed, the port-based 1588 hardware timestamping assist function is only applied to PTP packets matching the IPv4 address of the router interface. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **ipv4** [application] *keyword*

| | |
|---|---|
| Synopsis | Enter the **ipv4** list instance |
| Context | **configure** system security source-address ipv4 *keyword* |
| Tree | ipv4 |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**application**] *keyword*

| | |
|---|---|
| Synopsis | Application that uses the source IP address |
| Context | **configure** system security source-address ipv4 *keyword* |
| Tree | ipv4 |
| Options | telnet, ftp, ssh, radius, tacplus, snmptrap, syslog, ping, traceroute, dns, sntp, ntp, cflowd, ptp, mcreporter, sflow, icmp-error, ldap |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **address** *ipv4-address*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Source IPv4 address |
| Context | **configure** system security source-address ipv4 *keyword* address *ipv4-address* |
| Tree | address |
| Notes | The following elements are part of a mandatory choice: **address** or **interface-name**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **interface-name** *interface-name*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | IP interface name |
| Context | **configure** system security source-address ipv4 *keyword* interface-name *interface-name* |
| Tree | interface-name |
| String length | 1 to 32 |
| Notes | The following elements are part of a mandatory choice: **address** or **interface-name**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ipv6** [application] *keyword*

| | |
|---|---|
| Synopsis | Enter the **ipv6** list instance |
| Context | **configure** system security source-address ipv6 *keyword* |
| Tree | ipv6 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**application**] *keyword*

| | |
|---|---|
| Synopsis | Application which uses the source IPv6 address |
| Context | **configure** system security source-address ipv6 *keyword* |
| Tree | ipv6 |
| Options | telnet, ftp, radius, tacplus, snmptrap, syslog, ping, traceroute, dns, cflowd, ntp, sflow, icmp6-error, ldap, ssh, ptp |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **address** *ipv6-address*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Source IPv6 address |
| Context | **configure** system security source-address ipv6 *keyword* address *ipv6-address* |
| Tree | address |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ssh**

| | |
|---|---|
| Synopsis | Enter the **ssh** context |
| Context | **configure** system security ssh |
| Tree | ssh |
| Introduced | 16.0.R1 |
| Platforms | All |

### **authentication-method**

| | |
|---|---|
| Synopsis | Enter the **authentication-method** context |
| Context | **configure** system security ssh authentication-method |


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| | |
|---|---|
| Tree | authentication-method |
| Introduced | 23.7.R1 |
| Platforms | All |

## client

| | |
|---|---|
| Synopsis | Enter the **client** context |
| Context | **configure** system security ssh authentication-method client |
| Tree | client |
| Introduced | 23.10.R3 |
| Platforms | All |

## public-key-only *boolean*

| | |
|---|---|
| Synopsis | Accept only public-key authentication for SSH session |
| Context | **configure** system security ssh authentication-method client public-key-only *boolean* |
| Tree | public-key-only |
| Description | When configured to **true**, the system accepts only public key client authentication for the SSH server.<br>This command defines the authentication method at the system level.<br>When configured to **false**, the system accepts public key or password client authentication. If **interactive-authentication** is configured to **true** in the **configure system security aaa remote-servers radius** or **configure system security aaa remote-servers tacplus** context, the system also accepts interactive keyboard authentication. |
| Default | false |
| Introduced | 23.10.R3 |
| Platforms | All |

## server

| | |
|---|---|
| Synopsis | Enter the **server** context |
| Context | **configure** system security ssh authentication-method server |
| Tree | server |
| Introduced | 23.7.R1 |
| Platforms | All |


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### **public-key-only** *boolean*

| | |
|---|---|
| Synopsis | Accept only public-key authentication for SSH session |
| Context | **configure** system security ssh authentication-method server public-key-only *boolean* |
| Tree | public-key-only |
| Description | When configured to **true**, the system accepts only public key client authentication for the SSH server.<br>This command defines the authentication method at the system level.<br>When configured to **false**, the system accepts public key or password client authentication. If **interactive-authentication** is configured to **true** in the **configure system security aaa remote-servers radius** or **configure system security aaa remote-servers tacplus** context, the system also accepts interactive keyboard authentication. |
| Default | false |
| Introduced | 23.7.R1 |
| Platforms | All |

### **client-cipher-list-v2**

| | |
|---|---|
| Synopsis | Enter the **client-cipher-list-v2** context |
| Context | **configure** system security ssh client-cipher-list-v2 |
| Tree | client-cipher-list-v2 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cipher** [index] *number*

| | |
|---|---|
| Synopsis | Enter the **cipher** list instance |
| Context | **configure** system security ssh client-cipher-list-v2 cipher *number* |
| Tree | cipher |
| Description | Commands in this context configure a client-cipher instance. Client-ciphers are used when the SR OS is acting as an SSH client. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**index**] *number*

| | |
|---|---|
| Synopsis | Cipher index in the list |
| Context | **configure** system security ssh client-cipher-list-v2 cipher *number* |
| Tree | cipher |
| Range | 1 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **name** *keyword*

| | |
|---|---|
| Synopsis | Algorithm for performing encryption or decryption |
| Context | **configure** system security ssh client-cipher-list-v2 cipher *number* name *keyword* |
| Tree | name |
| Options | 3des-cbc, aes128-cbc, aes192-cbc, aes256-cbc, aes128-ctr, aes192-ctr, aes256-ctr |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **client-host-key-list-v2**

| | |
|---|---|
| Synopsis | Enter the **client-host-key-list-v2** context |
| Context | **configure** system security ssh client-host-key-list-v2 |
| Tree | client-host-key-list-v2 |
| Introduced | 24.3.R3 |
| Platforms | All |

### **host-key** [index] *number*

| | |
|---|---|
| Synopsis | Enter the **host-key** list instance |
| Context | **configure** system security ssh client-host-key-list-v2 host-key *number* |
| Tree | host-key |
| Introduced | 24.3.R3 |
| Platforms | All |


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### [**index**] *number*

| | |
|---|---|
| Synopsis | SSHv2 host key algorithm index |
| Context | **configure** system security ssh client-host-key-list-v2 host-key *number* |
| Tree | host-key |
| Range | 1 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 24.3.R3 |
| Platforms | All |

### **name** *keyword*

| | |
|---|---|
| Synopsis | Host key algorithm for computing a signature |
| Context | **configure** system security ssh client-host-key-list-v2 host-key *number* name *keyword* |
| Tree | name |
| Options | ssh-dss, ssh-rsa, rsa-sha2-256, rsa-sha2-512, ecdsa-sha2-nistp256, ecdsa-sha2-nistp384, ecdsa-sha2-nistp521, ssh-ed25519 |
| Notes | This element is mandatory. |
| Introduced | 24.3.R3 |
| Platforms | All |

### **client-kex-list-v2**

| | |
|---|---|
| Synopsis | Enter the **client-kex-list-v2** context |
| Context | **configure** system security ssh client-kex-list-v2 |
| Tree | client-kex-list-v2 |
| Introduced | 19.10.R3 |
| Platforms | All |

### **kex** [index] *number*

| | |
|---|---|
| Synopsis | Enter the **kex** list instance |
| Context | **configure** system security ssh client-kex-list-v2 kex *number* |
| Tree | kex |
| Description | Commands in this context configure SSH Key Exchange (KEX) algorithms for SR OS as a client. |


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If a list is configured, SSH uses the list with the first-listed algorithm having the highest priority.

By default, the client list is empty. The default list contains the following:

- diffie-hellman-group16-sha512
- diffie-hellman-group14-sha256
- diffie-hellman-group14-sha1
- diffie-hellman-group1-sha1

Introduced 19.10.R3

Platforms All

## [**index**] *number*

Synopsis SSHv2 KEX algorithm index

Context **configure** system security ssh client-kex-list-v2 kex *number*

Tree kex

Description This command configures the index of the KEX algorithm in the list. The lowest index in the list is negotiated first on the SSH negotiation list, while the highest index is at the bottom of the SSH negotiation list.

Range 1 to 255

Notes This element is part of a list key.

Introduced 19.10.R3

Platforms All

## **name** *keyword*

Synopsis KEX algorithm for computing a shared secret key

Context **configure** system security ssh client-kex-list-v2 kex *number* name *keyword*

Tree name

Options diffie-hellman-group1-sha1, diffie-hellman-group14-sha1, diffie-hellman-group-exchange-sha1, diffie-hellman-group14-sha256, diffie-hellman-group16-sha512, ecdh-sha2-nistp256, ecdh-sha2-nistp384, ecdh-sha2-nistp521

Notes This element is mandatory.

Introduced 19.10.R3

Platforms All


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### client-mac-list-v2

| | |
|---|---|
| Synopsis | Enter the **client-mac-list-v2** context |
| Context | **configure** system security ssh client-mac-list-v2 |
| Tree | client-mac-list-v2 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mac** [index] *number*

| | |
|---|---|
| Synopsis | Enter the **mac** list instance |
| Context | **configure** system security ssh client-mac-list-v2 mac *number* |
| Tree | mac |
| Description | Commands in this context configure SSH MAC algorithms for SR OS as a client. |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**index**] *number*

| | |
|---|---|
| Synopsis | MAC algorithm index |
| Context | **configure** system security ssh client-mac-list-v2 mac *number* |
| Tree | mac |
| Range | 1 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **name** *keyword*

| | |
|---|---|
| Synopsis | Algorithm for calculating message authentication code |
| Context | **configure** system security ssh client-mac-list-v2 mac *number* name *keyword* |
| Tree | name |
| Options | hmac-sha2-512, hmac-sha2-256, hmac-sha1, hmac-sha1-96, hmac-md5, hmac-md5-96 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### key-re-exchange

| | |
|---|---|
| Synopsis | Enter the **key-re-exchange** context |
| Context | **configure** system security ssh key-re-exchange |
| Tree | key-re-exchange |
| Introduced | 16.0.R1 |
| Platforms | All |

### client

| | |
|---|---|
| Synopsis | Enter the **client** context |
| Context | **configure** system security ssh key-re-exchange client |
| Tree | client |
| Introduced | 16.0.R1 |
| Platforms | All |

### admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the key re-exchange |
| Context | **configure** system security ssh key-re-exchange client admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### mbytes *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum bytes transmitted before key re-exchange begins |
| Context | **configure** system security ssh key-re-exchange client mbytes *(number | keyword)* |
| Tree | mbytes |
| Range | 1 to 64000 |
| Units | megabytes |


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| | |
|---|---|
| Options | infinite |
| Default | 1024 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **minutes** *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum time before key re-exchange is initiated |
| Context | **configure** system security ssh key-re-exchange client minutes *(number | keyword)* |
| Tree | minutes |
| Range | 1 to 1440 |
| Units | minutes |
| Options | infinite |
| Default | 60 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **server**

| | |
|---|---|
| Synopsis | Enter the **server** context |
| Context | **configure** system security ssh key-re-exchange server |
| Tree | server |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the key re-exchange |
| Context | **configure** system security ssh key-re-exchange server admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **mbytes** *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum bytes transmitted before key re-exchange begins |
| Context | **configure** system security ssh key-re-exchange server mbytes *(number \| keyword)* |
| Tree | mbytes |
| Range | 1 to 64000 |
| Units | megabytes |
| Options | infinite |
| Default | 1024 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **minutes** *(number | keyword)*

| | |
|---|---|
| Synopsis | Maximum time before key re-exchange is initiated |
| Context | **configure** system security ssh key-re-exchange server minutes *(number \| keyword)* |
| Tree | minutes |
| Range | 1 to 1440 |
| Units | minutes |
| Options | infinite |
| Default | 60 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **listening-port** *number*

| | |
|---|---|
| Synopsis | TCP port for SSH connections for VPRN or base routing |
| Context | **configure** system security ssh listening-port *number* |
| Tree | listening-port |
| Range | 22 \| 1024 to 49151 |
| Default | 22 |
| Introduced | 24.7.R1 |
| Platforms | All |


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### **permit-empty-passwords** *boolean*

| | |
|---|---|
| Synopsis | Permit users with empty password strings to log in |
| Context | **configure** system security ssh permit-empty-passwords *boolean* |
| Tree | permit-empty-passwords |
| Default | true |
| Introduced | 22.10.R1 |
| Platforms | All |

### **preserve-key** *boolean*

| | |
|---|---|
| Synopsis | Preserve keys and restore on system or server restart |
| Context | **configure** system security ssh preserve-key *boolean* |
| Tree | preserve-key |
| Description | When configured to **true**, private, public, and host keys are saved by the server. The keys are restored following a system reboot or a restart of an SSH server.<br>When configured to **false**, the keys are held in memory by an SSH server but are not restored following a system reboot. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **server-admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the SSH server |
| Context | **configure** system security ssh server-admin-state *keyword* |
| Tree | server-admin-state |
| Options | enable, disable |
| Default | enable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **server-cipher-list-v2**

| | |
|---|---|
| Synopsis | Enter the **server-cipher-list-v2** context |
| Context | **configure** system security ssh server-cipher-list-v2 |


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| | |
|---|---|
| Tree | server-cipher-list-v2 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cipher** [index] *number*

| | |
|---|---|
| Synopsis | Enter the **cipher** list instance |
| Context | **configure** system security ssh server-cipher-list-v2 cipher *number* |
| Tree | cipher |
| Description | Commands in this context configure a server-cipher instance. Server-ciphers are used when SR OS is acting as an SSH server. |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**index**] *number*

| | |
|---|---|
| Synopsis | Cipher index in the list |
| Context | **configure** system security ssh server-cipher-list-v2 cipher *number* |
| Tree | cipher |
| Range | 1 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **name** *keyword*

| | |
|---|---|
| Synopsis | Algorithm for performing encryption or decryption |
| Context | **configure** system security ssh server-cipher-list-v2 cipher *number* name *keyword* |
| Tree | name |
| Options | 3des-cbc, aes128-cbc, aes192-cbc, aes256-cbc, aes128-ctr, aes192-ctr, aes256-ctr |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |


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## server-host-key-list-v2

| | |
|---|---|
| Synopsis | Enter the **server-host-key-list-v2** context |
| Context | **configure** system security ssh server-host-key-list-v2 |
| Tree | server-host-key-list-v2 |
| Introduced | 24.3.R3 |
| Platforms | All |

## **host-key** [index] *number*

| | |
|---|---|
| Synopsis | Enter the **host-key** list instance |
| Context | **configure** system security ssh server-host-key-list-v2 host-key *number* |
| Tree | host-key |
| Introduced | 24.3.R3 |
| Platforms | All |

## [**index**] *number*

| | |
|---|---|
| Synopsis | SSHv2 host key algorithm index |
| Context | **configure** system security ssh server-host-key-list-v2 host-key *number* |
| Tree | host-key |
| Range | 1 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 24.3.R3 |
| Platforms | All |

## **name** *keyword*

| | |
|---|---|
| Synopsis | Host key algorithm for computing a signature |
| Context | **configure** system security ssh server-host-key-list-v2 host-key *number* name *keyword* |
| Tree | name |
| Options | ssh-dss, ssh-rsa, rsa-sha2-256, rsa-sha2-512, ecdsa-sha2-nistp256, ecdsa-sha2-nistp384, ecdsa-sha2-nistp521, ssh-ed25519 |
| Notes | This element is mandatory. |
| Introduced | 24.3.R3 |


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| | |
|---|---|
| Platforms | All |

## server-kex-list-v2

| | |
|---|---|
| Synopsis | Enter the **server-kex-list-v2** context |
| Context | **configure** system security ssh server-kex-list-v2 |
| Tree | server-kex-list-v2 |
| Introduced | 19.10.R3 |
| Platforms | All |

## **kex** [index] *number*

| | |
|---|---|
| Synopsis | Enter the **kex** list instance |
| Context | **configure** system security ssh server-kex-list-v2 kex *number* |
| Tree | kex |
| Introduced | 19.10.R3 |
| Platforms | All |

## [**index**] *number*

| | |
|---|---|
| Synopsis | SSHv2 KEX algorithm index |
| Context | **configure** system security ssh server-kex-list-v2 kex *number* |
| Tree | kex |
| Description | This command configures the index of the KEX algorithm in the list. The lowest index in the list is negotiated first on the SSH negotiation list, while the highest index is at the bottom of the SSH negotiation list. |
| Range | 1 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 19.10.R3 |
| Platforms | All |

## **name** *keyword*

| | |
|---|---|
| Synopsis | KEX algorithm for computing a shared secret key |
| Context | **configure** system security ssh server-kex-list-v2 kex *number* name *keyword* |
| Tree | name |


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| | |
|---|---|
| Options | diffie-hellman-group1-sha1, diffie-hellman-group14-sha1, diffie-hellman-group-exchange-sha1, diffie-hellman-group14-sha256, diffie-hellman-group16-sha512, ecdh-sha2-nistp256, ecdh-sha2-nistp384, ecdh-sha2-nistp521 |
| Notes | This element is mandatory. |
| Introduced | 19.10.R3 |
| Platforms | All |

### server-mac-list-v2

| | |
|---|---|
| Synopsis | Enter the **server-mac-list-v2** context |
| Context | **configure** system security ssh server-mac-list-v2 |
| Tree | server-mac-list-v2 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mac** [index] *number*

| | |
|---|---|
| Synopsis | Enter the **mac** list instance |
| Context | **configure** system security ssh server-mac-list-v2 mac *number* |
| Tree | mac |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**index**] *number*

| | |
|---|---|
| Synopsis | MAC algorithm index |
| Context | **configure** system security ssh server-mac-list-v2 mac *number* |
| Tree | mac |
| Range | 1 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **name** *keyword*

| | |
|---|---|
| Synopsis | Algorithm for calculating message authentication code |
| Context | **configure** system security ssh server-mac-list-v2 mac *number* name *keyword* |
| Tree | name |
| Options | hmac-sha2-512, hmac-sha2-256, hmac-sha1, hmac-sha1-96, hmac-md5, hmac-md5-96 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **system-passwords**

| | |
|---|---|
| Synopsis | Enter the **system-passwords** context |
| Context | **configure** system security system-passwords |
| Tree | system-passwords |
| Description | This command enters the context to configure system passwords. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-password** *hashed-leaf*

| | |
|---|---|
| Synopsis | Administrative password for the enable command |
| Context | **configure** system security system-passwords admin-password *hashed-leaf* |
| Tree | admin-password |
| Description | This command allows a user with administrative permissions to configure a password that enables a user to become an administrator.<br><br>This password is valid only for one session. When enabled, no authorization to TACACS + or RADIUS is performed and the user is locally regarded as an administrative user.<br><br>If the **admin-password** is configured in the **configure system security system-passwords admin-password** context, any user can enter the special mode by entering the **enable** command.<br><br>**enable** is in the default profile. By default, all users are given access to this command.<br><br>After the **enable** command is entered, the user is prompted for a password. If the password matches, user is given unrestricted access to all commands.<br><br>The minimum length of the password is determined by the **minimum-length** command. The complexity requirements for the password are determined by the **complexity** command. |


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**Note:** This command applies to a local user, in addition to users on RADIUS, TACACS, and LDAP.

| | |
|---|---|
| String length | 3 to 136 |
| Introduced | 16.0.R1 |
| Platforms | All |

## tech-support

| | |
|---|---|
| Synopsis | Enter the **tech-support** context |
| Context | **configure** system security tech-support |
| Tree | tech-support |
| Introduced | 16.0.R1 |
| Platforms | All |

## ts-location *(ts-sat-url | cflash-url | string)*

| | |
|---|---|
| Synopsis | Default file path for generated tech-support files |
| Context | **configure** system security tech-support ts-location *(ts-sat-url \| cflash-url \| string)* |
| Tree | ts-location |
| String length | 1 to 180 |
| Introduced | 16.0.R1 |
| Platforms | All |

## telnet

| | |
|---|---|
| Synopsis | Enter the **telnet** context |
| Context | **configure** system security telnet |
| Tree | telnet |
| Introduced | 24.7.R1 |
| Platforms | All |

## listening-port *number*

| | |
|---|---|
| Synopsis | TCP port for Telnet connections for VPRN or base routing |
| Context | **configure** system security telnet listening-port *number* |
| Tree | listening-port |


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| | |
|---|---|
| Range | 23 \| 1024 to 49151 |
| Default | 23 |
| Introduced | 24.7.R1 |
| Platforms | All |

### **telnet-server** *boolean*

| | |
|---|---|
| Synopsis | Enable Telnet servers running on the system |
| Context | **configure** system security telnet-server *boolean* |
| Tree | telnet-server |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **telnet6-server** *boolean*

| | |
|---|---|
| Synopsis | Enable Telnet IPv6 servers running on the system |
| Context | **configure** system security telnet6-server *boolean* |
| Tree | telnet6-server |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **tls**

| | |
|---|---|
| Synopsis | Enter the **tls** context |
| Context | **configure** system security tls |
| Tree | tls |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cert-profile** [cert-profile-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **cert-profile** list instance |
| Context | **configure** system security tls cert-profile *named-item* |


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| | |
|---|---|
| Tree | cert-profile |
| Max. instances | 16 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**cert-profile-name**] *named-item*

| | |
|---|---|
| Synopsis | TLS certificate profile name |
| Context | **configure** system security tls cert-profile *named-item* |
| Tree | cert-profile |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the certificate profile |
| Context | **configure** system security tls cert-profile *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **entry** [entry-id] *number*

| | |
|---|---|
| Synopsis | Enter the **entry** list instance |
| Context | **configure** system security tls cert-profile *named-item* entry *number* |
| Tree | entry |
| Max. instances | 8 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**entry-id**] *number*

| | |
|---|---|
| Synopsis | Certificate profile ID |
| Context | **configure** system security tls cert-profile *named-item* entry *number* |
| Tree | entry |
| Range | 1 to 8 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **certificate-file** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | Certificate file name |
| Context | **configure** system security tls cert-profile *named-item* entry *number* certificate-file *string-not-all-spaces* |
| Tree | certificate-file |
| String length | 1 to 95 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **key-file** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | Key file name |
| Context | **configure** system security tls cert-profile *named-item* entry *number* key-file *string-not-all-spaces* |
| Tree | key-file |
| String length | 1 to 95 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **send-chain**

| | |
|---|---|
| Synopsis | Enter the **send-chain** context |
| Context | **configure** system security tls cert-profile *named-item* entry *number* send-chain |
| Tree | send-chain |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **ca-profile** [ca-profile-name] *reference*

| | |
|---|---|
| Synopsis | Add a list entry for **ca-profile** |
| Context | **configure** system security tls cert-profile *named-item* entry *number* send-chain ca-profile *reference* |
| Tree | ca-profile |
| Max. instances | 7 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ca-profile-name**] *reference*

| | |
|---|---|
| Synopsis | CA profile name |
| Context | **configure** system security tls cert-profile *named-item* entry *number* send-chain ca-profile *reference* |
| Tree | ca-profile |
| Reference | **configure** system security pki ca-profile *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **client-cipher-list** [client-cipher-list-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **client-cipher-list** list instance |
| Context | **configure** system security tls client-cipher-list *named-item* |
| Tree | client-cipher-list |
| Max. instances | 16 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**client-cipher-list-name**] *named-item*

| | |
|---|---|
| Synopsis | Client cipher list name |
| Context | **configure** system security tls client-cipher-list *named-item* |
| Tree | client-cipher-list |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **tls12-cipher** [index] *number*

| | |
|---|---|
| Synopsis | Enter the **tls12-cipher** list instance |
| Context | **configure** system security tls client-cipher-list *named-item* tls12-cipher *number* |
| Tree | tls12-cipher |
| Introduced | 22.2.R1 |
| Platforms | All |

### [**index**] *number*

| | |
|---|---|
| Synopsis | Index of the cipher |
| Context | **configure** system security tls client-cipher-list *named-item* tls12-cipher *number* |
| Tree | tls12-cipher |
| Range | 1 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 22.2.R1 |
| Platforms | All |

### **name** *keyword*

| | |
|---|---|
| Synopsis | Cipher suite code |
| Context | **configure** system security tls client-cipher-list *named-item* tls12-cipher *number* name *keyword* |
| Tree | name |
| Options | tls-rsa-with3des-ede-cbc-sha, tls-rsa-with-aes128-cbc-sha, tls-rsa-with-aes256-cbc-sha, tls-rsa-with-aes128-cbc-sha256, tls-rsa-with-aes256-cbc-sha256, |


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| | |
|---|---|
| | tls-rsa-with-aes128-gcm-sha256, tls-rsa-with-aes256-gcm-sha384, tls-ecdhe-rsa-aes128-gcm-sha256, tls-ecdhe-rsa-aes256-gcm-sha384 |
| Notes | This element is mandatory. |
| Introduced | 22.2.R1 |
| Platforms | All |

### **tls13-cipher** [index] *number*

| | |
|---|---|
| Synopsis | Enter the **tls13-cipher** list instance |
| Context | **configure** system security tls client-cipher-list *named-item* tls13-cipher *number* |
| Tree | tls13-cipher |
| Description | Commands in this context configure the TLS 1.3-supported ciphers used by the client. |
| Introduced | 22.7.R1 |
| Platforms | All |

### [**index**] *number*

| | |
|---|---|
| Synopsis | Index number of the TLS 1.3 cipher |
| Context | **configure** system security tls client-cipher-list *named-item* tls13-cipher *number* |
| Tree | tls13-cipher |
| Range | 1 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 22.7.R1 |
| Platforms | All |

### **name** *keyword*

| | |
|---|---|
| Synopsis | Name of the TLS 1.3 cipher suite code |
| Context | **configure** system security tls client-cipher-list *named-item* tls13-cipher *number* name *keyword* |
| Tree | name |
| Options | tls-aes128-gcm-sha256, tls-aes256-gcm-sha384, tls-chacha20-poly1305-sha256, tls-aes128-ccm-sha256, tls-aes128-ccm8-sha256 |
| Notes | This element is mandatory. |
| Introduced | 22.7.R1 |
| Platforms | All |


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### **client-group-list** [client-group-list-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **client-group-list** list instance |
| Context | **configure** system security tls client-group-list *named-item* |
| Tree | client-group-list |
| Description | Commands in this context configure the list of TLS 1.3-supported group suite codes that the client sends in a client Hello message. |
| Max. instances | 16 |
| Introduced | 22.7.R1 |
| Platforms | All |

### [**client-group-list-name**] *named-item*

| | |
|---|---|
| Synopsis | Name of the TLS client group list |
| Context | **configure** system security tls client-group-list *named-item* |
| Tree | client-group-list |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 22.7.R1 |
| Platforms | All |

### **tls13-group** [index] *number*

| | |
|---|---|
| Synopsis | Enter the **tls13-group** list instance |
| Context | **configure** system security tls client-group-list *named-item* tls13-group *number* |
| Tree | tls13-group |
| Description | Commands in this context configure the TLS 1.3-supported group suite codes sent by the client in its Hello messages.<br>SR OS supports the use of Elliptic-Curve Diffie-Hellman Ephemeral (ECDHE) groups. |
| Introduced | 22.7.R1 |
| Platforms | All |

### [**index**] *number*

| | |
|---|---|
| Synopsis | Index number of the TLS 1.3 group |


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| | |
|---|---|
| Context | **configure** system security tls client-group-list *named-item* tls13-group *number* |
| Tree | tls13-group |
| Range | 1 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 22.7.R1 |
| Platforms | All |

### **name** *keyword*

| | |
|---|---|
| Synopsis | Name of the TLS 1.3 group suite code |
| Context | **configure** system security tls client-group-list *named-item* tls13-group *number* name *keyword* |
| Tree | name |
| Options | tls-ecdhe-256, tls-ecdhe-384, tls-ecdhe-521, tls-x25519, tls-x448 |
| Notes | This element is mandatory. |
| Introduced | 22.7.R1 |
| Platforms | All |

### **client-signature-list** [client-signature-list-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **client-signature-list** list instance |
| Context | **configure** system security tls client-signature-list *named-item* |
| Tree | client-signature-list |
| Description | Commands in this context configure the list of TLS 1.3-supported signature suite codes that the client sends in a client Hello message. |
| Max. instances | 16 |
| Introduced | 22.7.R1 |
| Platforms | All |

### [**client-signature-list-name**] *named-item*

| | |
|---|---|
| Synopsis | Name of the TLS 1.3 client signature list |
| Context | **configure** system security tls client-signature-list *named-item* |
| Tree | client-signature-list |
| String length | 1 to 32 |


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| | |
|---|---|
| Notes | This element is part of a list key. |
| Introduced | 22.7.R1 |
| Platforms | All |

### **tls13-signature** [index] *number*

| | |
|---|---|
| Synopsis | Enter the **tls13-signature** list instance |
| Context | **configure** system security tls client-signature-list *named-item* tls13-signature *number* |
| Tree | tls13-signature |
| Description | Commands in this context configure the TLS 1.3-supported signature suite codes sent by the client in its Hello messages. |
| Introduced | 22.7.R1 |
| Platforms | All |

### [**index**] *number*

| | |
|---|---|
| Synopsis | Index number of the TLS 1.3 signature |
| Context | **configure** system security tls client-signature-list *named-item* tls13-signature *number* |
| Tree | tls13-signature |
| Range | 1 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 22.7.R1 |
| Platforms | All |

### **name** *keyword*

| | |
|---|---|
| Synopsis | Name of the TLS 1.3 signature suite code |
| Context | **configure** system security tls client-signature-list *named-item* tls13-signature *number* name *keyword* |
| Tree | name |
| Options | tls-rsa-pkcs1-sha256, tls-ecdsa-secp256r1-sha256, tls-rsa-pkcs1-sha384, tls-ecdsa-secp384r1-sha384, tls-rsa-pkcs1-sha512, tls-ecdsa-secp521r1-sha512, tls-rsa-pss-rsae-sha256, tls-rsa-pss-rsae-sha384, tls-rsa-pss-rsae-sha512, tls-ed25519, tls-ed448, tls-rsa-pss-pss-sha256, tls-rsa-pss-pss-sha384, tls-rsa-pss-pss-sha512 |
| Notes | This element is mandatory. |
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| | |
|---|---|
| Platforms | All |

### **client-tls-profile** [client-profile-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **client-tls-profile** list instance |
| Context | **configure** system security tls client-tls-profile *named-item* |
| Tree | client-tls-profile |
| Max. instances | 16 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**client-profile-name**] *named-item*

| | |
|---|---|
| Synopsis | Client TLS profile name |
| Context | **configure** system security tls client-tls-profile *named-item* |
| Tree | client-tls-profile |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the client TLS profile |
| Context | **configure** system security tls client-tls-profile *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cert-profile** *reference*

| | |
|---|---|
| Synopsis | Certificate profile ID |


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| | |
|---|---|
| Context | **configure** system security tls client-tls-profile *named-item* cert-profile *reference* |
| Tree | cert-profile |
| Reference | **configure** system security tls cert-profile *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **cipher-list** *reference*

| | |
|---|---|
| Synopsis | Cipher list for negotiation in the client Hello message |
| Context | **configure** system security tls client-tls-profile *named-item* cipher-list *reference* |
| Tree | cipher-list |
| Reference | **configure** system security tls client-cipher-list *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

## **group-list** *reference*

| | |
|---|---|
| Synopsis | Name of the list of supported group suite codes |
| Context | **configure** system security tls client-tls-profile *named-item* group-list *reference* |
| Tree | group-list |
| Description | This command assigns an existing TLS 1.3 group list to the TLS client profile. |
| Reference | **configure** system security tls client-group-list *named-item* |
| Introduced | 22.7.R1 |
| Platforms | All |

## **protocol-version** *keyword*

| | |
|---|---|
| Synopsis | TLS protocol version used by the TLS client profile |
| Context | **configure** system security tls client-tls-profile *named-item* protocol-version *keyword* |
| Tree | protocol-version |
| Description | This command configures the TLS version to be negotiated between the client and the server.<br>The client adds the specified version as a supported version in its Hello message to the server. |
| Options | tls-version-all, tls-version-12, tls-version-13 |


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| | |
|---|---|
| Default | tls-version-12 |
| Introduced | 22.7.R1 |
| Platforms | All |

## **signature-list** *reference*

| | |
|---|---|
| Synopsis | Name of the list of supported signature suite codes |
| Context | **configure** system security tls client-tls-profile *named-item* signature-list *reference* |
| Tree | signature-list |
| Description | This command assigns an existing TLS 1.3 signature list to the TLS client profile. |
| Reference | **configure** system security tls client-signature-list *named-item* |
| Introduced | 22.7.R1 |
| Platforms | All |

## **status-verify**

| | |
|---|---|
| Synopsis | Enter the **status-verify** context |
| Context | **configure** system security tls client-tls-profile *named-item* status-verify |
| Tree | status-verify |
| Description | Commands in this context configure certificate revocation status verification options for the end-entity certificate in a TLS client. |
| Introduced | 23.7.R1 |
| Platforms | All |

## **default-result** *keyword*

| | |
|---|---|
| Synopsis | Default result of certificate status verification |
| Context | **configure** system security tls client-tls-profile *named-item* status-verify default-result *keyword* |
| Tree | default-result |
| Description | This command configures the default result of the entity certificate verification in the TLS client profile. This command overwrites the EE certificate revocation verification for the TLS client profile.<br><br>By default the router checks the certification revocation status, but if this command is set to **good**, the end-entity certificate revocation status is overwritten and a good revocation status is returned for the EE certificate. |


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| | |
|---|---|
| | If this command is set to **revoked**, the router returns the actual revocation status of the end-entity certificate. |
| Options | revoked, good |
| Default | revoked |
| Introduced | 23.7.R1 |
| Platforms | All |

## ee-revocation

| | |
|---|---|
| Synopsis | Enter the **ee-revocation** context |
| Context | **configure** system security tls client-tls-profile *named-item* status-verify ee-revocation |
| Tree | ee-revocation |
| Description | Commands in this context configure the methods used to verify the end entity certificate revocation status for the TLS client profile. |
| Introduced | 24.10.R1 |
| Platforms | All |

## primary *keyword*

| | |
|---|---|
| Synopsis | Primary method used to verify certificate revocation |
| Context | **configure** system security tls client-tls-profile *named-item* status-verify ee-revocation primary *keyword* |
| Tree | primary |
| Options | crl, ocsp |
| Default | crl |
| Introduced | 24.10.R1 |
| Platforms | All |

## secondary *keyword*

| | |
|---|---|
| Synopsis | Secondary method used to verify certificate revocation |
| Context | **configure** system security tls client-tls-profile *named-item* status-verify ee-revocation secondary *keyword* |
| Tree | secondary |
| Options | none, crl, ocsp |
| Default | none |


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| | |
|---|---|
| Introduced | 24.10.R1 |
| Platforms | All |

### **trust-anchor-profile** *reference*

| | |
|---|---|
| Synopsis | Trust anchor profile |
| Context | **configure** system security tls client-tls-profile *named-item* trust-anchor-profile *reference* |
| Tree | trust-anchor-profile |
| Reference | **configure** system security tls trust-anchor-profile *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **server-cipher-list** [server-cipher-list-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **server-cipher-list** list instance |
| Context | **configure** system security tls server-cipher-list *named-item* |
| Tree | server-cipher-list |
| Max. instances | 16 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**server-cipher-list-name**] *named-item*

| | |
|---|---|
| Synopsis | Server cipher list name |
| Context | **configure** system security tls server-cipher-list *named-item* |
| Tree | server-cipher-list |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **tls12-cipher** [index] *number*

| | |
|---|---|
| Synopsis | Enter the **tls12-cipher** list instance |


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| | |
|---|---|
| Context | **configure** system security tls server-cipher-list *named-item* tls12-cipher *number* |
| Tree | tls12-cipher |
| Introduced | 22.2.R1 |
| Platforms | All |

### [**index**] *number*

| | |
|---|---|
| Synopsis | Index of the cipher |
| Context | **configure** system security tls server-cipher-list *named-item* tls12-cipher *number* |
| Tree | tls12-cipher |
| Range | 1 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 22.2.R1 |
| Platforms | All |

### **name** *keyword*

| | |
|---|---|
| Synopsis | Cipher suite code |
| Context | **configure** system security tls server-cipher-list *named-item* tls12-cipher *number* name *keyword* |
| Tree | name |
| Options | tls-rsa-with3des-ede-cbc-sha, tls-rsa-with-aes128-cbc-sha, tls-rsa-with-aes256-cbc-sha, tls-rsa-with-aes128-cbc-sha256, tls-rsa-with-aes256-cbc-sha256, tls-rsa-with-aes128-gcm-sha256, tls-rsa-with-aes256-gcm-sha384, tls-ecdhe-rsa-aes128-gcm-sha256, tls-ecdhe-rsa-aes256-gcm-sha384 |
| Notes | This element is mandatory. |
| Introduced | 22.2.R1 |
| Platforms | All |

### **tls13-cipher** [index] *number*

| | |
|---|---|
| Synopsis | Enter the **tls13-cipher** list instance |
| Context | **configure** system security tls server-cipher-list *named-item* tls13-cipher *number* |
| Tree | tls13-cipher |
| Description | Commands in this context configure the TLS 1.3-supported ciphers used by the server. |
| Introduced | 22.7.R1 |


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| | |
|---|---|
| Platforms | All |

### [**index**] *number*

| | |
|---|---|
| Synopsis | Index number of the TLS 1.3 cipher |
| Context | **configure** system security tls server-cipher-list *named-item* tls13-cipher *number* |
| Tree | tls13-cipher |
| Range | 1 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 22.7.R1 |
| Platforms | All |

### **name** *keyword*

| | |
|---|---|
| Synopsis | Name of the TLS 1.3 cipher suite code |
| Context | **configure** system security tls server-cipher-list *named-item* tls13-cipher *number* name *keyword* |
| Tree | name |
| Options | tls-aes128-gcm-sha256, tls-aes256-gcm-sha384, tls-chacha20-poly1305-sha256, tls-aes128-ccm-sha256, tls-aes128-ccm8-sha256 |
| Notes | This element is mandatory. |
| Introduced | 22.7.R1 |
| Platforms | All |

### **server-group-list** [server-group-list-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **server-group-list** list instance |
| Context | **configure** system security tls server-group-list *named-item* |
| Tree | server-group-list |
| Description | Commands in this context configure the list of TLS 1.3-supported group suite codes that the server sends in a server Hello message. |
| Max. instances | 16 |
| Introduced | 22.7.R1 |
| Platforms | All |


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### [**server-group-list-name**] *named-item*

| | |
|---|---|
| Synopsis | Name of the TLS server group list |
| Context | **configure** system security tls server-group-list *named-item* |
| Tree | server-group-list |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 22.7.R1 |
| Platforms | All |

### **tls13-group** [index] *number*

| | |
|---|---|
| Synopsis | Enter the **tls13-group** list instance |
| Context | **configure** system security tls server-group-list *named-item* tls13-group *number* |
| Tree | tls13-group |
| Description | Commands in this context configure the TLS 1.3-supported group suite codes sent by the server in its Hello messages.<br>SR OS supports the use of Elliptic-Curve Diffie-Hellman Ephemeral (ECDHE) groups. |
| Introduced | 22.7.R1 |
| Platforms | All |

### [**index**] *number*

| | |
|---|---|
| Synopsis | Index number of the TLS 1.3 group |
| Context | **configure** system security tls server-group-list *named-item* tls13-group *number* |
| Tree | tls13-group |
| Range | 1 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 22.7.R1 |
| Platforms | All |

### **name** *keyword*

| | |
|---|---|
| Synopsis | Name of the TLS 1.3 group suite code |


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| | |
|---|---|
| Context | **configure** system security tls server-group-list *named-item* tls13-group *number* name *keyword* |
| Tree | name |
| Options | tls-ecdhe-256, tls-ecdhe-384, tls-ecdhe-521, tls-x25519, tls-x448 |
| Notes | This element is mandatory. |
| Introduced | 22.7.R1 |
| Platforms | All |

## **server-signature-list** [server-signature-list-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **server-signature-list** list instance |
| Context | **configure** system security tls server-signature-list *named-item* |
| Tree | server-signature-list |
| Description | Commands in this context configure the list of TLS 1.3-supported signature suite codes for the digital signature that the server sends in a server Hello message. |
| Max. instances | 16 |
| Introduced | 22.7.R1 |
| Platforms | All |

## [**server-signature-list-name**] *named-item*

| | |
|---|---|
| Synopsis | Name of the TLS 1.3 server signature list |
| Context | **configure** system security tls server-signature-list *named-item* |
| Tree | server-signature-list |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 22.7.R1 |
| Platforms | All |

## **tls13-signature** [index] *number*

| | |
|---|---|
| Synopsis | Enter the **tls13-signature** list instance |
| Context | **configure** system security tls server-signature-list *named-item* tls13-signature *number* |
| Tree | tls13-signature |


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| | |
|---|---|
| Description | Commands in this context configure the TLS 1.3-supported signature suite codes sent by the server in its Hello messages. |
| Introduced | 22.7.R1 |
| Platforms | All |

### [**index**] *number*

| | |
|---|---|
| Synopsis | Index number of the TLS 1.3 signature |
| Context | **configure** system security tls server-signature-list *named-item* tls13-signature *number* |
| Tree | tls13-signature |
| Range | 1 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 22.7.R1 |
| Platforms | All |

### **name** *keyword*

| | |
|---|---|
| Synopsis | Name of the TLS 1.3 signature suite code |
| Context | **configure** system security tls server-signature-list *named-item* tls13-signature *number* name *keyword* |
| Tree | name |
| Options | tls-rsa-pkcs1-sha256, tls-ecdsa-secp256r1-sha256, tls-rsa-pkcs1-sha384, tls-ecdsa-secp384r1-sha384, tls-rsa-pkcs1-sha512, tls-ecdsa-secp521r1-sha512, tls-rsa-pss-rsae-sha256, tls-rsa-pss-rsae-sha384, tls-rsa-pss-rsae-sha512, tls-ed25519, tls-ed448, tls-rsa-pss-pss-sha256, tls-rsa-pss-pss-sha384, tls-rsa-pss-pss-sha512 |
| Notes | This element is mandatory. |
| Introduced | 22.7.R1 |
| Platforms | All |

### **server-tls-profile** [server-profile-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **server-tls-profile** list instance |
| Context | **configure** system security tls server-tls-profile *named-item* |
| Tree | server-tls-profile |
| Max. instances | 16 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### [**server-profile-name**] *named-item*

| | |
|---|---|
| Synopsis | TLS server profile name |
| Context | **configure** system security tls server-tls-profile *named-item* |
| Tree | server-tls-profile |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the server TLS profile |
| Context | **configure** system security tls server-tls-profile *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

### **authenticate-client**

| | |
|---|---|
| Synopsis | Enter the **authenticate-client** context |
| Context | **configure** system security tls server-tls-profile *named-item* authenticate-client |
| Tree | authenticate-client |
| Introduced | 16.0.R1 |
| Platforms | All |

### **common-name-list** *reference*

| | |
|---|---|
| Synopsis | Common name list for client certificate authentication |
| Context | **configure** system security tls server-tls-profile *named-item* authenticate-client common-name-list *reference* |


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| | |
|---|---|
| Tree | common-name-list |
| Reference | **configure** system security pki common-name-list *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **trust-anchor-profile** *reference*

| | |
|---|---|
| Synopsis | Trust anchor profile for client authentication |
| Context | **configure** system security tls server-tls-profile *named-item* authenticate-client trust-anchor-profile *reference* |
| Tree | trust-anchor-profile |
| Reference | **configure** system security tls trust-anchor-profile *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cert-profile** *reference*

| | |
|---|---|
| Synopsis | Certificate profile ID |
| Context | **configure** system security tls server-tls-profile *named-item* cert-profile *reference* |
| Tree | cert-profile |
| Reference | **configure** system security tls cert-profile *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cipher-list** *reference*

| | |
|---|---|
| Synopsis | Cipher list used by the TLS server profile |
| Context | **configure** system security tls server-tls-profile *named-item* cipher-list *reference* |
| Tree | cipher-list |
| Reference | **configure** system security tls server-cipher-list *named-item* |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **group-list** *reference*

| | |
|---|---|
| Synopsis | Name of the list of supported group suite codes |
| Context | **configure** system security tls server-tls-profile *named-item* group-list *reference* |
| Tree | group-list |
| Description | This command assigns an existing TLS 1.3 group list to the TLS server profile. |
| Reference | **configure** system security tls server-group-list *named-item* |
| Introduced | 22.7.R1 |
| Platforms | All |

### **protocol-version** *keyword*

| | |
|---|---|
| Synopsis | TLS protocol version used by the TLS server profile |
| Context | **configure** system security tls server-tls-profile *named-item* protocol-version *keyword* |
| Tree | protocol-version |
| Description | This command configures the TLS version to be negotiated between the server and the client.<br>The server adds the specified version as a supported version in its Hello message to the client. |
| Options | tls-version-all, tls-version-12, tls-version-13 |
| Default | tls-version-12 |
| Introduced | 22.7.R1 |
| Platforms | All |

### **signature-list** *reference*

| | |
|---|---|
| Synopsis | Name of the list of supported signature suite codes |
| Context | **configure** system security tls server-tls-profile *named-item* signature-list *reference* |
| Tree | signature-list |
| Description | This command assigns an existing TLS 1.3 signature list to the TLS server profile. |
| Reference | **configure** system security tls server-signature-list *named-item* |
| Introduced | 22.7.R1 |
| Platforms | All |


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## status-verify

| | |
|---|---|
| Synopsis | Enter the **status-verify** context |
| Context | **configure** system security tls server-tls-profile *named-item* status-verify |
| Tree | status-verify |
| Description | Commands in this context configure certificate revocation status verification options for the end-entity certificate in a TLS server. |
| Introduced | 23.7.R1 |
| Platforms | All |

## default-result *keyword*

| | |
|---|---|
| Synopsis | Default result of certificate status verification |
| Context | **configure** system security tls server-tls-profile *named-item* status-verify default-result *keyword* |
| Tree | default-result |
| Description | This command configures the default result of the entity certificate verification in the TLS server profile. This command overwrites the EE certificate revocation verification for the TLS server profile.<br>By default the router checks the certification revocation status, but if this command is set to **good**, the end-entity certificate revocation status is overwritten and a good revocation status is returned for the EE certificate.<br>If this command is set to **revoked**, the router returns the actual revocation status of the end-entity certificate. |
| Options | revoked, good |
| Default | revoked |
| Introduced | 23.7.R1 |
| Platforms | All |

## ee-revocation

| | |
|---|---|
| Synopsis | Enter the **ee-revocation** context |
| Context | **configure** system security tls server-tls-profile *named-item* status-verify ee-revocation |
| Tree | ee-revocation |
| Description | Commands in this context configure the methods used to verify the end entity certificate revocation status for the TLS server profile. |
| Introduced | 24.10.R1 |


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| | |
|---|---|
| Platforms | All |

### **primary** *keyword*

| | |
|---|---|
| Synopsis | Primary method used to verify certificate revocation |
| Context | **configure** system security tls server-tls-profile *named-item* status-verify ee-revocation primary *keyword* |
| Tree | primary |
| Options | crl, ocsp |
| Default | crl |
| Introduced | 24.10.R1 |
| Platforms | All |

### **secondary** *keyword*

| | |
|---|---|
| Synopsis | Secondary method used to verify certificate revocation |
| Context | **configure** system security tls server-tls-profile *named-item* status-verify ee-revocation secondary *keyword* |
| Tree | secondary |
| Options | none, crl, ocsp |
| Default | none |
| Introduced | 24.10.R1 |
| Platforms | All |

### **tls-re-negotiate-timer** *number*

| | |
|---|---|
| Synopsis | TLS HELLO request timer |
| Context | **configure** system security tls server-tls-profile *named-item* tls-re-negotiate-timer *number* |
| Tree | tls-re-negotiate-timer |
| Range | 0 to 65000 |
| Units | minutes |
| Default | 0 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **trust-anchor-profile** [trust-anchor-profile-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **trust-anchor-profile** list instance |
| Context | **configure** system security tls trust-anchor-profile *named-item* |
| Tree | trust-anchor-profile |
| Max. instances | 16 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**trust-anchor-profile-name**] *named-item*

| | |
|---|---|
| Synopsis | Trust anchor profile name |
| Context | **configure** system security tls trust-anchor-profile *named-item* |
| Tree | trust-anchor-profile |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **trust-anchor** [ca-profile-name] *reference*

| | |
|---|---|
| Synopsis | Add a list entry for **trust-anchor** |
| Context | **configure** system security tls trust-anchor-profile *named-item* trust-anchor *reference* |
| Tree | trust-anchor |
| Max. instances | 8 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ca-profile-name**] *reference*

| | |
|---|---|
| Synopsis | Trusted CA profile name |
| Context | **configure** system security tls trust-anchor-profile *named-item* trust-anchor *reference* |
| Tree | trust-anchor |


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| | |
|---|---|
| Reference | **configure** system security pki ca-profile *named-item* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### user-params

| | |
|---|---|
| Synopsis | Enter the **user-params** context |
| Context | **configure** system security user-params |
| Tree | user-params |
| Introduced | 16.0.R1 |
| Platforms | All |

### attempts

| | |
|---|---|
| Synopsis | Enter the **attempts** context |
| Context | **configure** system security user-params attempts |
| Tree | attempts |
| Introduced | 16.0.R1 |
| Platforms | All |

### count *number*

| | |
|---|---|
| Synopsis | Number of unsuccessful login attempts |
| Context | **configure** system security user-params attempts count *number* |
| Tree | count |
| Range | 1 to 64 |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | All |

### lockout *number*

| | |
|---|---|
| Synopsis | Lockout period after unsuccessful login attempts |
| Context | **configure** system security user-params attempts lockout *number* |


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| | |
|---|---|
| Tree | lockout |
| Range | 0 to 1440 |
| Units | minutes |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **time** *number*

| | |
|---|---|
| Synopsis | Time frame of unsuccessful login attempts |
| Context | **configure** system security user-params attempts time *number* |
| Tree | time |
| Range | 0 to 60 |
| Units | minutes |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | All |

### authentication-order

| | |
|---|---|
| Synopsis | Enter the **authentication-order** context |
| Context | **configure** system security user-params authentication-order |
| Tree | authentication-order |
| Description | Commands in this context configure the sequence in which the system attempts authentication and authorization among the local user database, RADIUS servers, TACACS+ servers, and LDAP servers.<br><br>Configure the order from the most preferred method to the least preferred. The presence of all methods in the command line does not guarantee they are all operational. Specifying options that are not available delays user authentication.<br><br>If all operational methods are attempted and no authentication for a particular login has been granted, an entry in the security log records the failed attempt. Both the attempted login identification and originating IP address are logged with a timestamp.<br><br>The default order is [**radius tacplus ldap local**].<br><br>The order is not applicable to SNMPv3. SNMPv3 messages ignore the configured order and are authorized using the locally configured users only. TACACS+, RADIUS, and LDAP are not supported for SNMPv3 authentication.<br><br>**Note:** This command applies to a local user, in addition to users on RADIUS, TACACS+, and LDAP. |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## **exit-on-reject** *boolean*

| | |
|---|---|
| Synopsis | Ignore subsequent AAA methods after a reject |
| Context | **configure** system security user-params authentication-order exit-on-reject *boolean* |
| Tree | exit-on-reject |
| Description | When configured to **true**, the router stops authentication if one of the AAA methods configured in the authentication order sends a rejection.<br>When configured to **false**, the router attempts the next AAA method if a AAA method sends a rejection. If all AAA methods are exhausted, authentication and authorization is rejected.<br>If the order specifies **local** as the first method, the following actions apply:<br>• If this command is set to **true** and the user does not exist, the user is not authenticated.<br>• If the user can be authenticated locally, other methods, if configured, are used for authorization and accounting.<br>• If the user is configured locally but without console access, login is denied. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## **order** *keyword*

| | |
|---|---|
| Synopsis | Authentication and authorization order |
| Context | **configure** system security user-params authentication-order order *keyword* |
| Tree | order |
| Description | This command specifies the order of authentication and authorization.<br>The default order is [**radius tacplus ldap local**] |
| Options | local, radius, tacplus, ldap |
| Max. instances | 4 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |


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## local-user

| | |
|---|---|
| Synopsis | Enter the **local-user** context |
| Context | **configure** system security user-params local-user |
| Tree | local-user |
| Introduced | 16.0.R1 |
| Platforms | All |

## password

| | |
|---|---|
| Synopsis | Enter the **password** context |
| Context | **configure** system security user-params local-user password |
| Tree | password |
| Introduced | 16.0.R1 |
| Platforms | All |

## aging *number*

| | |
|---|---|
| Synopsis | Maximum time during which a user password is valid |
| Context | **configure** system security user-params local-user password aging *number* |
| Tree | aging |
| Range | 1 to 500 |
| Units | days |
| Introduced | 16.0.R1 |
| Platforms | All |

## complexity-rules

| | |
|---|---|
| Synopsis | Enter the **complexity-rules** context |
| Context | **configure** system security user-params local-user password complexity-rules |
| Tree | complexity-rules |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **allow-user-name** *boolean*

| | |
|---|---|
| Synopsis | Allow the username to be used as part of the password |
| Context | **configure** system security user-params local-user password complexity-rules allow-user-name *boolean* |
| Tree | allow-user-name |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **credits**

| | |
|---|---|
| Synopsis | Enter the **credits** context |
| Context | **configure** system security user-params local-user password complexity-rules credits |
| Tree | credits |
| Notes | The following elements are part of a choice: **credits** or **required**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lowercase** *number*

| | |
|---|---|
| Synopsis | Maximum credits for the use of lowercase letters |
| Context | **configure** system security user-params local-user password complexity-rules credits lowercase *number* |
| Tree | lowercase |
| Range | 1 to 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **numeric** *number*

| | |
|---|---|
| Synopsis | Maximum credits for the use of numeric characters |
| Context | **configure** system security user-params local-user password complexity-rules credits numeric *number* |
| Tree | numeric |
| Range | 1 to 10 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **special-character** *number*

| | |
|---|---|
| Synopsis | Maximum credits for the use of special characters |
| Context | **configure** system security user-params local-user password complexity-rules credits special-character *number* |
| Tree | special-character |
| Range | 1 to 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **uppercase** *number*

| | |
|---|---|
| Synopsis | Maximum credits for the use of uppercase letters |
| Context | **configure** system security user-params local-user password complexity-rules credits uppercase *number* |
| Tree | uppercase |
| Range | 1 to 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **disallow-sequence-keys** *number*

| | |
|---|---|
| Synopsis | Minimum length of disallowed sequential characters |
| Context | **configure** system security user-params local-user password complexity-rules disallow-sequence-keys *number* |
| Tree | disallow-sequence-keys |
| Description | This command configures the number of consecutive characters that are not allowed to be entered as part of the password on a U.S. English or Korean keyboard. These characters can be lowercase or uppercase letters, or numbers. Special characters are not taken into account. These consecutive characters can be horizontal (left to right) or (right to left) or diagonal (up to bottom or bottom to top). If the number of consecutive characters is equal to or larger than the configured value, the password is disallowed.<br><br>For example, if the user attempts to use the password "dsalkjhgfdsa", with this command configured to 8, the system rejects the password because the first consecutive sequence "dsa" is 3 lowercase letters, which passes the check, but the |


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second consecutive sequence is "lkjhgfdsa", which consists of 9 consecutive lowercase letters and this does not pass the check.

| | |
|---|---|
| Range | 2 to 8 |
| Introduced | 24.7.R1 |
| Platforms | All |

### **minimum-classes** *number*

| | |
|---|---|
| Synopsis | Minimum number of different character classes to use |
| Context | **configure** system security user-params local-user password complexity-rules minimum-classes *number* |
| Tree | minimum-classes |
| Range | 2 to 4 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **minimum-length** *number*

| | |
|---|---|
| Synopsis | Minimum length required for local passwords |
| Context | **configure** system security user-params local-user password complexity-rules minimum-length *number* |
| Tree | minimum-length |
| Range | 6 to 50 |
| Default | 6 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **repeated-characters** *number*

| | |
|---|---|
| Synopsis | Number of times same character can repeat consecutively |
| Context | **configure** system security user-params local-user password complexity-rules repeated-characters *number* |
| Tree | repeated-characters |
| Range | 2 to 8 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### required

| | |
|---|---|
| Synopsis | Enter the **required** context |
| Context | **configure** system security user-params local-user password complexity-rules required |
| Tree | required |
| Notes | The following elements are part of a choice: **credits** or **required**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### lowercase *number*

| | |
|---|---|
| Synopsis | Number of lowercase letters required |
| Context | **configure** system security user-params local-user password complexity-rules required lowercase *number* |
| Tree | lowercase |
| Range | 1 to 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### numeric *number*

| | |
|---|---|
| Synopsis | Number of numeric characters required |
| Context | **configure** system security user-params local-user password complexity-rules required numeric *number* |
| Tree | numeric |
| Range | 1 to 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### special-character *number*

| | |
|---|---|
| Synopsis | Number of special characters required |
| Context | **configure** system security user-params local-user password complexity-rules required special-character *number* |
| Tree | special-character |
| Range | 1 to 10 |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **uppercase** *number*

| | |
|---|---|
| Synopsis | Number of uppercase letters required |
| Context | **configure** system security user-params local-user password complexity-rules required uppercase *number* |
| Tree | uppercase |
| Range | 1 to 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hashing** *keyword*

| | |
|---|---|
| Synopsis | Hashing algorithm for user passwords |
| Context | **configure** system security user-params local-user password hashing *keyword* |
| Tree | hashing |
| Options | bcrypt, sha2-pbkdf2, sha3-pbkdf2 |
| Default | bcrypt |
| Introduced | 20.7.R1 |
| Platforms | All |

### **history-size** *number*

| | |
|---|---|
| Synopsis | Number of previous passwords to compare against |
| Context | **configure** system security user-params local-user password history-size *number* |
| Tree | history-size |
| Range | 0 to 20 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **minimum-age** *number*

| | |
|---|---|
| Synopsis | Minimum age required for a password before changing it |
| Context | **configure** system security user-params local-user password minimum-age *number* |


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| | |
|---|---|
| Tree | minimum-age |
| Range | 0 to 86400 |
| Units | seconds |
| Default | 600 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **minimum-change** *number*

| | |
|---|---|
| Synopsis | Minimum character differences between passwords |
| Context | **configure** system security user-params local-user password minimum-change *number* |
| Tree | minimum-change |
| Range | 1 to 20 |
| Default | 5 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **user** [user-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **user** list instance |
| Context | **configure** system security user-params local-user user *named-item* |
| Tree | user |
| Description | Commands in this context configure local users. |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**user-name**] *named-item*

| | |
|---|---|
| Synopsis | Local user name |
| Context | **configure** system security user-params local-user user *named-item* |
| Tree | user |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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## access

| | |
|---|---|
| Synopsis | Enter the **access** context |
| Context | **configure** system security user-params local-user user *named-item* access |
| Tree | access |
| Description | Commands in this context grant a user access to the router management access methods. If a user requires access to more than one method, multiple methods can be specified. |
| Introduced | 16.0.R1 |
| Platforms | All |

## bluetooth *boolean*

| | |
|---|---|
| Synopsis | Allow Bluetooth access |
| Context | **configure** system security user-params local-user user *named-item* access bluetooth *boolean* |
| Tree | bluetooth |
| Default | false |
| Introduced | 24.7.R1 |
| Platforms | All |

## console *boolean*

| | |
|---|---|
| Synopsis | Allow Bluetooth, console port CLI, SCP/SFTP, SSH CLI, and Telnet CLI access |
| Context | **configure** system security user-params local-user user *named-item* access console *boolean* |
| Tree | console |
| Description | When configured to **true**, the system allows this access method to take precedence over other access methods in all cases. |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## console-port-cli *boolean*

| | |
|---|---|
| Synopsis | Allow console port CLI access |


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| | |
|---|---|
| Context | **configure** system security user-params local-user user *named-item* access console-port-cli *boolean* |
| Tree | console-port-cli |
| Default | false |
| Introduced | 24.7.R1 |
| Platforms | All |

### **ftp** *boolean*

| | |
|---|---|
| Synopsis | Allow FTP access |
| Context | **configure** system security user-params local-user user *named-item* access ftp *boolean* |
| Tree | ftp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **grpc** *boolean*

| | |
|---|---|
| Synopsis | Allow gRPC access |
| Context | **configure** system security user-params local-user user *named-item* access grpc *boolean* |
| Tree | grpc |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **li** *boolean*

| | |
|---|---|
| Synopsis | Allow access to Lawful Intercept (LI) commands |
| Context | **configure** system security user-params local-user user *named-item* access li *boolean* |
| Tree | li |
| Default | false |
| Introduced | 19.10.R1 |
| Platforms | All |


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### **netconf** *boolean*

| | |
|---|---|
| Synopsis | Allow NETCONF access |
| Context | **configure** system security user-params local-user user *named-item* access netconf *boolean* |
| Tree | netconf |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **scp-sftp** *boolean*

| | |
|---|---|
| Synopsis | Allow SCP/SFTP access |
| Context | **configure** system security user-params local-user user *named-item* access scp-sftp *boolean* |
| Tree | scp-sftp |
| Default | false |
| Introduced | 24.7.R1 |
| Platforms | All |

### **snmp** *boolean*

| | |
|---|---|
| Synopsis | Allow SNMP access |
| Context | **configure** system security user-params local-user user *named-item* access snmp *boolean* |
| Tree | snmp |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **ssh-cli** *boolean*

| | |
|---|---|
| Synopsis | Allow SSH CLI access |
| Context | **configure** system security user-params local-user user *named-item* access ssh-cli *boolean* |
| Tree | ssh-cli |


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| | |
|---|---|
| Default | false |
| Introduced | 24.7.R1 |
| Platforms | All |

### **telnet-cli** *boolean*

| | |
|---|---|
| Synopsis | Allow Telnet CLI access |
| Context | **configure** system security user-params local-user user *named-item* access telnet-cli *boolean* |
| Tree | telnet-cli |
| Default | false |
| Introduced | 24.7.R1 |
| Platforms | All |

### **cli-engine** *keyword*

| | |
|---|---|
| Synopsis | User level override for CLI engine access |
| Context | **configure** system security user-params local-user user *named-item* cli-engine *keyword* |
| Tree | cli-engine |
| Options | classic-cli, md-cli |
| Max. instances | 2 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **console**

| | |
|---|---|
| Synopsis | Enter the **console** context |
| Context | **configure** system security user-params local-user user *named-item* console |
| Tree | console |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **cannot-change-password** *boolean*

| | |
|---|---|
| Synopsis | Change password privileges |
| Context | **configure** system security user-params local-user user *named-item* console cannot-change-password *boolean* |
| Tree | cannot-change-password |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **login-exec** *(sat-url | cflash-url | ftp-tftp-url | filename)*

| | |
|---|---|
| Synopsis | File to execute when a user successfully logs in |
| Context | **configure** system security user-params local-user user *named-item* console login-exec *(sat-url | cflash-url | ftp-tftp-url | filename)* |
| Tree | login-exec |
| String length | 1 to 200 (*sat-url*, *cflash-url*)<br>1 to 180 (*ftp-tftp-url*, *filename*) |
| Introduced | 16.0.R1 |
| Platforms | All |

### **member** *reference*

| | |
|---|---|
| Synopsis | User profiles for this user |
| Context | **configure** system security user-params local-user user *named-item* console member *reference* |
| Tree | member |
| Reference | **configure** system security aaa local-profiles profile *named-item* |
| Max. instances | 8 |
| Notes | This element is ordered by the user. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **new-password-at-login** *boolean*

| | |
|---|---|
| Synopsis | Prompt a user to change password at next console login |
| Context | **configure** system security user-params local-user user *named-item* console new-password-at-login *boolean* |
| Tree | new-password-at-login |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **home-directory** *cflash-without-slot-url*

| | |
|---|---|
| Synopsis | Home directory for the user |
| Context | **configure** system security user-params local-user user *named-item* home-directory *cflash-without-slot-url* |
| Tree | home-directory |
| Description | This command configures the home directory of the user for file access. Files can be accessed locally by CLI **file** commands and output modifiers such as **>** (file redirect), or remotely via FTP and SCP. If the home directory does not exist, a warning message is displayed when the user logs in.<br>When **restricted-to-home** is configured, file access is denied unless the **home-directory** is configured and the directory is created by an administrator. |
| String length | 1 to 200 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **password** *hashed-leaf*

| | |
|---|---|
| Synopsis | User password |
| Context | **configure** system security user-params local-user user *named-item* password *hashed-leaf* |
| Tree | password |
| String length | 3 to 136 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |


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## public-keys

| | |
|---|---|
| Synopsis | Enter the **public-keys** context |
| Context | **configure** system security user-params local-user user *named-item* public-keys |
| Tree | public-keys |
| Description | Commands in this context configure public keys for SSH. |
| Introduced | 16.0.R1 |
| Platforms | All |

## ecdsa

| | |
|---|---|
| Synopsis | Enter the **ecdsa** context |
| Context | **configure** system security user-params local-user user *named-item* public-keys ecdsa |
| Tree | ecdsa |
| Description | Commands in this context configure Elliptic Curve Digital Signature Algorithm (ECDSA) public keys. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **ecdsa-key** [ecdsa-public-key-id] *number*

| | |
|---|---|
| Synopsis | Enter the **ecdsa-key** list instance |
| Context | **configure** system security user-params local-user user *named-item* public-keys ecdsa ecdsa-key *number* |
| Tree | ecdsa-key |
| Description | Commands in this context configure an ECDSA public key and associate the key with a username. A user can associate multiple public keys with a username. The key ID identifies these keys for the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

## [**ecdsa-public-key-id**] *number*

| | |
|---|---|
| Synopsis | ECDSA public key identifier |
| Context | **configure** system security user-params local-user user *named-item* public-keys ecdsa ecdsa-key *number* |


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| | |
|---|---|
| Tree | ecdsa-key |
| Range | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** system security user-params local-user user *named-item* public-keys ecdsa ecdsa-key *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **key-value** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | ECDSA public key value |
| Context | **configure** system security user-params local-user user *named-item* public-keys ecdsa ecdsa-key *number* key-value *string-not-all-spaces* |
| Tree | key-value |
| Description | This command configures a value for the ECDSA public key. The public key must be enclosed in quotation marks. For ECDSA, the key is between 1 and 1024 bits. |
| String length | 1 to 255 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **rsa**

| | |
|---|---|
| Synopsis | Enter the **rsa** context |
| Context | **configure** system security user-params local-user user *named-item* public-keys rsa |
| Tree | rsa |
| Description | Commands in this context configure RSA public keys. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **rsa-key** [rsa-public-key-id] *number*

| | |
|---|---|
| Synopsis | Enter the **rsa-key** list instance |
| Context | **configure** system security user-params local-user user *named-item* public-keys rsa rsa-key *number* |
| Tree | rsa-key |
| Description | Commands in this context configure an RSA public key and associate the key with a username. A user can associate multiple public keys with a username. The key ID identifies these keys for the user. |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**rsa-public-key-id**] *number*

| | |
|---|---|
| Synopsis | RSA public key identifier |
| Context | **configure** system security user-params local-user user *named-item* public-keys rsa rsa-key *number* |
| Tree | rsa-key |
| Range | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** system security user-params local-user user *named-item* public-keys rsa rsa-key *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **key-value** *string-not-all-spaces*

| | |
|---|---|
| Synopsis | RSA public key value |
| Context | **configure** system security user-params local-user user *named-item* public-keys rsa rsa-key *number* key-value *string-not-all-spaces* |
| Tree | key-value |
| Description | This command configures a value for the RSA public key. The public key must be enclosed in quotation marks. For RSA, the key is between 768 and 4096 bits. |
| String length | 1 to 800 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **restricted-to-home** *boolean*

| | |
|---|---|
| Synopsis | Restrict file access to the home directory of the user |
| Context | **configure** system security user-params local-user user *named-item* restricted-to-home *boolean* |
| Tree | restricted-to-home |
| Description | When configured to **true**, the router denies the user from accessing files outside of their home directory. Files can be accessed locally by CLI file commands and output modifiers such as **>** (file redirect), or remotely via FTP and SCP. The system denies all configuration save operations (such as **admin save**) via any management interface (such as CLI and NETCONF) unless **save-when-restricted** is enabled.<br>File access is denied unless a home directory is configured and the directory is created by an administrator.<br>When configured to **false**, the router permits the user to access all files on the system. |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

### **save-when-restricted** *boolean*

| | |
|---|---|
| Synopsis | Save configurations when the user is restricted to home |
| Context | **configure** system security user-params local-user user *named-item* save-when-restricted *boolean* |
| Tree | save-when-restricted |


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| | |
|---|---|
| Description | When configured to **true**, the system permits configuration save operations for all configuration regions (such as bof and configure) via any management interface (such as CLI and NETCONF) even if **restricted-to-home** is enabled.<br>The configuration for each region can be saved with **admin save** CLI commands or when committed over NETCONF and gRPC.<br>When configured to **false**, the system denies saving the configuration when **restricted-to-home** is enabled, unless the home directory of the user includes the location of the saved configuration file. |
| Default | true |
| Introduced | 22.10.R1 |
| Platforms | All |

## snmp

| | |
|---|---|
| Synopsis | Enter the **snmp** context |
| Context | **configure** system security user-params local-user user *named-item* snmp |
| Tree | snmp |
| Introduced | 16.0.R1 |
| Platforms | All |

## authentication

| | |
|---|---|
| Synopsis | Enable the **authentication** context |
| Context | **configure** system security user-params local-user user *named-item* snmp authentication |
| Tree | authentication |
| Description | Commands in this context configure the SNMPv3 authentication and privacy protocols for the user to communicate with the router. The keys are stored in an encrypted format in the configuration.<br>The keys configured with these commands must be localized keys, which are a hash of the SNMP engine ID and a password. The password is not entered directly in this command. Use the **tools perform system management-interface snmp generate-key** command to generate localized authentication and privacy keys.<br>If authentication is not configured, only the username is required to allow and authenticate SNMPv3 operations. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **authentication-key** *encrypted-leaf-hex-without-prefix*

| | |
|---|---|
| Synopsis | Localized authentication key |
| Context | **configure** system security user-params local-user user *named-item* snmp authentication authentication-key *encrypted-leaf-hex-without-prefix* |
| Tree | authentication-key |
| Description | This command specifies the authentication key for the authentication protocol. The key must be a localized key, which is a hash of the SNMP engine ID and a password. The password is not entered directly in this command. Use the **tools perform system management-interface snmp generate-key** command to generate a localized authentication key. |
| String length | 1 to 115 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **authentication-protocol** *keyword*

| | |
|---|---|
| Synopsis | Authentication protocol |
| Context | **configure** system security user-params local-user user *named-item* snmp authentication authentication-protocol *keyword* |
| Tree | authentication-protocol |
| Options | hmac-md5-96, hmac-sha1-96, hmac-sha2-224, hmac-sha2-256, hmac-sha2-384, hmac-sha2-512 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **privacy**

| | |
|---|---|
| Synopsis | Enable the **privacy** context |
| Context | **configure** system security user-params local-user user *named-item* snmp authentication privacy |
| Tree | privacy |
| Introduced | 16.0.R1 |
| Platforms | All |

### **privacy-key** *encrypted-leaf-hex-without-prefix*

| | |
|---|---|
| Synopsis | Localized privacy key |


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| | |
|---|---|
| Context | **configure** system security user-params local-user user *named-item* snmp authentication privacy privacy-key *encrypted-leaf-hex-without-prefix* |
| Tree | privacy-key |
| Description | This command specifies the privacy key for the privacy protocol. The key must be a localized key, which is a hash of the SNMP engine ID and a password. The password is not entered directly in this command. Use the **tools perform system management-interface snmp generate-key** command to generate a localized privacy key. |
| String length | 1 to 71 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **privacy-protocol** *keyword*

| | |
|---|---|
| Synopsis | Privacy protocol |
| Context | **configure** system security user-params local-user user *named-item* snmp authentication privacy privacy-protocol *keyword* |
| Tree | privacy-protocol |
| Options | cbc-des, cfb128-aes-128, cfb128-aes-192, cfb128-aes-256 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **group** *named-item*

| | |
|---|---|
| Synopsis | User to associate with a group name |
| Context | **configure** system security user-params local-user user *named-item* snmp group *named-item* |
| Tree | group |
| String length | 1 to 32 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **ssh-authentication-method**

| | |
|---|---|
| Synopsis | Enter the **ssh-authentication-method** context |


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| | |
|---|---|
| Context | **configure** system security user-params local-user user *named-item* ssh-authentication-method |
| Tree | ssh-authentication-method |
| Introduced | 23.7.R1 |
| Platforms | All |

## client

| | |
|---|---|
| Synopsis | Enter the **client** context |
| Context | **configure** system security user-params local-user user *named-item* ssh-authentication-method client |
| Tree | client |
| Introduced | 23.10.R3 |
| Platforms | All |

## public-key-only *keyword*

| | |
|---|---|
| Synopsis | Public key only SSH authentication for this user |
| Context | **configure** system security user-params local-user user *named-item* ssh-authentication-method client public-key-only *keyword* |
| Tree | public-key-only |
| Description | This command configures the authentication method accepted for the SSH session for the specified user. This user-level configuration overrides the system-level configuration defined in the **configure system security ssh authentication-method public-key-only** command.<br>When unconfigured, the command inherits the setting from the system level command.<br>The command options are:<br>• **true** — accept only public key client authentication for the SSH server<br>• **false** — accept public key or password client authentication for the SSH server. If **interactive-authentication** is configured to **true** in the **configure system security aaa remote-servers radius** or **configure system security aaa remote-servers tacplus** context, the system also accepts interactive keyboard authentication. |
| Options | false, true |
| Introduced | 23.10.R3 |
| Platforms | All |


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## server

| | |
|---|---|
| Synopsis | Enter the **server** context |
| Context | **configure** system security user-params local-user user *named-item* ssh-authentication-method server |
| Tree | server |
| Introduced | 23.7.R1 |
| Platforms | All |

## public-key-only *keyword*

| | |
|---|---|
| Synopsis | Public key only SSH authentication for this user |
| Context | **configure** system security user-params local-user user *named-item* ssh-authentication-method server public-key-only *keyword* |
| Tree | public-key-only |
| Description | This command configures the authentication method accepted for the SSH session for the specified user. This user-level configuration overrides the system-level configuration defined in the **configure system security ssh authentication-method public-key-only** command.<br>When unconfigured, the command inherits the setting from the system level command.<br>The command options are:<br>• **true** — accept only public key client authentication for the SSH server<br>• **false** — accept public key or password client authentication for the SSH server. If **interactive-authentication** is configured to **true** in the **configure system security aaa remote-servers radius** or **configure system security aaa remote-servers tacplus** context, the system also accepts interactive keyboard authentication. |
| Options | false, true |
| Introduced | 23.7.R1 |
| Platforms | All |

## vprn-network-exceptions

| | |
|---|---|
| Synopsis | Enable the **vprn-network-exceptions** context |
| Context | **configure** system security vprn-network-exceptions |
| Tree | vprn-network-exceptions |
| Description | Commands in this context configure the rate limiting attributes for processing packets with label TTL expiry received within an LSP shortcut or VPRN instances in the system and from all network IP interfaces. This includes labeled user and control plan packets, ping, and traceroute packets within GRT and VPRN, and ICMP replies. |


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These commands do not rate limit MPLS or service OAM packets.

| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **count** *number*

| | |
|---|---|
| Synopsis | Limit of exception messages received |
| Context | **configure** system security vprn-network-exceptions count *number* |
| Tree | count |
| Description | This command specifies the threshold limit of exception messages. If the threshold value is exceeded within the configured time interval, packets are dropped. |
| Range | 10 to 1000 |
| Default | 100 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **window** *number*

| | |
|---|---|
| Synopsis | Time interval to measure exception messages |
| Context | **configure** system security vprn-network-exceptions window *number* |
| Tree | window |
| Description | This command configures the time interval within which exception messages are counted. If the threshold value is exceeded within the configured time interval, packets are dropped. |
| Range | 1 to 60 |
| Units | seconds |
| Default | 10 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **selective-fib** *boolean*

| | |
|---|---|
| Synopsis | FIB assigned to the system |
| Context | **configure** system selective-fib *boolean* |
| Tree | selective-fib |
| Default | false |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **software-repository** [repository-name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **software-repository** list instance |
| Context | **configure** system software-repository *named-item* |
| Tree | software-repository |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### [**repository-name**] *named-item*

| | |
|---|---|
| Synopsis | Software repository name |
| Context | **configure** system software-repository *named-item* |
| Tree | software-repository |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** system software-repository *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **primary-location** *string*

| | |
|---|---|
| Synopsis | Primary location for files in the software repository |
| Context | **configure** system software-repository *named-item* primary-location *string* |
| Tree | primary-location |


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| | |
|---|---|
| String length | 1 to 180 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **secondary-location** *string*

| | |
|---|---|
| Synopsis | Secondary location for files in the software repository |
| Context | **configure** system software-repository *named-item* secondary-location *string* |
| Tree | secondary-location |
| String length | 1 to 180 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **tertiary-location** *string*

| | |
|---|---|
| Synopsis | Tertiary location for files in the software repository |
| Context | **configure** system software-repository *named-item* tertiary-location *string* |
| Tree | tertiary-location |
| String length | 1 to 180 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **switch-fabric**

| | |
|---|---|
| Synopsis | Enter the **switch-fabric** context |
| Context | **configure** system switch-fabric |
| Tree | switch-fabric |
| Description | Commands in this context configure system level attributes related to the switch fabric. |
| Introduced | 20.5.R1 |
| Platforms | 7450 ESS, 7750 SR-7, 7750 SR-12e, 7750 SR-7s, 7750 SR-14s, 7950 XRS |

### **failure-recovery**

| | |
|---|---|
| Synopsis | Enter the **failure-recovery** context |
| Context | **configure** system switch-fabric failure-recovery |


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| | |
|---|---|
| Tree | failure-recovery |
| Description | Commands in this context configure the attributes related to the automatic switch fabric recovery process. This process is triggered when there are two resets of an IOM/XCM due to ICC failures within a small time frame. The recovery process involves the sequential resetting of SFM in case the issues are due to one of the SFM in the ICC communication path. As the final step in the recovery process, a CPM switchover is triggered to reset the active CPM. |
| Introduced | 21.2.R1 |
| Platforms | 7450 ESS, 7750 SR-7, 7750 SR-12e, 7950 XRS |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the failure recovery process |
| Context | **configure** system switch-fabric failure-recovery admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.2.R1 |
| Platforms | 7450 ESS, 7750 SR-7, 7750 SR-12e, 7950 XRS |

## **sfm-loss-threshold** *number*

| | |
|---|---|
| Synopsis | Number of SFMs that can fail before SFM overload state |
| Context | **configure** system switch-fabric sfm-loss-threshold *number* |
| Tree | sfm-loss-threshold |
| Description | This command specifies the number of SFMs that are permitted to fail before the system goes into SFM overload state.<br>The default value for the 7750 SR-7s is 1 and the default value for the 7750 SR-14s is 2. Users can select the SFM limit based on the number possible for the system minus one. For the 7750 SR-7s, the limit is 3 and the limit for the 7750 SR-14s is 7. |
| Range | 1 to 7 |
| Introduced | 20.5.R1 |
| Platforms | 7750 SR-7s, 7750 SR-14s |

## **telemetry**

| | |
|---|---|
| Synopsis | Enter the **telemetry** context |


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| | |
|---|---|
| Context | **configure** system telemetry |
| Tree | telemetry |
| Description | Commands in this context configure the parameters for the dial-out telemetry functionality. |
| Introduced | 20.2.R1 |
| Platforms | All |

## **destination-group** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **destination-group** list instance |
| Context | **configure** system telemetry destination-group *named-item* |
| Tree | destination-group |
| Description | Commands in this context configure parameters for destination groups. |
| Max. instances | 225 |
| Introduced | 20.5.R1 |
| Platforms | All |

## [**name**] *named-item*

| | |
|---|---|
| Synopsis | Destination group name |
| Context | **configure** system telemetry destination-group *named-item* |
| Tree | destination-group |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 20.5.R1 |
| Platforms | All |

## **allow-unsecure-connection**

| | |
|---|---|
| Synopsis | Allow connection without secured transport protocol |
| Context | **configure** system telemetry destination-group *named-item* allow-unsecure-connection |
| Tree | allow-unsecure-connection |
| Description | When configured, this command allows an unsecured connection to remote managers; TCP connections are not encrypted, including username and password information. |


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| | |
|---|---|
| Notes | The following elements are part of a choice: **allow-unsecure-connection** or **tls-client-profile**. |
| Introduced | 20.5.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** system telemetry destination-group *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 20.5.R1 |
| Platforms | All |

### **destination** [address] *(ipv4-address-no-zone | ipv6-address-no-zone | fully-qualified-domain-name)* port *number*

| | |
|---|---|
| Synopsis | Enter the **destination** list instance |
| Context | **configure** system telemetry destination-group *named-item* destination *(ipv4-address-no-zone | ipv6-address-no-zone | fully-qualified-domain-name)* port *number* |
| Tree | destination |
| Max. instances | 4 |
| Notes | This element is ordered by the user. |
| Introduced | 20.5.R1 |
| Platforms | All |

### [**address**] *(ipv4-address-no-zone | ipv6-address-no-zone | fully-qualified-domain-name)*

| | |
|---|---|
| Synopsis | Address of the destination within the destination group |
| Context | **configure** system telemetry destination-group *named-item* destination *(ipv4-address-no-zone | ipv6-address-no-zone | fully-qualified-domain-name)* port *number* |
| Tree | destination |
| String length | 1 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 20.5.R1 |


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| | |
|---|---|
| Platforms | All |

### **port** *number*

| | |
|---|---|
| Synopsis | TCP port number for the destination |
| Context | **configure** system telemetry destination-group *named-item* destination *(ipv4-address-no-zone \| ipv6-address-no-zone \| fully-qualified-domain-name)* port *number* |
| Tree | destination |
| Range | 0 \| 1 to 65535 |
| Notes | This element is part of a list key. |
| Introduced | 20.5.R1 |
| Platforms | All |

### **router-instance** *string*

| | |
|---|---|
| Synopsis | Router name or VPRN service name |
| Context | **configure** system telemetry destination-group *named-item* destination *(ipv4-address-no-zone \| ipv6-address-no-zone \| fully-qualified-domain-name)* port *number* router-instance *string* |
| Tree | router-instance |
| Introduced | 20.5.R1 |
| Platforms | All |

### **tcp-keepalive**

| | |
|---|---|
| Synopsis | Enter the **tcp-keepalive** context |
| Context | **configure** system telemetry destination-group *named-item* tcp-keepalive |
| Tree | tcp-keepalive |
| Introduced | 20.5.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the TCP keep-alive algorithm |
| Context | **configure** system telemetry destination-group *named-item* tcp-keepalive admin-state *keyword* |


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| | |
|---|---|
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 20.5.R1 |
| Platforms | All |

### **idle-time** *number*

| | |
|---|---|
| Synopsis | Time until the first TCP keepalive probe is sent |
| Context | **configure** system telemetry destination-group *named-item* tcp-keepalive idle-time *number* |
| Tree | idle-time |
| Range | 1 to 100000 |
| Units | seconds |
| Default | 600 |
| Introduced | 20.5.R1 |
| Platforms | All |

### **interval** *number*

| | |
|---|---|
| Synopsis | Time between TCP keepalive probes |
| Context | **configure** system telemetry destination-group *named-item* tcp-keepalive interval *number* |
| Tree | interval |
| Range | 1 to 100000 |
| Units | seconds |
| Default | 15 |
| Introduced | 20.5.R1 |
| Platforms | All |

### **retries** *number*

| | |
|---|---|
| Synopsis | Number of probe retries before closing the connection |
| Context | **configure** system telemetry destination-group *named-item* tcp-keepalive retries *number* |
| Tree | retries |


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| | |
|---|---|
| Description | This command configures the number of missed TCP keepalive probes before closing the TCP connection and attempting to reach the other destinations within the same destination group. |
| Range | 3 to 100 |
| Default | 4 |
| Introduced | 20.5.R1 |
| Platforms | All |

## **tls-client-profile** *reference*

| | |
|---|---|
| Synopsis | TLS client profile assigned to the destination group |
| Context | **configure** system telemetry destination-group *named-item* tls-client-profile *reference* |
| Tree | tls-client-profile |
| Reference | **configure** system security tls client-tls-profile *named-item* |
| Notes | The following elements are part of a choice: **allow-unsecure-connection** or **tls-client-profile**. |
| Introduced | 20.5.R1 |
| Platforms | All |

## **notification-bundling**

| | |
|---|---|
| Synopsis | Enter the **notification-bundling** context |
| Context | **configure** system telemetry notification-bundling |
| Tree | notification-bundling |
| Description | Commands in this context configure the bundling of multiple notifications into one telemetry message. |
| Introduced | 21.10.R1 |
| Platforms | All |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of notification bundling |
| Context | **configure** system telemetry notification-bundling admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |


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| | |
|---|---|
| Introduced | 21.10.R1 |
| Platforms | All |

### **max-msg-count** *number*

| | |
|---|---|
| Synopsis | Maximum notifications count in telemetry message bundle |
| Context | **configure** system telemetry notification-bundling max-msg-count *number* |
| Tree | max-msg-count |
| Range | 2 to 1000 |
| Default | 100 |
| Introduced | 21.10.R1 |
| Platforms | All |

### **max-time-granularity** *number*

| | |
|---|---|
| Synopsis | Maximum interval when bundling of notifications occurs |
| Context | **configure** system telemetry notification-bundling max-time-granularity *number* |
| Tree | max-time-granularity |
| Description | This command sets the maximum time interval during which telemetry notifications are bundled. All bundled notifications have the same timestamp, which is the timestamp of the bundle. |
| Range | 1 to 1000 |
| Units | milliseconds |
| Default | 100 |
| Introduced | 21.10.R1 |
| Platforms | All |

### **persistent-subscriptions**

| | |
|---|---|
| Synopsis | Enter the **persistent-subscriptions** context |
| Context | **configure** system telemetry persistent-subscriptions |
| Tree | persistent-subscriptions |
| Introduced | 20.5.R1 |
| Platforms | All |


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### **delay-on-boot** *number*

| | |
|---|---|
| Synopsis | Delay for persistent subscriptions after system boot |
| Context | **configure** system telemetry persistent-subscriptions delay-on-boot *number* |
| Tree | delay-on-boot |
| Description | This command configures the delay timer for gRPC telemetry persistent subscriptions. When the timer expires, gRPC telemetry persistent subscriptions become operational and connections are initiated. This delay prevents the system from trying to establish gRPC persistent subscriptions while it is still converging.<br>When no delay is configured, gRPC telemetry persistent subscriptions are initiated after the system boots and gRPC becomes operational. |
| Range | 1 to 3600 |
| Units | seconds |
| Introduced | 23.10.R1 |
| Platforms | All |

### **subscription** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **subscription** list instance |
| Context | **configure** system telemetry persistent-subscriptions subscription *named-item* |
| Tree | subscription |
| Max. instances | 225 |
| Introduced | 20.5.R1 |
| Platforms | All |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | Persistent subscription name |
| Context | **configure** system telemetry persistent-subscriptions subscription *named-item* |
| Tree | subscription |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 20.5.R1 |
| Platforms | All |


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### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the persistent subscription |
| Context | **configure** system telemetry persistent-subscriptions subscription *named-item* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 20.5.R1 |
| Platforms | All |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** system telemetry persistent-subscriptions subscription *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 20.5.R1 |
| Platforms | All |

### **destination-group** *reference*

| | |
|---|---|
| Synopsis | Name of the destination group used in the subscription |
| Context | **configure** system telemetry persistent-subscriptions subscription *named-item* destination-group *reference* |
| Tree | destination-group |
| Reference | **configure** system telemetry destination-group *named-item* |
| Introduced | 20.5.R1 |
| Platforms | All |

### **encoding** *keyword*

| | |
|---|---|
| Synopsis | Encoding used for telemetry notifications |
| Context | **configure** system telemetry persistent-subscriptions subscription *named-item* encoding *keyword* |


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| | |
|---|---|
| Tree | encoding |
| Description | This command specifies the encoding used for telemetry notifications as defined by the gNMI OpenConfig standard. |
| Options | json – JSON encoded text<br>bytes – Encoded according to gnmi.schemas<br>proto – Encoded with scalar TypedValue values<br>json-ietf – JSON encoded text as per RFC 7951 |
| Default | json |
| Introduced | 20.5.R1 |
| Platforms | All |

## **local-source-address** *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Local IP address of packets sent from the source |
| Context | **configure** system telemetry persistent-subscriptions subscription *named-item* local-source-address *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | local-source-address |
| Introduced | 20.5.R1 |
| Platforms | All |

## **mode** *keyword*

| | |
|---|---|
| Synopsis | Mode for telemetry notifications |
| Context | **configure** system telemetry persistent-subscriptions subscription *named-item* mode *keyword* |
| Tree | mode |
| Description | This command specifies the subscription path mode for telemetry notifications sent out for the persistent subscription. |
| Options | target-defined, on-change, sample |
| Introduced | 20.5.R1 |
| Platforms | All |

## **originated-qos-marking** *keyword*

| | |
|---|---|
| Synopsis | QoS marking used for telemetry notification packets |
| Context | **configure** system telemetry persistent-subscriptions subscription *named-item* originated-qos-marking *keyword* |


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| | |
|---|---|
| Tree | originated-qos-marking |
| Options | be, cp1, cp2, cp3, cp4, cp5, cp6, cp7, cs1, cp9, af11, cp11, af12, cp13, af13, cp15, cs2, cp17, af21, cp19, af22, cp21, af23, cp23, cs3, cp25, af31, cp27, af32, cp29, af33, cp31, cs4, cp33, af41, cp35, af42, cp37, af43, cp39, cs5, cp41, cp42, cp43, cp44, cp45, ef, cp47, nc1, cp49, cp50, cp51, cp52, cp53, cp54, cp55, nc2, cp57, cp58, cp59, cp60, cp61, cp62, cp63 |
| Introduced | 20.5.R1 |
| Platforms | All |

## **sample-interval** *number*

| | |
|---|---|
| Synopsis | Sampling interval for the persistent subscription |
| Context | **configure** system telemetry persistent-subscriptions subscription *named-item* sample-interval *number* |
| Tree | sample-interval |
| Description | This command configures the sampling interval for the persistent subscription. The interval applies only in sampling or target-defined modes. |
| Range | 1000 to 18446744073709551615 |
| Units | milliseconds |
| Default | 10000 |
| Introduced | 20.5.R1 |
| Platforms | All |

## **sensor-group** *reference*

| | |
|---|---|
| Synopsis | Sensor group used in the persistent subscription |
| Context | **configure** system telemetry persistent-subscriptions subscription *named-item* sensor-group *reference* |
| Tree | sensor-group |
| Description | This command specifies the sensor group to be used in the persistent subscription. If no valid paths exist in the sensor group, the configuration is accepted, however, no gRPC connection is established when persistent subscription is activated. |
| Reference | **configure** system telemetry sensor-groups sensor-group *named-item* |
| Introduced | 20.5.R1 |
| Platforms | All |


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## sensor-groups

| | |
|---|---|
| Synopsis | Enter the **sensor-groups** context |
| Context | **configure** system telemetry sensor-groups |
| Tree | sensor-groups |
| Introduced | 20.5.R1 |
| Platforms | All |

## sensor-group [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **sensor-group** list instance |
| Context | **configure** system telemetry sensor-groups sensor-group *named-item* |
| Tree | sensor-group |
| Max. instances | 225 |
| Introduced | 20.5.R1 |
| Platforms | All |

## [**name**] *named-item*

| | |
|---|---|
| Synopsis | Sensor group name |
| Context | **configure** system telemetry sensor-groups sensor-group *named-item* |
| Tree | sensor-group |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 20.5.R1 |
| Platforms | All |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** system telemetry sensor-groups sensor-group *named-item* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 20.5.R1 |


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| | |
|---|---|
| Platforms | All |

### **path** [xpath] *string*

| | |
|---|---|
| Synopsis | Add a list entry for **path** |
| Context | **configure** system telemetry sensor-groups sensor-group *named-item* path *string* |
| Tree | path |
| Max. instances | 4500 |
| Introduced | 20.5.R1 |
| Platforms | All |

### [**xpath**] *string*

| | |
|---|---|
| Synopsis | gNMI path to be streamed |
| Context | **configure** system telemetry sensor-groups sensor-group *named-item* path *string* |
| Tree | path |
| Description | The command specifies the path from which data is streamed to the collector. Streamed data includes all descendants of the tree indicated by the path. |
| String length | 1 to 512 |
| Notes | This element is part of a list key. |
| Introduced | 20.5.R1 |
| Platforms | All |

### **thresholds**

| | |
|---|---|
| Synopsis | Enter the **thresholds** context |
| Context | **configure** system thresholds |
| Tree | thresholds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cflash-cap-alarm-percent** [cflash-id] *thresholds-cflash-url*

| | |
|---|---|
| Synopsis | Enter the **cflash-cap-alarm-percent** list instance |
| Context | **configure** system thresholds cflash-cap-alarm-percent *thresholds-cflash-url* |


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| | |
|---|---|
| Tree | cflash-cap-alarm-percent |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**cflash-id**] *thresholds-cflash-url*

| | |
|---|---|
| Synopsis | cflash device name monitored for capacity |
| Context | **configure** system thresholds cflash-cap-alarm-percent *thresholds-cflash-url* |
| Tree | cflash-cap-alarm-percent |
| String length | 1 to 200 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **falling-threshold** *number*

| | |
|---|---|
| Synopsis | Falling threshold for the sampled statistic |
| Context | **configure** system thresholds cflash-cap-alarm-percent *thresholds-cflash-url* falling-threshold *number* |
| Tree | falling-threshold |
| Description | This command specifies a falling threshold for the sampled statistic. When the current sampled value is less than or equal to this threshold, and the value at the last sampling interval was greater than this threshold, a single threshold-crossing event is generated. A single threshold-crossing event is also generated if the first sample taken is less than or equal to this threshold and the associated **startup-alarm** command is equal to the **falling** or **either** values.<br><br>After a falling threshold-crossing event is generated, another such event is not generated until the sampled value rises above this threshold and reaches greater than or equal to the **rising-threshold** command. |
| Range | 0 to 100 |
| Units | percent |
| Introduced | 16.0.R4 |
| Platforms | All |

### **interval** *number*

| | |
|---|---|
| Synopsis | Polling period over which data is sampled and compared |


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| | |
|---|---|
| Context | **configure** system thresholds cflash-cap-alarm-percent *thresholds-cflash-url* interval *number* |
| Tree | interval |
| Description | This command specifies the polling interval over which the data is sampled and compared with the rising and falling thresholds. |
| Range | 1 to 2147483647 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **rising-threshold** *number*

| | |
|---|---|
| Synopsis | Rising threshold for the sampled statistic |
| Context | **configure** system thresholds cflash-cap-alarm-percent *thresholds-cflash-url* rising-threshold *number* |
| Tree | rising-threshold |
| Description | This command specifies a rising threshold for the sampled statistic. When the current sampled value is greater than or equal to this threshold, and the value at the last sampling interval was less than this threshold, a single threshold-crossing event is generated. A single threshold crossing event is also generated if the first sample taken is greater than or equal to this threshold and the associated **startup-alarm** command is equal to the **rising** or **either** values.<br>After a rising threshold-crossing event is generated, another such event is not generated until the sampled value falls below this threshold and reaches less than or equal the **falling-threshold** command. |
| Range | 0 to 100 |
| Units | percent |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

## **rmon-event-type** *keyword*

| | |
|---|---|
| Synopsis | Notification type specifying action when event occurs |
| Context | **configure** system thresholds cflash-cap-alarm-percent *thresholds-cflash-url* rmon-event-type *keyword* |
| Tree | rmon-event-type |
| Options | none, log, trap, both |


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| | |
|---|---|
| Default | both |
| Introduced | 16.0.R1 |
| Platforms | All |

### **startup-alarm** *keyword*

| | |
|---|---|
| Synopsis | Alarm type when the alarm is first created |
| Context | **configure** system thresholds cflash-cap-alarm-percent *thresholds-cflash-url* startup-alarm *keyword* |
| Tree | startup-alarm |
| Description | This command specifies the alarm type that may be sent when this alarm is first created.<br>If the first sample is greater than or equal to the rising threshold value and **startup-alarm** is equal to **rising** or **either**, a single rising threshold crossing event is generated.<br>If the first sample is less than or equal to the falling threshold value and **startup-alarm** is equal to **falling** or **either**, a single falling threshold crossing event is generated. |
| Options | rising, falling, either |
| Default | either |
| Introduced | 16.0.R1 |
| Platforms | All |

### **cflash-cap-warn-percent** [cflash-id] *thresholds-cflash-url*

| | |
|---|---|
| Synopsis | Enter the **cflash-cap-warn-percent** list instance |
| Context | **configure** system thresholds cflash-cap-warn-percent *thresholds-cflash-url* |
| Tree | cflash-cap-warn-percent |
| Description | Commands in this context configure the capacity monitoring of the compact flash. The usage is monitored as a percentage of the capacity of the compact flash. The severity level is warning. Both a rising and falling threshold can be specified. |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**cflash-id**] *thresholds-cflash-url*

| | |
|---|---|
| Synopsis | cflash device name monitored for capacity |
| Context | **configure** system thresholds cflash-cap-warn-percent *thresholds-cflash-url* |
| Tree | cflash-cap-warn-percent |


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| | |
|---|---|
| String length | 1 to 200 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **falling-threshold** *number*

| | |
|---|---|
| Synopsis | Falling threshold for the sampled statistic |
| Context | **configure** system thresholds cflash-cap-warn-percent *thresholds-cflash-url* falling-threshold *number* |
| Tree | falling-threshold |
| Description | This command specifies a falling threshold for the sampled statistic. When the current sampled value is less than or equal to this threshold, and the value at the last sampling interval was greater than this threshold, a single threshold-crossing event is generated. A single threshold-crossing event is also generated if the first sample taken is less than or equal to this threshold and the associated **startup-alarm** command is equal to the **falling** or **either** values.<br>After a falling threshold-crossing event is generated, another such event is not generated until the sampled value rises above this threshold and reaches greater than or equal to the **rising-threshold** command. |
| Range | 0 to 100 |
| Units | percent |
| Introduced | 16.0.R4 |
| Platforms | All |

## **interval** *number*

| | |
|---|---|
| Synopsis | Polling period over which data is sampled and compared |
| Context | **configure** system thresholds cflash-cap-warn-percent *thresholds-cflash-url* interval *number* |
| Tree | interval |
| Description | This command specifies the polling interval over which the data is sampled and compared with the rising and falling thresholds. |
| Range | 1 to 2147483647 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **rising-threshold** *number*

| | |
|---|---|
| Synopsis | Rising threshold for the sampled statistic |
| Context | **configure** system thresholds cflash-cap-warn-percent *thresholds-cflash-url* rising-threshold *number* |
| Tree | rising-threshold |
| Description | This command specifies a rising threshold for the sampled statistic. When the current sampled value is greater than or equal to this threshold, and the value at the last sampling interval was less than this threshold, a single threshold-crossing event is generated. A single threshold crossing event is also generated if the first sample taken is greater than or equal to this threshold and the associated **startup-alarm** command is equal to the **rising** or **either** values.<br>After a rising threshold-crossing event is generated, another such event is not generated until the sampled value falls below this threshold and reaches less than or equal the **falling-threshold** command. |
| Range | 0 to 100 |
| Units | percent |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **rmon-event-type** *keyword*

| | |
|---|---|
| Synopsis | Notification type specifying action when event occurs |
| Context | **configure** system thresholds cflash-cap-warn-percent *thresholds-cflash-url* rmon-event-type *keyword* |
| Tree | rmon-event-type |
| Options | none, log, trap, both |
| Default | both |
| Introduced | 16.0.R1 |
| Platforms | All |

### **startup-alarm** *keyword*

| | |
|---|---|
| Synopsis | Alarm type when the alarm is first created |
| Context | **configure** system thresholds cflash-cap-warn-percent *thresholds-cflash-url* startup-alarm *keyword* |
| Tree | startup-alarm |


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| | |
|---|---|
| Description | This command specifies the alarm type that may be sent when this alarm is first created.<br>If the first sample is greater than or equal to the rising threshold value and **startup-alarm** is equal to **rising** or **either**, a single rising threshold crossing event is generated.<br>If the first sample is less than or equal to the falling threshold value and **startup-alarm** is equal to **falling** or **either**, a single falling threshold crossing event is generated. |
| Options | rising, falling, either |
| Default | either |
| Introduced | 16.0.R1 |
| Platforms | All |

## kb-memory-use-alarm

| | |
|---|---|
| Synopsis | Enable the **kb-memory-use-alarm** context |
| Context | **configure** system thresholds kb-memory-use-alarm |
| Tree | kb-memory-use-alarm |
| Introduced | 16.0.R4 |
| Platforms | All |

## falling-threshold *number*

| | |
|---|---|
| Synopsis | Falling threshold for the sampled statistic |
| Context | **configure** system thresholds kb-memory-use-alarm falling-threshold *number* |
| Tree | falling-threshold |
| Description | This command specifies a falling threshold for the sampled statistic. When the current sampled value is less than or equal to this threshold, and the value at the last sampling interval was greater than this threshold, a single threshold-crossing event is generated. A single threshold-crossing event is also generated if the first sample taken is less than or equal to this threshold and the associated **startup-alarm** command is equal to the **falling** or **either** values.<br>After a falling threshold-crossing event is generated, another such event is not generated until the sampled value rises above this threshold and reaches greater than or equal to the **rising-threshold** command. |
| Range | -2147483648 to 2147483647 |
| Introduced | 16.0.R4 |
| Platforms | All |


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### **interval** *number*

| | |
|---|---|
| Synopsis | Polling period over which data is sampled and compared |
| Context | **configure** system thresholds kb-memory-use-alarm interval *number* |
| Tree | interval |
| Description | This command specifies the polling interval over which the data is sampled and compared with the rising and falling thresholds. |
| Range | 1 to 2147483647 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **rising-threshold** *number*

| | |
|---|---|
| Synopsis | Rising threshold for the sampled statistic |
| Context | **configure** system thresholds kb-memory-use-alarm rising-threshold *number* |
| Tree | rising-threshold |
| Description | This command specifies a rising threshold for the sampled statistic. When the current sampled value is greater than or equal to this threshold, and the value at the last sampling interval was less than this threshold, a single threshold-crossing event is generated. A single threshold crossing event is also generated if the first sample taken is greater than or equal to this threshold and the associated **startup-alarm** command is equal to the **rising** or **either** values.<br>After a rising threshold-crossing event is generated, another such event is not generated until the sampled value falls below this threshold and reaches less than or equal the **falling-threshold** command. |
| Range | -2147483648 to 2147483647 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **rmon-event-type** *keyword*

| | |
|---|---|
| Synopsis | Notification type specifying action when event occurs |
| Context | **configure** system thresholds kb-memory-use-alarm rmon-event-type *keyword* |
| Tree | rmon-event-type |
| Options | none, log, trap, both |


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| | |
|---|---|
| Default | both |
| Introduced | 16.0.R4 |
| Platforms | All |

### **startup-alarm** *keyword*

| | |
|---|---|
| Synopsis | Alarm type when the alarm is first created |
| Context | **configure** system thresholds kb-memory-use-alarm startup-alarm *keyword* |
| Tree | startup-alarm |
| Description | This command specifies the alarm type that may be sent when this alarm is first created.<br>If the first sample is greater than or equal to the rising threshold value and **startup-alarm** is equal to **rising** or **either**, a single rising threshold crossing event is generated.<br>If the first sample is less than or equal to the falling threshold value and **startup-alarm** is equal to **falling** or **either**, a single falling threshold crossing event is generated. |
| Options | rising, falling, either |
| Default | either |
| Introduced | 16.0.R4 |
| Platforms | All |

### **kb-memory-use-warn**

| | |
|---|---|
| Synopsis | Enable the **kb-memory-use-warn** context |
| Context | **configure** system thresholds kb-memory-use-warn |
| Tree | kb-memory-use-warn |
| Introduced | 16.0.R4 |
| Platforms | All |

### **falling-threshold** *number*

| | |
|---|---|
| Synopsis | Falling threshold for the sampled statistic |
| Context | **configure** system thresholds kb-memory-use-warn falling-threshold *number* |
| Tree | falling-threshold |
| Description | This command specifies a falling threshold for the sampled statistic. When the current sampled value is less than or equal to this threshold, and the value at the last sampling interval was greater than this threshold, a single threshold-crossing event is generated. A single threshold-crossing event is also generated if the first sample taken is less than |


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| | |
|---|---|
| | or equal to this threshold and the associated **startup-alarm** command is equal to the **falling** or **either** values.<br>After a falling threshold-crossing event is generated, another such event is not generated until the sampled value rises above this threshold and reaches greater than or equal to the **rising-threshold** command. |
| Range | -2147483648 to 2147483647 |
| Introduced | 16.0.R4 |
| Platforms | All |

## **interval** *number*

| | |
|---|---|
| Synopsis | Polling period over which data is sampled and compared |
| Context | **configure** system thresholds kb-memory-use-warn interval *number* |
| Tree | interval |
| Description | This command specifies the polling interval over which the data is sampled and compared with the rising and falling thresholds. |
| Range | 1 to 2147483647 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |
| Platforms | All |

## **rising-threshold** *number*

| | |
|---|---|
| Synopsis | Rising threshold for the sampled statistic |
| Context | **configure** system thresholds kb-memory-use-warn rising-threshold *number* |
| Tree | rising-threshold |
| Description | This command specifies a rising threshold for the sampled statistic. When the current sampled value is greater than or equal to this threshold, and the value at the last sampling interval was less than this threshold, a single threshold-crossing event is generated. A single threshold crossing event is also generated if the first sample taken is greater than or equal to this threshold and the associated **startup-alarm** command is equal to the **rising** or **either** values.<br>After a rising threshold-crossing event is generated, another such event is not generated until the sampled value falls below this threshold and reaches less than or equal the **falling-threshold** command. |
| Range | -2147483648 to 2147483647 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R4 |


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| | |
|---|---|
| Platforms | All |

### **rmon-event-type** *keyword*

| | |
|---|---|
| Synopsis | Notification type specifying action when event occurs |
| Context | **configure** system thresholds kb-memory-use-warn rmon-event-type *keyword* |
| Tree | rmon-event-type |
| Options | none, log, trap, both |
| Default | both |
| Introduced | 16.0.R4 |
| Platforms | All |

### **startup-alarm** *keyword*

| | |
|---|---|
| Synopsis | Alarm type when the alarm is first created |
| Context | **configure** system thresholds kb-memory-use-warn startup-alarm *keyword* |
| Tree | startup-alarm |
| Description | This command specifies the alarm type that may be sent when this alarm is first created.<br>If the first sample is greater than or equal to the rising threshold value and **startup-alarm** is equal to **rising** or **either**, a single rising threshold crossing event is generated.<br>If the first sample is less than or equal to the falling threshold value and **startup-alarm** is equal to **falling** or **either**, a single falling threshold crossing event is generated. |
| Options | rising, falling, either |
| Default | either |
| Introduced | 16.0.R4 |
| Platforms | All |

### **rmon**

| | |
|---|---|
| Synopsis | Enter the **rmon** context |
| Context | **configure** system thresholds rmon |
| Tree | rmon |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **alarm** [rmon-alarm-id] *number*

| | |
|---|---|
| Synopsis | Enter the **alarm** list instance |
| Context | **configure** system thresholds rmon alarm *number* |
| Tree | alarm |
| Max. instances | 1200 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**rmon-alarm-id**] *number*

| | |
|---|---|
| Synopsis | Index ID for an entry in the alarm table |
| Context | **configure** system thresholds rmon alarm *number* |
| Tree | alarm |
| Range | 0 to 65400 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **falling-event** *number*

| | |
|---|---|
| Synopsis | RMON event ID for falling threshold crossing event |
| Context | **configure** system thresholds rmon alarm *number* falling-event *number* |
| Tree | falling-event |
| Range | 0 to 65400 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **falling-threshold** *number*

| | |
|---|---|
| Synopsis | Falling threshold for the sampled statistic |
| Context | **configure** system thresholds rmon alarm *number* falling-threshold *number* |
| Tree | falling-threshold |
| Description | This command specifies a falling threshold for the sampled statistic. When the current sampled value is less than or equal to this threshold and the value at the last sampling |


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interval was greater than this threshold, a single threshold crossing event is generated. A single threshold crossing event is also generated if the first sample taken is less than or equal to this threshold and the associated **startup-alarm** command is set to **falling** or **either**.

After a falling threshold crossing event is generated, another such event is not generated until the sampled value exceeds this threshold and reaches or exceeds the **rising-threshold** command setting.

| | |
|---|---|
| Range | -2147483648 to 2147483647 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **interval** *number*

| | |
|---|---|
| Synopsis | Polling period over which data is sampled and compared |
| Context | **configure** system thresholds rmon alarm *number* interval *number* |
| Tree | interval |
| Description | This command specifies the polling interval over which the data is sampled and compared with the rising and falling thresholds |
| Range | 1 to 2147483647 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **owner** *string*

| | |
|---|---|
| Synopsis | Owner that created this entry and uses the resources |
| Context | **configure** system thresholds rmon alarm *number* owner *string* |
| Tree | owner |
| String length | 1 to 80 |
| Default | TiMOS CLI |
| Introduced | 16.0.R1 |
| Platforms | All |

## **rising-event** *number*

| | |
|---|---|
| Synopsis | RMON event ID for rising threshold crossing event |
| Context | **configure** system thresholds rmon alarm *number* rising-event *number* |


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| | |
|---|---|
| Tree | rising-event |
| Range | 0 to 65400 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **rising-threshold** *number*

| | |
|---|---|
| Synopsis | Rising threshold for the sampled statistic |
| Context | **configure** system thresholds rmon alarm *number* rising-threshold *number* |
| Tree | rising-threshold |
| Description | This command specifies the rising threshold for the sampled statistic. When the current sampled value is greater than or equal to this threshold and the value at the last sampling interval was below this threshold, a single threshold crossing event is generated. A single threshold crossing event is also generated if the first sample taken is greater than or equal to this threshold and the associated **startup-alarm** command is set to **rising** or **either**.<br>After a rising threshold crossing event is generated, another such event is not generated until the sampled value falls below this threshold and reaches or falls below the **falling-threshold** command setting. |
| Range | -2147483648 to 2147483647 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **sample-type** *keyword*

| | |
|---|---|
| Synopsis | Sampling type for value comparison with thresholds |
| Context | **configure** system thresholds rmon alarm *number* sample-type *keyword* |
| Tree | sample-type |
| Options | absolute, delta |
| Default | absolute |
| Introduced | 16.0.R1 |
| Platforms | All |

## **startup-alarm** *keyword*

| | |
|---|---|
| Synopsis | Alarm to send when this entry is first set to valid |
| Context | **configure** system thresholds rmon alarm *number* startup-alarm *keyword* |


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| | |
|---|---|
| Tree | startup-alarm |
| Options | rising, falling, either |
| Default | either |
| Introduced | 16.0.R1 |
| Platforms | All |

### **variable-oid** *string*

| | |
|---|---|
| Synopsis | Object identifier to sample the specific variable |
| Context | **configure** system thresholds rmon alarm *number* variable-oid *string* |
| Tree | variable-oid |
| String length | 1 to 255 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event** [rmon-event-id] *number*

| | |
|---|---|
| Synopsis | Enter the **event** list instance |
| Context | **configure** system thresholds rmon event *number* |
| Tree | event |
| Max. instances | 1200 |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**rmon-event-id**] *number*

| | |
|---|---|
| Synopsis | Index ID for an entry in the event table |
| Context | **configure** system thresholds rmon event *number* |
| Tree | event |
| Range | 1 to 65400 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** system thresholds rmon event *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event-type** *keyword*

| | |
|---|---|
| Synopsis | Notification action to be taken when the event occurs |
| Context | **configure** system thresholds rmon event *number* event-type *keyword* |
| Tree | event-type |
| Options | none, log, trap, both |
| Default | both |
| Introduced | 16.0.R1 |
| Platforms | All |

### **owner** *string*

| | |
|---|---|
| Synopsis | Owner that created this entry and uses the resources |
| Context | **configure** system thresholds rmon event *number* owner *string* |
| Tree | owner |
| String length | 1 to 80 |
| Default | TiMOS CLI |
| Introduced | 16.0.R1 |
| Platforms | All |

### **time**

| | |
|---|---|
| Synopsis | Enter the **time** context |
| Context | **configure** system time |
| Tree | time |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## daylight-saving-time-zone

| | |
|---|---|
| Synopsis | Enter the **daylight-saving-time-zone** context |
| Context | **configure** system time daylight-saving-time-zone |
| Tree | daylight-saving-time-zone |
| Description | Commands in this context configure the start and end dates and offset for summer time (or Daylight Savings Time [DST]).<br>A daylight savings time zone can be specified using a standard name or a non-standard name. The parameters (start day, end day, and offset) for a standard name zone are well defined and not configurable. The parameters for a nonstandard name zone are configurable. The time is adjusted by adding the offset when summer time starts and subtracting the offset when summer time ends.<br>If no summer (daylight savings) time is supplied, the system assumes no summer time adjustment is required. |
| Introduced | 24.3.R1 |
| Platforms | All |

## non-standard

| | |
|---|---|
| Synopsis | Enter the **non-standard** context |
| Context | **configure** system time daylight-saving-time-zone non-standard |
| Tree | non-standard |
| Notes | The following elements are part of a choice: **non-standard** or **standard**. |
| Introduced | 24.3.R1 |
| Platforms | All |

## end

| | |
|---|---|
| Synopsis | Enter the **end** context |
| Context | **configure** system time daylight-saving-time-zone non-standard end |
| Tree | end |
| Description | Commands in this context configure the end of summer time settings. |
| Introduced | 24.3.R1 |
| Platforms | All |


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### **day** *keyword*

| | |
|---|---|
| Synopsis | Day of the week when summer time ends |
| Context | **configure** system time daylight-saving-time-zone non-standard end day *keyword* |
| Tree | day |
| Options | sunday, monday, tuesday, wednesday, thursday, friday, saturday |
| Default | sunday |
| Introduced | 24.3.R1 |
| Platforms | All |

### **hours-minutes** *hours-minutes-twenty-four*

| | |
|---|---|
| Synopsis | Time when summer time ends, in hh:mm format |
| Context | **configure** system time daylight-saving-time-zone non-standard end hours-minutes *hours-minutes-twenty-four* |
| Tree | hours-minutes |
| String length | 5 |
| Default | 00:00 |
| Introduced | 24.3.R1 |
| Platforms | All |

### **month** *keyword*

| | |
|---|---|
| Synopsis | Month when summer time ends |
| Context | **configure** system time daylight-saving-time-zone non-standard end month *keyword* |
| Tree | month |
| Options | january, february, march, april, may, june, july, august, september, october, november, december |
| Default | january |
| Introduced | 24.3.R1 |
| Platforms | All |

### **week** *keyword*

| | |
|---|---|
| Synopsis | Week of the month when summer time ends |
| Context | **configure** system time daylight-saving-time-zone non-standard end week *keyword* |


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| | |
|---|---|
| Tree | week |
| Options | first, second, third, fourth, last |
| Default | first |
| Introduced | 24.3.R1 |
| Platforms | All |

### **name** *string*

| | |
|---|---|
| Synopsis | Nonstandard summer time zone name |
| Context | **configure** system time daylight-saving-time-zone non-standard name *string* |
| Tree | name |
| String length | 1 to 5 |
| Introduced | 24.3.R1 |
| Platforms | All |

### **offset** *number*

| | |
|---|---|
| Synopsis | Summer time offset |
| Context | **configure** system time daylight-saving-time-zone non-standard offset *number* |
| Tree | offset |
| Description | This command configures the number of minutes that are added to the time when summer time takes effect. The same number of minutes are subtracted from the time when summer time ends. |
| Range | 0 to 60 |
| Units | minutes |
| Default | 60 |
| Introduced | 24.3.R1 |
| Platforms | All |

### **start**

| | |
|---|---|
| Synopsis | Enter the **start** context |
| Context | **configure** system time daylight-saving-time-zone non-standard start |
| Tree | start |
| Description | Commands in this context configure the start of summer time settings. |


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| | |
|---|---|
| Introduced | 24.3.R1 |
| Platforms | All |

### **day** *keyword*

| | |
|---|---|
| Synopsis | Day of the week when summer time starts |
| Context | **configure** system time daylight-saving-time-zone non-standard start day *keyword* |
| Tree | day |
| Options | sunday, monday, tuesday, wednesday, thursday, friday, saturday |
| Default | sunday |
| Introduced | 24.3.R1 |
| Platforms | All |

### **hours-minutes** *hours-minutes-twenty-four*

| | |
|---|---|
| Synopsis | Time when summer time starts, in hh:mm format |
| Context | **configure** system time daylight-saving-time-zone non-standard start hours-minutes *hours-minutes-twenty-four* |
| Tree | hours-minutes |
| String length | 5 |
| Default | 00:00 |
| Introduced | 24.3.R1 |
| Platforms | All |

### **month** *keyword*

| | |
|---|---|
| Synopsis | Month when summer time starts |
| Context | **configure** system time daylight-saving-time-zone non-standard start month *keyword* |
| Tree | month |
| Options | january, february, march, april, may, june, july, august, september, october, november, december |
| Default | january |
| Introduced | 24.3.R1 |
| Platforms | All |


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### **week** *keyword*

| | |
|---|---|
| Synopsis | Week of the month when summer time starts |
| Context | **configure** system time daylight-saving-time-zone non-standard start week *keyword* |
| Tree | week |
| Options | first, second, third, fourth, last |
| Default | first |
| Introduced | 24.3.R1 |
| Platforms | All |

### **standard**

| | |
|---|---|
| Synopsis | Enter the **standard** context |
| Context | **configure** system time daylight-saving-time-zone standard |
| Tree | standard |
| Notes | The following elements are part of a choice: **non-standard** or **standard**. |
| Introduced | 24.3.R1 |
| Platforms | All |

### **name** *keyword*

| | |
|---|---|
| Synopsis | Standard time zone name |
| Context | **configure** system time daylight-saving-time-zone standard name *keyword* |
| Tree | name |
| Options | adt – Atlantic Daylight Time<br>ndt – Newfoundland Daylight Time<br>akdt – Alaska Daylight Time<br>cdt – Central Daylight Time<br>cest – Central European Summer Time<br>edt – Eastern Daylight Time<br>eest – Eastern European Summer Time<br>mdt – Mountain Daylight Time<br>nzdt – New Zealand Daylight Time<br>pdt – Pacific Daylight Time<br>west – Western European Summer Time |
| Introduced | 24.3.R1 |
| Platforms | All |


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## ntp

| | |
|---|---|
| Synopsis | Enable the **ntp** context |
| Context | **configure** system time ntp |
| Tree | ntp |
| Introduced | 16.0.R1 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of NTP execution |
| Context | **configure** system time ntp admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

## authentication-check *boolean*

| | |
|---|---|
| Synopsis | Authenticate NTP PDUs and reject mismatches |
| Context | **configure** system time ntp authentication-check *boolean* |
| Tree | authentication-check |
| Default | true |
| Introduced | 16.0.R1 |
| Platforms | All |

## authentication-key [key-id] *number*

| | |
|---|---|
| Synopsis | Enter the **authentication-key** list instance |
| Context | **configure** system time ntp authentication-key *number* |
| Tree | authentication-key |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**key-id**] *number*

| | |
|---|---|
| Synopsis | Authentication key ID used for NTP packets |
| Context | **configure** system time ntp authentication-key *number* |
| Tree | authentication-key |
| Range | 1 to 255 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **key** *encrypted-leaf*

| | |
|---|---|
| Synopsis | Key to authenticate NTP packets |
| Context | **configure** system time ntp authentication-key *number* key *encrypted-leaf* |
| Tree | key |
| String length | 1 to 71 |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **type** *keyword*

| | |
|---|---|
| Synopsis | Authentication method to authenticate NTP packet |
| Context | **configure** system time ntp authentication-key *number* type *keyword* |
| Tree | type |
| Options | des, message-digest |
| Notes | This element is mandatory. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **authentication-keychain** *reference*

| | |
|---|---|
| Synopsis | Authentication keychain for unsolicited traffic |
| Context | **configure** system time ntp authentication-keychain *reference* |
| Tree | authentication-keychain |


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| | |
|---|---|
| Description | This command configures the authentication keychain used to handle unsolicited NTP requests.<br>If a request is received with a key ID that matches both a configured key and the keychain, the MAC is checked first using the key information. If the authentication fails, the MAC is checked using the information from the keychain. |
| Reference | **configure** system security keychains keychain *named-item* |
| Introduced | 23.10.R1 |
| Platforms | All |

### **broadcast** [router-instance] *reference* interface-name *interface-name*

| | |
|---|---|
| Synopsis | Enter the **broadcast** list instance |
| Context | **configure** system time ntp broadcast *reference* interface-name *interface-name* |
| Tree | broadcast |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**router-instance**] *reference*

| | |
|---|---|
| Synopsis | Router name |
| Context | **configure** system time ntp broadcast *reference* interface-name *interface-name* |
| Tree | broadcast |
| Reference | **configure** router *named-item-64* |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **interface-name** *interface-name*

| | |
|---|---|
| Synopsis | Interface to transmit or receive NTP broadcast packets |
| Context | **configure** system time ntp broadcast *reference* interface-name *interface-name* |
| Tree | broadcast |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## **authentication-keychain** *reference*

| | |
|---|---|
| Synopsis | Keychain used to authenticate broadcast messages |
| Context | **configure** system time ntp broadcast *reference* interface-name *interface-name* authentication-keychain *reference* |
| Tree | authentication-keychain |
| Description | This command configures the keychain used to authenticate messages sent by this node.<br>The keychain infrastructure is queried using this keychain name to get the youngest key used for generating the authentication value for the message. When an NTP packet is received by this node, the keychain infrastructure is queried using the keychain name and the key ID extracted from the received message to get the key used to perform the authentication check. If authentication does not pass, the packet is rejected. Keychain entries also have a direction. The key ID and authentication keychain are mutually exclusive. When neither one is set, for example, the key ID has a value of '0' and the value of this command is empty, no authentication is performed. |
| Reference | **configure** system security keychains keychain *named-item* |
| Notes | The following elements are part of a choice: **authentication-keychain** or **key-id**. |
| Introduced | 23.10.R1 |
| Platforms | All |

## **key-id** *reference*

| | |
|---|---|
| Synopsis | Authentication key and type used by the node |
| Context | **configure** system time ntp broadcast *reference* interface-name *interface-name* key-id *reference* |
| Tree | key-id |
| Reference | **configure** system time ntp authentication-key *number* |
| Notes | The following elements are part of a choice: **authentication-keychain** or **key-id**. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **ttl** *number*

| | |
|---|---|
| Synopsis | TTL of messages transmitted by the broadcast address |


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| | |
|---|---|
| Context | **configure** system time ntp broadcast *reference* interface-name *interface-name* ttl *number* |
| Tree | ttl |
| Range | 1 to 255 |
| Default | 127 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **version** *number*

| | |
|---|---|
| Synopsis | NTP version number generated by the node |
| Context | **configure** system time ntp broadcast *reference* interface-name *interface-name* version *number* |
| Tree | version |
| Range | 2 to 4 |
| Default | 4 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **broadcast-client** [router-instance] *string* interface-name *interface-name*

| | |
|---|---|
| Synopsis | Enter the **broadcast-client** list instance |
| Context | **configure** system time ntp broadcast-client *string* interface-name *interface-name* |
| Tree | broadcast-client |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**router-instance**] *string*

| | |
|---|---|
| Synopsis | Router name or VPRN service name |
| Context | **configure** system time ntp broadcast-client *string* interface-name *interface-name* |
| Tree | broadcast-client |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **interface-name** *interface-name*

| | |
|---|---|
| Synopsis | Interface to transmit or receive NTP broadcast packets |
| Context | **configure** system time ntp broadcast-client *string* interface-name *interface-name* |
| Tree | broadcast-client |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **authenticate** *boolean*

| | |
|---|---|
| Synopsis | Enforce authentication of NTP PDUs |
| Context | **configure** system time ntp broadcast-client *string* interface-name *interface-name* authenticate *boolean* |
| Tree | authenticate |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **multicast**

| | |
|---|---|
| Synopsis | Enable the **multicast** context |
| Context | **configure** system time ntp multicast |
| Tree | multicast |
| Introduced | 16.0.R1 |
| Platforms | All |

### **authentication-keychain** *reference*

| | |
|---|---|
| Synopsis | Keychain used to authenticate broadcast messages |
| Context | **configure** system time ntp multicast authentication-keychain *reference* |
| Tree | authentication-keychain |
| Description | This command configures the keychain used to authenticate messages sent by this node. |


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The keychain infrastructure is queried using this keychain name to get the youngest key used for generating the authentication value for the message. When an NTP packet is received by this node, the keychain infrastructure is queried using the keychain name and the key ID extracted from the received message to get the key used to perform the authentication check. If authentication does not pass, the packet is rejected. Keychain entries also have a direction. The key ID and authentication keychain are mutually exclusive. When neither one is set, for example, the key ID has a value of '0' and the value of this command is empty, no authentication is performed.

Reference **configure** system security keychains keychain *named-item*

Notes The following elements are part of a choice: **authentication-keychain** or **key-id**.

Introduced 23.10.R1

Platforms All

## **key-id** *reference*

Synopsis Authentication key and type used by the node

Context **configure** system time ntp multicast key-id *reference*

Tree key-id

Reference **configure** system time ntp authentication-key *number*

Notes The following elements are part of a choice: **authentication-keychain** or **key-id**.

Introduced 16.0.R1

Platforms All

## **version** *number*

Synopsis NTP version number generated by the node

Context **configure** system time ntp multicast version *number*

Tree version

Description This command specifies the NTP version number that is generated by the node. This command does not need to be configured when in client mode, in which case all three versions are accepted.

Range 2 to 4

Default 4

Introduced 16.0.R1

Platforms All


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### multicast-client

| | |
|---|---|
| Synopsis | Enable the **multicast-client** context |
| Context | **configure** system time ntp multicast-client |
| Tree | multicast-client |
| Introduced | 16.0.R1 |
| Platforms | All |

### authenticate *boolean*

| | |
|---|---|
| Synopsis | Enforce authentication of NTP PDUs |
| Context | **configure** system time ntp multicast-client authenticate *boolean* |
| Tree | authenticate |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### ntp-server

| | |
|---|---|
| Synopsis | Enable the **ntp-server** context |
| Context | **configure** system time ntp ntp-server |
| Tree | ntp-server |
| Introduced | 16.0.R1 |
| Platforms | All |

### authenticate *boolean*

| | |
|---|---|
| Synopsis | Authentication of NTP PDUs when acting as a server |
| Context | **configure** system time ntp ntp-server authenticate *boolean* |
| Tree | authenticate |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **peer** [ip-address] *(ipv4-address-no-zone | ipv6-address-no-zone)* router-instance *string*

| | |
|---|---|
| Synopsis | Enter the **peer** list instance |
| Context | **configure** system time ntp peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* router-instance *string* |
| Tree | peer |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ip-address**] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the peer for a peering relationship |
| Context | **configure** system time ntp peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* router-instance *string* |
| Tree | peer |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **router-instance** *string*

| | |
|---|---|
| Synopsis | Router name or VPRN service name |
| Context | **configure** system time ntp peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* router-instance *string* |
| Tree | peer |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **authentication-keychain** *reference*

| | |
|---|---|
| Synopsis | Keychain used to authenticate broadcast messages |
| Context | **configure** system time ntp peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* router-instance *string* authentication-keychain *reference* |
| Tree | authentication-keychain |
| Description | This command configures the keychain used to authenticate messages sent by this node. |


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The keychain infrastructure is queried using this keychain name to get the youngest key used for generating the authentication value for the message. When an NTP packet is received by this node, the keychain infrastructure is queried using the keychain name and the key ID extracted from the received message to get the key used to perform the authentication check. If authentication does not pass, the packet is rejected. Keychain entries also have a direction. The key ID and authentication keychain are mutually exclusive. When neither one is set, for example, the key ID has a value of '0' and the value of this command is empty, no authentication is performed.

Reference **configure** system security keychains keychain *named-item*

Notes The following elements are part of a choice: **authentication-keychain** or **key-id**.

Introduced 23.10.R1

Platforms All

## **key-id** *reference*

Synopsis Authentication key and type used by the node

Context **configure** system time ntp peer *(ipv4-address-no-zone | ipv6-address-no-zone)* router-instance *string* key-id *reference*

Tree key-id

Reference **configure** system time ntp authentication-key *number*

Notes The following elements are part of a choice: **authentication-keychain** or **key-id**.

Introduced 16.0.R1

Platforms All

## **prefer** *boolean*

Synopsis Set NTP server as preferred to receive time

Context **configure** system time ntp peer *(ipv4-address-no-zone | ipv6-address-no-zone)* router-instance *string* prefer *boolean*

Tree prefer

Default false

Introduced 16.0.R1

Platforms All

## **version** *number*

Synopsis NTP version number generated by the node


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| | |
|---|---|
| Context | **configure** system time ntp peer *(ipv4-address-no-zone \| ipv6-address-no-zone)* router-instance *string* version *number* |
| Tree | version |
| Description | This command specifies the NTP version number that is generated by the node. This command does not need to be configured when in client mode, in which case all three versions are accepted. |
| Range | 2 to 4 |
| Default | 4 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **server** [ip-address] *(ipv4-address-no-zone | ipv6-address-no-zone | keyword)* router-instance *string*

| | |
|---|---|
| Synopsis | Enter the **server** list instance |
| Context | **configure** system time ntp server *(ipv4-address-no-zone \| ipv6-address-no-zone \| keyword)* router-instance *string* |
| Tree | server |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ip-address**] *(ipv4-address-no-zone | ipv6-address-no-zone | keyword)*

| | |
|---|---|
| Synopsis | IP address of an external NTP server |
| Context | **configure** system time ntp server *(ipv4-address-no-zone \| ipv6-address-no-zone \| keyword)* router-instance *string* |
| Tree | server |
| Options | ptp |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **router-instance** *string*

| | |
|---|---|
| Synopsis | Router name or VPRN service name |
| Context | **configure** system time ntp server *(ipv4-address-no-zone \| ipv6-address-no-zone \| keyword)* router-instance *string* |


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| | |
|---|---|
| Tree | server |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## **authentication-keychain** *reference*

| | |
|---|---|
| Synopsis | Keychain used to authenticate broadcast messages |
| Context | **configure** system time ntp server *(ipv4-address-no-zone \| ipv6-address-no-zone \| keyword)* router-instance *string* authentication-keychain *reference* |
| Tree | authentication-keychain |
| Description | This command configures the keychain used to authenticate messages sent by this node.<br>The keychain infrastructure is queried using this keychain name to get the youngest key used for generating the authentication value for the message. When an NTP packet is received by this node, the keychain infrastructure is queried using the keychain name and the key ID extracted from the received message to get the key used to perform the authentication check. If authentication does not pass, the packet is rejected. Keychain entries also have a direction. The key ID and authentication keychain are mutually exclusive. When neither one is set, for example, the key ID has a value of '0' and the value of this command is empty, no authentication is performed. |
| Reference | **configure** system security keychains keychain *named-item* |
| Notes | The following elements are part of a choice: **authentication-keychain** or **key-id**. |
| Introduced | 23.10.R1 |
| Platforms | All |

## **key-id** *reference*

| | |
|---|---|
| Synopsis | Authentication key and type used by the node |
| Context | **configure** system time ntp server *(ipv4-address-no-zone \| ipv6-address-no-zone \| keyword)* router-instance *string* key-id *reference* |
| Tree | key-id |
| Reference | **configure** system time ntp authentication-key *number* |
| Notes | The following elements are part of a choice: **authentication-keychain** or **key-id**. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **prefer** *boolean*

| | |
|---|---|
| Synopsis | Set NTP server as preferred to receive time |
| Context | **configure** system time ntp server *(ipv4-address-no-zone* \| *ipv6-address-no-zone* \| *keyword)* router-instance *string* prefer *boolean* |
| Tree | prefer |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **version** *number*

| | |
|---|---|
| Synopsis | NTP version number generated by the node |
| Context | **configure** system time ntp server *(ipv4-address-no-zone* \| *ipv6-address-no-zone* \| *keyword)* router-instance *string* version *number* |
| Tree | version |
| Description | This command specifies the NTP version number that is generated by the node. This command does not need to be configured when in client mode, in which case all three versions are accepted. |
| Range | 2 to 4 |
| Default | 4 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **prefer-local-time** *boolean*

| | |
|---|---|
| Synopsis | Use local time over UTC time in the system |
| Context | **configure** system time prefer-local-time *boolean* |
| Tree | prefer-local-time |
| Description | When configured to **true**, the system uses local time. This preference is applied to objects such as log file names, created and completed times reported in log files, NETCONF and gRPC date-and-time leafs, and rollback times displayed in **show** command outputs.<br><br>When configured to **false**, the system uses UTC time.<br><br>**Note**: The timezone used for **show** command outputs during a CLI session can be controlled using the **environment time-display** command. |


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**Note**: The format used for the date-time strings may change, depending on the command setting. For example, when this command is set to **true**, all date-time strings include a suffix of three to five characters that indicates the timezone used.

**Note**: The time format for timestamps on log events is controlled on a per-log basis, using the **configure log log-id time-format** command.

| | |
|---|---|
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

## sntp

| | |
|---|---|
| Synopsis | Enter the **sntp** context |
| Context | **configure** system time sntp |
| Tree | sntp |
| Introduced | 16.0.R1 |
| Platforms | All |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of SNTP |
| Context | **configure** system time sntp admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R1 |
| Platforms | All |

## server [ip-address] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | Enter the **server** list instance |
| Context | **configure** system time sntp server *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | server |
| Introduced | 16.0.R1 |
| Platforms | All |


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### [**ip-address**] *(ipv4-address-no-zone | ipv6-address-no-zone)*

| | |
|---|---|
| Synopsis | IP address of the SNTP server |
| Context | **configure** system time sntp server *(ipv4-address-no-zone \| ipv6-address-no-zone)* |
| Tree | server |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **interval** *number*

| | |
|---|---|
| Synopsis | Frequency of querying the server |
| Context | **configure** system time sntp server *(ipv4-address-no-zone \| ipv6-address-no-zone)* interval *number* |
| Tree | interval |
| Range | 64 to 1024 |
| Units | seconds |
| Default | 64 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **prefer** *boolean*

| | |
|---|---|
| Synopsis | Preference value for this SNTP server |
| Context | **configure** system time sntp server *(ipv4-address-no-zone \| ipv6-address-no-zone)* prefer *boolean* |
| Tree | prefer |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **version** *number*

| | |
|---|---|
| Synopsis | SNTP version supported by this server |
| Context | **configure** system time sntp server *(ipv4-address-no-zone \| ipv6-address-no-zone)* version *number* |


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| | |
|---|---|
| Tree | version |
| Range | 1 to 3 |
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **sntp-state** *keyword*

| | |
|---|---|
| Synopsis | Mode for Simple Network Time Protocol (SNTP) |
| Context | **configure** system time sntp sntp-state *keyword* |
| Tree | sntp-state |
| Options | unicast, broadcast |
| Default | unicast |
| Introduced | 16.0.R1 |
| Platforms | All |

### zone

| | |
|---|---|
| Synopsis | Enter the **zone** context |
| Context | **configure** system time zone |
| Tree | zone |
| Introduced | 16.0.R1 |
| Platforms | All |

### non-standard

| | |
|---|---|
| Synopsis | Enter the **non-standard** context |
| Context | **configure** system time zone non-standard |
| Tree | non-standard |
| Notes | The following elements are part of a choice: **non-standard** or **standard**. |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **name** *string*

| | |
|---|---|
| Synopsis | Non-standard time zone name |
| Context | **configure** system time zone non-standard name *string* |
| Tree | name |
| String length | 1 to 5 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **offset** *hours-minutes-with-range*

| | |
|---|---|
| Synopsis | Offset from UTC |
| Context | **configure** system time zone non-standard offset *hours-minutes-with-range* |
| Tree | offset |
| String length | 5 to 6 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **standard**

| | |
|---|---|
| Synopsis | Enter the **standard** context |
| Context | **configure** system time zone standard |
| Tree | standard |
| Notes | The following elements are part of a choice: **non-standard** or **standard**. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **name** *keyword*

| | |
|---|---|
| Synopsis | Standard time zone name |
| Context | **configure** system time zone standard name *keyword* |
| Tree | name |
| Options | hst, akst, pst, mst, cst, est, ast, nst, utc, gmt, wet, cet, eet, msk, msd, awst, acst, aest, nzst |
| Default | utc |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

### **transmission-profile** [name] *named-item*

| | |
|---|---|
| Synopsis | Enter the **transmission-profile** list instance |
| Context | **configure** system transmission-profile *named-item* |
| Tree | transmission-profile |
| Introduced | 16.0.R4 |
| Platforms | All |

### [**name**] *named-item*

| | |
|---|---|
| Synopsis | File transmission profile name |
| Context | **configure** system transmission-profile *named-item* |
| Tree | transmission-profile |
| String length | 1 to 32 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | All |

### **http-version** *keyword*

| | |
|---|---|
| Synopsis | HTTP version |
| Context | **configure** system transmission-profile *named-item* http-version *keyword* |
| Tree | http-version |
| Options | 1.0, 1.1 |
| Default | 1.1 |
| Introduced | 23.3.R1 |
| Platforms | All |

### **ipv4-source-address** *ipv4-unicast-address*

| | |
|---|---|
| Synopsis | IPv4 source address used for the transport protocol |


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| | |
|---|---|
| Context | **configure** system transmission-profile *named-item* ipv4-source-address *ipv4-unicast-address* |
| Tree | ipv4-source-address |
| Introduced | 16.0.R4 |
| Platforms | All |

### **ipv6-source-address** *ipv6-address*

| | |
|---|---|
| Synopsis | IPv6 source address used for the transport protocol |
| Context | **configure** system transmission-profile *named-item* ipv6-source-address *ipv6-address* |
| Tree | ipv6-source-address |
| Introduced | 16.0.R4 |
| Platforms | All |

### **redirection** *number*

| | |
|---|---|
| Synopsis | Maximum level of redirection |
| Context | **configure** system transmission-profile *named-item* redirection *number* |
| Tree | redirection |
| Range | 1 to 8 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **retry** *number*

| | |
|---|---|
| Synopsis | Number of attempts to reconnecting to the server |
| Context | **configure** system transmission-profile *named-item* retry *number* |
| Tree | retry |
| Range | 1 to 256 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **router-instance** *router-instance-base-management-vprn-loose*

| | |
|---|---|
| Synopsis | Router instance used by the transport protocol |


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| | |
|---|---|
| Context | **configure** system transmission-profile *named-item* router-instance *router-instance-base-management-vprn-loose* |
| Tree | router-instance |
| String length | 1 to 64 |
| Default | Base |
| Introduced | 16.0.R4 |
| Platforms | All |

### **timeout** *number*

| | |
|---|---|
| Synopsis | Timeout for a response from the server |
| Context | **configure** system transmission-profile *named-item* timeout *number* |
| Tree | timeout |
| Range | 1 to 3600 |
| Units | seconds |
| Default | 60 |
| Introduced | 16.0.R4 |
| Platforms | All |

### **usb** [usb-cflash] *keyword*

| | |
|---|---|
| Synopsis | Enter the **usb** list instance |
| Context | **configure** system usb *keyword* |
| Tree | usb |
| Description | Commands in this context configure the operational state of the USB port. |
| Introduced | 22.10.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se, 7750 SR-2se |

### [**usb-cflash**] *keyword*

| | |
|---|---|
| Synopsis | Specifies the compact flash ID |
| Context | **configure** system usb *keyword* |
| Tree | usb |
| Options | cf2 |
| Notes | This element is part of a list key. |


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| | |
|---|---|
| Introduced | 22.10.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se, 7750 SR-2se |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the USB port |
| Context | **configure** system usb *keyword* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 22.10.R1 |
| Platforms | 7750 SR-1 (FP5), 7750 SR-1se, 7750 SR-2se |


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## 4.47 test-oam commands

```
configure
   –  test-oam
      –  apply-groups reference
      –  apply-groups-exclude reference
      –  icmp
         –  ipv6
            –  apply-groups reference
            –  apply-groups-exclude reference
            –  length-field boolean
            –  maximum-original-datagram boolean
         –  ping-template named-item-64
            –  apply-groups reference
            –  apply-groups-exclude reference
            –  description description
            –  dot1p number
            –  dscp keyword
            –  failure-threshold number
            –  interval number
            –  reactivation-failure-threshold number
            –  reactivation-interval number
            –  reactivation-threshold number
            –  reactivation-timeout number
            –  size number
            –  timeout number
            –  ttl number
      –  lag-ip-measurement
         –  lag-ip-measurement-template named-item-64
            –  admin-state keyword
            –  apply-groups reference
            –  apply-groups-exclude reference
            –  description description
            –  interval number
            –  sample-window
               –  multiplier number
            –  twamp-light
               –  allow-egress-remark-dscp boolean
               –  allow-ipv6-udp-checksum-zero boolean
               –  dest-udp-port number
               –  dscp keyword
               –  fc keyword
               –  profile keyword
               –  src-udp-port number
               –  timestamp-format keyword
               –  ttl number
      –  link-measurement
         –  measurement-template named-item-64
            –  admin-state keyword
            –  aggregate-sample-window
               –  multiplier number
               –  threshold
                  –  absolute number
                  –  relative number
               –  window-integrity number
            –  apply-groups reference
            –  apply-groups-exclude reference
            –  delay keyword
            –  description description
            –  interval number
            –  last-reported-delay-hold number
```


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configure test-oam link-measurement measurement-template reporting

```
            - reporting boolean
            - sample-window
               - multiplier number
               - threshold
                  - absolute number
                  - relative number
               - window-integrity number
            - twamp-light
               - allow-egress-remark-dscp boolean
               - allow-ipv6-udp-checksum-zero boolean
               - dest-udp-port number
               - dscp keyword
               - fc keyword
               - ipv6-destination-discovery
                  - admin-state keyword
                  - discovery-interval number
                  - discovery-timer number
                  - update-interval number
               - pad-tlv-size number
               - profile keyword
               - return-path
                  - link boolean
               - src-udp-port number
               - timestamp-format keyword
               - ttl number
            - unidirectional-measurement keyword
      - mpls
         - apply-groups reference
         - apply-groups-exclude reference
         - echo-request-downstream-map keyword
         - timestamp-format keyword
      - mpls-dm
         - admin-state keyword
         - apply-groups reference
         - apply-groups-exclude reference
      - service-activation-testhead
         - acceptance-criteria-template named-item-64
            - apply-groups reference
            - apply-groups-exclude reference
            - cir-threshold number
            - delay-threshold number
            - delay-var-threshold number
            - description description
            - loss-threshold decimal-number
            - loss-threshold-policing decimal-number
            - m-factor number
            - pir-threshold number
         - apply-groups reference
         - apply-groups-exclude reference
         - frame-size-template named-item-64
            - apply-groups reference
            - apply-groups-exclude reference
            - size-a number
            - size-b number
            - size-c number
            - size-d number
            - size-e number
            - size-f number
            - size-g number
            - size-h number
            - size-u number
         - service-test named-item-64
            - accounting-policy reference
            - admin-state keyword
```


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configure test-oam service-activation-testhead service-test apply-groups

```
            - apply-groups reference
            - apply-groups-exclude reference
            - description description
            - service-stream number
               - acceptance-criteria-template reference
               - admin-state keyword
               - apply-groups reference
               - apply-groups-exclude reference
               - description description
               - frame-mix
                  - frame-size-template reference
                  - sequence string
               - frame-payload
                  - data-pattern
                     - repeat (hex-string | number)
                  - ethernet
                     - c-tag
                        - discard-eligible boolean
                        - dot1p number
                     - dst-mac mac-unicast-address-no-zero
                     - eth-cfm
                        - source
                           - ma-admin-name reference
                           - md-admin-name reference
                           - mep-id number
                     - s-tag
                        - discard-eligible boolean
                        - dot1p number
               - rate-cir number
               - rate-pir number
               - service-stream-completion-notification boolean
               - test-types
                  - cir boolean
                  - cir-pir boolean
                  - performance boolean
                  - policing boolean
            - service-test-completion-notification boolean
            - stream-run-type keyword
            - test-duration
               - cir
                  - minutes-seconds sath-mm-ss-string
               - cir-pir
                  - minutes-seconds sath-mm-ss-string
               - performance
                  - hours-minutes-seconds sath-hh-mm-ss-string
               - policing
                  - minutes-seconds sath-mm-ss-string
      - twamp
         - apply-groups reference
         - apply-groups-exclude reference
         - server
            - admin-state keyword
            - allow-ipv6-udp-checksum-zero boolean
            - apply-groups reference
            - apply-groups-exclude reference
            - enforce-test-session-start-time boolean
            - inactivity-timeout number
            - max-connections number
            - max-sessions number
            - prefix (ipv4-prefix | ipv6-prefix)
               - apply-groups reference
               - apply-groups-exclude reference
               - description description
               - max-connections number
```


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configure test-oam twamp server prefix max-sessions

```
            – max-sessions number
        – twamp-light
          – apply-groups reference
          – apply-groups-exclude reference
          – inactivity-timeout number
          – source-udp-port-pools
            – port number
              – apply-groups reference
              – apply-groups-exclude reference
              – pool-type keyword
```


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## 4.47.1 test-oam command descriptions

### test-oam

| | |
|---|---|
| Synopsis | Enter the **test-oam** context |
| Context | **configure** test-oam |
| Tree | test-oam |
| Introduced | 16.0.R4 |
| Platforms | All |

### icmp

| | |
|---|---|
| Synopsis | Enter the **icmp** context |
| Context | **configure** test-oam icmp |
| Tree | icmp |
| Introduced | 20.10.R1 |
| Platforms | All |

### ipv6

| | |
|---|---|
| Synopsis | Enter the **ipv6** context |
| Context | **configure** test-oam icmp ipv6 |
| Tree | ipv6 |
| Introduced | 22.7.R1 |
| Platforms | All |

### length-field *boolean*

| | |
|---|---|
| Synopsis | Use length field in ICMPv6 responses |
| Context | **configure** test-oam icmp ipv6 length-field *boolean* |
| Tree | length-field |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | All |


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### **maximum-original-datagram** *boolean*

| | |
|---|---|
| Synopsis | ICMPv6 traceroute responses with largest datagram |
| Context | **configure** test-oam icmp ipv6 maximum-original-datagram *boolean* |
| Tree | maximum-original-datagram |
| Description | When configured to **true**, this command enables the original datagram field of the ICMPv6 error message to be a maximum of 1232 bytes.<br>When configured to **false**, the original datagram field of the ICMPv6 error message smaller than 1232 bytes be built smaller. |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | All |

### **ping-template** [name] *named-item-64*

| | |
|---|---|
| Synopsis | Enter the **ping-template** list instance |
| Context | **configure** test-oam icmp ping-template *named-item-64* |
| Tree | ping-template |
| Description | Commands in this context define ping timers and thresholds that verify connectivity and the the operational state of the IP interface. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### [**name**] *named-item-64*

| | |
|---|---|
| Synopsis | Ping template name |
| Context | **configure** test-oam icmp ping-template *named-item-64* |
| Tree | ping-template |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |


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| | |
|---|---|
| Context | **configure** test-oam icmp ping-template *named-item-64* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **dot1p** *number*

| | |
|---|---|
| Synopsis | Dot1p in Ethernet header of outgoing ping packets |
| Context | **configure** test-oam icmp ping-template *named-item-64* dot1p *number* |
| Tree | dot1p |
| Range | 0 to 7 |
| Default | 7 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **dscp** *keyword*

| | |
|---|---|
| Synopsis | DSCP value used in the outgoing ping packet |
| Context | **configure** test-oam icmp ping-template *named-item-64* dscp *keyword* |
| Tree | dscp |
| Options | be, cp1, cp2, cp3, cp4, cp5, cp6, cp7, cs1, cp9, af11, cp11, af12, cp13, af13, cp15, cs2, cp17, af21, cp19, af22, cp21, af23, cp23, cs3, cp25, af31, cp27, af32, cp29, af33, cp31, cs4, cp33, af41, cp35, af42, cp37, af43, cp39, cs5, cp41, cp42, cp43, cp44, cp45, ef, cp47, nc1, cp49, cp50, cp51, cp52, cp53, cp54, cp55, nc2, cp57, cp58, cp59, cp60, cp61, cp62, cp63 |
| Default | nc1 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **failure-threshold** *number*

| | |
|---|---|
| Synopsis | Failure threshold to declare inter-connectivity down |
| Context | **configure** test-oam icmp ping-template *named-item-64* failure-threshold *number* |
| Tree | failure-threshold |
| Range | 2 to 10 |


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| | |
|---|---|
| Default | 3 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **interval** *number*

| | |
|---|---|
| Synopsis | Packet transmit interval |
| Context | **configure** test-oam icmp ping-template *named-item-64* interval *number* |
| Tree | interval |
| Range | 1 to 60 |
| Units | seconds |
| Default | 60 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **reactivation-failure-threshold** *number*

| | |
|---|---|
| Synopsis | Threshold of consecutive failures at reactivation |
| Context | **configure** test-oam icmp ping-template *named-item-64* reactivation-failure-threshold *number* |
| Tree | reactivation-failure-threshold |
| Description | This command configures the number of consecutive failures that must occur when transmitting at the reactivation interval without success before the transmission interval is changed to the standard interval. |
| Range | 1 to 10 |
| Default | 4 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **reactivation-interval** *number*

| | |
|---|---|
| Synopsis | Ping reactivation interval |
| Context | **configure** test-oam icmp ping-template *named-item-64* reactivation-interval *number* |
| Tree | reactivation-interval |


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| | |
|---|---|
| Description | This command configures the packet transmit interval used when the IP interface becomes operationally down because of a ping template failure after receiving a successful response to the previous ICMP echo request. |
| Range | 1 to 60 |
| Units | seconds |
| Default | 1 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **reactivation-threshold** *number*

| | |
|---|---|
| Synopsis | Success threshold to declare inter-connectivity up |
| Context | **configure** test-oam icmp ping-template *named-item-64* reactivation-threshold *number* |
| Tree | reactivation-threshold |
| Description | This command configures the minimum number of consecutive successful responses of ICMP replies that must occur before the IP interface transitions from operationally down (due to ping validation failure) to operationally up. This value is a stability metric intended to prevent flapping. |
| Range | 1 to 10 |
| Default | 3 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **reactivation-timeout** *number*

| | |
|---|---|
| Synopsis | Reactivation wait time before packet is declared lost |
| Context | **configure** test-oam icmp ping-template *named-item-64* reactivation-timeout *number* |
| Tree | reactivation-timeout |
| Range | 1 to 60 |
| Units | seconds |
| Default | 1 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **size** *number*

| | |
|---|---|
| Synopsis | Data field size of the outgoing ICMP echo packet |
| Context | **configure** test-oam icmp ping-template *named-item-64* size *number* |
| Tree | size |
| Range | 12 to 9786 |
| Units | octets |
| Default | 56 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **timeout** *number*

| | |
|---|---|
| Synopsis | Wait time before ICMP echo request is declared lost |
| Context | **configure** test-oam icmp ping-template *named-item-64* timeout *number* |
| Tree | timeout |
| Range | 1 to 60 |
| Units | seconds |
| Default | 5 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ttl** *number*

| | |
|---|---|
| Synopsis | TTL value for the outgoing ping packet |
| Context | **configure** test-oam icmp ping-template *named-item-64* ttl *number* |
| Tree | ttl |
| Description | This command configures the TTL value used in the outgoing ping packet. The tested interface must be directly connected on the same subnet. |
| Range | 1 to 255 |
| Default | 1 |
| Introduced | 20.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### lag-ip-measurement

| | |
|---|---|
| Synopsis | Enter the **lag-ip-measurement** context |
| Context | **configure** test-oam lag-ip-measurement |
| Tree | lag-ip-measurement |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### lag-ip-measurement-template [template-name] *named-item-64*

| | |
|---|---|
| Synopsis | Enter the **lag-ip-measurement-template** list instance |
| Context | **configure** test-oam lag-ip-measurement lag-ip-measurement-template *named-item-64* |
| Tree | lag-ip-measurement-template |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### [**template-name**] *named-item-64*

| | |
|---|---|
| Synopsis | LAG IP measurement template name |
| Context | **configure** test-oam lag-ip-measurement lag-ip-measurement-template *named-item-64* |
| Tree | lag-ip-measurement-template |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the template |
| Context | **configure** test-oam lag-ip-measurement lag-ip-measurement-template *named-item-64* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 24.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** test-oam lag-ip-measurement lag-ip-measurement-template *named-item-64* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **interval** *number*

| | |
|---|---|
| Synopsis | Length of time between test packet transmits |
| Context | **configure** test-oam lag-ip-measurement lag-ip-measurement-template *named-item-64* interval *number* |
| Tree | interval |
| Range | 1 to 10 |
| Units | seconds |
| Default | 1 |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **sample-window**

| | |
|---|---|
| Synopsis | Enter the **sample-window** context |
| Context | **configure** test-oam lag-ip-measurement lag-ip-measurement-template *named-item-64* sample-window |
| Tree | sample-window |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **multiplier** *number*

| | |
|---|---|
| Synopsis | Duration of the sample window |


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| | |
|---|---|
| Context | **configure** test-oam lag-ip-measurement lag-ip-measurement-template *named-item-64* sample-window multiplier *number* |
| Tree | multiplier |
| Description | This command configures the duration of each sample window length, which is equal to interval multiplied by this value. |
| Range | 1 to 900 |
| Default | 10 |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## twamp-light

| | |
|---|---|
| Synopsis | Enter the **twamp-light** context |
| Context | **configure** test-oam lag-ip-measurement lag-ip-measurement-template *named-item-64* twamp-light |
| Tree | twamp-light |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## allow-egress-remark-dscp *boolean*

| | |
|---|---|
| Synopsis | Overwrite launched packet IP header DSCP |
| Context | **configure** test-oam lag-ip-measurement lag-ip-measurement-template *named-item-64* twamp-light allow-egress-remark-dscp *boolean* |
| Tree | allow-egress-remark-dscp |
| Description | When configured to **true**, the system overwrites the IP header DSCP for each launched packet in accordance with the egress port QoS policy. |
| Default | false |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## allow-ipv6-udp-checksum-zero *boolean*

| | |
|---|---|
| Synopsis | Allow processing of IPv6 packets with UDP checksum zero |
| Context | **configure** test-oam lag-ip-measurement lag-ip-measurement-template *named-item-64* twamp-light allow-ipv6-udp-checksum-zero *boolean* |
| Tree | allow-ipv6-udp-checksum-zero |


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| | |
|---|---|
| Default | false |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **dest-udp-port** *number*

| | |
|---|---|
| Synopsis | Destination UDP port for the tests |
| Context | **configure** test-oam lag-ip-measurement lag-ip-measurement-template *named-item-64* twamp-light dest-udp-port *number* |
| Tree | dest-udp-port |
| Range | 1 to 65535 |
| Default | 862 |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **dscp** *keyword*

| | |
|---|---|
| Synopsis | DSCP in IP header of launched TWAMP-Light packet |
| Context | **configure** test-oam lag-ip-measurement lag-ip-measurement-template *named-item-64* twamp-light dscp *keyword* |
| Tree | dscp |
| Options | be, cp1, cp2, cp3, cp4, cp5, cp6, cp7, cs1, cp9, af11, cp11, af12, cp13, af13, cp15, cs2, cp17, af21, cp19, af22, cp21, af23, cp23, cs3, cp25, af31, cp27, af32, cp29, af33, cp31, cs4, cp33, af41, cp35, af42, cp37, af43, cp39, cs5, cp41, cp42, cp43, cp44, cp45, ef, cp47, nc1, cp49, cp50, cp51, cp52, cp53, cp54, cp55, nc2, cp57, cp58, cp59, cp60, cp61, cp62, cp63 |
| Default | nc1 |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **fc** *keyword*

| | |
|---|---|
| Synopsis | QoS FC used to launch each TWAMP-Light packet |
| Context | **configure** test-oam lag-ip-measurement lag-ip-measurement-template *named-item-64* twamp-light fc *keyword* |
| Tree | fc |
| Options | be – Best effort<br>l2 – Low 2 (best effort) |


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af – Assured forwarding (assured)
l1 – Low 1 (assured)
h2 – High 2 (high priority)
ef – Expedited forwarding (high priority)
h1 – High 1 (high priority)
nc – Network control (high priority)

Default h1

Introduced 24.10.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS

## **profile** *keyword*

Synopsis QoS profile used to launch each TWAMP-Light packet

Context **configure** test-oam lag-ip-measurement lag-ip-measurement-template *named-item-64* twamp-light profile *keyword*

Tree profile

Options in – In profile
out – Out of profile

Default in

Introduced 24.10.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS

## **src-udp-port** *number*

Synopsis Source UDP port for testing

Context **configure** test-oam lag-ip-measurement lag-ip-measurement-template *named-item-64* twamp-light src-udp-port *number*

Tree src-udp-port

Description This command configures the source UDP port for test packets. When a port is not specified using this command, the system dynamically allocates the UDP port from the dynamic range.

Range 64374 to 64383

Introduced 24.10.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS

## **timestamp-format** *keyword*

Synopsis Timestamp field format for launched TWAMP-Light packets


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| | |
|---|---|
| Context | **configure** test-oam lag-ip-measurement lag-ip-measurement-template *named-item-64* twamp-light timestamp-format *keyword* |
| Tree | timestamp-format |
| Options | ntp – Network Time Protocol<br>ptp – Precision Time Protocol |
| Default | ntp |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ttl** *number*

| | |
|---|---|
| Synopsis | TTL in IP header of the launched TWAMP-Light packet |
| Context | **configure** test-oam lag-ip-measurement lag-ip-measurement-template *named-item-64* twamp-light ttl *number* |
| Tree | ttl |
| Range | 1 to 255 |
| Default | 1 |
| Introduced | 24.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **link-measurement**

| | |
|---|---|
| Synopsis | Enter the **link-measurement** context |
| Context | **configure** test-oam link-measurement |
| Tree | link-measurement |
| Description | Commands in this context configure the link measurement template attributes that are inherited on associated IP interfaces for delay reporting to the routing engine. |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **measurement-template** [template-name] *named-item-64*

| | |
|---|---|
| Synopsis | Enter the **measurement-template** list instance |
| Context | **configure** test-oam link-measurement measurement-template *named-item-64* |
| Tree | measurement-template |
| Description | Commands in this context configure the attributes of the measurement template that can be assigned to an IP interface. |


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Changes can be made without disabling the template, although some modifications cause the test on associated IP interfaces to terminate and restart.

A measurement template can be removed if no interfaces reference it.

| | |
|---|---|
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## [**template-name**] *named-item-64*

| | |
|---|---|
| Synopsis | Measurement template name |
| Context | **configure** test-oam link-measurement measurement-template *named-item-64* |
| Tree | measurement-template |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the measurement template |
| Context | **configure** test-oam link-measurement measurement-template *named-item-64* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **aggregate-sample-window**

| | |
|---|---|
| Synopsis | Enter the **aggregate-sample-window** context |
| Context | **configure** test-oam link-measurement measurement-template *named-item-64* aggregate-sample-window |
| Tree | aggregate-sample-window |
| Description | Commands in this context configure the attributes of the aggregate sample window used with the measurement template assigned to an IP interface. The aggregate sample window is the collection of sample windows. |


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| | |
|---|---|
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **multiplier** *number*

| | |
|---|---|
| Synopsis | Number of sample windows in the aggregate sample window |
| Context | **configure** test-oam link-measurement measurement-template *named-item-64* aggregate-sample-window multiplier *number* |
| Tree | multiplier |
| Range | 1 to 12 |
| Default | 12 |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **threshold**

| | |
|---|---|
| Synopsis | Enter the **threshold** context |
| Context | **configure** test-oam link-measurement measurement-template *named-item-64* aggregate-sample-window threshold |
| Tree | threshold |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **absolute** *number*

| | |
|---|---|
| Synopsis | Absolute delta for delay measurement reporting |
| Context | **configure** test-oam link-measurement measurement-template *named-item-64* aggregate-sample-window threshold absolute *number* |
| Tree | absolute |
| Description | This command configures the absolute minimum delta by which a new delay measurement must differ from the previously reported measurement to be reported to the routing engine.<br>If an absolute value is not configured the threshold is disabled. |
| Range | 1 to 100000 |
| Units | microseconds |
| Introduced | 21.7.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **relative** *number*

| | |
|---|---|
| Synopsis | Relative delta for measurement reporting |
| Context | **configure** test-oam link-measurement measurement-template *named-item-64* aggregate-sample-window threshold relative *number* |
| Tree | relative |
| Description | This command configures the relative minimum delta by which a new delay measurement must differ from the previously reported measurement to be reported to the routing engine.<br>If a relative value is not configured, the threshold is disabled. |
| Range | 1 to 100 |
| Units | percent |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **window-integrity** *number*

| | |
|---|---|
| Synopsis | Sample percentage required for window integrity report |
| Context | **configure** test-oam link-measurement measurement-template *named-item-64* aggregate-sample-window window-integrity *number* |
| Tree | window-integrity |
| Description | This command configures the percentage value that is used to determine whether the aggregate sample window is integral, by comparing the number of samples received from the sample window to the percentage configured.<br>The configured percentage translates to a required sample window count that must be included in the aggregate sample window. The number of samples is computed as follows:<br>(window-integrity (%)) x (((aggregate-sample-window length (s)) / (sample-window length (s)))<br>If the number of samples in the aggregate sample window is equal to or greater than the computed number of required samples, the sample window has integrity and the aggregate sample window result is compared to the configured sample window thresholds.<br>If the count is less than the computed number of required samples, the aggregate sample window does not have integrity and the value is not considered as representative. In this case the aggregate sample window results are not compared to the configured sample window thresholds. |


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| | |
|---|---|
| | If this parameter is not configured, integrity checking is disabled and all results are compared to the configured thresholds. |
| Range | 1 to 100 |
| Units | percent |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **delay** *keyword*

| | |
|---|---|
| Synopsis | Delay measurement statistic type |
| Context | **configure** test-oam link-measurement measurement-template *named-item-64* delay *keyword* |
| Tree | delay |
| Description | This command configures the type of delay measurement statistic used in the sample window and aggregate sample window. |
| Options | min, max, avg |
| Default | min |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** test-oam link-measurement measurement-template *named-item-64* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **interval** *number*

| | |
|---|---|
| Synopsis | Interval between test packet transmissions |
| Context | **configure** test-oam link-measurement measurement-template *named-item-64* interval *number* |
| Tree | interval |
| Range | 1 to 10 |


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| | |
|---|---|
| Units | seconds |
| Default | 1 |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **last-reported-delay-hold** *number*

| | |
|---|---|
| Synopsis | Time to wait to flush the last reported delay |
| Context | **configure** test-oam link-measurement measurement-template *named-item-64* last-reported-delay-hold *number* |
| Tree | last-reported-delay-hold |
| Description | This command configures the timer that specifies the wait time before the last reported delay measurement is flushed after a link measurement test enters the operationally down state.<br><br>The aging timer delays the flushing of the last reported delay metric to the routing engine. This timer starts a countdown to zero when an administrative function causes the operational state of the test on that specific interface to transition from up to down. If the timer expires before the operational state transitions to up, the previously reported value is flushed. The Delay Measurement Last Reported indicates “Cleared”. The timestamp indicates the time of the clear event. The Triggered By indicates “Expired”. If the administrative state recovers to operationally up before the expiration of the timer, the previous reported value is not flushed.<br><br>The aging timer does not apply to failure conditions that do not affect the administrative state of the interface, for example interface failure or routing changes. |
| Range | 0 \| 1 to 86400 |
| Units | seconds |
| Default | 86400 |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **reporting** *boolean*

| | |
|---|---|
| Synopsis | Report behavior for values for the configured threshold |
| Context | **configure** test-oam link-measurement measurement-template *named-item-64* reporting *boolean* |
| Tree | reporting |
| Description | When configured to **true**, the system reports a reached threshold to the routing engine.Reaching a configured **sample-window** or **aggregate-sample-window** indicates a value of interest. |


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When configured to **false**, values reaching thresholds are not reported to the routing engine. In both enabled and disabled cases, the sample-window and aggregate-sample-window information and computed values are stored on the node until overwriting occurs.

Default true

Introduced 22.7.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS

## sample-window

Synopsis Enter the **sample-window** context

Context **configure** test-oam link-measurement measurement-template *named-item-64* sample-window

Tree sample-window

Description Commands in this context configure sample window attributes used when the measurement template is assigned to an IP interface. The sample window is the collection of individual probe results over a defined period.

Introduced 21.7.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS

## multiplier *number*

Synopsis Multiplier of interval used for sample window length

Context **configure** test-oam link-measurement measurement-template *named-item-64* sample-window multiplier *number*

Tree multiplier

Description This command configures the number of probe results that should be in the sample window. For example, a multiplier of 10 and an interval of 5 equals 50 probes being transmitted from an individual sample window. Consequently, 50 probe results are expected within the 50 second duration that the sample window is “In-progress”.

Range 1 to 900

Default 10

Introduced 21.7.R1

Platforms 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS

## threshold

Synopsis Enter the **threshold** context


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| | |
|---|---|
| Context | **configure** test-oam link-measurement measurement-template *named-item-64* sample-window threshold |
| Tree | threshold |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **absolute** *number*

| | |
|---|---|
| Synopsis | Absolute delta for delay measurement reporting |
| Context | **configure** test-oam link-measurement measurement-template *named-item-64* sample-window threshold absolute *number* |
| Tree | absolute |
| Description | This command configures the absolute minimum delta by which a new delay measurement must differ from the previously reported measurement to be reported to the routing engine.<br>If an absolute value is not configured the threshold is disabled. |
| Range | 1 to 100000 |
| Units | microseconds |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **relative** *number*

| | |
|---|---|
| Synopsis | Relative delta for delay measurement reporting |
| Context | **configure** test-oam link-measurement measurement-template *named-item-64* sample-window threshold relative *number* |
| Tree | relative |
| Description | This command configures the relative minimum delta by which a new delay measurement must differ from the previously reported measurement to be reported to the routing engine.<br>If a relative value is not configured, the threshold is disabled. |
| Range | 1 to 500 |
| Units | percent |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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## **window-integrity** *number*

| | |
|---|---|
| Synopsis | Sample percentage required for window integrity report |
| Context | **configure** test-oam link-measurement measurement-template *named-item-64* sample-window window-integrity *number* |
| Tree | window-integrity |
| Description | This command configures the percentage value that is used to determine whether the sample window has enough samples to be considered representative for that window (integrity), by comparing the number of samples received from the sample window to the percentage configured.<br><br>The configured percentage considers the interval of probes and the length of the sample window to determine the number of packets required in the sample:<br><br>(window-integrity (%)) x ((sample-window length (s)) / pps per test (interval))<br><br>If the count is less than the computed number of required samples, the sample window does not have integrity and the sample window results are not compared to configured sample window thresholds.<br><br>If the count is equal to or greater than the computed number of required samples, the sample window has integrity and the aggregate sample window result is compared to the configured sample window thresholds.<br><br>If the count is less than the computed number of required samples, the sample window does not have integrity and the value is not considered as representative. In this case the sample window results are not compared to the configured sample window thresholds.<br><br>If this parameter is not configured, integrity checking is disabled and all results are compared to the configured thresholds. |
| Range | 1 to 100 |
| Units | percent |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **twamp-light**

| | |
|---|---|
| Synopsis | Enter the **twamp-light** context |
| Context | **configure** test-oam link-measurement measurement-template *named-item-64* twamp-light |
| Tree | twamp-light |
| Description | Commands in this context configure TWAMP Light attributes that are used with the measurement template when assigned to IP interfaces. |
| Introduced | 21.7.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **allow-egress-remark-dscp** *boolean*

| | |
|---|---|
| Synopsis | Allow overwrite of DSCP value by the egress QoS policy |
| Context | **configure** test-oam link-measurement measurement-template *named-item-64* twamp-light allow-egress-remark-dscp *boolean* |
| Tree | allow-egress-remark-dscp |
| Description | When configured to **true**, the egress QoS process is able to modify the DSCP based on the egress QoS configuration and expose the DSCP to egress DSCP processing rules.<br>When configured to **false**, the egress QoS process uses the DSCP as configured and bypasses egress QoS DSCP marking.<br>If the **configure qos network egress remark-trusted force-egress-marking** command is configured for the network egress QoS profile, the egress QoS process is applied and the DSCP can be overwritten regardless of the **allow-egress-remark-dscp** configuration. |
| Default | false |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **allow-ipv6-udp-checksum-zero** *boolean*

| | |
|---|---|
| Synopsis | Process IPv6 packets with UDP check sum zero |
| Context | **configure** test-oam link-measurement measurement-template *named-item-64* twamp-light allow-ipv6-udp-checksum-zero *boolean* |
| Tree | allow-ipv6-udp-checksum-zero |
| Description | When configured to **true**, processing of IPv6 packets that arrive with a UDP checksum of zero is allowed. The destination UDP ports that are registered as TWAMP Test packets in the template allow this behavior.<br>When configured to **false**, IPv6 packets that arrive with a UDP checksum of zero are discarded. |
| Default | false |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **dest-udp-port** *number*

| | |
|---|---|
| Synopsis | Destination UDP port used by link measurement tests |


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| | |
|---|---|
| Context | **configure** test-oam link-measurement measurement-template *named-item-64* twamp-light dest-udp-port *number* |
| Tree | dest-udp-port |
| Description | This command configures the destination UDP port on outbound TWAMP Light measurement packets sent from the session controller. The destination UDP port must match the UDP port value configured on the TWAMP Light reflector that responds to this specific TWAMP Light test. |
| Range | 1 to 65535 |
| Default | 862 |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **dscp** *keyword*

| | |
|---|---|
| Synopsis | DSCP copied to TWAMP Light echo request packet header |
| Context | **configure** test-oam link-measurement measurement-template *named-item-64* twamp-light dscp *keyword* |
| Tree | dscp |
| Description | This command configures the DSCP to be copied into the IP header of each TWAMP Light echo request packet launched for the test. |
| Options | be, cp1, cp2, cp3, cp4, cp5, cp6, cp7, cs1, cp9, af11, cp11, af12, cp13, af13, cp15, cs2, cp17, af21, cp19, af22, cp21, af23, cp23, cs3, cp25, af31, cp27, af32, cp29, af33, cp31, cs4, cp33, af41, cp35, af42, cp37, af43, cp39, cs5, cp41, cp42, cp43, cp44, cp45, ef, cp47, nc1, cp49, cp50, cp51, cp52, cp53, cp54, cp55, nc2, cp57, cp58, cp59, cp60, cp61, cp62, cp63 |
| Default | nc1 |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **fc** *keyword*

| | |
|---|---|
| Synopsis | Forwarding class name for the TWAMP Light packets |
| Context | **configure** test-oam link-measurement measurement-template *named-item-64* twamp-light fc *keyword* |
| Tree | fc |
| Options | be – Best effort<br>l2 – Low 2 (best effort)<br>af – Assured forwarding (assured)<br>l1 – Low 1 (assured)<br>h2 – High 2 (high priority) |


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| | |
|---|---|
| | ef – Expedited forwarding (high priority)<br>h1 – High 1 (high priority)<br>nc – Network control (high priority) |
| Default | h1 |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## ipv6-destination-discovery

| | |
|---|---|
| Synopsis | Enter the **ipv6-destination-discovery** context |
| Context | **configure** test-oam link-measurement measurement-template *named-item-64* twamp-light ipv6-destination-discovery |
| Tree | ipv6-destination-discovery |
| Description | Commands in this context configure IPv6 discovery of a directly-connected IPv6 peer address. |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of IPv6 auto destination discovery |
| Context | **configure** test-oam link-measurement measurement-template *named-item-64* twamp-light ipv6-destination-discovery admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## discovery-interval *number*

| | |
|---|---|
| Synopsis | Transmission frequency for discovery packets |
| Context | **configure** test-oam link-measurement measurement-template *named-item-64* twamp-light ipv6-destination-discovery discovery-interval *number* |
| Tree | discovery-interval |
| Description | This command configures transmission frequency of the discovery packet to the all-routers multicast group (ff02::2) to discover the link-local address of the peer. This frequency is used during the **discover-timer** interval. |


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| | |
|---|---|
| Range | 1 to 10 |
| Units | seconds |
| Default | 10 |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **discovery-timer** *number*

| | |
|---|---|
| Synopsis | Maximum time to remain in the discovery phase |
| Context | **configure** test-oam link-measurement measurement-template *named-item-64* twamp-light ipv6-destination-discovery discovery-timer *number* |
| Tree | discovery-timer |
| Description | This command configures the amount of time to transmit peer discovery packets at the **discovery-interval**.<br>The timer starts when the IPv6 protocols is enabled under the **configure router interface if-attribute delay dynamic twamp-light ipv6** context. At the expiration of the **discovery-interval** or when a peer is discovered, whichever comes first, the probe interval changes to the value configured for the **update-interval**. |
| Range | 1 to 1800 |
| Units | seconds |
| Default | 60 |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **update-interval** *number*

| | |
|---|---|
| Synopsis | Transmission frequency to maintain the peer address |
| Context | **configure** test-oam link-measurement measurement-template *named-item-64* twamp-light ipv6-destination-discovery update-interval *number* |
| Tree | update-interval |
| Range | 0 \| 1 to 3600 |
| Units | seconds |
| Default | 600 |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **pad-tlv-size** *number*

| | |
|---|---|
| Synopsis | Optional PAD TLV size |
| Context | **configure** test-oam link-measurement measurement-template *named-item-64* twamp-light pad-tlv-size *number* |
| Tree | pad-tlv-size |
| Description | This command enables a STAMP PDU to include the PAD TLV. This increases the size of the STAMP PDU by the size of the added TLV. The PAD TLV includes an all zeros pattern. |
| Range | 4 to 9714 |
| Units | bytes |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **profile** *keyword*

| | |
|---|---|
| Synopsis | QoS profile for packet treatment in local node |
| Context | **configure** test-oam link-measurement measurement-template *named-item-64* twamp-light profile *keyword* |
| Tree | profile |
| Description | This command specifies if the packets should be treated as in or out of profile as they move through the local node. |
| Options | in – In profile<br>out – Out of profile |
| Default | in |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **return-path**

| | |
|---|---|
| Synopsis | Enter the **return-path** context |
| Context | **configure** test-oam link-measurement measurement-template *named-item-64* twamp-light return-path |
| Tree | return-path |
| Description | Commands in this context configure the return-path TLV carried in the STAMP PDU. |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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## **link** *boolean*

| | |
|---|---|
| Synopsis | The Return Path sub-TLV specifying link |
| Context | **configure** test-oam link-measurement measurement-template *named-item-64* twamp-light return-path link *boolean* |
| Tree | link |
| Description | When configured to **true**, the system includes the **return-path** TLV link. The link sub-tlv instructs a Session-Reflector configured for type **stamp** to use the receiving logical IP interface for the transmission of the response packet from the reflector to the **session-sender**. The destination of the reflected packet must be installed in the forwarding table and reachable out the IP interface or the packet is dropped by the Session-Reflector. When there are parallel non-equal cost return paths between the Session-Reflector and the Session-Sender the response packet can only be returned on the lowest cost path.<br><br>When configured to **false**, the Return Path TLV carried in the STAMP PDU is not included with the test packet. |
| Default | false |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **src-udp-port** *number*

| | |
|---|---|
| Synopsis | Fixed source UDP port for link measurement tests |
| Context | **configure** test-oam link-measurement measurement-template *named-item-64* twamp-light src-udp-port *number* |
| Tree | src-udp-port |
| Description | This command specifies a source UDP port for link measurement tests.<br><br>Unless required, Nokia suggests that the link measurement dynamically select an available source UDP port from the dynamic range. Before a UDP port in the configurable range can be configured as a source it must be owned by the application. Use the **configure test-oam twamp twamp-light source-udp-port-pools port pool-type** command to map the port range to the application.<br><br>By default a source UDP port allocates from the dynamic range. The configuration of the source port should only be configured when required for interoperability. When the source IP, destination IP, and destination UPD port are the same for a test, the source UDP port must be different in order to uniquely identify the session. |
| Range | 64374 to 64383 |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **timestamp-format** *keyword*

| | |
|---|---|
| Synopsis | Format of the timestamp used in TWAMP Light PDU |
| Context | **configure** test-oam link-measurement measurement-template *named-item-64* twamp-light timestamp-format *keyword* |
| Tree | timestamp-format |
| Description | This command configures the format of the timestamp used in the TWAMP Light PDU and places the requested timestamp format in the packet using the appropriate epoch. This is unrelated to any time distribution protocol used to synchronize time between clocks. |
| Options | ntp – Network Time Protocol<br>ptp – Precision Time Protocol |
| Default | ntp |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **ttl** *number*

| | |
|---|---|
| Synopsis | Time to live value used in the TWAMP Light test packet |
| Context | **configure** test-oam link-measurement measurement-template *named-item-64* twamp-light ttl *number* |
| Tree | ttl |
| Range | 1 to 255 |
| Default | 1 |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **unidirectional-measurement** *keyword*

| | |
|---|---|
| Synopsis | Method used to compute the unidirectional delay value |
| Context | **configure** test-oam link-measurement measurement-template *named-item-64* unidirectional-measurement *keyword* |
| Tree | unidirectional-measurement |
| Description | This command specifies the unidirectional delay computation method as the actual forward delay (calculated using T2-T1 timestamps) or as derived using the round-trip delay divided by two (required if nodal clocks are not synchronized using an accurate time-synchronization method or protocol such as PTP). |
| Options | derived, actual |


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| | |
|---|---|
| Default | derived |
| Introduced | 21.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## mpls

| | |
|---|---|
| Synopsis | Enter the **mpls** context |
| Context | **configure** test-oam mpls |
| Tree | mpls |
| Introduced | 23.7.R1 |
| Platforms | All |

## echo-request-downstream-map *keyword*

| | |
|---|---|
| Synopsis | Format of the downstream mapping TLV |
| Context | **configure** test-oam mpls echo-request-downstream-map *keyword* |
| Tree | echo-request-downstream-map |
| Description | This command specifies the format of the downstream mapping TLV to use in all LSP trace packets and LDP tree trace packets originated on this node.<br>The following downstream mapping TLVs are supported: the original Downstream Mapping (DSMAP) TLV, defined in RFC 4379 (obsoleted by RFC 8029) and the Downstream Detailed Mapping (DDMAP) TLV, defined in RFC 6424.<br>See the "DDMAP TLV" section in the *7450 ESS, 7750 SR, 7950 XRS, and VSR OAM and Diagnostics Guide* for more information. |
| Options | dsmap – Downstream Mapping TLV<br>ddmap – Downstream Detailed Mapping TLV |
| Default | dsmap |
| Introduced | 23.7.R1 |
| Platforms | All |

## timestamp-format *keyword*

| | |
|---|---|
| Synopsis | Timestamp format for MPLS ping request and reply PDUs |
| Context | **configure** test-oam mpls timestamp-format *keyword* |
| Tree | timestamp-format |
| Options | rfc4379 – 1900-based timestamp (standard)<br>unix – 1970-based timestamp |


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| | |
|---|---|
| Default | unix |
| Introduced | 23.7.R1 |
| Platforms | All |

## mpls-dm

| | |
|---|---|
| Synopsis | Enter the **mpls-dm** context |
| Context | **configure** test-oam mpls-dm |
| Tree | mpls-dm |
| Introduced | 16.0.R6 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of MPLS DM packet processing |
| Context | **configure** test-oam mpls-dm admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R6 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## service-activation-testhead

| | |
|---|---|
| Synopsis | Enter the **service-activation-testhead** context |
| Context | **configure** test-oam service-activation-testhead |
| Tree | service-activation-testhead |
| Description | Commands in this context configure service activation launch parameters for the testhead function.<br>This functionality is supported on FP4 and later platforms. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |


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## **acceptance-criteria-template** [ac-template-name] *named-item-64*

| | |
|---|---|
| Synopsis | Enter the **acceptance-criteria-template** list instance |
| Context | **configure** test-oam service-activation-testhead acceptance-criteria-template *named-item-64* |
| Tree | acceptance-criteria-template |
| Description | Commands in this context configure the test acceptance criteria policy that the service test testhead OAM tool uses to determine the test result after test completion.<br>The “default” value of this command is attached to every **service-stream** created under the **service-test** context for which no explicit acceptance criteria template policy is configured by the user.<br>The default acceptance criteria template is not user-configurable.<br>The default template does not set thresholds and only reports the end-of-run values. |
| Max. instances | 100 |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## [**ac-template-name**] *named-item-64*

| | |
|---|---|
| Synopsis | Acceptance criteria template name |
| Context | **configure** test-oam service-activation-testhead acceptance-criteria-template *named-item-64* |
| Tree | acceptance-criteria-template |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## **cir-threshold** *number*

| | |
|---|---|
| Synopsis | CIR threshold |
| Context | **configure** test-oam service-activation-testhead acceptance-criteria-template *named-item-64* cir-threshold *number* |
| Tree | cir-threshold |
| Description | This command configures a CIR value that is compared to the measured results for the CIR test types. If the measured value is equal to or greater than the configured value, the test passes; otherwise, it fails. For more information, see the **m-factor** command. |


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| | |
|---|---|
| Range | 1 to 400000000 |
| Units | kilobps |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## **delay-threshold** *number*

| | |
|---|---|
| Synopsis | Delay threshold configuration for acceptance criteria template |
| Context | **configure** test-oam service-activation-testhead acceptance-criteria-template *named-item-64* delay-threshold *number* |
| Tree | delay-threshold |
| Description | This command configures a delay value that is compared to the measured delay at the end of the test to declare the test result. If the measured value is greater than the configured value, the test fails; otherwise, it passes. A measured delay value of zero also causes the test to fail. |
| Range | 1 to 100000000 |
| Units | microseconds |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## **delay-var-threshold** *number*

| | |
|---|---|
| Synopsis | Delay variation threshold configuration for acceptance criteria template |
| Context | **configure** test-oam service-activation-testhead acceptance-criteria-template *named-item-64* delay-var-threshold *number* |
| Tree | delay-var-threshold |
| Description | This command configures a delay variation value that is compared to the measured delay variation at the end of the test to declare the test result. If the measured value is greater than the configured value, the test fails; otherwise, it passes. |
| Range | 1 to 100000000 |
| Units | microseconds |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |


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| | |
|---|---|
| Context | **configure** test-oam service-activation-testhead acceptance-criteria-template *named-item-64* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## **loss-threshold** *decimal-number*

| | |
|---|---|
| Synopsis | Loss threshold for acceptance criteria template |
| Context | **configure** test-oam service-activation-testhead acceptance-criteria-template *named-item-64* loss-threshold *decimal-number* |
| Tree | loss-threshold |
| Description | This command configures a frame loss ratio (FLR) value that is compared to the measured FLR at the end of the test to determine the test result. If the measured value is greater than the configured value, the test fails; otherwise, it passes. Thresholds must be explicitly configured to use them for the comparison.<br>The FLR is computed as a ratio of the difference of the number of received frames to the number of injected or sent frames divided by the number of sent frames. |
| Range | 0.0000 to 100.0000 |
| Units | percent |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## **loss-threshold-policing** *decimal-number*

| | |
|---|---|
| Synopsis | Frame loss ratio for a policing test |
| Context | **configure** test-oam service-activation-testhead acceptance-criteria-template *named-item-64* loss-threshold-policing *decimal-number* |
| Tree | loss-threshold-policing |
| Description | This command configures a frame loss ratio (FLR) value for a policing test. The value is compared to the measured FLR at the end of the test to determine the test result. If the measured value is greater than the configured value, the test fails; otherwise, it passes.<br>Thresholds must be explicitly configured before they can be used for comparison. The FLR is computed as a ratio of the difference of the number of received frames to the number of injected or sent frames divided by the number of sent frames. |
| Range | 0.0000 to 100.0000 |
| Units | percent |


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| | |
|---|---|
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## **m-factor** *number*

| | |
|---|---|
| Synopsis | Throughput margin configuration |
| Context | **configure** test-oam service-activation-testhead acceptance-criteria-template *named-item-64* m-factor *number* |
| Tree | m-factor |
| Description | This command configures the margin by which the observed throughput is off from the configured throughput to determine whether a service test passes or fails.<br>The M-factor is used with the CIR threshold and PIR threshold values for different test types to determine whether a test passes or fails.<br>type **cir**<br>• If the measured throughput is less than the difference of the configured CIR threshold and the M-factor, the test fails.<br>type **cir-pir**<br>• If the measured throughput is less than the difference of the configured PIR threshold and the M-factor, the test fails.<br>type **policing**<br>• If the measured throughput is less than the difference of the configured PIR threshold and the M-factor, the test fails.<br>• If the measured throughput is greater than the sum of the configured PIR threshold and the M-factor, the test fails.<br>type **performance**<br>• If the measured throughput is less than the difference of the configured PIR threshold and the M-factor, the test fails. |
| Range | 1 to 400000000 |
| Units | kilobps |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## **pir-threshold** *number*

| | |
|---|---|
| Synopsis | PIR threshold |
| Context | **configure** test-oam service-activation-testhead acceptance-criteria-template *named-item-64* pir-threshold *number* |
| Tree | pir-threshold |


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| | |
|---|---|
| Description | This command configures a PIR value that is compared to the measured results for the **cir-pir**, **policing**, and **performance** test types. If the measured value is equal to or greater than the configured value, the test passes; otherwise, it fails. For more information, see the **m-factor** command. |
| Range | 1 to 400000000 |
| Units | kilobps |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## **frame-size-template** [fs-template-name] *named-item-64*

| | |
|---|---|
| Synopsis | Enter the **frame-size-template** list instance |
| Context | **configure** test-oam service-activation-testhead frame-size-template *named-item-64* |
| Tree | frame-size-template |
| Description | Commands in this context create a template to configure frames of different sizes for use with a test stream configured under the **service-test** command. The ITU-T Y.1564 methodology designates the letters “a” to “h” for a default frame size. The default frame size can be overwritten. |
| Max. instances | 100 |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## [**fs-template-name**] *named-item-64*

| | |
|---|---|
| Synopsis | Frame size template name |
| Context | **configure** test-oam service-activation-testhead frame-size-template *named-item-64* |
| Tree | frame-size-template |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## **size-a** *number*

| | |
|---|---|
| Synopsis | Size-a |


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| | |
|---|---|
| Context | **configure** test-oam service-activation-testhead frame-size-template *named-item-64* size-a *number* |
| Tree | size-a |
| Range | 64 to 9212 |
| Units | bytes |
| Default | 64 |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### **size-b** *number*

| | |
|---|---|
| Synopsis | Size-b |
| Context | **configure** test-oam service-activation-testhead frame-size-template *named-item-64* size-b *number* |
| Tree | size-b |
| Range | 64 to 9212 |
| Units | bytes |
| Default | 128 |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### **size-c** *number*

| | |
|---|---|
| Synopsis | Size-c |
| Context | **configure** test-oam service-activation-testhead frame-size-template *named-item-64* size-c *number* |
| Tree | size-c |
| Range | 64 to 9212 |
| Units | bytes |
| Default | 256 |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### **size-d** *number*

| | |
|---|---|
| Synopsis | Size-d |


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| | |
|---|---|
| Context | **configure** test-oam service-activation-testhead frame-size-template *named-item-64* size-d *number* |
| Tree | size-d |
| Range | 64 to 9212 |
| Units | bytes |
| Default | 512 |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### **size-e** *number*

| | |
|---|---|
| Synopsis | Size-e |
| Context | **configure** test-oam service-activation-testhead frame-size-template *named-item-64* size-e *number* |
| Tree | size-e |
| Range | 64 to 9212 |
| Units | bytes |
| Default | 1024 |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### **size-f** *number*

| | |
|---|---|
| Synopsis | Size-f |
| Context | **configure** test-oam service-activation-testhead frame-size-template *named-item-64* size-f *number* |
| Tree | size-f |
| Range | 64 to 9212 |
| Units | bytes |
| Default | 1280 |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### **size-g** *number*

| | |
|---|---|
| Synopsis | Size-g |


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| | |
|---|---|
| Context | **configure** test-oam service-activation-testhead frame-size-template *named-item-64* size-g *number* |
| Tree | size-g |
| Range | 64 to 9212 |
| Units | bytes |
| Default | 1518 |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### **size-h** *number*

| | |
|---|---|
| Synopsis | Size-h |
| Context | **configure** test-oam service-activation-testhead frame-size-template *named-item-64* size-h *number* |
| Tree | size-h |
| Range | 64 to 9212 |
| Units | bytes |
| Default | 9212 |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### **size-u** *number*

| | |
|---|---|
| Synopsis | Size-u |
| Context | **configure** test-oam service-activation-testhead frame-size-template *named-item-64* size-u *number* |
| Tree | size-u |
| Range | 64 to 9212 |
| Units | bytes |
| Default | 2000 |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### **service-test** [test-name] *named-item-64*

| | |
|---|---|
| Synopsis | Enter the **service-test** list instance |


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| | |
|---|---|
| Context | **configure** test-oam service-activation-testhead service-test *named-item-64* |
| Tree | service-test |
| Description | Commands in this context configure the service test parameters. |
| Max. instances | 500 |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### [**test-name**] *named-item-64*

| | |
|---|---|
| Synopsis | Service activation test name |
| Context | **configure** test-oam service-activation-testhead service-test *named-item-64* |
| Tree | service-test |
| String length | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### **accounting-policy** *reference*

| | |
|---|---|
| Synopsis | Accounting policy to record service test results |
| Context | **configure** test-oam service-activation-testhead service-test *named-item-64* accounting-policy *reference* |
| Tree | accounting-policy |
| Description | This command creates a link to an accounting policy for the specified service test. The **record** of the accounting policy must be set to **complete-service-activation-test**. |
| Reference | **configure** log accounting-policy *number* |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the service test |
| Context | **configure** test-oam service-activation-testhead service-test *named-item-64* admin-state *keyword* |
| Tree | admin-state |


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| | |
|---|---|
| Options | enable, disable |
| Default | disable |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** test-oam service-activation-testhead service-test *named-item-64* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### **service-stream** [stream-id] *number*

| | |
|---|---|
| Synopsis | Enter the **service-stream** list instance |
| Context | **configure** test-oam service-activation-testhead service-test *named-item-64* service-stream *number* |
| Tree | service-stream |
| Description | Commands in this context configure a service stream profile for the specified service test. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### [**stream-id**] *number*

| | |
|---|---|
| Synopsis | Service stream ID |
| Context | **configure** test-oam service-activation-testhead service-test *named-item-64* service-stream *number* |
| Tree | service-stream |
| Range | 1 to 8 |
| Notes | This element is part of a list key. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |


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## **acceptance-criteria-template** *reference*

**WARNING:**
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| | |
|---|---|
| Synopsis | Acceptance criteria association to a service stream |
| Context | **configure** test-oam service-activation-testhead service-test *named-item-64* service-stream *number* acceptance-criteria-template *reference* |
| Tree | acceptance-criteria-template |
| Description | This command creates a link to an acceptance criteria template policy configured by the user for the specified service stream.<br>Assign the "default" acceptance criteria template to remove the existing template in a service stream. |
| Reference | **configure** test-oam service-activation-testhead acceptance-criteria-template *named-item-64* |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the service stream |
| Context | **configure** test-oam service-activation-testhead service-test *named-item-64* service-stream *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## **description** *description*

**WARNING:**
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| | |
|---|---|
| Synopsis | Text description |


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| | |
|---|---|
| Context | **configure** test-oam service-activation-testhead service-test *named-item-64* service-stream *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## frame-mix

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **frame-mix** context |
| Context | **configure** test-oam service-activation-testhead service-test *named-item-64* service-stream *number* frame-mix |
| Tree | frame-mix |
| Description | Commands in this context configure frame mixing for the specified service stream by referencing the frame size template. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## frame-size-template *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Frame size template for the service stream |
| Context | **configure** test-oam service-activation-testhead service-test *named-item-64* service-stream *number* frame-mix frame-size-template *reference* |
| Tree | frame-size-template |
| Description | This command configures the frame size template for the specified service stream.<br>The user can assign the default *frame-size-tmpl-name* “default” to remove the existing template in a service stream. |
| Reference | **configure** test-oam service-activation-testhead frame-size-template *named-item-64* |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |


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## **sequence** *string*

**WARNING:**
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| | |
|---|---|
| Synopsis | Sequence of frame sizes for the service stream |
| Context | **configure** test-oam service-activation-testhead service-test *named-item-64* service-stream *number* frame-mix sequence *string* |
| Tree | sequence |
| Description | This command configures the frame sequence for the specified service stream by referencing the **frame-size-template** configuration. |
| String length | 1 to 16 |
| Default | a |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## **frame-payload**

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **frame-payload** context |
| Context | **configure** test-oam service-activation-testhead service-test *named-item-64* service-stream *number* frame-payload |
| Tree | frame-payload |
| Description | Commands in this context configure packet header information used in frames generated by the testhead function.<br>Only the specified header information is included in the frame. At a minimum, the user must configure the Ethernet destination MAC address and ETH-CFM information to include in the frame payload configuration. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |


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## data-pattern

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **data-pattern** context |
| Context | **configure** test-oam service-activation-testhead service-test *named-item-64* service-stream *number* frame-payload data-pattern |
| Tree | data-pattern |
| Description | Commands in this context configure the data pattern to populate the payload portion of the frame generated by the service activation testhead. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## **repeat** *(hex-string | number)*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Repeated 4-byte pattern to pad each packet sent |
| Context | **configure** test-oam service-activation-testhead service-test *named-item-64* service-stream *number* frame-payload data-pattern repeat *(hex-string \| number)* |
| Tree | repeat |
| Description | This command configures the data pattern padding bytes for the frames launched for the service stream.<br>The specified data pattern value is repeated as many times as required to fill the remaining length of the payload for the highest level of the specified PDU. If only the Ethernet and ETH-CFM information is added, the data pattern is included in the data TLV of the ETH-CFM frame. |
| String length | 10 |
| Max. range | 0 to 4294967295 |
| Default | 0x00000000 |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |


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## ethernet

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **ethernet** context |
| Context | **configure** test-oam service-activation-testhead service-test *named-item-64* service-stream *number* frame-payload ethernet |
| Tree | ethernet |
| Description | Commands in this context configure the Ethernet header parameters and ETH-CFM information used by the testhead tool.<br>Only the specified header information is included in the frame. At a minimum, Ethernet MAC address and ETH-CFM information must be included. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## c-tag

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **c-tag** context |
| Context | **configure** test-oam service-activation-testhead service-test *named-item-64* service-stream *number* frame-payload ethernet c-tag |
| Tree | c-tag |
| Description | Commands in this context configure the customer VLAN tag (c-tag) information. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## discard-eligible *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable marking of the DEI bit in the VLAN header |


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| | |
|---|---|
| Context | **configure** test-oam service-activation-testhead service-test *named-item-64* service-stream *number* frame-payload ethernet c-tag discard-eligible *boolean* |
| Tree | discard-eligible |
| Description | When configured to **true**, the frame is discard eligible. |
| Default | false |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### **dot1p** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | PCP of Ethernet frames for service stream |
| Context | **configure** test-oam service-activation-testhead service-test *named-item-64* service-stream *number* frame-payload ethernet c-tag dot1p *number* |
| Tree | dot1p |
| Description | This command configures the priority code point (dot1p) value for the VLAN. |
| Range | 0 to 7 |
| Default | 7 |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### **dst-mac** *mac-unicast-address-no-zero*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Destination MAC address of Ethernet frames |
| Context | **configure** test-oam service-activation-testhead service-test *named-item-64* service-stream *number* frame-payload ethernet dst-mac *mac-unicast-address-no-zero* |
| Tree | dst-mac |
| Description | This command configures the unicast destination MAC address to use in the frame generated by the service activation testhead. |
| Introduced | 23.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## eth-cfm

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **eth-cfm** context |
| Context | **configure** test-oam service-activation-testhead service-test *named-item-64* service-stream *number* frame-payload ethernet eth-cfm |
| Tree | eth-cfm |
| Description | Commands in this context configure ETH-CFM source MEP, destination MAC, and the ETH-CFM PDU type to carry the service activation stream. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## source

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **source** context |
| Context | **configure** test-oam service-activation-testhead service-test *named-item-64* service-stream *number* frame-payload ethernet eth-cfm source |
| Tree | source |
| Description | Commands in this context define the source launch maintenance association end point (MEP) for service activation. If a MEP that matches this configuration does not exist, the service activation test does not start. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## ma-admin-name *reference*

**WARNING:**
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| | |
|---|---|
| Synopsis | Source Ethernet maintenance association name |
| Context | **configure** test-oam service-activation-testhead service-test *named-item-64* service-stream *number* frame-payload ethernet eth-cfm source ma-admin-name *reference* |
| Tree | ma-admin-name |
| Reference | **configure** eth-cfm domain *admin-name* association *admin-name* |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## **md-admin-name** *reference*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Source Ethernet maintenance domain name |
| Context | **configure** test-oam service-activation-testhead service-test *named-item-64* service-stream *number* frame-payload ethernet eth-cfm source md-admin-name *reference* |
| Tree | md-admin-name |
| Reference | **configure** eth-cfm domain *admin-name* |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## **mep-id** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Source Ethernet maintenance association end point |
| Context | **configure** test-oam service-activation-testhead service-test *named-item-64* service-stream *number* frame-payload ethernet eth-cfm source mep-id *number* |
| Tree | mep-id |
| Range | 1 to 8191 |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |


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## s-tag

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **s-tag** context |
| Context | **configure** test-oam service-activation-testhead service-test *named-item-64* service-stream *number* frame-payload ethernet s-tag |
| Tree | s-tag |
| Description | Commands in this context configure service VLAN tag (s-tag) information specification. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## discard-eligible *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable marking of the DEI bit in the VLAN header |
| Context | **configure** test-oam service-activation-testhead service-test *named-item-64* service-stream *number* frame-payload ethernet s-tag discard-eligible *boolean* |
| Tree | discard-eligible |
| Description | When configured to **true**, the frame is discard eligible. |
| Default | false |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## dot1p *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | PCP of Ethernet frames for service stream |
| Context | **configure** test-oam service-activation-testhead service-test *named-item-64* service-stream *number* frame-payload ethernet s-tag dot1p *number* |


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| | |
|---|---|
| Tree | dot1p |
| Description | This command configures the priority code point (dot1p) value for the VLAN. |
| Range | 0 to 7 |
| Default | 7 |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### **rate-cir** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | CIR packet transmit rate for the service stream |
| Context | **configure** test-oam service-activation-testhead service-test *named-item-64* service-stream *number* rate-cir *number* |
| Tree | rate-cir |
| Description | This command configures the CIR that must be validated for a specific stream. If configured, the PIR value must be equal to or greater than the CIR value.<br>When specified, the CIR rate overrides the default CIR value. The configured value must be a positive integer; fractional values are not allowed. If this command is not executed, or the CIR parameter is not explicitly specified, the default CIR value applies.<br>The service activation testhead generates traffic up to the specified rate based on the test-types command, as follows.<br>• For **type cir**, traffic is generated at a rate up to the configured CIR.<br>• For **type cir-pir**, traffic is generated at a rate up to the configured PIR.<br>• For **type policing**, traffic is generated at a rate up to 125% of the configured PIR.<br>• For **type performance**, traffic is generated at a rate up to the configured PIR. |
| Range | 0 to 400000000 |
| Units | kilobps |
| Default | 0 |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |


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## **rate-pir** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | PIR packet transmit rate for the service stream |
| Context | **configure** test-oam service-activation-testhead service-test *named-item-64* service-stream *number* rate-pir *number* |
| Tree | rate-pir |
| Description | This command specifies the PIR rate, which overrides the default administrative PIR value. The configured value must be a positive integer; fractional values are not allowed. If this command is not executed or the PIR parameter is not explicitly specified, the default PIR value applies.<br>The service activation testhead generates traffic up to the specified rate based on the test-types command, as follows.<br>• For **type cir**, traffic is generated at a rate up to the configured CIR.<br>• For **type cir-pir**, traffic is generated at a rate up to the configured PIR.<br>• For **type policing**, traffic is generated at a rate up to 125% of the configured PIR.<br>• For **type performance**, traffic is generated at a rate up to the configured PIR. |
| Range | 0 to 400000000 |
| Units | kilobps |
| Default | 0 |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## **service-stream-completion-notification** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enable SNMP trap generation upon test completion |
| Context | **configure** test-oam service-activation-testhead service-test *named-item-64* service-stream *number* service-stream-completion-notification *boolean* |
| Tree | service-stream-completion-notification |
| Default | false |
| Introduced | 23.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## test-types

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Enter the **test-types** context |
| Context | **configure** test-oam service-activation-testhead service-test *named-item-64* service-stream *number* test-types |
| Tree | test-types |
| Description | Commands in this context configure the types of tests to perform on a specific service stream. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## cir *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | CIR test for the service stream |
| Context | **configure** test-oam service-activation-testhead service-test *named-item-64* service-stream *number* test-types cir *boolean* |
| Tree | cir |
| Default | false |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## cir-pir *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | CIR-PIR test for the service stream |


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| | |
|---|---|
| Context | **configure** test-oam service-activation-testhead service-test *named-item-64* service-stream *number* test-types cir-pir *boolean* |
| Tree | cir-pir |
| Default | false |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## **performance** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Performance test for the service stream |
| Context | **configure** test-oam service-activation-testhead service-test *named-item-64* service-stream *number* test-types performance *boolean* |
| Tree | performance |
| Default | false |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## **policing** *boolean*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Policing test for the service stream |
| Context | **configure** test-oam service-activation-testhead service-test *named-item-64* service-stream *number* test-types policing *boolean* |
| Tree | policing |
| Default | false |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## **service-test-completion-notification** *boolean*

| | |
|---|---|
| Synopsis | Enable SNMP trap generation upon test completion |


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| | |
|---|---|
| Context | **configure** test-oam service-activation-testhead service-test *named-item-64* service-test-completion-notification *boolean* |
| Tree | service-test-completion-notification |
| Default | false |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## **stream-run-type** *keyword*

| | |
|---|---|
| Synopsis | Service stream run order |
| Context | **configure** test-oam service-activation-testhead service-test *named-item-64* stream-run-type *keyword* |
| Tree | stream-run-type |
| Options | sequential, parallel |
| Default | parallel |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## **test-duration**

| | |
|---|---|
| Synopsis | Enter the **test-duration** context |
| Context | **configure** test-oam service-activation-testhead service-test *named-item-64* test-duration |
| Tree | test-duration |
| Description | Commands in this context configure the test duration for the various functional test types. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## **cir**

| | |
|---|---|
| Synopsis | Enter the **cir** context |
| Context | **configure** test-oam service-activation-testhead service-test *named-item-64* test-duration cir |
| Tree | cir |
| Description | Commands in this context configure the duration for the CIR test type. |
| Introduced | 23.10.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### **minutes-seconds** *sath-mm-ss-string*

| | |
|---|---|
| Synopsis | Duration of the service test CIR tests |
| Context | **configure** test-oam service-activation-testhead service-test *named-item-64* test-duration cir minutes-seconds *sath-mm-ss-string* |
| Tree | minutes-seconds |
| String length | 5 |
| Default | 05:00 |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### **cir-pir**

| | |
|---|---|
| Synopsis | Enter the **cir-pir** context |
| Context | **configure** test-oam service-activation-testhead service-test *named-item-64* test-duration cir-pir |
| Tree | cir-pir |
| Description | Commands in this context configure the duration for the CIR-PIR test type. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### **minutes-seconds** *sath-mm-ss-string*

| | |
|---|---|
| Synopsis | Duration of the service test CIR-PIR tests |
| Context | **configure** test-oam service-activation-testhead service-test *named-item-64* test-duration cir-pir minutes-seconds *sath-mm-ss-string* |
| Tree | minutes-seconds |
| String length | 5 |
| Default | 10:00 |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |


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## performance

| | |
|---|---|
| Synopsis | Enter the **performance** context |
| Context | **configure** test-oam service-activation-testhead service-test *named-item-64* test-duration performance |
| Tree | performance |
| Description | Commands in this context configure the duration for the performance test type. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## hours-minutes-seconds *sath-hh-mm-ss-string*

| | |
|---|---|
| Synopsis | Duration of performance tests belonging to the test |
| Context | **configure** test-oam service-activation-testhead service-test *named-item-64* test-duration performance hours-minutes-seconds *sath-hh-mm-ss-string* |
| Tree | hours-minutes-seconds |
| String length | 8 |
| Default | 00:15:00 |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## policing

| | |
|---|---|
| Synopsis | Enter the **policing** context |
| Context | **configure** test-oam service-activation-testhead service-test *named-item-64* test-duration policing |
| Tree | policing |
| Description | Commands in this context configure the duration for the policing test type. |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

## minutes-seconds *sath-mm-ss-string*

| | |
|---|---|
| Synopsis | Duration of policing tests belonging to the test |
| Context | **configure** test-oam service-activation-testhead service-test *named-item-64* test-duration policing minutes-seconds *sath-mm-ss-string* |


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| | |
|---|---|
| Tree | minutes-seconds |
| String length | 5 |
| Default | 10:00 |
| Introduced | 23.10.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-s, 7950 XRS |

### twamp

| | |
|---|---|
| Synopsis | Enter the **twamp** context |
| Context | **configure** test-oam twamp |
| Tree | twamp |
| Introduced | 16.0.R4 |
| Platforms | All |

### server

| | |
|---|---|
| Synopsis | Enter the **server** context |
| Context | **configure** test-oam twamp server |
| Tree | server |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### admin-state *keyword*

| | |
|---|---|
| Synopsis | Administrative state of the TWAMP server |
| Context | **configure** test-oam twamp server admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | disable |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### allow-ipv6-udp-checksum-zero *boolean*

| | |
|---|---|
| Synopsis | Process IPv6 packets with a zero UDP checksum |


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| | |
|---|---|
| Context | **configure** test-oam twamp server allow-ipv6-udp-checksum-zero *boolean* |
| Tree | allow-ipv6-udp-checksum-zero |
| Description | When configured to **true**, this command configures the acceptance of IPv6 packets with UDP checksums of 0. This optional configuration allows the router to process arriving IPv6 TWAMP Test packets that contain IPv6 UDP checksum of 0x0000. The UDP port specific to this TWAMP Light test bypasses the default discard IPv6 UDP checksum 0x0000. If this optional command is not configured, IPv6 UDP checksum 0x000 arriving packets are discarded.<br>When configured to **false**, packets that arrive with an IPv6 UDP checksum of 0x0000 are discarded. |
| Default | false |
| Introduced | 22.2.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **enforce-test-session-start-time** *boolean*

| | |
|---|---|
| Synopsis | Discard TWAMP packets before test-session start time |
| Context | **configure** test-oam twamp server enforce-test-session-start-time *boolean* |
| Tree | enforce-test-session-start-time |
| Description | When configured to **true**, the router checks the signalled test-session start time against the server time and discards TWAMP test packets that arrive before the negotiated test-session start time.<br>When configured to **false**, the router processes all TWAMP test packets without checking the test-session start time against the server time. |
| Default | true |
| Introduced | 23.3.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

## **inactivity-timeout** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Inactivity timeout for TWAMP control connections |
| Context | **configure** test-oam twamp server inactivity-timeout *number* |
| Tree | inactivity-timeout |
| Range | 60 to 3600 |


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| | |
|---|---|
| Units | seconds |
| Default | 900 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **max-connections** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Limit of concurrent TWAMP server control connections |
| Context | **configure** test-oam twamp server max-connections *number* |
| Tree | max-connections |
| Range | 0 to 64 |
| Default | 32 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **max-sessions** *number*

**WARNING:**
Modifying this element toggles the **admin-state** of the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Maximum number of concurrent TWAMP server test sessions |
| Context | **configure** test-oam twamp server max-sessions *number* |
| Tree | max-sessions |
| Range | 0 to 128 |
| Default | 32 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **prefix** [ip-prefix] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Enter the **prefix** list instance |
| Context | **configure** test-oam twamp server prefix *(ipv4-prefix \| ipv6-prefix)* |


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| | |
|---|---|
| Tree | prefix |
| Max. instances | 100 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### [**ip-prefix**] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Prefix to match against TWAMP client address |
| Context | **configure** test-oam twamp server prefix *(ipv4-prefix \| ipv6-prefix)* |
| Tree | prefix |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** test-oam twamp server prefix *(ipv4-prefix \| ipv6-prefix)* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **max-connections** *number*

| | |
|---|---|
| Synopsis | Maximum number of control connections for TWAMP prefix |
| Context | **configure** test-oam twamp server prefix *(ipv4-prefix \| ipv6-prefix)* max-connections *number* |
| Tree | max-connections |
| Range | 0 to 64 |
| Default | 32 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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### **max-sessions** *number*

| | |
|---|---|
| Synopsis | Maximum concurrent TWAMP test sessions based on prefix |
| Context | **configure** test-oam twamp server prefix *(ipv4-prefix \| ipv6-prefix)* max-sessions *number* |
| Tree | max-sessions |
| Range | 0 to 128 |
| Default | 32 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **twamp-light**

| | |
|---|---|
| Synopsis | Enter the **twamp-light** context |
| Context | **configure** test-oam twamp twamp-light |
| Tree | twamp-light |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **inactivity-timeout** *number*

| | |
|---|---|
| Synopsis | Time to maintain stale state on the session reflector |
| Context | **configure** test-oam twamp twamp-light inactivity-timeout *number* |
| Tree | inactivity-timeout |
| Range | 10 to 100 |
| Units | seconds |
| Default | 100 |
| Introduced | 16.0.R4 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **source-udp-port-pools**

| | |
|---|---|
| Synopsis | Enter the **source-udp-port-pools** context |
| Context | **configure** test-oam twamp twamp-light source-udp-port-pools |
| Tree | source-udp-port-pools |
| Introduced | 22.7.R1 |


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| | |
|---|---|
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **port** [port-number] *number*

| | |
|---|---|
| Synopsis | Enter the **port** list instance |
| Context | **configure** test-oam twamp twamp-light source-udp-port-pools port *number* |
| Tree | port |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### [**port-number**] *number*

| | |
|---|---|
| Synopsis | Source UDP port pools port number |
| Context | **configure** test-oam twamp twamp-light source-udp-port-pools port *number* |
| Tree | port |
| Range | 64374 to 64383 |
| Notes | This element is part of a list key. |
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |

### **pool-type** *keyword*

| | |
|---|---|
| Synopsis | Pool type of an application pool |
| Context | **configure** test-oam twamp twamp-light source-udp-port-pools port *number* pool-type *keyword* |
| Tree | pool-type |
| Description | This command maps the specified source UDP port to the TWAMP Light application allowed to configure the source UDP port. OAM-PM IP tests can only configure the source UDP port when the port pool UDP source port is configured with a **pool-type oam-pm**. The **test-oam link-measurement measurement-template** can only configure the **src-udp-port** when the port pool UDP source port is configured with **pool-type link-measurement**.<br><br>A pool type cannot be changed if its current application is a test (either an oam-pm session or link-measurement template) and is configured to use the specified port, regardless of the administrative or operational state. The configuration reference linking to the source UDP prevents the change. |
| Options | oam-pm, link-measurement |
| Default | oam-pm |


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| | |
|---|---|
| Introduced | 22.7.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-a, 7750 SR-e, 7750 SR-s, 7950 XRS |


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## 4.48 vrrp commands

```
configure
   –  vrrp
      –  apply-groups reference
      –  apply-groups-exclude reference
      –  policy number
         –  admin-state keyword
         –  apply-groups reference
         –  apply-groups-exclude reference
         –  context service-name
         –  delta-in-use-limit number
         –  description description
         –  priority-event
            –  host-unreachable (ipv4-address-with-zone | ipv6-address-with-zone)
               –  apply-groups reference
               –  apply-groups-exclude reference
               –  drop-count number
               –  hold-clear number
               –  hold-set number
               –  padding-size number
               –  priority
                  –  event-type keyword
                  –  priority-level number
               –  request-interval number
               –  timeout number
            –  lag-port-down lag-interface
               –  apply-groups reference
               –  apply-groups-exclude reference
               –  hold-clear number
               –  hold-set number
               –  number-down number
                  –  apply-groups reference
                  –  apply-groups-exclude reference
                  –  priority
                     –  event-type keyword
                     –  priority-level number
               –  weight-down number
                  –  apply-groups reference
                  –  apply-groups-exclude reference
                  –  priority
                     –  event-type keyword
                     –  priority-level number
            –  mc-ipsec-non-forwarding number
               –  apply-groups reference
               –  apply-groups-exclude reference
               –  hold-clear number
               –  hold-set number
               –  priority
                  –  event-type keyword
                  –  priority-level number
            –  port-down port-named
               –  apply-groups reference
               –  apply-groups-exclude reference
               –  hold-clear number
               –  hold-set number
               –  priority
                  –  event-type keyword
                  –  priority-level number
            –  route-unknown (ipv4-prefix | ipv6-prefix)
               –  apply-groups reference
```


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configure vrrp policy priority-event route-unknown apply-groups-exclude

```
                - apply-groups-exclude reference
                - hold-clear number
                - hold-set number
                - less-specific
                  - allow-default boolean
                - next-hop (ipv4-address-with-zone | ipv6-address-with-zone)
                - priority
                  - event-type keyword
                  - priority-level number
                - protocol keyword
```


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## 4.48.1 vrrp command descriptions

### vrrp

| | |
|---|---|
| Synopsis | Enter the **vrrp** context |
| Context | **configure** vrrp |
| Tree | vrrp |
| Introduced | 16.0.R1 |
| Platforms | All |

### **policy** [policy-id] *number*

| | |
|---|---|
| Synopsis | Enter the **policy** list instance |
| Context | **configure** vrrp policy *number* |
| Tree | policy |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**policy-id**] *number*

| | |
|---|---|
| Synopsis | Policy ID |
| Context | **configure** vrrp policy *number* |
| Tree | policy |
| Range | 1 to 9999 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **admin-state** *keyword*

| | |
|---|---|
| Synopsis | Administrative state of VRRP priority control policy |
| Context | **configure** vrrp policy *number* admin-state *keyword* |
| Tree | admin-state |
| Options | enable, disable |
| Default | enable |


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| | |
|---|---|
| Introduced | 16.0.R1 |
| Platforms | All |

## **context** *service-name*

**WARNING:**
Modifying this element recreates the parent element automatically for the new value to take effect.

| | |
|---|---|
| Synopsis | Service name to which this policy applies |
| Context | **configure** vrrp policy *number* context *service-name* |
| Tree | context |
| String length | 1 to 64 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **delta-in-use-limit** *number*

| | |
|---|---|
| Synopsis | Limit on the delta priority control events |
| Context | **configure** vrrp policy *number* delta-in-use-limit *number* |
| Tree | delta-in-use-limit |
| Range | 1 to 254 |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

## **description** *description*

| | |
|---|---|
| Synopsis | Text description |
| Context | **configure** vrrp policy *number* description *description* |
| Tree | description |
| String length | 1 to 80 |
| Introduced | 16.0.R1 |
| Platforms | All |


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### priority-event

| | |
|---|---|
| Synopsis | Enter the **priority-event** context |
| Context | **configure** vrrp policy *number* priority-event |
| Tree | priority-event |
| Introduced | 16.0.R1 |
| Platforms | All |

### host-unreachable [ip-address] *(ipv4-address-with-zone | ipv6-address-with-zone)*

| | |
|---|---|
| Synopsis | Enter the **host-unreachable** list instance |
| Context | **configure** vrrp policy *number* priority-event host-unreachable *(ipv4-address-with-zone \| ipv6-address-with-zone)* |
| Tree | host-unreachable |
| Introduced | 16.0.R1 |
| Platforms | All |

### [ip-address] *(ipv4-address-with-zone | ipv6-address-with-zone)*

| | |
|---|---|
| Synopsis | Host IP address that receives a constant ping probe |
| Context | **configure** vrrp policy *number* priority-event host-unreachable *(ipv4-address-with-zone \| ipv6-address-with-zone)* |
| Tree | host-unreachable |
| Description | This command configures the host IP address for which the specific host unreachable priority event monitors connectivity with a continuous ICMP echo request (ping) probe. |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### drop-count *number*

| | |
|---|---|
| Synopsis | Threshold for consecutive message send attempts |
| Context | **configure** vrrp policy *number* priority-event host-unreachable *(ipv4-address-with-zone \| ipv6-address-with-zone)* drop-count *number* |
| Tree | drop-count |
| Range | 1 to 60 |


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| | |
|---|---|
| Default | 3 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hold-clear** *number*

| | |
|---|---|
| Synopsis | Delay time for a cleared event on the router instance |
| Context | **configure** vrrp policy *number* priority-event host-unreachable *(ipv4-address-with-zone \| ipv6-address-with-zone)* hold-clear *number* |
| Tree | hold-clear |
| Range | 1 to 86400 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hold-set** *number*

| | |
|---|---|
| Synopsis | Hold time before transitioning to cleared state |
| Context | **configure** vrrp policy *number* priority-event host-unreachable *(ipv4-address-with-zone \| ipv6-address-with-zone)* hold-set *number* |
| Tree | hold-set |
| Range | 1 to 86400 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **padding-size** *number*

| | |
|---|---|
| Synopsis | Packet length padding of the ICMP packet |
| Context | **configure** vrrp policy *number* priority-event host-unreachable *(ipv4-address-with-zone \| ipv6-address-with-zone)* padding-size *number* |
| Tree | padding-size |
| Range | 0 to 16384 |
| Units | bytes |
| Default | 56 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

## priority

| | |
|---|---|
| Synopsis | Enter the **priority** context |
| Context | **configure** vrrp policy *number* priority-event host-unreachable *(ipv4-address-with-zone \| ipv6-address-with-zone)* priority |
| Tree | priority |
| Introduced | 16.0.R1 |
| Platforms | All |

## event-type *keyword*

| | |
|---|---|
| Synopsis | Effect of priority-level value on base priority value |
| Context | **configure** vrrp policy *number* priority-event host-unreachable *(ipv4-address-with-zone \| ipv6-address-with-zone)* priority event-type *keyword* |
| Tree | event-type |
| Options | delta, explicit |
| Default | delta |
| Introduced | 16.0.R1 |
| Platforms | All |

## priority-level *number*

| | |
|---|---|
| Synopsis | Priority level associated with this event |
| Context | **configure** vrrp policy *number* priority-event host-unreachable *(ipv4-address-with-zone \| ipv6-address-with-zone)* priority priority-level *number* |
| Tree | priority-level |
| Range | 1 to 254 |
| Introduced | 16.0.R1 |
| Platforms | All |

## request-interval *number*

| | |
|---|---|
| Synopsis | Time interval between consecutive ICMP echo requests |
| Context | **configure** vrrp policy *number* priority-event host-unreachable *(ipv4-address-with-zone \| ipv6-address-with-zone)* request-interval *number* |


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| | |
|---|---|
| Tree | request-interval |
| Range | 1 to 60 |
| Units | seconds |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **timeout** *number*

| | |
|---|---|
| Synopsis | Timeout for ICMP echo request messages |
| Context | **configure** vrrp policy *number* priority-event host-unreachable *(ipv4-address-with-zone \| ipv6-address-with-zone)* timeout *number* |
| Tree | timeout |
| Range | 1 to 60 |
| Units | seconds |
| Default | 1 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **lag-port-down** [lag-name] *lag-interface*

| | |
|---|---|
| Synopsis | Enter the **lag-port-down** list instance |
| Context | **configure** vrrp policy *number* priority-event lag-port-down *lag-interface* |
| Tree | lag-port-down |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**lag-name**] *lag-interface*

| | |
|---|---|
| Synopsis | LAG name |
| Context | **configure** vrrp policy *number* priority-event lag-port-down *lag-interface* |
| Tree | lag-port-down |
| String length | 1 to 27 |
| Notes | This element is part of a list key. |
| Introduced | 21.2.R1 |


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| | |
|---|---|
| Platforms | All |

### **hold-clear** *number*

| | |
|---|---|
| Synopsis | Delay time for a cleared event on the router instance |
| Context | **configure** vrrp policy *number* priority-event lag-port-down *lag-interface* hold-clear *number* |
| Tree | hold-clear |
| Range | 1 to 86400 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hold-set** *number*

| | |
|---|---|
| Synopsis | Hold time before transitioning to cleared state |
| Context | **configure** vrrp policy *number* priority-event lag-port-down *lag-interface* hold-set *number* |
| Tree | hold-set |
| Range | 1 to 86400 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **number-down** [number-of-lag-ports-down] *number*

| | |
|---|---|
| Synopsis | Enter the **number-down** list instance |
| Context | **configure** vrrp policy *number* priority-event lag-port-down *lag-interface* number-down *number* |
| Tree | number-down |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**number-of-lag-ports-down**] *number*

| | |
|---|---|
| Synopsis | Threshold of down LAG ports that create a set event |


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| | |
|---|---|
| Context | **configure** vrrp policy *number* priority-event lag-port-down *lag-interface* number-down *number* |
| Tree | number-down |
| Range | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

## priority

| | |
|---|---|
| Synopsis | Enter the **priority** context |
| Context | **configure** vrrp policy *number* priority-event lag-port-down *lag-interface* number-down *number* priority |
| Tree | priority |
| Introduced | 16.0.R1 |
| Platforms | All |

## event-type *keyword*

| | |
|---|---|
| Synopsis | Effect of priority-level value on base priority value |
| Context | **configure** vrrp policy *number* priority-event lag-port-down *lag-interface* number-down *number* priority event-type *keyword* |
| Tree | event-type |
| Options | delta, explicit |
| Default | delta |
| Introduced | 16.0.R1 |
| Platforms | All |

## priority-level *number*

| | |
|---|---|
| Synopsis | Priority level associated with this event |
| Context | **configure** vrrp policy *number* priority-event lag-port-down *lag-interface* number-down *number* priority priority-level *number* |
| Tree | priority-level |
| Range | 1 to 254 |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **weight-down** [lag-ports-down-weight] *number*

| | |
|---|---|
| Synopsis | Enter the **weight-down** list instance |
| Context | **configure** vrrp policy *number* priority-event lag-port-down *lag-interface* weight-down *number* |
| Tree | weight-down |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**lag-ports-down-weight**] *number*

| | |
|---|---|
| Synopsis | LAG name for the reduced LAG ports |
| Context | **configure** vrrp policy *number* priority-event lag-port-down *lag-interface* weight-down *number* |
| Tree | weight-down |
| Range | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **priority**

| | |
|---|---|
| Synopsis | Enter the **priority** context |
| Context | **configure** vrrp policy *number* priority-event lag-port-down *lag-interface* weight-down *number* priority |
| Tree | priority |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event-type** *keyword*

| | |
|---|---|
| Synopsis | Effect of priority-level value on base priority value |
| Context | **configure** vrrp policy *number* priority-event lag-port-down *lag-interface* weight-down *number* priority event-type *keyword* |


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| | |
|---|---|
| Tree | event-type |
| Options | delta, explicit |
| Default | delta |
| Introduced | 16.0.R1 |
| Platforms | All |

### **priority-level** *number*

| | |
|---|---|
| Synopsis | Priority level associated with this event |
| Context | **configure** vrrp policy *number* priority-event lag-port-down *lag-interface* weight-down *number* priority priority-level *number* |
| Tree | priority-level |
| Range | 1 to 254 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **mc-ipsec-non-forwarding** [tunnel-group-id] *number*

| | |
|---|---|
| Synopsis | Enter the **mc-ipsec-non-forwarding** list instance |
| Context | **configure** vrrp policy *number* priority-event mc-ipsec-non-forwarding *number* |
| Tree | mc-ipsec-non-forwarding |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### [**tunnel-group-id**] *number*

| | |
|---|---|
| Synopsis | IPSEC tunnel group monitored by priority control event |
| Context | **configure** vrrp policy *number* priority-event mc-ipsec-non-forwarding *number* |
| Tree | mc-ipsec-non-forwarding |
| Range | 1 to 64 |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |


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### **hold-clear** *number*

| | |
|---|---|
| Synopsis | Delay time for a cleared event on the router instance |
| Context | **configure** vrrp policy *number* priority-event mc-ipsec-non-forwarding *number* hold-clear *number* |
| Tree | hold-clear |
| Range | 1 to 86400 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **hold-set** *number*

| | |
|---|---|
| Synopsis | Hold time before transitioning to cleared state |
| Context | **configure** vrrp policy *number* priority-event mc-ipsec-non-forwarding *number* hold-set *number* |
| Tree | hold-set |
| Range | 1 to 86400 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **priority**

| | |
|---|---|
| Synopsis | Enter the **priority** context |
| Context | **configure** vrrp policy *number* priority-event mc-ipsec-non-forwarding *number* priority |
| Tree | priority |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **event-type** *keyword*

| | |
|---|---|
| Synopsis | Event type |
| Context | **configure** vrrp policy *number* priority-event mc-ipsec-non-forwarding *number* priority event-type *keyword* |
| Tree | event-type |


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| | |
|---|---|
| Options | delta, explicit |
| Default | delta |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **priority-level** *number*

| | |
|---|---|
| Synopsis | Priority level associated with this event |
| Context | **configure** vrrp policy *number* priority-event mc-ipsec-non-forwarding *number* priority priority-level *number* |
| Tree | priority-level |
| Range | 1 to 254 |
| Introduced | 16.0.R1 |
| Platforms | 7450 ESS, 7750 SR, 7750 SR-e, 7750 SR-s, VSR |

### **port-down** [port-id] *port-named*

| | |
|---|---|
| Synopsis | Enter the **port-down** list instance |
| Context | **configure** vrrp policy *number* priority-event port-down *port-named* |
| Tree | port-down |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**port-id**] *port-named*

| | |
|---|---|
| Synopsis | Port ID for the reduced LAG ports |
| Context | **configure** vrrp policy *number* priority-event port-down *port-named* |
| Tree | port-down |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hold-clear** *number*

| | |
|---|---|
| Synopsis | Delay time for a cleared event on the router instance |


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| | |
|---|---|
| Context | **configure** vrrp policy *number* priority-event port-down *port-named* hold-clear *number* |
| Tree | hold-clear |
| Range | 1 to 86400 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

## **hold-set** *number*

| | |
|---|---|
| Synopsis | Hold time before transitioning to cleared state |
| Context | **configure** vrrp policy *number* priority-event port-down *port-named* hold-set *number* |
| Tree | hold-set |
| Range | 1 to 86400 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

## **priority**

| | |
|---|---|
| Synopsis | Enter the **priority** context |
| Context | **configure** vrrp policy *number* priority-event port-down *port-named* priority |
| Tree | priority |
| Introduced | 16.0.R1 |
| Platforms | All |

## **event-type** *keyword*

| | |
|---|---|
| Synopsis | Effect of priority-level value on base priority value |
| Context | **configure** vrrp policy *number* priority-event port-down *port-named* priority event-type *keyword* |
| Tree | event-type |
| Options | delta, explicit |
| Default | delta |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **priority-level** *number*

| | |
|---|---|
| Synopsis | Priority level associated with this event |
| Context | **configure** vrrp policy *number* priority-event port-down *port-named* priority priority-level *number* |
| Tree | priority-level |
| Range | 1 to 254 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **route-unknown** [ip-prefix] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | Enter the **route-unknown** list instance |
| Context | **configure** vrrp policy *number* priority-event route-unknown *(ipv4-prefix | ipv6-prefix)* |
| Tree | route-unknown |
| Introduced | 16.0.R1 |
| Platforms | All |

### [**ip-prefix**] *(ipv4-prefix | ipv6-prefix)*

| | |
|---|---|
| Synopsis | IP prefix of route monitored by priority control event |
| Context | **configure** vrrp policy *number* priority-event route-unknown *(ipv4-prefix | ipv6-prefix)* |
| Tree | route-unknown |
| Notes | This element is part of a list key. |
| Introduced | 16.0.R1 |
| Platforms | All |

### **hold-clear** *number*

| | |
|---|---|
| Synopsis | Delay time for a cleared event on the router instance |
| Context | **configure** vrrp policy *number* priority-event route-unknown *(ipv4-prefix | ipv6-prefix)* hold-clear *number* |
| Tree | hold-clear |
| Range | 1 to 86400 |
| Units | seconds |
| Introduced | 16.0.R1 |


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| | |
|---|---|
| Platforms | All |

### **hold-set** *number*

| | |
|---|---|
| Synopsis | Hold time before transitioning to cleared state |
| Context | **configure** vrrp policy *number* priority-event route-unknown *(ipv4-prefix \| ipv6-prefix)* hold-set *number* |
| Tree | hold-set |
| Range | 1 to 86400 |
| Units | seconds |
| Introduced | 16.0.R1 |
| Platforms | All |

### **less-specific**

| | |
|---|---|
| Synopsis | Enable the **less-specific** context |
| Context | **configure** vrrp policy *number* priority-event route-unknown *(ipv4-prefix \| ipv6-prefix)* less-specific |
| Tree | less-specific |
| Introduced | 16.0.R1 |
| Platforms | All |

### **allow-default** *boolean*

| | |
|---|---|
| Synopsis | Match on default route |
| Context | **configure** vrrp policy *number* priority-event route-unknown *(ipv4-prefix \| ipv6-prefix)* less-specific allow-default *boolean* |
| Tree | allow-default |
| Default | false |
| Introduced | 16.0.R1 |
| Platforms | All |

### **next-hop** [ip-address] *(ipv4-address-with-zone | ipv6-address-with-zone)*

| | |
|---|---|
| Synopsis | Add a list entry for **next-hop** |
| Context | **configure** vrrp policy *number* priority-event route-unknown *(ipv4-prefix \| ipv6-prefix)* next-hop *(ipv4-address-with-zone \| ipv6-address-with-zone)* |


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| | |
|---|---|
| Tree | next-hop |
| Introduced | 19.5.R1 |
| Platforms | All |

### [**ip-address**] *(ipv4-address-with-zone | ipv6-address-with-zone)*

| | |
|---|---|
| Synopsis | Next-hop IP address for a returned route prefix |
| Context | **configure** vrrp policy *number* priority-event route-unknown *(ipv4-prefix \| ipv6-prefix)* next-hop *(ipv4-address-with-zone \| ipv6-address-with-zone)* |
| Tree | next-hop |
| Description | This command configures the next-hop IP address used to match the route prefix being monitored by the priority control event with the results of a route table lookup. |
| Notes | This element is part of a list key. |
| Introduced | 19.5.R1 |
| Platforms | All |

### **priority**

| | |
|---|---|
| Synopsis | Enter the **priority** context |
| Context | **configure** vrrp policy *number* priority-event route-unknown *(ipv4-prefix \| ipv6-prefix)* priority |
| Tree | priority |
| Introduced | 16.0.R1 |
| Platforms | All |

### **event-type** *keyword*

| | |
|---|---|
| Synopsis | Effect of priority-level value on base priority value |
| Context | **configure** vrrp policy *number* priority-event route-unknown *(ipv4-prefix \| ipv6-prefix)* priority event-type *keyword* |
| Tree | event-type |
| Options | delta, explicit |
| Default | delta |
| Introduced | 16.0.R1 |
| Platforms | All |


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### **priority-level** *number*

| | |
|---|---|
| Synopsis | Priority level associated with this event |
| Context | **configure** vrrp policy *number* priority-event route-unknown *(ipv4-prefix \| ipv6-prefix)* priority priority-level *number* |
| Tree | priority-level |
| Range | 1 to 254 |
| Introduced | 16.0.R1 |
| Platforms | All |

### **protocol** *keyword*

| | |
|---|---|
| Synopsis | Routing protocol as match criterion |
| Context | **configure** vrrp policy *number* priority-event route-unknown *(ipv4-prefix \| ipv6-prefix)* protocol *keyword* |
| Tree | protocol |
| Options | bgp, ospf, isis, rip, static, bgp-vpn |
| Max. instances | 6 |
| Introduced | 16.0.R1 |
| Platforms | All |


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# 5 Deprecated and obsolete commands

This section lists the deprecated and obsolete commands in this major release.


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## 5.1 Deprecated commands

This chapter provides a list of commands that are marked as “status deprecated” in the Nokia YANG models and the MD-CLI and should no longer be used. Only releases in which commands are initially deprecated are included in this section. If applicable, the equivalent configuration groups command is also deprecated (but not explicitly listed).

See the SR OS Software Release Notes for more information.

### 5.1.1 24.10.R1

**qos commands:**

- configure qos adv-config-policy child-control offered-measurement sample-interval


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## 5.2 Obsolete commands

This chapter provides a list of commands that are marked as “status obsolete” in the Nokia YANG models and the MD-CLI. These commands can no longer be used and are considered invalid. Only releases in which commands are initially obsoleted are included in this section. If applicable, the equivalent configuration groups command is also obsoleted (but not explicitly listed).

See the SR OS Software Release Notes for more information.

### 5.2.1 24.3.R1

**application-assurance commands:**

- configure application-assurance group cflowd rtp-performance
- configure application-assurance group cflowd rtp-performance apply-groups
- configure application-assurance group cflowd rtp-performance apply-groups-exclude
- configure application-assurance group cflowd rtp-performance audio-template
- configure application-assurance group cflowd rtp-performance audio-template apply-groups
- configure application-assurance group cflowd rtp-performance audio-template apply-groups-exclude
- configure application-assurance group cflowd rtp-performance audio-template dynamic-fields
- configure application-assurance group cflowd rtp-performance audio-template dynamic-fields admin-state
- configure application-assurance group cflowd rtp-performance audio-template dynamic-fields field
- configure application-assurance group cflowd rtp-performance audio-template dynamic-fields field field-name
- configure application-assurance group cflowd rtp-performance audio-template field-selection
- configure application-assurance group cflowd rtp-performance flow-rate
- configure application-assurance group cflowd rtp-performance flow-rate-2
- configure application-assurance group cflowd rtp-performance video-template
- configure application-assurance group cflowd rtp-performance video-template apply-groups
- configure application-assurance group cflowd rtp-performance video-template apply-groups-exclude
- configure application-assurance group cflowd rtp-performance video-template dynamic-fields
- configure application-assurance group cflowd rtp-performance video-template dynamic-fields admin-state
- configure application-assurance group cflowd rtp-performance video-template dynamic-fields field
- configure application-assurance group cflowd rtp-performance video-template dynamic-fields field field-name
- configure application-assurance group cflowd rtp-performance video-template field-selection
- configure application-assurance group cflowd rtp-performance voice-template
- configure application-assurance group cflowd rtp-performance voice-template apply-groups


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- configure application-assurance group cflowd rtp-performance voice-template apply-groups-exclude
- configure application-assurance group cflowd rtp-performance voice-template dynamic-fields
- configure application-assurance group cflowd rtp-performance voice-template dynamic-fields admin-state
- configure application-assurance group cflowd rtp-performance voice-template dynamic-fields field
- configure application-assurance group cflowd rtp-performance voice-template dynamic-fields field field-name
- configure application-assurance group cflowd rtp-performance voice-template field-selection

**card commands:**

- configure card mda clock-mode
- configure card mda clock-mode mode
- configure card mda clock-mode timestamp-freq

**filter commands:**

- configure filter ip-filter entry action forward next-hop interface-name

**openflow commands:**

- configure openflow of-controller
- configure openflow of-controller address
- configure openflow of-controller admin-state
- configure openflow of-controller apply-groups
- configure openflow of-controller apply-groups-exclude
- configure openflow of-controller controller-id
- configure openflow of-controller description
- configure openflow of-controller echo-interval
- configure openflow of-controller echo-multiple
- configure openflow of-controller ipv6-address
- configure openflow of-controller role
- configure openflow of-controller tls-server-profile
- configure openflow of-controller version

**router commands:**

- configure router p2mp-sr-tree replication-segment downstream-nodes
- configure router p2mp-sr-tree replication-segment downstream-nodes admin-state
- configure router p2mp-sr-tree replication-segment downstream-nodes apply-groups
- configure router p2mp-sr-tree replication-segment downstream-nodes apply-groups-exclude
- configure router p2mp-sr-tree replication-segment downstream-nodes downstream-index
- configure router p2mp-sr-tree replication-segment downstream-nodes label
- configure router p2mp-sr-tree replication-segment downstream-nodes label sid-list
- configure router p2mp-sr-tree replication-segment downstream-nodes label sid-list apply-groups


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- configure router p2mp-sr-tree replication-segment downstream-nodes label sid-list apply-groups-exclude
- configure router p2mp-sr-tree replication-segment downstream-nodes label sid-list index
- configure router p2mp-sr-tree replication-segment downstream-nodes label sid-list replication-sid
- configure router p2mp-sr-tree replication-segment downstream-nodes next-hop-address
- configure router p2mp-sr-tree replication-segment downstream-nodes next-hop-interface-name
- configure router p2mp-sr-tree replication-segment downstream-nodes protect-nexthop-id
- configure router p2mp-sr-tree replication-segment replication-sid
- configure router p2mp-sr-tree replication-segment sid-action

**service commands:**

- configure service system bgp evpn ip-prefix-routes d-path-length-ignore
- configure service system bgp evpn ip-prefix-routes iff-attribute-uniform-propagation
- configure service system bgp evpn ip-prefix-routes iff-bgp-path-selection
- configure service vprn mvpn provider-tunnel inclusive p2mp-sr p2mp-policy
- configure service vprn mvpn provider-tunnel inclusive p2mp-sr static-policy
- configure service vprn mvpn provider-tunnel selective multistream-spmsi p2mp-sr p2mp-policy
- configure service vprn mvpn provider-tunnel selective multistream-spmsi p2mp-sr static-policy
- configure service vprn mvpn provider-tunnel selective p2mp-sr p2mp-policy
- configure service vprn mvpn provider-tunnel selective p2mp-sr static-policy

**system commands:**

- configure system management-interface netconf admin-state
- configure system management-interface netconf delay-on-boot
- configure system management-interface netconf port
- configure system resource
- configure system resource ecmp-profile
- configure system resource ecmp-profile apply-groups
- configure system resource ecmp-profile groups
- configure system resource ecmp-profile links
- configure system resource ecmp-profile profile-id
- configure system resource ecmp-profile type
- configure system time dst-zone
- configure system time dst-zone apply-groups
- configure system time dst-zone apply-groups-exclude
- configure system time dst-zone end
- configure system time dst-zone end day
- configure system time dst-zone end hours-minutes
- configure system time dst-zone end month


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- configure system time dst-zone end week
- configure system time dst-zone offset
- configure system time dst-zone start
- configure system time dst-zone start day
- configure system time dst-zone start hours-minutes
- configure system time dst-zone start month
- configure system time dst-zone start week
- configure system time dst-zone summer-time-zone


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